

# Influence of SO<sub>2</sub> on CO<sub>2</sub> Storage for CCS Technology: Evaluation of CO<sub>2</sub>/SO<sub>2</sub> Co-capture

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## ABSTRACT

In this work, we determined the influence of SO<sub>2</sub> as an impurity in anthropogenic CO<sub>2</sub> on carbon capture and storage (CCS) technology. We evaluated the impact on selected injection and storage parameters and the Joule-Thomson coefficient to assess the safety of long-term geological storage of CO<sub>2</sub>. For this purpose, we obtained new pressure-density-temperature-composition, vapor-liquid-equilibrium, and pressure-speed of sound-temperature-composition experimental data for CO<sub>2</sub>-rich mixtures containing SO<sub>2</sub>. To increase the general understanding of the impact of SO<sub>2</sub>, the compositions cover possible co-capture mixtures, SO<sub>2</sub>-enriched mixtures, and mixtures similar to industrial emissions. Temperatures and pressures were based on relevant geological storage site values. Our experimental results were used to validate the EOS-CG and PC-SAFT equations of state (EoSs) for CO<sub>2</sub>+SO<sub>2</sub> under the studied CCS conditions. On the understanding that the chemical reactivity effects due to SO<sub>2</sub> have not been considered, we concluded that the presence of SO<sub>2</sub> is profitable in most of the studied aspects, especially in the case of shallow reservoirs, and that CO<sub>2</sub>/SO<sub>2</sub> co-capture may be considered as an alternative approach to reduce the costs of CO<sub>2</sub> purification. Based on the assessment of the impact of 5 mole % SO<sub>2</sub> in the injected fluid in seven saline aquifers, we determined that the reservoirs that would receive the most benefit were Sleipner, Nagaoka and Frio.

Keywords: CCS, SO<sub>2</sub>, density, speed of sound, saline aquifer storage, equation of state

## 1. INTRODUCTION

The large amount of CO<sub>2</sub> emitted into the atmosphere via human activity is the main cause of the intensifying greenhouse effect. Given that expecting a reduction in CO<sub>2</sub> production over the next few decades is not realistic, CCS technology (CO<sub>2</sub> capture storage) will become a highly relevant method to avoid emissions into the atmosphere and mitigate climate change. Forecasts indicate that reaching the 2 degrees scenario requires the capture and storage of at least 4 Gt per year of CO<sub>2</sub> in 2040 and 8 Gt per year in 2050. The capture capacity expected to be in operation at the end of 2017 is 40 Mt per year. Thus, a rapid acceleration of current CCS deployment clearly will be essential [1,2]. In CCS, CO<sub>2</sub> captured at major stationary sources, such as power plants, is transported via pipelines to storage sites and injected into underground geological formations. Saline aquifers, a type of geological reservoir, are common occurrences and can often be found near CO<sub>2</sub> sources, which would limit the cost of transport infrastructure. Over the past several decades, numerous CCS projects involving storage in saline aquifers have been implemented by governments and industries. Regarding commercial operations, the acid-gas disposal operation in the Alberta Basin (Canada) was the first CO<sub>2</sub> injection site in the early 1990s. In 1998, the Sleipner field in the North Sea was the first dedicated CO<sub>2</sub> storage aquifer, and it was followed in 2008 by storage at Snøhvit, Norway. CO<sub>2</sub> injection in saline aquifers was also developed in pilot projects, such as the Frio Brine Formation on the USA Gulf Coast and at Nagaoka in Japan [3,4].

The injected CO<sub>2</sub> is accompanied by impurities such as H<sub>2</sub>S, CO, CH<sub>4</sub>, SO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> and H<sub>2</sub>O, which modify the properties of the streams, such as the density,  $\rho$ ; the limit of the vapor-liquid equilibrium,  $VLE$ ; and the speed of sound,  $c$ . Moreover, during the injection process, the fluid expansion (Joule-Thomson effect) under moderate pressure, which is also influenced by the impurities present in the fluid, can modify the temperature at the pipe bottom enough to become

a determining factor in the storage process [5,6]. Understanding the impact of these impurities on the cost, safety and efficiency of CCS is essential to determine the purification level required for the stream (estimated to represent approximately  $\frac{3}{4}$  of the total costs of CCS) [7] and the feasibility of co-injecting impurities with CO<sub>2</sub>. Increasing the purity of CO<sub>2</sub> could prevent potential risks such as pipe corrosion and, depending on the impurities that are eliminated, could improve the storage but greatly increase the cost of capture and conditioning. Conversely, the presence of certain impurities can improve the safety and efficiency of CO<sub>2</sub> storage. For example, recent studies have indicated that SO<sub>2</sub> benefits some aspects of operations at CCS facilities. CO<sub>2</sub>/SO<sub>2</sub> co-capture has been proposed, as this method would also prevent the emission of SO<sub>2</sub> into the atmosphere and reduce the desulfurization costs [8-10]. Some authors have examined the effect of SO<sub>2</sub> on CO<sub>2</sub> trapping in storage reservoirs [7,11-13] based on calculated thermophysical properties, but experimental data on the CO<sub>2</sub>+SO<sub>2</sub> system are very scarce. This lack of data makes sense in view of the toxicity of SO<sub>2</sub> and the risk it poses to researchers and facilities. In this paper, we expand the investigation found in the literature to the impact of SO<sub>2</sub> on CCS sites over a more extensive range of compositions, temperatures and pressures using new and accurate experimental values for the pressure–density–temperature–composition,  $P\rho T x_{\text{CO}_2}$ ;  $VLE$ ; and pressure–speed of sound–temperature–composition,  $PcTx_{\text{CO}_2}$ , of CO<sub>2</sub>-rich mixtures containing SO<sub>2</sub>. Based on our experimental results, we demonstrate the effect of SO<sub>2</sub> on several parameters related to the injection and storage of CO<sub>2</sub>, such as the storage capacity,  $M$ ; the rising velocity,  $v$ ; the permeation flux,  $\dot{M}$ ; and the Joule-Thomson coefficient  $\mu_{\text{JT}}$ . To the best of our knowledge, this work constitutes the most comprehensive study on the impact of SO<sub>2</sub> on CCS injection and storage based on experimental data to date. Temperatures, pressures and compositions are within the ranges applicable to CCS conditions [4,14-19]. The mineral

dissolution and precipitation reactions associated with CO<sub>2</sub>+SO<sub>2</sub> mixture storage were not addressed in this work [3,13,20,21].

Given the variety of anthropogenic CO<sub>2</sub> sources and the wide range of temperatures and pressures involved in the different phases of the technology, it is essential to have a validated model to calculate the properties of the handled fluid for the ranges used in CCS. Recently, the EOS-CG was developed to improve the prediction of thermodynamic properties of the CO<sub>2</sub>-rich fluids found in CCS technology [22]. In addition, there are several potential thermodynamic models for CCS processes found in the literature [23,24], such as the Spung [25], *E*-PPR78 [26] and PC-SAFT [27] equations of state (EoSs). We use our experimental data to contribute to the validation of the applicability of EoSs to CCS fluids and conditions.

In summary, this work provides new experimental volumetric, *VLE*, and acoustic data for the CO<sub>2</sub>+SO<sub>2</sub> system at compositions, pressures, and temperatures relevant to CCS technology. These results allow us to evaluate the predictive power of both the EOS-CG and the PC-SAFT EoS models under CCS conditions. In the low pressure range, where the experimental speeds of sound cannot be measured in our installations, we used experimental data to obtain extrapolated values, which were validated by comparison with the values obtained from the EoSs. Based on the experimental and extrapolated data, we drew conclusions about the impact of SO<sub>2</sub> as an impurity in CO<sub>2</sub> on selected engineering parameters related to the injection and geological storage of CO<sub>2</sub> and on the Joule-Thomson coefficient. Finally, we used the experimental data to calculate values for those parameters and  $\mu_{JT}$  under the real *T* and *P* conditions in seven saline aquifers [4,28-33] (Table 1) in order to evaluate how these reservoirs would be affected by the presence of 5 mole % of SO<sub>2</sub> in the injected fluid. All this information is necessary to realize the

expected development of CCS technology and its contribution to the mitigation of climate change.

Reservoir	<i>P</i> / MPa	<i>T</i> / K	Depth/ m	Salinity/ mg·l <sup>-1</sup>	$\rho_{\text{brine}}$ / kg·m <sup>-3</sup>	References
Sleipner	10.3	317	1000	3500	1017	[4,28]
Nagaoka	11.9	319	1100	7113	999	[4,28]
Frio	15.2	329	1546	92633	1048	[4,28]
Nisku Fm. #1	17.4	329	2050	136800	1076	[28,29]
Deadwood Fm. #2	23.6	338	2560	31050	1009	[28,30]
Basal Cambrian Fm.	27.0	348	2734	248000	1137	[28,29]
Snøhvit	29.0	373	2600		1090	[31-33]

**Table 1.** Conditions of the reservoirs studied.

## 2. MATERIALS AND METHODS

**2.1 Materials.** Carbon dioxide and sulfur dioxide (mole fraction  $> 0.99998$  and  $0.9990$ , respectively) were purchased from Air Liquide and used as received. Methanol (biotech grade, mole fraction  $0.9993$ ) from Sigma Aldrich was degassed immediately before use.

**2.2. Apparatus and methods.**  $\text{SO}_2$  is a toxic gas in case of inhalation with a short-term exposure limit (STEL) of 5 ppm. For the purpose of this work, the experimental installations were adapted using extractor hoods, polycarbonate transparent barrier guards placed around the experimental facilities, and individual safety equipment such as portable self-contained breathing apparatuses and leaks detectors.

Given the opacity of  $\text{CO}_2$ -rich mixtures to the sound in our 5 MHz speed of sound device, we doped the mixtures with  $x_{\text{CO}_2} \geq 0.9$  using  $\cong 0.8$  mole % of methanol in order to obtain proper

signals. This method was previously tested by comparing  $c$  in two CO<sub>2</sub>+SO<sub>2</sub> mixtures with  $\cong 10$  mole % SO<sub>2</sub>, one of which was doped with 0.8 mole % methanol [34]. We found that the differences in the  $c$  values between the doped and undoped mixtures were small for the experimental values (0.17% on average) and negligible for the modeling values. Therefore, we worked with ternary (doped) CO<sub>2</sub>+CH<sub>3</sub>OH+SO<sub>2</sub> mixtures for speeds of sound only when  $x_{\text{CO}_2} \geq 0.9$  and with binary CO<sub>2</sub>+SO<sub>2</sub> mixtures for the rest of the experiments.

The mixtures were prepared in a variable-volume cell provided by Top Industrie S.A.S. with a maximum volume of 0.51 L and a maximum working pressure of 30 MPa. For CO<sub>2</sub>+CH<sub>3</sub>OH+SO<sub>2</sub>, the cell was first evacuated and then weighed, and methanol was the first component added into the evacuated cell. This component was injected using a syringe, then degassed via intermittent vacuum with agitation for three hours, and later weighed. Next, SO<sub>2</sub> was introduced using an ISCO model 260D syringe pump and weighed, and CO<sub>2</sub> was added using the same method. A similar procedure was followed for CO<sub>2</sub>+SO<sub>2</sub> mixtures. After the mixture was prepared, it was transferred to a syringe pump by pushing the embolus of the cell with an inert gas and from the syringe pump to the experimental setup (density or speed of sound) in several steps. The mixture was homogenized by stirring inside the variable-volume cell and in the syringe pump. For the speed of sound device, the mixture was also homogenized using a manual pump incorporated into this installation and a recirculation pump inside the setup.

The masses of the different components were determined by successive weighing in a mass comparator from Sartorius, model CCE 2004, with a repeatability better than 0.0002 g. For a ternary mixture, the mole fraction of the component that was first introduced,  $x_1$ , was determined by the relation

$$x_1 = \left[ \frac{(m_2 - m_1)}{M_1} \right] / \left[ \frac{(m_4 - m_3)}{M_3} + \frac{(m_3 - m_2)}{M_2} + \frac{(m_2 - m_1)}{M_1} \right] \quad (1)$$

where  $m_1$  is the empty cell mass;  $m_2$ ,  $m_3$  and  $m_4$  are the masses after the first, second and third components were added, respectively; and  $M_1$ ,  $M_2$  and  $M_3$  are the molar masses of the first, second and third components, respectively. The standard uncertainty in the mole fraction was calculated to be  $u(x) = 2 \times 10^{-4}$  for the mixtures in this work using the following:

$$u^2(x) = [(\partial x / \partial m_1)u(m_1)]^2 + [(\partial x / \partial m_2)u(m_2)]^2 + [(\partial x / \partial m_3)u(m_3)]^2 + [(\partial x / \partial m_4)u(m_4)]^2 \quad (2)$$

where  $u(m_1)$ ,  $u(m_2)$ ,  $u(m_3)$  and  $u(m_4)$  are the uncertainties in  $m_1$ ,  $m_2$ ,  $m_3$  and  $m_4$ , respectively, and are calculated as the standard deviation of the repeated weighing operations of  $m_1$ ,  $m_2$ ,  $m_3$ , and  $m_4$  [35,36]. In case of binary mixtures, equations (1) and (2) are similar but contain only two components.

The experimental installation and procedure used to obtain the  $P\rho T$  data were described in previous publications [37,38]. The  $T$  ranges from 263 to 473 K, and the stability of the temperature during the measurement of a  $P\rho T x_{\text{CO}_2}$  isotherm was better than  $\pm 0.04$  K. The  $P$  ranges between atmospheric pressure and 70 MPa. The main component is an Anton Paar DMA HPM vibrating-tube densimeter connected to an MPDS V3 evaluation unit. The fluid flow of  $0.005 \text{ MPa}\cdot\text{s}^{-1}$  used during the  $P\rho T x_{\text{CO}_2}$  isotherm determination leads to quasi-static experiments and then to measurements at thermodynamic quasi-equilibrium. The temperature is measured using two  $100 \Omega$  platinum probes, and the pressure is determined using two pressure transducers (GE Infrastructure model PTX 611). The instruments for measuring the temperature and the pressure and the vibrating tube were calibrated immediately before the experimental measurements in this work. The probes were calibrated by the Centro Español de Metrología,



CEM [39]. The pressure transducers were calibrated in our laboratories using a Wika CPH 6000 calibrator with an accuracy of 0.025% in the whole scale, and we found that the main contribution to the uncertainty of the transducers arose from the calibrator [40]. The estimated temperature uncertainty,  $u_T$ , was 0.006 K, and the obtained  $u_p$  was 0.0015 MPa for  $P < 6$  MPa and 0.0175 MPa for  $6 \text{ MPa} \leq P \leq 70 \text{ MPa}$ . The vibrating tube was calibrated with pure CO<sub>2</sub> from 263.15 to 373.15 K and up to 70 MPa. The results obtained from the calibration were similar to those obtained during the start-up of the installation [38].

Considering the uncertainty in the vibrational period,  $\tau$ ,  $u(\tau) = 2 \times 10^{-5}$  ms [41], the pure CO<sub>2</sub> calibration data were employed to calculate the standard uncertainty in density,  $u(\rho)$ , for the studied mixtures using the error propagation law and the following equation.

$$\rho(P, T) = \rho_{ref}(P, T) \frac{\left(\frac{K(P, T)}{K_0(T)}\right) \tau^2(P, T) - \tau_0^2(T)}{\left(\frac{K(P, T)}{K_0(T)}\right) \tau_{ref}^2(P, T) - \tau_0^2(T)} \quad (3)$$

where  $\rho(P, T)$  is the density of the inner fluid to be determined at pressure  $P$  and temperature  $T$ ;  $\rho_{ref}(P, T)$  is the density of the reference fluid at pressure  $P$  and temperature  $T$ ;  $K(P, T)$  is the transversal stiffness of the vibrating tube at pressure  $P$  and temperature  $T$ ;  $K_0(T)$  is the transversal stiffness of the vibrating tube under vacuum and at temperature  $T$ ;  $\tau(P, T)$  is the period of the vibrating tube with inner fluid determined at pressure  $P$  and temperature  $T$ ;  $\tau_{ref}(P, T)$  is the period of the vibrating tube with the reference fluid at pressure  $P$  and temperature  $T$ ; and  $\tau_0(T)$  is the period of the vibrating tube under vacuum and at temperature  $T$ .

As recommended by Bouchot and Richon, the temperature contributions to  $u_\rho$  were not taken into account [41], and we found that the pressure contribution was negligible along an isotherm from atmospheric pressure to 30 MPa.

The experimental uncertainties in  $\rho$ ,  $u_\rho$ , are included in the tables of results and range from 0.20 to 0.97 kg/m<sup>3</sup> with an average value of 0.35 kg/m<sup>3</sup>.

The data acquisition occurs in a quasi-continuous way, which allows the determination of the *VLE* from the experimental data. The procedure to determine the *VLE* limits, the densities of the vapor,  $\rho_V$ , and liquid,  $\rho_L$ , phases in the *VLE* and the calculation of their uncertainties were based on the methods proposed by the designers of the experimental setup [41]. For each isotherm and isopleth,  $P$ - $\rho$  data points immediately before and after the dew and bubble zones (which are detected by the strong slope change) were fitted to respective straight lines. The intersection of the two lines provides the dew pressure and the density of the vapor phase at equilibrium or the bubble pressure and the density of the liquid phase in equilibrium. For uncertainty calculations, two new lines that were parallel to each other were drawn for each of the two lines mentioned above. The first parallel line passes through the experimental  $P$ - $\rho$  point with higher positive deviation with respect to the fitted line. The second parallel line passes through the experimental  $P$ - $\rho$  point with higher negative deviation with respect to the fitted line. The four intersects of the four new lines give the limits of the uncertainty intervals for pressure and density. To obtain the total maximized error for the vapor pressure and the density of the phases in equilibrium, the transducer uncertainty and the density uncertainty were each added to the above calculated values. The uncertainties calculated in this manner, which are reported in the tables of results, range between 0.014 and 0.030 MPa for the pressure and between 0.73 and 1.58 kg/m<sup>3</sup> for the density of the phases in equilibrium.

The speed of sound measurements were performed using a previously described 5 MHz pulsed ultrasonic system [34]. The apparatus operates from 253 K to 473 K with a temperature

uncertainty,  $u_T$ , of 0.015 K. The maximum achievable pressure is 200 MPa, and the  $u_P$  is 0.02 MPa.  $u_T$  and  $u_P$  were determined from the calibration of the corresponding measuring instruments. The mixtures with more than 90 mole % of CO<sub>2</sub> were doped with  $\cong$  0.8 mole % methanol to obtain proper signals.

The procedures for calculating the measurement uncertainty are described in previous papers [34,42]. The standard uncertainty of the experimental  $c$ ,  $u_c$ , was calculated using the propagation uncertainty law

$$u_c^2 = [(\partial c/\partial T)_{P,x}u_T]^2 + [(\partial c/\partial P)_{T,x}u_P]^2 + [(\partial c/\partial x)_{P,T}u_x]^2 + (u_c^*)^2 \quad (4)$$

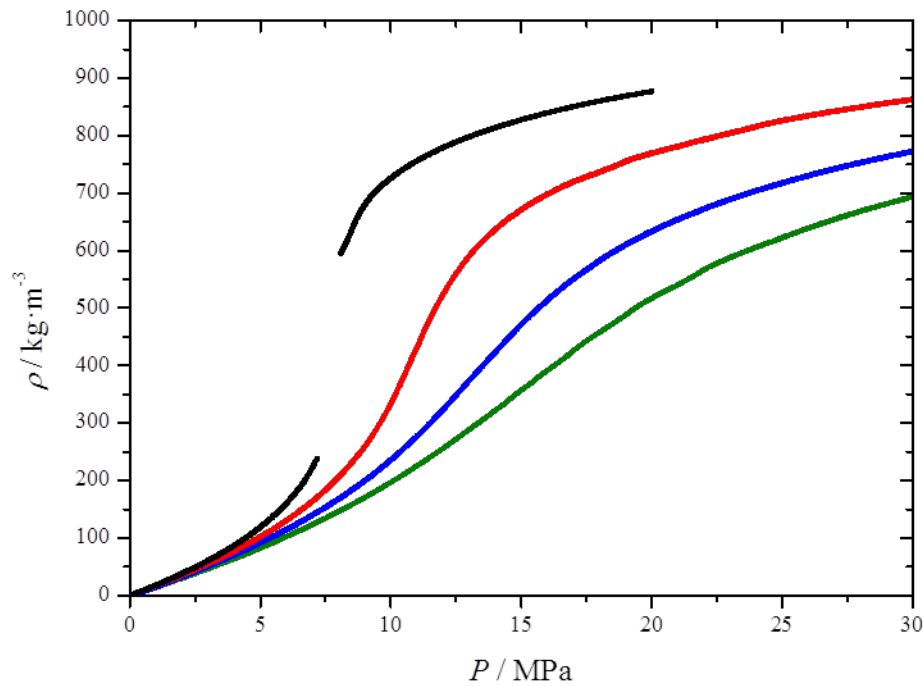
where  $u_c^*$  is the standard repeatability uncertainty, which depends on the studied system. For the mixtures in this work,  $u_c = 6.2 \times 10^{-4}c$  for CO<sub>2</sub>+SO<sub>2</sub> and  $u_c = 8.1 \times 10^{-4}c$  for CO<sub>2</sub>+CH<sub>3</sub>OH+SO<sub>2</sub>. For both systems, we found that the predominant contribution to  $u_c$  arises from  $u_c^*$ .

### 3 RESULTS AND DISCUSSION

In this section, we show the experimental and calculated results obtained in this work (3.1), which are used to validate the EOS-CG and PC-SAFT EoSs (3.2) and to evaluate the influence of SO<sub>2</sub> on several storage and injection parameters and on the Joule-Thomson coefficient of the fluid. Moreover, the effect of 5 mole % SO<sub>2</sub> in the CO<sub>2</sub>/SO<sub>2</sub> co-injected fluid in selected saline aquifers (Table 1) is discussed (3.3).

#### 3.1 Results

We measured 4  $P\rho T x_{\text{CO}_2}$  isotherms per mixture for five  $\text{CO}_2+\text{SO}_2$  mixtures ( $\text{CO}_2$  mole fraction  $x_{\text{CO}_2} = 0.8029, 0.8969, 0.9532, 0.9698, \text{ and } 0.9931$ ) at temperature  $T = 313.15$  K with pressures up to 20 MPa and at  $T = 333.15, 353.15$  and  $373.15$  K with pressures up to 30 MPa (Figure 1, Figure S1). The total number of points is  $\cong 27,500$ , which are available in the Supplementary Material, SM, Table S1. The  $T$  and  $P$  ranges were chosen considering the geothermic and hydrostatic pressure gradients and included the conditions in most geological storage sites [4,16,17,19]. To extend the comparison range for the EoSs and enhance the general understanding of the impact of  $\text{SO}_2$ , the range of compositions covers a possible co-capture mixture ( $x_{\text{CO}_2} = 0.9532$ ) [10],  $\text{SO}_2$ -enriched mixtures, and  $\text{CO}_2$ -rich mixtures, which are closer to industrial emissions [14,15]. The  $\rho$  values of the mixtures increase as  $x_{\text{SO}_2}$  and pressure increase and as temperature decreases.



**Figure 1.** Experimental densities,  $\rho$ , for the CO<sub>2</sub>+SO<sub>2</sub> mixture with  $x_{\text{CO}_2} = 0.9532$  versus pressure,  $P$  at the following temperatures: (■),  $T = 313.15$  K; (■),  $T = 333.15$  K; (■),  $T = 353.15$  K; and (■),  $T = 373.15$  K.

From the experimental data, we obtained the dew and bubble pressures,  $P_{dew}$  and  $P_{bubble}$ , and the densities of the phases in equilibrium for vapor,  $\rho_V$ , and liquid,  $\rho_L$ , (Table S2) for mixtures with  $x_{\text{CO}_2} = 0.8029, 0.8969, \text{ and } 0.9532$  at 313.15 K and those with  $x_{\text{CO}_2} = 0.8029$  at 333.15 K. The rest of the isotherms were supercritical with continuous lines and a slope that is maximum at the critical conditions of the mixture and diminishes as the temperature increases.

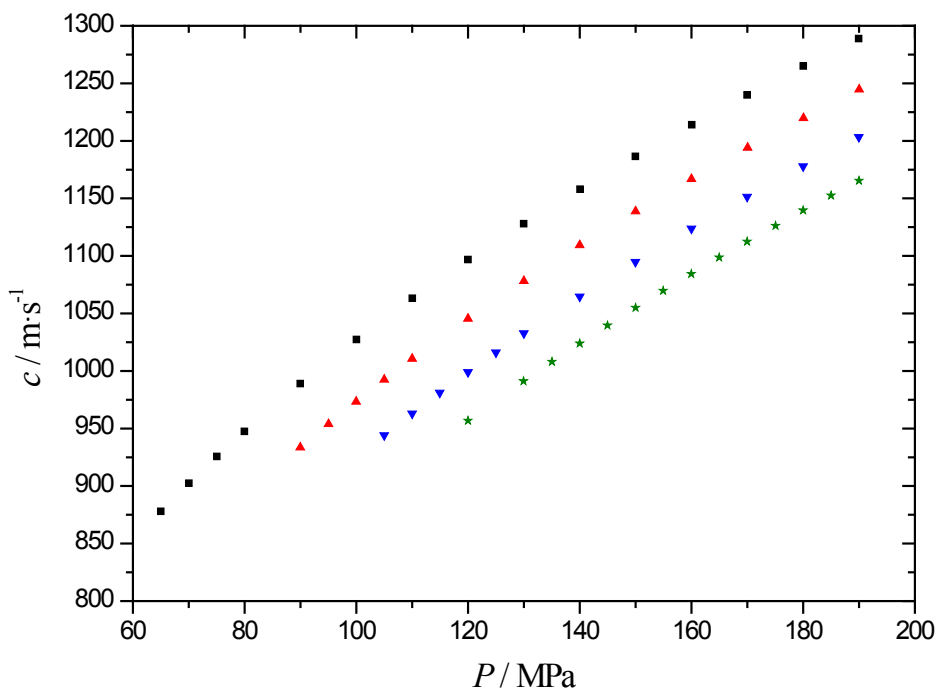
We found only two references on experimental density data for CO<sub>2</sub>+SO<sub>2</sub>. The first of them from Wang et al. [12] is an isotherm at  $9.0 \text{ MPa} \leq P \leq 20 \text{ MPa}$ ,  $T = 328.15$  K and  $x_{\text{CO}_2} = 0.975$ ; however, the last two conditions were not studied in this work. Based on the comparison between those data and our experimental values obtained under similar conditions (333.15 K and  $x_{\text{CO}_2} = 0.9698$ ) and with pure CO<sub>2</sub> densities at 328.15 K [43], we presumed that the referenced data having experimental error at pressures below 11 MPa was possible. In this pressure range, the literature results overlap with or intersect with the pure CO<sub>2</sub> isotherm and the isotherm presented in this work for  $x_{\text{CO}_2} = 0.9698$  at 333.15 K. The second source is Caubet's PhD Thesis (1901) [44]. The author provides density values for  $x_{\text{CO}_2} = 0.8866$  at 319.15, 321.45, and 322.95 K and for  $x_{\text{CO}_2} = 0.9265$  at 312.15 K; these conditions are inside our range of composition, pressure, and temperature but are not exactly coincident with ours. For the first composition, the densities of the vapor phase agree with our data, whereas the results for the liquid phase are not highly consistent with our findings. For the  $x_{\text{CO}_2} = 0.9265$  mixture, compared to our results, the reported gas densities are lower, and the liquid densities are much lower.

Ziabakhsh-Ganji and Kooi [7] provided graphical representations of the calculated density values for the CO<sub>2</sub>+SO<sub>2</sub> system within the whole composition range at five temperatures from 313.15 K to 363.15 K and at 7.5 MPa. We compared our data with the data at 313.15 K and 333.15 K and obtained differences lower than  $\cong 6\%$ . At 7.5 MPa, the authors did not specifically predict the *VLE* values for  $x_{\text{CO}_2} = 0.8$  at 333.15 K and for  $x_{\text{CO}_2} = 0.95$  at 313.15 K, whereas we obtained those values experimentally. Waldmann et al. [13] reported the calculated densities for mixtures containing 0.1 mole % and 1 mole % SO<sub>2</sub> at temperatures not studied here, but their data were in good agreement with our results.

We found *VLE* experimental data for the CO<sub>2</sub> + SO<sub>2</sub> system published by different authors [44-49]. From the Coquelet et al. [45] data, only the dew point at 333.21 K for a mixture  $x_{\text{CO}_2} = 0.8001$  can be compared with our results, showing a deviation in  $P_{dew}$  of 3.7% (Figure S2). Within the composition and temperature ranges of this work, Caubet [44] determined three dew or bubble points, but none of them are under the same conditions as our experiments. For a mixture with  $x_{\text{CO}_2} = 0.8866$ , the author determined one dew point at 314.35 K with values of pressure and vapor phase density that were lower than our results and a bubble point at 313.95 K with a pressure value that was highly consistent with our data; however, their liquid density value much lower than ours. For  $x_{\text{CO}_2} = 0.9265$ , a dew point is reported at 312.15 K; the pressure is much higher than our results, and the vapor density is lower than expected based on our data. The *VLE* data from Bluemcke [46] and Thiel et al. [47] correspond to mixtures that are beyond the scope of CCS, as the CO<sub>2</sub> is more diluted than ours. The experimental data in Cummings [48] and Lachet et al. [49] are taken directly from Caubet [44] and Coquelet et al. [45], respectively. The only *VLE* experimental data reported by the NIST Standard Reference [50] are those from

Coquelet. et al. [45]. The literature results calculated using the Monte Carlo simulation method [23] are in good agreement with ours (Figure S2).

We determined 4  $PcT\chi_{\text{CO}_2}$  isotherms per mixture for four  $\text{CO}_2+\text{SO}_2$  mixtures with the same  $\text{SO}_2$  mole fractions,  $x_{\text{SO}_2}$ , as four of the five mixtures for which the density was determined ( $x_{\text{SO}_2} = 0.1971, 0.0468, 0.0302, \text{ and } 0.0069$ ) at the same temperatures  $T = 313.15, 333.15, 353.15, \text{ and } 373.15$  K and at pressures up to 190 MPa (Table S3, Figure 2, Figure S3). The three mixtures with  $x_{\text{SO}_2} < 0.1$  were doped with  $\cong 0.8$  mole % of methanol to obtain well-defined signals. The doped and undoped mixtures with  $x_{\text{SO}_2} = 0.1031$  at the same  $T$  and  $P$  as those used in this work were previously published [34].



**Figure 2.** Experimental speed of sound,  $c$ , for the ternary  $\text{CO}_2+\text{CH}_3\text{OH}+\text{SO}_2$  mixture with  $x_{\text{CO}_2} = 0.9457$ ,  $x_{\text{CH}_3\text{OH}} = 0.0075$  and  $x_{\text{SO}_2} = 0.0468$  versus the pressure  $P$  at the following temperatures: (■),  $T = 313.15$  K; (▲),  $T = 333.15$  K; (▼),  $T = 353.15$  K; and (★),  $T = 373.15$  K.

The experimental values of  $c$  were correlated as a function of pressure for each composition and temperature using the following polynomial [34]:

$$(P - P^\#) = \sum_{i=1}^3 a_i (c - c^\#)^i \quad (5)$$

where  $P^\#$  is an appropriate reference pressure and  $c^\#$  is the speed of sound at  $P = P^\#$ . Table S4 shows the coefficients for equation (5), the values of  $P^\#$ , and the mean relative deviations,  $\overline{MRD}_c$  (%), between the experimental and fitted values. The overall mean relative deviation was  $\overline{MRD}_c = 0.014\%$ , which is lower than the relative standard uncertainty of the experimental data.

The values of  $c$  were extrapolated to the low pressure region where no sound-signal was obtained using polynomial (5) and the coefficients from Table S4. The extrapolated values are reported in Table S5.

The values of  $c$  in the mixtures vary with  $T$ ,  $P$  and  $x_{\text{SO}_2}$  in a similar manner to the density. We did not find any literature data on the speed of sound in the  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{CH}_3\text{OH}+\text{SO}_2$  systems.

### 3.2 Comparison of data with models

CCS technology involves a wide range of fluid conditions that require the use of a predictive tool, such as an EoS, to calculate the necessary properties [17,24,51,52]. The recently published EOS-CG mixture model was developed for humid gases, combustion gases and  $\text{CO}_2$ -rich mixtures of interest for CCS [22]. In this work, we compared our experimental data with the data



obtained from this EoS and the PC-SAFT EoS [27], which is widely used for calculations of thermodynamic properties, in terms of the mean relative deviation,  $MRD_X$ . The doped mixtures for the determination of  $c$  were modeled as pseudo-binary mixtures by adding the methanol mole fraction to the CO<sub>2</sub>.

The EOS-CG mixture model was applied as implemented in TREND 2.0.1 software (Thermodynamic Reference & Engineering Data) [53]. The CO<sub>2</sub>+SO<sub>2</sub> mixture is covered by the extended version of EOS-CG programmed in this software. The quadratic mixing rules described in the GERG-2004 monograph [43] were selected to calculate the mixture reducing parameters. The  $MRD_X$  values are shown in Tables S6 and S7 and in Figures S4 and S5. The  $MRD_\rho$  does not show clear trends with the composition or temperature, and its global average value was  $\overline{MRD}_\rho = 1.59\%$ . Regarding the VLE,  $\overline{MRD}_{P_{dew}} = 6.30\%$ ,  $\overline{MRD}_{P_{bubble}} = 1.67\%$ ,  $\overline{MRD}_{\rho_V} = 8.25\%$  and  $\overline{MRD}_{\rho_L} = 5.33\%$ . Figures S2 and S6 show the comparison between the dew and bubble pressure data from the literature [23,45], this work, and those calculated from the EOS-CG at 333.15 K and 313.15 K, respectively. For the first temperature, a good agreement over the full composition range was found (Figure S2). By contrast, (Figure S6), we found greater deviations between our experimental data and those predicted by EOS-CG at 313.15 K than at 333.15 K. There were no noticeable trends for  $MRD_c$  with temperature and composition, which was related to the experimental and extrapolated speed of sound. The global average value was  $\overline{MRD}_c = 0.26\%$  for the experimental values and  $\overline{MRD}_c = 0.38\%$  for the extrapolated values.

The calculations with PC-SAFT EoS were performed using VLXE software [54]. The methodology was previously described [34], and a volume translation parameter,  $\Delta v_c$ , was added to better reproduce the density values. The binary interaction parameter was taken from

Diamantonis et al. [51]. We attempted to refit a binary interaction parameter using our experimental data, but the results were not particularly sensitive to the parameter and we used the binary interaction parameter from the literature. The pure compound parameters, binary interaction parameters and  $\Delta v_c$  values are listed in Table S8. The  $MRD_x$  values are shown in Tables S6 and S7 and Figures S4 and S5. The  $MRD_\rho$  increased with the increasing temperature but did not have a clear relationship with the composition. The global average value was  $\overline{MRD}_\rho = 2.21\%$ . Regarding the *VLE*,  $\overline{MRD}_{P_{dew}} = 2.42\%$ ,  $\overline{MRD}_{P_{bubble}} = 0.92\%$ ,  $\overline{MRD}_{\rho_V} = 2.22\%$  and  $\overline{MRD}_{\rho_L} = 4.11\%$ . The above deviations and Figures S2 and S6 show that this EoS adequately reproduces our experimental *VLE* data at 333.15 K and 313.15 K. Moreover, at the first temperature, there was a good agreement with the literature data [23,45] over the entire composition range.  $MRD_c$ , with respect to the experimental results, decreased as  $T$  increased, except for the unclear trend observed for  $x_{CO_2} = 0.8029$ , and increased as  $x_{CO_2}$  increased with a global average value of  $\overline{MRD}_c = 2.63\%$ . In the extrapolated results,  $MRD_c$  diminished as the  $T$  increased but did not show a trend with the composition, and  $\overline{MRD}_c = 3.24\%$ .

In a recent publication, Xu et al. [23] performed thermodynamic calculations for the  $CO_2+SO_2$  system with PC-SAFT using different parameters from those collected in Table S8. We compared our experimental data with those calculated using the PC-SAFT EoS and the parameters from Xu et al. The deviations obtained were  $\overline{MRD}_\rho = 3.14\%$ ,  $\overline{MRD}_{P_{dew}} = 3.86\%$ ,  $\overline{MRD}_{P_{bubble}} = 3.63\%$ ,  $\overline{MRD}_{\rho_V} = 2.66\%$ ,  $\overline{MRD}_{\rho_L} = 2.98\%$ , and  $\overline{MRD}_c = 2.66\%$ . These deviations were higher than those obtained with PC-SAFT using the parameters from Table S8, except for  $\rho_L$ . The greatest differences were found in the bubble pressure values in the vicinity of the critical point, as shown in Figures S2 and S6.

### 3.3 Influence of SO<sub>2</sub> on storage and injection.

To assess the convenience of storing CO<sub>2</sub> containing SO<sub>2</sub>, we evaluated several parameters related to the storage and injection steps for the studied compositions and temperatures of the CO<sub>2</sub>+SO<sub>2</sub> system at  $P \geq 7$  MPa. These parameters were the storage capacity,  $M$ ; the rising velocity of the plume inside deep saline aquifers,  $v$ ; and the permeation flux during injection,  $\dot{M}$ . We used normalized parameters,  $X/X_0$ , where  $X$  is the value corresponding to the CO<sub>2</sub>+SO<sub>2</sub> mixtures and  $X_0$  corresponds to pure CO<sub>2</sub>. In addition, for the co-capture composition,  $x_{\text{CO}_2} = 0.9532$ , we calculated the above parameters and the Joule-Thomson coefficient,  $\mu_{JT}$ , under actual reservoir conditions (Table 1). The  $\mu_{JT}$  was also calculated at the temperatures used in this work in a pressure range from 10.3 to 29.0 MPa for the co-capture composition and for pure CO<sub>2</sub>.

The equations used for the normalized parameters were [55]:

$$\frac{M}{M_0} = \frac{\rho}{\rho_0 \left[ 1 + \sum_i \left( \frac{m_i}{m_0} \right) \right]} \quad (6)$$

$$\frac{v}{v_0} = \frac{F/(\rho\eta)}{F_0/(\rho_0\eta_0)} = \frac{(\rho_{\text{br}} - \rho)(\rho_0\eta_0)}{(\rho_{\text{br}} - \rho_0)(\rho\eta)} \quad (7)$$

$$\frac{\dot{M}}{\dot{M}_0} = \frac{\rho \left( \frac{\eta_0}{\eta} \right)}{\rho_0 \left[ 1 + \sum_i \left( \frac{m_i}{m_0} \right) \right]} \quad (8)$$

where  $m_i/m_0$  is the ratio of the mass of impurity,  $i$ , to the mass of pure CO<sub>2</sub> in the mixture;  $(\rho, \eta, F)$  and  $(\rho_0, \eta_0, F_0)$  are the density, viscosity and buoyancy force of the mixture and the pure CO<sub>2</sub> stream, respectively; and  $\rho_{\text{br}}$  is the density of the brine.

The density values for the CO<sub>2</sub>+SO<sub>2</sub> mixtures and for pure CO<sub>2</sub> were taken from this work and the literature [43], respectively. The values of 1,025 kg/m<sup>3</sup> and 1,250 kg/m<sup>3</sup>, which are representative of diluted and highly concentrated brines, were used for  $\rho_{\text{br}}$  [56]. The brine

densities of the saline aquifers in Table 1 were estimated using equation (9), where  $s$  is the salinity [28].

$$\begin{aligned} \rho_{br}(s, P, T)/\text{g} \cdot \text{cm}^{-3} = & 1.0003 - 5.1 \cdot 10^{-5} t/^{\circ}\text{C} - 3.8 \cdot 10^{-6} (t/^{\circ}\text{C})^2 + (4.54 - 1.9 \cdot \\ & 10^{-2} t/^{\circ}\text{C} + 1.8 \cdot 10^{-4} (t/^{\circ}\text{C})^2) \cdot 10^{-5} P/\text{kg} \cdot \text{cm}^{-2} + (6.88 - 2.1 \cdot 10^{-2} t/^{\circ}\text{C} + 1.49 \cdot \\ & 10^{-4} (t/^{\circ}\text{C})^2 - 5 \cdot 10^{-4} P/\text{kg} \cdot \text{cm}^{-2}) \cdot 10^{-4} s/\text{g} \cdot \text{dm}^{-3} \end{aligned} \quad (9)$$

The viscosity data were taken from REFPROP 9.1 software [57].

The Joule-Thomson coefficient was calculated using:

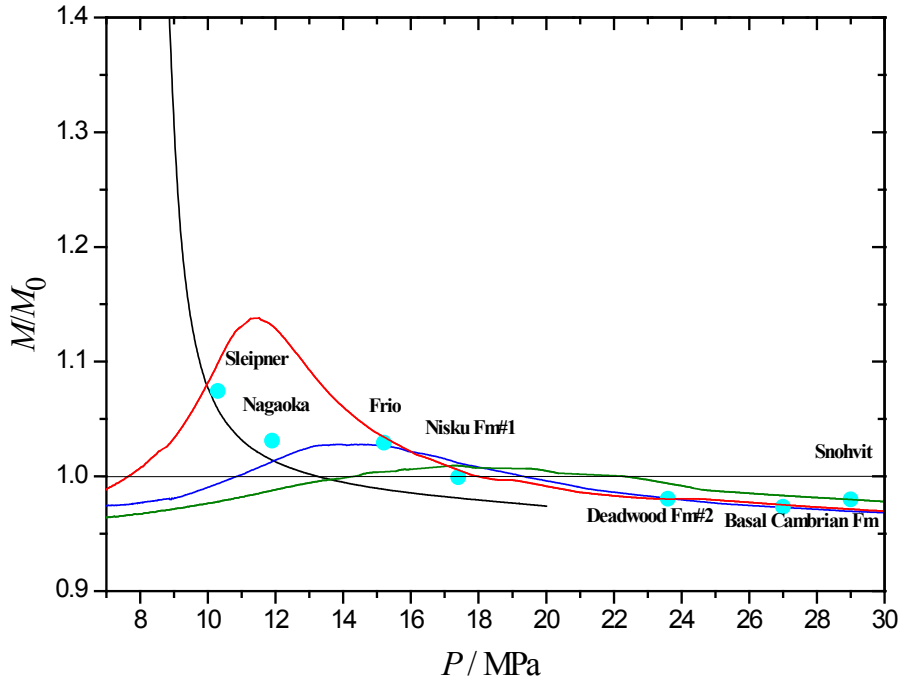
$$\mu_{JT} = \left( \frac{\partial T}{\partial p} \right)_H = \frac{V}{C_p} (\alpha_p T - 1) \quad (10)$$

$$C_p = \frac{\alpha_p^2 T}{\rho(\kappa_T - \kappa_S)} \quad (11)$$

where  $V$  is the molar volume,  $C_p$  is the heat capacity at constant pressure, and  $\alpha_p$ ,  $\kappa_T$ , and  $\kappa_S$  are the isobaric thermal expansivity, and isothermal and isentropic compressibility, respectively.  $\alpha_p$  was calculated from the experimental density data and some values calculated from the EOS-CG programmed in TREND 2.0.1;  $\kappa_T$  was obtained from the experimental  $\rho$ ; and  $\kappa_S$  was determined from the experimental  $\rho$  and experimental and extrapolated  $c$ . For pure  $\text{CO}_2$ , those properties were obtained from the literature [43].

**3.3.1 Normalized storage capacity,  $M/M_0$ .** The presence of impurities in the stream affects the amount of fluid that can be stored because of density changes with respect to pure  $\text{CO}_2$ . Each  $M/M_0 - P$  isotherm exhibits a maximum when the impurity critical temperature is higher than the corresponding  $\text{CO}_2$  critical temperature (Figure 3 and Figure S7) [58]. A minimum appears in the isotherm when the impurities are non-condensable gases [37,55]. For a given  $x_{\text{CO}_2}$ , the maximum value decreases, and its position shifts to higher pressures as the temperature

increases. At a given  $T$ , the maximum value decreases, and its position shifts to higher pressures as the  $\text{CO}_2$  concentration increases. At high pressures, the values for  $M/M_0$  were lower than unity for all the compositions and temperatures studied in this work.



**Figure 3.** Normalized storage capacity,  $M/M_0$ , for a  $\text{CO}_2+\text{SO}_2$  mixture with  $x_{\text{CO}_2}=0.9532$  versus pressure,  $P$ , at the following temperatures: (—),  $T = 313.15$  K; (—),  $T = 333.15$  K; (—),  $T = 353.15$  K; (—),  $T = 373.15$  K; and at the reservoir conditions presented in Table 1 [4,28-33] (●).

The maximum influence on the storage capacity appeared in the richest  $\text{SO}_2$  mixture at the lowest temperature ( $x_{\text{CO}_2}=0.8029$  and  $T=313.15$  K:  $M/M_0 = 3.0$  at  $P = 7.0$  MPa and  $M/M_0 = 0.82$  at  $P = 20.0$  MPa). However, for  $x_{\text{CO}_2}=0.9931$  at  $313.15$  K, the maximum  $M/M_0$  was  $1.2$  at  $P \cong 8.6$  MPa and  $M/M_0 = 1.0$  at  $P = 20.0$  MPa.

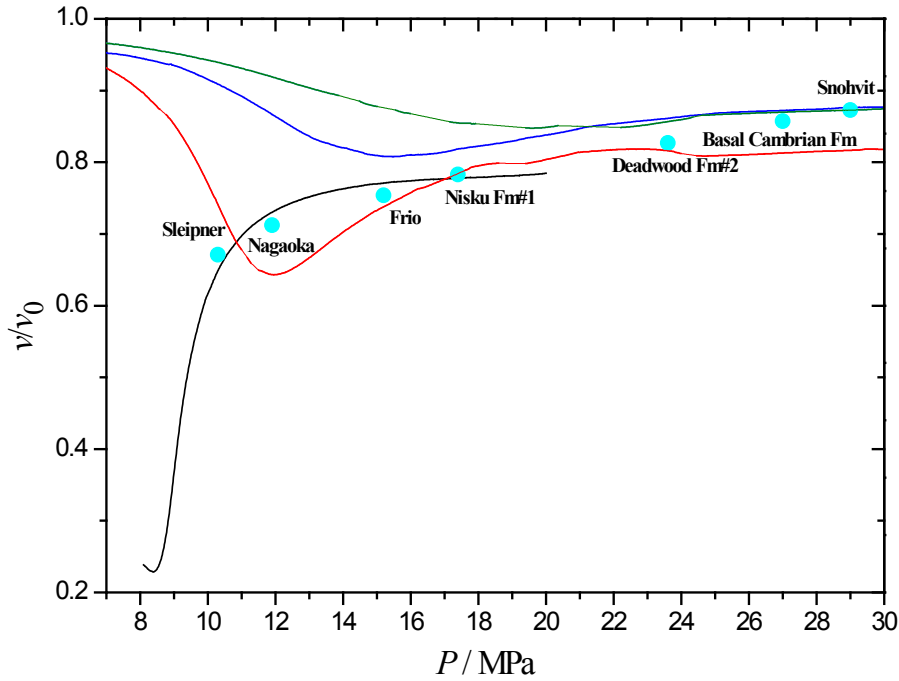
In terms of the quantity of the stored fluid, the storage of co-injected  $\text{SO}_2$  is favorable in relatively shallow reservoirs. For a  $\text{CO}_2/\text{SO}_2$  co-injected fluid with 5 mole %  $\text{SO}_2$ , the positive

effects of SO<sub>2</sub> can be profitable in reservoirs with depths lower than  $\cong 1600$  m and  $T < 353.15$  K. The Sleipner, Nagaoka and Frio sites meet those conditions, and the stored mass is improved by the presence of this impurity at 7.5% in the case of Sleipner and 3% in the other two reservoirs. However, the negative effect of SO<sub>2</sub> at higher injection depths leads to a reduction in the quantity of stored fluid of up to 3%, as is the case in the Basal Cambrian formation (Figure 3).

The SO<sub>2</sub> effect on the volumetric storage trapping capacity was already addressed in the literature for  $x_{\text{CO}_2} = 0.975$  at  $T = 328.15$  K using experimental densities by Wang et al. [12]. The authors showed the same shapes for  $M/M_0 - P$  as observed in this work, but their values at low pressures appear to be too small. Ziabakhsh-Ganji and Kooi [7] graphically presented results obtained from the calculated densities for all the compositions, temperatures from 273 to 373 K and pressures from 1 to 30 MPa. The trends of  $M/M_0$  with the composition,  $T$  and  $P$  presented by those authors agree with our results and the values for this parameter at common conditions. Nevertheless, we experimentally found the *VLE* at  $x_{\text{CO}_2} = 0.8$ , 313.15 K, and 7.2 MPa;  $x_{\text{CO}_2} = 0.8$ , 333.15 K, and 8 MPa; and  $x_{\text{CO}_2} = 0.9$ , 313.15 K, and 7.5 MPa, whereas those authors did not specify the existence of two phases in equilibrium. Waldmann et al. [13] assessed the SO<sub>2</sub> effect on the storage capacity using calculated densities for compositions and temperatures not studied in this work. The authors concluded that there was an improvement in this parameter at shallow depths, but we determined there are positive effects from SO<sub>2</sub> at greater depths than they calculated.

**3.3.2 Normalized rising velocity in saline aquifers,  $v/v_0$ .** Figure 4 and Figure S8 show the values for  $v/v_0$  versus  $P$  at the temperatures assessed in this work. The fluid stored in a saline aquifer pushes up with a buoyancy force,  $F$ , that is governed by the difference between its density and the density of the brine.  $v/v_0$  is directly proportional to  $F/F_0$ ,  $\rho_0/\rho$  and  $\eta_0/\eta$ . The

experimental densities obtained for the CO<sub>2</sub>+SO<sub>2</sub> mixtures in this work are higher than those for pure CO<sub>2</sub> over the ranges of  $T$  and  $P$  [35]; therefore,  $F/F_0 < 1$  and  $\rho_0/\rho < 1$  for the studied conditions. Although the calculated values for  $\eta_0/\eta$  in this work were higher or lower than unity, depending on  $T$ ,  $P$  and the composition, we obtained  $v/v_0 < F/F_0$  for all cases. Then, we deduced that the influence of the density of the CO<sub>2</sub>+SO<sub>2</sub> mixtures is predominant in the  $v/v_0$  results. Thus, a 9.5% increase in the density due to the presence of 5 mole % SO<sub>2</sub> (at 333.15 K, 14 MPa and  $\rho_{br} = 1,025 \text{ kg/m}^3$ ) causes a 16% reduction in the buoyancy force and a 30% reduction in the rising velocity. A lower brine density results in a higher reduction in the rising velocity.



**Figure 4.** Normalized rising velocity in saline aquifers,  $v/v_0$ , for a CO<sub>2</sub>+SO<sub>2</sub> mixture with  $x_{\text{CO}_2} = 0.9532$  versus pressure,  $P$ , at the following temperatures: (—),  $T = 313.15 \text{ K}$ ; (—),  $T = 333.15 \text{ K}$ ; (—),  $T = 353.15 \text{ K}$ ; (—),  $T = 373.15 \text{ K}$  with  $\rho_{br} = 1,025 \text{ kg/m}^3$ ; and at the reservoir conditions presented in Table 1 [4,28-33] (●).

The obtained values for  $v/v_0$ , which were lower than unity, indicate that under the conditions evaluated in this work, the presence of SO<sub>2</sub> increases the fluid-brine interaction and the lateral spreading of the plume, which increases the amount of trapped fluid. These effects improve the safety of the reservoir and are more important in shallow formations, even for 0.69 mole % SO<sub>2</sub>. The influence of  $T$  is weaker in deeper reservoirs than in shallow ones.

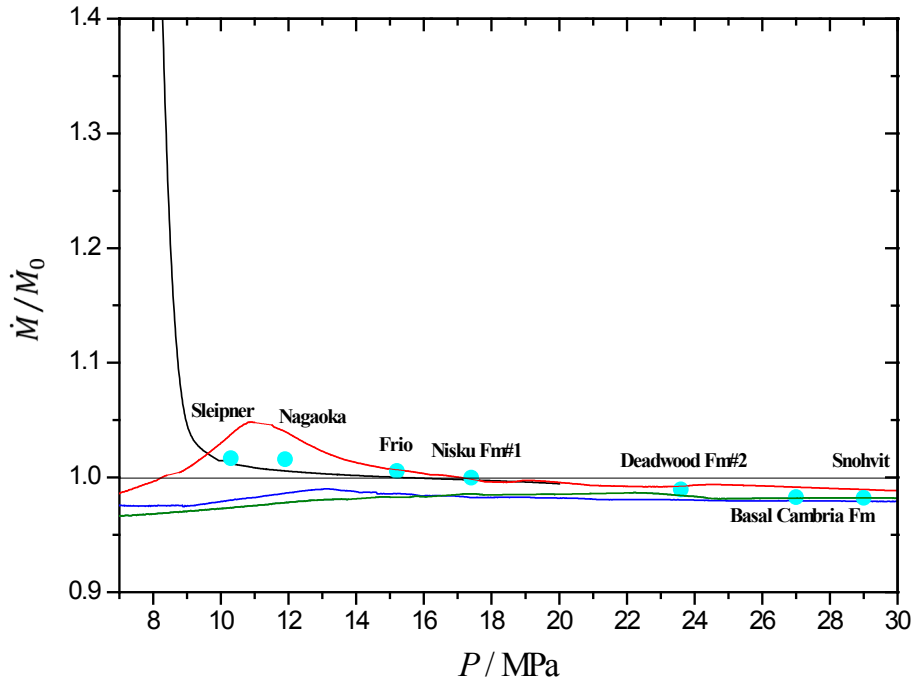
The safety benefits of SO<sub>2</sub> as an impurity in CO<sub>2</sub> could be profitable in the seven studied reservoirs. The presence of 5 mole % SO<sub>2</sub> reduced the rising velocity by 34% in Sleipner and by 11% in Snøhvit and Basal Cambrian Fm, where the effect was the least important.

**3.3.3 Normalized permeation flux,  $\dot{M}/\dot{M}_0$ .** The presence of SO<sub>2</sub> in anthropogenic CO<sub>2</sub> can also affect the CO<sub>2</sub> injection. We obtained a measure of the relative injectivity of the fluid. Given that the presence of SO<sub>2</sub> increases the density of the injected fluid, the mass flux will increase at given  $T$  and  $P$ . However, SO<sub>2</sub> also affects the viscosity of the CO<sub>2</sub> stream. When the impure CO<sub>2</sub> stream is more viscous than pure CO<sub>2</sub>, the permeation flux decreases, thus decreasing the penetration of the fluid into the matrix of the rock as well. We observed the same behavior for the studied mixtures in the evaluated pressure ranges, although a higher variation of  $M/M_0$  with  $P$  was found at relatively low injection pressures (Figure 5, Figure S9). At higher injection pressures, we obtained  $\dot{M}/\dot{M}_0$  values very close to those of  $M/M_0$  because the viscosity of the mixture approaches that of pure CO<sub>2</sub>. For the studied compositions, the decrease in  $\dot{M}/\dot{M}_0$  due to the presence of SO<sub>2</sub> in deeper formations diminishes as  $x_{\text{CO}_2}$  increases, and the influence of  $T$  is no longer important.

The effect of 5 mole % of SO<sub>2</sub> on  $\dot{M}/\dot{M}_0$  in the studied reservoirs is minor: there was a slight improvement in the permeation flux in Sleipner (1.7%), Nagaoka (1.6%) and Frio (0.5%) relative to pure CO<sub>2</sub> and a slight reduction of up to 1.8% in the other reservoirs. In all cases, the increase



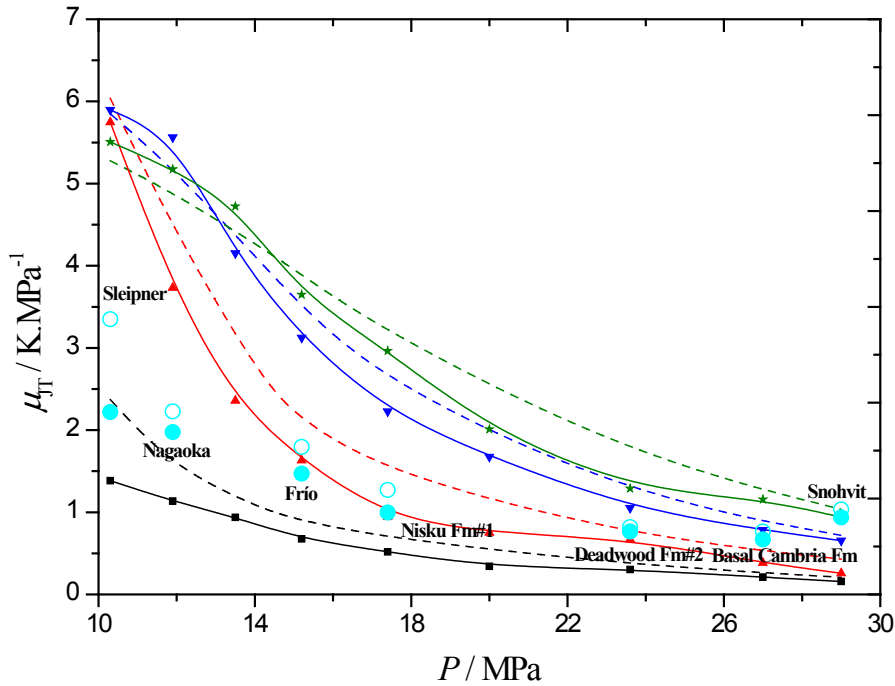
in the hydrostatic pressure of the injection well due to the presence of SO<sub>2</sub> leads to the need for a lower headhole pressure than that needed for pure CO<sub>2</sub>.



**Figure 5.** Normalized permeation flux,  $\dot{M}/\dot{M}_0$ , for a CO<sub>2</sub>+SO<sub>2</sub> mixture with  $x_{\text{CO}_2} = 0.9532$  versus pressure,  $P$ , at the following temperatures: (—),  $T = 313.15$  K; (—),  $T = 333.15$  K; (—),  $T = 353.15$  K; (—),  $T = 373.15$  K; and at the reservoir conditions presented in Table 1 [4,28-33] (●).

**3.3.4 Joule-Thomson Coefficient,  $\mu_{JT}$ .** In Figure 6, four  $\mu_{JT} - P$  isotherms for CO<sub>2</sub>+SO<sub>2</sub> with  $x_{\text{CO}_2} = 0.9532$  and those calculated for pure CO<sub>2</sub> [43] are shown. Because all the calculated values are positive, fluid expansion will cause cooling. This effect is diminished when the injected fluid is a CO<sub>2</sub>+SO<sub>2</sub> mixture, except at high temperatures and low pressures, where the effect is greater. These findings are consistent with those from Ziabahsh and Koi [11]. These conditions are not common at the reservoirs when considering the thermal and hydrostatic gradients. Because of the volumetric behavior, the greatest cooling decrease caused by the

presence of SO<sub>2</sub> in the fluid was observed at the lowest temperature and pressure; for example, in Sleipner ( $T = 317$  K;  $P = 10.3$  MPa), the coefficient was approximately 37% lower if the fluid contained 5 mole % SO<sub>2</sub>. Conversely, the difference was minimized at all temperatures for high pressures.



**Figure 6.** The calculated Joule-Thomson coefficient,  $\mu_{JT}$ , at several pressures,  $P$ , and temperatures,  $T$ , (symbols other than circles) and at the reservoir conditions presented in Table 1 [4,28-33] (circles). Full symbols and solid lines, CO<sub>2</sub>+SO<sub>2</sub> mixture with  $x_{CO_2} = 0.9532$ ; empty symbols and dashed lines, pure CO<sub>2</sub> [35]; (■),  $T = 313.15$  K; (▲),  $T = 333.15$  K; (▼),  $T = 353.15$  K; and (★),  $T = 373.15$  K.

#### 4. CONCLUSIONS

The present study assessed the feasibility of CO<sub>2</sub>/SO<sub>2</sub> co-capture by quantifying the influence of SO<sub>2</sub> on several injection and storage parameters and on the Joule-Thomson coefficient, which are required to ensure the safety and profitability of CCS technology. We determined the impact of

SO<sub>2</sub> on those parameters using the experimental  $P\rho T x_{\text{CO}_2}$ , vapor-liquid equilibrium and  $PcTx_{\text{CO}_2}$  results presented in this work. The density was experimentally determined for five CO<sub>2</sub>+SO<sub>2</sub> mixtures with  $x_{\text{CO}_2} = 0.8029, 0.8969, 0.9532, 0.9698, \text{ and } 0.993$  at  $T$  and  $P$  ranges that included the conditions at most geological storage sites. From the  $\rho$  experimental data, we obtained the dew and bubble pressures and the densities of the phases in equilibrium for mixtures with  $x_{\text{CO}_2} = 0.8029, 0.8969, \text{ and } 0.9532$  at 313.15 K and for  $x_{\text{CO}_2} = 0.8029$  at 333.15 K. The speed of sound in the mixtures with  $x_{\text{SO}_2} = 0.1971, 0.0468, 0.0302, \text{ and } 0.0069$  was measured at the same temperatures as the density and at pressures up to 190 MPa. The three mixtures with  $x_{\text{SO}_2} < 0.1$  were doped with  $\cong 0.8$  mole % of methanol to obtain well-defined signals. The values of  $c$  were extrapolated to the low pressure region where no sound-signal was obtained.

The studied mixtures were modeled using two different formulation EoSs: EOS-CG and PC-SAFT. Based on the obtained deviations, we concluded that EOS-CG and PC-SAFT with the parameters presented in Table S8 are capable of representing the studied thermodynamic properties of this system under the CCS conditions studied in this work. The EOS-CG better predicts the density and the speed of sound than the PC-SAFT EoS, and the latter EoS is the best option for modeling the vapor-liquid equilibrium. The results of the comparison between the extrapolated  $c$  data and those obtained from both EoSs validate the extrapolated values reported for the speed of sound.

To evaluate the convenience of storing CO<sub>2</sub> containing SO<sub>2</sub>, we calculated the Joule-Thomson coefficient and several parameters related to the storage and injection steps: normalized storage capacity, normalized rising velocity in saline aquifers and normalized permeation flux. The obtained results verify that the presence of SO<sub>2</sub> in the studied CO<sub>2</sub>+SO<sub>2</sub> mixtures, disregarding the difference in the chemical reactivity for pure CO<sub>2</sub>, leads to i) an increase in the storage

capacity that, at low storage temperatures and pressures and  $x_{\text{CO}_2} \leq 0.9532$ , reaches up to double the storage capacity for pure CO<sub>2</sub> (Figure S7) and a slight decrease at high pressures. Similar observations are reported in the literature; ii) a decrease in the rising velocity of the plume in saline aquifers over the entire studied ranges of  $T$ ,  $P$  and composition. This reduction increases the interactions that allow CO<sub>2</sub> to be trapped and reduces the risk of leakage. Thus, at 313.15 K, 8 MPa and  $x_{\text{CO}_2} = 0.8029$ , this parameter is reduced to less than one tenth with respect to that of pure CO<sub>2</sub> (Figure S8); iii) a slight variation in the permeation flux, which results in a favorable or an unfavorable effect depending on the injection  $T$ ,  $P$  and composition of the injected stream; iv) a reduction in the required headhole pressure during injection; and v) the decrease in the cooling during fluid expansion is minimized at high pressures.

Along with these positive effects, the impact of SO<sub>2</sub> on geochemical reactions must be taken into account, but CO<sub>2</sub>/SO<sub>2</sub> co-capture may be a viable alternative approach to save on the costs of CO<sub>2</sub> purification.

For 5 mole % SO<sub>2</sub> in the CO<sub>2</sub>/SO<sub>2</sub> co-injected fluid in the seven saline aquifers in Table 1, we can conclude that i) in relation to pure CO<sub>2</sub>, the amount of the stored stream and its penetration into the rock would increase in Sleipner, Nagaoka and Frio and decrease in Deadwood, Basal Cambrian and Snøhvit; ii) the normalized rising velocity of the plume would decrease and improve the safety of all reservoirs; and iii) at all the sites, the cooling during fluid expansion would be lower than that for the pure CO<sub>2</sub>. Consequently, 5 mole % SO<sub>2</sub> in the injected fluid could be beneficial for most of the aspects treated, but the difference in the chemical reactivity was not taken into consideration.

## **ACKNOWLEDGMENT**

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## **SUPPLEMENTARY MATERIAL**

Additional tables and figures regarding the experimental data, EoS modeling and injection and storage parameters are presented.

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# Influence of SO<sub>2</sub> on CO<sub>2</sub> Storage for CCS

## Technology: Evaluation of CO<sub>2</sub>/SO<sub>2</sub> co-capture

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### **Supplementary material**

292 pages, 8 tables (Table S1 to S8) and 8 figures (Figure S1 to S8)

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**Table S1.**  $P\rho T x_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  mixtures.

$T= 313.15\pm 0.04 \text{ K}$								
$x_{\text{CO}_2} = 0.8029$			$x_{\text{CO}_2} = 0.8969$			$x_{\text{CO}_2} = 0.9532$		
$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )
0.100	1.79	0.23	0.100	1.65	0.22	0.100	1.57	0.21
0.117	2.09	0.23	0.128	2.12	0.22	0.129	2.04	0.22
0.134	2.43	0.23	0.155	2.61	0.22	0.159	2.58	0.22
0.151	2.71	0.23	0.183	3.06	0.22	0.188	3.06	0.22
0.168	3.01	0.23	0.210	3.56	0.22	0.218	3.59	0.22
0.185	3.31	0.23	0.238	4.05	0.22	0.247	4.11	0.22
0.202	3.63	0.23	0.265	4.51	0.22	0.277	4.64	0.22
0.219	3.95	0.23	0.293	4.98	0.22	0.306	5.17	0.22
0.236	4.22	0.23	0.320	5.46	0.22	0.336	5.78	0.22
0.252	4.55	0.23	0.348	5.95	0.22	0.365	6.27	0.22
0.269	4.88	0.23	0.375	6.46	0.22	0.395	6.86	0.22
0.286	5.19	0.23	0.403	6.92	0.22	0.424	7.37	0.22
0.303	5.47	0.23	0.430	7.43	0.22	0.454	7.85	0.22
0.320	5.83	0.23	0.458	7.92	0.22	0.483	8.40	0.22
0.337	6.18	0.23	0.486	8.41	0.22	0.513	8.91	0.22
0.354	6.46	0.23	0.513	8.90	0.22	0.542	9.47	0.22
0.371	6.79	0.23	0.541	9.43	0.22	0.571	9.95	0.22
0.388	7.14	0.23	0.568	9.92	0.22	0.601	10.54	0.22
0.405	7.42	0.23	0.596	10.40	0.22	0.630	11.06	0.22
0.422	7.78	0.23	0.623	10.86	0.22	0.660	11.61	0.22
0.439	8.06	0.23	0.651	11.37	0.22	0.689	12.19	0.22
0.456	8.41	0.23	0.678	11.93	0.22	0.719	12.73	0.22
0.473	8.71	0.23	0.706	12.36	0.22	0.748	13.25	0.22
0.490	9.07	0.23	0.733	12.89	0.22	0.778	13.83	0.23
0.507	9.40	0.23	0.761	13.40	0.22	0.807	14.32	0.22
0.523	9.76	0.23	0.788	13.91	0.22	0.837	14.91	0.23
0.540	10.12	0.23	0.816	14.39	0.22	0.866	15.48	0.23
0.557	10.43	0.23	0.844	14.92	0.22	0.896	16.00	0.23
0.574	10.76	0.23	0.871	15.41	0.22	0.925	16.56	0.23
0.591	11.10	0.23	0.899	15.92	0.22	0.955	17.10	0.23
0.608	11.47	0.23	0.926	16.42	0.22	0.984	17.57	0.22
0.625	11.74	0.23	0.954	16.93	0.22	1.013	18.11	0.22
0.642	12.10	0.23	0.981	17.46	0.22	1.043	18.69	0.22
0.659	12.43	0.23	1.009	17.94	0.22	1.072	19.23	0.22
0.676	12.78	0.23	1.036	18.50	0.22	1.102	19.83	0.22
0.693	13.09	0.23	1.064	19.03	0.22	1.131	20.41	0.23

0.710	13.50	0.23	1.091	19.53	0.22	1.161	20.97	0.23
0.727	13.82	0.23	1.119	20.06	0.22	1.190	21.54	0.23
0.744	14.14	0.23	1.146	20.54	0.22	1.220	22.14	0.23
0.761	14.49	0.23	1.174	21.11	0.22	1.249	22.68	0.23
0.778	14.79	0.23	1.202	21.63	0.22	1.279	23.26	0.23
0.795	15.18	0.23	1.229	22.19	0.22	1.308	23.87	0.23
0.811	15.46	0.23	1.257	22.70	0.22	1.338	24.46	0.23
0.828	15.84	0.23	1.284	23.26	0.22	1.367	25.03	0.23
0.845	16.22	0.23	1.312	23.81	0.22	1.396	25.59	0.23
0.862	16.54	0.23	1.339	24.37	0.23	1.426	26.22	0.23
0.879	16.85	0.23	1.367	24.87	0.22	1.455	26.79	0.23
0.896	17.19	0.23	1.394	25.41	0.22	1.485	27.38	0.23
0.913	17.55	0.23	1.422	25.98	0.23	1.514	28.01	0.23
0.930	17.90	0.23	1.449	26.51	0.23	1.544	28.64	0.23
0.947	18.25	0.23	1.477	27.07	0.23	1.573	29.23	0.23
0.964	18.62	0.23	1.504	27.58	0.23	1.603	29.83	0.23
0.981	18.96	0.23	1.532	28.14	0.23	1.632	30.43	0.23
0.998	19.28	0.23	1.559	28.71	0.23	1.662	31.04	0.23
1.015	19.65	0.23	1.587	29.26	0.23	1.691	31.61	0.23
1.032	19.98	0.23	1.615	29.82	0.23	1.721	32.23	0.23
1.049	20.34	0.23	1.642	30.37	0.23	1.750	32.88	0.23
1.066	20.71	0.23	1.670	30.91	0.23	1.780	33.53	0.23
1.083	21.06	0.23	1.697	31.49	0.23	1.809	34.19	0.23
1.099	21.41	0.23	1.725	32.05	0.23	1.838	34.82	0.23
1.116	21.75	0.23	1.752	32.61	0.23	1.868	35.42	0.23
1.133	22.09	0.23	1.780	33.15	0.23	1.897	36.08	0.23
1.150	22.45	0.23	1.807	33.76	0.23	1.927	36.67	0.23
1.167	22.84	0.23	1.835	34.28	0.23	1.956	37.32	0.23
1.184	23.15	0.24	1.862	34.86	0.23	1.986	37.94	0.23
1.201	23.55	0.23	1.890	35.46	0.23	2.015	38.59	0.23
1.218	23.91	0.23	1.917	36.04	0.23	2.045	39.21	0.23
1.235	24.28	0.23	1.945	36.56	0.23	2.074	39.82	0.23
1.252	24.64	0.24	1.973	37.15	0.23	2.104	40.42	0.23
1.269	25.06	0.24	2.000	37.68	0.23	2.133	41.03	0.23
1.286	25.41	0.24	2.028	38.31	0.23	2.163	41.65	0.23
1.303	25.72	0.24	2.055	38.87	0.23	2.192	42.28	0.23
1.320	26.09	0.24	2.083	39.41	0.23	2.222	42.92	0.23
1.337	26.48	0.24	2.110	40.05	0.23	2.251	43.57	0.23
1.354	26.88	0.24	2.138	40.65	0.23	2.280	44.22	0.23
1.370	27.26	0.24	2.165	41.21	0.23	2.310	44.87	0.23
1.387	27.59	0.24	2.193	41.82	0.23	2.339	45.52	0.23
1.404	28.00	0.24	2.220	42.41	0.23	2.369	46.18	0.23
1.421	28.38	0.24	2.248	42.95	0.23	2.398	46.84	0.23
1.438	28.71	0.24	2.275	43.60	0.23	2.428	47.47	0.23
1.455	29.12	0.24	2.303	44.19	0.23	2.457	48.11	0.23



1.472	29.48	0.24	2.331	44.79	0.23	2.487	48.81	0.23
1.489	29.86	0.24	2.358	45.41	0.23	2.516	49.50	0.23
1.506	30.19	0.24	2.386	46.00	0.23	2.546	50.16	0.23
1.523	30.59	0.24	2.413	46.59	0.23	2.575	50.80	0.23
1.540	30.93	0.24	2.441	47.22	0.23	2.605	51.43	0.23
1.557	31.36	0.24	2.468	47.82	0.23	2.634	52.14	0.23
1.574	31.75	0.24	2.496	48.47	0.23	2.664	52.86	0.23
1.591	32.12	0.24	2.523	49.06	0.23	2.693	53.58	0.23
1.608	32.49	0.24	2.551	49.64	0.23	2.722	54.23	0.23
1.625	32.87	0.24	2.578	50.32	0.23	2.752	54.92	0.23
1.642	33.27	0.24	2.606	50.93	0.23	2.781	55.56	0.23
1.658	33.63	0.24	2.633	51.51	0.23	2.811	56.27	0.23
1.675	34.03	0.24	2.661	52.19	0.23	2.840	56.97	0.23
1.692	34.44	0.24	2.689	52.84	0.23	2.870	57.65	0.23
1.709	34.78	0.24	2.716	53.47	0.23	2.899	58.31	0.23
1.726	35.17	0.24	2.744	54.10	0.23	2.929	58.96	0.23
1.743	35.55	0.24	2.771	54.75	0.23	2.958	59.70	0.23
1.760	35.97	0.24	2.799	55.36	0.23	2.988	60.38	0.23
1.777	36.37	0.24	2.826	56.02	0.23	3.017	61.06	0.23
1.794	36.77	0.24	2.854	56.64	0.23	3.047	61.77	0.23
1.811	37.13	0.24	2.881	57.33	0.23	3.076	62.51	0.23
1.828	37.54	0.24	2.909	58.02	0.23	3.106	63.19	0.23
1.845	37.93	0.24	2.936	58.67	0.23	3.135	63.89	0.23
1.862	38.35	0.24	2.964	59.34	0.23	3.164	64.64	0.23
1.879	38.72	0.24	2.991	60.01	0.23	3.194	65.38	0.23
1.896	39.11	0.24	3.019	60.70	0.23	3.223	66.10	0.23
1.913	39.55	0.24	3.047	61.35	0.23	3.253	66.81	0.23
1.929	39.95	0.24	3.074	62.11	0.23	3.282	67.55	0.23
1.946	40.34	0.24	3.102	62.75	0.23	3.312	68.31	0.23
1.963	40.72	0.24	3.129	63.42	0.23	3.341	69.05	0.23
1.980	41.15	0.24	3.157	64.12	0.23	3.371	69.82	0.23
1.997	41.58	0.24	3.184	64.85	0.23	3.400	70.59	0.23
2.014	41.92	0.24	3.212	65.54	0.23	3.430	71.38	0.23
2.031	42.33	0.24	3.239	66.22	0.23	3.459	72.16	0.23
2.048	42.74	0.24	3.267	66.99	0.23	3.489	72.93	0.23
2.065	43.13	0.24	3.294	67.69	0.23	3.518	73.67	0.23
2.082	43.56	0.24	3.322	68.38	0.23	3.548	74.50	0.23
2.099	43.99	0.24	3.349	69.09	0.23	3.577	75.31	0.23
2.116	44.38	0.24	3.377	69.78	0.23	3.606	76.10	0.23
2.133	44.75	0.24	3.405	70.49	0.23	3.636	76.93	0.23
2.150	45.22	0.24	3.432	71.24	0.23	3.665	77.69	0.23
2.167	45.58	0.24	3.460	71.96	0.23	3.695	78.49	0.23
2.184	46.00	0.24	3.487	72.74	0.23	3.724	79.27	0.23
2.201	46.44	0.24	3.515	73.51	0.23	3.754	80.06	0.23
2.217	46.80	0.24	3.542	74.21	0.23	3.783	80.91	0.23

2.234	47.22	0.24	3.570	74.91	0.23	3.813	81.71	0.23
2.251	47.60	0.24	3.597	75.68	0.23	3.842	82.57	0.23
2.268	48.05	0.24	3.625	76.42	0.23	3.872	83.36	0.23
2.285	48.42	0.24	3.652	77.17	0.23	3.901	84.19	0.23
2.302	48.83	0.24	3.680	78.02	0.23	3.931	85.04	0.23
2.319	49.27	0.24	3.707	78.77	0.23	3.960	85.85	0.23
2.336	49.68	0.24	3.735	79.50	0.23	3.989	86.70	0.23
2.353	50.08	0.24	3.763	80.24	0.23	4.019	87.62	0.23
2.370	50.47	0.24	3.790	81.08	0.23	4.048	88.46	0.23
2.387	50.90	0.24	3.818	81.86	0.23	4.078	89.25	0.23
2.404	51.31	0.24	3.845	82.66	0.23	4.107	90.13	0.23
2.421	51.74	0.24	3.873	83.45	0.23	4.137	90.96	0.23
2.438	52.18	0.24	3.900	84.24	0.23	4.166	91.93	0.23
2.455	52.53	0.24	3.928	84.99	0.23	4.196	92.76	0.23
2.472	52.97	0.24	3.955	85.80	0.23	4.225	93.58	0.23
2.488	53.39	0.24	3.983	86.69	0.23	4.255	94.46	0.23
2.505	53.79	0.24	4.010	87.44	0.23	4.284	95.41	0.23
2.522	54.20	0.24	4.038	88.31	0.23	4.314	96.23	0.23
2.539	54.63	0.24	4.065	89.13	0.23	4.343	97.20	0.23
2.556	55.09	0.24	4.093	89.93	0.23	4.373	98.12	0.23
2.573	55.48	0.24	4.121	90.81	0.23	4.402	99.10	0.23
2.590	55.88	0.24	4.148	91.64	0.23	4.431	100.03	0.23
2.607	56.32	0.24	4.176	92.48	0.23	4.461	100.93	0.23
2.624	56.71	0.24	4.203	93.36	0.23	4.490	101.88	0.23
2.641	57.14	0.24	4.231	94.19	0.23	4.520	102.81	0.23
2.658	57.58	0.24	4.258	95.08	0.23	4.549	103.72	0.24
2.675	58.01	0.24	4.286	95.94	0.23	4.579	104.68	0.24
2.692	58.41	0.24	4.313	96.82	0.23	4.608	105.62	0.24
2.709	58.87	0.24	4.341	97.73	0.23	4.638	106.62	0.24
2.726	59.28	0.24	4.368	98.61	0.23	4.667	107.55	0.24
2.743	59.68	0.24	4.396	99.53	0.24	4.697	108.49	0.24
2.760	60.06	0.24	4.423	100.42	0.24	4.726	109.49	0.24
2.776	60.51	0.24	4.451	101.35	0.24	4.756	110.50	0.24
2.793	60.94	0.24	4.478	102.30	0.24	4.785	111.48	0.24
2.810	61.34	0.24	4.506	103.21	0.24	4.815	112.52	0.24
2.827	61.81	0.24	4.534	104.16	0.24	4.844	113.55	0.24
2.844	62.23	0.24	4.561	105.04	0.24	4.873	114.46	0.24
2.861	62.62	0.24	4.589	106.02	0.24	4.903	115.48	0.24
2.878	63.01	0.24	4.616	107.03	0.24	4.932	116.50	0.24
2.895	63.40	0.24	4.644	107.93	0.24	4.962	117.55	0.24
2.912	63.84	0.24	4.671	108.90	0.24	4.991	118.66	0.24
2.929	64.30	0.24	4.699	109.87	0.24	5.021	119.68	0.24
2.946	64.72	0.24	4.726	110.88	0.24	5.050	120.71	0.24
2.963	65.12	0.24	4.754	111.89	0.24	5.080	121.82	0.24
2.980	65.51	0.24	4.781	112.92	0.24	5.109	122.84	0.24

2.997	65.91	0.24	4.809	113.96	0.24	5.139	123.96	0.24
3.014	66.34	0.24	4.836	114.98	0.24	5.168	125.04	0.24
3.031	66.77	0.24	4.864	116.00	0.24	5.198	126.17	0.24
3.048	67.20	0.24	4.892	117.06	0.24	5.227	127.27	0.24
3.064	67.64	0.24	4.919	118.05	0.24	5.257	128.39	0.24
3.081	68.06	0.24	4.947	119.16	0.24	5.286	129.48	0.24
3.098	68.54	0.24	4.974	120.18	0.24	5.315	130.65	0.24
3.115	68.96	0.24	5.002	121.37	0.24	5.345	131.82	0.24
3.132	69.37	0.24	5.029	122.43	0.24	5.374	132.94	0.24
3.149	69.80	0.24	5.057	123.50	0.24	5.404	134.12	0.24
3.166	70.28	0.24	5.084	124.57	0.24	5.433	135.29	0.24
3.183	70.69	0.24	5.112	125.68	0.24	5.463	136.46	0.24
3.200	71.12	0.24	5.139	126.85	0.24	5.492	137.72	0.24
3.217	71.57	0.24	5.167	127.97	0.24	5.522	138.94	0.24
3.234	71.98	0.24	5.194	129.18	0.24	5.551	140.14	0.24
3.251	72.42	0.24	5.222	130.30	0.24	5.581	141.34	0.24
3.268	72.89	0.24	5.250	131.58	0.24	5.610	142.62	0.24
3.285	73.29	0.24	5.277	132.76	0.24	5.640	143.88	0.24
3.302	73.78	0.24	5.305	133.92	0.24	5.669	145.11	0.24
3.319	74.16	0.24	5.332	135.12	0.24	5.699	146.41	0.24
3.335	74.62	0.24	5.360	136.42	0.24	5.728	147.74	0.24
3.352	75.06	0.24	5.387	137.63	0.25	5.757	149.06	0.24
3.369	75.49	0.24	5.415	138.89	0.25	5.787	150.32	0.24
3.386	75.95	0.24	5.442	140.19	0.25	5.816	151.67	0.24
3.403	76.40	0.24	5.470	141.49	0.25	5.846	152.99	0.24
3.420	76.86	0.24	5.497	142.85	0.25	5.875	154.38	0.25
3.437	77.25	0.24	5.525	144.17	0.25	5.905	155.70	0.25
3.454	77.75	0.24	5.552	145.63	0.25	5.934	157.08	0.25
3.471	78.16	0.24	5.580	147.01	0.24	5.964	158.48	0.25
6.770	807.22	0.97	5.594	147.72	0.24	5.993	159.88	0.25
6.786	807.85	0.97	5.624	149.22	0.24	6.023	161.29	0.25
6.803	808.41	0.97	5.641	150.09	0.24	6.052	162.87	0.25
6.820	808.91	0.96	5.658	150.96	0.24	6.082	164.30	0.25
6.836	809.47	0.96	8.401	737.66	0.49	6.111	165.81	0.25
6.853	809.96	0.96	8.410	738.15	0.48	6.141	167.29	0.25
6.870	810.52	0.95	8.423	738.72	0.48	6.170	168.76	0.25
6.886	811.03	0.95	8.435	739.21	0.48	6.199	170.27	0.25
6.903	811.56	0.95	8.446	739.69	0.48	6.229	171.79	0.25
6.919	812.13	0.94	8.460	740.26	0.48	6.258	173.35	0.25
6.936	812.65	0.94	8.496	741.73	0.47	6.288	174.95	0.25
6.953	813.16	0.94	8.509	742.38	0.47	6.317	176.52	0.25
6.969	813.67	0.93	8.532	743.19	0.46	6.347	178.19	0.25
6.986	814.09	0.93	8.557	744.01	0.46	6.376	179.82	0.25
7.003	814.57	0.93	8.571	744.58	0.45	6.406	181.51	0.25
7.019	815.05	0.92	8.582	744.98	0.45	6.435	183.19	0.25

7.036	815.53	0.92	8.591	745.31	0.45	6.465	184.95	0.25
7.052	815.98	0.92	8.598	745.64	0.45	6.494	186.71	0.25
7.069	816.46	0.91	8.602	745.96	0.45	6.524	188.50	0.25
7.086	816.90	0.91	8.610	746.29	0.45	6.553	190.27	0.25
7.102	817.43	0.91	8.617	746.61	0.45	6.582	192.08	0.25
7.119	817.86	0.90	8.626	747.02	0.45	6.612	193.97	0.26
7.136	818.39	0.90	8.637	747.51	0.44	6.641	195.83	0.26
7.152	818.81	0.90	8.647	747.92	0.44	6.671	197.79	0.26
7.169	819.21	0.89	8.660	748.49	0.44	6.700	199.74	0.26
7.185	819.65	0.89	8.675	749.06	0.44	6.730	201.72	0.26
7.202	820.14	0.89	8.690	749.63	0.43	6.759	203.82	0.26
7.219	820.57	0.88	8.706	750.20	0.43	6.789	205.93	0.26
7.235	821.02	0.88	8.722	750.68	0.43	6.818	208.14	0.26
7.252	821.43	0.88	8.733	751.09	0.43	6.848	210.26	0.26
7.268	821.83	0.87	8.742	751.50	0.42	6.877	212.53	0.26
7.285	822.23	0.87	8.750	751.82	0.42	6.907	214.90	0.26
7.302	822.68	0.87	8.757	752.15	0.42	6.936	217.37	0.26
7.318	823.07	0.86	8.766	752.56	0.42	6.966	219.72	0.26
7.335	823.48	0.86	8.777	752.96	0.42	6.995	222.22	0.26
7.352	823.90	0.86	8.792	753.53	0.42	7.024	224.72	0.27
7.368	824.37	0.85	8.807	754.02	0.41	7.054	227.23	0.27
7.385	824.76	0.85	8.822	754.59	0.41	7.083	229.74	0.27
7.401	825.16	0.85	8.825	754.70	0.41	7.113	232.34	0.27
7.418	825.60	0.84	8.841	755.23	0.41	7.142	234.99	0.27
7.435	826.01	0.84	8.857	755.76	0.41	7.172	237.87	0.27
7.451	826.43	0.84	8.872	756.27	0.40	8.095	594.70	0.50
7.468	826.74	0.83	8.888	756.78	0.40	8.111	596.17	0.50
7.485	827.14	0.83	8.903	757.40	0.40	8.127	597.64	0.50
7.501	827.53	0.83	8.919	757.94	0.40	8.143	599.11	0.50
7.518	827.96	0.83	8.935	758.61	0.40	8.159	600.58	0.50
7.534	828.34	0.82	8.950	759.06	0.39	8.174	602.04	0.50
7.551	828.70	0.82	8.966	759.65	0.39	8.190	603.51	0.49
7.568	829.06	0.82	8.981	760.13	0.39	8.206	604.98	0.49
7.584	829.41	0.81	8.997	760.71	0.39	8.222	606.45	0.49
7.601	829.84	0.81	9.013	761.27	0.39	8.238	607.92	0.49
7.618	830.20	0.81	9.028	761.80	0.39	8.254	609.39	0.49
7.634	830.55	0.80	9.044	762.29	0.38	8.270	610.86	0.49
7.651	830.89	0.80	9.059	762.83	0.38	8.286	612.33	0.49
7.667	831.24	0.80	9.075	763.36	0.38	8.302	613.79	0.49
7.684	831.57	0.79	9.091	763.93	0.38	8.318	615.26	0.49
7.701	831.99	0.79	9.106	764.48	0.38	8.333	616.73	0.48
7.717	832.29	0.79	9.122	764.94	0.38	8.349	618.62	0.48
7.734	832.64	0.78	9.138	765.42	0.38	8.365	620.75	0.48
7.750	833.03	0.78	9.153	765.89	0.38	8.381	622.64	0.48
7.767	833.34	0.78	9.169	766.34	0.37	8.397	624.38	0.48

7.784	833.71	0.77	9.184	766.84	0.37	8.413	625.98	0.48
7.800	834.06	0.77	9.200	767.31	0.37	8.429	627.58	0.48
7.817	834.44	0.77	9.216	767.77	0.37	8.445	629.39	0.48
7.834	834.83	0.76	9.231	768.25	0.37	8.461	631.33	0.48
7.850	835.23	0.76	9.247	768.72	0.37	8.476	633.19	0.48
7.867	835.56	0.76	9.262	769.20	0.37	8.492	634.81	0.48
7.883	835.89	0.75	9.278	769.67	0.37	8.508	636.34	0.47
7.900	836.28	0.75	9.294	770.12	0.37	8.524	637.94	0.47
7.917	836.66	0.75	9.309	770.55	0.37	8.540	639.71	0.47
7.933	837.02	0.74	9.325	770.98	0.37	8.556	641.54	0.47
7.950	837.33	0.74	9.340	771.39	0.37	8.572	643.20	0.47
7.967	837.69	0.74	9.356	771.88	0.37	8.588	644.90	0.47
7.983	838.02	0.74	9.372	772.33	0.37	8.604	646.60	0.47
8.000	838.41	0.73	9.387	772.77	0.36	8.620	648.20	0.47
8.016	838.70	0.73	9.403	773.21	0.36	8.635	649.72	0.47
8.033	838.99	0.73	9.418	773.67	0.36	8.651	651.16	0.47
8.050	839.37	0.72	9.434	774.03	0.36	8.667	652.69	0.46
8.066	839.67	0.72	9.450	774.48	0.36	8.683	654.09	0.46
8.083	840.02	0.72	9.465	774.95	0.36	8.699	655.53	0.46
8.100	840.39	0.71	9.481	775.39	0.36	8.715	656.99	0.46
8.116	840.71	0.71	9.496	775.82	0.36	8.731	658.38	0.46
8.133	841.01	0.71	9.512	776.22	0.36	8.747	659.80	0.46
8.149	841.37	0.70	9.528	776.63	0.36	8.763	661.24	0.46
8.166	841.69	0.70	9.543	777.06	0.36	8.778	662.63	0.46
8.183	841.99	0.70	9.559	777.48	0.36	8.794	663.79	0.45
8.199	842.30	0.69	9.575	777.85	0.36	8.810	665.15	0.45
8.216	842.60	0.69	9.590	778.29	0.36	8.826	666.45	0.45
8.232	842.91	0.69	9.606	778.70	0.36	8.842	667.77	0.45
8.249	843.30	0.68	9.621	779.06	0.36	8.858	669.12	0.45
8.266	843.58	0.68	9.637	779.41	0.36	8.874	670.28	0.45
8.282	843.87	0.68	9.653	779.75	0.36	8.890	671.52	0.45
8.299	844.24	0.67	9.668	780.19	0.36	8.906	672.69	0.45
8.316	844.57	0.67	9.684	780.64	0.36	8.922	673.83	0.45
8.332	844.88	0.67	9.699	781.02	0.36	8.937	674.91	0.45
8.349	845.19	0.66	9.715	781.39	0.36	8.953	676.05	0.45
8.365	845.50	0.66	9.731	781.76	0.36	8.969	677.14	0.44
8.382	845.82	0.66	9.746	782.15	0.36	8.985	678.25	0.44
8.399	846.14	0.65	9.762	782.57	0.36	9.001	679.34	0.44
8.415	846.45	0.65	9.777	783.01	0.36	9.017	680.34	0.44
8.432	846.76	0.65	9.793	783.44	0.36	9.033	681.38	0.44
8.449	847.08	0.64	9.809	783.89	0.36	9.049	682.51	0.44
8.465	847.40	0.64	9.824	784.32	0.36	9.065	683.52	0.44
8.482	847.72	0.64	9.840	784.71	0.36	9.080	684.50	0.44
8.498	848.04	0.63	9.855	785.09	0.36	9.096	685.50	0.44
8.515	848.36	0.63	9.871	785.43	0.36	9.112	686.47	0.44

8.532	848.67	0.63	9.887	785.78	0.36	9.128	687.45	0.44
8.548	848.97	0.63	9.902	786.21	0.36	9.144	688.38	0.44
8.565	849.25	0.62	9.918	786.55	0.36	9.160	689.25	0.44
8.582	849.53	0.62	9.933	786.94	0.36	9.176	690.12	0.44
8.598	849.83	0.62	9.949	787.32	0.36	9.192	690.99	0.44
8.615	850.17	0.61	9.965	787.69	0.36	9.208	691.89	0.44
8.631	850.44	0.61	9.980	788.05	0.35	9.224	692.81	0.44
8.648	850.78	0.61	9.996	788.46	0.35	9.239	693.68	0.44
8.665	851.04	0.60	10.012	788.80	0.35	9.255	694.60	0.44
8.681	851.30	0.60	10.027	789.13	0.35	9.271	695.53	0.44
8.698	851.64	0.60	10.043	789.47	0.35	9.287	696.37	0.44
8.714	851.90	0.59	10.058	789.81	0.35	9.303	697.15	0.44
8.731	852.24	0.59	10.074	790.16	0.35	9.319	697.92	0.44
8.748	852.49	0.59	10.090	790.55	0.35	9.335	698.74	0.44
8.764	852.74	0.59	10.105	790.93	0.35	9.351	699.54	0.44
8.781	853.07	0.58	10.121	791.28	0.35	9.367	700.36	0.44
8.798	853.34	0.58	10.136	791.64	0.35	9.382	701.10	0.44
8.814	853.65	0.58	10.152	792.00	0.35	9.398	701.84	0.44
8.831	853.90	0.57	10.168	792.36	0.35	9.414	702.63	0.44
8.847	854.14	0.57	10.183	792.74	0.35	9.430	703.35	0.44
8.864	854.41	0.57	10.199	793.15	0.35	9.446	704.11	0.44
8.881	854.73	0.57	10.214	793.44	0.35	9.462	704.77	0.44
8.897	854.99	0.56	10.230	793.72	0.35	9.478	705.51	0.44
8.914	855.25	0.56	10.246	794.06	0.35	9.494	706.29	0.44
8.931	855.56	0.56	10.261	794.46	0.35	9.510	706.97	0.44
8.947	855.82	0.56	10.277	794.79	0.35	9.526	707.72	0.44
8.964	856.09	0.56	10.292	795.11	0.35	9.541	708.39	0.44
8.980	856.43	0.56	10.308	795.42	0.35	9.557	709.11	0.44
8.997	856.70	0.55	10.324	795.83	0.35	9.573	709.75	0.44
9.014	856.96	0.55	10.339	796.12	0.35	9.589	710.38	0.44
9.030	857.22	0.55	10.355	796.52	0.35	9.605	710.96	0.44
9.047	857.46	0.55	10.370	796.86	0.35	9.621	711.59	0.44
9.064	857.79	0.55	10.386	797.12	0.35	9.637	712.24	0.44
9.080	858.05	0.55	10.402	797.45	0.35	9.653	712.87	0.44
9.097	858.33	0.54	10.417	797.78	0.35	9.669	713.55	0.44
9.113	858.57	0.54	10.433	798.09	0.35	9.684	714.12	0.44
9.130	858.80	0.54	10.449	798.42	0.35	9.700	714.76	0.44
9.147	859.05	0.54	10.464	798.78	0.35	9.716	715.39	0.44
9.163	859.33	0.54	10.480	799.10	0.35	9.732	716.01	0.44
9.180	859.66	0.54	10.495	799.40	0.35	9.748	716.60	0.44
9.197	859.92	0.54	10.511	799.74	0.35	9.764	717.14	0.44
9.213	860.20	0.54	10.527	800.04	0.35	9.780	717.70	0.44
9.230	860.47	0.54	10.542	800.37	0.35	9.796	718.28	0.44
9.246	860.73	0.54	10.558	800.72	0.35	9.812	718.86	0.44
9.263	861.00	0.54	10.573	801.01	0.35	9.828	719.40	0.44

9.280	861.25	0.53	10.589	801.28	0.35	9.843	719.93	0.44
9.296	861.49	0.53	10.605	801.58	0.35	9.859	720.43	0.44
9.313	861.82	0.53	10.620	801.89	0.35	9.875	720.97	0.44
9.329	862.05	0.53	10.636	802.22	0.35	9.891	721.51	0.44
9.346	862.29	0.53	10.651	802.53	0.35	9.907	721.96	0.44
9.363	862.59	0.53	10.667	802.83	0.35	9.923	722.42	0.44
9.379	862.85	0.53	10.683	803.15	0.35	9.939	723.02	0.44
9.396	863.08	0.53	10.698	803.47	0.35	9.955	723.70	0.44
9.413	863.31	0.53	10.714	803.76	0.35	9.971	724.36	0.44
9.429	863.62	0.53	10.729	804.05	0.35	9.986	725.03	0.44
9.446	863.84	0.53	10.745	804.37	0.35	10.002	725.71	0.44
9.462	864.13	0.53	10.761	804.68	0.35	10.018	726.37	0.44
9.479	864.37	0.53	10.776	804.97	0.35	10.034	727.05	0.44
9.496	864.60	0.53	10.792	805.33	0.35	10.050	727.68	0.44
9.512	864.90	0.53	10.807	805.61	0.35	10.066	728.30	0.44
9.529	865.11	0.53	10.823	805.89	0.35	10.082	729.04	0.44
9.546	865.38	0.53	10.839	806.19	0.35	10.098	729.66	0.44
9.562	865.62	0.53	10.854	806.51	0.35	10.114	730.09	0.44
9.579	865.90	0.53	10.870	806.81	0.35	10.129	730.55	0.44
9.595	866.13	0.53	10.886	807.09	0.35	10.145	730.95	0.44
9.612	866.37	0.53	10.901	807.43	0.35	10.161	731.38	0.44
9.629	866.63	0.53	10.917	807.73	0.35	10.177	731.96	0.44
9.645	866.92	0.52	10.932	808.01	0.35	10.193	732.53	0.44
9.662	867.14	0.52	10.948	808.27	0.35	10.209	733.00	0.44
9.679	867.42	0.52	10.964	808.60	0.35	10.225	733.41	0.44
9.695	867.69	0.52	10.979	808.90	0.35	10.241	733.88	0.44
9.712	867.91	0.52	10.995	809.17	0.35	10.257	734.41	0.44
9.728	868.14	0.52	11.010	809.43	0.35	10.273	734.93	0.44
9.745	868.40	0.52	11.026	809.70	0.35	10.288	735.39	0.44
9.762	868.62	0.52	11.042	809.97	0.35	10.304	735.85	0.44
9.778	868.86	0.52	11.057	810.23	0.35	10.320	736.38	0.44
9.795	869.13	0.52	11.073	810.54	0.35	10.336	736.91	0.44
9.811	869.34	0.52	11.088	810.84	0.35	10.352	737.39	0.44
9.828	869.63	0.52	11.104	811.12	0.35	10.368	737.86	0.44
9.845	869.86	0.52	11.120	811.36	0.35	10.384	738.40	0.44
9.861	870.11	0.52	11.135	811.62	0.35	10.400	738.91	0.44
9.878	870.30	0.52	11.151	811.89	0.35	10.416	739.41	0.44
9.895	870.56	0.52	11.166	812.11	0.35	10.431	739.86	0.44
9.911	870.80	0.52	11.182	812.45	0.35	10.447	740.33	0.44
9.928	871.03	0.52	11.198	812.73	0.35	10.463	740.89	0.44
9.944	871.25	0.52	11.213	813.01	0.35	10.479	741.38	0.44
9.961	871.44	0.52	11.229	813.31	0.35	10.495	741.81	0.45
9.978	871.71	0.52	11.244	813.57	0.35	10.511	742.27	0.45
9.994	871.99	0.52	11.260	813.85	0.35	10.527	742.75	0.45
10.011	872.20	0.52	11.276	814.14	0.35	10.543	743.25	0.45

10.028	872.44	0.52	11.291	814.33	0.35	10.559	743.71	0.45
10.044	872.63	0.52	11.307	814.64	0.35	10.575	744.14	0.45
10.061	872.89	0.52	11.323	814.92	0.35	10.590	744.62	0.45
10.077	873.11	0.52	11.338	815.13	0.35	10.606	745.14	0.45
10.094	873.32	0.52	11.354	815.35	0.35	10.622	745.63	0.45
10.111	873.54	0.52	11.369	815.60	0.35	10.638	746.08	0.45
10.127	873.76	0.52	11.385	815.85	0.35	10.654	746.54	0.45
10.144	873.97	0.52	11.401	816.14	0.35	10.670	747.00	0.45
10.161	874.22	0.52	11.416	816.39	0.35	10.686	747.49	0.45
10.177	874.41	0.52	11.432	816.73	0.35	10.702	747.91	0.45
10.194	874.67	0.52	11.447	816.98	0.35	10.718	748.37	0.45
10.210	874.85	0.52	11.463	817.28	0.35	10.733	748.83	0.45
10.227	875.11	0.52	11.479	817.49	0.35	10.749	749.28	0.45
10.244	875.32	0.52	11.494	817.78	0.35	10.765	749.72	0.45
10.260	875.52	0.52	11.510	818.07	0.35	10.781	750.15	0.45
10.277	875.75	0.52	11.525	818.32	0.35	10.797	750.58	0.45
10.293	875.97	0.52	11.541	818.58	0.35	10.813	751.00	0.45
10.310	876.15	0.52	11.557	818.84	0.35	10.829	751.45	0.45
10.327	876.37	0.52	11.572	819.08	0.35	10.845	751.87	0.45
10.343	876.55	0.52	11.588	819.35	0.35	10.861	752.26	0.45
10.360	876.79	0.52	11.603	819.62	0.35	10.877	752.67	0.45
10.377	877.00	0.52	11.619	819.87	0.35	10.892	753.09	0.45
10.393	877.18	0.52	11.635	820.14	0.35	10.908	753.52	0.45
10.410	877.41	0.52	11.650	820.39	0.35	10.924	753.92	0.45
10.426	877.65	0.52	11.666	820.63	0.35	10.940	754.30	0.45
10.443	877.87	0.52	11.681	820.94	0.35	10.956	754.70	0.45
10.460	878.10	0.52	11.697	821.22	0.35	10.972	755.16	0.45
10.476	878.32	0.52	11.713	821.46	0.35	10.988	755.57	0.45
10.493	878.47	0.52	11.728	821.71	0.35	11.004	755.95	0.45
10.510	878.66	0.52	11.744	821.95	0.35	11.020	756.32	0.45
10.526	878.83	0.52	11.759	822.22	0.35	11.035	756.70	0.45
10.543	879.07	0.52	11.775	822.48	0.35	11.051	757.12	0.45
10.559	879.27	0.52	11.791	822.70	0.35	11.067	757.53	0.45
10.576	879.48	0.52	11.806	822.94	0.35	11.083	757.96	0.45
10.593	879.71	0.52	11.822	823.18	0.35	11.099	758.38	0.45
10.609	879.96	0.52	11.838	823.43	0.35	11.115	758.74	0.45
10.626	880.17	0.52	11.853	823.67	0.35	11.131	759.17	0.45
10.643	880.35	0.52	11.869	823.91	0.35	11.147	759.55	0.45
10.659	880.60	0.52	11.884	824.26	0.35	11.163	759.95	0.45
10.676	880.78	0.52	11.900	824.64	0.35	11.179	760.35	0.45
10.692	881.00	0.52	11.916	824.84	0.35	11.194	760.71	0.45
10.709	881.18	0.52	11.931	825.16	0.35	11.210	761.15	0.45
10.726	881.42	0.52	11.947	825.37	0.35	11.226	761.51	0.45
10.742	881.67	0.52	11.962	825.65	0.35	11.242	761.94	0.45
10.759	881.89	0.52	11.978	825.93	0.35	11.258	762.33	0.45



10.775	882.09	0.52	11.994	826.20	0.35	11.274	762.69	0.45
10.792	882.26	0.52	12.009	826.46	0.35	11.290	763.12	0.45
10.809	882.51	0.52	12.025	826.71	0.35	11.306	763.47	0.45
10.825	882.71	0.52	12.040	826.95	0.35	11.322	763.85	0.45
10.842	882.93	0.52	12.056	827.13	0.35	11.337	764.23	0.45
10.859	883.12	0.52	12.072	827.40	0.35	11.353	764.67	0.45
10.875	883.37	0.52	12.087	827.66	0.35	11.369	765.03	0.45
10.892	883.55	0.52	12.103	827.89	0.35	11.385	765.40	0.45
10.908	883.77	0.52	12.118	828.14	0.35	11.401	765.79	0.45
10.925	884.00	0.52	12.134	828.40	0.35	11.417	766.13	0.45
10.942	884.14	0.52	12.150	828.66	0.35	11.433	766.49	0.45
10.958	884.36	0.52	12.165	828.92	0.35	11.449	766.91	0.45
10.975	884.58	0.52	12.181	829.17	0.35	11.465	767.25	0.45
10.992	884.81	0.52	12.196	829.44	0.35	11.481	767.65	0.45
11.008	885.00	0.52	12.212	829.66	0.35	11.496	768.02	0.45
11.025	885.16	0.52	12.228	829.91	0.35	11.512	768.40	0.45
11.041	885.36	0.52	12.243	830.15	0.35	11.528	768.80	0.45
11.058	885.58	0.52	12.259	830.39	0.35	11.544	769.15	0.45
11.075	885.80	0.52	12.275	830.63	0.35	11.560	769.51	0.45
11.091	886.01	0.52	12.290	830.84	0.35	11.576	769.87	0.45
11.108	886.21	0.52	12.306	831.11	0.35	11.592	770.22	0.45
11.125	886.42	0.52	12.321	831.39	0.35	11.608	770.56	0.46
11.141	886.63	0.52	12.337	831.62	0.35	11.624	770.92	0.46
11.158	886.84	0.52	12.353	831.82	0.35	11.639	771.29	0.46
11.174	887.04	0.52	12.368	832.08	0.35	11.655	771.65	0.46
11.191	887.25	0.52	12.384	832.30	0.35	11.671	772.02	0.46
11.208	887.46	0.52	12.399	832.51	0.35	11.687	772.37	0.46
11.224	887.67	0.52	12.415	832.72	0.35	11.703	772.68	0.46
11.241	887.87	0.52	12.431	832.94	0.35	11.719	773.06	0.46
11.257	888.05	0.52	12.446	833.16	0.35	11.735	773.41	0.46
11.274	888.31	0.52	12.462	833.44	0.35	11.751	773.75	0.46
11.291	888.48	0.52	12.477	833.69	0.35	11.767	774.12	0.46
11.307	888.66	0.52	12.493	833.91	0.35	11.783	774.45	0.46
11.324	888.84	0.52	12.509	834.14	0.35	11.798	774.78	0.46
11.341	889.03	0.52	12.524	834.37	0.35	11.814	775.13	0.46
11.357	889.23	0.52	12.540	834.60	0.35	11.830	775.48	0.46
11.374	889.41	0.52	12.555	834.82	0.35	11.846	775.80	0.46
11.390	889.67	0.52	12.571	835.02	0.35	11.862	776.13	0.46
11.407	889.86	0.52	12.587	835.28	0.35	11.878	776.47	0.46
11.424	890.06	0.52	12.602	835.52	0.35	11.894	776.82	0.46
11.440	890.23	0.52	12.618	835.73	0.35	11.910	777.16	0.46
11.457	890.41	0.52	12.633	835.91	0.35	11.926	777.48	0.46
11.474	890.62	0.52	12.649	836.16	0.35	11.941	777.82	0.46
11.490	890.84	0.52	12.665	836.40	0.35	11.957	778.13	0.46
11.507	891.02	0.52	12.680	836.62	0.35	11.973	778.46	0.46

11.523	891.20	0.52	12.696	836.83	0.35	11.989	778.82	0.46
11.540	891.36	0.52	12.712	837.08	0.35	12.005	779.14	0.46
11.557	891.54	0.52	12.727	837.28	0.35	12.021	779.47	0.46
11.573	891.72	0.52	12.743	837.47	0.35	12.037	779.76	0.46
11.590	891.91	0.52	12.758	837.68	0.35	12.053	780.14	0.46
11.607	892.15	0.52	12.774	837.94	0.35	12.069	780.43	0.46
11.623	892.32	0.52	12.790	838.15	0.35	12.085	780.77	0.46
11.640	892.49	0.52	12.805	838.35	0.35	12.100	781.08	0.46
11.656	892.66	0.52	12.821	838.59	0.35	12.116	781.37	0.46
11.673	892.89	0.52	12.836	838.83	0.35	12.132	781.70	0.46
11.690	893.05	0.52	12.852	839.05	0.35	12.148	782.03	0.46
11.706	893.23	0.52	12.868	839.27	0.35	12.164	782.37	0.46
11.723	893.47	0.52	12.883	839.50	0.35	12.180	782.66	0.46
11.739	893.64	0.52	12.899	839.75	0.35	12.196	783.01	0.46
11.756	893.80	0.52	12.914	839.94	0.35	12.212	783.33	0.46
11.773	893.97	0.52	12.930	840.16	0.35	12.228	783.64	0.46
11.789	894.20	0.52	12.946	840.37	0.35	12.243	783.93	0.46
11.806	894.37	0.52	12.961	840.55	0.35	12.259	784.26	0.46
11.823	894.54	0.52	12.977	840.78	0.35	12.275	784.56	0.46
11.839	894.76	0.52	12.992	841.00	0.35	12.291	784.85	0.46
11.856	894.92	0.52	13.008	841.21	0.35	12.307	785.18	0.46
11.872	895.08	0.52	13.024	841.43	0.35	12.323	785.53	0.46
11.889	895.32	0.52	13.039	841.63	0.35	12.339	785.83	0.46
11.906	895.47	0.52	13.055	841.82	0.35	12.355	786.11	0.46
11.922	895.62	0.52	13.070	842.06	0.35	12.371	786.40	0.46
11.939	895.83	0.52	13.086	842.24	0.35	12.387	786.70	0.46
11.956	896.00	0.52	13.102	842.42	0.35	12.402	787.01	0.46
11.972	896.18	0.52	13.117	842.63	0.35	12.418	787.33	0.46
11.989	896.37	0.52	13.133	842.84	0.35	12.434	787.63	0.46
12.005	896.52	0.52	13.149	843.05	0.35	12.450	787.92	0.46
12.022	896.69	0.52	13.164	843.23	0.35	12.466	788.22	0.46
12.039	896.89	0.52	13.180	843.45	0.35	12.482	788.53	0.46
12.055	897.04	0.52	13.195	843.65	0.35	12.498	788.81	0.46
12.072	897.19	0.52	13.211	843.80	0.35	12.514	789.08	0.46
12.089	897.40	0.52	13.227	844.01	0.35	12.530	789.37	0.46
12.105	897.56	0.52	13.242	844.21	0.35	12.545	789.67	0.46
12.122	897.75	0.52	13.258	844.41	0.35	12.561	790.02	0.46
12.138	897.93	0.52	13.273	844.59	0.35	12.577	790.33	0.46
12.155	898.09	0.52	13.289	844.76	0.35	12.593	790.59	0.46
12.172	898.28	0.52	13.305	844.95	0.35	12.609	790.90	0.46
12.188	898.43	0.52	13.320	845.14	0.35	12.625	791.21	0.46
12.205	898.58	0.52	13.336	845.32	0.35	12.641	791.51	0.46
12.221	898.74	0.52	13.351	845.51	0.35	12.657	791.77	0.46
12.238	898.90	0.52	13.367	845.72	0.35	12.673	792.02	0.46
12.255	899.08	0.52	13.383	845.92	0.35	12.689	792.34	0.46

12.271	899.26	0.52	13.398	846.12	0.35	12.704	792.59	0.46
12.288	899.44	0.52	13.414	846.31	0.35	12.720	792.91	0.46
12.305	899.60	0.52	13.429	846.49	0.35	12.736	793.20	0.46
12.321	899.72	0.52	13.445	846.68	0.35	12.752	793.50	0.46
12.338	899.89	0.52	13.461	846.87	0.35	12.768	793.79	0.46
12.354	900.06	0.52	13.476	847.06	0.35	12.784	794.04	0.46
12.371	900.22	0.52	13.492	847.23	0.35	12.800	794.34	0.46
12.388	900.36	0.52	13.507	847.39	0.35	12.816	794.56	0.46
12.404	900.58	0.52	13.523	847.58	0.35	12.832	794.84	0.46
12.421	900.73	0.52	13.539	847.77	0.35	12.847	795.15	0.46
12.438	900.92	0.52	13.554	847.98	0.35	12.863	795.43	0.46
12.454	901.12	0.52	13.570	848.17	0.35	12.879	795.71	0.46
12.471	901.28	0.52	13.586	848.36	0.35	12.895	795.98	0.46
12.487	901.43	0.52	13.601	848.51	0.35	12.911	796.24	0.46
12.504	901.63	0.52	13.617	848.68	0.35	12.927	796.57	0.47
12.521	901.82	0.52	13.632	848.91	0.35	12.943	796.85	0.47
12.537	901.96	0.52	13.648	849.10	0.35	12.959	797.10	0.47
12.554	902.16	0.52	13.664	849.25	0.35	12.975	797.37	0.47
12.571	902.29	0.52	13.679	849.41	0.35	12.991	797.66	0.47
12.587	902.49	0.52	13.695	849.57	0.35	13.006	797.96	0.47
12.604	902.64	0.52	13.710	849.73	0.35	13.022	798.21	0.47
12.620	902.86	0.52	13.726	849.92	0.35	13.038	798.47	0.47
12.637	903.03	0.52	13.742	850.07	0.35	13.054	798.74	0.47
12.654	903.18	0.52	13.757	850.31	0.35	13.070	799.01	0.47
12.670	903.31	0.52	13.773	850.47	0.35	13.086	799.28	0.47
12.687	903.51	0.52	13.788	850.65	0.35	13.102	799.52	0.47
12.703	903.63	0.52	13.804	850.89	0.35	13.118	799.78	0.47
12.720	903.84	0.52	13.820	851.08	0.35	13.134	800.05	0.47
12.737	904.01	0.52	13.835	851.23	0.35	13.149	800.32	0.47
12.753	904.15	0.52	13.851	851.43	0.35	13.165	800.59	0.47
12.770	904.37	0.52	13.866	851.62	0.35	13.181	800.86	0.47
12.787	904.52	0.52	13.882	851.82	0.36	13.197	801.12	0.47
12.803	904.71	0.52	13.898	852.02	0.36	13.213	801.40	0.47
12.820	904.89	0.52	13.913	852.22	0.36	13.229	801.66	0.47
12.836	905.05	0.52	13.929	852.35	0.36	13.245	801.92	0.47
12.853	905.19	0.52	13.944	852.56	0.36	13.261	802.18	0.47
12.870	905.33	0.52	13.960	852.75	0.36	13.277	802.43	0.47
12.886	905.50	0.52	13.976	852.93	0.36	13.293	802.69	0.47
12.903	905.69	0.52	13.991	853.12	0.36	13.308	802.95	0.47
12.920	905.83	0.52	14.007	853.30	0.36	13.324	803.20	0.47
12.936	905.99	0.52	14.023	853.48	0.36	13.340	803.44	0.47
12.953	906.16	0.52	14.038	853.66	0.36	13.356	803.69	0.47
12.969	906.36	0.52	14.054	853.83	0.36	13.372	803.94	0.47
12.986	906.53	0.52	14.069	853.95	0.36	13.388	804.19	0.47
13.003	906.70	0.52	14.085	854.17	0.36	13.404	804.45	0.47

13.019	906.82	0.52	14.101	854.40	0.36	13.420	804.73	0.47
13.036	907.02	0.52	14.116	854.62	0.36	13.436	804.96	0.47
13.053	907.17	0.52	14.132	854.83	0.36	13.451	805.25	0.47
13.069	907.33	0.52	14.147	855.02	0.36	13.467	805.51	0.47
13.086	907.47	0.52	14.163	855.21	0.36	13.483	805.81	0.47
13.102	907.63	0.52	14.179	855.36	0.36	13.499	806.05	0.47
13.119	907.78	0.52	14.194	855.60	0.36	13.515	806.30	0.47
13.136	907.96	0.52	14.210	855.80	0.36	13.531	806.54	0.47
13.152	908.15	0.52	14.225	855.95	0.36	13.547	806.78	0.47
13.169	908.29	0.52	14.241	856.16	0.36	13.563	807.00	0.47
13.185	908.43	0.52	14.257	856.36	0.36	13.579	807.30	0.47
13.202	908.62	0.52	14.272	856.56	0.36	13.595	807.56	0.47
13.219	908.80	0.52	14.288	856.72	0.36	13.610	807.80	0.47
13.235	908.93	0.52	14.303	856.89	0.36	13.626	808.02	0.47
13.252	909.13	0.52	14.319	857.10	0.36	13.642	808.24	0.47
13.269	909.25	0.52	14.335	857.28	0.36	13.658	808.48	0.47
13.285	909.43	0.52	14.350	857.43	0.36	13.674	808.71	0.47
13.302	909.60	0.52	14.366	857.62	0.36	13.690	808.97	0.47
13.318	909.72	0.52	14.381	857.83	0.36	13.706	809.22	0.47
13.335	909.90	0.52	14.397	858.02	0.36	13.722	809.47	0.47
13.352	910.09	0.52	14.413	858.20	0.36	13.738	809.72	0.47
13.368	910.23	0.52	14.428	858.39	0.36	13.753	809.95	0.47
13.385	910.40	0.52	14.444	858.59	0.36	13.769	810.17	0.47
13.402	910.58	0.52	14.460	858.77	0.36	13.785	810.38	0.47
13.418	910.71	0.52	14.475	858.95	0.36	13.801	810.65	0.47
13.435	910.91	0.52	14.491	859.13	0.36	13.817	810.89	0.47
13.451	911.04	0.52	14.506	859.32	0.36	13.833	811.11	0.47
13.468	911.21	0.52	14.522	859.50	0.36	13.849	811.37	0.47
13.485	911.40	0.52	14.538	859.68	0.36	13.865	811.62	0.47
13.501	911.56	0.52	14.553	859.87	0.36	13.881	811.84	0.47
13.518	911.66	0.52	14.569	860.07	0.36	13.897	812.08	0.47
13.535	911.83	0.52	14.584	860.22	0.36	13.912	812.36	0.47
13.551	912.01	0.52	14.600	860.37	0.36	13.928	812.63	0.47
13.568	912.17	0.52	14.616	860.63	0.36	13.944	812.85	0.47
13.584	912.29	0.52	14.631	860.82	0.36	13.960	813.06	0.47
13.601	912.41	0.52	14.647	860.93	0.36	13.976	813.31	0.47
13.618	912.57	0.52	14.662	861.20	0.36	13.992	813.55	0.47
13.634	912.75	0.52	14.678	861.40	0.36	14.008	813.76	0.47
13.651	912.92	0.52	14.694	861.54	0.36	14.024	813.98	0.47
13.667	913.10	0.52	14.709	861.74	0.36	14.040	814.23	0.47
13.684	913.28	0.52	14.725	861.93	0.36	14.055	814.47	0.47
13.701	913.44	0.52	14.740	862.09	0.36	14.071	814.70	0.47
13.717	913.54	0.52	14.756	862.27	0.36	14.087	814.94	0.47
13.734	913.72	0.52	14.772	862.48	0.36	14.103	815.15	0.47
13.751	913.88	0.53	14.787	862.62	0.36	14.119	815.36	0.47

13.767	914.06	0.53	14.803	862.82	0.36	14.135	815.57	0.47
13.784	914.23	0.53	14.818	863.02	0.36	14.151	815.78	0.47
13.800	914.36	0.53	14.834	863.19	0.36	14.167	816.01	0.47
13.817	914.47	0.53	14.850	863.33	0.36	14.183	816.25	0.47
13.834	914.64	0.53	14.865	863.50	0.36	14.198	816.46	0.47
13.850	914.81	0.53	14.881	863.70	0.36	14.214	816.70	0.47
13.867	914.97	0.53	14.897	863.84	0.36	14.230	816.91	0.47
13.884	915.12	0.53	14.912	863.98	0.36	14.246	817.14	0.47
13.900	915.28	0.53	14.928	864.14	0.36	14.262	817.38	0.47
13.917	915.44	0.53	14.943	864.36	0.36	14.278	817.58	0.47
13.933	915.60	0.53	14.959	864.51	0.36	14.294	817.82	0.47
13.950	915.76	0.53	14.975	864.72	0.36	14.310	818.02	0.47
13.967	915.91	0.53	14.990	864.89	0.36	14.326	818.24	0.47
13.983	916.07	0.53	15.006	865.07	0.36	14.342	818.48	0.47
14.000	916.24	0.53	15.021	865.23	0.36	14.357	818.73	0.47
14.017	916.38	0.53	15.037	865.39	0.36	14.373	818.99	0.47
14.033	916.48	0.53	15.053	865.54	0.36	14.389	819.19	0.47
14.050	916.64	0.53	15.068	865.72	0.36	14.405	819.39	0.47
14.066	916.81	0.53	15.084	865.94	0.36	14.421	819.65	0.47
14.083	916.97	0.53	15.099	866.08	0.36	14.437	819.84	0.47
14.100	917.12	0.53	15.115	866.25	0.36	14.453	820.05	0.47
14.116	917.27	0.53	15.131	866.46	0.36	14.469	820.27	0.47
14.133	917.43	0.53	15.146	866.60	0.36	14.485	820.47	0.47
14.149	917.58	0.53	15.162	866.74	0.36	14.500	820.71	0.47
14.166	917.66	0.53	15.177	866.92	0.36	14.516	820.95	0.48
14.183	917.85	0.53	15.193	867.09	0.36	14.532	821.16	0.48
14.199	918.02	0.53	15.209	867.23	0.36	14.548	821.36	0.48
14.216	918.12	0.53	15.224	867.43	0.36	14.564	821.59	0.48
14.233	918.28	0.53	15.240	867.56	0.36	14.580	821.81	0.48
14.249	918.48	0.53	15.255	867.69	0.36	14.596	822.01	0.48
14.266	918.64	0.53	15.271	867.86	0.36	14.612	822.21	0.48
14.282	918.79	0.53	15.287	868.06	0.36	14.628	822.41	0.48
14.299	918.93	0.53	15.302	868.26	0.36	14.644	822.60	0.48
14.316	919.08	0.53	15.318	868.40	0.36	14.659	822.80	0.48
14.332	919.23	0.53	15.334	868.53	0.36	14.675	823.01	0.48
14.349	919.37	0.53	15.349	868.71	0.36	14.691	823.24	0.48
14.366	919.52	0.53	15.365	868.89	0.36	14.707	823.45	0.48
14.382	919.66	0.53	15.380	869.03	0.36	14.723	823.64	0.48
14.399	919.80	0.53	15.396	869.17	0.36	14.739	823.86	0.48
14.415	919.95	0.53	15.412	869.31	0.36	14.755	824.08	0.48
14.432	920.09	0.53	15.427	869.50	0.36	14.771	824.29	0.48
14.449	920.24	0.53	15.443	869.65	0.36	14.787	824.48	0.48
14.465	920.38	0.53	15.458	869.82	0.36	14.802	824.69	0.48
14.482	920.52	0.53	15.474	870.01	0.36	14.818	824.91	0.48
14.499	920.66	0.53	15.490	870.20	0.36	14.834	825.13	0.48

14.515	920.80	0.53	15.505	870.38	0.36	14.850	825.37	0.48
14.532	920.95	0.53	15.521	870.52	0.36	14.866	825.58	0.48
14.548	921.09	0.53	15.536	870.65	0.36	14.882	825.76	0.48
14.565	921.23	0.53	15.552	870.78	0.36	14.898	825.97	0.48
14.582	921.37	0.53	15.568	871.00	0.36	14.914	826.19	0.48
14.598	921.50	0.53	15.583	871.14	0.36	14.930	826.42	0.48
14.615	921.64	0.53	15.599	871.31	0.36	14.946	826.64	0.48
14.631	921.82	0.53	15.614	871.47	0.36	14.961	826.85	0.48
14.648	921.99	0.53	15.630	871.61	0.36	14.977	827.07	0.48
14.665	922.12	0.53	15.646	871.80	0.36	14.993	827.28	0.48
14.681	922.25	0.53	15.661	871.98	0.36	15.009	827.47	0.48
14.698	922.39	0.53	15.677	872.14	0.36	15.025	827.64	0.48
14.715	922.52	0.53	15.692	872.30	0.36	15.041	827.84	0.48
14.731	922.64	0.53	15.708	872.42	0.36	15.057	828.04	0.48
14.748	922.76	0.53	15.724	872.58	0.36	15.073	828.25	0.48
14.764	922.90	0.53	15.739	872.75	0.36	15.089	828.46	0.48
14.781	923.04	0.53	15.755	872.87	0.36	15.104	828.67	0.48
14.798	923.18	0.53	15.771	873.04	0.36	15.120	828.88	0.48
14.814	923.32	0.53	15.786	873.20	0.36	15.136	829.08	0.48
14.831	923.52	0.53	15.802	873.35	0.36	15.152	829.29	0.48
14.848	923.66	0.53	15.817	873.49	0.36	15.168	829.49	0.48
14.864	923.79	0.53	15.833	873.64	0.36	15.184	829.68	0.48
14.881	923.91	0.53	15.849	873.80	0.36	15.200	829.83	0.48
14.897	924.04	0.53	15.864	873.97	0.36	15.216	830.03	0.48
14.914	924.16	0.53	15.880	874.13	0.36	15.232	830.24	0.48
14.931	924.30	0.53	15.895	874.30	0.36	15.248	830.44	0.48
14.947	924.43	0.53	15.911	874.47	0.36	15.263	830.64	0.48
14.964	924.56	0.53	15.927	874.58	0.36	15.279	830.83	0.48
14.981	924.70	0.53	15.942	874.75	0.36	15.295	831.03	0.48
14.997	924.83	0.53	15.958	874.90	0.36	15.311	831.23	0.48
15.014	925.02	0.53	15.973	875.03	0.36	15.327	831.43	0.48
15.030	925.17	0.53	15.989	875.20	0.36	15.343	831.61	0.48
15.047	925.32	0.53	16.005	875.37	0.36	15.359	831.81	0.48
15.064	925.50	0.53	16.020	875.53	0.36	15.375	832.01	0.48
15.080	925.63	0.53	16.036	875.71	0.36	15.391	832.17	0.48
15.097	925.75	0.53	16.051	875.87	0.36	15.406	832.34	0.48
15.113	925.88	0.53	16.067	876.02	0.36	15.422	832.53	0.48
15.130	926.01	0.53	16.083	876.13	0.36	15.438	832.73	0.48
15.147	926.13	0.53	16.098	876.30	0.36	15.454	832.92	0.48
15.163	926.25	0.53	16.114	876.46	0.36	15.470	833.12	0.48
15.180	926.38	0.53	16.129	876.63	0.36	15.486	833.31	0.48
15.197	926.51	0.53	16.145	876.80	0.36	15.502	833.50	0.48
15.213	926.69	0.53	16.161	876.94	0.36	15.518	833.72	0.48
15.230	926.83	0.53	16.176	877.05	0.36	15.534	833.96	0.48
15.246	926.95	0.53	16.192	877.21	0.36	15.550	834.16	0.48

15.263	927.06	0.53	16.207	877.37	0.36	15.565	834.35	0.48
15.280	927.19	0.53	16.223	877.52	0.36	15.581	834.53	0.48
15.296	927.32	0.53	16.239	877.69	0.36	15.597	834.72	0.48
15.313	927.47	0.53	16.254	877.85	0.36	15.613	834.92	0.48
15.330	927.64	0.53	16.270	878.02	0.36	15.629	835.12	0.48
15.346	927.76	0.53	16.286	878.13	0.36	15.645	835.31	0.48
15.363	927.87	0.53	16.301	878.26	0.36	15.661	835.49	0.48
15.379	927.98	0.53	16.317	878.42	0.36	15.677	835.68	0.48
15.396	928.10	0.53	16.332	878.58	0.36	15.693	835.88	0.48
15.413	928.27	0.53	16.348	878.73	0.36	15.708	836.06	0.48
15.429	928.41	0.53	16.364	878.87	0.36	15.724	836.24	0.48
15.446	928.52	0.53	16.379	879.02	0.36	15.740	836.43	0.48
15.463	928.64	0.53	16.395	879.17	0.36	15.756	836.62	0.48
15.479	928.76	0.53	16.410	879.34	0.36	15.772	836.81	0.48
15.496	928.88	0.53	16.426	879.50	0.36	15.788	837.00	0.48
15.512	929.01	0.53	16.442	879.67	0.36	15.804	837.21	0.48
15.529	929.15	0.53	16.457	879.84	0.36	15.820	837.41	0.48
15.546	929.28	0.53	16.473	879.96	0.36	15.836	837.59	0.48
15.562	929.42	0.53	16.488	880.06	0.36	15.852	837.77	0.48
15.579	929.52	0.53	16.504	880.21	0.36	15.867	837.94	0.48
15.595	929.63	0.53	16.520	880.35	0.36	15.883	838.11	0.48
15.612	929.74	0.53	16.535	880.50	0.36	15.899	838.28	0.48
15.629	929.90	0.53	16.551	880.64	0.36	15.915	838.47	0.48
15.645	930.06	0.53	16.566	880.78	0.36	15.931	838.66	0.48
15.662	930.22	0.53	16.582	880.92	0.36	15.947	838.86	0.48
15.679	930.33	0.53	16.598	881.06	0.36	15.963	839.07	0.48
15.695	930.43	0.53	16.613	881.21	0.36	15.979	839.25	0.48
15.712	930.54	0.53	16.629	881.35	0.36	15.995	839.43	0.48
15.728	930.70	0.53	16.644	881.49	0.36	16.010	839.59	0.48
15.745	930.84	0.53	16.660	881.64	0.36	16.026	839.75	0.48
15.762	930.94	0.53	16.676	881.79	0.36	16.042	839.92	0.48
15.778	931.05	0.53	16.691	881.94	0.36	16.058	840.12	0.48
15.795	931.17	0.53	16.707	882.09	0.36	16.074	840.34	0.48
15.812	931.32	0.53	16.723	882.24	0.36	16.090	840.51	0.48
15.828	931.44	0.53	16.738	882.37	0.36	16.106	840.67	0.48
15.845	931.53	0.53	16.754	882.51	0.36	16.122	840.84	0.48
15.861	931.64	0.53	16.769	882.69	0.36	16.138	841.00	0.48
15.878	931.78	0.53	16.785	882.86	0.36	16.154	841.16	0.48
15.895	931.94	0.53	16.801	883.00	0.36	16.169	841.32	0.48
15.911	931.99	0.53	16.816	883.14	0.36	16.185	841.52	0.48
15.928	932.10	0.53	16.832	883.28	0.36	16.201	841.72	0.48
15.945	932.25	0.53	16.847	883.42	0.36	16.217	841.90	0.48
15.961	932.38	0.53	16.863	883.55	0.36	16.233	842.06	0.48
15.978	932.51	0.53	16.879	883.69	0.36	16.249	842.22	0.48
15.994	932.65	0.53	16.894	883.82	0.36	16.265	842.38	0.48

16.011	932.80	0.53	16.910	883.95	0.36	16.281	842.55	0.48
16.028	932.93	0.53	16.925	884.10	0.36	16.297	842.74	0.48
16.044	933.07	0.53	16.941	884.28	0.36	16.312	842.93	0.48
16.061	933.20	0.53	16.957	884.44	0.36	16.328	843.12	0.48
16.078	933.32	0.53	16.972	884.57	0.36	16.344	843.30	0.48
16.094	933.38	0.53	16.988	884.74	0.36	16.360	843.47	0.48
16.111	933.52	0.53	17.003	884.92	0.36	16.376	843.63	0.48
16.127	933.66	0.53	17.019	885.06	0.36	16.392	843.79	0.48
16.144	933.80	0.53	17.035	885.19	0.36	16.408	843.95	0.48
16.161	933.94	0.53	17.050	885.32	0.36	16.424	844.13	0.48
16.177	934.07	0.53	17.066	885.45	0.36	16.440	844.33	0.48
16.194	934.20	0.53	17.081	885.59	0.36	16.456	844.52	0.48
16.210	934.32	0.53	17.097	885.72	0.36	16.471	844.67	0.48
16.227	934.44	0.53	17.113	885.85	0.36	16.487	844.83	0.48
16.244	934.56	0.53	17.128	885.98	0.36	16.503	845.00	0.49
16.260	934.66	0.53	17.144	886.11	0.36	16.519	845.17	0.49
16.277	934.77	0.53	17.160	886.27	0.36	16.535	845.36	0.49
16.294	934.92	0.53	17.175	886.44	0.36	16.551	845.53	0.49
16.310	935.06	0.53	17.191	886.58	0.36	16.567	845.71	0.49
16.327	935.19	0.53	17.206	886.71	0.36	16.583	845.87	0.49
16.343	935.32	0.53	17.222	886.84	0.36	16.599	846.03	0.49
16.360	935.43	0.53	17.238	886.98	0.36	16.614	846.19	0.49
16.377	935.55	0.53	17.253	887.11	0.36	16.630	846.37	0.49
16.393	935.67	0.53	17.269	887.24	0.36	16.646	846.57	0.49
16.410	935.79	0.53	17.284	887.36	0.36	16.662	846.77	0.49
16.427	935.92	0.53	17.300	887.48	0.36	16.678	846.95	0.49
16.443	936.04	0.53	17.316	887.61	0.36	16.694	847.12	0.49
16.460	936.16	0.53	17.331	887.74	0.36	16.710	847.27	0.49
16.476	936.28	0.53	17.347	887.91	0.36	16.726	847.45	0.49
16.493	936.40	0.53	17.362	888.07	0.36	16.742	847.64	0.49
16.510	936.51	0.53	17.378	888.19	0.36	16.758	847.81	0.49
16.526	936.62	0.53	17.394	888.31	0.36	16.773	847.95	0.49
16.543	936.73	0.53	17.409	888.44	0.36	16.789	848.11	0.49
16.560	936.84	0.53	17.425	888.56	0.36	16.805	848.26	0.49
16.576	936.95	0.53	17.440	888.70	0.36	16.821	848.42	0.49
16.593	937.07	0.53	17.456	888.83	0.36	16.837	848.61	0.49
16.609	937.26	0.53	17.472	888.95	0.36	16.853	848.80	0.49
16.626	937.37	0.53	17.487	889.10	0.36	16.869	848.95	0.49
16.643	937.47	0.53	17.503	889.27	0.36	16.885	849.10	0.49
16.659	937.56	0.53	17.518	889.41	0.36	16.901	849.28	0.49
16.676	937.72	0.53	17.534	889.53	0.36	16.916	849.46	0.49
16.692	937.83	0.53	17.550	889.66	0.36	16.932	849.62	0.49
16.709	937.96	0.53	17.565	889.78	0.36	16.948	849.77	0.49
16.726	938.04	0.53	17.581	889.90	0.36	16.964	849.94	0.49
16.742	938.19	0.53	17.597	890.03	0.36	16.980	850.12	0.49



16.759	938.30	0.53	17.612	890.17	0.36	16.996	850.29	0.49
16.776	938.43	0.53	17.628	890.31	0.36	17.012	850.44	0.49
16.792	938.53	0.53	17.643	890.46	0.36	17.028	850.60	0.49
16.809	938.66	0.53	17.659	890.62	0.36	17.044	850.77	0.49
16.825	938.82	0.53	17.675	890.76	0.36	17.060	850.94	0.49
16.842	938.94	0.53	17.690	890.88	0.36	17.075	851.09	0.49
16.859	939.02	0.53	17.706	891.00	0.36	17.091	851.24	0.49
16.875	939.19	0.53	17.721	891.15	0.36	17.107	851.40	0.49
16.892	939.27	0.53	17.737	891.31	0.36	17.123	851.57	0.49
16.909	939.43	0.53	17.753	891.42	0.36	17.139	851.73	0.49
16.925	939.55	0.53	17.768	891.53	0.36	17.155	851.88	0.49
16.942	939.67	0.53	17.784	891.65	0.36	17.171	852.02	0.49
16.958	939.75	0.53	17.799	891.76	0.36	17.187	852.19	0.49
16.975	939.87	0.53	17.815	891.91	0.36	17.203	852.36	0.49
16.992	940.00	0.53	17.831	892.06	0.36	17.218	852.52	0.49
17.008	940.14	0.53	17.846	892.19	0.36	17.234	852.66	0.49
17.025	940.24	0.53	17.862	892.31	0.36	17.250	852.82	0.49
17.042	940.41	0.53	17.877	892.42	0.36	17.266	852.99	0.49
17.058	940.49	0.53	17.893	892.53	0.36	17.282	853.16	0.49
17.075	940.64	0.53	17.909	892.66	0.36	17.298	853.31	0.49
17.091	940.73	0.53	17.924	892.81	0.36	17.314	853.45	0.49
17.108	940.89	0.53	17.940	892.95	0.36	17.330	853.61	0.49
17.125	940.98	0.53	17.955	893.07	0.36	17.346	853.79	0.49
17.141	941.09	0.53	17.971	893.19	0.36	17.362	853.96	0.49
17.158	941.22	0.53	17.987	893.34	0.36	17.377	854.13	0.49
17.174	941.30	0.53	18.002	893.48	0.36	17.393	854.29	0.49
17.191	941.47	0.53	18.018	893.60	0.36	17.409	854.45	0.49
17.208	941.59	0.53	18.034	893.71	0.36	17.425	854.58	0.49
17.224	941.71	0.53	18.049	893.83	0.36	17.441	854.72	0.49
17.241	941.82	0.53	18.065	893.94	0.36	17.457	854.87	0.49
17.258	941.94	0.53	18.080	894.06	0.36	17.473	855.02	0.49
17.274	942.05	0.53	18.096	894.19	0.36	17.489	855.16	0.49
17.291	942.19	0.53	18.112	894.32	0.36	17.505	855.31	0.49
17.307	942.28	0.53	18.127	894.43	0.36	17.520	855.45	0.49
17.324	942.40	0.53	18.143	894.55	0.36	17.536	855.60	0.49
17.341	942.51	0.53	18.158	894.68	0.36	17.552	855.75	0.49
17.357	942.62	0.53	18.174	894.81	0.36	17.568	855.91	0.49
17.374	942.74	0.53	18.190	894.88	0.36	17.584	856.07	0.49
17.391	942.86	0.53	18.205	895.04	0.36	17.600	856.24	0.49
17.407	943.01	0.54	18.221	895.16	0.36	17.616	856.40	0.49
17.424	943.09	0.54	18.236	895.28	0.36	17.632	856.56	0.49
17.440	943.26	0.54	18.252	895.41	0.36	17.648	856.69	0.49
17.457	943.34	0.54	18.268	895.53	0.36	17.664	856.82	0.49
17.474	943.45	0.54	18.283	895.67	0.36	17.679	856.97	0.49
17.490	943.58	0.54	18.299	895.80	0.36	17.695	857.13	0.49

17.507	943.67	0.54	18.314	895.93	0.36	17.711	857.29	0.49
17.524	943.80	0.54	18.330	896.06	0.36	17.727	857.43	0.49
17.540	943.92	0.54	18.346	896.19	0.36	17.743	857.56	0.49
17.557	944.03	0.54	18.361	896.33	0.36	17.759	857.72	0.49
17.573	944.15	0.54	18.377	896.46	0.36	17.775	857.89	0.49
17.590	944.30	0.54	18.392	896.60	0.36	17.791	858.05	0.49
17.607	944.40	0.54	18.408	896.74	0.36	17.807	858.22	0.49
17.623	944.52	0.54	18.424	896.81	0.36	17.822	858.38	0.49
17.640	944.63	0.54	18.439	896.93	0.36	17.838	858.54	0.49
17.656	944.72	0.54	18.455	897.07	0.36	17.854	858.71	0.49
17.673	944.81	0.54	18.471	897.21	0.36	17.870	858.87	0.49
17.690	944.97	0.54	18.486	897.34	0.36	17.886	859.02	0.49
17.706	945.05	0.54	18.502	897.49	0.36	17.902	859.17	0.49
17.723	945.21	0.54	18.517	897.62	0.36	17.918	859.31	0.49
17.740	945.30	0.54	18.533	897.74	0.36	17.934	859.44	0.49
17.756	945.46	0.54	18.549	897.87	0.36	17.950	859.57	0.49
17.773	945.54	0.54	18.564	897.98	0.36	17.966	859.71	0.49
17.789	945.62	0.54	18.580	898.05	0.36	17.981	859.86	0.49
17.806	945.73	0.54	18.595	898.18	0.36	17.997	860.01	0.49
17.823	945.86	0.54	18.611	898.31	0.36	18.013	860.17	0.49
17.839	946.02	0.54	18.627	898.44	0.36	18.029	860.31	0.49
17.856	946.13	0.54	18.642	898.57	0.36	18.045	860.46	0.49
17.873	946.23	0.54	18.658	898.69	0.36	18.061	860.60	0.49
17.889	946.35	0.54	18.673	898.81	0.36	18.077	860.75	0.49
17.906	946.45	0.54	18.689	898.94	0.36	18.093	860.89	0.49
17.922	946.60	0.54	18.705	899.06	0.36	18.109	861.03	0.49
17.939	946.68	0.54	18.720	899.18	0.36	18.124	861.18	0.49
17.956	946.80	0.54	18.736	899.30	0.36	18.140	861.32	0.49
17.972	946.92	0.54	18.751	899.42	0.36	18.156	861.46	0.49
17.989	947.02	0.54	18.767	899.54	0.36	18.172	861.60	0.49
18.006	947.15	0.54	18.783	899.68	0.36	18.188	861.76	0.49
18.022	947.25	0.54	18.798	899.81	0.36	18.204	861.93	0.49
18.039	947.35	0.54	18.814	899.94	0.36	18.220	862.09	0.49
18.055	947.49	0.54	18.829	900.07	0.36	18.236	862.23	0.49
18.072	947.62	0.54	18.845	900.20	0.36	18.252	862.37	0.49
18.089	947.73	0.54	18.861	900.33	0.36	18.267	862.50	0.49
18.105	947.83	0.54	18.876	900.45	0.36	18.283	862.64	0.49
18.122	947.92	0.54	18.892	900.58	0.36	18.299	862.78	0.49
18.138	948.01	0.54	18.908	900.68	0.36	18.315	862.92	0.49
18.155	948.18	0.54	18.923	900.77	0.36	18.331	863.04	0.49
18.172	948.26	0.54	18.939	900.95	0.36	18.347	863.18	0.49
18.188	948.39	0.54	18.954	901.09	0.36	18.363	863.32	0.49
18.205	948.49	0.54	18.970	901.18	0.36	18.379	863.46	0.49
18.222	948.62	0.54	18.986	901.26	0.36	18.395	863.59	0.49
18.238	948.70	0.54	19.001	901.44	0.36	18.411	863.72	0.49

18.255	948.80	0.54	19.017	901.57	0.36	18.426	863.86	0.49
18.271	948.96	0.54	19.032	901.68	0.36	18.442	863.99	0.49
18.288	949.06	0.54	19.048	901.79	0.36	18.458	864.13	0.49
18.305	949.15	0.54	19.064	901.90	0.36	18.474	864.26	0.49
18.321	949.24	0.54	19.079	902.02	0.36	18.490	864.40	0.49
18.338	949.43	0.54	19.095	902.14	0.36	18.506	864.54	0.49
18.355	949.53	0.54	19.110	902.27	0.36	18.522	864.68	0.49
18.371	949.62	0.54	19.126	902.39	0.36	18.538	864.82	0.49
18.388	949.69	0.54	19.142	902.51	0.36	18.554	864.95	0.49
18.404	949.85	0.54	19.157	902.63	0.36	18.569	865.09	0.49
18.421	949.94	0.54	19.173	902.75	0.36	18.585	865.23	0.49
18.438	950.02	0.54	19.188	902.87	0.36	18.601	865.37	0.49
18.454	950.18	0.54	19.204	902.98	0.36	18.617	865.51	0.49
18.471	950.24	0.54	19.220	903.09	0.36	18.633	865.65	0.49
18.488	950.36	0.54	19.235	903.21	0.36	18.649	865.79	0.49
18.504	950.50	0.54	19.251	903.32	0.36	18.665	865.94	0.49
18.521	950.59	0.54	19.266	903.44	0.36	18.681	866.08	0.49
18.537	950.67	0.54	19.282	903.62	0.36	18.697	866.21	0.49
18.554	950.83	0.54	19.298	903.75	0.36	18.713	866.33	0.49
18.571	950.93	0.54	19.313	903.86	0.36	18.728	866.46	0.49
18.587	951.02	0.54	19.329	903.96	0.36	18.744	866.60	0.49
18.604	951.16	0.54	19.345	904.06	0.36	18.760	866.75	0.49
18.620	951.26	0.54	19.360	904.16	0.36	18.776	866.89	0.49
18.637	951.34	0.54	19.376	904.27	0.36	18.792	867.02	0.49
18.654	951.48	0.54	19.391	904.38	0.36	18.808	867.15	0.49
18.670	951.58	0.54	19.407	904.50	0.36	18.824	867.29	0.49
18.687	951.68	0.54	19.423	904.62	0.36	18.840	867.43	0.49
18.704	951.81	0.54	19.438	904.73	0.36	18.856	867.56	0.49
18.720	951.93	0.54	19.454	904.84	0.36	18.871	867.69	0.49
18.737	952.00	0.54	19.469	904.99	0.36	18.887	867.83	0.49
18.753	952.11	0.54	19.485	905.14	0.36	18.903	867.98	0.49
18.770	952.21	0.54	19.501	905.25	0.36	18.919	868.12	0.49
18.787	952.34	0.54	19.516	905.37	0.36	18.935	868.27	0.49
18.803	952.43	0.54	19.532	905.48	0.36	18.951	868.41	0.49
18.820	952.54	0.54	19.547	905.59	0.36	18.967	868.55	0.50
18.837	952.65	0.54	19.563	905.73	0.36	18.983	868.67	0.50
18.853	952.78	0.54	19.579	905.88	0.36	18.999	868.79	0.50
18.870	952.89	0.54	19.594	905.98	0.36	19.015	868.92	0.50
18.886	952.97	0.54	19.610	906.09	0.36	19.030	869.06	0.50
18.903	953.11	0.54	19.625	906.21	0.36	19.046	869.19	0.50
18.920	953.22	0.54	19.641	906.32	0.36	19.062	869.32	0.50
18.936	953.35	0.54	19.657	906.45	0.36	19.078	869.45	0.50
18.953	953.40	0.54	19.672	906.57	0.36	19.094	869.59	0.50
18.970	953.50	0.54	19.688	906.70	0.36	19.110	869.72	0.50
18.986	953.67	0.54	19.703	906.87	0.36	19.126	869.86	0.50

19.003	953.75	0.54	19.719	907.00	0.36	19.142	869.99	0.50
19.019	953.88	0.54	19.735	907.10	0.36	19.158	870.11	0.50
19.036	953.95	0.54	19.750	907.21	0.36	19.173	870.24	0.50
19.053	954.09	0.54	19.766	907.35	0.36	19.189	870.37	0.50
19.069	954.16	0.54	19.782	907.49	0.36	19.205	870.49	0.50
19.086	954.25	0.54	19.797	907.59	0.36	19.221	870.59	0.50
19.102	954.39	0.54	19.813	907.71	0.36	19.237	870.70	0.50
19.119	954.49	0.54	19.828	907.84	0.36	19.253	870.82	0.50
19.136	954.61	0.54	19.844	907.97	0.36	19.269	870.95	0.50
19.152	954.74	0.54	19.860	908.10	0.36	19.285	871.08	0.50
19.169	954.81	0.54	19.875	908.23	0.36	19.301	871.21	0.50
19.186	954.90	0.54	19.891	908.34	0.36	19.317	871.34	0.50
19.202	955.01	0.54	19.906	908.44	0.36	19.332	871.47	0.50
19.219	955.16	0.54	19.922	908.55	0.36	19.348	871.60	0.50
19.235	955.23	0.54	19.938	908.71	0.36	19.364	871.72	0.50
19.252	955.34	0.54	19.953	908.85	0.36	19.380	871.86	0.50
19.269	955.47	0.54	19.969	908.96	0.36	19.396	871.99	0.50
19.285	955.59	0.54	19.984	909.11	0.36	19.412	872.12	0.50
19.302	955.65	0.54	20.000	909.24	0.36	19.428	872.24	0.50
19.319	955.73	0.54				19.444	872.36	0.50
19.335	955.87	0.54				19.460	872.49	0.50
19.352	956.00	0.54				19.475	872.62	0.50
19.368	956.05	0.54				19.491	872.74	0.50
19.385	956.19	0.54				19.507	872.87	0.50
19.402	956.33	0.54				19.523	872.99	0.50
19.418	956.40	0.54				19.539	873.11	0.50
19.435	956.52	0.54				19.555	873.24	0.50
19.452	956.61	0.54				19.571	873.37	0.50
19.468	956.72	0.54				19.587	873.49	0.50
19.485	956.85	0.54				19.603	873.61	0.50
19.501	956.91	0.54				19.619	873.74	0.50
19.518	957.03	0.54				19.634	873.86	0.50
19.535	957.17	0.54				19.650	873.97	0.50
19.551	957.23	0.54				19.666	874.10	0.50
19.568	957.34	0.54				19.682	874.22	0.50
19.584	957.44	0.54				19.698	874.34	0.50
19.601	957.57	0.54				19.714	874.45	0.50
19.618	957.67	0.54				19.730	874.57	0.50
19.634	957.73	0.54				19.746	874.69	0.50
19.651	957.85	0.54				19.762	874.81	0.50
19.668	957.97	0.54				19.777	874.93	0.50
19.684	958.07	0.54				19.793	875.05	0.50
19.701	958.14	0.54				19.809	875.17	0.50
19.717	958.27	0.54				19.825	875.28	0.50
19.734	958.38	0.54				19.841	875.40	0.50

19.751	958.48	0.54				19.857	875.53	0.50
19.767	958.54	0.54				19.873	875.65	0.50
19.784	958.67	0.54				19.889	875.77	0.50
19.801	958.79	0.54				19.905	875.88	0.50
19.817	958.90	0.54				19.921	876.01	0.50
19.834	959.01	0.54				19.936	876.11	0.50
19.850	959.05	0.54				19.952	876.21	0.50
19.867	959.17	0.54				19.968	876.30	0.50
19.884	959.29	0.54				19.984	876.40	0.50
19.900	959.40	0.54				20.000	876.53	0.50
19.917	959.46	0.54						
19.934	959.54	0.54						
19.950	959.64	0.54						
19.967	959.75	0.54						
19.983	959.86	0.54						
20.000	959.90	0.54						

**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for  $\text{CO}_2+\text{SO}_2$  mixtures.

<b><math>T= 313.15\pm 0.04</math> K</b>								
<b><math>x_{\text{CO}_2} = 0.9698</math></b>			<b><math>x_{\text{CO}_2} = 0.9931</math></b>					
<b><math>P</math></b> <b>(MPa)</b>	<b><math>\rho</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>P</math></b> <b>(MPa)</b>	<b><math>\rho</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>			
0.100	1.80	0.23	0.100	1.57	0.21			
0.120	2.01	0.22	0.120	1.94	0.22			
0.140	2.31	0.22	0.140	2.26	0.22			
0.160	2.67	0.22	0.160	2.58	0.22			
0.180	2.99	0.22	0.180	2.89	0.22			
0.200	3.36	0.22	0.200	3.26	0.22			
0.220	3.76	0.22	0.220	3.60	0.22			
0.239	4.08	0.22	0.239	3.90	0.22			
0.259	4.45	0.22	0.259	4.28	0.22			
0.279	4.80	0.22	0.279	4.67	0.22			
0.299	5.12	0.22	0.299	5.01	0.22			
0.319	5.46	0.22	0.319	5.34	0.22			
0.339	5.87	0.22	0.339	5.67	0.22			
0.359	6.24	0.22	0.359	6.04	0.22			
0.379	6.59	0.22	0.379	6.39	0.22			
0.399	6.94	0.22	0.399	6.71	0.22			
0.419	7.30	0.22	0.419	7.02	0.22			
0.439	7.61	0.22	0.439	7.40	0.22			
0.459	7.97	0.22	0.459	7.74	0.22			
0.478	8.32	0.22	0.478	8.11	0.22			
0.498	8.66	0.22	0.498	8.46	0.22			
0.518	9.02	0.22	0.518	8.81	0.22			
0.538	9.39	0.22	0.538	9.14	0.22			
0.558	9.80	0.22	0.558	9.51	0.22			
0.578	10.11	0.22	0.578	9.87	0.22			
0.598	10.48	0.22	0.598	10.24	0.22			
0.618	10.82	0.22	0.618	10.55	0.22			
0.638	11.22	0.22	0.638	10.93	0.22			
0.658	11.52	0.22	0.658	11.30	0.22			
0.678	11.91	0.22	0.678	11.65	0.22			
0.698	12.30	0.22	0.698	12.00	0.22			
0.718	12.63	0.22	0.718	12.34	0.22			
0.737	13.04	0.22	0.737	12.68	0.22			
0.757	13.34	0.22	0.757	13.02	0.22			
0.777	13.71	0.22	0.777	13.47	0.22			
0.797	14.10	0.22	0.797	13.82	0.22			

0.817	14.49	0.22	0.817	14.14	0.22			
0.837	14.87	0.22	0.837	14.54	0.22			
0.857	15.23	0.22	0.857	14.91	0.22			
0.877	15.57	0.22	0.877	15.29	0.22			
0.897	15.97	0.22	0.897	15.65	0.22			
0.917	16.35	0.22	0.917	16.05	0.22			
0.937	16.73	0.22	0.937	16.36	0.22			
0.957	17.09	0.22	0.957	16.81	0.22			
0.976	17.43	0.22	0.976	17.13	0.22			
0.996	17.82	0.22	0.996	17.47	0.22			
1.016	18.19	0.22	1.016	17.86	0.22			
1.036	18.57	0.22	1.036	18.25	0.22			
1.056	18.96	0.22	1.056	18.60	0.22			
1.076	19.33	0.22	1.076	18.94	0.22			
1.096	19.69	0.22	1.096	19.34	0.22			
1.116	20.12	0.23	1.116	19.67	0.22			
1.136	20.46	0.22	1.136	20.01	0.22			
1.156	20.84	0.22	1.156	20.42	0.22			
1.176	21.21	0.22	1.176	20.82	0.22			
1.196	21.64	0.23	1.196	21.14	0.22			
1.216	21.98	0.22	1.216	21.57	0.22			
1.235	22.35	0.22	1.235	21.99	0.22			
1.255	22.72	0.22	1.255	22.35	0.22			
1.275	23.10	0.22	1.275	22.71	0.22			
1.295	23.47	0.22	1.295	23.06	0.22			
1.315	23.89	0.22	1.315	23.48	0.22			
1.335	24.32	0.23	1.335	23.86	0.22			
1.355	24.73	0.23	1.355	24.22	0.22			
1.375	25.05	0.23	1.375	24.58	0.22			
1.395	25.45	0.23	1.395	24.97	0.22			
1.415	25.90	0.23	1.415	25.37	0.22			
1.435	26.27	0.23	1.435	25.70	0.22			
1.455	26.63	0.23	1.455	26.13	0.22			
1.474	27.05	0.23	1.474	26.50	0.22			
1.494	27.41	0.23	1.494	26.89	0.22			
1.514	27.79	0.23	1.514	27.28	0.22			
1.534	28.19	0.23	1.534	27.69	0.22			
1.554	28.62	0.23	1.554	28.12	0.22			
1.574	28.99	0.23	1.574	28.51	0.22			
1.594	29.42	0.23	1.594	28.93	0.22			
1.614	29.79	0.23	1.614	29.29	0.22			
1.634	30.16	0.23	1.634	29.71	0.22			
1.654	30.59	0.23	1.654	30.13	0.22			
1.674	30.99	0.23	1.674	30.52	0.22			
1.694	31.41	0.23	1.694	30.91	0.22			

1.714	31.82	0.23	1.714	31.30	0.22			
1.733	32.22	0.23	1.733	31.72	0.22			
1.753	32.61	0.23	1.753	32.06	0.22			
1.773	33.03	0.23	1.773	32.48	0.22			
1.793	33.45	0.23	1.793	32.89	0.22			
1.813	33.82	0.23	1.813	33.25	0.22			
1.833	34.22	0.23	1.833	33.62	0.22			
1.853	34.61	0.23	1.853	34.02	0.22			
1.873	35.11	0.23	1.873	34.47	0.22			
1.893	35.50	0.23	1.893	34.85	0.22			
1.913	35.92	0.23	1.913	35.27	0.22			
1.933	36.33	0.23	1.933	35.73	0.22			
1.953	36.73	0.23	1.953	36.15	0.22			
1.972	37.14	0.23	1.972	36.51	0.22			
1.992	37.58	0.23	1.992	36.93	0.22			
2.012	37.98	0.23	2.012	37.36	0.22			
2.032	38.37	0.23	2.032	37.74	0.22			
2.052	38.75	0.23	2.052	38.19	0.22			
2.072	39.21	0.23	2.072	38.59	0.22			
2.092	39.65	0.23	2.092	38.98	0.22			
2.112	40.01	0.23	2.112	39.38	0.22			
2.132	40.50	0.23	2.132	39.80	0.22			
2.152	40.92	0.23	2.152	40.21	0.22			
2.172	41.34	0.23	2.172	40.63	0.22			
2.192	41.76	0.23	2.192	41.04	0.22			
2.212	42.24	0.23	2.212	41.43	0.22			
2.231	42.64	0.23	2.231	41.88	0.22			
2.251	43.03	0.23	2.251	42.29	0.22			
2.271	43.50	0.23	2.271	42.72	0.22			
2.291	43.93	0.23	2.291	43.14	0.22			
2.311	44.35	0.23	2.311	43.60	0.22			
2.331	44.74	0.23	2.331	44.05	0.22			
2.351	45.18	0.23	2.351	44.46	0.22			
2.371	45.60	0.23	2.371	44.90	0.22			
2.391	46.08	0.23	2.391	45.34	0.22			
2.411	46.56	0.23	2.411	45.77	0.22			
2.431	46.99	0.23	2.431	46.21	0.22			
2.451	47.40	0.23	2.451	46.63	0.22			
2.470	47.86	0.23	2.470	47.05	0.22			
2.490	48.30	0.23	2.490	47.46	0.22			
2.510	48.74	0.23	2.510	47.94	0.22			
2.530	49.18	0.23	2.530	48.35	0.22			
2.550	49.61	0.23	2.550	48.78	0.22			
2.570	50.05	0.23	2.570	49.23	0.22			
2.590	50.48	0.23	2.590	49.69	0.22			



2.610	50.92	0.23	2.610	50.09	0.22			
2.630	51.40	0.23	2.630	50.49	0.22			
2.650	51.86	0.23	2.650	50.92	0.22			
2.670	52.37	0.23	2.670	51.38	0.22			
2.690	52.79	0.23	2.690	51.85	0.22			
2.710	53.24	0.23	2.710	52.23	0.22			
2.729	53.69	0.23	2.729	52.68	0.22			
2.749	54.17	0.23	2.749	53.13	0.22			
2.769	54.65	0.23	2.769	53.61	0.23			
2.789	55.05	0.23	2.789	54.09	0.23			
2.809	55.51	0.23	2.809	54.52	0.23			
2.829	55.98	0.23	2.829	55.03	0.23			
2.849	56.43	0.23	2.849	55.46	0.23			
2.869	56.86	0.23	2.869	55.88	0.23			
2.889	57.32	0.23	2.889	56.37	0.23			
2.909	57.82	0.23	2.909	56.79	0.23			
2.929	58.26	0.23	2.929	57.29	0.23			
2.949	58.70	0.23	2.949	57.76	0.23			
2.968	59.20	0.23	2.968	58.19	0.23			
2.988	59.71	0.23	2.988	58.66	0.23			
3.008	60.22	0.23	3.008	59.14	0.23			
3.028	60.72	0.23	3.028	59.62	0.23			
3.048	61.14	0.23	3.048	60.09	0.23			
3.068	61.65	0.23	3.068	60.55	0.23			
3.088	62.13	0.23	3.088	60.99	0.23			
3.108	62.64	0.23	3.108	61.43	0.23			
3.128	63.12	0.23	3.128	61.87	0.23			
3.148	63.62	0.23	3.148	62.32	0.23			
3.168	64.08	0.23	3.168	62.77	0.23			
3.188	64.56	0.23	3.188	63.27	0.23			
3.208	65.05	0.23	3.208	63.70	0.23			
3.227	65.58	0.23	3.227	64.26	0.23			
3.247	66.04	0.23	3.247	64.78	0.23			
3.267	66.52	0.23	3.267	65.28	0.23			
3.287	67.04	0.23	3.287	65.77	0.23			
3.307	67.56	0.23	3.307	66.26	0.23			
3.327	68.02	0.23	3.327	66.75	0.23			
3.347	68.53	0.23	3.347	67.23	0.23			
3.367	68.98	0.23	3.367	67.70	0.23			
3.387	69.50	0.23	3.387	68.19	0.23			
3.407	70.01	0.23	3.407	68.66	0.23			
3.427	70.51	0.23	3.427	69.12	0.23			
3.447	71.06	0.23	3.447	69.63	0.23			
3.466	71.59	0.23	3.466	70.15	0.23			
3.486	72.08	0.23	3.486	70.62	0.23			

3.506	72.57	0.23	3.506	71.13	0.23			
3.526	73.07	0.23	3.526	71.65	0.23			
3.546	73.62	0.23	3.546	72.18	0.23			
3.566	74.09	0.23	3.566	72.70	0.23			
3.586	74.60	0.23	3.586	73.18	0.23			
3.606	75.12	0.23	3.606	73.63	0.23			
3.626	75.64	0.23	3.626	74.19	0.23			
3.646	76.16	0.23	3.646	74.71	0.23			
3.666	76.67	0.23	3.666	75.20	0.23			
3.686	77.16	0.23	3.686	75.70	0.23			
3.706	77.74	0.23	3.706	76.26	0.23			
3.725	78.26	0.23	3.725	76.74	0.23			
3.745	78.78	0.23	3.745	77.22	0.23			
3.765	79.30	0.23	3.765	77.71	0.23			
3.785	79.83	0.23	3.785	78.23	0.23			
3.805	80.39	0.23	3.805	78.74	0.23			
3.825	81.03	0.23	3.825	79.25	0.23			
3.845	81.55	0.23	3.845	79.77	0.23			
3.865	82.09	0.23	3.865	80.30	0.23			
3.885	82.65	0.23	3.885	80.82	0.23			
3.905	83.21	0.23	3.905	81.39	0.23			
3.925	83.76	0.23	3.925	81.94	0.23			
3.945	84.31	0.23	3.945	82.45	0.23			
3.964	84.85	0.23	3.964	82.95	0.23			
3.984	85.38	0.23	3.984	83.57	0.23			
4.004	85.93	0.23	4.004	84.21	0.23			
4.024	86.53	0.23	4.024	84.77	0.23			
4.044	87.10	0.23	4.044	85.28	0.23			
4.064	87.64	0.23	4.064	85.80	0.23			
4.084	88.25	0.23	4.084	86.35	0.23			
4.104	88.78	0.23	4.104	86.96	0.23			
4.124	89.33	0.23	4.124	87.53	0.23			
4.144	89.90	0.23	4.144	88.08	0.23			
4.164	90.46	0.23	4.164	88.62	0.23			
4.184	91.01	0.23	4.184	89.06	0.23			
4.204	91.56	0.23	4.204	89.61	0.23			
4.223	92.12	0.23	4.223	90.18	0.23			
4.243	92.68	0.23	4.243	90.66	0.23			
4.263	93.30	0.23	4.263	91.23	0.23			
4.283	93.90	0.23	4.283	91.82	0.23			
4.303	94.45	0.23	4.303	92.39	0.23			
4.323	95.06	0.23	4.323	92.93	0.23			
4.343	95.66	0.23	4.343	93.50	0.23			
4.363	96.27	0.23	4.363	94.07	0.23			
4.383	96.82	0.23	4.383	94.63	0.23			

4.403	97.48	0.23	4.403	95.17	0.23			
4.423	98.17	0.23	4.423	95.73	0.23			
4.443	98.84	0.23	4.443	96.35	0.23			
4.462	99.43	0.23	4.462	96.92	0.23			
4.482	100.03	0.23	4.482	97.47	0.23			
4.502	100.64	0.23	4.502	98.08	0.23			
4.522	101.23	0.23	4.522	98.69	0.23			
4.542	101.84	0.23	4.542	99.29	0.23			
4.562	102.48	0.23	4.562	99.89	0.23			
4.582	103.10	0.23	4.582	100.49	0.23			
4.602	103.74	0.23	4.602	101.08	0.23			
4.622	104.39	0.23	4.622	101.68	0.23			
4.642	105.02	0.23	4.642	102.27	0.23			
4.662	105.65	0.23	4.662	102.86	0.23			
4.682	106.28	0.23	4.682	103.48	0.23			
4.702	106.90	0.23	4.702	104.10	0.23			
4.721	107.53	0.23	4.721	104.83	0.23			
4.741	108.17	0.23	4.741	105.51	0.23			
4.761	108.80	0.23	4.761	106.13	0.23			
4.781	109.44	0.23	4.781	106.76	0.23			
4.801	110.07	0.23	4.801	107.38	0.23			
4.821	110.70	0.23	4.821	108.00	0.23			
4.841	111.35	0.23	4.841	108.62	0.23			
4.861	112.00	0.23	4.861	109.25	0.23			
4.881	112.66	0.23	4.881	109.91	0.23			
4.901	113.32	0.23	4.901	110.58	0.23			
4.921	113.99	0.23	4.921	111.23	0.23			
4.941	114.64	0.23	4.941	111.87	0.23			
4.960	115.33	0.23	4.960	112.49	0.23			
4.980	116.19	0.24	4.980	113.13	0.23			
5.000	116.91	0.24	5.000	113.79	0.23			
5.020	117.56	0.24	5.020	114.43	0.23			
5.040	118.26	0.24	5.040	115.09	0.23			
5.060	118.96	0.24	5.060	115.75	0.23			
5.080	119.66	0.24	5.080	116.44	0.23			
5.100	120.37	0.24	5.100	117.14	0.23			
5.120	121.07	0.24	5.120	117.77	0.23			
5.140	121.76	0.24	5.140	118.41	0.23			
5.160	122.48	0.24	5.160	119.07	0.23			
5.180	123.21	0.24	5.180	119.72	0.23			
5.199	123.91	0.24	5.199	120.38	0.23			
5.219	124.63	0.24	5.219	121.04	0.23			
5.239	125.37	0.24	5.239	121.70	0.23			
5.259	126.10	0.24	5.259	122.39	0.23			
5.279	126.83	0.24	5.279	123.10	0.23			

5.299	127.56	0.24	5.299	123.83	0.23			
5.319	128.30	0.24	5.319	124.51	0.23			
5.339	129.04	0.24	5.339	125.17	0.23			
5.359	129.82	0.24	5.359	125.89	0.23			
5.379	130.56	0.24	5.379	126.62	0.23			
5.399	131.28	0.24	5.399	127.35	0.23			
5.419	131.99	0.24	5.419	128.09	0.23			
5.439	132.71	0.24	5.439	128.82	0.23			
5.458	133.42	0.24	5.458	129.57	0.23			
5.478	134.19	0.24	5.478	130.32	0.23			
5.498	134.98	0.24	5.498	131.05	0.23			
5.518	135.75	0.24	5.518	131.77	0.23			
5.538	136.53	0.24	5.538	132.48	0.23			
5.558	137.32	0.24	5.558	133.22	0.23			
5.578	138.09	0.24	5.578	133.98	0.23			
5.598	138.87	0.24	5.598	134.74	0.24			
5.618	139.70	0.24	5.618	135.50	0.24			
5.638	140.59	0.24	5.638	136.29	0.24			
5.658	141.52	0.24	5.658	137.08	0.24			
5.678	142.37	0.24	5.678	137.82	0.24			
5.697	143.21	0.24	5.697	138.64	0.24			
5.717	144.04	0.24	5.717	139.58	0.24			
5.737	144.87	0.24	5.737	140.44	0.24			
5.757	145.71	0.24	5.757	141.25	0.24			
5.777	146.57	0.24	5.777	142.04	0.24			
5.797	147.42	0.24	5.797	142.83	0.24			
5.817	148.25	0.24	5.817	143.63	0.24			
5.837	149.12	0.24	5.837	144.44	0.24			
5.857	150.00	0.24	5.857	145.24	0.24			
5.877	150.89	0.24	5.877	146.08	0.24			
5.897	151.77	0.24	5.897	146.95	0.24			
5.917	152.65	0.24	5.917	147.75	0.24			
5.937	153.52	0.24	5.937	148.52	0.24			
5.956	154.40	0.24	5.956	149.37	0.24			
5.976	155.29	0.24	5.976	150.22	0.24			
5.996	156.22	0.24	5.996	151.08	0.24			
6.016	157.16	0.24	6.016	151.93	0.24			
6.036	158.09	0.24	6.036	152.78	0.24			
6.056	159.03	0.24	6.056	153.66	0.24			
6.076	159.97	0.24	6.076	154.57	0.24			
6.096	160.91	0.24	6.096	155.42	0.24			
6.116	161.85	0.24	6.116	156.28	0.24			
6.136	162.78	0.24	6.136	157.17	0.24			
6.156	163.70	0.24	6.156	158.06	0.24			
6.176	164.62	0.24	6.176	158.94	0.24			

6.195	165.55	0.24	6.195	159.82	0.24			
6.215	166.52	0.25	6.215	160.71	0.24			
6.235	167.53	0.25	6.235	161.59	0.24			
6.255	168.60	0.25	6.255	162.48	0.24			
6.275	169.65	0.25	6.275	163.39	0.24			
6.295	170.67	0.25	6.295	164.33	0.24			
6.315	171.69	0.25	6.315	165.30	0.24			
6.335	172.75	0.25	6.335	166.25	0.24			
6.355	173.84	0.25	6.355	167.20	0.24			
6.375	174.90	0.25	6.375	168.18	0.24			
6.395	176.05	0.25	6.395	169.16	0.24			
6.415	177.35	0.25	6.415	170.13	0.24			
6.435	178.49	0.25	6.435	171.13	0.24			
6.454	179.60	0.25	6.454	172.17	0.24			
6.474	180.68	0.25	6.474	173.19	0.24			
6.494	181.82	0.25	6.494	174.21	0.24			
6.514	182.99	0.25	6.514	175.23	0.24			
6.534	184.19	0.25	6.534	176.26	0.24			
6.554	185.37	0.25	6.554	177.30	0.24			
6.574	186.56	0.25	6.574	178.34	0.24			
6.594	187.73	0.25	6.594	179.38	0.24			
6.614	188.94	0.25	6.614	180.45	0.24			
6.634	190.18	0.25	6.634	181.54	0.24			
6.654	191.43	0.25	6.654	182.67	0.24			
6.674	192.74	0.25	6.674	183.78	0.25			
6.693	194.00	0.25	6.693	184.88	0.25			
6.713	195.23	0.25	6.713	186.00	0.25			
6.733	196.54	0.25	6.733	187.12	0.25			
6.753	197.87	0.25	6.753	188.25	0.25			
6.773	199.21	0.25	6.773	189.36	0.25			
6.793	200.58	0.25	6.793	190.57	0.25			
6.813	201.92	0.25	6.813	191.93	0.25			
6.833	203.31	0.26	6.833	193.18	0.25			
6.853	204.73	0.26	6.853	194.38	0.25			
6.873	206.16	0.26	6.873	195.54	0.25			
6.893	207.55	0.26	6.893	196.74	0.25			
6.913	208.99	0.26	6.913	197.99	0.25			
6.933	210.47	0.26	6.933	199.21	0.25			
6.952	211.97	0.26	6.952	200.45	0.25			
6.972	213.47	0.26	6.972	201.73	0.25			
6.992	214.95	0.26	6.992	203.01	0.25			
7.012	216.42	0.26	7.012	204.30	0.25			
7.032	217.90	0.26	7.032	205.59	0.25			
7.052	219.41	0.26	7.052	206.90	0.25			
7.072	221.05	0.26	7.072	208.24	0.25			

7.092	222.64	0.26	7.092	209.61	0.25			
7.112	224.54	0.26	7.112	210.92	0.25			
7.132	226.34	0.26	7.132	212.31	0.25			
7.152	228.07	0.26	7.152	213.73	0.25			
7.172	229.85	0.26	7.172	215.10	0.25			
7.191	231.62	0.26	7.191	216.52	0.25			
7.211	233.36	0.27	7.211	217.96	0.25			
7.231	235.18	0.27	7.231	219.42	0.25			
7.251	237.06	0.27	7.251	220.84	0.25			
7.271	238.91	0.27	7.271	222.25	0.25			
7.291	240.77	0.27	7.291	223.66	0.25			
7.311	242.69	0.27	7.311	225.11	0.26			
7.331	244.69	0.27	7.331	226.70	0.26			
7.351	246.75	0.27	7.351	228.28	0.26			
7.371	248.79	0.27	7.371	229.89	0.26			
7.391	250.89	0.27	7.391	231.47	0.26			
7.411	252.96	0.27	7.411	233.04	0.26			
7.431	255.02	0.27	7.431	234.75	0.26			
7.450	257.21	0.27	7.450	236.46	0.26			
7.470	259.37	0.27	7.470	238.13	0.26			
7.490	261.76	0.28	7.490	239.89	0.26			
7.510	264.04	0.28	7.510	241.59	0.26			
7.530	266.46	0.28	7.530	243.55	0.26			
7.550	268.83	0.28	7.550	245.50	0.26			
7.570	271.30	0.28	7.570	247.37	0.26			
7.590	274.02	0.28	7.590	249.26	0.26			
7.610	277.13	0.28	7.610	251.14	0.26			
7.630	280.06	0.28	7.630	253.17	0.26			
7.650	283.67	0.28	7.650	255.09	0.26			
7.670	287.33	0.29	7.670	257.15	0.26			
7.689	290.93	0.29	7.689	259.26	0.27			
7.709	294.56	0.29	7.709	261.47	0.27			
7.729	298.26	0.29	7.729	263.76	0.27			
7.749	302.17	0.29	7.749	266.07	0.27			
7.769	306.57	0.30	7.769	268.46	0.27			
7.789	311.27	0.30	7.789	270.85	0.27			
7.809	315.80	0.30	7.809	273.35	0.27			
7.829	320.68	0.30	7.829	275.95	0.27			
7.849	325.70	0.30	7.849	278.55	0.27			
7.869	330.91	0.31	7.869	281.20	0.27			
7.889	336.59	0.31	7.889	283.91	0.27			
7.909	342.52	0.31	7.909	286.71	0.27			
7.929	348.32	0.32	7.929	289.58	0.28			
7.948	354.62	0.32	7.948	292.48	0.28			
7.968	362.04	0.32	7.968	295.96	0.28			

7.988	369.68	0.33	7.988	299.09	0.28			
8.008	377.56	0.33	8.008	302.31	0.28			
8.028	385.56	0.34	8.028	305.60	0.28			
8.048	394.12	0.34	8.048	308.99	0.28			
8.068	402.59	0.35	8.068	312.47	0.28			
8.088	411.36	0.35	8.088	316.11	0.29			
8.108	420.47	0.36	8.108	319.82	0.29			
8.128	430.33	0.36	8.128	323.70	0.29			
8.148	439.82	0.37	8.148	327.73	0.29			
8.168	448.95	0.37	8.168	331.72	0.29			
8.187	458.20	0.38	8.187	336.05	0.29			
8.207	467.61	0.39	8.207	340.40	0.30			
8.227	476.30	0.39	8.227	344.73	0.30			
8.247	484.74	0.39	8.247	349.17	0.30			
8.267	493.03	0.40	8.267	354.08	0.30			
8.287	501.51	0.40	8.287	359.30	0.30			
8.307	510.40	0.41	8.307	364.51	0.30			
8.327	517.94	0.41	8.327	369.93	0.31			
8.347	525.66	0.41	8.347	375.82	0.31			
8.367	533.22	0.42	8.367	381.70	0.31			
8.387	539.81	0.42	8.387	387.80	0.31			
8.407	546.58	0.42	8.407	393.98	0.32			
8.427	552.86	0.42	8.427	400.16	0.32			
8.446	558.45	0.43	8.446	406.44	0.32			
8.466	563.59	0.43	8.466	412.74	0.33			
8.486	568.30	0.43	8.486	418.96	0.33			
8.506	572.67	0.43	8.506	425.06	0.33			
8.526	576.85	0.43	8.526	431.17	0.33			
8.546	580.62	0.43	8.546	437.27	0.33			
8.566	584.26	0.43	8.566	443.30	0.34			
8.586	587.63	0.43	8.586	449.32	0.34			
8.606	591.05	0.43	8.606	455.34	0.34			
8.626	594.17	0.43	8.626	460.60	0.34			
8.646	596.99	0.43	8.646	465.82	0.34			
8.666	599.62	0.43	8.666	471.03	0.35			
8.685	602.00	0.43	8.685	475.86	0.35			
8.705	604.94	0.43	8.705	480.52	0.35			
8.725	607.57	0.43	8.725	485.18	0.35			
8.745	610.03	0.43	8.745	489.01	0.35			
8.765	612.39	0.42	8.765	492.68	0.35			
8.785	614.67	0.42	8.785	496.36	0.35			
8.805	616.87	0.42	8.805	500.03	0.35			
8.825	618.97	0.42	8.825	504.43	0.35			
8.845	621.17	0.42	8.845	510.53	0.36			
8.865	623.41	0.42	8.865	516.66	0.36			

8.885	625.57	0.42	8.885	522.50	0.36			
8.905	627.59	0.42	8.905	527.76	0.36			
8.925	629.39	0.42	8.925	532.90	0.36			
8.944	631.57	0.42	8.944	537.92	0.36			
8.964	633.78	0.42	8.964	542.37	0.37			
8.984	635.80	0.42	8.984	546.59	0.37			
9.004	637.75	0.42	9.004	550.62	0.37			
9.024	639.72	0.42	9.024	554.16	0.37			
9.044	641.60	0.42	9.044	557.64	0.37			
9.064	643.48	0.42	9.064	560.75	0.37			
9.084	645.27	0.42	9.084	563.62	0.37			
9.104	646.92	0.42	9.104	566.49	0.37			
9.124	648.63	0.42	9.124	569.36	0.37			
9.144	650.40	0.42	9.144	571.82	0.37			
9.164	651.99	0.42	9.164	574.28	0.37			
9.183	653.58	0.42	9.183	576.74	0.38			
9.203	655.17	0.42	9.203	579.52	0.38			
9.223	656.74	0.42	9.223	582.45	0.38			
9.243	658.23	0.42	9.243	585.14	0.38			
9.263	659.62	0.42	9.263	587.83	0.38			
9.283	661.02	0.42	9.283	590.35	0.38			
9.303	662.34	0.42	9.303	592.81	0.38			
9.323	663.67	0.42	9.323	595.27	0.38			
9.343	664.97	0.42	9.343	597.54	0.38			
9.363	666.25	0.42	9.363	599.80	0.38			
9.383	667.53	0.42	9.383	601.98	0.38			
9.403	668.67	0.42	9.403	604.02	0.38			
9.423	669.82	0.42	9.423	606.06	0.38			
9.442	671.01	0.42	9.442	607.90	0.39			
9.462	672.11	0.42	9.462	609.68	0.39			
9.482	673.33	0.42	9.482	611.45	0.39			
9.502	674.40	0.42	9.502	613.22	0.39			
9.522	675.55	0.42	9.522	614.86	0.39			
9.542	676.71	0.42	9.542	616.43	0.39			
9.562	677.72	0.42	9.562	618.01	0.39			
9.582	678.80	0.42	9.582	619.48	0.39			
9.602	679.83	0.42	9.602	620.91	0.39			
9.622	680.82	0.42	9.622	622.34	0.39			
9.642	681.82	0.42	9.642	623.79	0.39			
9.662	682.74	0.42	9.662	625.24	0.39			
9.681	683.68	0.42	9.681	626.70	0.39			
9.701	684.55	0.42	9.701	628.26	0.39			
9.721	685.51	0.42	9.721	629.86	0.39			
9.741	686.39	0.42	9.741	631.37	0.39			
9.761	687.25	0.42	9.761	632.86	0.39			



9.781	688.12	0.42	9.781	634.36	0.39			
9.801	689.08	0.42	9.801	635.87	0.39			
9.821	690.03	0.42	9.821	637.34	0.40			
9.841	690.97	0.42	9.841	638.79	0.40			
9.861	691.91	0.42	9.861	640.15	0.40			
9.881	692.82	0.42	9.881	641.48	0.40			
9.901	693.77	0.42	9.901	642.81	0.40			
9.921	694.65	0.42	9.921	644.12	0.40			
9.940	695.57	0.42	9.940	645.42	0.40			
9.960	696.57	0.43	9.960	646.76	0.40			
9.980	697.48	0.43	9.980	648.14	0.40			
10.000	698.39	0.43	10.000	649.49	0.40			
10.020	699.23	0.43	10.020	650.81	0.40			
10.040	700.07	0.43	10.040	652.08	0.40			
10.060	700.95	0.43	10.060	653.34	0.40			
10.080	701.77	0.43	10.080	654.60	0.40			
10.100	702.58	0.43	10.100	655.85	0.40			
10.120	703.38	0.43	10.120	657.08	0.40			
10.140	704.17	0.43	10.140	658.25	0.40			
10.160	704.96	0.43	10.160	659.42	0.40			
10.179	705.81	0.43	10.179	660.60	0.40			
10.199	706.55	0.43	10.199	661.78	0.40			
10.219	707.28	0.43	10.219	662.85	0.41			
10.239	708.06	0.43	10.239	663.92	0.41			
10.259	708.78	0.43	10.259	664.99	0.41			
10.279	709.49	0.43	10.279	666.09	0.41			
10.299	710.19	0.43	10.299	667.19	0.41			
10.319	710.94	0.43	10.319	668.23	0.41			
10.339	711.68	0.43	10.339	669.27	0.41			
10.359	712.38	0.43	10.359	670.29	0.41			
10.379	713.07	0.43	10.379	671.29	0.41			
10.399	713.74	0.43	10.399	672.29	0.41			
10.419	714.43	0.43	10.419	673.23	0.41			
10.438	715.09	0.43	10.438	674.17	0.41			
10.458	715.81	0.43	10.458	675.10	0.41			
10.478	716.47	0.43	10.478	676.05	0.41			
10.498	717.15	0.43	10.498	677.02	0.41			
10.518	717.79	0.43	10.518	677.99	0.41			
10.538	718.48	0.43	10.538	678.92	0.41			
10.558	719.08	0.43	10.558	679.84	0.41			
10.578	719.67	0.43	10.578	680.75	0.41			
10.598	720.35	0.43	10.598	681.63	0.41			
10.618	720.94	0.43	10.618	682.50	0.41			
10.638	721.49	0.43	10.638	683.36	0.41			
10.658	722.07	0.43	10.658	684.20	0.41			

10.677	722.66	0.43	10.677	685.03	0.41			
10.697	723.30	0.43	10.697	685.87	0.41			
10.717	723.87	0.43	10.717	686.70	0.41			
10.737	724.44	0.43	10.737	687.52	0.42			
10.757	724.98	0.43	10.757	688.31	0.42			
10.777	725.53	0.43	10.777	689.10	0.42			
10.797	726.06	0.44	10.797	689.90	0.42			
10.817	726.63	0.44	10.817	690.66	0.42			
10.837	727.12	0.44	10.837	691.41	0.42			
10.857	727.61	0.44	10.857	692.17	0.42			
10.877	728.17	0.44	10.877	692.91	0.42			
10.897	728.81	0.44	10.897	693.62	0.42			
10.917	729.42	0.44	10.917	694.34	0.42			
10.936	730.06	0.44	10.936	695.05	0.42			
10.956	730.64	0.44	10.956	695.77	0.42			
10.976	731.27	0.44	10.976	696.48	0.42			
10.996	731.84	0.44	10.996	697.20	0.42			
11.016	732.46	0.44	11.016	697.92	0.42			
11.036	733.02	0.44	11.036	698.64	0.42			
11.056	733.58	0.44	11.056	699.35	0.42			
11.076	734.13	0.44	11.076	700.07	0.42			
11.096	734.75	0.44	11.096	700.78	0.42			
11.116	735.31	0.44	11.116	701.48	0.42			
11.136	735.87	0.44	11.136	702.19	0.42			
11.156	736.46	0.44	11.156	702.90	0.42			
11.175	736.98	0.44	11.175	703.59	0.42			
11.195	737.51	0.44	11.195	704.28	0.42			
11.215	738.10	0.44	11.215	704.96	0.42			
11.235	738.70	0.44	11.235	705.66	0.42			
11.255	739.21	0.44	11.255	706.36	0.42			
11.275	739.80	0.44	11.275	707.06	0.42			
11.295	740.32	0.44	11.295	707.72	0.42			
11.315	740.89	0.44	11.315	708.37	0.42			
11.335	741.40	0.44	11.335	709.03	0.42			
11.355	741.97	0.44	11.355	709.67	0.42			
11.375	742.46	0.44	11.375	710.31	0.42			
11.395	743.01	0.44	11.395	710.95	0.42			
11.415	743.58	0.44	11.415	711.58	0.43			
11.434	744.08	0.44	11.434	712.22	0.43			
11.454	744.58	0.44	11.454	712.85	0.43			
11.474	745.20	0.44	11.474	713.48	0.43			
11.494	745.67	0.44	11.494	714.10	0.43			
11.514	746.21	0.44	11.514	714.73	0.43			
11.534	746.76	0.44	11.534	715.35	0.43			
11.554	747.22	0.44	11.554	715.94	0.43			

11.574	747.72	0.44	11.574	716.53	0.43			
11.594	748.25	0.44	11.594	717.12	0.43			
11.614	748.70	0.44	11.614	717.70	0.43			
11.634	749.23	0.44	11.634	718.26	0.43			
11.654	749.74	0.44	11.654	718.81	0.43			
11.673	750.27	0.44	11.673	719.37	0.43			
11.693	750.77	0.44	11.693	719.91	0.43			
11.713	751.25	0.44	11.713	720.46	0.43			
11.733	751.75	0.44	11.733	721.00	0.43			
11.753	752.24	0.45	11.753	721.54	0.43			
11.773	752.72	0.45	11.773	722.06	0.43			
11.793	753.20	0.45	11.793	722.58	0.43			
11.813	753.70	0.45	11.813	723.10	0.43			
11.833	754.15	0.45	11.833	723.62	0.43			
11.853	754.60	0.45	11.853	724.13	0.43			
11.873	755.07	0.45	11.873	724.65	0.43			
11.893	755.54	0.45	11.893	725.17	0.43			
11.913	756.00	0.45	11.913	725.68	0.43			
11.932	756.45	0.45	11.932	726.19	0.43			
11.952	756.97	0.45	11.952	726.70	0.43			
11.972	757.37	0.45	11.972	727.21	0.43			
11.992	757.83	0.45	11.992	727.75	0.43			
12.012	758.33	0.45	12.012	728.28	0.43			
12.032	758.78	0.45	12.032	728.82	0.43			
12.052	759.23	0.45	12.052	729.36	0.43			
12.072	759.68	0.45	12.072	729.89	0.43			
12.092	760.11	0.45	12.092	730.40	0.43			
12.112	760.55	0.45	12.112	730.90	0.43			
12.132	761.00	0.45	12.132	731.41	0.43			
12.152	761.42	0.45	12.152	731.93	0.43			
12.171	761.84	0.45	12.171	732.46	0.43			
12.191	762.23	0.45	12.191	732.99	0.43			
12.211	762.74	0.45	12.211	733.52	0.43			
12.231	763.19	0.45	12.231	734.05	0.43			
12.251	763.63	0.45	12.251	734.57	0.43			
12.271	764.05	0.45	12.271	735.06	0.43			
12.291	764.48	0.45	12.291	735.55	0.44			
12.311	764.91	0.45	12.311	736.05	0.44			
12.331	765.32	0.45	12.331	736.54	0.44			
12.351	765.74	0.45	12.351	737.04	0.44			
12.371	766.17	0.45	12.371	737.54	0.44			
12.391	766.53	0.45	12.391	738.04	0.44			
12.411	767.00	0.45	12.411	738.54	0.44			
12.430	767.39	0.45	12.430	739.05	0.44			
12.450	767.78	0.45	12.450	739.56	0.44			

12.470	768.24	0.45	12.470	740.06	0.44			
12.490	768.66	0.45	12.490	740.55	0.44			
12.510	769.09	0.45	12.510	740.99	0.44			
12.530	769.47	0.45	12.530	741.47	0.44			
12.550	769.87	0.45	12.550	741.99	0.44			
12.570	770.29	0.45	12.570	742.49	0.44			
12.590	770.72	0.45	12.590	742.93	0.44			
12.610	771.09	0.45	12.610	743.35	0.44			
12.630	771.46	0.45	12.630	743.85	0.44			
12.650	771.89	0.45	12.650	744.35	0.44			
12.669	772.28	0.45	12.669	744.78	0.44			
12.689	772.69	0.45	12.689	745.25	0.44			
12.709	773.06	0.45	12.709	745.74	0.44			
12.729	773.42	0.45	12.729	746.25	0.44			
12.749	773.77	0.45	12.749	746.74	0.44			
12.769	774.22	0.45	12.769	747.20	0.44			
12.789	774.57	0.45	12.789	747.66	0.44			
12.809	774.94	0.45	12.809	748.17	0.44			
12.829	775.35	0.45	12.829	748.60	0.44			
12.849	775.71	0.45	12.849	749.11	0.44			
12.869	776.11	0.45	12.869	749.56	0.44			
12.889	776.53	0.45	12.889	749.99	0.44			
12.909	776.94	0.45	12.909	750.57	0.44			
12.928	777.28	0.46	12.928	750.90	0.44			
12.948	777.64	0.46	12.948	751.36	0.44			
12.968	778.06	0.46	12.968	751.87	0.44			
12.988	778.41	0.46	12.988	752.25	0.44			
13.008	778.82	0.46	13.008	752.58	0.44			
13.028	779.18	0.46	13.028	752.89	0.44			
13.048	779.52	0.46	13.048	753.20	0.44			
13.068	779.86	0.46	13.068	753.68	0.44			
13.088	780.23	0.46	13.088	754.12	0.44			
13.108	780.58	0.46	13.108	754.54	0.44			
13.128	780.95	0.46	13.128	754.82	0.44			
13.148	781.30	0.46	13.148	755.20	0.44			
13.167	781.69	0.46	13.167	755.61	0.44			
13.187	782.00	0.46	13.187	756.08	0.44			
13.207	782.40	0.46	13.207	756.47	0.44			
13.227	782.80	0.46	13.227	756.90	0.44			
13.247	783.14	0.46	13.247	757.29	0.44			
13.267	783.52	0.46	13.267	757.66	0.44			
13.287	783.84	0.46	13.287	758.00	0.44			
13.307	784.22	0.46	13.307	758.42	0.44			
13.327	784.56	0.46	13.327	758.80	0.44			
13.347	784.90	0.46	13.347	759.24	0.45			

13.367	785.30	0.46	13.367	759.61	0.45			
13.387	785.58	0.46	13.387	760.00	0.45			
13.407	785.90	0.46	13.407	760.43	0.45			
13.426	786.26	0.46	13.426	760.83	0.45			
13.446	786.59	0.46	13.446	761.17	0.45			
13.466	786.91	0.46	13.466	761.56	0.45			
13.486	787.27	0.46	13.486	761.97	0.45			
13.506	787.63	0.46	13.506	762.32	0.45			
13.526	787.93	0.46	13.526	762.74	0.45			
13.546	788.30	0.46	13.546	763.13	0.45			
13.566	788.65	0.46	13.566	763.51	0.45			
13.586	789.01	0.46	13.586	763.90	0.45			
13.606	789.38	0.46	13.606	764.24	0.45			
13.626	789.67	0.46	13.626	764.60	0.45			
13.646	790.02	0.46	13.646	764.97	0.45			
13.665	790.36	0.46	13.665	765.34	0.45			
13.685	790.71	0.46	13.685	765.74	0.45			
13.705	791.03	0.46	13.705	766.14	0.45			
13.725	791.32	0.46	13.725	766.52	0.45			
13.745	791.66	0.46	13.745	766.92	0.45			
13.765	792.01	0.46	13.765	767.30	0.45			
13.785	792.33	0.46	13.785	767.62	0.45			
13.805	792.62	0.46	13.805	767.98	0.45			
13.825	792.96	0.46	13.825	768.37	0.45			
13.845	793.30	0.46	13.845	768.76	0.45			
13.865	793.59	0.46	13.865	769.15	0.45			
13.885	793.90	0.46	13.885	769.47	0.45			
13.905	794.23	0.46	13.905	769.80	0.45			
13.924	794.54	0.46	13.924	770.17	0.45			
13.944	794.86	0.46	13.944	770.54	0.45			
13.964	795.19	0.46	13.964	770.90	0.45			
13.984	795.51	0.46	13.984	771.25	0.45			
14.004	795.81	0.46	14.004	771.59	0.45			
14.024	796.10	0.46	14.024	771.96	0.45			
14.044	796.39	0.46	14.044	772.32	0.45			
14.064	796.71	0.46	14.064	772.67	0.45			
14.084	797.01	0.46	14.084	773.01	0.45			
14.104	797.32	0.46	14.104	773.37	0.45			
14.124	797.67	0.46	14.124	773.71	0.45			
14.144	798.01	0.46	14.144	774.05	0.45			
14.163	798.32	0.46	14.163	774.40	0.45			
14.183	798.63	0.46	14.183	774.80	0.45			
14.203	798.94	0.46	14.203	775.08	0.45			
14.223	799.25	0.46	14.223	775.45	0.45			
14.243	799.56	0.46	14.243	775.75	0.45			

14.263	799.87	0.46	14.263	776.11	0.45			
14.283	800.18	0.46	14.283	776.46	0.45			
14.303	800.46	0.46	14.303	776.79	0.45			
14.323	800.72	0.46	14.323	777.12	0.45			
14.343	801.03	0.47	14.343	777.45	0.45			
14.363	801.34	0.47	14.363	777.76	0.45			
14.383	801.64	0.47	14.383	778.10	0.45			
14.403	801.94	0.47	14.403	778.43	0.45			
14.422	802.23	0.47	14.422	778.76	0.45			
14.442	802.53	0.47	14.442	779.08	0.45			
14.462	802.83	0.47	14.462	779.40	0.45			
14.482	803.13	0.47	14.482	779.81	0.45			
14.502	803.42	0.47	14.502	780.12	0.45			
14.522	803.70	0.47	14.522	780.46	0.45			
14.542	803.98	0.47	14.542	780.79	0.45			
14.562	804.27	0.47	14.562	781.08	0.45			
14.582	804.55	0.47	14.582	781.39	0.45			
14.602	804.86	0.47	14.602	781.73	0.45			
14.622	805.16	0.47	14.622	782.08	0.45			
14.642	805.46	0.47	14.642	782.38	0.46			
14.661	805.75	0.47	14.661	782.67	0.46			
14.681	806.03	0.47	14.681	782.98	0.46			
14.701	806.32	0.47	14.701	783.30	0.46			
14.721	806.61	0.47	14.721	783.61	0.46			
14.741	806.88	0.47	14.741	783.91	0.46			
14.761	807.15	0.47	14.761	784.25	0.46			
14.781	807.42	0.47	14.781	784.54	0.46			
14.801	807.69	0.47	14.801	784.86	0.46			
14.821	807.99	0.47	14.821	785.16	0.46			
14.841	808.30	0.47	14.841	785.44	0.46			
14.861	808.56	0.47	14.861	785.82	0.46			
14.881	808.82	0.47	14.881	786.10	0.46			
14.901	809.14	0.47	14.901	786.41	0.46			
14.920	809.47	0.47	14.920	786.73	0.46			
14.940	809.77	0.47	14.940	787.04	0.46			
14.960	810.04	0.47	14.960	787.33	0.46			
14.980	810.29	0.47	14.980	787.65	0.46			
15.000	810.57	0.47	15.000	787.93	0.46			
15.020	810.83	0.47	15.020	788.28	0.46			
15.040	811.12	0.47	15.040	788.54	0.46			
15.060	811.42	0.47	15.060	788.79	0.46			
15.080	811.68	0.47	15.080	789.16	0.46			
15.100	811.94	0.47	15.100	789.44	0.46			
15.120	812.18	0.47	15.120	789.72	0.46			
15.140	812.46	0.47	15.140	790.02	0.46			

15.159	812.76	0.47	15.159	790.32	0.46			
15.179	813.02	0.47	15.179	790.58	0.46			
15.199	813.30	0.47	15.199	790.88	0.46			
15.219	813.57	0.47	15.219	791.21	0.46			
15.239	813.82	0.47	15.239	791.47	0.46			
15.259	814.08	0.47	15.259	791.77	0.46			
15.279	814.33	0.47	15.279	792.04	0.46			
15.299	814.61	0.47	15.299	792.38	0.46			
15.319	814.91	0.47	15.319	792.70	0.46			
15.339	815.16	0.47	15.339	792.96	0.46			
15.359	815.40	0.47	15.359	793.28	0.46			
15.379	815.65	0.47	15.379	793.53	0.46			
15.398	815.90	0.47	15.398	793.82	0.46			
15.418	816.13	0.47	15.418	794.14	0.46			
15.438	816.41	0.47	15.438	794.40	0.46			
15.458	816.69	0.47	15.458	794.67	0.46			
15.478	816.97	0.47	15.478	794.98	0.46			
15.498	817.19	0.47	15.498	795.25	0.46			
15.518	817.45	0.47	15.518	795.51	0.46			
15.538	817.72	0.47	15.538	795.82	0.46			
15.558	818.01	0.47	15.558	796.11	0.46			
15.578	818.30	0.47	15.578	796.37	0.46			
15.598	818.57	0.47	15.598	796.66	0.46			
15.618	818.80	0.47	15.618	796.90	0.46			
15.638	819.03	0.47	15.638	797.21	0.46			
15.657	819.28	0.47	15.657	797.51	0.46			
15.677	819.57	0.47	15.677	797.72	0.46			
15.697	819.80	0.47	15.697	798.01	0.46			
15.717	820.06	0.47	15.717	798.32	0.46			
15.737	820.33	0.47	15.737	798.61	0.46			
15.757	820.61	0.47	15.757	798.85	0.46			
15.777	820.85	0.47	15.777	799.09	0.46			
15.797	821.07	0.47	15.797	799.38	0.46			
15.817	821.33	0.47	15.817	799.68	0.46			
15.837	821.59	0.47	15.837	799.96	0.46			
15.857	821.84	0.47	15.857	800.18	0.46			
15.877	822.05	0.47	15.877	800.47	0.46			
15.896	822.29	0.47	15.896	800.76	0.46			
15.916	822.55	0.47	15.916	801.04	0.46			
15.936	822.82	0.47	15.936	801.28	0.46			
15.956	823.06	0.47	15.956	801.52	0.46			
15.976	823.28	0.47	15.976	801.78	0.46			
15.996	823.52	0.47	15.996	802.04	0.46			
16.016	823.76	0.47	16.016	802.30	0.46			
16.036	824.01	0.47	16.036	802.57	0.46			

16.056	824.26	0.47	16.056	802.85	0.46			
16.076	824.50	0.47	16.076	803.12	0.46			
16.096	824.70	0.48	16.096	803.40	0.46			
16.116	824.93	0.48	16.116	803.66	0.46			
16.136	825.18	0.48	16.136	803.87	0.46			
16.155	825.43	0.48	16.155	804.13	0.46			
16.175	825.67	0.48	16.175	804.46	0.46			
16.195	825.91	0.48	16.195	804.75	0.46			
16.215	826.15	0.48	16.215	805.02	0.46			
16.235	826.40	0.48	16.235	805.27	0.46			
16.255	826.63	0.48	16.255	805.52	0.47			
16.275	826.87	0.48	16.275	805.77	0.47			
16.295	827.11	0.48	16.295	806.03	0.47			
16.315	827.34	0.48	16.315	806.29	0.47			
16.335	827.57	0.48	16.335	806.54	0.47			
16.355	827.84	0.48	16.355	806.80	0.47			
16.375	828.12	0.48	16.375	807.07	0.47			
16.394	828.36	0.48	16.394	807.33	0.47			
16.414	828.58	0.48	16.414	807.59	0.47			
16.434	828.77	0.48	16.434	807.85	0.47			
16.454	828.99	0.48	16.454	808.11	0.47			
16.474	829.23	0.48	16.474	808.35	0.47			
16.494	829.47	0.48	16.494	808.59	0.47			
16.514	829.70	0.48	16.514	808.83	0.47			
16.534	829.94	0.48	16.534	809.07	0.47			
16.554	830.18	0.48	16.554	809.31	0.47			
16.574	830.41	0.48	16.574	809.55	0.47			
16.594	830.64	0.48	16.594	809.79	0.47			
16.614	830.87	0.48	16.614	810.10	0.47			
16.634	831.10	0.48	16.634	810.35	0.47			
16.653	831.33	0.48	16.653	810.58	0.47			
16.673	831.55	0.48	16.673	810.81	0.47			
16.693	831.78	0.48	16.693	811.03	0.47			
16.713	832.00	0.48	16.713	811.28	0.47			
16.733	832.22	0.48	16.733	811.53	0.47			
16.753	832.45	0.48	16.753	811.78	0.47			
16.773	832.66	0.48	16.773	812.01	0.47			
16.793	832.88	0.48	16.793	812.24	0.47			
16.813	833.11	0.48	16.813	812.48	0.47			
16.833	833.34	0.48	16.833	812.71	0.47			
16.853	833.56	0.48	16.853	812.94	0.47			
16.873	833.78	0.48	16.873	813.19	0.47			
16.892	833.99	0.48	16.892	813.47	0.47			
16.912	834.21	0.48	16.912	813.74	0.47			
16.932	834.43	0.48	16.932	813.99	0.47			



16.952	834.65	0.48	16.952	814.23	0.47			
16.972	834.86	0.48	16.972	814.51	0.47			
16.992	835.08	0.48	16.992	814.75	0.47			
17.012	835.29	0.48	17.012	814.97	0.47			
17.032	835.51	0.48	17.032	815.20	0.47			
17.052	835.73	0.48	17.052	815.43	0.47			
17.072	835.94	0.48	17.072	815.66	0.47			
17.092	836.16	0.48	17.092	815.89	0.47			
17.112	836.37	0.48	17.112	816.18	0.47			
17.132	836.58	0.48	17.132	816.42	0.47			
17.151	836.79	0.48	17.151	816.65	0.47			
17.171	837.01	0.48	17.171	816.86	0.47			
17.191	837.21	0.48	17.191	817.11	0.47			
17.211	837.42	0.48	17.211	817.37	0.47			
17.231	837.62	0.48	17.231	817.58	0.47			
17.251	837.84	0.48	17.251	817.82	0.47			
17.271	838.13	0.48	17.271	818.08	0.47			
17.291	838.41	0.48	17.291	818.28	0.47			
17.311	838.62	0.48	17.311	818.50	0.47			
17.331	838.83	0.48	17.331	818.72	0.47			
17.351	839.03	0.48	17.351	818.98	0.47			
17.371	839.24	0.48	17.371	819.23	0.47			
17.390	839.44	0.48	17.390	819.44	0.47			
17.410	839.65	0.48	17.410	819.66	0.47			
17.430	839.85	0.48	17.430	819.89	0.47			
17.450	840.05	0.48	17.450	820.15	0.47			
17.470	840.29	0.48	17.470	820.37	0.47			
17.490	840.52	0.48	17.490	820.59	0.47			
17.510	840.71	0.48	17.510	820.80	0.47			
17.530	840.91	0.48	17.530	821.01	0.47			
17.550	841.10	0.48	17.550	821.21	0.47			
17.570	841.29	0.48	17.570	821.42	0.47			
17.590	841.52	0.48	17.590	821.66	0.47			
17.610	841.76	0.48	17.610	821.91	0.47			
17.630	841.95	0.48	17.630	822.15	0.47			
17.649	842.14	0.48	17.649	822.39	0.47			
17.669	842.33	0.48	17.669	822.64	0.47			
17.689	842.52	0.48	17.689	822.88	0.47			
17.709	842.74	0.48	17.709	823.13	0.47			
17.729	842.96	0.48	17.729	823.33	0.47			
17.749	843.17	0.48	17.749	823.55	0.47			
17.769	843.36	0.48	17.769	823.79	0.47			
17.789	843.57	0.48	17.789	824.00	0.47			
17.809	843.79	0.48	17.809	824.21	0.47			
17.829	844.01	0.48	17.829	824.45	0.47			

17.849	844.20	0.48	17.849	824.67	0.47			
17.869	844.39	0.48	17.869	824.87	0.47			
17.888	844.61	0.48	17.888	825.10	0.47			
17.908	844.83	0.48	17.908	825.33	0.47			
17.928	845.02	0.48	17.928	825.53	0.47			
17.948	845.20	0.48	17.948	825.75	0.47			
17.968	845.38	0.48	17.968	825.98	0.47			
17.988	845.58	0.48	17.988	826.19	0.47			
18.008	845.77	0.48	18.008	826.39	0.47			
18.028	845.96	0.48	18.028	826.60	0.47			
18.048	846.15	0.48	18.048	826.80	0.47			
18.068	846.35	0.48	18.068	827.00	0.47			
18.088	846.54	0.48	18.088	827.22	0.47			
18.108	846.72	0.48	18.108	827.45	0.47			
18.128	846.90	0.48	18.128	827.64	0.47			
18.147	847.09	0.48	18.147	827.83	0.47			
18.167	847.30	0.48	18.167	828.06	0.47			
18.187	847.50	0.48	18.187	828.29	0.48			
18.207	847.68	0.48	18.207	828.52	0.48			
18.227	847.86	0.48	18.227	828.74	0.48			
18.247	848.06	0.49	18.247	828.96	0.48			
18.267	848.27	0.49	18.267	829.16	0.48			
18.287	848.46	0.49	18.287	829.33	0.48			
18.307	848.64	0.49	18.307	829.54	0.48			
18.327	848.82	0.49	18.327	829.76	0.48			
18.347	849.03	0.49	18.347	830.01	0.48			
18.367	849.23	0.49	18.367	830.27	0.48			
18.386	849.41	0.49	18.386	830.49	0.48			
18.406	849.57	0.49	18.406	830.71	0.48			
18.426	849.76	0.49	18.426	830.88	0.48			
18.446	849.97	0.49	18.446	831.06	0.48			
18.466	850.17	0.49	18.466	831.27	0.48			
18.486	850.37	0.49	18.486	831.49	0.48			
18.506	850.56	0.49	18.506	831.71	0.48			
18.526	850.78	0.49	18.526	831.92	0.48			
18.546	851.01	0.49	18.546	832.13	0.48			
18.566	851.24	0.49	18.566	832.34	0.48			
18.586	851.40	0.49	18.586	832.56	0.48			
18.606	851.57	0.49	18.606	832.78	0.48			
18.626	851.75	0.49	18.626	832.99	0.48			
18.645	851.95	0.49	18.645	833.20	0.48			
18.665	852.15	0.49	18.665	833.41	0.48			
18.685	852.35	0.49	18.685	833.59	0.48			
18.705	852.55	0.49	18.705	833.75	0.48			
18.725	852.72	0.49	18.725	833.95	0.48			

18.745	852.88	0.49	18.745	834.15	0.48			
18.765	853.05	0.49	18.765	834.36	0.48			
18.785	853.24	0.49	18.785	834.57	0.48			
18.805	853.44	0.49	18.805	834.77	0.48			
18.825	853.63	0.49	18.825	834.98	0.48			
18.845	853.82	0.49	18.845	835.17	0.48			
18.865	854.00	0.49	18.865	835.36	0.48			
18.884	854.16	0.49	18.884	835.55	0.48			
18.904	854.32	0.49	18.904	835.74	0.48			
18.924	854.50	0.49	18.924	835.94	0.48			
18.944	854.68	0.49	18.944	836.13	0.48			
18.964	854.87	0.49	18.964	836.32	0.48			
18.984	855.05	0.49	18.984	836.52	0.48			
19.004	855.23	0.49	19.004	836.72	0.48			
19.024	855.42	0.49	19.024	836.93	0.48			
19.044	855.60	0.49	19.044	837.12	0.48			
19.064	855.78	0.49	19.064	837.32	0.48			
19.084	855.97	0.49	19.084	837.54	0.48			
19.104	856.15	0.49	19.104	837.78	0.48			
19.124	856.33	0.49	19.124	837.98	0.48			
19.143	856.51	0.49	19.143	838.18	0.48			
19.163	856.69	0.49	19.163	838.37	0.48			
19.183	856.87	0.49	19.183	838.57	0.48			
19.203	857.05	0.49	19.203	838.76	0.48			
19.223	857.23	0.49	19.223	838.95	0.48			
19.243	857.39	0.49	19.243	839.14	0.48			
19.263	857.54	0.49	19.263	839.33	0.48			
19.283	857.69	0.49	19.283	839.51	0.48			
19.303	857.85	0.49	19.303	839.70	0.48			
19.323	858.03	0.49	19.323	839.88	0.48			
19.343	858.21	0.49	19.343	840.10	0.48			
19.363	858.39	0.49	19.363	840.32	0.48			
19.382	858.56	0.49	19.382	840.50	0.48			
19.402	858.74	0.49	19.402	840.68	0.48			
19.422	858.91	0.49	19.422	840.87	0.48			
19.442	859.08	0.49	19.442	841.05	0.48			
19.462	859.24	0.49	19.462	841.23	0.48			
19.482	859.41	0.49	19.482	841.41	0.48			
19.502	859.58	0.49	19.502	841.60	0.48			
19.522	859.75	0.49	19.522	841.82	0.48			
19.542	859.92	0.49	19.542	842.04	0.48			
19.562	860.08	0.49	19.562	842.19	0.48			
19.582	860.25	0.49	19.582	842.33	0.48			
19.602	860.43	0.49	19.602	842.52	0.48			
19.622	860.60	0.49	19.622	842.73	0.48			

19.641	860.76	0.49	19.641	842.93	0.48			
19.661	860.93	0.49	19.661	843.11	0.48			
19.681	861.10	0.49	19.681	843.28	0.48			
19.701	861.26	0.49	19.701	843.46	0.48			
19.721	861.43	0.49	19.721	843.64	0.48			
19.741	861.59	0.49	19.741	843.84	0.48			
19.761	861.76	0.49	19.761	844.05	0.48			
19.781	861.92	0.49	19.781	844.25	0.48			
19.801	862.08	0.49	19.801	844.42	0.48			
19.821	862.25	0.49	19.821	844.59	0.48			
19.841	862.41	0.49	19.841	844.76	0.48			
19.861	862.57	0.49	19.861	844.93	0.48			
19.880	862.74	0.49	19.880	845.12	0.48			
19.900	862.90	0.49	19.900	845.32	0.48			
19.920	863.06	0.49	19.920	845.51	0.48			
19.940	863.22	0.49	19.940	845.68	0.48			
19.960	863.39	0.49	19.960	845.85	0.48			
19.980	863.55	0.49	19.980	846.05	0.48			
20.000	863.71	0.49	20.000	846.24	0.48			

**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  mixtures.

$T= 333.15\pm 0.04 \text{ K}$								
$x_{\text{CO}_2} = 0.8029$			$x_{\text{CO}_2} = 0.8969$			$x_{\text{CO}_2} = 0.9532$		
$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )
0.100	1.71	0.23	0.100	1.64	0.21	0.678	11.87	0.23
0.125	2.10	0.23	0.120	1.76	0.21	0.698	12.27	0.23
0.150	2.51	0.23	0.140	2.11	0.21	0.718	12.57	0.23
0.174	2.95	0.23	0.160	2.45	0.21	0.738	12.92	0.23
0.199	3.37	0.23	0.180	2.75	0.21	0.758	13.26	0.23
0.224	3.78	0.23	0.200	3.08	0.22	0.778	13.57	0.23
0.249	4.15	0.23	0.220	3.39	0.22	0.798	13.95	0.23
0.273	4.60	0.23	0.239	3.77	0.22	0.818	14.31	0.23
0.298	4.99	0.23	0.259	4.12	0.22	0.838	14.61	0.23
0.323	5.43	0.23	0.279	4.45	0.22	0.858	14.94	0.23
0.348	5.87	0.23	0.299	4.76	0.23	0.878	15.28	0.23
0.372	6.33	0.23	0.319	5.14	0.23	0.898	15.64	0.23
0.397	6.78	0.23	0.339	5.46	0.25	0.918	15.96	0.23
0.422	7.16	0.23	0.359	5.82	0.25	0.938	16.33	0.23
0.447	7.63	0.23	0.379	6.18	0.26	0.958	16.65	0.23
0.472	8.08	0.23	0.399	6.50	0.26	0.978	17.01	0.23
0.496	8.52	0.23	0.419	6.85	0.26	0.998	17.38	0.23
0.521	8.96	0.23	0.439	7.18	0.26	1.018	17.72	0.23
0.546	9.40	0.23	0.459	7.56	0.26	1.037	18.06	0.23
0.571	9.82	0.23	0.478	7.84	0.26	1.057	18.38	0.23
0.595	10.26	0.23	0.498	8.20	0.26	1.077	18.77	0.23
0.620	10.73	0.23	0.518	8.52	0.26	1.097	19.11	0.23
0.645	11.15	0.23	0.538	8.89	0.26	1.117	19.47	0.23
0.670	11.64	0.23	0.558	9.27	0.26	1.137	19.81	0.23
0.695	12.10	0.23	0.578	9.53	0.26	1.157	20.21	0.23
0.719	12.55	0.23	0.598	9.87	0.26	1.177	20.57	0.23
0.744	13.00	0.23	0.618	10.31	0.25	1.197	20.94	0.23
0.769	13.50	0.23	0.638	10.62	0.25	1.217	21.27	0.23
0.794	13.94	0.23	0.658	10.93	0.25	1.237	21.59	0.23
0.818	14.41	0.23	0.678	11.30	0.25	1.257	21.96	0.23
0.843	14.89	0.23	0.698	11.67	0.25	1.277	22.34	0.23
0.868	15.28	0.23	0.718	12.03	0.25	1.297	22.73	0.23
0.893	15.78	0.23	0.737	12.33	0.25	1.317	23.05	0.23
0.917	16.27	0.23	0.757	12.71	0.25	1.337	23.39	0.23
0.942	16.77	0.23	0.777	13.04	0.24	1.357	23.77	0.23
0.967	17.19	0.23	0.797	13.42	0.24	1.377	24.13	0.23

0.992	17.69	0.23	0.817	13.74	0.24	1.397	24.48	0.23
1.017	18.19	0.23	0.837	14.14	0.24	1.416	24.88	0.23
1.041	18.68	0.23	0.857	14.43	0.24	1.436	25.23	0.23
1.066	19.13	0.23	0.877	14.80	0.24	1.456	25.55	0.23
1.091	19.61	0.23	0.897	15.15	0.24	1.476	25.94	0.23
1.116	20.10	0.23	0.917	15.49	0.24	1.496	26.36	0.23
1.140	20.61	0.23	0.937	15.86	0.24	1.516	26.69	0.23
1.165	21.06	0.23	0.957	16.19	0.24	1.536	27.02	0.23
1.190	21.56	0.23	0.976	16.55	0.24	1.556	27.40	0.23
1.215	22.00	0.23	0.996	16.91	0.24	1.576	27.74	0.23
1.239	22.52	0.23	1.016	17.26	0.24	1.596	28.07	0.23
1.264	22.99	0.23	1.036	17.67	0.24	1.616	28.42	0.23
1.289	23.45	0.23	1.056	17.99	0.24	1.636	28.85	0.23
1.314	24.00	0.23	1.076	18.36	0.24	1.656	29.18	0.23
1.339	24.44	0.23	1.096	18.72	0.24	1.676	29.58	0.23
1.363	24.96	0.23	1.116	19.07	0.23	1.696	29.92	0.23
1.388	25.42	0.23	1.136	19.48	0.23	1.716	30.32	0.23
1.413	25.92	0.23	1.156	19.81	0.23	1.736	30.63	0.23
1.438	26.42	0.23	1.176	20.15	0.23	1.756	31.01	0.23
1.462	26.90	0.23	1.196	20.55	0.23	1.776	31.39	0.23
1.487	27.44	0.23	1.216	20.94	0.23	1.795	31.76	0.23
1.512	27.85	0.23	1.235	21.28	0.23	1.815	32.12	0.23
1.537	28.37	0.23	1.255	21.62	0.23	1.835	32.47	0.23
1.561	28.82	0.23	1.275	22.03	0.23	1.855	32.85	0.23
1.586	29.39	0.23	1.295	22.34	0.23	1.875	33.21	0.23
1.611	29.89	0.23	1.315	22.74	0.23	1.895	33.59	0.23
1.636	30.38	0.23	1.335	23.08	0.23	1.915	33.95	0.23
1.661	30.86	0.23	1.355	23.44	0.23	1.935	34.34	0.23
1.685	31.40	0.23	1.375	23.89	0.23	1.955	34.70	0.23
1.710	31.91	0.24	1.395	24.24	0.23	1.975	35.11	0.23
1.735	32.38	0.24	1.415	24.58	0.23	1.995	35.51	0.23
1.760	32.91	0.24	1.435	24.93	0.23	2.015	35.84	0.23
1.784	33.40	0.24	1.455	25.33	0.23	2.035	36.23	0.23
1.809	33.87	0.24	1.474	25.72	0.23	2.055	36.61	0.23
1.834	34.38	0.24	1.494	26.04	0.23	2.075	36.98	0.23
1.859	34.94	0.24	1.514	26.43	0.23	2.095	37.37	0.23
1.884	35.42	0.24	1.534	26.80	0.23	2.115	37.73	0.23
1.908	35.94	0.24	1.554	27.16	0.23	2.135	38.14	0.23
1.933	36.48	0.24	1.574	27.53	0.23	2.155	38.55	0.23
1.958	36.96	0.24	1.594	27.95	0.23	2.174	38.88	0.23
1.983	37.50	0.24	1.614	28.30	0.23	2.194	39.27	0.23
2.007	38.03	0.24	1.634	28.69	0.23	2.214	39.66	0.23
2.032	38.54	0.24	1.654	29.05	0.23	2.234	40.06	0.23
2.057	39.04	0.24	1.674	29.46	0.23	2.254	40.43	0.23
2.082	39.54	0.24	1.694	29.79	0.23	2.274	40.81	0.23

2.106	40.05	0.24	1.714	30.19	0.23	2.294	41.18	0.23
2.131	40.58	0.24	1.733	30.57	0.23	2.314	41.62	0.23
2.156	41.13	0.24	1.753	30.95	0.23	2.334	41.98	0.23
2.181	41.66	0.24	1.773	31.35	0.23	2.354	42.42	0.23
2.206	42.18	0.24	1.793	31.71	0.23	2.374	42.77	0.23
2.230	42.70	0.24	1.813	32.11	0.23	2.394	43.19	0.23
2.255	43.25	0.24	1.833	32.48	0.23	2.414	43.53	0.23
2.280	43.78	0.24	1.853	32.89	0.23	2.434	43.95	0.23
2.305	44.28	0.24	1.873	33.29	0.23	2.454	44.34	0.23
2.329	44.79	0.24	1.893	33.67	0.23	2.474	44.76	0.23
2.354	45.38	0.24	1.913	34.08	0.23	2.494	45.15	0.23
2.379	45.84	0.24	1.933	34.42	0.23	2.514	45.55	0.23
2.404	46.40	0.24	1.953	34.83	0.23	2.533	45.93	0.23
2.428	46.94	0.24	1.972	35.22	0.23	2.553	46.34	0.23
2.453	47.48	0.24	1.992	35.61	0.23	2.573	46.72	0.23
2.478	48.01	0.24	2.012	36.27	0.23	2.593	47.18	0.23
2.503	48.54	0.24	2.035	36.66	0.23	2.613	47.53	0.23
2.528	49.10	0.24	2.055	37.05	0.23	2.633	47.91	0.23
2.552	49.63	0.24	2.075	37.45	0.23	2.653	48.34	0.23
2.577	50.18	0.24	2.095	37.80	0.23	2.673	48.72	0.23
2.602	50.76	0.24	2.115	38.16	0.23	2.693	49.11	0.23
2.627	51.30	0.24	2.135	38.55	0.23	2.713	49.53	0.23
2.651	51.85	0.24	2.155	38.93	0.23	2.733	49.96	0.23
2.676	52.42	0.24	2.174	39.29	0.23	2.753	50.36	0.23
2.701	52.97	0.24	2.194	39.67	0.23	2.773	50.77	0.23
2.726	53.54	0.24	2.214	40.06	0.23	2.793	51.18	0.23
2.751	54.11	0.24	2.234	40.45	0.23	2.813	51.57	0.23
2.775	54.64	0.24	2.254	40.84	0.23	2.833	51.96	0.23
2.800	55.20	0.24	2.274	41.24	0.23	2.853	52.44	0.23
2.825	55.80	0.24	2.294	41.63	0.23	2.873	52.81	0.23
2.850	56.34	0.24	2.314	42.01	0.23	2.893	53.19	0.23
2.874	56.90	0.24	2.334	42.39	0.23	2.912	53.65	0.23
2.899	57.47	0.24	2.354	42.77	0.23	2.932	54.01	0.23
2.924	58.06	0.24	2.374	43.14	0.23	2.952	54.47	0.23
2.949	58.60	0.24	2.394	43.51	0.23	2.972	54.87	0.23
2.973	59.21	0.24	2.414	43.89	0.23	2.992	55.29	0.23
2.998	59.78	0.24	2.434	44.27	0.23	3.012	55.70	0.23
3.023	60.34	0.24	2.454	44.65	0.23	3.032	56.13	0.23
3.048	60.90	0.24	2.474	45.04	0.23	3.052	56.53	0.23
3.073	61.45	0.24	2.494	45.43	0.23	3.072	56.93	0.23
3.097	62.07	0.24	2.514	45.82	0.23	3.092	57.39	0.23
3.122	62.63	0.24	2.533	46.22	0.23	3.112	57.76	0.23
3.147	63.24	0.24	2.553	46.62	0.23	3.132	58.21	0.23
3.172	63.80	0.24	2.573	47.03	0.23	3.152	58.58	0.23
3.196	64.38	0.24	2.593	47.43	0.23	3.172	59.03	0.23

3.221	65.00	0.24	2.613	47.83	0.23	3.192	59.47	0.23
3.246	65.57	0.24	2.633	48.22	0.23	3.212	59.90	0.23
3.271	66.19	0.24	2.653	48.61	0.23	3.232	60.33	0.23
3.295	66.75	0.24	2.673	48.99	0.23	3.252	60.76	0.23
3.320	67.39	0.24	2.693	49.38	0.23	3.272	61.18	0.23
3.345	67.97	0.24	2.713	49.80	0.23	3.291	61.61	0.23
3.370	68.57	0.24	2.733	50.22	0.23	3.311	62.03	0.23
3.395	69.15	0.24	2.753	50.63	0.23	3.331	62.44	0.23
3.419	69.75	0.24	2.773	51.04	0.23	3.351	62.85	0.23
3.444	70.33	0.24	2.793	51.44	0.23	3.371	63.33	0.23
3.469	70.96	0.24	2.813	51.83	0.23	3.391	63.77	0.23
3.494	71.60	0.24	2.833	52.23	0.23	3.411	64.22	0.23
3.518	72.19	0.24	2.853	52.62	0.23	3.431	64.62	0.23
3.543	72.79	0.24	2.873	53.01	0.23	3.451	65.09	0.23
3.568	73.46	0.24	2.893	53.41	0.23	3.471	65.50	0.23
3.593	74.05	0.24	2.912	53.84	0.23	3.491	65.94	0.23
3.617	74.65	0.24	2.932	54.27	0.23	3.511	66.38	0.23
3.642	75.30	0.24	2.952	54.68	0.23	3.531	66.80	0.23
3.667	75.93	0.24	2.972	55.09	0.23	3.551	67.27	0.23
3.692	76.56	0.24	2.992	55.52	0.23	3.571	67.70	0.23
3.717	77.20	0.24	3.012	55.95	0.23	3.591	68.12	0.23
3.741	77.82	0.24	3.032	56.38	0.23	3.611	68.59	0.23
3.766	78.44	0.24	3.052	56.78	0.23	3.631	69.04	0.23
3.791	79.10	0.24	3.072	57.18	0.23	3.651	69.50	0.23
3.816	79.75	0.24	3.092	57.61	0.23	3.670	69.96	0.23
3.840	80.38	0.24	3.112	58.06	0.23	3.690	70.41	0.23
3.865	81.03	0.24	3.132	58.50	0.23	3.710	70.86	0.23
3.890	81.71	0.24	3.152	58.92	0.23	3.730	71.29	0.23
3.915	82.31	0.24	3.172	59.34	0.23	3.750	71.74	0.23
3.940	82.99	0.24	3.192	59.77	0.23	3.770	72.18	0.23
3.964	83.64	0.24	3.212	60.19	0.23	3.790	72.62	0.23
3.989	84.28	0.24	3.232	60.61	0.23	3.810	73.06	0.23
4.014	84.96	0.24	3.252	61.05	0.23	3.830	73.56	0.23
4.039	85.66	0.24	3.272	61.49	0.23	3.850	73.98	0.23
4.063	86.34	0.24	3.291	61.94	0.23	3.870	74.43	0.23
4.088	86.96	0.24	3.311	62.41	0.23	3.890	74.90	0.23
4.113	87.69	0.24	3.331	62.88	0.23	3.910	75.36	0.23
4.138	88.34	0.24	3.351	63.35	0.23	3.930	75.81	0.23
4.162	89.04	0.24	3.371	63.81	0.23	3.950	76.27	0.23
4.187	89.71	0.24	3.391	64.28	0.23	3.970	76.76	0.23
4.212	90.46	0.24	3.411	64.76	0.23	3.990	77.20	0.23
4.237	91.15	0.24	3.431	65.24	0.23	4.010	77.66	0.23
4.262	91.80	0.24	3.451	65.72	0.23	4.029	78.14	0.23
4.286	92.51	0.24	3.471	66.15	0.23	4.049	78.62	0.23
4.311	93.21	0.24	3.491	66.58	0.23	4.069	79.08	0.23



4.336	93.94	0.24	3.511	67.02	0.23	4.089	79.51	0.23
4.361	94.68	0.24	3.531	67.48	0.23	4.109	80.04	0.23
4.385	95.37	0.24	3.551	67.93	0.23	4.129	80.50	0.23
4.410	96.07	0.25	3.571	68.40	0.23	4.149	80.97	0.23
4.435	96.83	0.25	3.591	68.86	0.23	4.169	81.43	0.23
4.460	97.56	0.25	3.611	69.33	0.23	4.189	81.90	0.23
4.484	98.30	0.25	3.631	69.80	0.23	4.209	82.35	0.23
4.509	98.99	0.25	3.651	70.28	0.23	4.229	82.86	0.23
4.534	99.78	0.25	3.670	70.76	0.23	4.249	83.34	0.23
4.559	100.53	0.25	3.690	71.24	0.23	4.269	83.79	0.23
4.584	101.29	0.25	3.710	71.72	0.23	4.289	84.28	0.23
4.608	102.00	0.25	3.730	72.20	0.23	4.309	84.77	0.23
4.633	102.74	0.25	3.750	72.66	0.23	4.329	85.25	0.23
4.658	103.47	0.25	3.770	73.13	0.23	4.349	85.73	0.23
4.683	104.28	0.25	3.790	73.62	0.23	4.369	86.19	0.23
4.707	105.00	0.25	3.810	74.13	0.23	4.389	86.70	0.23
4.732	105.81	0.25	3.830	74.65	0.23	4.408	87.21	0.23
4.757	106.54	0.25	3.850	75.12	0.23	4.428	87.71	0.23
4.782	107.30	0.25	3.870	75.59	0.23	4.448	88.14	0.23
4.807	108.07	0.25	3.890	76.05	0.23	4.468	88.64	0.23
4.831	108.86	0.25	3.910	76.55	0.23	4.488	89.12	0.23
4.856	109.63	0.25	3.930	77.05	0.23	4.508	89.62	0.23
4.881	110.44	0.25	3.950	77.54	0.23	4.528	90.11	0.23
4.906	111.22	0.25	3.970	77.95	0.23	4.548	90.60	0.23
4.930	112.00	0.25	3.990	78.46	0.23	4.568	91.13	0.23
4.955	112.80	0.25	4.010	78.96	0.23	4.588	91.67	0.23
4.980	113.62	0.25	4.029	79.45	0.23	4.608	92.15	0.23
5.005	114.41	0.25	4.049	79.92	0.23	4.628	92.63	0.23
5.029	115.20	0.25	4.069	80.39	0.23	4.648	93.12	0.23
5.054	116.03	0.25	4.089	80.87	0.23	4.668	93.65	0.23
5.079	116.85	0.25	4.109	81.36	0.23	4.688	94.14	0.23
5.104	117.64	0.25	4.129	81.86	0.23	4.708	94.65	0.23
5.129	118.47	0.25	4.149	82.36	0.23	4.728	95.16	0.23
5.153	119.34	0.25	4.169	82.86	0.23	4.748	95.65	0.23
5.178	120.15	0.25	4.189	83.34	0.23	4.768	96.18	0.23
5.203	120.96	0.25	4.209	83.76	0.23	4.787	96.71	0.23
5.228	121.81	0.25	4.229	84.18	0.23	4.807	97.25	0.23
5.252	122.67	0.25	4.249	84.85	0.23	4.827	97.73	0.23
5.277	123.52	0.25	4.269	85.12	0.23	4.847	98.22	0.23
5.302	124.33	0.25	4.289	85.59	0.23	4.867	98.74	0.23
5.327	125.20	0.25	4.309	86.07	0.23	4.887	99.26	0.23
5.351	126.04	0.25	4.329	86.55	0.23	4.907	99.78	0.23
5.376	126.93	0.25	4.349	87.07	0.23	4.927	100.29	0.23
5.401	127.77	0.25	4.369	87.59	0.23	4.947	100.84	0.23
5.426	128.69	0.25	4.389	88.09	0.23	4.967	101.39	0.23

5.451	129.57	0.25	4.408	88.57	0.23	4.987	101.91	0.23
5.475	130.49	0.25	4.428	89.05	0.23	5.007	102.43	0.23
5.500	131.34	0.25	4.448	89.53	0.23	5.027	102.94	0.23
5.525	132.24	0.26	4.468	90.01	0.23	5.047	103.50	0.23
5.550	133.20	0.26	4.488	90.38	0.23	5.067	104.02	0.23
5.574	134.07	0.26	4.508	90.69	0.23	5.087	104.54	0.23
5.599	134.96	0.26	4.528	91.00	0.23	5.107	105.11	0.23
5.624	135.92	0.26	4.548	91.31	0.23	5.127	105.61	0.23
5.649	136.83	0.26	4.568	91.62	0.23	5.147	106.16	0.23
5.673	137.75	0.26	4.588	91.93	0.23	5.166	106.72	0.23
5.698	138.64	0.26	4.608	92.35	0.23	5.186	107.28	0.23
5.723	139.60	0.26	4.628	92.91	0.23	5.206	107.82	0.23
5.748	140.48	0.26	4.648	93.47	0.23	5.226	108.37	0.23
5.773	141.41	0.26	4.668	94.01	0.23	5.246	108.92	0.23
5.797	142.31	0.26	4.688	94.62	0.23	5.266	109.47	0.23
5.822	143.28	0.26	4.708	95.21	0.23	5.286	110.01	0.23
5.847	144.24	0.26	4.728	95.83	0.23	5.306	110.56	0.23
5.872	145.13	0.26	4.748	96.39	0.23	5.326	111.10	0.23
5.896	146.06	0.26	4.768	96.99	0.23	5.346	111.65	0.23
5.921	146.94	0.26	4.787	97.59	0.23	5.366	112.21	0.23
5.946	147.86	0.26	4.807	98.16	0.23	5.386	112.79	0.23
5.971	148.75	0.26	4.827	98.71	0.23	5.406	113.34	0.23
5.996	149.67	0.26	4.847	99.29	0.23	5.426	113.91	0.23
6.020	150.57	0.26	4.867	99.84	0.23	5.446	114.48	0.23
6.045	151.47	0.26	4.887	100.39	0.23	5.466	115.01	0.23
6.070	152.37	0.26	4.907	100.93	0.23	5.486	115.59	0.23
6.095	153.27	0.26	4.927	101.47	0.23	5.506	116.18	0.23
6.119	154.13	0.26	4.947	102.01	0.23	5.525	116.76	0.23
6.144	155.03	0.26	4.967	102.57	0.23	5.545	117.35	0.23
6.169	155.94	0.26	4.987	103.16	0.24	5.565	117.88	0.23
6.194	156.81	0.26	5.007	103.75	0.24	5.585	118.44	0.23
6.218	157.72	0.26	5.027	104.30	0.24	5.605	119.01	0.23
6.243	158.59	0.26	5.047	104.94	0.24	5.625	119.60	0.23
6.268	159.48	0.26	5.067	105.52	0.24	5.645	120.17	0.23
6.293	160.36	0.26	5.087	106.11	0.24	5.665	120.77	0.23
6.316	161.23	0.26	5.107	106.73	0.24	5.685	121.41	0.23
6.338	162.01	0.26	5.127	107.31	0.24	5.705	121.99	0.23
6.359	162.80	0.26	5.146	107.91	0.24	5.725	122.55	0.23
6.380	163.51	0.26	5.166	108.50	0.24	5.745	123.14	0.23
9.062	651.12	0.63	5.186	109.06	0.24	5.765	123.77	0.23
9.079	652.75	0.63	5.206	109.69	0.24	5.785	124.34	0.23
9.096	654.38	0.63	5.226	110.20	0.24	5.805	124.94	0.23
9.113	655.93	0.63	5.246	110.79	0.24	5.825	125.54	0.23
9.130	657.54	0.63	5.266	111.32	0.24	5.845	126.11	0.23
9.147	659.12	0.63	5.286	111.92	0.24	5.865	126.72	0.23

9.164	660.79	0.63	5.306	112.48	0.24	5.885	127.33	0.23
9.181	662.28	0.63	5.326	113.11	0.24	5.904	127.93	0.23
9.198	663.69	0.63	5.346	113.71	0.24	5.924	128.56	0.23
9.214	665.06	0.63	5.366	114.30	0.24	5.944	129.18	0.23
9.231	666.41	0.63	5.386	114.90	0.24	5.964	129.79	0.23
9.248	667.84	0.63	5.406	115.50	0.24	5.984	130.39	0.23
9.265	669.22	0.62	5.426	116.14	0.24	6.004	131.00	0.23
9.282	670.47	0.63	5.446	116.74	0.24	6.024	131.61	0.23
9.299	671.83	0.62	5.466	117.47	0.24	6.044	132.22	0.23
9.316	673.12	0.62	5.486	118.11	0.24	6.064	132.88	0.23
9.333	674.38	0.62	5.506	118.74	0.24	6.084	133.52	0.23
9.350	675.67	0.62	5.525	119.37	0.24	6.104	134.13	0.23
9.367	676.88	0.62	5.545	120.00	0.24	6.124	134.78	0.23
9.384	678.18	0.62	5.565	120.65	0.24	6.144	135.40	0.23
9.401	679.35	0.62	5.585	121.26	0.24	6.164	136.01	0.23
9.418	680.57	0.62	5.605	121.95	0.24	6.184	136.67	0.23
9.435	681.64	0.62	5.625	122.62	0.24	6.204	137.32	0.23
9.451	682.79	0.62	5.645	123.28	0.24	6.224	137.95	0.23
9.468	683.80	0.62	5.665	123.93	0.24	6.244	138.54	0.23
9.485	684.83	0.62	5.685	124.62	0.24	6.264	139.19	0.23
9.502	685.90	0.62	5.705	125.28	0.24	6.283	139.84	0.23
9.519	686.88	0.62	5.725	125.92	0.24	6.303	140.50	0.23
9.536	687.91	0.62	5.745	126.63	0.24	6.323	141.14	0.23
9.553	688.90	0.62	5.765	127.32	0.24	6.343	141.81	0.23
9.570	689.96	0.62	5.785	128.02	0.24	6.363	142.51	0.23
9.587	691.02	0.62	5.805	128.72	0.24	6.383	143.16	0.23
9.604	692.17	0.62	5.825	129.40	0.24	6.403	143.79	0.23
9.621	693.26	0.61	5.845	130.08	0.24	6.423	144.42	0.23
9.638	694.31	0.61	5.865	130.81	0.24	6.443	145.12	0.23
9.655	695.34	0.61	5.885	131.49	0.24	6.463	145.79	0.23
9.671	696.26	0.61	5.904	132.22	0.24	6.483	146.45	0.23
9.688	697.25	0.61	5.924	132.93	0.24	6.503	147.15	0.23
9.705	698.29	0.61	5.944	133.67	0.24	6.523	147.81	0.23
9.722	699.24	0.61	5.964	134.37	0.24	6.543	148.45	0.23
9.739	700.18	0.61	5.984	135.12	0.24	6.563	149.17	0.23
9.756	701.03	0.61	6.004	135.92	0.24	6.583	149.85	0.23
9.773	701.91	0.61	6.024	136.61	0.24	6.603	150.54	0.23
9.790	702.87	0.61	6.044	137.38	0.24	6.623	151.24	0.23
9.807	703.82	0.61	6.064	138.14	0.24	6.642	151.92	0.23
9.824	704.73	0.61	6.084	138.90	0.24	6.662	152.62	0.23
9.841	705.70	0.61	6.104	139.72	0.24	6.682	153.38	0.23
9.858	706.59	0.61	6.124	140.45	0.24	6.702	154.07	0.23
9.875	707.55	0.61	6.144	141.24	0.25	6.722	154.75	0.23
9.892	708.41	0.60	6.164	141.99	0.25	6.742	155.43	0.23
9.908	709.26	0.60	6.184	142.80	0.25	6.762	156.12	0.23

9.925	710.17	0.60	6.204	143.58	0.25	6.782	156.83	0.23
9.942	711.04	0.60	6.224	144.36	0.25	6.802	157.56	0.24
9.959	711.94	0.60	6.244	145.15	0.25	6.822	158.30	0.24
9.976	712.75	0.60	6.264	145.95	0.25	6.842	159.02	0.24
9.993	713.55	0.60	6.283	146.71	0.25	6.862	159.71	0.24
10.010	714.41	0.60	6.303	147.56	0.25	6.882	160.45	0.24
10.027	715.24	0.60	6.323	148.38	0.25	6.902	161.18	0.24
10.044	715.99	0.60	6.343	149.15	0.25	6.922	161.90	0.24
10.061	716.81	0.60	6.363	149.95	0.25	6.942	162.63	0.24
10.078	717.57	0.60	6.383	150.75	0.25	6.962	163.37	0.24
10.095	718.30	0.60	6.403	151.58	0.25	6.982	164.13	0.24
10.112	719.07	0.60	6.423	152.35	0.25	7.002	164.84	0.24
10.128	719.83	0.59	6.443	153.24	0.25	7.021	165.59	0.24
10.145	720.53	0.59	6.463	154.07	0.25	7.041	166.39	0.24
10.162	721.23	0.59	6.483	154.91	0.25	7.061	167.14	0.24
10.179	721.99	0.59	6.503	155.73	0.25	7.081	167.89	0.24
10.196	722.66	0.59	6.523	156.52	0.25	7.101	168.68	0.24
10.213	723.34	0.59	6.543	157.41	0.25	7.121	169.42	0.24
10.230	724.01	0.59	6.563	158.24	0.25	7.141	170.18	0.24
10.247	724.67	0.59	6.583	159.07	0.25	7.161	170.97	0.24
10.264	725.37	0.59	6.603	159.92	0.25	7.181	171.77	0.24
10.281	726.02	0.59	6.623	160.75	0.25	7.201	172.54	0.24
10.298	726.63	0.59	6.642	161.60	0.25	7.221	173.28	0.24
10.315	727.27	0.59	6.662	162.44	0.25	7.241	174.05	0.24
10.332	727.87	0.58	6.682	163.31	0.25	7.261	174.86	0.24
10.349	728.47	0.58	6.702	164.16	0.25	7.281	175.72	0.24
10.365	729.14	0.58	6.722	165.05	0.25	7.301	176.51	0.24
10.382	729.81	0.58	6.742	165.96	0.25	7.321	177.30	0.24
10.399	730.51	0.58	6.762	166.84	0.25	7.341	178.07	0.24
10.416	731.21	0.58	6.782	167.70	0.25	7.361	178.85	0.24
10.433	731.88	0.58	6.802	168.63	0.25	7.381	179.66	0.24
10.450	732.57	0.58	6.822	169.53	0.25	7.400	180.50	0.24
10.467	733.17	0.58	6.842	170.41	0.25	7.420	181.30	0.24
10.484	733.80	0.58	6.862	171.29	0.26	7.440	182.12	0.24
10.501	734.48	0.58	6.882	172.18	0.26	7.460	182.98	0.24
10.518	735.10	0.58	6.902	173.07	0.26	7.480	183.81	0.24
10.535	735.69	0.58	6.922	173.98	0.26	7.500	184.63	0.24
10.552	736.25	0.58	6.942	174.92	0.26	7.520	185.43	0.24
10.569	736.89	0.57	6.962	175.82	0.26	7.540	186.32	0.24
10.585	737.50	0.57	6.982	176.77	0.26	7.560	187.19	0.24
10.602	738.09	0.57	7.002	177.71	0.26	7.580	188.04	0.24
10.619	738.68	0.57	7.021	178.63	0.26	7.600	188.89	0.24
10.636	739.25	0.57	7.041	179.51	0.26	7.620	189.75	0.24
10.653	739.83	0.57	7.061	180.45	0.26	7.640	190.60	0.24
10.670	740.45	0.57	7.081	181.40	0.26	7.660	191.46	0.24

10.687	741.01	0.57	7.101	182.36	0.26	7.680	192.33	0.24
10.704	741.54	0.57	7.121	183.27	0.26	7.700	193.22	0.24
10.721	742.19	0.57	7.141	184.25	0.26	7.720	194.07	0.24
10.738	742.75	0.57	7.161	185.23	0.26	7.740	194.94	0.24
10.755	743.32	0.57	7.181	186.17	0.26	7.760	195.85	0.24
10.772	743.91	0.57	7.201	187.18	0.26	7.779	196.72	0.24
10.789	744.43	0.56	7.221	188.11	0.26	7.799	197.60	0.24
10.806	744.99	0.56	7.241	189.10	0.26	7.819	198.50	0.24
10.822	745.52	0.56	7.261	190.08	0.26	7.839	199.43	0.24
10.839	746.07	0.56	7.281	191.08	0.26	7.859	200.34	0.24
10.856	746.51	0.56	7.301	192.07	0.26	7.879	201.25	0.24
10.873	747.06	0.56	7.321	193.05	0.26	7.899	202.17	0.24
10.890	747.59	0.56	7.341	194.09	0.26	7.919	203.07	0.24
10.907	748.05	0.56	7.361	195.07	0.26	7.939	203.99	0.24
10.924	748.58	0.56	7.381	196.09	0.26	7.959	204.94	0.24
10.941	749.09	0.56	7.400	197.13	0.26	7.979	205.86	0.24
10.958	749.60	0.56	7.420	198.17	0.26	7.999	206.80	0.24
10.975	750.07	0.56	7.440	199.23	0.26	8.019	207.77	0.24
10.992	750.52	0.56	7.460	200.29	0.26	8.039	208.71	0.24
11.009	751.06	0.56	7.480	201.39	0.27	8.059	209.63	0.24
11.026	751.51	0.55	7.500	202.40	0.27	8.079	210.52	0.24
11.043	751.95	0.55	7.520	203.43	0.27	8.099	211.50	0.24
11.059	752.47	0.55	7.540	204.59	0.27	8.119	212.50	0.24
11.076	752.92	0.55	7.560	205.67	0.27	8.138	213.51	0.24
11.093	753.35	0.55	7.580	206.80	0.27	8.158	214.48	0.24
11.110	753.78	0.55	7.600	207.91	0.27	8.178	215.49	0.24
11.127	754.22	0.55	7.620	208.96	0.27	8.198	216.47	0.24
11.144	754.67	0.55	7.640	210.07	0.27	8.218	217.51	0.24
11.161	755.09	0.55	7.660	211.20	0.27	8.238	218.50	0.24
11.178	755.49	0.55	7.680	212.34	0.27	8.258	219.52	0.24
11.195	755.89	0.55	7.700	213.51	0.27	8.278	220.58	0.24
11.212	756.35	0.55	7.720	214.67	0.27	8.298	221.62	0.24
11.229	756.77	0.55	7.740	215.83	0.27	8.318	222.64	0.24
11.246	757.18	0.55	7.760	217.02	0.27	8.338	223.67	0.24
11.263	757.58	0.55	7.779	218.17	0.27	8.358	224.69	0.24
11.279	757.96	0.54	7.799	219.34	0.27	8.378	225.71	0.24
11.296	758.38	0.54	7.819	220.44	0.27	8.398	226.74	0.24
11.313	758.78	0.54	7.839	221.60	0.27	8.418	227.78	0.24
11.330	759.12	0.54	7.859	222.83	0.27	8.438	228.84	0.25
11.347	759.49	0.54	7.879	224.01	0.27	8.458	229.88	0.25
11.364	759.91	0.54	7.899	225.24	0.27	8.478	230.94	0.25
11.381	760.26	0.54	7.919	226.49	0.27	8.498	232.03	0.25
11.398	760.65	0.54	7.939	227.71	0.27	8.517	233.13	0.25
11.415	761.02	0.54	7.959	228.95	0.28	8.537	234.24	0.25
11.432	761.35	0.54	7.979	230.23	0.28	8.557	235.29	0.25

11.449	761.79	0.54	7.999	231.47	0.28	8.577	236.31	0.25
11.466	762.16	0.54	8.019	232.80	0.28	8.597	237.34	0.25
11.483	762.53	0.54	8.039	234.09	0.28	8.617	238.58	0.25
11.500	762.89	0.54	8.059	235.42	0.28	8.637	239.76	0.25
11.516	763.24	0.54	8.079	236.72	0.28	8.657	240.80	0.25
11.533	763.62	0.54	8.099	238.13	0.28	8.677	241.84	0.25
11.550	764.03	0.54	8.119	239.47	0.28	8.697	242.88	0.25
11.567	764.44	0.53	8.138	240.86	0.28	8.717	243.93	0.25
11.584	764.82	0.53	8.158	242.22	0.28	8.737	244.97	0.25
11.601	765.23	0.53	8.178	243.56	0.28	8.757	246.01	0.25
11.618	765.64	0.53	8.198	244.96	0.28	8.777	247.14	0.25
11.635	765.99	0.53	8.218	246.39	0.28	8.797	248.28	0.25
11.652	766.45	0.53	8.238	247.82	0.28	8.817	249.42	0.25
11.669	766.81	0.53	8.258	249.26	0.28	8.837	250.66	0.25
11.686	767.28	0.53	8.278	250.70	0.28	8.857	251.86	0.25
11.703	767.65	0.53	8.298	252.13	0.28	8.877	252.99	0.25
11.720	768.06	0.53	8.318	253.69	0.29	8.896	254.21	0.25
11.736	768.40	0.53	8.338	255.13	0.29	8.916	255.43	0.25
11.753	768.87	0.53	8.358	256.62	0.29	8.936	256.66	0.25
11.770	769.26	0.53	8.378	258.24	0.29	8.956	257.92	0.25
11.787	769.68	0.53	8.398	259.77	0.29	8.976	259.17	0.25
11.804	770.04	0.53	8.418	261.34	0.29	8.996	260.41	0.25
11.821	770.39	0.53	8.438	262.89	0.29	9.016	261.64	0.25
11.838	770.81	0.53	8.458	264.54	0.29	9.036	263.00	0.25
11.855	771.13	0.53	8.478	266.17	0.29	9.056	264.23	0.25
11.872	771.58	0.53	8.498	267.70	0.29	9.076	265.55	0.25
11.889	771.97	0.53	8.517	269.35	0.29	9.096	266.81	0.25
11.906	772.33	0.52	8.537	270.86	0.29	9.116	268.16	0.25
11.923	772.71	0.52	8.557	272.59	0.29	9.136	269.46	0.25
11.940	773.12	0.52	8.577	274.29	0.29	9.156	270.84	0.25
11.957	773.45	0.52	8.597	275.96	0.30	9.176	272.14	0.25
11.973	773.81	0.52	8.617	277.72	0.30	9.196	273.50	0.25
11.990	774.18	0.52	8.637	279.41	0.30	9.216	274.84	0.25
12.007	774.52	0.52	8.657	281.14	0.30	9.236	276.25	0.25
12.024	774.90	0.52	8.677	282.88	0.30	9.256	277.57	0.25
12.041	775.29	0.52	8.697	284.67	0.30	9.275	278.95	0.25
12.058	775.67	0.52	8.717	286.41	0.30	9.295	280.36	0.25
12.075	776.00	0.52	8.737	288.21	0.30	9.315	281.75	0.25
12.092	776.32	0.52	8.757	290.04	0.30	9.335	283.18	0.25
12.109	776.70	0.52	8.777	291.88	0.30	9.355	284.68	0.25
12.126	777.08	0.52	8.797	293.74	0.30	9.375	286.03	0.25
12.143	777.45	0.52	8.817	295.60	0.30	9.395	287.45	0.26
12.160	777.79	0.52	8.837	297.53	0.30	9.415	288.91	0.26
12.177	778.14	0.52	8.857	299.49	0.31	9.435	290.39	0.26
12.193	778.49	0.52	8.877	301.39	0.31	9.455	291.87	0.26

12.210	778.82	0.52	8.896	303.33	0.31	9.475	293.32	0.26
12.227	779.17	0.52	8.916	305.28	0.31	9.495	294.83	0.26
12.244	779.50	0.52	8.936	307.28	0.31	9.515	296.30	0.26
12.261	779.87	0.52	8.956	309.30	0.31	9.535	297.76	0.26
12.278	780.19	0.52	8.976	311.25	0.31	9.555	299.34	0.26
12.295	780.52	0.52	8.996	313.31	0.31	9.575	300.88	0.26
12.312	780.89	0.52	9.016	315.30	0.31	9.595	302.43	0.26
12.329	781.22	0.52	9.036	317.40	0.31	9.615	303.90	0.26
12.346	781.57	0.51	9.056	319.49	0.32	9.634	305.48	0.26
12.363	781.89	0.51	9.076	321.62	0.32	9.654	307.07	0.26
12.380	782.24	0.51	9.096	323.82	0.32	9.674	308.64	0.26
12.397	782.60	0.51	9.116	325.99	0.32	9.694	310.23	0.26
12.414	782.91	0.51	9.136	328.16	0.32	9.714	311.82	0.26
12.430	783.22	0.51	9.156	330.39	0.32	9.734	313.45	0.26
12.447	783.54	0.51	9.176	332.59	0.32	9.754	315.07	0.26
12.464	783.84	0.51	9.196	334.65	0.32	9.774	316.76	0.26
12.481	784.17	0.51	9.216	336.92	0.32	9.794	318.34	0.26
12.498	784.55	0.51	9.236	339.22	0.32	9.814	320.00	0.26
12.515	784.87	0.51	9.256	341.62	0.33	9.834	321.68	0.26
12.532	785.22	0.51	9.275	343.91	0.33	9.854	323.36	0.26
12.549	785.53	0.51	9.295	346.24	0.33	9.874	325.05	0.26
12.566	785.87	0.51	9.315	348.63	0.33	9.894	326.69	0.26
12.583	786.20	0.51	9.335	351.03	0.33	9.914	328.47	0.26
12.600	786.49	0.51	9.355	353.36	0.33	9.934	330.18	0.26
12.617	786.86	0.51	9.375	355.86	0.33	9.954	331.91	0.26
12.634	787.20	0.51	9.395	358.31	0.33	9.974	333.61	0.26
12.651	787.53	0.51	9.415	360.77	0.33	9.994	335.39	0.26
12.667	787.82	0.51	9.435	363.31	0.34	10.013	337.14	0.27
12.684	788.15	0.51	9.455	365.82	0.34	10.033	338.89	0.27
12.701	788.46	0.51	9.475	368.32	0.34	10.053	340.69	0.27
12.718	788.81	0.51	9.495	370.94	0.34	10.073	342.48	0.27
12.735	789.10	0.51	9.515	373.46	0.34	10.093	344.30	0.27
12.752	789.42	0.51	9.535	375.99	0.34	10.113	346.14	0.27
12.769	789.77	0.51	9.555	378.62	0.34	10.133	348.01	0.27
12.786	790.05	0.51	9.575	381.23	0.34	10.153	349.81	0.27
12.803	790.36	0.51	9.595	383.82	0.35	10.173	351.62	0.27
12.820	790.66	0.51	9.615	386.52	0.35	10.193	353.53	0.27
12.837	791.04	0.51	9.634	389.12	0.35	10.213	355.40	0.27
12.854	791.32	0.51	9.654	391.77	0.35	10.233	357.23	0.27
12.871	791.64	0.51	9.674	394.49	0.35	10.253	359.25	0.27
12.887	791.93	0.51	9.694	397.17	0.35	10.273	361.20	0.27
12.904	792.22	0.51	9.714	399.89	0.35	10.293	363.09	0.27
12.921	792.55	0.51	9.734	402.57	0.36	10.313	365.01	0.27
12.938	792.87	0.51	9.754	405.27	0.36	10.333	366.95	0.27
12.955	793.18	0.51	9.774	408.02	0.36	10.353	368.90	0.27

12.972	793.46	0.51	9.794	410.73	0.36	10.373	370.87	0.27
12.989	793.76	0.51	9.814	413.49	0.36	10.392	372.78	0.27
13.006	794.09	0.51	9.834	416.19	0.36	10.412	374.75	0.27
13.023	794.45	0.51	9.854	418.98	0.36	10.432	376.69	0.27
13.040	794.72	0.51	9.874	421.70	0.36	10.452	378.66	0.27
13.057	795.00	0.51	9.894	424.43	0.37	10.472	380.67	0.27
13.074	795.35	0.51	9.914	427.23	0.37	10.492	382.62	0.27
13.091	795.63	0.51	9.934	430.01	0.37	10.512	384.71	0.28
13.108	795.97	0.50	9.954	432.69	0.37	10.532	386.68	0.28
13.124	796.24	0.50	9.974	435.36	0.37	10.552	388.77	0.28
13.141	796.53	0.50	9.994	438.11	0.37	10.572	390.76	0.28
13.158	796.79	0.50	10.013	440.80	0.37	10.592	392.77	0.28
13.175	797.14	0.50	10.033	443.47	0.37	10.612	394.76	0.28
13.192	797.43	0.50	10.053	446.13	0.38	10.632	396.73	0.28
13.209	797.72	0.50	10.073	448.71	0.38	10.652	398.85	0.28
13.226	798.05	0.50	10.093	451.41	0.38	10.672	400.92	0.28
13.243	798.35	0.50	10.113	454.18	0.38	10.692	402.85	0.28
13.260	798.59	0.50	10.133	456.78	0.38	10.712	404.96	0.28
13.277	798.88	0.50	10.153	459.49	0.38	10.732	406.92	0.28
13.294	799.20	0.50	10.173	462.01	0.38	10.752	408.90	0.28
13.311	799.46	0.50	10.193	464.63	0.38	10.771	410.99	0.28
13.328	799.76	0.50	10.213	467.21	0.38	10.791	413.06	0.28
13.344	800.08	0.50	10.233	469.87	0.39	10.811	415.09	0.28
13.361	800.32	0.50	10.253	472.34	0.39	10.831	417.07	0.28
13.378	800.64	0.50	10.273	474.83	0.39	10.851	419.00	0.28
13.395	800.90	0.50	10.293	477.33	0.39	10.871	421.03	0.28
13.412	801.16	0.50	10.313	479.88	0.39	10.891	423.01	0.28
13.429	801.50	0.50	10.333	482.26	0.39	10.911	424.92	0.28
13.446	801.80	0.50	10.353	484.61	0.39	10.931	426.95	0.28
13.463	802.03	0.50	10.373	487.09	0.39	10.951	428.84	0.28
13.480	802.33	0.50	10.392	489.34	0.39	10.971	430.73	0.28
13.497	802.63	0.50	10.412	491.58	0.39	10.991	432.73	0.28
13.514	802.88	0.50	10.432	493.74	0.39	11.011	434.67	0.29
13.531	803.18	0.50	10.452	495.74	0.40	11.031	436.54	0.29
13.548	803.46	0.50	10.472	498.19	0.40	11.051	438.36	0.29
13.565	803.77	0.50	10.492	500.62	0.40	11.071	440.17	0.29
13.581	804.00	0.50	10.512	502.98	0.40	11.091	441.93	0.29
13.598	804.29	0.50	10.532	505.39	0.40	11.111	443.97	0.29
13.615	804.60	0.50	10.552	507.76	0.40	11.130	446.25	0.29
13.632	804.85	0.50	10.572	510.04	0.40	11.150	448.47	0.29
13.649	805.09	0.50	10.592	512.36	0.40	11.170	450.65	0.29
13.666	805.40	0.50	10.612	514.58	0.40	11.190	452.72	0.29
13.683	805.71	0.50	10.632	516.94	0.40	11.210	454.75	0.29
13.700	805.93	0.50	10.652	519.18	0.40	11.230	456.91	0.29
13.717	806.18	0.50	10.672	521.36	0.40	11.250	458.96	0.29



13.734	806.48	0.50	10.692	523.57	0.41	11.270	461.05	0.29
13.751	806.79	0.50	10.712	525.76	0.41	11.290	463.13	0.29
13.768	807.05	0.50	10.732	527.88	0.41	11.310	465.14	0.29
13.785	807.30	0.50	10.752	530.07	0.41	11.330	467.15	0.29
13.801	807.60	0.50	10.771	532.09	0.41	11.350	469.15	0.29
13.818	807.87	0.50	10.791	534.28	0.41	11.370	471.09	0.29
13.835	808.13	0.50	10.811	536.34	0.41	11.390	472.94	0.29
13.852	808.36	0.50	10.831	538.46	0.41	11.410	474.91	0.29
13.869	808.66	0.50	10.851	540.48	0.41	11.430	476.72	0.29
13.886	808.95	0.50	10.871	542.55	0.41	11.450	478.60	0.29
13.903	809.16	0.50	10.891	544.65	0.41	11.470	480.28	0.29
13.920	809.43	0.50	10.911	546.58	0.41	11.490	482.00	0.29
13.937	809.73	0.50	10.931	548.62	0.41	11.509	483.71	0.29
13.954	810.01	0.50	10.951	550.62	0.41	11.529	485.36	0.29
13.971	810.29	0.50	10.971	552.59	0.41	11.549	487.05	0.29
13.988	810.53	0.50	10.991	554.48	0.41	11.569	488.73	0.29
14.005	810.80	0.50	11.011	556.43	0.42	11.589	490.49	0.29
14.022	810.98	0.50	11.031	558.23	0.42	11.609	492.32	0.29
14.038	811.28	0.50	11.051	560.08	0.42	11.629	494.11	0.29
14.055	811.48	0.50	11.071	561.96	0.42	11.649	495.86	0.30
14.072	811.76	0.50	11.091	563.77	0.42	11.669	497.66	0.30
14.089	812.04	0.50	11.111	565.54	0.42	11.689	499.45	0.30
14.106	812.31	0.50	11.130	567.26	0.42	11.709	501.25	0.30
14.123	812.57	0.50	11.150	569.04	0.42	11.729	502.98	0.30
14.140	812.82	0.50	11.170	570.77	0.42	11.749	504.73	0.30
14.157	813.08	0.50	11.190	572.52	0.42	11.769	506.53	0.30
14.174	813.31	0.50	11.210	574.21	0.42	11.789	508.23	0.30
14.191	813.53	0.50	11.230	575.80	0.42	11.809	509.99	0.30
14.208	813.78	0.50	11.250	577.49	0.42	11.829	511.69	0.30
14.225	814.02	0.50	11.270	579.09	0.42	11.849	513.36	0.30
14.242	814.28	0.50	11.290	580.67	0.42	11.869	515.06	0.30
14.259	814.53	0.50	11.310	582.18	0.42	11.888	516.63	0.30
14.275	814.76	0.50	11.330	583.76	0.42	11.908	518.28	0.30
14.292	815.03	0.50	11.350	585.24	0.42	11.928	519.94	0.30
14.309	815.31	0.50	11.370	586.74	0.42	11.948	521.61	0.30
14.326	815.55	0.50	11.390	588.29	0.42	11.968	523.19	0.30
14.343	815.77	0.50	11.410	589.67	0.42	11.988	524.79	0.30
14.360	816.03	0.50	11.430	591.13	0.42	12.008	526.40	0.30
14.377	816.27	0.50	11.450	592.58	0.42	12.028	527.90	0.30
14.394	816.52	0.50	11.470	593.93	0.42	12.048	529.49	0.30
14.411	816.76	0.50	11.490	595.32	0.42	12.068	531.01	0.30
14.428	816.98	0.50	11.509	596.67	0.42	12.088	532.57	0.30
14.445	817.25	0.50	11.529	598.01	0.42	12.108	534.06	0.30
14.462	817.49	0.50	11.549	599.38	0.42	12.128	535.58	0.30
14.479	817.69	0.50	11.569	600.61	0.42	12.148	537.11	0.30

14.495	817.97	0.50	11.589	601.94	0.42	12.168	538.54	0.30
14.512	818.19	0.50	11.609	603.24	0.42	12.188	540.00	0.30
14.529	818.40	0.50	11.629	604.47	0.42	12.208	541.52	0.30
14.546	818.65	0.50	11.649	605.70	0.42	12.228	543.02	0.30
14.563	818.95	0.50	11.669	606.90	0.42	12.248	544.45	0.30
14.580	819.18	0.50	11.689	608.07	0.42	12.267	545.79	0.30
14.597	819.41	0.50	11.709	609.28	0.43	12.287	547.32	0.30
14.614	819.64	0.50	11.729	610.43	0.43	12.307	548.66	0.30
14.631	819.89	0.50	11.749	611.57	0.43	12.327	550.05	0.30
14.648	820.10	0.50	11.769	612.67	0.43	12.347	551.42	0.30
14.665	820.32	0.50	11.789	613.76	0.43	12.367	552.80	0.30
14.682	820.59	0.50	11.809	614.89	0.43	12.387	554.16	0.30
14.699	820.84	0.50	11.829	615.96	0.43	12.407	555.57	0.30
14.716	821.05	0.50	11.849	617.00	0.43	12.427	556.94	0.30
14.732	821.25	0.50	11.869	618.02	0.43	12.447	558.24	0.30
14.749	821.52	0.50	11.888	619.07	0.43	12.467	559.58	0.30
14.766	821.74	0.50	11.908	620.01	0.43	12.487	560.95	0.30
14.783	822.01	0.50	11.928	621.03	0.43	12.507	562.19	0.30
14.800	822.23	0.50	11.948	622.05	0.43	12.527	563.48	0.30
14.817	822.43	0.50	11.968	623.02	0.43	12.547	564.76	0.30
14.834	822.66	0.50	11.988	623.91	0.43	12.567	566.10	0.30
14.851	822.88	0.50	12.008	624.77	0.43	12.587	567.31	0.30
14.868	823.17	0.50	12.028	625.82	0.43	12.607	568.59	0.30
14.885	823.39	0.50	12.048	626.92	0.43	12.626	569.83	0.30
14.902	823.59	0.50	12.068	628.07	0.43	12.646	571.09	0.30
14.919	823.84	0.50	12.088	629.15	0.43	12.666	572.29	0.30
14.936	824.08	0.50	12.108	630.25	0.43	12.686	573.58	0.30
14.952	824.28	0.50	12.128	631.30	0.43	12.706	574.74	0.30
14.969	824.48	0.50	12.148	632.41	0.43	12.726	575.95	0.30
14.986	824.73	0.50	12.168	633.46	0.43	12.746	577.19	0.30
15.003	824.98	0.50	12.188	634.50	0.43	12.766	578.43	0.30
15.020	825.18	0.50	12.208	635.55	0.43	12.786	579.58	0.31
15.037	825.42	0.50	12.228	636.61	0.43	12.806	580.74	0.31
15.054	825.67	0.50	12.247	637.74	0.43	12.826	581.85	0.31
15.071	825.87	0.50	12.267	638.74	0.43	12.846	583.04	0.31
15.088	826.06	0.50	12.287	639.82	0.43	12.866	584.18	0.31
15.105	826.31	0.50	12.307	640.82	0.43	12.886	585.27	0.31
15.122	826.55	0.50	12.327	641.83	0.43	12.906	586.42	0.31
15.139	826.78	0.50	12.347	642.83	0.43	12.926	587.45	0.31
15.156	826.98	0.50	12.367	643.83	0.43	12.946	588.59	0.31
15.173	827.24	0.50	12.387	644.76	0.43	12.966	589.63	0.31
15.189	827.42	0.50	12.407	645.74	0.43	12.986	590.72	0.31
15.206	827.64	0.50	12.427	646.63	0.43	13.005	591.82	0.31
15.223	827.90	0.50	12.447	647.58	0.43	13.025	592.93	0.31
15.240	828.09	0.50	12.467	648.53	0.43	13.045	594.00	0.31

15.257	828.29	0.50	12.487	649.44	0.43	13.065	595.07	0.31
15.274	828.50	0.50	12.507	650.34	0.43	13.085	596.06	0.31
15.291	828.73	0.50	12.527	651.19	0.43	13.105	597.12	0.31
15.308	829.00	0.50	12.547	652.13	0.43	13.125	598.14	0.31
15.325	829.21	0.50	12.567	653.08	0.43	13.145	599.18	0.31
15.342	829.41	0.50	12.587	653.94	0.43	13.165	600.18	0.31
15.359	829.66	0.50	12.607	654.86	0.43	13.185	601.19	0.31
15.376	829.86	0.50	12.626	655.70	0.43	13.205	602.23	0.31
15.393	830.09	0.50	12.646	656.56	0.43	13.225	603.24	0.31
15.409	830.30	0.50	12.666	657.45	0.43	13.245	604.18	0.31
15.426	830.51	0.50	12.686	658.32	0.43	13.265	605.15	0.31
15.443	830.74	0.50	12.706	659.16	0.43	13.285	606.22	0.31
15.460	830.95	0.50	12.726	659.97	0.43	13.305	607.20	0.31
15.477	831.13	0.50	12.746	660.81	0.43	13.325	608.15	0.31
15.494	831.39	0.50	12.766	661.68	0.43	13.345	609.11	0.31
15.511	831.57	0.50	12.786	662.50	0.43	13.365	610.07	0.31
15.528	831.78	0.50	12.806	663.31	0.43	13.384	610.97	0.31
15.545	832.03	0.50	12.826	664.12	0.43	13.404	611.94	0.31
15.562	832.22	0.50	12.846	664.97	0.43	13.424	612.82	0.31
15.579	832.48	0.50	12.866	665.72	0.43	13.444	613.75	0.31
15.596	832.66	0.50	12.886	666.49	0.43	13.464	614.67	0.31
15.613	832.86	0.50	12.906	667.32	0.43	13.484	615.59	0.31
15.630	833.11	0.50	12.926	668.07	0.43	13.504	616.44	0.31
15.646	833.28	0.50	12.946	668.86	0.43	13.524	617.37	0.31
15.663	833.52	0.50	12.966	669.62	0.43	13.544	618.27	0.31
15.680	833.72	0.50	12.986	670.36	0.43	13.564	619.16	0.31
15.697	833.94	0.50	13.005	671.11	0.43	13.584	620.04	0.31
15.714	834.13	0.50	13.025	671.86	0.43	13.604	620.93	0.31
15.731	834.36	0.50	13.045	672.60	0.43	13.624	621.79	0.31
15.748	834.53	0.50	13.065	673.38	0.43	13.644	622.66	0.31
15.765	834.76	0.50	13.085	674.08	0.43	13.664	623.50	0.31
15.782	834.97	0.50	13.105	674.79	0.43	13.684	624.37	0.31
15.799	835.21	0.50	13.125	675.48	0.43	13.704	625.27	0.31
15.816	835.41	0.50	13.145	676.20	0.43	13.724	626.10	0.31
15.833	835.64	0.50	13.165	676.94	0.43	13.744	626.93	0.31
15.850	835.81	0.50	13.185	677.57	0.43	13.763	627.75	0.31
15.867	836.05	0.50	13.205	678.28	0.43	13.783	628.63	0.31
15.883	836.21	0.50	13.225	679.00	0.43	13.803	629.43	0.31
15.900	836.43	0.50	13.245	679.62	0.43	13.823	630.27	0.31
15.917	836.60	0.50	13.265	680.28	0.43	13.843	631.11	0.31
15.934	836.82	0.50	13.285	680.96	0.43	13.863	631.93	0.31
15.951	837.05	0.50	13.305	681.63	0.43	13.883	632.76	0.31
15.968	837.24	0.50	13.325	682.30	0.43	13.903	633.55	0.31
15.985	837.48	0.50	13.345	682.98	0.43	13.923	634.31	0.31
16.002	837.66	0.50	13.365	683.67	0.43	13.943	635.14	0.31

16.019	837.89	0.50	13.384	684.33	0.43	13.963	635.88	0.31
16.036	838.07	0.50	13.404	685.01	0.43	13.983	636.68	0.31
16.053	838.29	0.50	13.424	685.70	0.43	14.003	637.45	0.31
16.070	838.47	0.50	13.444	686.40	0.44	14.023	638.19	0.31
16.087	838.69	0.50	13.464	687.02	0.44	14.043	638.93	0.31
16.103	838.87	0.50	13.484	687.72	0.44	14.063	639.74	0.31
16.120	839.09	0.50	13.504	688.32	0.44	14.083	640.49	0.31
16.137	839.28	0.50	13.524	689.01	0.44	14.103	641.28	0.31
16.154	839.49	0.50	13.544	689.64	0.44	14.122	642.07	0.31
16.171	839.67	0.50	13.564	690.26	0.44	14.142	642.81	0.31
16.188	839.89	0.50	13.584	690.90	0.44	14.162	643.59	0.31
16.205	840.07	0.50	13.604	691.54	0.44	14.182	644.31	0.31
16.222	840.27	0.50	13.624	692.14	0.44	14.202	645.08	0.31
16.239	840.49	0.50	13.644	692.74	0.44	14.222	645.77	0.31
16.256	840.68	0.50	13.664	693.42	0.44	14.242	646.48	0.31
16.273	840.86	0.50	13.684	693.97	0.44	14.262	647.18	0.31
16.290	841.09	0.50	13.704	694.61	0.44	14.282	647.94	0.31
16.307	841.30	0.50	13.724	695.18	0.44	14.302	648.64	0.31
16.324	841.45	0.50	13.743	695.80	0.44	14.322	649.33	0.31
16.340	841.68	0.50	13.763	696.38	0.44	14.342	650.05	0.31
16.357	841.82	0.50	13.783	696.95	0.44	14.362	650.73	0.31
16.374	842.03	0.50	13.803	697.51	0.44	14.382	651.40	0.31
16.391	842.25	0.50	13.823	698.08	0.44	14.402	652.14	0.31
16.408	842.42	0.50	13.843	698.65	0.44	14.422	652.85	0.31
16.425	842.61	0.50	13.863	699.24	0.44	14.442	653.51	0.31
16.442	842.81	0.50	13.883	699.76	0.44	14.462	654.20	0.31
16.459	843.00	0.50	13.903	700.34	0.44	14.482	654.91	0.31
16.476	843.15	0.50	13.923	700.86	0.44	14.501	655.56	0.31
16.493	843.36	0.50	13.943	701.43	0.44	14.521	656.18	0.31
16.510	843.57	0.50	13.963	701.94	0.44	14.541	656.91	0.31
16.527	843.80	0.50	13.983	702.47	0.44	14.561	657.57	0.31
16.544	843.96	0.50	14.003	703.01	0.44	14.581	658.22	0.31
16.560	844.11	0.50	14.023	703.54	0.44	14.601	658.89	0.31
16.577	844.30	0.50	14.043	704.08	0.44	14.621	659.55	0.31
16.594	844.52	0.50	14.063	704.62	0.44	14.641	660.19	0.31
16.611	844.72	0.50	14.083	705.15	0.44	14.661	660.88	0.31
16.628	844.89	0.50	14.103	705.67	0.44	14.681	661.48	0.31
16.645	845.09	0.50	14.122	706.27	0.44	14.701	662.07	0.31
16.662	845.23	0.50	14.142	706.78	0.44	14.721	662.71	0.31
16.679	845.45	0.50	14.162	707.38	0.44	14.741	663.34	0.31
16.696	845.66	0.50	14.182	707.94	0.44	14.761	663.96	0.31
16.713	845.81	0.50	14.202	708.43	0.44	14.781	664.62	0.31
16.730	845.98	0.50	14.222	708.98	0.44	14.801	665.22	0.31
16.747	846.17	0.50	14.242	709.53	0.44	14.821	665.83	0.31
16.764	846.30	0.50	14.262	710.10	0.44	14.841	666.43	0.31

16.781	846.50	0.50	14.282	710.67	0.44	14.861	667.01	0.31
16.797	846.70	0.50	14.302	711.22	0.44	14.880	667.61	0.31
16.814	846.90	0.50	14.322	711.67	0.44	14.900	668.21	0.31
16.831	847.07	0.50	14.342	712.25	0.44	14.920	668.78	0.31
16.848	847.22	0.50	14.362	712.74	0.44	14.940	669.39	0.32
16.865	847.43	0.50	14.382	713.29	0.44	14.960	670.09	0.32
16.882	847.63	0.50	14.402	713.83	0.44	14.980	670.79	0.32
16.899	847.78	0.50	14.422	714.27	0.44	15.000	671.41	0.32
16.916	847.95	0.50	14.442	714.84	0.44	15.020	672.00	0.32
16.933	848.11	0.50	14.462	715.38	0.44	15.040	672.60	0.32
16.950	848.25	0.50	14.482	715.88	0.44	15.060	673.18	0.32
16.967	848.45	0.50	14.501	716.45	0.44	15.080	673.76	0.32
16.984	848.64	0.50	14.521	716.92	0.44	15.100	674.34	0.32
17.001	848.79	0.50	14.541	717.43	0.44	15.120	674.97	0.32
17.018	848.95	0.50	14.561	717.95	0.44	15.140	675.56	0.32
17.034	849.14	0.50	14.581	718.47	0.44	15.160	676.13	0.32
17.051	849.33	0.50	14.601	718.97	0.44	15.180	676.76	0.32
17.068	849.52	0.50	14.621	719.50	0.44	15.200	677.34	0.32
17.085	849.67	0.50	14.641	720.01	0.44	15.220	677.90	0.32
17.102	849.80	0.50	14.661	720.45	0.44	15.239	678.46	0.32
17.119	849.99	0.50	14.681	720.97	0.44	15.259	678.99	0.32
17.136	850.17	0.50	14.701	721.50	0.44	15.279	679.53	0.32
17.153	850.35	0.50	14.721	721.97	0.44	15.299	680.09	0.32
17.170	850.52	0.50	14.741	722.47	0.44	15.319	680.66	0.32
17.187	850.63	0.50	14.761	722.98	0.44	15.339	681.23	0.32
17.204	850.80	0.50	14.781	723.46	0.44	15.359	681.78	0.32
17.221	851.03	0.50	14.801	723.93	0.44	15.379	682.30	0.32
17.238	851.21	0.50	14.821	724.44	0.44	15.399	682.85	0.32
17.254	851.38	0.50	14.841	724.96	0.44	15.419	683.37	0.32
17.271	851.54	0.50	14.861	725.45	0.44	15.439	683.87	0.32
17.288	851.72	0.50	14.880	725.89	0.44	15.459	684.40	0.32
17.305	851.86	0.50	14.900	726.32	0.44	15.479	684.95	0.32
17.322	852.11	0.50	14.920	726.89	0.44	15.499	685.51	0.32
17.339	852.28	0.50	14.940	727.33	0.44	15.519	686.04	0.32
17.356	852.44	0.50	14.960	727.78	0.44	15.539	686.54	0.32
17.373	852.65	0.50	14.980	728.23	0.45	15.559	687.02	0.32
17.390	852.81	0.50	15.000	728.70	0.45	15.579	687.56	0.32
17.407	852.96	0.50	15.020	729.19	0.45	15.599	688.07	0.32
17.424	853.11	0.50	15.040	729.65	0.45	15.618	688.56	0.32
17.441	853.33	0.50	15.060	730.13	0.45	15.638	689.09	0.32
17.458	853.47	0.50	15.080	730.61	0.45	15.658	689.61	0.32
17.475	853.68	0.50	15.100	731.05	0.45	15.678	690.11	0.32
17.491	853.82	0.50	15.120	731.48	0.45	15.698	690.59	0.32
17.508	854.05	0.50	15.140	731.93	0.45	15.718	691.07	0.32
17.525	854.22	0.50	15.160	732.43	0.45	15.738	691.55	0.32

17.542	854.43	0.50	15.180	732.85	0.45	15.758	692.03	0.32
17.559	854.60	0.50	15.200	733.31	0.45	15.778	692.51	0.32
17.576	854.74	0.50	15.220	733.75	0.45	15.798	692.97	0.32
17.593	854.88	0.50	15.239	734.21	0.45	15.818	693.45	0.32
17.610	855.07	0.50	15.259	734.65	0.45	15.838	693.93	0.32
17.627	855.27	0.50	15.279	735.07	0.45	15.858	694.42	0.32
17.644	855.42	0.50	15.299	735.56	0.45	15.878	694.90	0.32
17.661	855.58	0.50	15.319	735.98	0.45	15.898	695.38	0.32
17.678	855.78	0.50	15.339	736.38	0.45	15.918	695.85	0.32
17.695	855.96	0.50	15.359	736.85	0.45	15.938	696.32	0.32
17.711	856.06	0.50	15.379	737.32	0.45	15.958	696.79	0.32
17.728	856.27	0.50	15.399	737.70	0.45	15.978	697.25	0.32
17.745	856.45	0.50	15.419	738.16	0.45	15.997	697.69	0.32
17.762	856.59	0.50	15.439	738.54	0.45	16.017	698.11	0.32
17.779	856.78	0.50	15.459	738.98	0.45	16.037	698.54	0.32
17.796	856.93	0.50	15.479	739.43	0.45	16.057	698.96	0.32
17.813	857.05	0.50	15.499	739.88	0.45	16.077	699.39	0.32
17.830	857.23	0.50	15.519	740.25	0.45	16.097	699.83	0.32
17.847	857.39	0.50	15.539	740.67	0.45	16.117	700.27	0.32
17.864	857.59	0.50	15.559	741.12	0.45	16.137	700.70	0.32
17.881	857.72	0.50	15.579	741.56	0.45	16.157	701.14	0.32
17.898	857.90	0.50	15.599	741.91	0.45	16.177	701.57	0.32
17.915	858.04	0.50	15.618	742.34	0.45	16.197	702.04	0.32
17.932	858.18	0.50	15.638	742.77	0.45	16.217	702.48	0.32
17.948	858.35	0.50	15.658	743.19	0.45	16.237	703.05	0.32
17.965	858.53	0.50	15.678	743.58	0.45	16.257	703.58	0.32
17.982	858.71	0.50	15.698	743.96	0.45	16.277	704.08	0.32
17.999	858.90	0.50	15.718	744.38	0.45	16.297	704.58	0.32
18.016	859.02	0.50	15.738	744.81	0.45	16.317	705.01	0.32
18.033	859.18	0.50	15.758	745.23	0.45	16.337	705.50	0.32
18.050	859.40	0.50	15.778	745.57	0.45	16.357	705.97	0.32
18.067	859.57	0.50	15.798	745.99	0.45	16.376	706.48	0.32
18.084	859.67	0.50	15.818	746.40	0.45	16.396	706.96	0.32
18.101	859.88	0.50	15.838	746.81	0.45	16.416	707.42	0.32
18.118	860.05	0.50	15.858	747.22	0.45	16.436	707.84	0.32
18.135	860.21	0.50	15.878	747.62	0.45	16.456	708.26	0.32
18.152	860.35	0.50	15.898	748.02	0.45	16.476	708.70	0.32
18.168	860.53	0.50	15.918	748.42	0.45	16.496	709.17	0.32
18.185	860.70	0.50	15.938	748.82	0.45	16.516	709.62	0.32
18.202	860.88	0.50	15.958	749.19	0.45	16.536	710.06	0.32
18.219	861.04	0.50	15.978	749.54	0.45	16.556	710.46	0.32
18.236	861.23	0.50	15.997	749.93	0.45	16.576	710.87	0.32
18.253	861.33	0.50	16.017	750.28	0.45	16.596	711.31	0.32
18.270	861.56	0.50	16.037	750.74	0.45	16.616	711.74	0.32
18.287	861.67	0.50	16.057	751.12	0.45	16.636	712.16	0.32

18.304	861.86	0.50	16.077	751.49	0.45	16.656	712.56	0.32
18.321	862.03	0.50	16.097	751.86	0.45	16.676	712.94	0.32
18.338	862.21	0.50	16.117	752.24	0.45	16.696	713.34	0.32
18.355	862.31	0.50	16.137	752.62	0.45	16.716	713.74	0.32
18.372	862.52	0.50	16.157	752.99	0.45	16.735	714.14	0.32
18.389	862.70	0.50	16.177	753.37	0.45	16.755	714.54	0.32
18.405	862.82	0.50	16.197	753.72	0.45	16.775	714.94	0.32
18.422	863.03	0.50	16.217	754.09	0.45	16.795	715.33	0.32
18.439	863.15	0.50	16.237	754.46	0.45	16.815	715.72	0.32
18.456	863.34	0.50	16.257	754.83	0.45	16.835	716.12	0.32
18.473	863.53	0.50	16.277	755.19	0.45	16.855	716.52	0.32
18.490	863.64	0.50	16.297	755.55	0.45	16.875	716.90	0.32
18.507	863.84	0.50	16.317	755.91	0.45	16.895	717.29	0.32
18.524	863.99	0.51	16.337	756.26	0.45	16.915	717.66	0.32
18.541	864.17	0.51	16.357	756.61	0.45	16.935	718.03	0.32
18.558	864.34	0.51	16.376	756.96	0.45	16.955	718.41	0.32
18.575	864.47	0.51	16.396	757.32	0.45	16.975	718.79	0.32
18.592	864.65	0.51	16.416	757.72	0.45	16.995	719.18	0.32
18.609	864.82	0.51	16.436	758.07	0.45	17.015	719.55	0.32
18.626	864.97	0.51	16.456	758.41	0.45	17.035	719.92	0.32
18.642	865.14	0.51	16.476	758.75	0.45	17.055	720.28	0.32
18.659	865.32	0.51	16.496	759.09	0.45	17.075	720.65	0.32
18.676	865.48	0.51	16.516	759.43	0.45	17.095	721.02	0.32
18.693	865.63	0.51	16.536	759.77	0.45	17.114	721.39	0.32
18.710	865.78	0.51	16.556	760.15	0.46	17.134	721.76	0.32
18.727	865.92	0.51	16.576	760.51	0.46	17.154	722.13	0.32
18.744	866.08	0.51	16.596	760.84	0.46	17.174	722.48	0.32
18.761	866.25	0.51	16.616	761.17	0.46	17.194	722.83	0.32
18.778	866.41	0.51	16.636	761.50	0.46	17.214	723.17	0.32
18.795	866.57	0.51	16.656	761.82	0.46	17.234	723.50	0.32
18.812	866.68	0.51	16.676	762.14	0.46	17.254	723.83	0.32
18.829	866.82	0.51	16.696	762.46	0.46	17.274	724.19	0.32
18.846	866.98	0.51	16.716	762.83	0.46	17.294	724.55	0.32
18.862	867.15	0.51	16.735	763.18	0.46	17.314	724.91	0.32
18.879	867.29	0.51	16.755	763.49	0.46	17.334	725.25	0.32
18.896	867.52	0.51	16.775	763.83	0.46	17.354	725.60	0.32
18.913	867.66	0.51	16.795	764.16	0.46	17.374	725.94	0.32
18.930	867.80	0.51	16.815	764.44	0.46	17.394	726.27	0.32
18.947	867.94	0.51	16.835	764.73	0.46	17.414	726.59	0.32
18.964	868.09	0.51	16.855	765.10	0.46	17.434	726.91	0.32
18.981	868.25	0.51	16.875	765.45	0.46	17.454	727.23	0.32
18.998	868.41	0.51	16.895	765.81	0.46	17.474	727.56	0.32
19.015	868.59	0.51	16.915	766.15	0.46	17.493	727.89	0.32
19.032	868.75	0.51	16.935	766.44	0.46	17.513	728.22	0.32
19.049	868.91	0.51	16.955	766.79	0.46	17.533	728.55	0.32

19.066	869.04	0.51	16.975	767.14	0.46	17.553	728.87	0.32
19.083	869.17	0.51	16.995	767.48	0.46	17.573	729.20	0.32
19.099	869.38	0.51	17.015	767.82	0.46	17.593	729.53	0.32
19.116	869.51	0.51	17.035	768.15	0.46	17.613	729.86	0.32
19.133	869.63	0.51	17.055	768.49	0.46	17.633	730.19	0.32
19.150	869.86	0.51	17.075	768.83	0.46	17.653	730.51	0.32
19.167	869.98	0.51	17.095	769.09	0.46	17.673	730.83	0.32
19.184	870.13	0.51	17.114	769.43	0.46	17.693	731.14	0.32
19.201	870.29	0.51	17.134	769.76	0.46	17.713	731.46	0.32
19.218	870.45	0.51	17.154	770.10	0.46	17.733	731.73	0.32
19.235	870.59	0.51	17.174	770.43	0.46	17.753	731.98	0.32
19.252	870.73	0.51	17.194	770.75	0.46	17.773	732.23	0.32
19.269	870.95	0.51	17.214	771.08	0.46	17.793	732.54	0.32
19.286	871.08	0.51	17.234	771.40	0.46	17.813	732.89	0.32
19.303	871.21	0.51	17.254	771.72	0.46	17.833	733.29	0.32
19.319	871.42	0.51	17.274	772.04	0.46	17.853	733.60	0.32
19.336	871.54	0.51	17.294	772.37	0.46	17.872	733.98	0.32
19.353	871.69	0.51	17.314	772.69	0.46	17.892	734.31	0.32
19.370	871.86	0.51	17.334	773.01	0.46	17.912	734.67	0.32
19.387	871.97	0.51	17.354	773.32	0.46	17.932	735.02	0.32
19.404	872.15	0.51	17.374	773.62	0.46	17.952	735.46	0.32
19.421	872.29	0.51	17.394	773.92	0.46	17.972	735.82	0.32
19.438	872.46	0.51	17.414	774.21	0.46	17.992	736.15	0.32
19.455	872.61	0.51	17.434	774.52	0.46	18.012	736.52	0.32
19.472	872.73	0.51	17.454	774.87	0.46	18.032	736.87	0.32
19.489	872.93	0.51	17.474	775.15	0.46	18.052	737.20	0.33
19.506	873.06	0.51	17.493	775.47	0.46	18.072	737.56	0.33
19.523	873.24	0.51	17.513	775.77	0.46	18.092	737.91	0.33
19.540	873.36	0.51	17.533	776.03	0.46	18.112	738.27	0.33
19.556	873.47	0.51	17.553	776.37	0.46	18.132	738.56	0.33
19.573	873.66	0.51	17.573	776.63	0.46	18.152	738.95	0.33
19.590	873.81	0.51	17.593	776.97	0.46	18.172	739.34	0.33
19.607	873.97	0.51	17.613	777.23	0.46	18.192	739.66	0.33
19.624	874.08	0.51	17.633	777.57	0.46	18.212	740.02	0.33
19.641	874.26	0.51	17.653	777.91	0.46	18.231	740.36	0.33
19.658	874.40	0.51	17.673	778.23	0.46	18.251	740.67	0.33
19.675	874.57	0.51	17.693	778.49	0.46	18.271	741.06	0.33
19.692	874.68	0.51	17.713	778.83	0.46	18.291	741.42	0.33
19.709	874.87	0.51	17.733	779.13	0.46	18.311	741.72	0.33
19.726	874.98	0.51	17.753	779.41	0.46	18.331	742.08	0.33
19.743	875.17	0.51	17.773	779.72	0.46	18.351	742.41	0.33
19.760	875.31	0.51	17.793	780.04	0.46	18.371	742.78	0.33
19.776	875.47	0.51	17.813	780.32	0.46	18.391	743.14	0.33
19.793	875.61	0.51	17.833	780.66	0.46	18.411	743.49	0.33
19.810	875.74	0.51	17.853	780.94	0.46	18.431	743.83	0.33



19.827	875.91	0.51	17.872	781.21	0.46	18.451	744.17	0.33
19.844	876.01	0.51	17.892	781.55	0.46	18.471	744.57	0.33
19.861	876.19	0.51	17.912	781.84	0.46	18.491	744.92	0.33
19.878	876.34	0.51	17.932	782.15	0.46	18.511	745.33	0.33
19.895	876.47	0.51	17.952	782.42	0.46	18.531	745.61	0.33
19.912	876.65	0.51	17.972	782.76	0.46	18.551	745.97	0.33
19.929	876.77	0.51	17.992	783.03	0.46	18.571	746.33	0.33
19.946	876.95	0.51	18.012	783.30	0.46	18.591	746.71	0.33
19.963	877.09	0.51	18.032	783.61	0.46	18.610	747.12	0.33
19.980	877.23	0.51	18.052	783.91	0.46	18.630	747.55	0.33
19.997	877.35	0.51	18.072	784.20	0.46	18.650	747.87	0.33
20.013	877.53	0.51	18.092	784.51	0.46	18.670	748.30	0.33
20.030	877.65	0.51	18.112	784.76	0.46	18.690	748.69	0.33
20.047	877.81	0.51	18.132	785.10	0.46	18.710	749.07	0.33
20.064	877.95	0.51	18.152	785.34	0.46	18.730	749.46	0.33
20.081	878.13	0.51	18.172	785.67	0.46	18.750	749.89	0.33
20.098	878.25	0.51	18.192	785.92	0.46	18.770	750.32	0.33
20.115	878.41	0.51	18.212	786.24	0.46	18.790	750.77	0.33
20.132	878.58	0.51	18.231	786.51	0.46	18.810	751.14	0.33
20.149	878.67	0.51	18.251	786.78	0.46	18.830	751.51	0.33
20.166	878.82	0.51	18.271	787.09	0.46	18.850	751.96	0.33
20.183	878.97	0.51	18.291	787.37	0.46	18.870	752.29	0.33
20.200	879.11	0.51	18.311	787.62	0.46	18.890	752.69	0.33
20.217	879.26	0.51	18.331	787.93	0.46	18.910	753.08	0.33
20.234	879.41	0.51	18.351	788.22	0.47	18.930	753.48	0.33
20.250	879.56	0.51	18.371	788.46	0.47	18.950	753.81	0.33
20.267	879.71	0.51	18.391	788.76	0.47	18.970	754.17	0.33
20.284	879.85	0.51	18.411	789.06	0.47	18.989	754.54	0.33
20.301	880.00	0.51	18.431	789.28	0.47	19.009	754.89	0.33
20.318	880.14	0.51	18.451	789.59	0.47	19.029	755.22	0.33
20.335	880.27	0.51	18.471	789.88	0.47	19.049	755.54	0.33
20.352	880.35	0.51	18.491	790.19	0.47	19.069	755.84	0.33
20.369	880.54	0.51	18.511	790.42	0.47	19.089	756.16	0.33
20.386	880.66	0.51	18.531	790.71	0.47	19.109	756.48	0.33
20.403	880.77	0.51	18.551	791.01	0.47	19.129	756.80	0.33
20.420	880.93	0.51	18.571	791.24	0.47	19.149	757.12	0.33
20.437	881.11	0.51	18.591	791.51	0.47	19.169	757.42	0.33
20.454	881.18	0.51	18.610	791.79	0.47	19.189	757.72	0.33
20.470	881.40	0.51	18.630	792.03	0.47	19.209	758.02	0.33
20.487	881.54	0.51	18.650	792.33	0.47	19.229	758.32	0.33
20.504	881.63	0.51	18.670	792.61	0.47	19.249	758.61	0.33
20.521	881.78	0.51	18.690	792.91	0.47	19.269	758.90	0.33
20.538	881.96	0.51	18.710	793.12	0.47	19.289	759.19	0.33
20.555	882.09	0.51	18.730	793.41	0.47	19.309	759.47	0.33
20.572	882.23	0.51	18.750	793.70	0.47	19.329	759.74	0.33

20.589	882.36	0.51	18.770	793.98	0.47	19.349	760.02	0.33
20.606	882.49	0.51	18.790	794.27	0.47	19.368	760.31	0.33
20.623	882.63	0.51	18.810	794.47	0.47	19.388	760.60	0.33
20.640	882.75	0.51	18.830	794.75	0.47	19.408	760.88	0.33
20.657	882.88	0.51	18.850	795.03	0.47	19.428	761.17	0.33
20.674	883.01	0.51	18.870	795.31	0.47	19.448	761.45	0.33
20.691	883.13	0.51	18.890	795.53	0.47	19.468	761.73	0.33
20.707	883.27	0.51	18.910	795.79	0.47	19.488	762.00	0.33
20.724	883.44	0.51	18.930	796.08	0.47	19.508	762.28	0.33
20.741	883.56	0.51	18.950	796.36	0.47	19.528	762.55	0.33
20.758	883.68	0.51	18.970	796.60	0.47	19.548	762.84	0.33
20.775	883.82	0.51	18.989	796.84	0.47	19.568	763.12	0.33
20.792	883.99	0.51	19.009	797.12	0.47	19.588	763.40	0.33
20.809	884.11	0.51	19.029	797.41	0.47	19.608	763.67	0.33
20.826	884.23	0.51	19.049	797.67	0.47	19.628	763.94	0.33
20.843	884.35	0.51	19.069	797.87	0.47	19.648	764.21	0.33
20.860	884.46	0.51	19.089	798.14	0.47	19.668	764.47	0.33
20.877	884.62	0.51	19.109	798.42	0.47	19.688	764.74	0.33
20.894	884.78	0.51	19.129	798.69	0.47	19.708	765.00	0.33
20.911	884.89	0.51	19.149	798.96	0.47	19.727	765.27	0.33
20.927	885.00	0.51	19.169	799.17	0.47	19.747	765.54	0.33
20.944	885.15	0.51	19.189	799.42	0.47	19.767	765.80	0.33
20.961	885.31	0.51	19.209	799.70	0.47	19.787	766.07	0.33
20.978	885.42	0.51	19.229	799.97	0.47	19.807	766.34	0.33
20.995	885.53	0.51	19.249	800.24	0.47	19.827	766.61	0.33
21.012	885.66	0.51	19.269	800.51	0.47	19.847	766.86	0.33
21.029	885.81	0.51	19.289	800.77	0.47	19.867	767.11	0.33
21.046	885.97	0.51	19.309	800.99	0.47	19.887	767.36	0.33
21.063	886.11	0.51	19.329	801.22	0.47	19.907	767.61	0.33
21.080	886.18	0.51	19.348	801.48	0.47	19.927	767.85	0.33
21.097	886.31	0.51	19.368	801.74	0.47	19.947	768.09	0.33
21.114	886.45	0.51	19.388	801.99	0.47	19.967	768.33	0.33
21.131	886.59	0.51	19.408	802.25	0.47	19.987	768.58	0.33
21.148	886.73	0.51	19.428	802.50	0.47	20.007	768.82	0.33
21.164	886.87	0.51	19.448	802.77	0.47	20.027	769.07	0.33
21.181	887.00	0.51	19.468	803.03	0.47	20.047	769.33	0.33
21.198	887.14	0.51	19.488	803.28	0.47	20.067	769.59	0.33
21.215	887.27	0.51	19.508	803.53	0.47	20.087	769.84	0.33
21.232	887.40	0.51	19.528	803.72	0.47	20.106	770.10	0.33
21.249	887.52	0.51	19.548	803.97	0.47	20.126	770.34	0.33
21.266	887.64	0.51	19.568	804.23	0.47	20.146	770.57	0.33
21.283	887.82	0.51	19.588	804.48	0.47	20.166	770.80	0.33
21.300	887.97	0.51	19.608	804.73	0.47	20.186	771.04	0.33
21.317	888.09	0.51	19.628	804.98	0.47	20.206	771.27	0.33
21.334	888.22	0.51	19.648	805.23	0.47	20.226	771.53	0.33

21.351	888.34	0.51	19.668	805.48	0.47	20.246	771.79	0.33
21.368	888.46	0.51	19.688	805.72	0.47	20.266	772.06	0.33
21.384	888.57	0.51	19.708	805.97	0.47	20.286	772.32	0.33
21.401	888.69	0.51	19.727	806.22	0.47	20.306	772.57	0.33
21.418	888.81	0.51	19.747	806.45	0.47	20.326	772.79	0.33
21.435	888.97	0.51	19.767	806.69	0.47	20.346	773.01	0.33
21.452	889.13	0.51	19.787	806.93	0.47	20.366	773.23	0.33
21.469	889.23	0.51	19.807	807.17	0.47	20.386	773.45	0.33
21.486	889.35	0.51	19.827	807.41	0.47	20.406	773.67	0.33
21.503	889.46	0.51	19.847	807.65	0.47	20.426	773.92	0.33
21.520	889.57	0.51	19.867	807.90	0.47	20.446	774.17	0.33
21.537	889.73	0.51	19.887	808.13	0.47	20.466	774.41	0.33
21.554	889.87	0.51	19.907	808.36	0.47	20.485	774.66	0.33
21.571	889.98	0.51	19.927	808.60	0.47	20.505	774.91	0.33
21.588	890.09	0.51	19.947	808.84	0.47	20.525	775.15	0.33
21.605	890.21	0.51	19.967	809.10	0.47	20.545	775.38	0.33
21.621	890.37	0.51	19.987	809.39	0.47	20.565	775.61	0.33
21.638	890.48	0.51	20.007	809.62	0.47	20.585	775.84	0.33
21.655	890.59	0.51	20.027	809.85	0.47	20.605	776.07	0.33
21.672	890.75	0.51	20.047	810.08	0.47	20.625	776.31	0.33
21.689	890.87	0.51	20.067	810.31	0.47	20.645	776.53	0.33
21.706	890.97	0.51	20.087	810.54	0.47	20.665	776.75	0.33
21.723	891.13	0.51	20.106	810.77	0.47	20.685	776.97	0.33
21.740	891.26	0.51	20.126	811.01	0.47	20.705	777.19	0.33
21.757	891.36	0.51	20.146	811.24	0.47	20.725	777.42	0.33
21.774	891.47	0.51	20.166	811.47	0.47	20.745	777.64	0.33
21.791	891.59	0.51	20.186	811.70	0.47	20.765	777.85	0.33
21.808	891.74	0.51	20.206	811.92	0.47	20.785	778.06	0.33
21.825	891.85	0.51	20.226	812.20	0.47	20.805	778.27	0.33
21.842	891.95	0.51	20.246	812.45	0.47	20.825	778.48	0.33
21.858	892.09	0.51	20.266	812.67	0.47	20.845	778.69	0.33
21.875	892.23	0.51	20.286	812.89	0.47	20.864	778.90	0.33
21.892	892.36	0.51	20.306	813.11	0.47	20.884	779.12	0.33
21.909	892.47	0.51	20.326	813.34	0.47	20.904	779.34	0.33
21.926	892.56	0.51	20.346	813.56	0.47	20.924	779.53	0.33
21.943	892.68	0.51	20.366	813.78	0.47	20.944	779.81	0.33
21.960	892.80	0.51	20.386	814.00	0.47	20.964	780.02	0.33
21.977	892.93	0.51	20.406	814.29	0.47	20.984	780.30	0.33
21.994	893.06	0.51	20.426	814.52	0.48	21.004	780.57	0.33
22.011	893.19	0.51	20.446	814.73	0.48	21.024	780.82	0.33
22.028	893.32	0.51	20.466	814.95	0.48	21.044	781.06	0.33
22.045	893.45	0.51	20.485	815.16	0.48	21.064	781.32	0.33
22.062	893.57	0.51	20.505	815.38	0.48	21.084	781.57	0.33
22.078	893.67	0.51	20.525	815.59	0.48	21.104	781.77	0.33
22.095	893.81	0.51	20.545	815.81	0.48	21.124	782.01	0.33

22.112	893.94	0.51	20.565	816.01	0.48	21.144	782.27	0.33
22.129	894.05	0.51	20.585	816.29	0.48	21.164	782.53	0.33
22.146	894.21	0.51	20.605	816.52	0.48	21.184	782.75	0.33
22.163	894.31	0.51	20.625	816.72	0.48	21.204	783.00	0.33
22.180	894.41	0.51	20.645	816.93	0.48	21.223	783.28	0.33
22.197	894.56	0.51	20.665	817.15	0.48	21.243	783.51	0.33
22.214	894.69	0.51	20.685	817.36	0.48	21.263	783.77	0.33
22.231	894.81	0.51	20.705	817.63	0.48	21.283	783.98	0.33
22.248	894.96	0.51	20.725	817.84	0.48	21.303	784.22	0.33
22.265	895.05	0.51	20.745	818.04	0.48	21.323	784.43	0.33
22.282	895.19	0.51	20.765	818.28	0.48	21.343	784.67	0.33
22.299	895.31	0.51	20.785	818.53	0.48	21.363	784.90	0.33
22.315	895.48	0.51	20.805	818.73	0.48	21.383	785.14	0.33
22.332	895.57	0.51	20.825	818.93	0.48	21.403	785.41	0.33
22.349	895.68	0.51	20.844	819.13	0.48	21.423	785.64	0.33
22.366	895.84	0.52	20.864	819.38	0.48	21.443	785.91	0.33
22.383	895.93	0.52	20.884	819.62	0.48	21.463	786.12	0.33
22.400	896.06	0.52	20.904	819.82	0.48	21.483	786.40	0.33
22.417	896.19	0.52	20.924	820.02	0.48	21.503	786.66	0.33
22.434	896.35	0.52	20.944	820.22	0.48	21.523	786.87	0.33
22.451	896.45	0.52	20.964	820.42	0.48	21.543	787.04	0.33
22.468	896.53	0.52	20.984	820.62	0.48	21.563	787.30	0.33
22.485	896.68	0.52	21.004	820.84	0.48	21.583	787.58	0.33
22.502	896.83	0.52	21.024	821.10	0.48	21.602	787.79	0.33
22.519	896.92	0.52	21.044	821.29	0.48	21.622	788.06	0.33
22.535	897.06	0.52	21.064	821.49	0.48	21.642	788.23	0.33
22.552	897.16	0.52	21.084	821.74	0.48	21.662	788.46	0.33
22.569	897.30	0.52	21.104	821.96	0.48	21.682	788.69	0.33
22.586	897.41	0.52	21.124	822.16	0.48	21.702	788.93	0.33
22.603	897.58	0.52	21.144	822.35	0.48	21.722	789.17	0.33
22.620	897.67	0.52	21.164	822.54	0.48	21.742	789.43	0.33
22.637	897.76	0.52	21.184	822.78	0.48	21.762	789.66	0.33
22.654	897.93	0.52	21.204	823.01	0.48	21.782	789.87	0.33
22.671	898.03	0.52	21.223	823.20	0.48	21.802	790.12	0.33
22.688	898.17	0.52	21.243	823.39	0.48	21.822	790.36	0.33
22.705	898.26	0.52	21.263	823.58	0.48	21.842	790.60	0.33
22.722	898.41	0.52	21.283	823.81	0.48	21.862	790.85	0.33
22.739	898.55	0.52	21.303	824.04	0.48	21.882	791.05	0.33
22.756	898.63	0.52	21.323	824.23	0.48	21.902	791.24	0.33
22.772	898.77	0.52	21.343	824.41	0.48	21.922	791.49	0.33
22.789	898.86	0.52	21.363	824.65	0.48	21.942	791.74	0.33
22.806	898.98	0.52	21.383	824.86	0.48	21.962	791.94	0.33
22.823	899.14	0.52	21.403	825.05	0.48	21.981	792.17	0.33
22.840	899.25	0.52	21.423	825.24	0.48	22.001	792.43	0.33
22.857	899.34	0.52	21.443	825.42	0.48	22.021	792.63	0.33

22.874	899.48	0.52	21.463	825.63	0.48	22.041	792.81	0.33
22.891	899.62	0.52	21.483	825.86	0.48	22.061	793.07	0.33
22.908	899.69	0.52	21.503	826.04	0.48	22.081	793.28	0.34
22.925	899.82	0.52	21.523	826.22	0.48	22.101	793.53	0.34
22.942	899.96	0.52	21.543	826.43	0.48	22.121	793.75	0.34
22.959	900.07	0.52	21.563	826.66	0.48	22.141	793.97	0.34
22.976	900.18	0.52	21.583	826.84	0.48	22.161	794.18	0.34
22.992	900.32	0.52	21.602	827.01	0.48	22.181	794.40	0.34
23.009	900.45	0.52	21.622	827.21	0.48	22.201	794.63	0.34
23.026	900.53	0.52	21.642	827.45	0.48	22.221	794.88	0.34
23.043	900.67	0.52	21.662	827.61	0.48	22.241	795.13	0.34
23.060	900.82	0.52	21.682	827.81	0.48	22.261	795.37	0.34
23.077	900.90	0.52	21.702	828.03	0.48	22.281	795.57	0.34
23.094	901.04	0.52	21.722	828.20	0.48	22.301	795.81	0.34
23.111	901.13	0.52	21.742	828.37	0.48	22.321	796.02	0.34
23.128	901.25	0.52	21.762	828.57	0.48	22.340	796.28	0.34
23.145	901.40	0.52	21.782	828.81	0.48	22.360	796.47	0.34
23.162	901.54	0.52	21.802	828.96	0.48	22.380	796.67	0.34
23.179	901.66	0.52	21.822	829.20	0.48	22.400	796.89	0.34
23.196	901.73	0.52	21.842	829.35	0.48	22.420	797.14	0.34
23.213	901.87	0.52	21.862	829.58	0.48	22.440	797.41	0.34
23.229	902.00	0.52	21.882	829.81	0.48	22.460	797.59	0.34
23.246	902.12	0.52	21.902	830.00	0.48	22.480	797.78	0.34
23.263	902.24	0.52	21.922	830.19	0.48	22.500	798.02	0.34
23.280	902.36	0.52	21.942	830.39	0.48	22.520	798.25	0.34
23.297	902.48	0.52	21.962	830.56	0.48	22.540	798.48	0.34
23.314	902.60	0.52	21.981	830.79	0.48	22.560	798.73	0.34
23.331	902.72	0.52	22.001	831.03	0.48	22.580	798.92	0.34
23.348	902.85	0.52	22.021	831.17	0.48	22.600	799.13	0.34
23.365	902.91	0.52	22.041	831.39	0.48	22.620	799.37	0.34
23.382	903.04	0.52	22.061	831.62	0.48	22.640	799.65	0.34
23.399	903.19	0.52	22.081	831.76	0.48	22.660	799.88	0.34
23.416	903.25	0.52	22.101	831.99	0.48	22.680	800.09	0.34
23.433	903.36	0.52	22.121	832.22	0.48	22.700	800.33	0.34
23.450	903.48	0.52	22.141	832.43	0.48	22.719	800.51	0.34
23.466	903.60	0.52	22.161	832.60	0.48	22.739	800.73	0.34
23.483	903.72	0.52	22.181	832.79	0.48	22.759	800.98	0.34
23.500	903.84	0.52	22.201	833.02	0.48	22.779	801.20	0.34
23.517	903.95	0.52	22.221	833.17	0.48	22.799	801.40	0.34
23.534	904.07	0.52	22.241	833.37	0.48	22.819	801.64	0.34
23.551	904.19	0.52	22.261	833.59	0.48	22.839	801.85	0.34
23.568	904.30	0.52	22.281	833.81	0.48	22.859	802.06	0.34
23.585	904.42	0.52	22.301	833.94	0.48	22.879	802.31	0.34
23.602	904.52	0.52	22.321	834.15	0.48	22.899	802.53	0.34
23.619	904.63	0.52	22.340	834.36	0.48	22.919	802.71	0.34

23.636	904.75	0.52	22.360	834.57	0.48	22.939	802.92	0.34
23.653	904.86	0.52	22.380	834.78	0.48	22.959	803.13	0.34
23.670	904.97	0.52	22.400	834.99	0.48	22.979	803.34	0.34
23.686	905.09	0.52	22.420	835.12	0.48	22.999	803.59	0.34
23.703	905.19	0.52	22.440	835.32	0.48	23.019	803.83	0.34
23.720	905.36	0.52	22.460	835.53	0.48	23.039	804.05	0.34
23.737	905.50	0.52	22.480	835.74	0.48	23.059	804.27	0.34
23.754	905.60	0.52	22.500	835.87	0.48	23.079	804.50	0.34
23.771	905.66	0.52	22.520	836.08	0.48	23.098	804.72	0.34
23.788	905.77	0.52	22.540	836.29	0.48	23.118	804.93	0.34
23.805	905.88	0.52	22.560	836.50	0.48	23.138	805.18	0.34
23.822	905.99	0.52	22.580	836.70	0.48	23.158	805.38	0.34
23.839	906.14	0.52	22.600	836.87	0.48	23.178	805.59	0.34
23.856	906.28	0.52	22.620	837.03	0.48	23.198	805.83	0.34
23.873	906.39	0.52	22.640	837.24	0.48	23.218	806.06	0.34
23.890	906.50	0.52	22.660	837.44	0.48	23.238	806.27	0.34
23.907	906.60	0.52	22.680	837.65	0.48	23.258	806.48	0.34
23.923	906.71	0.52	22.700	837.85	0.48	23.278	806.74	0.34
23.940	906.81	0.52	22.719	838.05	0.48	23.298	806.97	0.34
23.957	906.91	0.52	22.739	838.23	0.48	23.318	807.18	0.34
23.974	907.02	0.52	22.759	838.37	0.48	23.338	807.39	0.34
23.991	907.12	0.52	22.779	838.57	0.48	23.358	807.62	0.34
24.008	907.22	0.52	22.799	838.77	0.48	23.378	807.85	0.34
24.025	907.32	0.52	22.819	838.96	0.48	23.398	808.08	0.34
24.042	907.44	0.52	22.839	839.16	0.48	23.418	808.30	0.34
24.059	907.59	0.52	22.859	839.36	0.48	23.438	808.55	0.34
24.076	907.70	0.52	22.879	839.55	0.48	23.458	808.81	0.34
24.093	907.80	0.52	22.899	839.75	0.49	23.477	809.01	0.34
24.110	907.90	0.52	22.919	839.95	0.49	23.497	809.22	0.34
24.127	908.00	0.52	22.939	840.14	0.49	23.517	809.44	0.34
24.143	908.10	0.52	22.959	840.28	0.49	23.537	809.67	0.34
24.160	908.24	0.52	22.979	840.45	0.49	23.557	809.92	0.34
24.177	908.38	0.52	22.999	840.65	0.49	23.577	810.11	0.34
24.194	908.47	0.52	23.019	840.83	0.49	23.597	810.39	0.34
24.211	908.57	0.52	23.039	841.03	0.49	23.617	810.62	0.34
24.228	908.67	0.52	23.059	841.22	0.49	23.637	810.82	0.34
24.245	908.78	0.52	23.079	841.40	0.49	23.657	811.08	0.34
24.262	908.86	0.52	23.098	841.60	0.49	23.677	811.31	0.34
24.279	908.97	0.52	23.118	841.78	0.49	23.697	811.52	0.34
24.296	909.10	0.52	23.138	841.97	0.49	23.717	811.73	0.34
24.313	909.20	0.52	23.158	842.16	0.49	23.737	811.98	0.34
24.330	909.34	0.52	23.178	842.35	0.49	23.757	812.23	0.34
24.347	909.42	0.52	23.198	842.47	0.49	23.777	812.46	0.34
24.364	909.56	0.52	23.218	842.71	0.49	23.797	812.71	0.34
24.380	909.63	0.52	23.238	842.83	0.49	23.817	813.00	0.34

24.397	909.77	0.52	23.258	843.09	0.49	23.836	813.26	0.34
24.414	909.90	0.52	23.278	843.25	0.49	23.856	813.48	0.34
24.431	910.00	0.52	23.298	843.38	0.49	23.876	813.77	0.34
24.448	910.10	0.52	23.318	843.56	0.49	23.896	813.99	0.34
24.465	910.22	0.52	23.338	843.81	0.49	23.916	814.21	0.34
24.482	910.29	0.52	23.358	843.94	0.49	23.936	814.46	0.34
24.499	910.43	0.52	23.378	844.12	0.49	23.956	814.77	0.34
24.516	910.50	0.52	23.398	844.30	0.49	23.976	815.00	0.34
24.533	910.62	0.52	23.418	844.48	0.49	23.996	815.22	0.34
24.550	910.75	0.52	23.438	844.66	0.49	24.016	815.42	0.34
24.567	910.87	0.52	23.458	844.85	0.49	24.036	815.66	0.34
24.584	910.95	0.52	23.477	845.03	0.49	24.056	815.91	0.34
24.601	911.09	0.52	23.497	845.20	0.49	24.076	816.17	0.34
24.617	911.17	0.52	23.517	845.38	0.49	24.096	816.39	0.34
24.634	911.30	0.52	23.537	845.56	0.49	24.116	816.61	0.34
24.651	911.43	0.52	23.557	845.73	0.49	24.136	816.85	0.34
24.668	911.53	0.52	23.577	845.91	0.49	24.156	817.08	0.34
24.685	911.63	0.52	23.597	846.09	0.49	24.176	817.31	0.34
24.702	911.75	0.52	23.617	846.27	0.49	24.196	817.53	0.34
24.719	911.82	0.52	23.637	846.45	0.49	24.215	817.74	0.34
24.736	911.95	0.52	23.657	846.62	0.49	24.235	817.96	0.34
24.753	912.07	0.52	23.677	846.79	0.49	24.255	818.19	0.34
24.770	912.17	0.52	23.697	846.96	0.49	24.275	818.43	0.34
24.787	912.25	0.52	23.717	847.19	0.49	24.295	818.63	0.34
24.804	912.38	0.52	23.737	847.39	0.49	24.315	818.84	0.34
24.821	912.51	0.52	23.757	847.56	0.49	24.335	819.04	0.34
24.837	912.64	0.52	23.777	847.73	0.49	24.355	819.26	0.34
24.854	912.74	0.52	23.797	847.90	0.49	24.375	819.47	0.34
24.871	912.80	0.52	23.817	848.07	0.49	24.395	819.68	0.34
24.888	912.93	0.52	23.836	848.24	0.49	24.415	819.88	0.34
24.905	913.04	0.52	23.856	848.41	0.49	24.435	820.09	0.34
24.922	913.14	0.52	23.876	848.59	0.49	24.455	820.29	0.34
24.939	913.20	0.52	23.896	848.75	0.49	24.475	820.49	0.34
24.956	913.32	0.52	23.916	848.92	0.49	24.495	820.69	0.34
24.973	913.44	0.52	23.936	849.09	0.49	24.515	820.89	0.34
24.990	913.55	0.52	23.956	849.25	0.49	24.535	821.08	0.34
25.007	913.67	0.52	23.976	849.42	0.49	24.555	821.28	0.34
25.024	913.79	0.52	23.996	849.58	0.49	24.575	821.48	0.34
25.041	913.91	0.52	24.016	849.75	0.49	24.594	821.67	0.34
25.058	914.02	0.52	24.036	849.94	0.49	24.614	821.87	0.34
25.074	914.08	0.52	24.056	850.16	0.49	24.634	822.06	0.34
25.091	914.19	0.52	24.076	850.33	0.49	24.654	822.25	0.34
25.108	914.31	0.52	24.096	850.49	0.49	24.674	822.44	0.34
25.125	914.42	0.52	24.116	850.65	0.49	24.694	822.62	0.34
25.142	914.48	0.52	24.136	850.82	0.49	24.714	822.81	0.34

25.159	914.60	0.52	24.156	850.98	0.49	24.734	822.99	0.34
25.176	914.73	0.52	24.176	851.15	0.49	24.754	823.17	0.34
25.193	914.85	0.52	24.196	851.31	0.49	24.774	823.36	0.34
25.210	914.97	0.52	24.215	851.47	0.49	24.794	823.54	0.34
25.227	915.03	0.52	24.235	851.68	0.49	24.814	823.73	0.34
25.244	915.14	0.52	24.255	851.88	0.49	24.834	823.91	0.34
25.261	915.26	0.52	24.275	852.04	0.49	24.854	824.09	0.34
25.278	915.38	0.52	24.295	852.20	0.49	24.874	824.27	0.34
25.294	915.44	0.52	24.315	852.37	0.49	24.894	824.45	0.34
25.311	915.53	0.52	24.335	852.53	0.49	24.914	824.63	0.34
25.328	915.65	0.52	24.355	852.70	0.49	24.934	824.81	0.34
25.345	915.77	0.52	24.375	852.86	0.49	24.954	824.98	0.34
25.362	915.89	0.52	24.395	853.02	0.49	24.973	825.16	0.34
25.379	916.01	0.52	24.415	853.22	0.49	24.993	825.33	0.34
25.396	916.11	0.52	24.435	853.41	0.49	25.013	825.50	0.34
25.413	916.17	0.52	24.455	853.57	0.49	25.033	825.68	0.34
25.430	916.27	0.52	24.475	853.73	0.49	25.053	825.85	0.34
25.447	916.38	0.52	24.495	853.88	0.49	25.073	826.02	0.34
25.464	916.50	0.52	24.515	854.04	0.49	25.093	826.19	0.34
25.481	916.61	0.52	24.535	854.20	0.49	25.113	826.36	0.34
25.498	916.73	0.52	24.555	854.36	0.49	25.133	826.53	0.34
25.515	916.84	0.52	24.575	854.51	0.49	25.153	826.71	0.34
25.531	916.95	0.52	24.594	854.69	0.49	25.173	826.88	0.34
25.548	917.05	0.52	24.614	854.90	0.49	25.193	827.05	0.34
25.565	917.16	0.52	24.634	855.06	0.49	25.213	827.22	0.34
25.582	917.21	0.52	24.654	855.22	0.49	25.233	827.40	0.34
25.599	917.30	0.52	24.674	855.37	0.49	25.253	827.57	0.34
25.616	917.41	0.52	24.694	855.52	0.49	25.273	827.74	0.34
25.633	917.51	0.52	24.714	855.68	0.49	25.293	827.91	0.34
25.650	917.61	0.52	24.734	855.90	0.49	25.313	828.08	0.34
25.667	917.72	0.52	24.754	856.06	0.49	25.332	828.25	0.34
25.684	917.82	0.52	24.774	856.22	0.49	25.352	828.42	0.34
25.701	917.93	0.52	24.794	856.37	0.49	25.372	828.59	0.34
25.718	918.03	0.52	24.814	856.52	0.49	25.392	828.76	0.34
25.735	918.14	0.52	24.834	856.67	0.49	25.412	828.93	0.34
25.751	918.25	0.52	24.854	856.87	0.49	25.432	829.10	0.34
25.768	918.36	0.52	24.874	857.01	0.49	25.452	829.27	0.34
25.785	918.46	0.52	24.894	857.15	0.49	25.472	829.44	0.34
25.802	918.56	0.52	24.914	857.35	0.49	25.492	829.61	0.34
25.819	918.67	0.52	24.934	857.50	0.49	25.512	829.78	0.34
25.836	918.77	0.52	24.954	857.66	0.49	25.532	829.96	0.34
25.853	918.87	0.52	24.973	857.81	0.49	25.552	830.13	0.34
25.870	918.92	0.52	24.993	857.96	0.49	25.572	830.30	0.34
25.887	919.01	0.52	25.013	858.18	0.49	25.592	830.47	0.34
25.904	919.11	0.52	25.033	858.33	0.49	25.612	830.65	0.34



25.921	919.21	0.52	25.053	858.47	0.49	25.632	830.81	0.34
25.938	919.31	0.52	25.073	858.62	0.49	25.652	830.98	0.34
25.955	919.41	0.52	25.093	858.76	0.49	25.672	831.14	0.34
25.972	919.55	0.52	25.113	858.94	0.49	25.692	831.31	0.34
25.988	919.67	0.52	25.133	859.13	0.49	25.711	831.47	0.34
26.005	919.72	0.52	25.153	859.27	0.49	25.731	831.64	0.34
26.022	919.83	0.52	25.173	859.41	0.49	25.751	831.80	0.34
26.039	919.98	0.52	25.193	859.55	0.49	25.771	831.97	0.34
26.056	920.08	0.52	25.213	859.76	0.49	25.791	832.13	0.34
26.073	920.18	0.52	25.233	859.92	0.49	25.811	832.30	0.34
26.090	920.27	0.52	25.253	860.06	0.49	25.831	832.46	0.34
26.107	920.34	0.52	25.273	860.20	0.49	25.851	832.62	0.34
26.124	920.42	0.52	25.293	860.36	0.49	25.871	832.78	0.34
26.141	920.51	0.52	25.313	860.56	0.49	25.891	832.95	0.34
26.158	920.65	0.52	25.332	860.70	0.49	25.911	833.11	0.34
26.175	920.77	0.52	25.352	860.85	0.49	25.931	833.27	0.34
26.192	920.86	0.52	25.372	860.99	0.49	25.951	833.43	0.34
26.209	920.97	0.52	25.392	861.13	0.49	25.971	833.59	0.34
26.225	921.08	0.52	25.412	861.31	0.49	25.991	833.75	0.34
26.242	921.18	0.52	25.432	861.49	0.49	26.011	833.92	0.34
26.259	921.27	0.52	25.452	861.63	0.49	26.031	834.08	0.34
26.276	921.36	0.52	25.472	861.77	0.49	26.051	834.24	0.34
26.293	921.44	0.52	25.492	861.91	0.49	26.071	834.40	0.34
26.310	921.53	0.52	25.512	862.05	0.49	26.090	834.56	0.34
26.327	921.68	0.52	25.532	862.24	0.49	26.110	834.72	0.34
26.344	921.76	0.52	25.552	862.40	0.49	26.130	834.88	0.34
26.361	921.85	0.52	25.572	862.54	0.49	26.150	835.04	0.34
26.378	922.01	0.52	25.592	862.67	0.49	26.170	835.20	0.34
26.395	922.09	0.52	25.612	862.81	0.49	26.190	835.36	0.34
26.412	922.18	0.52	25.632	863.01	0.49	26.210	835.52	0.34
26.429	922.27	0.52	25.652	863.15	0.49	26.230	835.68	0.34
26.445	922.35	0.52	25.672	863.28	0.49	26.250	835.83	0.34
26.462	922.48	0.52	25.692	863.41	0.49	26.270	835.99	0.34
26.479	922.61	0.52	25.711	863.55	0.49	26.290	836.14	0.34
26.496	922.70	0.52	25.731	863.75	0.49	26.310	836.30	0.34
26.513	922.78	0.52	25.751	863.89	0.49	26.330	836.46	0.34
26.530	922.87	0.52	25.771	864.01	0.49	26.350	836.61	0.34
26.547	923.02	0.52	25.791	864.18	0.50	26.370	836.77	0.34
26.564	923.05	0.52	25.811	864.36	0.50	26.390	836.92	0.34
26.581	923.21	0.53	25.831	864.49	0.50	26.410	837.08	0.34
26.598	923.31	0.53	25.851	864.62	0.50	26.430	837.23	0.34
26.615	923.39	0.53	25.871	864.78	0.50	26.450	837.39	0.34
26.632	923.48	0.53	25.891	864.95	0.50	26.469	837.54	0.34
26.649	923.56	0.53	25.911	865.07	0.50	26.489	837.70	0.34
26.666	923.66	0.53	25.931	865.19	0.50	26.509	837.85	0.34

26.682	923.80	0.53	25.951	865.37	0.50	26.529	838.01	0.34
26.699	923.87	0.53	25.971	865.46	0.50	26.549	838.16	0.34
26.716	923.95	0.53	25.991	865.62	0.50	26.569	838.32	0.34
26.733	924.04	0.53	26.011	865.78	0.50	26.589	838.47	0.34
26.750	924.19	0.53	26.031	865.92	0.50	26.609	838.62	0.34
26.767	924.27	0.53	26.051	866.08	0.50	26.629	838.78	0.34
26.784	924.35	0.53	26.071	866.24	0.50	26.649	838.93	0.34
26.801	924.50	0.53	26.090	866.40	0.50	26.669	839.09	0.34
26.818	924.58	0.53	26.110	866.56	0.50	26.689	839.24	0.34
26.835	924.66	0.53	26.130	866.71	0.50	26.709	839.38	0.34
26.852	924.73	0.53	26.150	866.86	0.50	26.729	839.53	0.34
26.869	924.88	0.53	26.170	867.01	0.50	26.749	839.68	0.34
26.886	924.97	0.53	26.190	867.16	0.50	26.769	839.83	0.34
26.902	925.04	0.53	26.210	867.31	0.50	26.789	839.98	0.34
26.919	925.16	0.53	26.230	867.46	0.50	26.809	840.13	0.34
26.936	925.26	0.53	26.250	867.61	0.50	26.828	840.27	0.34
26.953	925.34	0.53	26.270	867.76	0.50	26.848	840.42	0.34
26.970	925.43	0.53	26.290	867.91	0.50	26.868	840.57	0.34
26.987	925.57	0.53	26.310	868.06	0.50	26.888	840.72	0.34
27.004	925.64	0.53	26.330	868.21	0.50	26.908	840.87	0.34
27.021	925.72	0.53	26.350	868.36	0.50	26.928	841.02	0.35
27.038	925.86	0.53	26.370	868.51	0.50	26.948	841.17	0.35
27.055	925.94	0.53	26.390	868.66	0.50	26.968	841.32	0.35
27.072	926.02	0.53	26.410	868.81	0.50	26.988	841.47	0.35
27.089	926.15	0.53	26.430	868.96	0.50	27.008	841.62	0.35
27.106	926.25	0.53	26.449	869.11	0.50	27.028	841.77	0.35
27.123	926.32	0.53	26.469	869.26	0.50	27.048	841.92	0.35
27.139	926.43	0.53	26.489	869.41	0.50	27.068	842.07	0.35
27.156	926.55	0.53	26.509	869.56	0.50	27.088	842.22	0.35
27.173	926.63	0.53	26.529	869.70	0.50	27.108	842.37	0.35
27.190	926.72	0.53	26.549	869.85	0.50	27.128	842.52	0.35
27.207	926.85	0.53	26.569	869.99	0.50	27.148	842.67	0.35
27.224	926.92	0.53	26.589	870.14	0.50	27.168	842.82	0.35
27.241	926.99	0.53	26.609	870.28	0.50	27.188	842.96	0.35
27.258	927.12	0.53	26.629	870.51	0.50	27.207	843.11	0.35
27.275	927.21	0.53	26.649	870.63	0.50	27.227	843.26	0.35
27.292	927.28	0.53	26.669	870.80	0.50	27.247	843.41	0.35
27.309	927.38	0.53	26.689	870.94	0.50	27.267	843.56	0.35
27.326	927.50	0.53	26.709	871.08	0.50	27.287	843.70	0.35
27.343	927.58	0.53	26.729	871.22	0.50	27.307	843.85	0.35
27.359	927.65	0.53	26.749	871.36	0.50	27.327	844.00	0.35
27.376	927.78	0.53	26.769	871.50	0.50	27.347	844.15	0.35
27.393	927.87	0.53	26.789	871.64	0.50	27.367	844.30	0.35
27.410	927.98	0.53	26.809	871.78	0.50	27.387	844.44	0.35
27.427	928.09	0.53	26.828	871.92	0.50	27.407	844.59	0.35

27.444	928.17	0.53	26.848	872.06	0.50	27.427	844.74	0.35
27.461	928.29	0.53	26.868	872.25	0.50	27.447	844.88	0.35
27.478	928.36	0.53	26.888	872.32	0.50	27.467	845.02	0.35
27.495	928.47	0.53	26.908	872.54	0.50	27.487	845.16	0.35
27.512	928.57	0.53	26.928	872.68	0.50	27.507	845.30	0.35
27.529	928.65	0.53	26.948	872.81	0.50	27.527	845.45	0.35
27.546	928.79	0.53	26.968	872.95	0.50	27.547	845.59	0.35
27.563	928.85	0.53	26.988	873.08	0.50	27.567	845.73	0.35
27.580	928.92	0.53	27.008	873.22	0.50	27.586	845.87	0.35
27.596	929.03	0.53	27.028	873.35	0.50	27.606	846.01	0.35
27.613	929.14	0.53	27.048	873.49	0.50	27.626	846.16	0.35
27.630	929.22	0.53	27.068	873.70	0.50	27.646	846.30	0.35
27.647	929.35	0.53	27.088	873.83	0.50	27.666	846.44	0.35
27.664	929.42	0.53	27.108	873.96	0.50	27.686	846.58	0.35
27.681	929.49	0.53	27.128	874.09	0.50	27.706	846.73	0.35
27.698	929.59	0.53	27.148	874.22	0.50	27.726	846.87	0.35
27.715	929.70	0.53	27.168	874.43	0.50	27.746	847.01	0.35
27.732	929.78	0.53	27.188	874.56	0.50	27.766	847.15	0.35
27.749	929.91	0.53	27.207	874.69	0.50	27.786	847.29	0.35
27.766	929.97	0.53	27.227	874.83	0.50	27.806	847.44	0.35
27.783	930.07	0.53	27.247	874.95	0.50	27.826	847.58	0.35
27.800	930.18	0.53	27.267	875.09	0.50	27.846	847.72	0.35
27.817	930.24	0.53	27.287	875.22	0.50	27.866	847.86	0.35
27.833	930.36	0.53	27.307	875.43	0.50	27.886	848.00	0.35
27.850	930.44	0.53	27.327	875.56	0.50	27.906	848.14	0.35
27.867	930.54	0.53	27.347	875.68	0.50	27.926	848.29	0.35
27.884	930.66	0.53	27.367	875.81	0.50	27.946	848.43	0.35
27.901	930.73	0.53	27.387	875.93	0.50	27.965	848.57	0.35
27.918	930.85	0.53	27.407	876.14	0.50	27.985	848.71	0.35
27.935	930.93	0.53	27.427	876.26	0.50	28.005	848.85	0.35
27.952	931.02	0.53	27.447	876.38	0.50	28.025	848.99	0.35
27.969	931.13	0.53	27.467	876.51	0.50	28.045	849.13	0.35
27.986	931.19	0.53	27.487	876.65	0.50	28.065	849.27	0.35
28.003	931.30	0.53	27.507	876.84	0.50	28.085	849.41	0.35
28.020	931.39	0.53	27.527	876.96	0.50	28.105	849.54	0.35
28.037	931.45	0.53	27.547	877.09	0.50	28.125	849.68	0.35
28.053	931.56	0.53	27.567	877.21	0.50	28.145	849.82	0.35
28.070	931.67	0.53	27.586	877.40	0.50	28.165	849.96	0.35
28.087	931.78	0.53	27.606	877.54	0.50	28.185	850.10	0.35
28.104	931.89	0.53	27.626	877.66	0.50	28.205	850.24	0.35
28.121	931.97	0.53	27.646	877.86	0.50	28.225	850.38	0.35
28.138	932.03	0.53	27.666	877.98	0.50	28.245	850.52	0.35
28.155	932.14	0.53	27.686	878.10	0.50	28.265	850.66	0.35
28.172	932.25	0.53	27.706	878.21	0.50	28.285	850.80	0.35
28.189	932.35	0.53	27.726	878.42	0.50	28.305	850.94	0.35

28.206	932.41	0.53	27.746	878.53	0.50	28.324	851.08	0.35
28.223	932.51	0.53	27.766	878.66	0.50	28.344	851.22	0.35
28.240	932.60	0.53	27.786	878.84	0.50	28.364	851.36	0.35
28.257	932.66	0.53	27.806	878.95	0.50	28.384	851.50	0.35
28.274	932.79	0.53	27.826	879.08	0.50	28.404	851.64	0.35
28.290	932.91	0.53	27.846	879.25	0.50	28.424	851.78	0.35
28.307	933.01	0.53	27.866	879.36	0.50	28.444	851.92	0.35
28.324	933.07	0.53	27.886	879.50	0.50	28.464	852.06	0.35
28.341	933.18	0.53	27.906	879.67	0.50	28.484	852.20	0.35
28.358	933.26	0.53	27.926	879.78	0.50	28.504	852.34	0.35
28.375	933.32	0.53	27.945	879.93	0.50	28.524	852.48	0.35
28.392	933.43	0.53	27.965	880.08	0.50	28.544	852.62	0.35
28.409	933.54	0.53	27.985	880.19	0.50	28.564	852.76	0.35
28.426	933.64	0.53	28.005	880.30	0.50	28.584	852.90	0.35
28.443	933.69	0.53	28.025	880.47	0.50	28.604	853.04	0.35
28.460	933.79	0.53	28.045	880.59	0.50	28.624	853.17	0.35
28.477	933.91	0.53	28.065	880.74	0.50	28.644	853.30	0.35
28.494	934.02	0.53	28.085	880.89	0.50	28.664	853.44	0.35
28.510	934.13	0.53	28.105	880.99	0.50	28.684	853.57	0.35
28.527	934.21	0.53	28.125	881.13	0.50	28.703	853.70	0.35
28.544	934.27	0.53	28.145	881.29	0.50	28.723	853.84	0.35
28.561	934.36	0.53	28.165	881.41	0.50	28.743	853.97	0.35
28.578	934.47	0.53	28.185	881.58	0.50	28.763	854.10	0.35
28.595	934.58	0.53	28.205	881.69	0.50	28.783	854.24	0.35
28.612	934.64	0.53	28.225	881.80	0.50	28.803	854.37	0.35
28.629	934.72	0.53	28.245	881.98	0.50	28.823	854.51	0.35
28.646	934.83	0.53	28.265	882.09	0.50	28.843	854.64	0.35
28.663	934.94	0.53	28.285	882.27	0.50	28.863	854.77	0.35
28.680	935.02	0.53	28.305	882.38	0.50	28.883	854.91	0.35
28.697	935.07	0.53	28.324	882.48	0.50	28.903	855.04	0.35
28.714	935.17	0.53	28.344	882.65	0.50	28.923	855.17	0.35
28.731	935.28	0.53	28.364	882.77	0.50	28.943	855.31	0.35
28.747	935.38	0.53	28.384	882.90	0.50	28.963	855.44	0.35
28.764	935.48	0.53	28.404	883.06	0.50	28.983	855.57	0.35
28.781	935.58	0.53	28.424	883.17	0.50	29.003	855.71	0.35
28.798	935.63	0.53	28.444	883.29	0.50	29.023	855.84	0.35
28.815	935.71	0.53	28.464	883.45	0.50	29.043	855.98	0.35
28.832	935.81	0.53	28.484	883.56	0.50	29.063	856.11	0.35
28.849	935.91	0.53	28.504	883.74	0.50	29.082	856.24	0.35
28.866	936.00	0.53	28.524	883.84	0.50	29.102	856.38	0.35
28.883	936.10	0.53	28.544	883.94	0.50	29.122	856.51	0.35
28.900	936.19	0.53	28.564	884.13	0.50	29.142	856.64	0.35
28.917	936.29	0.53	28.584	884.23	0.50	29.162	856.78	0.35
28.934	936.39	0.53	28.604	884.37	0.50	29.182	856.91	0.35
28.951	936.48	0.53	28.624	884.52	0.50	29.202	857.05	0.35

28.967	936.57	0.53	28.644	884.62	0.50	29.222	857.18	0.35
28.984	936.67	0.53	28.664	884.74	0.50	29.242	857.31	0.35
29.001	936.76	0.53	28.684	884.90	0.50	29.262	857.44	0.35
29.018	936.85	0.53	28.703	885.01	0.50	29.282	857.55	0.35
29.035	936.94	0.53	28.723	885.18	0.50	29.302	857.66	0.35
29.052	937.03	0.53	28.743	885.29	0.50	29.322	857.77	0.35
29.069	937.12	0.53	28.763	885.43	0.50	29.342	857.88	0.35
29.086	937.22	0.53	28.783	885.57	0.50	29.362	857.99	0.35
29.103	937.31	0.53	28.803	885.66	0.50	29.382	858.10	0.35
29.120	937.40	0.53	28.823	885.84	0.50	29.402	858.21	0.35
29.137	937.49	0.53	28.843	885.94	0.50	29.422	858.32	0.35
29.154	937.58	0.53	28.863	886.09	0.50	29.441	858.43	0.35
29.171	937.67	0.53	28.883	886.22	0.50	29.461	858.55	0.35
29.188	937.75	0.53	28.903	886.32	0.50	29.481	858.69	0.35
29.204	937.85	0.53	28.923	886.50	0.50	29.501	858.81	0.35
29.221	937.92	0.53	28.943	886.60	0.50	29.521	858.93	0.35
29.238	937.97	0.53	28.963	886.76	0.50	29.541	859.07	0.35
29.255	938.04	0.53	28.983	886.87	0.50	29.561	859.23	0.35
29.272	938.14	0.53	29.003	886.99	0.50	29.581	859.37	0.35
29.289	938.24	0.53	29.023	887.15	0.50	29.601	859.50	0.35
29.306	938.33	0.53	29.043	887.30	0.50	29.621	859.63	0.35
29.323	938.42	0.53	29.063	887.43	0.50	29.641	859.76	0.35
29.340	938.52	0.53	29.082	887.53	0.50	29.661	859.90	0.35
29.357	938.62	0.53	29.102	887.71	0.50	29.681	860.04	0.35
29.374	938.71	0.53	29.122	887.80	0.50	29.701	860.18	0.35
29.391	938.80	0.53	29.142	887.95	0.51	29.721	860.33	0.35
29.408	938.90	0.53	29.162	888.08	0.51	29.741	860.48	0.35
29.425	938.99	0.53	29.182	888.18	0.51	29.761	860.63	0.35
29.441	939.09	0.53	29.202	888.36	0.51	29.781	860.75	0.35
29.458	939.18	0.53	29.222	888.46	0.51	29.801	860.87	0.35
29.475	939.27	0.53	29.242	888.55	0.51	29.820	861.02	0.35
29.492	939.35	0.53	29.262	888.73	0.51	29.840	861.16	0.35
29.509	939.44	0.53	29.282	888.83	0.51	29.860	861.30	0.35
29.526	939.52	0.53	29.302	888.96	0.51	29.880	861.44	0.35
29.543	939.61	0.53	29.322	889.11	0.51	29.900	861.59	0.35
29.560	939.69	0.53	29.342	889.20	0.51	29.920	861.74	0.35
29.577	939.77	0.53	29.362	889.38	0.51	29.940	861.85	0.35
29.594	939.85	0.53	29.382	889.48	0.51	29.960	861.97	0.35
29.611	939.93	0.53	29.402	889.60	0.51	29.980	862.11	0.35
29.628	940.05	0.53	29.422	889.75	0.51	30.000	862.25	0.35
29.645	940.17	0.53	29.441	889.90	0.51			
29.661	940.24	0.53	29.461	890.02	0.51			
29.678	940.32	0.53	29.481	890.11	0.51			
29.695	940.40	0.53	29.501	890.29	0.51			
29.712	940.48	0.53	29.521	890.38	0.51			

29.729	940.55	0.53	29.541	890.52	0.51			
29.746	940.63	0.53	29.561	890.65	0.51			
29.763	940.71	0.53	29.581	890.75	0.51			
29.780	940.78	0.53	29.601	890.92	0.51			
29.797	940.88	0.53	29.621	891.02	0.51			
29.814	941.00	0.53	29.641	891.13	0.51			
29.831	941.10	0.53	29.661	891.28	0.51			
29.848	941.18	0.53	29.681	891.37	0.51			
29.865	941.25	0.53	29.701	891.53	0.51			
29.882	941.33	0.53	29.721	891.64	0.51			
29.898	941.42	0.53	29.741	891.81	0.51			
29.915	941.54	0.53	29.761	891.91	0.51			
29.932	941.65	0.53	29.781	892.03	0.51			
29.949	941.72	0.53	29.801	892.17	0.51			
29.966	941.80	0.53	29.820	892.31	0.51			
29.983	941.88	0.53	29.840	892.43	0.51			
30.000	941.96	0.53	29.860	892.52	0.51			
			29.880	892.70	0.51			
			29.900	892.78	0.51			
			29.920	892.89	0.51			
			29.940	893.05	0.51			
			29.960	893.18	0.51			
			29.980	893.31	0.51			
			30.000	893.40	0.51			

**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for  $\text{CO}_2+\text{SO}_2$  mixtures.

<b><math>T= 333.15\pm 0.04</math> K</b>								
<b><math>x_{\text{CO}_2} = 0.9698</math></b>			<b><math>x_{\text{CO}_2} = 0.9931</math></b>					
<b><math>P</math> (MPa)</b>	<b><math>\rho</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>P</math> (MPa)</b>	<b><math>\rho</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>			
0.100	1.41	0.21	0.100	1.48	0.21			
0.120	1.75	0.21	0.120	1.53	0.20			
0.140	2.07	0.21	0.140	1.86	0.21			
0.160	2.39	0.22	0.160	2.19	0.21			
0.180	2.72	0.22	0.180	2.54	0.21			
0.200	3.05	0.22	0.200	2.89	0.21			
0.220	3.41	0.22	0.220	3.20	0.21			
0.240	3.72	0.22	0.240	3.53	0.21			
0.260	4.04	0.22	0.260	3.83	0.21			
0.280	4.43	0.22	0.280	4.20	0.22			
0.299	4.74	0.22	0.299	4.54	0.22			
0.319	5.06	0.22	0.319	4.84	0.22			
0.339	5.39	0.22	0.339	5.15	0.22			
0.359	5.77	0.22	0.359	5.47	0.22			
0.379	6.07	0.22	0.379	5.80	0.22			
0.399	6.44	0.22	0.399	6.13	0.22			
0.419	6.74	0.22	0.419	6.40	0.22			
0.439	7.04	0.22	0.439	6.77	0.22			
0.459	7.42	0.22	0.459	7.12	0.22			
0.479	7.76	0.22	0.479	7.42	0.22			
0.499	8.09	0.22	0.499	7.69	0.22			
0.519	8.46	0.22	0.519	8.04	0.22			
0.539	8.75	0.22	0.539	8.36	0.22			
0.559	9.09	0.22	0.559	8.73	0.22			
0.579	9.42	0.22	0.579	9.05	0.22			
0.599	9.79	0.22	0.599	9.37	0.22			
0.619	10.09	0.22	0.619	9.75	0.22			
0.639	10.39	0.22	0.639	10.03	0.22			
0.659	10.77	0.22	0.659	10.33	0.22			
0.678	11.10	0.22	0.678	10.73	0.22			
0.698	11.46	0.22	0.698	11.05	0.22			
0.718	11.78	0.22	0.718	11.37	0.22			
0.738	12.08	0.22	0.738	11.67	0.22			
0.758	12.42	0.22	0.758	11.99	0.22			
0.778	12.77	0.22	0.778	12.32	0.22			
0.798	13.08	0.22	0.798	12.68	0.22			

0.818	13.46	0.22	0.818	12.95	0.22			
0.838	13.78	0.22	0.838	13.31	0.22			
0.858	14.10	0.22	0.858	13.66	0.22			
0.878	14.45	0.22	0.878	13.99	0.22			
0.898	14.80	0.22	0.898	14.33	0.22			
0.918	15.12	0.22	0.918	14.65	0.22			
0.938	15.49	0.22	0.938	14.98	0.22			
0.958	15.84	0.22	0.958	15.34	0.22			
0.978	16.17	0.22	0.978	15.69	0.22			
0.998	16.49	0.22	0.998	16.00	0.22			
1.018	16.90	0.22	1.018	16.35	0.22			
1.037	17.23	0.22	1.037	16.70	0.22			
1.057	17.56	0.22	1.057	17.04	0.22			
1.077	17.90	0.22	1.077	17.38	0.22			
1.097	18.24	0.22	1.097	17.70	0.22			
1.117	18.57	0.22	1.117	18.07	0.22			
1.137	18.91	0.22	1.137	18.41	0.22			
1.157	19.26	0.22	1.157	18.70	0.22			
1.177	19.60	0.22	1.177	19.05	0.22			
1.197	19.95	0.22	1.197	19.46	0.22			
1.217	20.31	0.22	1.217	19.77	0.22			
1.237	20.66	0.22	1.237	20.08	0.22			
1.257	21.02	0.22	1.257	20.43	0.22			
1.277	21.37	0.22	1.277	20.79	0.22			
1.297	21.67	0.22	1.297	21.17	0.22			
1.317	22.04	0.22	1.317	21.51	0.22			
1.337	22.42	0.22	1.337	21.84	0.22			
1.357	22.75	0.22	1.357	22.16	0.22			
1.377	23.09	0.22	1.377	22.52	0.22			
1.397	23.48	0.22	1.397	22.88	0.22			
1.416	23.82	0.22	1.416	23.21	0.22			
1.436	24.15	0.22	1.436	23.58	0.22			
1.456	24.48	0.22	1.456	23.94	0.22			
1.476	24.88	0.22	1.476	24.26	0.22			
1.496	25.20	0.22	1.496	24.59	0.22			
1.516	25.53	0.22	1.516	24.95	0.22			
1.536	25.95	0.22	1.536	25.32	0.22			
1.556	26.27	0.22	1.556	25.67	0.22			
1.576	26.68	0.22	1.576	26.03	0.22			
1.596	26.99	0.22	1.596	26.39	0.22			
1.616	27.35	0.22	1.616	26.74	0.22			
1.636	27.73	0.22	1.636	27.09	0.22			
1.656	28.08	0.22	1.656	27.44	0.22			
1.676	28.42	0.22	1.676	27.80	0.22			
1.696	28.84	0.22	1.696	28.20	0.22			



1.716	29.19	0.22	1.716	28.55	0.22			
1.736	29.54	0.22	1.736	28.89	0.22			
1.756	29.90	0.22	1.756	29.22	0.22			
1.776	30.25	0.22	1.776	29.61	0.22			
1.795	30.64	0.22	1.795	29.96	0.22			
1.815	31.04	0.22	1.815	30.30	0.22			
1.835	31.40	0.22	1.835	30.68	0.22			
1.855	31.76	0.22	1.855	31.06	0.22			
1.875	32.14	0.22	1.875	31.44	0.22			
1.895	32.50	0.22	1.895	31.82	0.22			
1.915	32.88	0.22	1.915	32.14	0.22			
1.935	33.25	0.22	1.935	32.48	0.22			
1.955	33.63	0.22	1.955	32.86	0.22			
1.975	34.02	0.22	1.975	33.22	0.22			
1.995	34.38	0.22	1.995	33.60	0.22			
2.015	34.72	0.22	2.015	34.00	0.22			
2.035	35.10	0.22	2.035	34.37	0.22			
2.055	35.51	0.22	2.055	34.72	0.22			
2.075	35.87	0.22	2.075	35.07	0.22			
2.095	36.29	0.22	2.095	35.46	0.22			
2.115	36.66	0.22	2.115	35.85	0.22			
2.135	37.02	0.22	2.135	36.18	0.22			
2.155	37.39	0.22	2.155	36.55	0.22			
2.174	37.76	0.22	2.174	36.94	0.22			
2.194	38.18	0.22	2.194	37.32	0.22			
2.214	38.58	0.22	2.214	37.71	0.22			
2.234	38.96	0.22	2.234	38.09	0.22			
2.254	39.35	0.22	2.254	38.47	0.22			
2.274	39.73	0.22	2.274	38.84	0.22			
2.294	40.09	0.22	2.294	39.21	0.22			
2.314	40.51	0.22	2.314	39.58	0.22			
2.334	40.92	0.22	2.334	39.95	0.22			
2.354	41.30	0.22	2.354	40.31	0.22			
2.374	41.70	0.22	2.374	40.69	0.22			
2.394	42.09	0.22	2.394	41.10	0.22			
2.414	42.47	0.22	2.414	41.50	0.22			
2.434	42.88	0.22	2.434	41.87	0.22			
2.454	43.28	0.22	2.454	42.23	0.22			
2.474	43.68	0.22	2.474	42.59	0.22			
2.494	44.09	0.23	2.494	42.99	0.22			
2.514	44.51	0.23	2.514	43.39	0.22			
2.533	44.89	0.23	2.533	43.75	0.22			
2.553	45.28	0.23	2.553	44.11	0.22			
2.573	45.70	0.23	2.573	44.50	0.22			
2.593	46.07	0.23	2.593	44.89	0.22			

2.613	46.51	0.23	2.613	45.29	0.22			
2.633	46.91	0.23	2.633	45.68	0.22			
2.653	47.30	0.23	2.653	46.06	0.22			
2.673	47.69	0.23	2.673	46.44	0.22			
2.693	48.08	0.23	2.693	46.83	0.22			
2.713	48.48	0.23	2.713	47.21	0.22			
2.733	48.88	0.23	2.733	47.60	0.22			
2.753	49.29	0.23	2.753	48.01	0.22			
2.773	49.70	0.23	2.773	48.40	0.22			
2.793	50.11	0.23	2.793	48.77	0.22			
2.813	50.52	0.23	2.813	49.15	0.22			
2.833	50.94	0.23	2.833	49.54	0.22			
2.853	51.37	0.23	2.853	49.95	0.22			
2.873	51.73	0.23	2.873	50.35	0.22			
2.893	52.17	0.23	2.893	50.76	0.22			
2.912	52.61	0.23	2.912	51.17	0.22			
2.932	53.00	0.23	2.932	51.57	0.22			
2.952	53.43	0.23	2.952	51.96	0.22			
2.972	53.82	0.23	2.972	52.37	0.22			
2.992	54.25	0.23	2.992	52.79	0.22			
3.012	54.67	0.23	3.012	53.19	0.22			
3.032	55.06	0.23	3.032	53.58	0.22			
3.052	55.50	0.23	3.052	53.98	0.22			
3.072	55.92	0.23	3.072	54.41	0.22			
3.092	56.31	0.23	3.092	54.81	0.22			
3.112	56.72	0.23	3.112	55.19	0.22			
3.132	57.19	0.23	3.132	55.58	0.22			
3.152	57.61	0.23	3.152	56.00	0.22			
3.172	58.03	0.23	3.172	56.41	0.22			
3.192	58.45	0.23	3.192	56.82	0.22			
3.212	58.87	0.23	3.212	57.22	0.22			
3.232	59.29	0.23	3.232	57.62	0.22			
3.252	59.73	0.23	3.252	58.03	0.22			
3.272	60.15	0.23	3.272	58.46	0.22			
3.291	60.56	0.23	3.291	58.90	0.22			
3.311	61.01	0.23	3.311	59.29	0.22			
3.331	61.42	0.23	3.331	59.69	0.22			
3.351	61.86	0.23	3.351	60.10	0.22			
3.371	62.32	0.23	3.371	60.53	0.22			
3.391	62.71	0.23	3.391	60.95	0.22			
3.411	63.14	0.23	3.411	61.36	0.22			
3.431	63.55	0.23	3.431	61.78	0.22			
3.451	64.04	0.23	3.451	62.20	0.22			
3.471	64.44	0.23	3.471	62.62	0.22			
3.491	64.90	0.23	3.491	63.05	0.22			

3.511	65.33	0.23	3.511	63.47	0.22			
3.531	65.77	0.23	3.531	63.90	0.22			
3.551	66.16	0.23	3.551	64.32	0.22			
3.571	66.64	0.23	3.571	64.74	0.22			
3.591	67.04	0.23	3.591	65.17	0.22			
3.611	67.49	0.23	3.611	65.60	0.22			
3.631	67.93	0.23	3.631	66.02	0.22			
3.651	68.38	0.23	3.651	66.44	0.22			
3.670	68.84	0.23	3.670	66.85	0.22			
3.690	69.30	0.23	3.690	67.26	0.22			
3.710	69.76	0.23	3.710	67.69	0.22			
3.730	70.24	0.23	3.730	68.14	0.22			
3.750	70.63	0.23	3.750	68.58	0.22			
3.770	71.10	0.23	3.770	69.03	0.22			
3.790	71.50	0.23	3.790	69.46	0.22			
3.810	71.99	0.23	3.810	69.87	0.22			
3.830	72.43	0.23	3.830	70.27	0.22			
3.850	72.91	0.23	3.850	70.70	0.22			
3.870	73.33	0.23	3.870	71.15	0.22			
3.890	73.76	0.23	3.890	71.59	0.22			
3.910	74.23	0.23	3.910	72.03	0.22			
3.930	74.71	0.23	3.930	72.46	0.22			
3.950	75.15	0.23	3.950	72.89	0.22			
3.970	75.61	0.23	3.970	73.32	0.22			
3.990	76.07	0.23	3.990	73.75	0.22			
4.010	76.53	0.23	4.010	74.18	0.22			
4.029	77.00	0.23	4.029	74.62	0.22			
4.049	77.47	0.23	4.049	75.08	0.22			
4.069	77.88	0.23	4.069	75.53	0.22			
4.089	78.34	0.23	4.089	75.95	0.23			
4.109	78.85	0.23	4.109	76.38	0.23			
4.129	79.28	0.23	4.129	76.83	0.23			
4.149	79.75	0.23	4.149	77.29	0.23			
4.169	80.25	0.23	4.169	77.75	0.23			
4.189	80.68	0.23	4.189	78.22	0.23			
4.209	81.14	0.23	4.209	78.68	0.23			
4.229	81.63	0.23	4.229	79.12	0.23			
4.249	82.09	0.23	4.249	79.55	0.23			
4.269	82.57	0.23	4.269	80.01	0.23			
4.289	83.08	0.23	4.289	80.48	0.23			
4.309	83.52	0.23	4.309	80.95	0.23			
4.329	84.04	0.23	4.329	81.39	0.23			
4.349	84.49	0.23	4.349	81.84	0.23			
4.369	85.01	0.23	4.369	82.30	0.23			
4.389	85.48	0.23	4.389	82.77	0.23			

4.408	85.94	0.23	4.408	83.23	0.23			
4.428	86.40	0.23	4.428	83.70	0.23			
4.448	86.87	0.23	4.448	84.17	0.23			
4.468	87.35	0.23	4.468	84.63	0.23			
4.488	87.82	0.23	4.488	85.09	0.23			
4.508	88.32	0.23	4.508	85.58	0.23			
4.528	88.80	0.23	4.528	86.08	0.23			
4.548	89.30	0.23	4.548	86.57	0.23			
4.568	89.81	0.23	4.568	87.05	0.23			
4.588	90.26	0.23	4.588	87.52	0.23			
4.608	90.76	0.23	4.608	88.00	0.23			
4.628	91.27	0.23	4.628	88.48	0.23			
4.648	91.74	0.23	4.648	88.96	0.23			
4.668	92.23	0.23	4.668	89.43	0.23			
4.688	92.73	0.23	4.688	89.91	0.23			
4.708	93.24	0.23	4.708	90.39	0.23			
4.728	93.71	0.23	4.728	90.88	0.23			
4.748	94.23	0.23	4.748	91.36	0.23			
4.768	94.71	0.23	4.768	91.84	0.23			
4.787	95.22	0.23	4.787	92.32	0.23			
4.807	95.74	0.23	4.807	92.79	0.23			
4.827	96.23	0.23	4.827	93.30	0.23			
4.847	96.73	0.23	4.847	93.82	0.23			
4.867	97.28	0.23	4.867	94.33	0.23			
4.887	97.78	0.23	4.887	94.82	0.23			
4.907	98.33	0.23	4.907	95.31	0.23			
4.927	98.79	0.23	4.927	95.79	0.23			
4.947	99.32	0.23	4.947	96.27	0.23			
4.967	99.82	0.23	4.967	96.78	0.23			
4.987	100.37	0.23	4.987	97.30	0.23			
5.007	100.86	0.23	5.007	97.80	0.23			
5.027	101.34	0.23	5.027	98.30	0.23			
5.047	101.86	0.23	5.047	98.80	0.23			
5.067	102.39	0.23	5.067	99.33	0.23			
5.087	102.94	0.23	5.087	99.85	0.23			
5.107	103.46	0.23	5.107	100.35	0.23			
5.127	103.96	0.23	5.127	100.85	0.23			
5.147	104.47	0.23	5.147	101.38	0.23			
5.166	105.01	0.23	5.166	101.91	0.23			
5.186	105.51	0.23	5.186	102.44	0.23			
5.206	106.07	0.23	5.206	102.97	0.23			
5.226	106.58	0.23	5.226	103.49	0.23			
5.246	107.14	0.23	5.246	104.01	0.23			
5.266	107.66	0.23	5.266	104.53	0.23			
5.286	108.20	0.23	5.286	105.08	0.23			

5.306	108.73	0.23	5.306	105.63	0.23			
5.326	109.27	0.23	5.326	106.15	0.23			
5.346	109.82	0.23	5.346	106.67	0.23			
5.366	110.33	0.23	5.366	107.21	0.23			
5.386	110.86	0.23	5.386	107.75	0.23			
5.406	111.45	0.23	5.406	108.28	0.23			
5.426	111.95	0.23	5.426	108.81	0.23			
5.446	112.54	0.23	5.446	109.39	0.23			
5.466	113.08	0.23	5.466	109.97	0.23			
5.486	113.60	0.23	5.486	110.50	0.23			
5.506	114.16	0.23	5.506	111.04	0.23			
5.525	114.74	0.23	5.525	111.60	0.23			
5.545	115.26	0.23	5.545	112.16	0.23			
5.565	115.86	0.23	5.565	112.73	0.23			
5.585	116.41	0.23	5.585	113.30	0.23			
5.605	116.98	0.23	5.605	113.83	0.23			
5.625	117.54	0.23	5.625	114.37	0.23			
5.645	118.08	0.23	5.645	114.95	0.23			
5.665	118.65	0.23	5.665	115.53	0.23			
5.685	119.20	0.23	5.685	116.11	0.23			
5.705	119.77	0.23	5.705	116.69	0.23			
5.725	120.36	0.23	5.725	117.29	0.23			
5.745	120.95	0.23	5.745	117.87	0.23			
5.765	121.52	0.23	5.765	118.44	0.23			
5.785	122.08	0.23	5.785	119.02	0.23			
5.805	122.62	0.23	5.805	119.60	0.23			
5.825	123.25	0.23	5.825	120.18	0.23			
5.845	123.80	0.23	5.845	120.76	0.23			
5.865	124.40	0.23	5.865	121.35	0.23			
5.885	124.96	0.23	5.885	121.98	0.23			
5.904	125.56	0.24	5.904	122.59	0.23			
5.924	126.15	0.24	5.924	123.23	0.23			
5.944	126.75	0.24	5.944	123.85	0.23			
5.964	127.27	0.24	5.964	124.42	0.23			
5.984	127.88	0.24	5.984	125.02	0.23			
6.004	128.51	0.24	6.004	125.62	0.23			
6.024	129.04	0.24	6.024	126.09	0.23			
6.044	129.68	0.24	6.044	126.43	0.23			
6.064	130.24	0.24	6.064	126.88	0.23			
6.084	130.82	0.24	6.084	127.45	0.23			
6.104	131.49	0.24	6.104	128.22	0.23			
6.124	132.01	0.24	6.124	128.90	0.23			
6.144	132.63	0.24	6.144	129.51	0.23			
6.164	133.25	0.24	6.164	130.12	0.23			
6.184	133.88	0.24	6.184	130.73	0.23			

6.204	134.43	0.24	6.204	131.34	0.23			
6.224	135.08	0.24	6.224	131.98	0.23			
6.244	135.68	0.24	6.244	132.62	0.23			
6.264	136.26	0.24	6.264	133.24	0.23			
6.283	136.91	0.24	6.283	133.86	0.23			
6.303	137.53	0.24	6.303	134.47	0.23			
6.323	138.13	0.24	6.323	135.09	0.23			
6.343	138.75	0.24	6.343	135.71	0.23			
6.363	139.43	0.24	6.363	136.29	0.23			
6.383	140.04	0.24	6.383	136.84	0.23			
6.403	140.69	0.24	6.403	137.41	0.23			
6.423	141.28	0.24	6.423	138.02	0.23			
6.443	141.91	0.24	6.443	138.63	0.23			
6.463	142.61	0.24	6.463	139.20	0.23			
6.483	143.21	0.24	6.483	139.77	0.23			
6.503	143.88	0.24	6.503	140.35	0.23			
6.523	144.49	0.24	6.523	140.92	0.23			
6.543	145.17	0.24	6.543	141.50	0.23			
6.563	145.81	0.24	6.563	142.08	0.23			
6.583	146.43	0.24	6.583	142.66	0.24			
6.603	147.07	0.24	6.603	143.27	0.24			
6.623	147.76	0.24	6.623	143.89	0.24			
6.642	148.40	0.24	6.642	144.50	0.24			
6.662	149.08	0.24	6.662	145.11	0.24			
6.682	149.74	0.24	6.682	145.72	0.24			
6.702	150.38	0.24	6.702	146.34	0.24			
6.722	151.04	0.24	6.722	146.97	0.24			
6.742	151.70	0.24	6.742	147.59	0.24			
6.762	152.42	0.24	6.762	148.08	0.24			
6.782	153.04	0.24	6.782	148.61	0.24			
6.802	153.74	0.24	6.802	149.50	0.24			
6.822	154.40	0.24	6.822	149.95	0.24			
6.842	155.07	0.24	6.842	150.60	0.24			
6.862	155.81	0.24	6.862	151.41	0.24			
6.882	156.46	0.24	6.882	151.89	0.24			
6.902	157.19	0.24	6.902	152.76	0.24			
6.922	157.84	0.24	6.922	153.48	0.24			
6.942	158.55	0.24	6.942	154.20	0.24			
6.962	159.23	0.24	6.962	154.92	0.24			
6.982	159.96	0.24	6.982	155.64	0.24			
7.002	160.70	0.24	7.002	156.36	0.24			
7.021	161.41	0.24	7.021	157.07	0.24			
7.041	162.11	0.24	7.041	157.69	0.24			
7.061	162.79	0.24	7.061	158.30	0.24			
7.081	163.50	0.24	7.081	158.92	0.24			

7.101	164.27	0.24	7.101	159.53	0.24			
7.121	165.00	0.24	7.121	160.15	0.24			
7.141	165.71	0.24	7.141	160.76	0.24			
7.161	166.45	0.24	7.161	161.38	0.24			
7.181	167.15	0.24	7.181	161.99	0.24			
7.201	167.90	0.24	7.201	162.75	0.24			
7.221	168.60	0.24	7.221	163.45	0.24			
7.241	169.38	0.24	7.241	164.10	0.24			
7.261	170.11	0.24	7.261	164.84	0.24			
7.281	171.08	0.24	7.281	165.57	0.24			
7.301	171.87	0.24	7.301	166.35	0.24			
7.321	172.60	0.24	7.321	167.09	0.24			
7.341	173.35	0.24	7.341	167.80	0.24			
7.361	174.11	0.24	7.361	168.43	0.24			
7.381	174.88	0.24	7.381	169.09	0.24			
7.400	175.64	0.24	7.400	169.83	0.24			
7.420	176.39	0.24	7.420	170.52	0.24			
7.440	177.19	0.24	7.440	171.22	0.24			
7.460	177.96	0.25	7.460	171.99	0.24			
7.480	178.73	0.25	7.480	172.67	0.24			
7.500	179.51	0.25	7.500	173.42	0.24			
7.520	180.34	0.25	7.520	174.14	0.24			
7.540	181.12	0.25	7.540	174.90	0.24			
7.560	181.91	0.25	7.560	175.64	0.24			
7.580	182.69	0.25	7.580	176.40	0.24			
7.600	183.50	0.25	7.600	177.10	0.24			
7.620	184.31	0.25	7.620	177.94	0.24			
7.640	185.18	0.25	7.640	178.62	0.24			
7.660	185.98	0.25	7.660	179.40	0.24			
7.680	186.75	0.25	7.680	180.18	0.24			
7.700	187.57	0.25	7.700	180.94	0.24			
7.720	188.42	0.25	7.720	181.73	0.24			
7.740	189.24	0.25	7.740	182.45	0.24			
7.760	190.12	0.25	7.760	183.20	0.24			
7.779	190.95	0.25	7.779	183.99	0.24			
7.799	191.70	0.25	7.799	184.75	0.24			
7.819	192.55	0.25	7.819	185.56	0.24			
7.839	193.46	0.25	7.839	186.31	0.24			
7.859	194.28	0.25	7.859	187.09	0.24			
7.879	195.15	0.25	7.879	187.85	0.24			
7.899	195.95	0.25	7.899	188.67	0.24			
7.919	196.83	0.25	7.919	189.46	0.24			
7.939	197.67	0.25	7.939	190.23	0.24			
7.959	198.55	0.25	7.959	191.05	0.24			
7.979	199.44	0.25	7.979	191.87	0.24			

7.999	200.29	0.25	7.999	192.64	0.24			
8.019	201.21	0.25	8.019	193.43	0.24			
8.039	202.07	0.25	8.039	194.28	0.24			
8.059	202.99	0.25	8.059	195.07	0.25			
8.079	203.90	0.25	8.079	195.97	0.25			
8.099	204.82	0.25	8.099	196.75	0.25			
8.119	205.76	0.25	8.119	197.54	0.25			
8.138	206.61	0.25	8.138	198.41	0.25			
8.158	207.53	0.25	8.158	199.21	0.25			
8.178	208.44	0.25	8.178	200.02	0.25			
8.198	209.36	0.25	8.198	200.91	0.25			
8.218	210.26	0.25	8.218	201.77	0.25			
8.238	211.20	0.25	8.238	202.61	0.25			
8.258	212.16	0.25	8.258	203.42	0.25			
8.278	213.11	0.25	8.278	204.29	0.25			
8.298	214.10	0.25	8.298	205.11	0.25			
8.318	215.05	0.25	8.318	205.88	0.25			
8.338	215.96	0.25	8.338	206.73	0.25			
8.358	216.93	0.25	8.358	207.64	0.25			
8.378	217.89	0.25	8.378	208.51	0.25			
8.398	218.83	0.26	8.398	209.35	0.25			
8.418	219.77	0.26	8.418	210.28	0.25			
8.438	220.73	0.26	8.438	211.09	0.25			
8.458	221.76	0.26	8.458	212.00	0.25			
8.478	222.71	0.26	8.478	212.92	0.25			
8.498	223.74	0.26	8.498	213.83	0.25			
8.517	224.76	0.26	8.517	214.69	0.25			
8.537	225.77	0.26	8.537	215.61	0.25			
8.557	226.82	0.26	8.557	216.53	0.25			
8.577	227.76	0.26	8.577	217.40	0.25			
8.597	228.78	0.26	8.597	218.31	0.25			
8.617	229.82	0.26	8.617	219.27	0.25			
8.637	230.88	0.26	8.637	220.18	0.25			
8.657	231.87	0.26	8.657	221.06	0.25			
8.677	232.93	0.26	8.677	222.03	0.25			
8.697	233.97	0.26	8.697	223.03	0.25			
8.717	235.02	0.26	8.717	223.89	0.25			
8.737	236.09	0.26	8.737	224.67	0.25			
8.757	237.18	0.26	8.757	225.64	0.25			
8.777	238.27	0.26	8.777	226.59	0.25			
8.797	239.36	0.26	8.797	227.53	0.25			
8.817	240.39	0.26	8.817	228.54	0.25			
8.837	241.54	0.26	8.837	229.52	0.25			
8.857	242.61	0.26	8.857	230.55	0.25			
8.877	243.73	0.26	8.877	231.53	0.25			



8.896	244.86	0.26	8.896	232.54	0.25			
8.916	245.94	0.26	8.916	233.46	0.25			
8.936	247.06	0.26	8.936	234.40	0.25			
8.956	248.22	0.26	8.956	235.38	0.25			
8.976	249.37	0.26	8.976	236.39	0.25			
8.996	250.48	0.26	8.996	237.38	0.25			
9.016	251.56	0.26	9.016	238.48	0.26			
9.036	252.78	0.26	9.036	239.46	0.26			
9.056	253.99	0.26	9.056	240.42	0.26			
9.076	255.12	0.27	9.076	241.45	0.26			
9.096	256.32	0.27	9.096	242.54	0.26			
9.116	257.49	0.27	9.116	243.56	0.26			
9.136	258.65	0.27	9.136	244.57	0.26			
9.156	259.82	0.27	9.156	245.58	0.26			
9.176	261.07	0.27	9.176	246.66	0.26			
9.196	262.31	0.27	9.196	247.65	0.26			
9.216	263.51	0.27	9.216	248.71	0.26			
9.236	264.75	0.27	9.236	249.85	0.26			
9.256	265.96	0.27	9.256	250.78	0.26			
9.275	267.21	0.27	9.275	251.64	0.26			
9.295	268.41	0.27	9.295	252.50	0.26			
9.315	269.69	0.27	9.315	253.82	0.26			
9.335	270.97	0.27	9.335	255.00	0.26			
9.355	272.29	0.27	9.355	256.03	0.26			
9.375	273.55	0.27	9.375	257.08	0.26			
9.395	274.83	0.27	9.395	258.24	0.26			
9.415	276.18	0.27	9.415	259.34	0.26			
9.435	277.47	0.27	9.435	260.44	0.26			
9.455	278.80	0.27	9.455	261.59	0.26			
9.475	280.06	0.27	9.475	262.76	0.26			
9.495	281.41	0.27	9.495	263.91	0.26			
9.515	282.74	0.27	9.515	265.08	0.26			
9.535	284.18	0.27	9.535	266.07	0.26			
9.555	285.53	0.27	9.555	267.00	0.26			
9.575	286.84	0.28	9.575	268.09	0.26			
9.595	288.21	0.28	9.595	269.38	0.26			
9.615	289.56	0.28	9.615	270.60	0.26			
9.634	290.99	0.28	9.634	271.82	0.26			
9.654	292.43	0.28	9.654	273.05	0.26			
9.674	293.83	0.28	9.674	274.21	0.26			
9.694	295.18	0.28	9.694	275.37	0.26			
9.714	296.65	0.28	9.714	276.62	0.27			
9.734	298.10	0.28	9.734	277.88	0.27			
9.754	299.48	0.28	9.754	279.01	0.27			
9.774	300.93	0.28	9.774	279.99	0.27			

9.794	302.40	0.28	9.794	281.32	0.27			
9.814	303.84	0.28	9.814	282.58	0.27			
9.834	305.30	0.28	9.834	283.99	0.27			
9.854	306.77	0.28	9.854	285.26	0.27			
9.874	308.27	0.28	9.874	286.26	0.27			
9.894	309.84	0.28	9.894	287.22	0.27			
9.914	311.35	0.28	9.914	288.41	0.27			
9.934	312.82	0.28	9.934	289.60	0.27			
9.954	314.40	0.28	9.954	290.84	0.27			
9.974	315.95	0.28	9.974	292.13	0.27			
9.994	317.47	0.29	9.994	293.64	0.27			
10.013	318.99	0.29	10.013	294.49	0.27			
10.033	320.59	0.29	10.033	295.93	0.27			
10.053	322.25	0.29	10.053	297.11	0.27			
10.073	323.77	0.29	10.073	298.37	0.27			
10.093	325.35	0.29	10.093	299.91	0.27			
10.113	327.04	0.29	10.113	301.05	0.27			
10.133	328.67	0.29	10.133	302.51	0.27			
10.153	330.27	0.29	10.153	303.79	0.27			
10.173	331.94	0.29	10.173	305.24	0.27			
10.193	333.62	0.29	10.193	306.52	0.27			
10.213	335.26	0.29	10.213	307.76	0.27			
10.233	336.90	0.29	10.233	309.21	0.27			
10.253	338.51	0.29	10.253	310.41	0.28			
10.273	340.20	0.29	10.273	311.76	0.28			
10.293	341.79	0.29	10.293	313.12	0.28			
10.313	343.49	0.29	10.313	314.69	0.28			
10.333	345.21	0.29	10.333	315.82	0.28			
10.353	346.87	0.30	10.353	317.48	0.28			
10.373	348.74	0.30	10.373	318.69	0.28			
10.392	350.52	0.30	10.392	320.36	0.28			
10.412	352.29	0.30	10.412	322.05	0.28			
10.432	354.04	0.30	10.432	323.21	0.28			
10.452	355.75	0.30	10.452	324.60	0.28			
10.472	357.57	0.30	10.472	326.33	0.28			
10.492	359.35	0.30	10.492	327.37	0.28			
10.512	361.15	0.30	10.512	328.38	0.28			
10.532	362.89	0.30	10.532	329.92	0.28			
10.552	364.64	0.30	10.552	331.46	0.28			
10.572	366.49	0.30	10.572	333.06	0.28			
10.592	368.32	0.30	10.592	334.30	0.28			
10.612	370.15	0.30	10.612	335.79	0.28			
10.632	371.92	0.30	10.632	337.12	0.28			
10.652	373.74	0.30	10.652	338.35	0.28			
10.672	375.62	0.31	10.672	339.84	0.28			

10.692	377.46	0.31	10.692	341.20	0.28			
10.712	379.23	0.31	10.712	342.71	0.28			
10.732	381.06	0.31	10.732	344.24	0.29			
10.752	382.89	0.31	10.752	346.43	0.29			
10.771	384.74	0.31	10.771	348.07	0.29			
10.791	386.53	0.31	10.791	349.93	0.29			
10.811	388.40	0.31	10.811	351.92	0.29			
10.831	390.16	0.31	10.831	353.99	0.29			
10.851	392.05	0.31	10.851	355.73	0.29			
10.871	394.03	0.31	10.871	356.82	0.29			
10.891	395.87	0.31	10.891	357.90	0.29			
10.911	397.74	0.31	10.911	358.98	0.29			
10.931	399.63	0.31	10.931	360.48	0.29			
10.951	401.45	0.31	10.951	362.11	0.29			
10.971	403.32	0.32	10.971	363.55	0.29			
10.991	405.17	0.32	10.991	365.17	0.29			
11.011	407.01	0.32	11.011	366.81	0.29			
11.031	408.93	0.32	11.031	368.58	0.29			
11.051	410.82	0.32	11.051	370.09	0.29			
11.071	412.65	0.32	11.071	371.65	0.29			
11.091	414.55	0.32	11.091	373.04	0.30			
11.111	416.36	0.32	11.111	374.68	0.30			
11.130	418.34	0.32	11.130	377.31	0.30			
11.150	420.06	0.32	11.150	379.94	0.30			
11.170	421.80	0.32	11.170	381.35	0.30			
11.190	423.72	0.32	11.190	382.76	0.30			
11.210	425.55	0.32	11.210	383.86	0.30			
11.230	427.35	0.32	11.230	384.93	0.30			
11.250	429.14	0.32	11.250	386.26	0.30			
11.270	430.90	0.33	11.270	387.84	0.30			
11.290	432.68	0.33	11.290	389.37	0.30			
11.310	434.48	0.33	11.310	390.97	0.30			
11.330	436.31	0.33	11.330	392.63	0.30			
11.350	438.00	0.33	11.350	394.37	0.30			
11.370	439.74	0.33	11.370	396.15	0.30			
11.390	441.47	0.33	11.390	398.12	0.30			
11.410	443.16	0.33	11.410	399.57	0.30			
11.430	444.83	0.33	11.430	401.22	0.30			
11.450	446.53	0.33	11.450	402.66	0.31			
11.470	448.16	0.33	11.470	404.31	0.31			
11.490	449.88	0.33	11.490	405.87	0.31			
11.509	451.53	0.33	11.509	407.43	0.31			
11.529	452.95	0.33	11.529	409.52	0.31			
11.549	454.53	0.33	11.549	410.90	0.31			
11.569	456.38	0.33	11.569	412.44	0.31			

11.589	458.07	0.33	11.589	413.97	0.31			
11.609	459.82	0.34	11.609	415.71	0.31			
11.629	461.77	0.34	11.629	417.17	0.31			
11.649	463.51	0.34	11.649	418.78	0.31			
11.669	465.34	0.34	11.669	420.30	0.31			
11.689	467.32	0.34	11.689	421.69	0.31			
11.709	469.03	0.34	11.709	423.31	0.31			
11.729	470.86	0.34	11.729	424.74	0.31			
11.749	472.59	0.34	11.749	426.21	0.31			
11.769	474.32	0.34	11.769	427.82	0.31			
11.789	476.20	0.34	11.789	429.16	0.31			
11.809	477.88	0.34	11.809	430.76	0.31			
11.829	479.56	0.34	11.829	432.38	0.32			
11.849	481.33	0.34	11.849	433.68	0.32			
11.869	483.00	0.34	11.869	435.05	0.32			
11.888	484.76	0.34	11.888	437.63	0.32			
11.908	486.43	0.34	11.908	439.69	0.32			
11.928	488.07	0.35	11.928	441.26	0.32			
11.948	489.84	0.35	11.948	443.20	0.32			
11.968	491.60	0.35	11.968	445.28	0.32			
11.988	493.20	0.35	11.988	446.34	0.32			
12.008	494.84	0.35	12.008	447.73	0.32			
12.028	496.38	0.35	12.028	449.87	0.32			
12.048	497.97	0.35	12.048	451.44	0.32			
12.068	499.61	0.35	12.068	452.61	0.32			
12.088	501.13	0.35	12.088	453.65	0.32			
12.108	502.68	0.35	12.108	455.33	0.32			
12.128	504.24	0.35	12.128	456.82	0.32			
12.148	505.70	0.35	12.148	458.49	0.32			
12.168	507.30	0.35	12.168	459.99	0.33			
12.188	508.82	0.35	12.188	461.48	0.33			
12.208	510.34	0.35	12.208	463.18	0.33			
12.228	511.78	0.35	12.228	464.85	0.33			
12.248	513.24	0.35	12.248	466.31	0.33			
12.267	514.75	0.35	12.267	468.03	0.33			
12.287	516.19	0.35	12.287	469.78	0.33			
12.307	517.67	0.36	12.307	471.14	0.33			
12.327	519.07	0.36	12.327	472.70	0.33			
12.347	520.46	0.36	12.347	474.08	0.33			
12.367	521.83	0.36	12.367	475.61	0.33			
12.387	523.20	0.36	12.387	477.05	0.33			
12.407	524.52	0.36	12.407	478.61	0.33			
12.427	525.86	0.36	12.427	480.07	0.33			
12.447	527.22	0.36	12.447	481.55	0.33			
12.467	528.56	0.36	12.467	483.11	0.33			

12.487	529.84	0.36	12.487	484.66	0.33			
12.507	531.09	0.36	12.507	486.14	0.34			
12.527	532.42	0.36	12.527	487.62	0.34			
12.547	533.68	0.36	12.547	489.06	0.34			
12.567	534.99	0.36	12.567	490.49	0.34			
12.587	536.24	0.36	12.587	491.92	0.34			
12.607	537.46	0.36	12.607	493.29	0.34			
12.626	538.66	0.36	12.626	494.83	0.34			
12.646	539.88	0.36	12.646	496.17	0.34			
12.666	541.03	0.36	12.666	497.57	0.34			
12.686	542.24	0.36	12.686	498.97	0.34			
12.706	543.52	0.36	12.706	500.31	0.34			
12.726	544.81	0.36	12.726	501.78	0.34			
12.746	546.08	0.36	12.746	503.29	0.34			
12.766	547.36	0.37	12.766	504.57	0.34			
12.786	548.68	0.37	12.786	506.00	0.34			
12.806	549.99	0.37	12.806	507.32	0.34			
12.826	551.30	0.37	12.826	508.79	0.34			
12.846	552.52	0.37	12.846	510.00	0.34			
12.866	553.73	0.37	12.866	511.33	0.34			
12.886	554.88	0.37	12.886	512.73	0.35			
12.906	556.12	0.37	12.906	513.92	0.35			
12.926	557.36	0.37	12.926	515.24	0.35			
12.946	558.56	0.37	12.946	516.60	0.35			
12.966	559.66	0.37	12.966	518.00	0.35			
12.986	560.78	0.37	12.986	519.29	0.35			
13.005	561.94	0.37	13.005	520.54	0.35			
13.025	563.03	0.37	13.025	521.88	0.35			
13.045	564.13	0.37	13.045	523.13	0.35			
13.065	565.23	0.37	13.065	524.46	0.35			
13.085	566.29	0.37	13.085	525.78	0.35			
13.105	567.42	0.37	13.105	526.96	0.35			
13.125	568.69	0.37	13.125	528.07	0.35			
13.145	569.67	0.37	13.145	529.32	0.35			
13.165	570.77	0.37	13.165	530.57	0.35			
13.185	571.91	0.37	13.185	531.79	0.35			
13.205	573.04	0.37	13.205	532.92	0.35			
13.225	574.01	0.37	13.225	534.08	0.35			
13.245	575.02	0.37	13.245	535.35	0.35			
13.265	576.07	0.38	13.265	536.49	0.35			
13.285	577.09	0.38	13.285	537.74	0.35			
13.305	578.17	0.38	13.305	538.87	0.35			
13.325	579.23	0.38	13.325	540.11	0.36			
13.345	580.20	0.38	13.345	541.20	0.36			
13.365	581.13	0.38	13.365	542.34	0.36			

13.384	582.17	0.38	13.384	543.52	0.36			
13.404	583.15	0.38	13.404	544.53	0.36			
13.424	584.12	0.38	13.424	545.78	0.36			
13.444	585.06	0.38	13.444	546.81	0.36			
13.464	586.00	0.38	13.464	547.86	0.36			
13.484	586.94	0.38	13.484	548.96	0.36			
13.504	587.83	0.38	13.504	550.18	0.36			
13.524	588.73	0.38	13.524	551.21	0.36			
13.544	589.73	0.38	13.544	552.23	0.36			
13.564	590.72	0.38	13.564	553.20	0.36			
13.584	591.69	0.38	13.584	554.29	0.36			
13.604	592.64	0.38	13.604	555.27	0.36			
13.624	593.60	0.38	13.624	556.37	0.36			
13.644	594.62	0.38	13.644	557.44	0.36			
13.664	595.55	0.38	13.664	558.53	0.36			
13.684	596.48	0.38	13.684	559.63	0.36			
13.704	597.44	0.38	13.704	560.74	0.36			
13.724	598.34	0.38	13.724	561.74	0.36			
13.744	599.21	0.38	13.744	562.78	0.36			
13.763	600.09	0.38	13.763	563.76	0.36			
13.783	600.99	0.38	13.783	564.72	0.36			
13.803	601.91	0.38	13.803	565.77	0.37			
13.823	602.78	0.38	13.823	566.77	0.37			
13.843	603.71	0.39	13.843	567.74	0.37			
13.863	604.59	0.39	13.863	568.63	0.37			
13.883	605.54	0.39	13.883	569.58	0.37			
13.903	606.41	0.39	13.903	570.52	0.37			
13.923	607.38	0.39	13.923	571.44	0.37			
13.943	608.23	0.39	13.943	572.43	0.37			
13.963	609.12	0.39	13.963	573.37	0.37			
13.983	609.98	0.39	13.983	574.24	0.37			
14.003	610.87	0.39	14.003	575.17	0.37			
14.023	611.71	0.39	14.023	576.09	0.37			
14.043	612.56	0.39	14.043	576.97	0.37			
14.063	613.38	0.39	14.063	577.80	0.37			
14.083	614.24	0.39	14.083	578.66	0.37			
14.103	615.04	0.39	14.103	579.52	0.37			
14.122	615.83	0.39	14.122	580.37	0.37			
14.142	616.67	0.39	14.142	581.28	0.37			
14.162	617.53	0.39	14.162	582.14	0.37			
14.182	618.34	0.39	14.182	582.97	0.37			
14.202	619.11	0.39	14.202	583.76	0.37			
14.222	619.91	0.39	14.222	584.53	0.37			
14.242	620.73	0.39	14.242	585.34	0.37			
14.262	621.51	0.39	14.262	586.26	0.37			

14.282	622.32	0.39	14.282	587.04	0.37			
14.302	623.05	0.39	14.302	587.81	0.37			
14.322	623.89	0.39	14.322	588.59	0.37			
14.342	624.62	0.39	14.342	589.35	0.37			
14.362	625.44	0.39	14.362	590.08	0.37			
14.382	626.18	0.39	14.382	590.82	0.37			
14.402	626.93	0.39	14.402	591.56	0.38			
14.422	627.66	0.39	14.422	592.29	0.38			
14.442	628.39	0.39	14.442	593.02	0.38			
14.462	629.14	0.39	14.462	593.76	0.38			
14.482	629.90	0.39	14.482	594.49	0.38			
14.501	630.63	0.40	14.501	595.19	0.38			
14.521	631.36	0.40	14.521	595.90	0.38			
14.541	632.13	0.40	14.541	596.61	0.38			
14.561	632.84	0.40	14.561	597.33	0.38			
14.581	633.51	0.40	14.581	598.04	0.38			
14.601	634.26	0.40	14.601	598.66	0.38			
14.621	634.93	0.40	14.621	599.31	0.38			
14.641	635.61	0.40	14.641	600.13	0.38			
14.661	636.33	0.40	14.661	600.84	0.38			
14.681	637.05	0.40	14.681	601.55	0.38			
14.701	637.70	0.40	14.701	602.25	0.38			
14.721	638.38	0.40	14.721	602.96	0.38			
14.741	639.06	0.40	14.741	603.68	0.38			
14.761	639.77	0.40	14.761	605.44	0.38			
14.781	640.48	0.40	14.781	606.28	0.38			
14.801	641.16	0.40	14.801	606.86	0.38			
14.821	641.81	0.40	14.821	607.44	0.38			
14.841	642.49	0.40	14.841	608.19	0.38			
14.861	643.16	0.40	14.861	609.36	0.38			
14.880	643.74	0.40	14.880	610.04	0.38			
14.900	644.38	0.40	14.900	610.72	0.38			
14.920	645.05	0.40	14.920	611.38	0.38			
14.940	645.68	0.40	14.940	612.15	0.38			
14.960	646.29	0.40	14.960	612.89	0.38			
14.980	646.91	0.40	14.980	613.72	0.38			
15.000	647.57	0.40	15.000	614.39	0.38			
15.020	648.18	0.40	15.020	615.04	0.38			
15.040	648.78	0.40	15.040	615.73	0.38			
15.060	649.34	0.40	15.060	616.46	0.38			
15.080	649.94	0.40	15.080	617.21	0.39			
15.100	650.57	0.40	15.100	617.84	0.39			
15.120	651.20	0.40	15.120	618.48	0.39			
15.140	651.82	0.40	15.140	619.15	0.39			
15.160	652.41	0.40	15.160	619.82	0.39			

15.180	652.98	0.40	15.180	620.56	0.39			
15.200	653.55	0.40	15.200	621.30	0.39			
15.220	654.13	0.40	15.220	621.99	0.39			
15.239	654.69	0.40	15.239	622.83	0.39			
15.259	655.27	0.40	15.259	623.40	0.39			
15.279	655.84	0.40	15.279	624.13	0.39			
15.299	656.43	0.40	15.299	624.85	0.39			
15.319	657.02	0.41	15.319	625.53	0.39			
15.339	657.56	0.41	15.339	626.23	0.39			
15.359	658.10	0.41	15.359	626.88	0.39			
15.379	658.64	0.41	15.379	627.55	0.39			
15.399	659.22	0.41	15.399	628.32	0.39			
15.419	659.80	0.41	15.419	628.97	0.39			
15.439	660.34	0.41	15.439	629.67	0.39			
15.459	660.89	0.41	15.459	630.33	0.39			
15.479	661.43	0.41	15.479	630.92	0.39			
15.499	661.94	0.41	15.499	631.57	0.39			
15.519	662.44	0.41	15.519	632.24	0.39			
15.539	662.98	0.41	15.539	632.82	0.39			
15.559	663.53	0.41	15.559	633.46	0.39			
15.579	664.05	0.41	15.579	634.11	0.39			
15.599	664.57	0.41	15.599	634.80	0.39			
15.618	665.10	0.41	15.618	635.37	0.39			
15.638	665.61	0.41	15.638	636.03	0.39			
15.658	666.06	0.41	15.658	636.67	0.39			
15.678	666.52	0.41	15.678	637.33	0.39			
15.698	667.05	0.41	15.698	637.93	0.39			
15.718	667.58	0.41	15.718	638.59	0.39			
15.738	668.06	0.41	15.738	639.24	0.39			
15.758	668.54	0.41	15.758	639.86	0.39			
15.778	669.01	0.41	15.778	640.49	0.39			
15.798	669.48	0.41	15.798	641.11	0.39			
15.818	669.98	0.41	15.818	641.73	0.40			
15.838	670.48	0.41	15.838	642.33	0.40			
15.858	670.92	0.41	15.858	642.91	0.40			
15.878	671.36	0.41	15.878	643.51	0.40			
15.898	671.82	0.41	15.898	644.08	0.40			
15.918	672.30	0.41	15.918	644.62	0.40			
15.938	672.77	0.41	15.938	645.22	0.40			
15.958	673.25	0.41	15.958	645.80	0.40			
15.978	673.70	0.41	15.978	646.37	0.40			
15.997	674.12	0.41	15.997	646.94	0.40			
16.017	674.55	0.41	16.017	647.55	0.40			
16.037	674.99	0.41	16.037	648.16	0.40			
16.057	675.51	0.41	16.057	648.73	0.40			



16.077	676.04	0.41	16.077	649.26	0.40			
16.097	676.55	0.41	16.097	649.79	0.40			
16.117	677.04	0.41	16.117	650.31	0.40			
16.137	677.55	0.41	16.137	650.83	0.40			
16.157	678.05	0.41	16.157	651.43	0.40			
16.177	678.59	0.41	16.177	652.00	0.40			
16.197	679.11	0.41	16.197	652.58	0.40			
16.217	679.60	0.41	16.217	653.16	0.40			
16.237	680.09	0.41	16.237	653.72	0.40			
16.257	680.59	0.41	16.257	654.25	0.40			
16.277	681.09	0.41	16.277	654.84	0.40			
16.297	681.57	0.41	16.297	655.41	0.40			
16.317	682.02	0.41	16.317	655.94	0.40			
16.337	682.60	0.41	16.337	656.52	0.40			
16.357	683.08	0.41	16.357	657.14	0.40			
16.376	683.57	0.42	16.376	657.71	0.40			
16.396	684.03	0.42	16.396	658.25	0.40			
16.416	684.47	0.42	16.416	658.75	0.40			
16.436	684.92	0.42	16.436	659.24	0.40			
16.456	685.40	0.42	16.456	659.75	0.40			
16.476	685.87	0.42	16.476	660.28	0.40			
16.496	686.34	0.42	16.496	660.85	0.40			
16.516	686.84	0.42	16.516	661.36	0.40			
16.536	687.33	0.42	16.536	661.86	0.40			
16.556	687.80	0.42	16.556	662.36	0.40			
16.576	688.31	0.42	16.576	662.86	0.40			
16.596	688.73	0.42	16.596	663.36	0.40			
16.616	689.21	0.42	16.616	663.85	0.40			
16.636	689.73	0.42	16.636	664.35	0.40			
16.656	690.17	0.42	16.656	664.88	0.40			
16.676	690.62	0.42	16.676	665.38	0.40			
16.696	691.08	0.42	16.696	665.83	0.41			
16.716	691.50	0.42	16.716	666.31	0.41			
16.735	692.00	0.42	16.735	666.80	0.41			
16.755	692.49	0.42	16.755	667.30	0.41			
16.775	692.92	0.42	16.775	667.80	0.41			
16.795	693.35	0.42	16.795	668.31	0.41			
16.815	693.81	0.42	16.815	668.80	0.41			
16.835	694.32	0.42	16.835	669.28	0.41			
16.855	694.78	0.42	16.855	669.75	0.41			
16.875	695.18	0.42	16.875	670.22	0.41			
16.895	695.57	0.42	16.895	670.69	0.41			
16.915	696.08	0.42	16.915	671.17	0.41			
16.935	696.57	0.42	16.935	671.66	0.41			
16.955	696.93	0.42	16.955	672.13	0.41			

16.975	697.33	0.42	16.975	672.61	0.41			
16.995	697.77	0.42	16.995	673.10	0.41			
17.015	698.26	0.42	17.015	673.56	0.41			
17.035	698.71	0.42	17.035	673.98	0.41			
17.055	699.17	0.42	17.055	674.43	0.41			
17.075	699.57	0.42	17.075	674.91	0.41			
17.095	699.97	0.42	17.095	675.38	0.41			
17.114	700.43	0.42	17.114	675.84	0.41			
17.134	700.89	0.42	17.134	676.30	0.41			
17.154	701.28	0.42	17.154	676.74	0.41			
17.174	701.71	0.42	17.174	677.16	0.41			
17.194	702.10	0.42	17.194	677.57	0.41			
17.214	702.52	0.42	17.214	678.03	0.41			
17.234	703.00	0.42	17.234	678.50	0.41			
17.254	703.41	0.42	17.254	678.92	0.41			
17.274	703.87	0.42	17.274	679.35	0.41			
17.294	704.23	0.42	17.294	679.80	0.41			
17.314	704.68	0.42	17.314	680.28	0.41			
17.334	705.07	0.42	17.334	680.76	0.41			
17.354	705.50	0.42	17.354	681.18	0.41			
17.374	705.92	0.42	17.374	681.62	0.41			
17.394	706.32	0.42	17.394	682.09	0.41			
17.414	706.74	0.42	17.414	682.53	0.41			
17.434	707.18	0.42	17.434	682.95	0.41			
17.454	707.57	0.42	17.454	683.36	0.41			
17.474	707.96	0.42	17.474	683.76	0.41			
17.493	708.35	0.43	17.493	684.22	0.41			
17.513	708.75	0.43	17.513	684.68	0.41			
17.533	709.15	0.43	17.533	685.10	0.41			
17.553	709.55	0.43	17.553	685.51	0.41			
17.573	709.93	0.43	17.573	685.89	0.41			
17.593	710.30	0.43	17.593	686.46	0.41			
17.613	710.68	0.43	17.613	686.87	0.41			
17.633	711.07	0.43	17.633	687.28	0.41			
17.653	711.47	0.43	17.653	687.69	0.41			
17.673	711.84	0.43	17.673	688.11	0.41			
17.693	712.24	0.43	17.693	688.52	0.41			
17.713	712.62	0.43	17.713	688.92	0.41			
17.733	713.00	0.43	17.733	689.32	0.41			
17.753	713.41	0.43	17.753	689.72	0.41			
17.773	713.83	0.43	17.773	690.12	0.42			
17.793	714.20	0.43	17.793	690.51	0.42			
17.813	714.54	0.43	17.813	690.91	0.42			
17.833	714.95	0.43	17.833	691.28	0.42			
17.853	715.32	0.43	17.853	691.65	0.42			

17.872	715.64	0.43	17.872	692.04	0.42			
17.892	716.02	0.43	17.892	692.46	0.42			
17.912	716.41	0.43	17.912	692.85	0.42			
17.932	716.79	0.43	17.932	693.23	0.42			
17.952	717.15	0.43	17.952	693.61	0.42			
17.972	717.45	0.43	17.972	694.00	0.42			
17.992	717.89	0.43	17.992	694.39	0.42			
18.012	718.28	0.43	18.012	694.76	0.42			
18.032	718.62	0.43	18.032	695.15	0.42			
18.052	718.96	0.43	18.052	695.55	0.42			
18.072	719.34	0.43	18.072	695.95	0.42			
18.092	719.68	0.43	18.092	696.32	0.42			
18.112	719.99	0.43	18.112	696.69	0.42			
18.132	720.39	0.43	18.132	697.10	0.42			
18.152	720.79	0.43	18.152	697.51	0.42			
18.172	721.11	0.43	18.172	697.92	0.42			
18.192	721.49	0.43	18.192	698.30	0.42			
18.212	721.88	0.43	18.212	698.63	0.42			
18.231	722.24	0.43	18.231	698.96	0.42			
18.251	722.57	0.43	18.251	699.33	0.42			
18.271	722.97	0.43	18.271	699.70	0.42			
18.291	723.35	0.43	18.291	700.06	0.42			
18.311	723.74	0.43	18.311	700.42	0.42			
18.331	724.09	0.43	18.331	700.77	0.42			
18.351	724.47	0.43	18.351	701.12	0.42			
18.371	724.80	0.43	18.371	701.47	0.42			
18.391	725.19	0.43	18.391	701.83	0.42			
18.411	725.61	0.43	18.411	702.20	0.42			
18.431	725.91	0.43	18.431	702.57	0.42			
18.451	726.25	0.43	18.451	702.91	0.42			
18.471	726.63	0.43	18.471	703.24	0.42			
18.491	727.00	0.43	18.491	703.57	0.42			
18.511	727.30	0.43	18.511	703.94	0.42			
18.531	727.63	0.43	18.531	704.32	0.42			
18.551	728.00	0.43	18.551	704.67	0.42			
18.571	728.36	0.43	18.571	705.01	0.42			
18.591	728.63	0.43	18.591	705.34	0.42			
18.610	729.00	0.43	18.610	705.66	0.42			
18.630	729.35	0.43	18.630	705.98	0.42			
18.650	729.67	0.43	18.650	706.30	0.42			
18.670	730.00	0.43	18.670	706.64	0.42			
18.690	730.35	0.43	18.690	706.97	0.42			
18.710	730.71	0.43	18.710	707.28	0.42			
18.730	731.08	0.43	18.730	707.68	0.42			
18.750	731.41	0.43	18.750	708.06	0.42			

18.770	731.69	0.43	18.770	708.35	0.42			
18.790	732.07	0.43	18.790	708.64	0.42			
18.810	732.40	0.43	18.810	709.00	0.42			
18.830	732.71	0.44	18.830	709.42	0.42			
18.850	733.07	0.44	18.850	709.86	0.42			
18.870	733.41	0.44	18.870	710.23	0.42			
18.890	733.76	0.44	18.890	710.56	0.42			
18.910	734.09	0.44	18.910	710.97	0.42			
18.930	734.40	0.44	18.930	711.34	0.42			
18.950	734.70	0.44	18.950	711.69	0.42			
18.970	735.06	0.44	18.970	712.02	0.42			
18.989	735.37	0.44	18.989	712.36	0.42			
19.009	735.69	0.44	19.009	712.73	0.42			
19.029	736.05	0.44	19.029	713.10	0.42			
19.049	736.40	0.44	19.049	713.46	0.42			
19.069	736.72	0.44	19.069	713.76	0.42			
19.089	737.06	0.44	19.089	714.08	0.43			
19.109	737.39	0.44	19.109	714.43	0.43			
19.129	737.70	0.44	19.129	714.74	0.43			
19.149	738.00	0.44	19.149	715.08	0.43			
19.169	738.35	0.44	19.169	715.42	0.43			
19.189	738.69	0.44	19.189	715.76	0.43			
19.209	739.01	0.44	19.209	716.10	0.43			
19.229	739.30	0.44	19.229	716.44	0.43			
19.249	739.64	0.44	19.249	716.77	0.43			
19.269	739.96	0.44	19.269	717.10	0.43			
19.289	740.25	0.44	19.289	717.43	0.43			
19.309	740.55	0.44	19.309	717.76	0.43			
19.329	740.88	0.44	19.329	718.08	0.43			
19.349	741.22	0.44	19.349	718.40	0.43			
19.368	741.47	0.44	19.368	718.70	0.43			
19.388	741.83	0.44	19.388	719.01	0.43			
19.408	742.15	0.44	19.408	719.40	0.43			
19.428	742.45	0.44	19.428	719.70	0.43			
19.448	742.77	0.44	19.448	719.96	0.43			
19.468	743.08	0.44	19.468	720.29	0.43			
19.488	743.40	0.44	19.488	720.64	0.43			
19.508	743.72	0.44	19.508	720.97	0.43			
19.528	744.01	0.44	19.528	721.32	0.43			
19.548	744.31	0.44	19.548	721.62	0.43			
19.568	744.62	0.44	19.568	721.89	0.43			
19.588	744.96	0.44	19.588	722.21	0.43			
19.608	745.26	0.44	19.608	722.53	0.43			
19.628	745.55	0.44	19.628	722.82	0.43			
19.648	745.87	0.44	19.648	723.29	0.43			

19.668	746.17	0.44	19.668	723.58	0.43			
19.688	746.45	0.44	19.688	723.86	0.43			
19.708	746.74	0.44	19.708	724.16	0.43			
19.727	747.04	0.44	19.727	724.47	0.43			
19.747	747.34	0.44	19.747	724.77	0.43			
19.767	747.64	0.44	19.767	725.09	0.43			
19.787	747.90	0.44	19.787	725.42	0.43			
19.807	748.20	0.44	19.807	725.72	0.43			
19.827	748.53	0.44	19.827	726.04	0.43			
19.847	748.80	0.44	19.847	726.35	0.43			
19.867	749.08	0.44	19.867	726.64	0.43			
19.887	749.39	0.44	19.887	726.99	0.43			
19.907	749.72	0.44	19.907	727.31	0.43			
19.927	750.02	0.44	19.927	727.59	0.43			
19.947	750.30	0.44	19.947	727.86	0.43			
19.967	750.57	0.44	19.967	728.13	0.43			
19.987	750.84	0.44	19.987	728.48	0.43			
20.007	751.12	0.44	20.007	728.80	0.43			
20.027	751.40	0.44	20.027	729.09	0.43			
20.047	751.70	0.44	20.047	729.36	0.43			
20.067	752.00	0.44	20.067	729.66	0.43			
20.087	752.30	0.44	20.087	729.96	0.43			
20.106	752.59	0.44	20.106	730.23	0.43			
20.126	752.87	0.44	20.126	730.47	0.43			
20.146	753.14	0.44	20.146	730.72	0.43			
20.166	753.44	0.44	20.166	731.03	0.43			
20.186	753.74	0.44	20.186	731.34	0.43			
20.206	753.99	0.44	20.206	731.68	0.43			
20.226	754.26	0.44	20.226	732.01	0.43			
20.246	754.55	0.44	20.246	732.33	0.43			
20.266	754.83	0.44	20.266	732.60	0.43			
20.286	755.11	0.44	20.286	732.90	0.43			
20.306	755.39	0.44	20.306	733.24	0.43			
20.326	755.68	0.44	20.326	733.56	0.43			
20.346	755.98	0.44	20.346	733.90	0.43			
20.366	756.26	0.44	20.366	734.20	0.43			
20.386	756.53	0.44	20.386	734.46	0.43			
20.406	756.78	0.45	20.406	734.78	0.43			
20.426	757.04	0.45	20.426	735.05	0.43			
20.446	757.34	0.45	20.446	735.35	0.43			
20.466	757.64	0.45	20.466	735.69	0.43			
20.485	757.94	0.45	20.485	735.93	0.43			
20.505	758.23	0.45	20.505	736.32	0.43			
20.525	758.49	0.45	20.525	736.61	0.43			
20.545	758.75	0.45	20.545	736.87	0.43			

20.565	759.05	0.45	20.565	737.17	0.43			
20.585	759.33	0.45	20.585	737.43	0.43			
20.605	759.62	0.45	20.605	737.68	0.43			
20.625	759.90	0.45	20.625	737.98	0.44			
20.645	760.17	0.45	20.645	738.26	0.44			
20.665	760.42	0.45	20.665	738.58	0.44			
20.685	760.66	0.45	20.685	738.85	0.44			
20.705	760.92	0.45	20.705	739.16	0.44			
20.725	761.19	0.45	20.725	739.43	0.44			
20.745	761.47	0.45	20.745	739.70	0.44			
20.765	761.75	0.45	20.765	740.05	0.44			
20.785	762.00	0.45	20.785	740.31	0.44			
20.805	762.25	0.45	20.805	740.62	0.44			
20.825	762.52	0.45	20.825	740.91	0.44			
20.845	762.80	0.45	20.845	741.17	0.44			
20.864	763.06	0.45	20.864	741.43	0.44			
20.884	763.30	0.45	20.884	741.73	0.44			
20.904	763.55	0.45	20.904	742.02	0.44			
20.924	763.80	0.45	20.924	742.30	0.44			
20.944	764.07	0.45	20.944	742.57	0.44			
20.964	764.35	0.45	20.964	742.85	0.44			
20.984	764.62	0.45	20.984	743.18	0.44			
21.004	764.88	0.45	21.004	743.45	0.44			
21.024	765.12	0.45	21.024	743.71	0.44			
21.044	765.35	0.45	21.044	743.99	0.44			
21.064	765.62	0.45	21.064	744.23	0.44			
21.084	765.89	0.45	21.084	744.50	0.44			
21.104	766.18	0.45	21.104	744.79	0.44			
21.124	766.46	0.45	21.124	745.11	0.44			
21.144	766.69	0.45	21.144	745.36	0.44			
21.164	766.93	0.45	21.164	745.65	0.44			
21.184	767.17	0.45	21.184	745.96	0.44			
21.204	767.43	0.45	21.204	746.23	0.44			
21.223	767.70	0.45	21.223	746.48	0.44			
21.243	767.96	0.45	21.243	746.73	0.44			
21.263	768.19	0.45	21.263	747.02	0.44			
21.283	768.42	0.45	21.283	747.27	0.44			
21.303	768.67	0.45	21.303	747.54	0.44			
21.323	768.93	0.45	21.323	747.85	0.44			
21.343	769.21	0.45	21.343	748.07	0.44			
21.363	769.49	0.45	21.363	748.37	0.44			
21.383	769.71	0.45	21.383	748.64	0.44			
21.403	769.92	0.45	21.403	748.90	0.44			
21.423	770.17	0.45	21.423	749.15	0.44			
21.443	770.42	0.45	21.443	749.42	0.44			

21.463	770.67	0.45	21.463	749.71	0.44			
21.483	770.91	0.45	21.483	749.98	0.44			
21.503	771.16	0.45	21.503	750.30	0.44			
21.523	771.40	0.45	21.523	750.50	0.44			
21.543	771.64	0.45	21.543	750.74	0.44			
21.563	771.89	0.45	21.563	751.03	0.44			
21.583	772.15	0.45	21.583	751.29	0.44			
21.602	772.39	0.45	21.602	751.56	0.44			
21.622	772.62	0.45	21.622	751.81	0.44			
21.642	772.87	0.45	21.642	752.05	0.44			
21.662	773.11	0.45	21.662	752.31	0.44			
21.682	773.35	0.45	21.682	752.58	0.44			
21.702	773.58	0.45	21.702	752.84	0.44			
21.722	773.81	0.45	21.722	753.11	0.44			
21.742	774.05	0.45	21.742	753.38	0.44			
21.762	774.30	0.45	21.762	753.63	0.44			
21.782	774.52	0.45	21.782	753.88	0.44			
21.802	774.74	0.45	21.802	754.13	0.44			
21.822	774.96	0.45	21.822	754.41	0.44			
21.842	775.19	0.45	21.842	754.65	0.44			
21.862	775.43	0.45	21.862	754.88	0.44			
21.882	775.67	0.45	21.882	755.13	0.44			
21.902	775.92	0.45	21.902	755.39	0.44			
21.922	776.17	0.45	21.922	755.64	0.44			
21.942	776.41	0.45	21.942	755.88	0.44			
21.962	776.61	0.45	21.962	756.14	0.44			
21.981	776.81	0.45	21.981	756.40	0.44			
22.001	777.05	0.45	22.001	756.65	0.44			
22.021	777.30	0.45	22.021	756.90	0.44			
22.041	777.55	0.45	22.041	757.15	0.44			
22.061	777.79	0.45	22.061	757.39	0.44			
22.081	778.03	0.45	22.081	757.69	0.44			
22.101	778.27	0.45	22.101	757.92	0.44			
22.121	778.51	0.45	22.121	758.20	0.44			
22.141	778.72	0.45	22.141	758.44	0.44			
22.161	778.93	0.45	22.161	758.68	0.44			
22.181	779.16	0.45	22.181	758.93	0.44			
22.201	779.40	0.45	22.201	759.15	0.44			
22.221	779.64	0.45	22.221	759.42	0.44			
22.241	779.87	0.45	22.241	759.66	0.44			
22.261	780.09	0.45	22.261	759.86	0.44			
22.281	780.30	0.45	22.281	760.11	0.44			
22.301	780.51	0.46	22.301	760.37	0.44			
22.321	780.72	0.46	22.321	760.64	0.44			
22.340	780.94	0.46	22.340	760.89	0.44			

22.360	781.16	0.46	22.360	761.13	0.45			
22.380	781.38	0.46	22.380	761.32	0.45			
22.400	781.60	0.46	22.400	761.55	0.45			
22.420	781.81	0.46	22.420	761.83	0.45			
22.440	782.03	0.46	22.440	762.03	0.45			
22.460	782.24	0.46	22.460	762.25	0.45			
22.480	782.46	0.46	22.480	762.52	0.45			
22.500	782.67	0.46	22.500	762.73	0.45			
22.520	782.90	0.46	22.520	762.94	0.45			
22.540	783.14	0.46	22.540	763.21	0.45			
22.560	783.37	0.46	22.560	763.43	0.45			
22.580	783.60	0.46	22.580	763.64	0.45			
22.600	783.82	0.46	22.600	763.86	0.45			
22.620	784.04	0.46	22.620	764.11	0.45			
22.640	784.25	0.46	22.640	764.37	0.45			
22.660	784.46	0.46	22.660	764.59	0.45			
22.680	784.68	0.46	22.680	764.82	0.45			
22.700	784.90	0.46	22.700	765.07	0.45			
22.719	785.10	0.46	22.719	765.32	0.45			
22.739	785.29	0.46	22.739	765.55	0.45			
22.759	785.48	0.46	22.759	765.77	0.45			
22.779	785.70	0.46	22.779	766.00	0.45			
22.799	785.93	0.46	22.799	766.25	0.45			
22.819	786.16	0.46	22.819	766.46	0.45			
22.839	786.36	0.46	22.839	766.65	0.45			
22.859	786.54	0.46	22.859	766.87	0.45			
22.879	786.75	0.46	22.879	767.11	0.45			
22.899	786.97	0.46	22.899	767.37	0.45			
22.919	787.16	0.46	22.919	767.56	0.45			
22.939	787.37	0.46	22.939	767.77	0.45			
22.959	787.61	0.46	22.959	768.01	0.45			
22.979	787.83	0.46	22.979	768.24	0.45			
22.999	788.04	0.46	22.999	768.49	0.45			
23.019	788.25	0.46	23.019	768.73	0.45			
23.039	788.45	0.46	23.039	768.93	0.45			
23.059	788.67	0.46	23.059	769.13	0.45			
23.079	788.88	0.46	23.079	769.37	0.45			
23.098	789.09	0.46	23.098	769.58	0.45			
23.118	789.29	0.46	23.118	769.80	0.45			
23.138	789.49	0.46	23.138	770.02	0.45			
23.158	789.70	0.46	23.158	770.24	0.45			
23.178	789.92	0.46	23.178	770.47	0.45			
23.198	790.14	0.46	23.198	770.69	0.45			
23.218	790.34	0.46	23.218	770.86	0.45			
23.238	790.56	0.46	23.238	771.06	0.45			



23.258	790.78	0.46	23.258	771.31	0.45			
23.278	790.99	0.46	23.278	771.54	0.45			
23.298	791.20	0.46	23.298	771.75	0.45			
23.318	791.38	0.46	23.318	771.97	0.45			
23.338	791.57	0.46	23.338	772.20	0.45			
23.358	791.77	0.46	23.358	772.41	0.45			
23.378	791.97	0.46	23.378	772.63	0.45			
23.398	792.17	0.46	23.398	772.80	0.45			
23.418	792.38	0.46	23.418	773.07	0.45			
23.438	792.60	0.46	23.438	773.31	0.45			
23.458	792.77	0.46	23.458	773.53	0.45			
23.477	792.99	0.46	23.477	773.74	0.45			
23.497	793.26	0.46	23.497	773.96	0.45			
23.517	793.46	0.46	23.517	774.17	0.45			
23.537	793.64	0.46	23.537	774.39	0.45			
23.557	793.83	0.46	23.557	774.61	0.45			
23.577	794.07	0.46	23.577	774.82	0.45			
23.597	794.26	0.46	23.597	775.07	0.45			
23.617	794.51	0.46	23.617	775.33	0.45			
23.637	794.72	0.46	23.637	775.55	0.45			
23.657	794.91	0.46	23.657	775.76	0.45			
23.677	795.14	0.46	23.677	776.00	0.45			
23.697	795.41	0.46	23.697	776.24	0.45			
23.717	795.58	0.46	23.717	776.45	0.45			
23.737	795.80	0.46	23.737	776.66	0.45			
23.757	796.04	0.46	23.757	776.88	0.45			
23.777	796.24	0.46	23.777	777.12	0.45			
23.797	796.43	0.46	23.797	777.30	0.45			
23.817	796.67	0.46	23.817	777.47	0.45			
23.836	796.87	0.46	23.836	777.74	0.45			
23.856	797.04	0.46	23.856	777.95	0.45			
23.876	797.23	0.46	23.876	778.17	0.45			
23.896	797.45	0.46	23.896	778.36	0.45			
23.916	797.67	0.46	23.916	778.55	0.45			
23.936	797.86	0.46	23.936	778.77	0.45			
23.956	798.06	0.46	23.956	779.04	0.45			
23.976	798.30	0.46	23.976	779.26	0.45			
23.996	798.52	0.46	23.996	779.47	0.45			
24.016	798.71	0.46	24.016	779.67	0.45			
24.036	798.87	0.46	24.036	779.84	0.45			
24.056	799.11	0.46	24.056	780.11	0.45			
24.076	799.31	0.46	24.076	780.33	0.45			
24.096	799.49	0.46	24.096	780.53	0.45			
24.116	799.68	0.46	24.116	780.78	0.45			
24.136	799.89	0.46	24.136	780.97	0.45			

24.156	800.11	0.46	24.156	781.17	0.45			
24.176	800.31	0.46	24.176	781.38	0.45			
24.196	800.52	0.46	24.196	781.59	0.45			
24.215	800.76	0.46	24.215	781.80	0.45			
24.235	800.97	0.46	24.235	782.01	0.45			
24.255	801.16	0.46	24.255	782.21	0.45			
24.275	801.33	0.46	24.275	782.39	0.45			
24.295	801.50	0.46	24.295	782.61	0.45			
24.315	801.66	0.46	24.315	782.86	0.45			
24.335	801.89	0.46	24.335	783.06	0.45			
24.355	802.11	0.46	24.355	783.27	0.45			
24.375	802.31	0.46	24.375	783.49	0.45			
24.395	802.53	0.46	24.395	783.68	0.45			
24.415	802.72	0.46	24.415	783.95	0.45			
24.435	802.90	0.46	24.435	784.13	0.45			
24.455	803.08	0.46	24.455	784.31	0.46			
24.475	803.28	0.46	24.475	784.56	0.46			
24.495	803.49	0.46	24.495	784.78	0.46			
24.515	803.67	0.46	24.515	784.99	0.46			
24.535	803.87	0.46	24.535	785.22	0.46			
24.555	804.07	0.47	24.555	785.39	0.46			
24.575	804.24	0.47	24.575	785.59	0.46			
24.594	804.47	0.47	24.594	785.77	0.46			
24.614	804.70	0.47	24.614	785.97	0.46			
24.634	804.89	0.47	24.634	786.18	0.46			
24.654	805.05	0.47	24.654	786.39	0.46			
24.674	805.22	0.47	24.674	786.59	0.46			
24.694	805.41	0.47	24.694	786.79	0.46			
24.714	805.61	0.47	24.714	787.00	0.46			
24.734	805.81	0.47	24.734	787.19	0.46			
24.754	806.01	0.47	24.754	787.37	0.46			
24.774	806.21	0.47	24.774	787.55	0.46			
24.794	806.40	0.47	24.794	787.78	0.46			
24.814	806.59	0.47	24.814	787.96	0.46			
24.834	806.78	0.47	24.834	788.18	0.46			
24.854	806.96	0.47	24.854	788.39	0.46			
24.874	807.16	0.47	24.874	788.63	0.46			
24.894	807.37	0.47	24.894	788.80	0.46			
24.914	807.56	0.47	24.914	788.98	0.46			
24.934	807.73	0.47	24.934	789.23	0.46			
24.954	807.91	0.47	24.954	789.39	0.46			
24.973	808.09	0.47	24.973	789.60	0.46			
24.993	808.28	0.47	24.993	789.77	0.46			
25.013	808.47	0.47	25.013	790.01	0.46			
25.033	808.65	0.47	25.033	790.17	0.46			

25.053	808.83	0.47	25.053	790.37	0.46			
25.073	809.04	0.47	25.073	790.56	0.46			
25.093	809.22	0.47	25.093	790.75	0.46			
25.113	809.38	0.47	25.113	790.99	0.46			
25.133	809.59	0.47	25.133	791.19	0.46			
25.153	809.80	0.47	25.153	791.37	0.46			
25.173	809.96	0.47	25.173	791.61	0.46			
25.193	810.14	0.47	25.193	791.79	0.46			
25.213	810.34	0.47	25.213	791.99	0.46			
25.233	810.53	0.47	25.233	792.18	0.46			
25.253	810.72	0.47	25.253	792.34	0.46			
25.273	810.91	0.47	25.273	792.55	0.46			
25.293	811.08	0.47	25.293	792.78	0.46			
25.313	811.23	0.47	25.313	792.94	0.46			
25.332	811.44	0.47	25.332	793.17	0.46			
25.352	811.63	0.47	25.352	793.34	0.46			
25.372	811.79	0.47	25.372	793.58	0.46			
25.392	811.98	0.47	25.392	793.72	0.46			
25.412	812.18	0.47	25.412	793.93	0.46			
25.432	812.37	0.47	25.432	794.13	0.46			
25.452	812.56	0.47	25.452	794.31	0.46			
25.472	812.75	0.47	25.472	794.54	0.46			
25.492	812.95	0.47	25.492	794.68	0.46			
25.512	813.14	0.47	25.512	794.92	0.46			
25.532	813.33	0.47	25.532	795.11	0.46			
25.552	813.52	0.47	25.552	795.28	0.46			
25.572	813.70	0.47	25.572	795.48	0.46			
25.592	813.85	0.47	25.592	795.66	0.46			
25.612	814.01	0.47	25.612	795.88	0.46			
25.632	814.19	0.47	25.632	796.03	0.46			
25.652	814.37	0.47	25.652	796.23	0.46			
25.672	814.55	0.47	25.672	796.45	0.46			
25.692	814.78	0.47	25.692	796.61	0.46			
25.711	814.99	0.47	25.711	796.82	0.46			
25.731	815.19	0.47	25.731	797.01	0.46			
25.751	815.37	0.47	25.751	797.18	0.46			
25.771	815.54	0.47	25.771	797.37	0.46			
25.791	815.67	0.47	25.791	797.58	0.46			
25.811	815.83	0.47	25.811	797.77	0.46			
25.831	816.02	0.47	25.831	797.96	0.46			
25.851	816.21	0.47	25.851	798.12	0.46			
25.871	816.39	0.47	25.871	798.32	0.46			
25.891	816.60	0.47	25.891	798.54	0.46			
25.911	816.80	0.47	25.911	798.75	0.46			
25.931	816.98	0.47	25.931	798.90	0.46			

25.951	817.19	0.47	25.951	799.06	0.46			
25.971	817.37	0.47	25.971	799.25	0.46			
25.991	817.52	0.47	25.991	799.45	0.46			
26.011	817.70	0.47	26.011	799.63	0.46			
26.031	817.89	0.47	26.031	799.82	0.46			
26.051	818.08	0.47	26.051	799.98	0.46			
26.071	818.26	0.47	26.071	800.21	0.46			
26.090	818.44	0.47	26.090	800.40	0.46			
26.110	818.62	0.47	26.110	800.60	0.46			
26.130	818.78	0.47	26.130	800.75	0.46			
26.150	818.94	0.47	26.150	800.90	0.46			
26.170	819.13	0.47	26.170	801.10	0.46			
26.190	819.32	0.47	26.190	801.30	0.46			
26.210	819.50	0.47	26.210	801.49	0.46			
26.230	819.67	0.47	26.230	801.68	0.46			
26.250	819.80	0.47	26.250	801.89	0.46			
26.270	819.97	0.47	26.270	802.04	0.46			
26.290	820.18	0.47	26.290	802.21	0.46			
26.310	820.35	0.47	26.310	802.38	0.46			
26.330	820.49	0.47	26.330	802.62	0.46			
26.350	820.69	0.47	26.350	802.77	0.46			
26.370	820.91	0.47	26.370	802.92	0.46			
26.390	821.08	0.47	26.390	803.14	0.46			
26.410	821.23	0.47	26.410	803.34	0.46			
26.430	821.41	0.47	26.430	803.51	0.46			
26.450	821.58	0.47	26.450	803.68	0.46			
26.469	821.75	0.47	26.469	803.86	0.46			
26.489	821.92	0.47	26.489	804.04	0.46			
26.509	822.07	0.47	26.509	804.20	0.46			
26.529	822.23	0.47	26.529	804.37	0.46			
26.549	822.43	0.47	26.549	804.58	0.46			
26.569	822.63	0.47	26.569	804.78	0.46			
26.589	822.79	0.47	26.589	804.94	0.46			
26.609	822.96	0.47	26.609	805.12	0.46			
26.629	823.14	0.47	26.629	805.33	0.46			
26.649	823.31	0.47	26.649	805.53	0.46			
26.669	823.47	0.47	26.669	805.71	0.46			
26.689	823.63	0.47	26.689	805.85	0.46			
26.709	823.79	0.47	26.709	806.00	0.46			
26.729	823.96	0.47	26.729	806.20	0.46			
26.749	824.14	0.47	26.749	806.39	0.46			
26.769	824.32	0.47	26.769	806.56	0.46			
26.789	824.49	0.47	26.789	806.77	0.46			
26.809	824.66	0.47	26.809	806.93	0.46			
26.828	824.82	0.47	26.828	807.10	0.47			

26.848	824.97	0.47	26.848	807.27	0.47			
26.868	825.16	0.47	26.868	807.46	0.47			
26.888	825.35	0.47	26.888	807.64	0.47			
26.908	825.49	0.47	26.908	807.82	0.47			
26.928	825.63	0.47	26.928	808.00	0.47			
26.948	825.80	0.47	26.948	808.14	0.47			
26.968	826.00	0.47	26.968	808.34	0.47			
26.988	826.18	0.47	26.988	808.51	0.47			
27.008	826.35	0.47	27.008	808.68	0.47			
27.028	826.51	0.47	27.028	808.86	0.47			
27.048	826.66	0.47	27.048	809.03	0.47			
27.068	826.82	0.47	27.068	809.20	0.47			
27.088	826.98	0.47	27.088	809.37	0.47			
27.108	827.15	0.48	27.108	809.55	0.47			
27.128	827.32	0.48	27.128	809.73	0.47			
27.148	827.50	0.48	27.148	809.91	0.47			
27.168	827.70	0.48	27.168	810.08	0.47			
27.188	827.87	0.48	27.188	810.23	0.47			
27.207	828.02	0.48	27.207	810.41	0.47			
27.227	828.16	0.48	27.227	810.59	0.47			
27.247	828.31	0.48	27.247	810.76	0.47			
27.267	828.46	0.48	27.267	810.95	0.47			
27.287	828.64	0.48	27.287	811.14	0.47			
27.307	828.82	0.48	27.307	811.29	0.47			
27.327	828.97	0.48	27.327	811.44	0.47			
27.347	829.11	0.48	27.347	811.63	0.47			
27.367	829.27	0.48	27.367	811.80	0.47			
27.387	829.44	0.48	27.387	811.95	0.47			
27.407	829.60	0.48	27.407	812.17	0.47			
27.427	829.79	0.48	27.427	812.34	0.47			
27.447	829.98	0.48	27.447	812.51	0.47			
27.467	830.13	0.48	27.467	812.68	0.47			
27.487	830.27	0.48	27.487	812.81	0.47			
27.507	830.43	0.48	27.507	812.97	0.47			
27.527	830.60	0.48	27.527	813.17	0.47			
27.547	830.76	0.48	27.547	813.37	0.47			
27.567	830.91	0.48	27.567	813.54	0.47			
27.586	831.07	0.48	27.586	813.68	0.47			
27.606	831.23	0.48	27.606	813.82	0.47			
27.626	831.39	0.48	27.626	814.00	0.47			
27.646	831.55	0.48	27.646	814.21	0.47			
27.666	831.72	0.48	27.666	814.37	0.47			
27.686	831.90	0.48	27.686	814.54	0.47			
27.706	832.06	0.48	27.706	814.71	0.47			
27.726	832.20	0.48	27.726	814.87	0.47			

27.746	832.33	0.48	27.746	815.03	0.47			
27.766	832.48	0.48	27.766	815.19	0.47			
27.786	832.64	0.48	27.786	815.33	0.47			
27.806	832.80	0.48	27.806	815.48	0.47			
27.826	832.97	0.48	27.826	815.69	0.47			
27.846	833.14	0.48	27.846	815.85	0.47			
27.866	833.30	0.48	27.866	815.98	0.47			
27.886	833.46	0.48	27.886	816.15	0.47			
27.906	833.61	0.48	27.906	816.33	0.47			
27.926	833.77	0.48	27.926	816.51	0.47			
27.946	833.92	0.48	27.946	816.67	0.47			
27.965	834.06	0.48	27.965	816.82	0.47			
27.985	834.20	0.48	27.985	816.98	0.47			
28.005	834.36	0.48	28.005	817.14	0.47			
28.025	834.52	0.48	28.025	817.31	0.47			
28.045	834.69	0.48	28.045	817.47	0.47			
28.065	834.84	0.48	28.065	817.62	0.47			
28.085	835.00	0.48	28.085	817.79	0.47			
28.105	835.16	0.48	28.105	817.97	0.47			
28.125	835.33	0.48	28.125	818.16	0.47			
28.145	835.50	0.48	28.145	818.34	0.47			
28.165	835.64	0.48	28.165	818.49	0.47			
28.185	835.79	0.48	28.185	818.64	0.47			
28.205	835.94	0.48	28.205	818.82	0.47			
28.225	836.09	0.48	28.225	819.00	0.47			
28.245	836.26	0.48	28.245	819.17	0.47			
28.265	836.42	0.48	28.265	819.29	0.47			
28.285	836.59	0.48	28.285	819.44	0.47			
28.305	836.74	0.48	28.305	819.61	0.47			
28.324	836.90	0.48	28.324	819.77	0.47			
28.344	837.05	0.48	28.344	819.93	0.47			
28.364	837.20	0.48	28.364	820.09	0.47			
28.384	837.35	0.48	28.384	820.21	0.47			
28.404	837.50	0.48	28.404	820.40	0.47			
28.424	837.65	0.48	28.424	820.58	0.47			
28.444	837.80	0.48	28.444	820.75	0.47			
28.464	837.94	0.48	28.464	820.90	0.47			
28.484	838.08	0.48	28.484	821.07	0.47			
28.504	838.23	0.48	28.504	821.24	0.47			
28.524	838.39	0.48	28.524	821.38	0.47			
28.544	838.55	0.48	28.544	821.54	0.47			
28.564	838.68	0.48	28.564	821.72	0.47			
28.584	838.82	0.48	28.584	821.89	0.47			
28.604	838.96	0.48	28.604	822.04	0.47			
28.624	839.10	0.48	28.624	822.15	0.47			

28.644	839.25	0.48	28.644	822.35	0.47			
28.664	839.39	0.48	28.664	822.53	0.47			
28.684	839.54	0.48	28.684	822.67	0.47			
28.703	839.71	0.48	28.703	822.80	0.47			
28.723	839.89	0.48	28.723	822.97	0.47			
28.743	840.03	0.48	28.743	823.15	0.47			
28.763	840.16	0.48	28.763	823.26	0.47			
28.783	840.31	0.48	28.783	823.44	0.47			
28.803	840.47	0.48	28.803	823.60	0.47			
28.823	840.63	0.48	28.823	823.75	0.47			
28.843	840.78	0.48	28.843	823.93	0.47			
28.863	840.94	0.48	28.863	824.10	0.47			
28.883	841.08	0.48	28.883	824.25	0.47			
28.903	841.21	0.48	28.903	824.40	0.47			
28.923	841.34	0.48	28.923	824.56	0.47			
28.943	841.47	0.48	28.943	824.70	0.47			
28.963	841.62	0.48	28.963	824.86	0.47			
28.983	841.78	0.48	28.983	825.03	0.47			
29.003	841.94	0.48	29.003	825.21	0.47			
29.023	842.11	0.48	29.023	825.32	0.47			
29.043	842.27	0.48	29.043	825.45	0.47			
29.063	842.42	0.48	29.063	825.63	0.47			
29.082	842.55	0.48	29.082	825.81	0.47			
29.102	842.68	0.48	29.102	825.95	0.47			
29.122	842.82	0.48	29.122	826.08	0.47			
29.142	842.96	0.48	29.142	826.23	0.47			
29.162	843.10	0.48	29.162	826.38	0.47			
29.182	843.24	0.48	29.182	826.56	0.47			
29.202	843.38	0.48	29.202	826.73	0.47			
29.222	843.51	0.48	29.222	826.89	0.47			
29.242	843.65	0.48	29.242	827.06	0.47			
29.262	843.78	0.48	29.262	827.19	0.47			
29.282	843.91	0.48	29.282	827.32	0.47			
29.302	844.08	0.48	29.302	827.48	0.47			
29.322	844.25	0.48	29.322	827.64	0.47			
29.342	844.43	0.48	29.342	827.79	0.47			
29.362	844.56	0.48	29.362	827.95	0.47			
29.382	844.69	0.48	29.382	828.11	0.47			
29.402	844.82	0.48	29.402	828.25	0.47			
29.422	844.96	0.48	29.422	828.39	0.47			
29.441	845.10	0.48	29.441	828.52	0.47			
29.461	845.23	0.48	29.461	828.65	0.47			
29.481	845.37	0.48	29.481	828.80	0.47			
29.501	845.51	0.48	29.501	828.95	0.47			
29.521	845.65	0.48	29.521	829.12	0.47			

29.541	845.80	0.48	29.541	829.28	0.47			
29.561	845.96	0.48	29.561	829.44	0.47			
29.581	846.09	0.48	29.581	829.57	0.47			
29.601	846.22	0.48	29.601	829.70	0.47			
29.621	846.34	0.48	29.621	829.87	0.48			
29.641	846.47	0.48	29.641	830.04	0.48			
29.661	846.61	0.48	29.661	830.20	0.48			
29.681	846.75	0.48	29.681	830.34	0.48			
29.701	846.90	0.48	29.701	830.49	0.48			
29.721	847.06	0.48	29.721	830.64	0.48			
29.741	847.21	0.48	29.741	830.78	0.48			
29.761	847.35	0.48	29.761	830.92	0.48			
29.781	847.48	0.48	29.781	831.06	0.48			
29.801	847.61	0.48	29.801	831.20	0.48			
29.820	847.74	0.48	29.820	831.34	0.48			
29.840	847.88	0.48	29.840	831.49	0.48			
29.860	848.02	0.48	29.860	831.64	0.48			
29.880	848.17	0.48	29.880	831.79	0.48			
29.900	848.30	0.48	29.900	831.97	0.48			
29.920	848.42	0.48	29.920	832.14	0.48			
29.940	848.54	0.48	29.940	832.26	0.48			
29.960	848.68	0.48	29.960	832.39	0.48			
29.980	848.82	0.48	29.980	832.55	0.48			
30.000	848.97	0.48	30.000	832.71	0.48			



**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  mixtures.

$T= 353.15\pm 0.04 \text{ K}$								
$x_{\text{CO}_2} = 0.8029$			$x_{\text{CO}_2} = 0.8969$			$x_{\text{CO}_2} = 0.9532$		
$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )
0.100	1.63	0.23	0.100	1.64	0.23	0.100	1.43	0.22
0.120	1.67	0.21	0.120	1.73	0.22	0.120	1.68	0.21
0.140	2.00	0.22	0.140	2.01	0.22	0.140	2.02	0.22
0.160	2.35	0.22	0.160	2.34	0.22	0.160	2.35	0.22
0.180	2.61	0.22	0.180	2.70	0.22	0.180	2.62	0.22
0.200	3.00	0.22	0.200	2.99	0.22	0.200	2.93	0.22
0.220	3.35	0.22	0.220	3.27	0.22	0.220	3.27	0.22
0.240	3.63	0.22	0.240	3.62	0.22	0.240	3.53	0.22
0.260	3.96	0.22	0.260	3.95	0.22	0.260	3.85	0.22
0.280	4.30	0.22	0.280	4.27	0.22	0.280	4.16	0.22
0.299	4.58	0.22	0.299	4.57	0.22	0.299	4.43	0.22
0.319	4.95	0.22	0.319	4.88	0.22	0.319	4.77	0.22
0.339	5.23	0.22	0.339	5.18	0.22	0.339	5.09	0.22
0.359	5.60	0.23	0.359	5.50	0.22	0.359	5.41	0.22
0.379	5.90	0.23	0.379	5.81	0.22	0.379	5.69	0.22
0.399	6.27	0.23	0.399	6.16	0.22	0.399	6.02	0.22
0.419	6.62	0.23	0.419	6.49	0.22	0.419	6.28	0.22
0.439	6.92	0.23	0.439	6.84	0.23	0.439	6.61	0.22
0.459	7.26	0.23	0.459	7.17	0.23	0.459	6.94	0.22
0.479	7.61	0.23	0.479	7.46	0.22	0.479	7.20	0.22
0.499	7.90	0.23	0.499	7.79	0.23	0.499	7.53	0.22
0.519	8.26	0.23	0.519	8.17	0.23	0.519	7.85	0.22
0.539	8.58	0.23	0.539	8.52	0.23	0.539	8.16	0.22
0.559	8.93	0.23	0.559	8.91	0.23	0.559	8.49	0.22
0.579	9.26	0.23	0.579	9.36	0.23	0.579	8.76	0.22
0.599	9.59	0.23	0.599	9.74	0.23	0.599	9.05	0.22
0.619	9.97	0.23	0.619	10.13	0.23	0.619	9.35	0.22
0.639	10.30	0.23	0.639	10.47	0.23	0.639	9.67	0.22
0.659	10.58	0.23	0.659	10.79	0.24	0.659	9.99	0.22
0.678	10.97	0.23	0.678	11.09	0.24	0.678	10.30	0.22
0.698	11.27	0.23	0.698	11.43	0.24	0.698	10.63	0.22
0.718	11.62	0.23	0.718	11.75	0.24	0.718	10.93	0.22
0.738	11.98	0.23	0.738	12.09	0.25	0.738	11.21	0.22
0.758	12.33	0.23	0.758	12.41	0.25	0.758	11.53	0.22
0.778	12.63	0.23	0.778	12.75	0.25	0.778	11.85	0.22
0.798	13.01	0.23	0.798	13.10	0.25	0.798	12.12	0.22

0.818	13.32	0.23	0.818	13.38	0.25	0.818	12.47	0.22
0.838	13.71	0.23	0.838	13.75	0.25	0.838	12.75	0.22
0.858	13.99	0.23	0.858	14.08	0.25	0.858	13.05	0.22
0.878	14.35	0.23	0.878	14.40	0.25	0.878	13.38	0.22
0.898	14.72	0.23	0.898	14.72	0.25	0.898	13.70	0.22
0.918	15.08	0.23	0.918	15.08	0.25	0.918	14.03	0.22
0.938	15.44	0.23	0.938	15.39	0.25	0.938	14.30	0.22
0.958	15.74	0.23	0.958	15.69	0.25	0.958	14.61	0.22
0.978	16.16	0.23	0.978	16.08	0.25	0.978	14.94	0.22
0.998	16.48	0.23	0.998	16.40	0.25	0.998	15.24	0.22
1.018	16.86	0.23	1.018	16.76	0.24	1.018	15.54	0.22
1.037	17.18	0.23	1.037	17.09	0.24	1.037	15.88	0.22
1.057	17.56	0.23	1.057	17.38	0.24	1.057	16.18	0.22
1.077	17.93	0.23	1.077	17.75	0.24	1.077	16.50	0.22
1.097	18.26	0.23	1.097	18.11	0.24	1.097	16.83	0.22
1.117	18.65	0.23	1.117	18.43	0.24	1.117	17.12	0.22
1.137	19.01	0.23	1.137	18.75	0.24	1.137	17.45	0.22
1.157	19.39	0.23	1.157	19.09	0.24	1.157	17.80	0.22
1.177	19.79	0.23	1.177	19.42	0.24	1.177	18.14	0.22
1.197	20.17	0.23	1.197	19.77	0.24	1.197	18.45	0.22
1.217	20.54	0.23	1.217	20.09	0.24	1.217	18.82	0.22
1.237	20.97	0.23	1.237	20.41	0.24	1.237	19.13	0.22
1.257	21.32	0.23	1.257	20.76	0.24	1.257	19.56	0.22
1.277	21.72	0.23	1.277	21.12	0.24	1.277	19.91	0.22
1.297	22.09	0.23	1.297	21.47	0.24	1.297	20.26	0.22
1.317	22.48	0.23	1.317	21.81	0.24	1.317	20.68	0.22
1.337	22.88	0.23	1.337	22.14	0.24	1.337	21.04	0.22
1.357	23.34	0.23	1.357	22.46	0.24	1.357	21.42	0.22
1.377	23.74	0.24	1.377	22.85	0.24	1.377	21.83	0.22
1.397	24.10	0.24	1.397	23.15	0.24	1.397	22.26	0.22
1.416	24.52	0.24	1.416	23.52	0.24	1.416	22.66	0.23
1.436	24.92	0.24	1.436	23.87	0.24	1.436	23.07	0.23
1.456	25.33	0.24	1.456	24.23	0.24	1.456	23.49	0.23
1.476	25.76	0.24	1.476	24.56	0.24	1.476	23.92	0.23
1.496	26.17	0.24	1.496	24.89	0.24	1.496	24.27	0.23
1.516	26.58	0.24	1.516	25.29	0.24	1.516	24.63	0.23
1.536	26.96	0.24	1.536	25.60	0.24	1.536	25.00	0.23
1.556	27.33	0.24	1.556	25.98	0.24	1.556	25.29	0.23
1.576	27.74	0.24	1.576	26.35	0.24	1.576	25.66	0.23
1.596	28.18	0.24	1.596	26.67	0.24	1.596	26.03	0.23
1.616	28.65	0.24	1.616	26.97	0.24	1.616	26.40	0.23
1.636	29.02	0.24	1.636	27.35	0.24	1.636	26.72	0.23
1.656	29.43	0.24	1.656	27.71	0.24	1.656	27.08	0.23
1.676	29.89	0.24	1.676	28.06	0.24	1.676	27.45	0.23
1.696	30.27	0.24	1.696	28.40	0.24	1.696	27.75	0.23

1.716	30.68	0.24	1.716	28.75	0.24	1.716	28.13	0.23
1.736	31.13	0.24	1.736	29.11	0.24	1.736	28.50	0.23
1.756	31.56	0.24	1.756	29.45	0.24	1.756	28.87	0.23
1.776	31.97	0.24	1.776	29.83	0.24	1.776	29.20	0.23
1.795	32.36	0.24	1.795	30.15	0.24	1.795	29.56	0.23
1.815	32.75	0.24	1.815	30.50	0.24	1.815	29.90	0.23
1.835	33.14	0.24	1.835	30.87	0.24	1.835	30.29	0.23
1.855	33.54	0.24	1.855	31.22	0.24	1.855	30.66	0.23
1.875	33.96	0.24	1.875	31.55	0.24	1.875	31.00	0.23
1.895	34.35	0.24	1.895	31.90	0.24	1.895	31.39	0.23
1.915	34.77	0.24	1.915	32.30	0.24	1.915	31.72	0.23
1.935	35.16	0.24	1.935	32.62	0.23	1.935	32.06	0.23
1.955	35.54	0.24	1.955	33.02	0.23	1.955	32.46	0.23
1.975	35.95	0.24	1.975	33.36	0.23	1.975	32.81	0.23
1.995	36.33	0.24	1.995	33.72	0.23	1.995	33.16	0.23
2.015	36.71	0.24	2.015	34.10	0.23	2.015	33.51	0.23
2.035	37.10	0.24	2.035	34.47	0.23	2.035	33.90	0.23
2.055	37.48	0.24	2.055	34.77	0.23	2.055	34.27	0.23
2.075	37.82	0.24	2.075	35.19	0.23	2.075	34.63	0.23
2.095	38.22	0.24	2.095	35.53	0.23	2.095	35.00	0.23
2.115	38.60	0.24	2.115	35.86	0.23	2.115	35.38	0.23
2.135	38.96	0.24	2.135	36.25	0.23	2.135	35.73	0.23
2.155	39.32	0.24	2.155	36.59	0.23	2.155	36.09	0.23
2.174	39.70	0.24	2.174	36.97	0.23	2.174	36.43	0.23
2.194	40.07	0.24	2.194	37.34	0.23	2.194	36.81	0.23
2.214	40.42	0.24	2.214	37.73	0.23	2.214	37.19	0.23
2.234	40.82	0.24	2.234	38.08	0.23	2.234	37.50	0.23
2.254	41.17	0.24	2.254	38.37	0.23	2.254	37.89	0.23
2.274	41.50	0.24	2.274	38.82	0.23	2.274	38.29	0.23
2.294	41.92	0.24	2.294	39.17	0.23	2.294	38.60	0.23
2.314	42.24	0.24	2.314	39.51	0.23	2.314	38.99	0.23
2.334	42.58	0.24	2.334	39.90	0.23	2.334	39.38	0.23
2.354	42.99	0.24	2.354	40.26	0.23	2.354	39.70	0.23
2.374	43.30	0.24	2.374	40.60	0.23	2.374	40.10	0.23
2.394	43.66	0.24	2.394	41.00	0.23	2.394	40.42	0.23
2.414	44.03	0.24	2.414	41.34	0.23	2.414	40.82	0.23
2.434	44.42	0.24	2.434	41.72	0.23	2.434	41.20	0.23
2.454	44.81	0.24	2.454	42.11	0.23	2.454	41.55	0.23
2.474	45.18	0.24	2.474	42.50	0.23	2.474	41.88	0.23
2.494	45.54	0.24	2.494	42.84	0.23	2.494	42.29	0.23
2.514	45.89	0.24	2.514	43.24	0.23	2.514	42.62	0.23
2.533	46.25	0.24	2.533	43.62	0.23	2.533	43.03	0.23
2.553	46.60	0.24	2.553	43.94	0.23	2.553	43.39	0.23
2.573	47.03	0.24	2.573	44.32	0.23	2.573	43.78	0.23
2.593	47.37	0.24	2.593	44.70	0.23	2.593	44.12	0.23

2.613	47.75	0.24	2.613	45.07	0.23	2.613	44.47	0.23
2.633	48.09	0.24	2.633	45.46	0.23	2.633	44.89	0.23
2.653	48.47	0.24	2.653	45.88	0.23	2.653	45.24	0.23
2.673	48.84	0.24	2.673	46.24	0.23	2.673	45.63	0.23
2.693	49.25	0.24	2.693	46.59	0.23	2.693	46.00	0.23
2.713	49.59	0.24	2.713	47.00	0.23	2.713	46.37	0.23
2.733	49.99	0.24	2.733	47.36	0.23	2.733	46.73	0.23
2.753	50.32	0.24	2.753	47.77	0.23	2.753	47.11	0.23
2.773	50.70	0.24	2.773	48.11	0.23	2.773	47.49	0.23
2.793	51.09	0.24	2.793	48.53	0.23	2.793	47.88	0.23
2.813	51.51	0.24	2.813	48.88	0.23	2.813	48.24	0.23
2.833	51.89	0.24	2.833	49.28	0.23	2.833	48.62	0.23
2.853	52.26	0.24	2.853	49.67	0.23	2.853	49.01	0.23
2.873	52.67	0.24	2.873	50.06	0.23	2.873	49.33	0.23
2.893	52.98	0.24	2.893	50.41	0.23	2.893	49.72	0.23
2.912	53.37	0.24	2.912	50.82	0.23	2.912	50.11	0.23
2.932	53.69	0.24	2.932	51.16	0.23	2.932	50.50	0.23
2.952	54.11	0.24	2.952	51.51	0.23	2.952	50.87	0.23
2.972	54.50	0.24	2.972	51.89	0.23	2.972	51.27	0.23
2.992	54.86	0.24	2.992	52.28	0.23	2.992	51.61	0.23
3.012	55.26	0.24	3.012	52.60	0.23	3.012	52.02	0.23
3.032	55.68	0.24	3.032	53.00	0.23	3.032	52.34	0.23
3.052	56.04	0.24	3.052	53.40	0.23	3.052	52.77	0.23
3.072	56.42	0.24	3.072	53.72	0.23	3.072	53.17	0.23
3.092	56.81	0.24	3.092	54.13	0.23	3.092	53.52	0.23
3.112	57.20	0.24	3.112	54.51	0.23	3.112	53.93	0.23
3.132	57.61	0.24	3.132	54.84	0.23	3.132	54.28	0.23
3.152	58.00	0.24	3.152	55.21	0.23	3.152	54.64	0.23
3.172	58.35	0.24	3.172	55.60	0.23	3.172	55.07	0.23
3.192	58.78	0.24	3.192	55.96	0.23	3.192	55.42	0.23
3.212	59.11	0.24	3.212	56.32	0.23	3.212	55.79	0.23
3.232	59.53	0.24	3.232	56.72	0.23	3.232	56.23	0.23
3.252	59.95	0.24	3.252	57.03	0.23	3.252	56.60	0.23
3.272	60.33	0.24	3.272	57.42	0.23	3.272	56.97	0.23
3.291	60.74	0.24	3.291	57.81	0.23	3.291	57.34	0.23
3.311	61.14	0.24	3.311	58.20	0.23	3.311	57.77	0.23
3.331	61.53	0.24	3.331	58.57	0.23	3.331	58.19	0.23
3.351	61.89	0.24	3.351	58.92	0.23	3.351	58.56	0.23
3.371	62.25	0.24	3.371	59.26	0.23	3.371	58.94	0.23
3.391	62.62	0.24	3.391	59.66	0.23	3.391	59.32	0.23
3.411	63.01	0.24	3.411	60.04	0.23	3.411	59.70	0.23
3.431	63.46	0.24	3.431	60.42	0.23	3.431	60.09	0.23
3.451	63.80	0.24	3.451	60.80	0.23	3.451	60.49	0.23
3.471	64.26	0.24	3.471	61.18	0.23	3.471	60.90	0.23
3.491	64.63	0.24	3.491	61.57	0.23	3.491	61.30	0.23

3.511	65.01	0.24	3.511	61.87	0.23	3.511	61.70	0.23
3.531	65.41	0.24	3.531	62.26	0.23	3.531	62.10	0.23
3.551	65.84	0.24	3.551	62.68	0.23	3.551	62.51	0.23
3.571	66.28	0.24	3.571	63.04	0.23	3.571	62.89	0.23
3.591	66.69	0.24	3.591	63.45	0.23	3.591	63.26	0.23
3.611	67.07	0.24	3.611	63.80	0.23	3.611	63.68	0.23
3.631	67.48	0.24	3.631	64.15	0.23	3.631	64.04	0.23
3.651	67.88	0.24	3.651	64.57	0.23	3.651	64.45	0.23
3.670	68.27	0.24	3.670	64.93	0.23	3.670	64.84	0.23
3.690	68.67	0.24	3.690	65.33	0.23	3.690	65.24	0.23
3.710	69.06	0.24	3.710	65.68	0.23	3.710	65.59	0.23
3.730	69.47	0.24	3.730	66.09	0.23	3.730	66.02	0.23
3.750	69.86	0.24	3.750	66.47	0.23	3.750	66.40	0.23
3.770	70.26	0.24	3.770	66.88	0.23	3.770	66.77	0.23
3.790	70.71	0.24	3.790	67.22	0.23	3.790	67.15	0.23
3.810	71.14	0.24	3.810	67.67	0.23	3.810	67.53	0.23
3.830	71.56	0.24	3.830	68.04	0.23	3.830	67.92	0.23
3.850	71.95	0.24	3.850	68.43	0.23	3.850	68.31	0.23
3.870	72.34	0.24	3.870	68.82	0.23	3.870	68.70	0.23
3.890	72.77	0.24	3.890	69.20	0.23	3.890	69.09	0.23
3.910	73.20	0.24	3.910	69.64	0.23	3.910	69.49	0.23
3.930	73.60	0.24	3.930	70.07	0.23	3.930	69.88	0.23
3.950	73.97	0.24	3.950	70.48	0.23	3.950	70.29	0.23
3.970	74.45	0.24	3.970	70.88	0.23	3.970	70.61	0.23
3.990	74.86	0.24	3.990	71.30	0.23	3.990	71.00	0.23
4.010	75.32	0.24	4.010	71.72	0.23	4.010	71.41	0.23
4.029	75.72	0.24	4.029	72.12	0.23	4.029	71.83	0.23
4.049	76.13	0.24	4.049	72.52	0.23	4.049	72.19	0.23
4.069	76.51	0.24	4.069	72.92	0.23	4.069	72.58	0.23
4.089	76.93	0.24	4.089	73.32	0.23	4.089	73.00	0.23
4.109	77.37	0.24	4.109	73.72	0.23	4.109	73.36	0.23
4.129	77.82	0.24	4.129	74.13	0.23	4.129	73.79	0.23
4.149	78.25	0.24	4.149	74.54	0.23	4.149	74.14	0.23
4.169	78.68	0.24	4.169	74.95	0.23	4.169	74.53	0.23
4.189	79.13	0.24	4.189	75.38	0.23	4.189	74.95	0.23
4.209	79.58	0.24	4.209	75.80	0.23	4.209	75.33	0.23
4.229	79.99	0.24	4.229	76.22	0.23	4.229	75.77	0.23
4.249	80.38	0.24	4.249	76.64	0.23	4.249	76.14	0.23
4.269	80.79	0.24	4.269	77.06	0.23	4.269	76.52	0.23
4.289	81.26	0.24	4.289	77.48	0.23	4.289	76.90	0.23
4.309	81.70	0.24	4.309	77.89	0.23	4.309	77.37	0.23
4.329	82.16	0.24	4.329	78.31	0.23	4.329	77.77	0.23
4.349	82.58	0.24	4.349	78.73	0.23	4.349	78.17	0.23
4.369	82.97	0.24	4.369	79.16	0.23	4.369	78.57	0.23
4.389	83.42	0.24	4.389	79.55	0.23	4.389	78.97	0.23

4.408	83.88	0.24	4.408	79.90	0.23	4.408	79.37	0.23
4.428	84.37	0.24	4.428	80.30	0.23	4.428	79.83	0.23
4.448	84.74	0.24	4.448	80.72	0.23	4.448	80.24	0.23
4.468	85.19	0.24	4.468	81.10	0.23	4.468	80.63	0.23
4.488	85.62	0.24	4.488	81.51	0.23	4.488	81.06	0.23
4.508	86.05	0.24	4.508	81.93	0.23	4.508	81.49	0.23
4.528	86.51	0.24	4.528	82.37	0.23	4.528	81.86	0.23
4.548	86.95	0.24	4.548	82.79	0.23	4.548	82.30	0.23
4.568	87.41	0.24	4.568	83.21	0.23	4.568	82.74	0.23
4.588	87.89	0.24	4.588	83.64	0.23	4.588	83.12	0.23
4.608	88.37	0.24	4.608	84.09	0.23	4.608	83.55	0.23
4.628	88.80	0.24	4.628	84.54	0.23	4.628	83.99	0.23
4.648	89.23	0.24	4.648	84.99	0.23	4.648	84.43	0.23
4.668	89.69	0.24	4.668	85.42	0.23	4.668	84.82	0.23
4.688	90.09	0.24	4.688	85.86	0.23	4.688	85.25	0.23
4.708	90.55	0.24	4.708	86.31	0.23	4.708	85.72	0.23
4.728	91.06	0.24	4.728	86.75	0.23	4.728	86.07	0.23
4.748	91.51	0.24	4.748	87.19	0.23	4.748	86.51	0.23
4.768	91.95	0.24	4.768	87.63	0.23	4.768	86.94	0.23
4.787	92.44	0.24	4.787	88.07	0.23	4.787	87.37	0.23
4.807	92.93	0.24	4.807	88.54	0.23	4.807	87.80	0.23
4.827	93.41	0.24	4.827	89.01	0.23	4.827	88.25	0.23
4.847	93.88	0.24	4.847	89.48	0.23	4.847	88.69	0.23
4.867	94.37	0.24	4.867	89.95	0.23	4.867	89.14	0.23
4.887	94.85	0.24	4.887	90.41	0.23	4.887	89.53	0.23
4.907	95.26	0.24	4.907	90.86	0.23	4.907	89.96	0.23
4.927	95.72	0.24	4.927	91.30	0.23	4.927	90.43	0.23
4.947	96.18	0.24	4.947	91.74	0.23	4.947	90.84	0.23
4.967	96.63	0.24	4.967	92.19	0.23	4.967	91.29	0.23
4.987	97.16	0.24	4.987	92.65	0.23	4.987	91.71	0.23
5.007	97.66	0.24	5.007	93.12	0.23	5.007	92.17	0.23
5.027	98.15	0.24	5.027	93.60	0.23	5.027	92.60	0.23
5.047	98.65	0.24	5.047	94.06	0.23	5.047	93.08	0.23
5.067	99.15	0.24	5.067	94.52	0.23	5.067	93.50	0.23
5.087	99.65	0.24	5.087	94.98	0.23	5.087	93.92	0.23
5.107	100.16	0.24	5.107	95.42	0.23	5.107	94.35	0.23
5.127	100.68	0.24	5.127	95.87	0.23	5.127	94.81	0.23
5.147	101.22	0.24	5.147	96.34	0.23	5.147	95.25	0.23
5.166	101.74	0.24	5.166	96.83	0.23	5.166	95.72	0.23
5.186	102.24	0.24	5.186	97.32	0.23	5.186	96.17	0.23
5.206	102.78	0.24	5.206	97.81	0.23	5.206	96.62	0.23
5.226	103.33	0.24	5.226	98.31	0.23	5.226	97.02	0.23
5.246	103.82	0.24	5.246	98.78	0.23	5.246	97.49	0.23
5.266	104.34	0.24	5.266	99.25	0.23	5.266	97.96	0.23
5.286	104.87	0.24	5.286	99.72	0.24	5.286	98.37	0.23

5.306	105.40	0.24	5.306	100.26	0.24	5.306	98.84	0.23
5.326	105.97	0.24	5.326	100.80	0.24	5.326	99.28	0.23
5.346	106.55	0.24	5.346	101.32	0.24	5.346	99.74	0.23
5.366	107.13	0.24	5.366	101.84	0.24	5.366	100.20	0.23
5.386	107.68	0.24	5.386	102.35	0.24	5.386	100.62	0.23
5.406	108.19	0.24	5.406	102.86	0.24	5.406	101.06	0.23
5.426	108.69	0.24	5.426	103.38	0.24	5.426	101.52	0.23
5.446	109.12	0.24	5.446	103.91	0.24	5.446	101.97	0.23
5.466	109.64	0.24	5.466	104.44	0.24	5.466	102.44	0.23
5.486	110.18	0.24	5.486	104.94	0.24	5.486	102.89	0.23
5.506	110.71	0.24	5.506	105.41	0.24	5.506	103.35	0.23
5.525	111.28	0.24	5.525	105.87	0.24	5.525	103.80	0.23
5.545	111.87	0.24	5.545	106.34	0.24	5.545	104.23	0.23
5.565	112.46	0.24	5.565	106.81	0.24	5.565	104.70	0.23
5.585	113.02	0.24	5.585	107.29	0.24	5.585	105.20	0.23
5.605	113.59	0.24	5.605	107.76	0.24	5.605	105.66	0.23
5.625	114.19	0.24	5.625	108.22	0.24	5.625	106.07	0.23
5.645	114.80	0.24	5.645	108.68	0.24	5.645	106.55	0.23
5.665	115.41	0.25	5.665	109.16	0.24	5.665	107.03	0.23
5.685	116.00	0.25	5.685	109.68	0.24	5.685	107.47	0.23
5.705	116.55	0.25	5.705	110.20	0.24	5.705	107.92	0.23
5.725	117.02	0.25	5.725	110.69	0.24	5.725	108.41	0.23
5.745	117.54	0.25	5.745	111.16	0.24	5.745	108.89	0.23
5.765	118.12	0.25	5.765	111.61	0.24	5.765	109.35	0.23
5.785	118.69	0.25	5.785	112.07	0.24	5.785	109.86	0.23
5.805	119.30	0.25	5.805	112.55	0.24	5.805	110.28	0.23
5.825	119.91	0.25	5.825	113.00	0.24	5.825	110.80	0.23
5.845	120.52	0.25	5.845	113.44	0.24	5.845	111.26	0.23
5.865	121.13	0.25	5.865	113.95	0.24	5.865	111.72	0.23
5.885	121.74	0.25	5.885	114.47	0.24	5.885	112.18	0.23
5.904	122.37	0.25	5.904	114.98	0.24	5.904	112.65	0.24
5.924	123.01	0.25	5.924	115.46	0.24	5.924	113.12	0.24
5.944	123.66	0.25	5.944	115.59	0.24	5.944	113.60	0.24
5.964	124.28	0.25	5.964	116.45	0.24	5.964	114.09	0.24
5.984	124.88	0.25	5.984	116.80	0.24	5.984	114.58	0.24
6.004	125.17	0.25	6.004	117.64	0.24	6.004	115.01	0.24
6.024	125.48	0.25	6.024	118.05	0.24	6.024	115.51	0.24
6.044	126.02	0.25	6.044	118.33	0.24	6.044	116.02	0.24
6.064	126.58	0.25	6.064	118.75	0.24	6.064	116.48	0.24
6.084	127.18	0.25	6.084	119.32	0.24	6.084	116.97	0.24
6.104	127.77	0.25	6.104	119.89	0.24	6.104	117.45	0.24
6.124	128.41	0.25	6.124	120.42	0.24	6.124	117.94	0.24
6.144	129.08	0.25	6.144	120.97	0.24	6.144	118.40	0.24
6.164	129.74	0.25	6.164	121.57	0.24	6.164	118.86	0.24
6.184	130.38	0.25	6.184	122.08	0.24	6.184	119.34	0.24

6.204	131.03	0.25	6.204	122.71	0.24	6.204	119.81	0.24
6.224	131.68	0.25	6.224	123.39	0.24	6.224	120.30	0.24
6.244	132.37	0.25	6.244	123.97	0.24	6.244	120.78	0.24
6.264	133.05	0.25	6.264	124.59	0.24	6.264	121.29	0.24
6.283	133.72	0.25	6.283	125.26	0.24	6.283	121.80	0.24
6.303	134.38	0.25	6.303	125.86	0.24	6.303	122.31	0.24
6.323	135.09	0.25	6.323	126.55	0.24	6.323	122.81	0.24
6.343	135.78	0.25	6.343	127.11	0.24	6.343	123.25	0.24
6.363	136.45	0.25	6.363	127.71	0.24	6.363	123.75	0.24
6.383	137.13	0.25	6.383	128.30	0.24	6.383	124.22	0.24
6.403	137.79	0.25	6.403	128.95	0.24	6.403	124.71	0.24
6.423	138.45	0.25	6.423	129.55	0.24	6.423	125.19	0.24
6.443	139.16	0.25	6.443	130.16	0.24	6.443	125.72	0.24
6.463	139.87	0.25	6.463	130.77	0.24	6.463	126.19	0.24
6.483	140.56	0.25	6.483	131.35	0.24	6.483	126.69	0.24
6.503	141.27	0.25	6.503	131.96	0.24	6.503	127.22	0.24
6.523	141.99	0.25	6.523	132.55	0.24	6.523	127.71	0.24
6.543	142.72	0.25	6.543	133.12	0.24	6.543	128.21	0.24
6.563	143.43	0.25	6.563	133.77	0.24	6.563	128.73	0.24
6.583	144.13	0.25	6.583	134.37	0.24	6.583	129.23	0.24
6.603	144.82	0.25	6.603	135.01	0.24	6.603	129.72	0.24
6.623	145.53	0.25	6.623	135.61	0.24	6.623	130.23	0.24
6.642	146.28	0.25	6.642	136.24	0.24	6.642	130.72	0.24
6.662	147.03	0.26	6.662	136.88	0.24	6.662	131.25	0.24
6.682	147.79	0.26	6.682	137.49	0.24	6.682	131.75	0.24
6.702	148.53	0.26	6.702	138.11	0.24	6.702	132.29	0.24
6.722	149.25	0.26	6.722	138.74	0.24	6.722	132.78	0.24
6.742	150.00	0.26	6.742	139.37	0.24	6.742	133.33	0.24
6.762	150.77	0.26	6.762	139.96	0.24	6.762	133.87	0.24
6.782	151.54	0.26	6.782	140.64	0.24	6.782	134.34	0.24
6.802	152.31	0.26	6.802	141.23	0.24	6.802	134.84	0.24
6.822	153.05	0.26	6.822	141.85	0.25	6.822	135.35	0.24
6.842	153.68	0.26	6.842	142.52	0.25	6.842	135.90	0.24
6.862	154.39	0.26	6.862	143.12	0.25	6.862	136.38	0.24
6.882	155.11	0.26	6.882	143.73	0.25	6.882	136.91	0.24
6.902	155.83	0.26	6.902	144.36	0.25	6.902	137.43	0.24
6.922	156.60	0.26	6.922	144.98	0.25	6.922	137.93	0.24
6.942	157.40	0.26	6.942	145.61	0.25	6.942	138.50	0.24
6.962	158.21	0.26	6.962	146.19	0.25	6.962	138.99	0.24
6.982	159.02	0.26	6.982	146.87	0.25	6.982	139.56	0.24
7.002	159.83	0.26	7.002	147.45	0.25	7.002	140.02	0.24
7.021	160.63	0.26	7.021	148.06	0.25	7.021	140.53	0.24
7.041	161.44	0.26	7.041	148.71	0.25	7.041	141.07	0.24
7.061	162.23	0.26	7.061	149.32	0.25	7.061	141.62	0.24
7.081	163.02	0.26	7.081	149.94	0.25	7.081	142.14	0.24



7.101	163.86	0.26	7.101	150.55	0.25	7.101	142.67	0.24
7.121	164.71	0.26	7.121	151.17	0.25	7.121	143.21	0.24
7.141	165.17	0.26	7.141	151.79	0.25	7.141	143.76	0.24
7.161	165.66	0.26	7.161	152.47	0.25	7.161	144.23	0.24
7.181	166.21	0.26	7.181	153.01	0.25	7.181	144.81	0.24
7.201	166.87	0.26	7.201	153.64	0.25	7.201	145.34	0.24
7.221	167.60	0.26	7.221	154.29	0.25	7.221	145.84	0.24
7.241	168.34	0.26	7.241	154.90	0.25	7.241	146.38	0.24
7.261	169.12	0.26	7.261	155.57	0.25	7.261	146.96	0.24
7.281	169.97	0.26	7.281	156.13	0.25	7.281	147.48	0.24
7.301	170.77	0.26	7.301	156.77	0.25	7.301	148.01	0.24
7.321	171.61	0.26	7.321	157.44	0.25	7.321	148.59	0.24
7.341	172.50	0.26	7.341	158.04	0.25	7.341	149.12	0.24
7.361	173.33	0.26	7.361	158.68	0.25	7.361	149.67	0.24
7.381	174.14	0.27	7.381	159.29	0.25	7.381	150.21	0.24
7.400	174.96	0.27	7.400	159.90	0.25	7.400	150.73	0.24
7.420	175.78	0.27	7.420	160.59	0.25	7.420	151.30	0.24
7.440	176.62	0.27	7.440	161.16	0.25	7.440	151.84	0.24
7.460	177.46	0.27	7.460	161.79	0.25	7.460	152.37	0.24
7.480	178.14	0.27	7.480	162.44	0.25	7.480	152.93	0.24
7.500	178.55	0.27	7.500	163.10	0.25	7.500	153.51	0.24
7.520	179.03	0.27	7.520	163.75	0.25	7.520	154.04	0.24
7.540	179.70	0.27	7.540	164.31	0.25	7.540	154.64	0.24
7.560	180.36	0.27	7.560	164.99	0.25	7.560	155.16	0.24
7.580	181.12	0.27	7.580	165.63	0.25	7.580	155.73	0.24
7.600	181.95	0.27	7.600	166.32	0.25	7.600	156.30	0.24
7.620	182.80	0.27	7.620	166.92	0.25	7.620	156.86	0.24
7.640	183.63	0.27	7.640	167.60	0.25	7.640	157.43	0.24
7.660	184.53	0.27	7.660	168.21	0.25	7.660	157.98	0.24
7.680	185.42	0.27	7.680	168.87	0.25	7.680	158.57	0.24
7.700	186.30	0.27	7.700	169.52	0.25	7.700	159.14	0.24
7.720	187.21	0.27	7.720	170.17	0.25	7.720	159.72	0.24
7.740	188.12	0.27	7.740	170.79	0.25	7.740	160.29	0.24
7.760	189.05	0.27	7.760	171.49	0.25	7.760	160.82	0.24
7.779	189.97	0.27	7.779	172.15	0.25	7.779	161.44	0.24
7.799	190.84	0.27	7.799	172.78	0.25	7.799	161.98	0.24
7.819	191.48	0.27	7.819	173.45	0.25	7.819	162.57	0.24
7.839	191.94	0.27	7.839	174.12	0.25	7.839	163.14	0.24
7.859	192.46	0.27	7.859	174.82	0.25	7.859	163.69	0.24
7.879	193.01	0.27	7.879	175.44	0.25	7.879	164.34	0.24
7.899	193.60	0.27	7.899	176.17	0.25	7.899	164.92	0.24
7.919	194.14	0.27	7.919	176.80	0.25	7.919	165.45	0.24
7.939	194.63	0.27	7.939	177.52	0.25	7.939	166.08	0.24
7.959	195.34	0.27	7.959	178.20	0.25	7.959	166.69	0.24
7.979	196.16	0.27	7.979	178.90	0.25	7.979	167.21	0.24

7.999	197.09	0.27	7.999	179.58	0.25	7.999	167.84	0.24
8.019	198.00	0.27	8.019	180.23	0.25	8.019	168.44	0.24
8.039	198.92	0.27	8.039	180.96	0.26	8.039	169.03	0.24
8.059	199.85	0.27	8.059	181.64	0.26	8.059	169.59	0.24
8.079	200.77	0.27	8.079	182.33	0.26	8.079	170.22	0.24
8.099	201.68	0.27	8.099	183.04	0.26	8.099	170.78	0.24
8.119	202.58	0.27	8.119	183.72	0.26	8.119	171.39	0.24
8.138	203.47	0.27	8.138	184.45	0.26	8.138	172.03	0.24
8.158	204.35	0.27	8.158	185.16	0.26	8.158	172.63	0.25
8.178	205.24	0.28	8.178	185.88	0.26	8.178	173.17	0.25
8.198	205.85	0.28	8.198	186.62	0.26	8.198	173.77	0.25
8.218	206.55	0.28	8.218	187.35	0.26	8.218	174.41	0.25
8.238	207.25	0.28	8.238	188.01	0.26	8.238	175.01	0.25
8.258	207.96	0.28	8.258	188.75	0.26	8.258	175.64	0.25
8.278	208.69	0.28	8.278	189.47	0.26	8.278	176.21	0.25
8.298	209.35	0.28	8.298	190.19	0.26	8.298	176.81	0.25
8.318	210.02	0.28	8.318	190.89	0.26	8.318	177.45	0.25
8.338	210.89	0.28	8.338	191.64	0.26	8.338	178.05	0.25
8.358	211.82	0.28	8.358	192.35	0.26	8.358	178.64	0.25
8.378	212.76	0.28	8.378	193.09	0.26	8.378	179.30	0.25
8.398	213.71	0.28	8.398	193.83	0.26	8.398	179.87	0.25
8.418	214.66	0.28	8.418	194.60	0.26	8.418	180.51	0.25
8.438	215.63	0.28	8.438	195.33	0.26	8.438	181.13	0.25
8.458	216.56	0.28	8.458	196.08	0.26	8.458	181.75	0.25
8.478	217.48	0.28	8.478	196.81	0.26	8.478	182.37	0.25
8.498	218.40	0.28	8.498	197.52	0.26	8.498	182.96	0.25
8.517	219.36	0.28	8.517	198.32	0.26	8.517	183.60	0.25
8.537	220.21	0.28	8.537	199.05	0.26	8.537	184.26	0.25
8.557	221.00	0.28	8.557	199.83	0.26	8.557	184.87	0.25
8.577	221.74	0.28	8.577	200.55	0.26	8.577	185.52	0.25
8.597	222.42	0.28	8.597	201.32	0.26	8.597	186.14	0.25
8.617	223.26	0.28	8.617	202.09	0.26	8.617	186.76	0.25
8.637	224.18	0.28	8.637	202.83	0.26	8.637	187.39	0.25
8.657	225.17	0.28	8.657	203.61	0.26	8.657	188.03	0.25
8.677	226.21	0.28	8.677	204.40	0.26	8.677	188.64	0.25
8.697	227.18	0.28	8.697	205.20	0.26	8.697	189.32	0.25
8.717	228.06	0.28	8.717	205.91	0.26	8.717	189.95	0.25
8.737	228.97	0.28	8.737	206.75	0.26	8.737	190.60	0.25
8.757	229.98	0.28	8.757	207.48	0.26	8.757	191.19	0.25
8.777	231.11	0.28	8.777	208.27	0.26	8.777	191.87	0.25
8.797	232.19	0.28	8.797	209.07	0.26	8.797	192.51	0.25
8.817	233.27	0.28	8.817	209.83	0.26	8.817	193.14	0.25
8.837	234.34	0.28	8.837	210.60	0.26	8.837	193.78	0.25
8.857	235.41	0.29	8.857	211.42	0.26	8.857	194.46	0.25
8.877	236.47	0.29	8.877	212.19	0.26	8.877	194.92	0.25

8.896	237.53	0.29	8.896	212.98	0.26	8.896	195.54	0.25
8.916	238.47	0.29	8.916	213.80	0.26	8.916	196.19	0.25
8.936	239.56	0.29	8.936	214.62	0.26	8.936	197.03	0.25
8.956	240.45	0.29	8.956	215.43	0.26	8.956	197.62	0.25
8.976	241.40	0.29	8.976	216.23	0.27	8.976	198.22	0.25
8.996	242.36	0.29	8.996	217.06	0.27	8.996	198.93	0.25
9.016	243.39	0.29	9.016	217.83	0.27	9.016	199.66	0.25
9.036	244.44	0.29	9.036	218.59	0.27	9.036	200.26	0.25
9.056	245.42	0.29	9.056	219.44	0.27	9.056	200.93	0.25
9.076	246.46	0.29	9.076	220.22	0.27	9.076	201.61	0.25
9.096	247.53	0.29	9.096	221.07	0.27	9.096	202.32	0.25
9.116	248.57	0.29	9.116	221.87	0.27	9.116	203.01	0.25
9.136	249.71	0.29	9.136	222.79	0.27	9.136	203.65	0.25
9.156	250.81	0.29	9.156	223.60	0.27	9.156	204.32	0.25
9.176	252.06	0.29	9.176	224.45	0.27	9.176	205.03	0.25
9.196	253.16	0.29	9.196	225.27	0.27	9.196	205.68	0.25
9.216	254.28	0.29	9.216	226.14	0.27	9.216	206.41	0.25
9.236	255.41	0.29	9.236	226.99	0.27	9.236	207.07	0.25
9.256	256.54	0.29	9.256	227.84	0.27	9.256	207.80	0.25
9.275	257.77	0.29	9.275	228.67	0.27	9.275	208.48	0.25
9.295	258.93	0.29	9.295	229.58	0.27	9.295	209.20	0.25
9.315	260.04	0.30	9.315	230.43	0.27	9.315	209.89	0.25
9.335	261.09	0.30	9.335	231.21	0.27	9.335	210.64	0.25
9.355	262.12	0.30	9.355	232.10	0.27	9.355	211.36	0.25
9.375	263.08	0.30	9.375	232.97	0.27	9.375	212.01	0.25
9.395	264.09	0.30	9.395	233.88	0.27	9.395	212.76	0.25
9.415	265.22	0.30	9.415	234.71	0.27	9.415	213.44	0.25
9.435	266.42	0.30	9.435	235.59	0.27	9.435	214.16	0.25
9.455	267.46	0.30	9.455	236.50	0.27	9.455	214.91	0.25
9.475	268.55	0.30	9.475	237.38	0.27	9.475	215.60	0.25
9.495	269.70	0.30	9.495	238.23	0.27	9.495	216.31	0.25
9.515	270.85	0.30	9.515	239.16	0.27	9.515	217.01	0.25
9.535	272.06	0.30	9.535	240.02	0.27	9.535	217.75	0.26
9.555	273.29	0.30	9.555	240.91	0.27	9.555	218.47	0.26
9.575	274.51	0.30	9.575	241.82	0.27	9.575	219.23	0.26
9.595	275.76	0.30	9.595	242.64	0.27	9.595	219.93	0.26
9.615	277.04	0.30	9.615	243.33	0.27	9.615	220.66	0.26
9.634	278.27	0.30	9.634	244.28	0.27	9.634	221.42	0.26
9.654	279.47	0.30	9.654	245.15	0.27	9.654	222.16	0.26
9.674	280.73	0.30	9.674	246.04	0.27	9.674	222.86	0.26
9.694	282.04	0.30	9.694	246.99	0.27	9.694	223.64	0.26
9.714	283.36	0.30	9.714	247.90	0.28	9.714	224.34	0.26
9.734	284.45	0.31	9.734	248.84	0.28	9.734	225.14	0.26
9.754	285.72	0.31	9.754	249.78	0.28	9.754	225.85	0.26
9.774	286.83	0.31	9.774	250.68	0.28	9.774	226.57	0.26

9.794	288.07	0.31	9.794	251.58	0.28	9.794	227.33	0.26
9.814	289.28	0.31	9.814	252.53	0.28	9.814	228.08	0.26
9.834	290.46	0.31	9.834	253.47	0.28	9.834	228.83	0.26
9.854	291.84	0.31	9.854	254.42	0.28	9.854	229.57	0.26
9.874	293.10	0.31	9.874	255.36	0.28	9.874	230.35	0.26
9.894	294.33	0.31	9.894	256.29	0.28	9.894	231.08	0.26
9.914	295.56	0.31	9.914	257.22	0.28	9.914	231.90	0.26
9.934	296.81	0.31	9.934	258.17	0.28	9.934	232.65	0.26
9.954	298.27	0.31	9.954	259.11	0.28	9.954	233.39	0.26
9.974	299.59	0.31	9.974	260.09	0.28	9.974	234.14	0.26
9.994	300.93	0.31	9.994	261.00	0.28	9.994	234.93	0.26
10.013	302.31	0.31	10.013	262.00	0.28	10.013	235.70	0.26
10.033	303.64	0.31	10.033	262.98	0.28	10.033	236.44	0.26
10.053	305.02	0.31	10.053	263.92	0.28	10.053	237.24	0.26
10.073	306.36	0.31	10.073	264.89	0.28	10.073	238.02	0.26
10.093	307.71	0.32	10.093	265.86	0.28	10.093	238.82	0.26
10.113	309.03	0.32	10.113	266.83	0.28	10.113	239.61	0.26
10.133	310.31	0.32	10.133	267.88	0.28	10.133	240.32	0.26
10.153	311.48	0.32	10.153	268.86	0.28	10.153	241.16	0.26
10.173	312.68	0.32	10.173	269.80	0.28	10.173	241.93	0.26
10.193	313.92	0.32	10.193	270.75	0.28	10.193	242.71	0.26
10.213	315.17	0.32	10.213	271.77	0.28	10.213	243.52	0.26
10.233	316.54	0.32	10.233	272.76	0.28	10.233	244.31	0.26
10.253	317.87	0.32	10.253	273.80	0.28	10.253	245.09	0.26
10.273	319.30	0.32	10.273	274.74	0.28	10.273	245.92	0.26
10.293	320.67	0.32	10.293	275.77	0.28	10.293	246.71	0.26
10.313	322.12	0.32	10.313	276.81	0.28	10.313	247.47	0.26
10.333	323.61	0.32	10.333	277.81	0.29	10.333	248.26	0.26
10.353	324.99	0.32	10.353	278.82	0.29	10.353	249.09	0.26
10.373	326.42	0.32	10.373	279.85	0.29	10.373	249.88	0.26
10.392	327.84	0.32	10.392	280.90	0.29	10.392	250.69	0.26
10.412	329.24	0.32	10.412	281.90	0.29	10.412	251.53	0.26
10.432	330.59	0.33	10.432	282.94	0.29	10.432	252.34	0.26
10.452	331.96	0.33	10.452	283.97	0.29	10.452	253.13	0.26
10.472	333.37	0.33	10.472	284.99	0.29	10.472	253.92	0.26
10.492	334.68	0.33	10.492	286.08	0.29	10.492	254.74	0.27
10.512	336.01	0.33	10.512	287.09	0.29	10.512	255.57	0.27
10.532	337.30	0.33	10.532	288.11	0.29	10.532	256.37	0.27
10.552	338.78	0.33	10.552	289.22	0.29	10.552	257.23	0.27
10.572	340.13	0.33	10.572	290.28	0.29	10.572	258.06	0.27
10.592	341.69	0.33	10.592	291.35	0.29	10.592	258.87	0.27
10.612	343.23	0.33	10.612	292.40	0.29	10.612	259.67	0.27
10.632	344.77	0.33	10.632	293.52	0.29	10.632	260.58	0.27
10.652	346.20	0.33	10.652	294.54	0.29	10.652	261.35	0.27
10.672	347.63	0.33	10.672	295.60	0.29	10.672	262.16	0.27

10.692	349.08	0.33	10.692	296.72	0.29	10.692	263.03	0.27
10.712	350.48	0.33	10.712	297.77	0.29	10.712	263.85	0.27
10.732	351.79	0.33	10.732	298.89	0.29	10.732	264.68	0.27
10.752	353.21	0.33	10.752	299.90	0.29	10.752	265.54	0.27
10.771	354.73	0.34	10.771	300.99	0.29	10.771	266.39	0.27
10.791	356.14	0.34	10.791	302.11	0.29	10.791	267.24	0.27
10.811	357.55	0.34	10.811	303.18	0.29	10.811	268.08	0.27
10.831	358.89	0.34	10.831	304.29	0.29	10.831	268.93	0.27
10.851	360.27	0.34	10.851	305.36	0.29	10.851	269.78	0.27
10.871	361.77	0.34	10.871	306.42	0.30	10.871	270.59	0.27
10.891	363.19	0.34	10.891	307.56	0.30	10.891	271.42	0.27
10.911	364.74	0.34	10.911	308.67	0.30	10.911	272.30	0.27
10.931	366.25	0.34	10.931	309.73	0.30	10.931	273.19	0.27
10.951	367.82	0.34	10.951	310.83	0.30	10.951	274.05	0.27
10.971	369.31	0.34	10.971	311.90	0.30	10.971	274.87	0.27
10.991	370.91	0.34	10.991	313.04	0.30	10.991	275.74	0.27
11.011	372.39	0.34	11.011	314.18	0.30	11.011	276.60	0.27
11.031	373.83	0.34	11.031	315.28	0.30	11.031	277.46	0.27
11.051	375.27	0.34	11.051	316.43	0.30	11.051	278.38	0.27
11.071	376.64	0.34	11.071	317.52	0.30	11.071	279.20	0.27
11.091	378.04	0.35	11.091	318.64	0.30	11.091	280.10	0.27
11.111	379.32	0.35	11.111	319.84	0.30	11.111	280.99	0.27
11.130	380.84	0.35	11.130	320.95	0.30	11.130	281.87	0.27
11.150	382.35	0.35	11.150	322.04	0.30	11.150	282.74	0.27
11.170	383.85	0.35	11.170	323.18	0.30	11.170	283.68	0.27
11.190	385.45	0.35	11.190	324.29	0.30	11.190	284.54	0.27
11.210	386.94	0.35	11.210	325.45	0.30	11.210	285.42	0.27
11.230	388.49	0.35	11.230	326.64	0.30	11.230	286.34	0.27
11.250	390.00	0.35	11.250	327.81	0.30	11.250	287.22	0.27
11.270	391.44	0.35	11.270	328.95	0.30	11.270	288.16	0.27
11.290	392.90	0.35	11.290	330.09	0.30	11.290	289.05	0.28
11.310	394.30	0.35	11.310	331.24	0.30	11.310	289.99	0.28
11.330	395.55	0.35	11.330	332.43	0.30	11.330	290.88	0.28
11.350	396.91	0.35	11.350	333.60	0.30	11.350	291.76	0.28
11.370	398.28	0.35	11.370	334.71	0.31	11.370	292.66	0.28
11.390	399.63	0.35	11.390	335.90	0.31	11.390	293.61	0.28
11.410	401.05	0.35	11.410	337.06	0.31	11.410	294.51	0.28
11.430	402.50	0.36	11.430	338.22	0.31	11.430	295.42	0.28
11.450	404.01	0.36	11.450	339.32	0.31	11.450	296.34	0.28
11.470	405.64	0.36	11.470	340.49	0.31	11.470	297.22	0.28
11.490	407.13	0.36	11.490	341.73	0.31	11.490	298.18	0.28
11.509	408.64	0.36	11.509	342.87	0.31	11.509	299.08	0.28
11.529	410.16	0.36	11.529	344.02	0.31	11.529	299.99	0.28
11.549	411.63	0.36	11.549	345.19	0.31	11.549	300.91	0.28
11.569	413.21	0.36	11.569	346.31	0.31	11.569	301.85	0.28

11.589	414.75	0.36	11.589	347.45	0.31	11.589	302.81	0.28
11.609	416.30	0.36	11.609	348.63	0.31	11.609	303.73	0.28
11.629	417.92	0.36	11.629	349.85	0.31	11.629	304.66	0.28
11.649	419.43	0.36	11.649	351.05	0.31	11.649	305.57	0.28
11.669	421.09	0.36	11.669	352.25	0.31	11.669	306.48	0.28
11.689	422.66	0.36	11.689	353.39	0.31	11.689	307.43	0.28
11.709	424.20	0.36	11.709	354.62	0.31	11.709	308.38	0.28
11.729	425.71	0.36	11.729	355.81	0.31	11.729	309.30	0.28
11.749	427.26	0.37	11.749	356.98	0.31	11.749	310.28	0.28
11.769	428.79	0.37	11.769	358.16	0.31	11.769	311.21	0.28
11.789	430.26	0.37	11.789	359.35	0.31	11.789	312.19	0.28
11.809	431.68	0.37	11.809	360.55	0.31	11.809	313.16	0.28
11.829	432.99	0.37	11.829	361.62	0.31	11.829	314.08	0.28
11.849	434.52	0.37	11.849	362.82	0.32	11.849	315.04	0.28
11.869	436.10	0.37	11.869	364.07	0.32	11.869	316.00	0.28
11.888	437.60	0.37	11.888	365.33	0.32	11.888	317.00	0.28
11.908	439.15	0.37	11.908	366.55	0.32	11.908	317.92	0.28
11.928	440.74	0.37	11.928	367.72	0.32	11.928	318.92	0.28
11.948	442.31	0.37	11.948	368.95	0.32	11.948	319.90	0.28
11.968	443.86	0.37	11.968	370.10	0.32	11.968	320.84	0.28
11.988	445.39	0.37	11.988	371.33	0.32	11.988	321.79	0.29
12.008	446.91	0.37	12.008	372.56	0.32	12.008	322.76	0.29
12.028	448.41	0.37	12.028	373.79	0.32	12.028	323.74	0.29
12.048	449.97	0.37	12.048	374.98	0.32	12.048	324.73	0.29
12.068	451.47	0.37	12.068	376.22	0.32	12.068	325.70	0.29
12.088	452.91	0.38	12.088	377.38	0.32	12.088	326.63	0.29
12.108	454.38	0.38	12.108	378.53	0.32	12.108	327.62	0.29
12.128	455.85	0.38	12.128	379.79	0.32	12.128	328.58	0.29
12.148	457.31	0.38	12.148	380.91	0.32	12.148	329.52	0.29
12.168	458.73	0.38	12.168	382.06	0.32	12.168	330.56	0.29
12.188	460.07	0.38	12.188	383.34	0.32	12.188	331.56	0.29
12.208	461.48	0.38	12.208	384.59	0.32	12.208	332.51	0.29
12.228	462.82	0.38	12.228	385.80	0.32	12.228	333.50	0.29
12.248	464.21	0.38	12.248	387.08	0.32	12.248	334.47	0.29
12.267	465.54	0.38	12.267	388.35	0.32	12.267	335.49	0.29
12.287	466.67	0.38	12.287	389.61	0.33	12.287	336.48	0.29
12.307	467.92	0.38	12.307	390.87	0.33	12.307	337.46	0.29
12.327	469.58	0.38	12.327	392.06	0.33	12.327	338.49	0.29
12.347	471.11	0.38	12.347	393.37	0.33	12.347	339.48	0.29
12.367	472.74	0.38	12.367	394.58	0.33	12.367	340.44	0.29
12.387	474.29	0.38	12.387	395.83	0.33	12.387	341.46	0.29
12.407	475.91	0.38	12.407	397.15	0.33	12.407	342.47	0.29
12.427	477.46	0.38	12.427	398.35	0.33	12.427	343.46	0.29
12.447	479.00	0.39	12.447	399.67	0.33	12.447	344.47	0.29
12.467	480.49	0.39	12.467	400.89	0.33	12.467	345.46	0.29

12.487	481.93	0.39	12.487	402.13	0.33	12.487	346.50	0.29
12.507	483.45	0.39	12.507	403.41	0.33	12.507	347.53	0.29
12.527	484.87	0.39	12.527	404.64	0.33	12.527	348.55	0.29
12.547	486.34	0.39	12.547	405.95	0.33	12.547	349.50	0.29
12.567	487.68	0.39	12.567	407.17	0.33	12.567	350.51	0.29
12.587	489.05	0.39	12.587	408.41	0.33	12.587	351.54	0.29
12.607	490.38	0.39	12.607	409.61	0.33	12.607	352.57	0.30
12.626	491.69	0.39	12.626	410.87	0.33	12.626	353.53	0.30
12.646	493.10	0.39	12.646	412.06	0.33	12.646	354.56	0.30
12.666	494.40	0.39	12.666	413.31	0.33	12.666	355.60	0.30
12.686	495.72	0.39	12.686	414.56	0.33	12.686	356.54	0.30
12.706	497.02	0.39	12.706	415.79	0.33	12.706	357.60	0.30
12.726	498.32	0.39	12.726	416.97	0.33	12.726	358.64	0.30
12.746	499.55	0.39	12.746	418.16	0.34	12.746	359.60	0.30
12.766	500.78	0.39	12.766	419.42	0.34	12.766	360.59	0.30
12.786	502.05	0.39	12.786	420.67	0.34	12.786	361.65	0.30
12.806	503.26	0.39	12.806	421.90	0.34	12.806	362.65	0.30
12.826	504.45	0.39	12.826	423.11	0.34	12.826	363.69	0.30
12.846	505.64	0.39	12.846	424.35	0.34	12.846	364.69	0.30
12.866	506.86	0.39	12.866	425.56	0.34	12.866	365.65	0.30
12.886	508.12	0.39	12.886	426.74	0.34	12.886	366.66	0.30
12.906	509.41	0.40	12.906	427.90	0.34	12.906	367.69	0.30
12.926	510.64	0.40	12.926	429.15	0.34	12.926	368.70	0.30
12.946	511.92	0.40	12.946	430.32	0.34	12.946	369.72	0.30
12.966	513.19	0.40	12.966	431.55	0.34	12.966	370.77	0.30
12.986	514.42	0.40	12.986	432.86	0.34	12.986	371.78	0.30
13.005	515.58	0.40	13.005	434.07	0.34	13.005	372.80	0.30
13.025	516.81	0.40	13.025	435.27	0.34	13.025	373.85	0.30
13.045	517.98	0.40	13.045	436.55	0.34	13.045	374.90	0.30
13.065	519.09	0.40	13.065	437.73	0.34	13.065	375.89	0.30
13.085	520.26	0.40	13.085	438.95	0.34	13.085	376.89	0.30
13.105	521.54	0.40	13.105	440.16	0.34	13.105	377.90	0.30
13.125	522.80	0.40	13.125	441.38	0.34	13.125	378.93	0.30
13.145	524.05	0.40	13.145	442.61	0.34	13.145	379.96	0.30
13.165	525.29	0.40	13.165	443.80	0.34	13.165	380.96	0.30
13.185	526.47	0.40	13.185	444.95	0.34	13.185	381.97	0.31
13.205	527.77	0.40	13.205	446.19	0.35	13.205	382.97	0.31
13.225	528.95	0.40	13.225	447.42	0.35	13.225	383.95	0.31
13.245	530.12	0.40	13.245	448.67	0.35	13.245	384.91	0.31
13.265	531.35	0.40	13.265	449.75	0.35	13.265	385.94	0.31
13.285	532.48	0.40	13.285	450.96	0.35	13.285	386.92	0.31
13.305	533.65	0.40	13.305	452.18	0.35	13.305	387.92	0.31
13.325	534.77	0.40	13.325	453.37	0.35	13.325	388.94	0.31
13.345	535.88	0.40	13.345	454.54	0.35	13.345	389.91	0.31
13.365	537.01	0.40	13.365	455.70	0.35	13.365	390.88	0.31

13.384	538.17	0.40	13.384	456.87	0.35	13.384	391.85	0.31
13.404	539.25	0.40	13.404	458.03	0.35	13.404	392.83	0.31
13.424	540.34	0.40	13.424	459.19	0.35	13.424	393.80	0.31
13.444	541.37	0.40	13.444	460.33	0.35	13.444	394.76	0.31
13.464	542.43	0.40	13.464	461.50	0.35	13.464	395.74	0.31
13.484	543.51	0.40	13.484	462.68	0.35	13.484	396.75	0.31
13.504	544.60	0.41	13.504	463.79	0.35	13.504	397.69	0.31
13.524	545.59	0.41	13.524	464.94	0.35	13.524	398.67	0.31
13.544	546.56	0.41	13.544	466.04	0.35	13.544	399.65	0.31
13.564	547.54	0.41	13.564	467.16	0.35	13.564	400.60	0.31
13.584	548.59	0.41	13.584	468.32	0.35	13.584	401.63	0.31
13.604	549.64	0.41	13.604	469.42	0.35	13.604	402.63	0.31
13.624	550.73	0.41	13.624	470.52	0.35	13.624	403.65	0.31
13.644	551.76	0.41	13.644	471.62	0.35	13.644	404.65	0.31
13.664	552.83	0.41	13.664	472.67	0.35	13.664	405.66	0.31
13.684	553.83	0.41	13.684	473.80	0.35	13.684	406.61	0.31
13.704	554.85	0.41	13.704	474.89	0.36	13.704	407.61	0.31
13.724	555.83	0.41	13.724	475.91	0.36	13.724	408.68	0.31
13.744	556.76	0.41	13.744	476.96	0.36	13.744	409.58	0.31
13.763	557.77	0.41	13.763	478.06	0.36	13.763	410.58	0.31
13.783	558.75	0.41	13.783	479.15	0.36	13.783	411.57	0.31
13.803	559.73	0.41	13.803	480.25	0.36	13.803	412.55	0.32
13.823	560.64	0.41	13.823	481.36	0.36	13.823	413.58	0.32
13.843	561.53	0.41	13.843	482.44	0.36	13.843	414.59	0.32
13.863	562.45	0.41	13.863	483.55	0.36	13.863	415.51	0.32
13.883	563.42	0.41	13.883	484.68	0.36	13.883	416.51	0.32
13.903	564.49	0.41	13.903	485.72	0.36	13.903	417.44	0.32
13.923	565.53	0.41	13.923	486.81	0.36	13.923	418.45	0.32
13.943	566.49	0.41	13.943	487.91	0.36	13.943	419.42	0.32
13.963	567.48	0.41	13.963	488.98	0.36	13.963	420.38	0.32
13.983	568.53	0.41	13.983	490.05	0.36	13.983	421.31	0.32
14.003	569.46	0.41	14.003	491.07	0.36	14.003	422.26	0.32
14.023	570.46	0.41	14.023	492.12	0.36	14.023	423.22	0.32
14.043	571.50	0.41	14.043	493.21	0.36	14.043	424.19	0.32
14.063	572.44	0.41	14.063	494.17	0.36	14.063	425.15	0.32
14.083	573.39	0.41	14.083	495.23	0.36	14.083	426.03	0.32
14.103	574.42	0.41	14.103	496.29	0.36	14.103	426.94	0.32
14.122	575.38	0.41	14.122	497.35	0.36	14.122	427.97	0.32
14.142	576.39	0.41	14.142	498.38	0.36	14.142	428.95	0.32
14.162	577.37	0.41	14.162	499.41	0.36	14.162	429.98	0.32
14.182	578.30	0.41	14.182	500.49	0.36	14.182	430.95	0.32
14.202	579.25	0.41	14.202	501.59	0.36	14.202	432.00	0.32
14.222	580.19	0.41	14.222	502.62	0.36	14.222	433.00	0.32
14.242	581.11	0.41	14.242	503.63	0.36	14.242	434.03	0.32
14.262	582.06	0.41	14.262	504.70	0.36	14.262	434.93	0.32



14.282	582.95	0.41	14.282	505.71	0.37	14.282	435.95	0.32
14.302	583.93	0.41	14.302	506.76	0.37	14.302	436.93	0.32
14.322	584.92	0.42	14.322	507.78	0.37	14.322	437.96	0.32
14.342	585.79	0.42	14.342	508.80	0.37	14.342	438.89	0.32
14.362	586.74	0.42	14.362	509.88	0.37	14.362	439.87	0.32
14.382	587.68	0.42	14.382	510.91	0.37	14.382	440.85	0.32
14.402	588.56	0.42	14.402	511.92	0.37	14.402	441.81	0.33
14.422	589.46	0.42	14.422	512.90	0.37	14.422	442.75	0.33
14.442	590.37	0.42	14.442	513.90	0.37	14.442	443.72	0.33
14.462	591.22	0.42	14.462	514.91	0.37	14.462	444.72	0.33
14.482	592.19	0.42	14.482	515.93	0.37	14.482	445.71	0.33
14.501	593.00	0.42	14.501	516.90	0.37	14.501	446.63	0.33
14.521	593.90	0.42	14.521	517.92	0.37	14.521	447.63	0.33
14.541	594.78	0.42	14.541	518.88	0.37	14.541	448.59	0.33
14.561	595.59	0.42	14.561	519.89	0.37	14.561	449.60	0.33
14.581	596.50	0.42	14.581	520.81	0.37	14.581	450.52	0.33
14.601	597.33	0.42	14.601	521.83	0.37	14.601	451.43	0.33
14.621	598.19	0.42	14.621	522.79	0.37	14.621	452.40	0.33
14.641	599.05	0.42	14.641	523.77	0.37	14.641	453.38	0.33
14.661	599.92	0.42	14.661	524.77	0.37	14.661	454.31	0.33
14.681	600.76	0.42	14.681	525.77	0.37	14.681	455.27	0.33
14.701	601.58	0.42	14.701	526.75	0.37	14.701	456.24	0.33
14.721	602.38	0.42	14.721	527.70	0.37	14.721	457.24	0.33
14.741	603.23	0.42	14.741	528.68	0.37	14.741	458.17	0.33
14.761	604.06	0.42	14.761	529.65	0.37	14.761	459.10	0.33
14.781	604.86	0.42	14.781	530.52	0.37	14.781	460.03	0.33
14.801	605.71	0.42	14.801	531.49	0.37	14.801	461.00	0.33
14.821	606.48	0.42	14.821	532.47	0.37	14.821	461.95	0.33
14.841	607.28	0.42	14.841	533.36	0.37	14.841	462.85	0.33
14.861	608.12	0.42	14.861	534.35	0.37	14.861	463.76	0.33
14.880	608.89	0.42	14.880	535.30	0.37	14.880	464.66	0.33
14.900	609.65	0.42	14.900	536.25	0.38	14.900	465.60	0.33
14.920	610.39	0.42	14.920	537.19	0.38	14.920	466.54	0.33
14.940	611.15	0.42	14.940	538.09	0.38	14.940	467.47	0.33
14.960	611.89	0.42	14.960	539.00	0.38	14.960	468.37	0.33
14.980	612.65	0.42	14.980	539.90	0.38	14.980	469.32	0.33
15.000	613.36	0.42	15.000	540.80	0.38	15.000	470.21	0.34
15.020	614.09	0.42	15.020	541.71	0.38	15.020	471.16	0.34
15.040	614.86	0.42	15.040	542.63	0.38	15.040	472.12	0.34
15.060	615.60	0.42	15.060	543.54	0.38	15.060	473.01	0.34
15.080	616.31	0.42	15.080	544.45	0.38	15.080	473.92	0.34
15.100	617.05	0.42	15.100	545.35	0.38	15.100	474.89	0.34
15.120	617.76	0.42	15.120	546.22	0.38	15.120	475.82	0.34
15.140	618.43	0.42	15.140	547.14	0.38	15.140	476.73	0.34
15.160	619.13	0.42	15.160	548.00	0.38	15.160	477.66	0.34

15.180	619.83	0.42	15.180	548.85	0.38	15.180	478.49	0.34
15.200	620.54	0.42	15.200	549.76	0.38	15.200	479.42	0.34
15.220	621.21	0.42	15.220	550.60	0.38	15.220	480.31	0.34
15.239	621.84	0.42	15.239	551.50	0.38	15.239	481.22	0.34
15.259	622.58	0.42	15.259	552.34	0.38	15.259	482.10	0.34
15.279	623.27	0.42	15.279	553.20	0.38	15.279	482.96	0.34
15.299	624.03	0.42	15.299	554.02	0.38	15.299	483.87	0.34
15.319	624.72	0.42	15.319	554.91	0.38	15.319	484.70	0.34
15.339	625.44	0.42	15.339	555.72	0.38	15.339	485.56	0.34
15.359	626.12	0.42	15.359	556.56	0.38	15.359	486.47	0.34
15.379	626.80	0.42	15.379	557.39	0.38	15.379	487.31	0.34
15.399	627.53	0.42	15.399	558.28	0.38	15.399	488.20	0.34
15.419	628.18	0.42	15.419	559.06	0.38	15.419	489.06	0.34
15.439	628.90	0.42	15.439	559.89	0.38	15.439	489.93	0.34
15.459	629.55	0.42	15.459	560.67	0.38	15.459	490.86	0.34
15.479	630.25	0.42	15.479	561.55	0.38	15.479	491.65	0.34
15.499	630.87	0.42	15.499	562.34	0.38	15.499	492.53	0.34
15.519	631.50	0.43	15.519	563.17	0.38	15.519	493.38	0.34
15.539	632.20	0.43	15.539	563.97	0.38	15.539	494.22	0.34
15.559	632.84	0.43	15.559	564.78	0.38	15.559	495.08	0.34
15.579	633.47	0.43	15.579	565.61	0.38	15.579	495.90	0.34
15.599	634.08	0.43	15.599	566.33	0.38	15.599	496.71	0.34
15.618	634.70	0.43	15.618	567.14	0.39	15.618	497.56	0.34
15.638	635.33	0.43	15.638	567.91	0.39	15.638	498.41	0.35
15.658	635.94	0.43	15.658	568.68	0.39	15.658	499.21	0.35
15.678	636.58	0.43	15.678	569.45	0.39	15.678	500.03	0.35
15.698	637.18	0.43	15.698	570.23	0.39	15.698	500.83	0.35
15.718	637.78	0.43	15.718	571.01	0.39	15.718	501.62	0.35
15.738	638.38	0.43	15.738	571.80	0.39	15.738	502.44	0.35
15.758	638.96	0.43	15.758	572.51	0.39	15.758	503.22	0.35
15.778	639.67	0.43	15.778	573.29	0.39	15.778	503.98	0.35
15.798	640.29	0.43	15.798	574.06	0.39	15.798	504.80	0.35
15.818	640.93	0.43	15.818	574.77	0.39	15.818	505.60	0.35
15.838	641.56	0.43	15.838	575.55	0.39	15.838	506.36	0.35
15.858	642.19	0.43	15.858	576.29	0.39	15.858	507.20	0.35
15.878	642.80	0.43	15.878	577.02	0.39	15.878	507.91	0.35
15.898	643.43	0.43	15.898	577.80	0.39	15.898	508.69	0.35
15.918	644.03	0.43	15.918	578.53	0.39	15.918	509.47	0.35
15.938	644.66	0.43	15.938	579.22	0.39	15.938	510.32	0.35
15.958	645.35	0.43	15.958	579.99	0.39	15.958	511.13	0.35
15.978	645.90	0.43	15.978	580.68	0.39	15.978	511.89	0.35
15.997	646.54	0.43	15.997	581.35	0.39	15.997	512.73	0.35
16.017	647.23	0.43	16.017	582.12	0.39	16.017	513.53	0.35
16.037	647.81	0.43	16.037	582.85	0.39	16.037	514.39	0.35
16.057	648.42	0.43	16.057	583.50	0.39	16.057	515.18	0.35

16.077	649.04	0.43	16.077	584.25	0.39	16.077	516.02	0.35
16.097	649.64	0.43	16.097	584.92	0.39	16.097	516.83	0.35
16.117	650.27	0.43	16.117	585.60	0.39	16.117	517.66	0.35
16.137	650.86	0.43	16.137	586.29	0.39	16.137	518.37	0.35
16.157	651.51	0.43	16.157	587.00	0.39	16.157	519.19	0.35
16.177	652.07	0.43	16.177	587.65	0.39	16.177	519.99	0.35
16.197	652.66	0.43	16.197	588.34	0.39	16.197	520.73	0.35
16.217	653.22	0.43	16.217	589.03	0.39	16.217	521.48	0.35
16.237	653.86	0.43	16.237	589.64	0.39	16.237	522.33	0.35
16.257	654.42	0.43	16.257	590.31	0.39	16.257	523.15	0.35
16.277	654.97	0.43	16.277	590.92	0.39	16.277	523.91	0.35
16.297	655.59	0.43	16.297	591.60	0.39	16.297	524.68	0.35
16.317	656.14	0.43	16.317	592.30	0.39	16.317	525.51	0.35
16.337	656.74	0.43	16.337	593.00	0.39	16.337	526.36	0.36
16.357	657.31	0.43	16.357	593.66	0.39	16.357	527.06	0.36
16.376	657.92	0.43	16.376	594.39	0.39	16.376	527.79	0.36
16.396	658.44	0.43	16.396	595.09	0.39	16.396	528.57	0.36
16.416	659.06	0.43	16.416	595.73	0.39	16.416	529.31	0.36
16.436	659.60	0.43	16.436	596.45	0.39	16.436	530.06	0.36
16.456	660.13	0.43	16.456	597.14	0.39	16.456	530.84	0.36
16.476	660.72	0.43	16.476	597.76	0.39	16.476	531.63	0.36
16.496	661.28	0.43	16.496	598.43	0.39	16.496	532.32	0.36
16.516	661.81	0.43	16.516	599.11	0.39	16.516	533.06	0.36
16.536	662.39	0.43	16.536	599.80	0.40	16.536	533.80	0.36
16.556	662.91	0.43	16.556	600.46	0.40	16.556	534.51	0.36
16.576	663.48	0.43	16.576	601.10	0.40	16.576	535.32	0.36
16.596	664.04	0.43	16.596	601.77	0.40	16.596	536.02	0.36
16.616	664.58	0.43	16.616	602.44	0.40	16.616	536.75	0.36
16.636	665.07	0.43	16.636	603.05	0.40	16.636	537.49	0.36
16.656	665.65	0.43	16.656	603.74	0.40	16.656	538.26	0.36
16.676	666.16	0.43	16.676	604.37	0.40	16.676	539.01	0.36
16.696	666.67	0.43	16.696	605.02	0.40	16.696	539.72	0.36
16.716	667.22	0.43	16.716	605.66	0.40	16.716	540.47	0.36
16.735	667.78	0.43	16.735	606.28	0.40	16.735	541.19	0.36
16.755	668.30	0.43	16.755	606.92	0.40	16.755	541.90	0.36
16.775	668.83	0.43	16.775	607.53	0.40	16.775	542.61	0.36
16.795	669.29	0.43	16.795	608.14	0.40	16.795	543.30	0.36
16.815	669.84	0.43	16.815	608.78	0.40	16.815	544.00	0.36
16.835	670.33	0.43	16.835	609.40	0.40	16.835	544.69	0.36
16.855	670.84	0.43	16.855	610.01	0.40	16.855	545.42	0.36
16.875	671.36	0.43	16.875	610.62	0.40	16.875	546.13	0.36
16.895	671.85	0.43	16.895	611.20	0.40	16.895	546.83	0.36
16.915	672.36	0.43	16.915	611.72	0.40	16.915	547.52	0.36
16.935	672.85	0.43	16.935	612.35	0.40	16.935	548.17	0.36
16.955	673.36	0.43	16.955	613.01	0.40	16.955	548.82	0.36

16.975	673.85	0.43	16.975	613.63	0.40	16.975	549.53	0.36
16.995	674.41	0.43	16.995	614.23	0.40	16.995	550.30	0.36
17.015	674.89	0.43	17.015	614.89	0.40	17.015	550.92	0.36
17.035	675.33	0.43	17.035	615.51	0.40	17.035	551.61	0.36
17.055	675.82	0.43	17.055	616.09	0.40	17.055	552.23	0.36
17.075	676.29	0.43	17.075	616.73	0.40	17.075	552.87	0.36
17.095	676.77	0.43	17.095	617.30	0.40	17.095	553.53	0.37
17.114	677.25	0.43	17.114	617.91	0.40	17.114	554.17	0.37
17.134	677.70	0.43	17.134	618.51	0.40	17.134	554.84	0.37
17.154	678.21	0.44	17.154	619.11	0.40	17.154	555.52	0.37
17.174	678.71	0.44	17.174	619.70	0.40	17.174	556.18	0.37
17.194	679.13	0.44	17.194	620.30	0.40	17.194	556.83	0.37
17.214	679.62	0.44	17.214	620.89	0.40	17.214	557.46	0.37
17.234	680.07	0.44	17.234	621.48	0.40	17.234	558.09	0.37
17.254	680.52	0.44	17.254	622.08	0.40	17.254	558.73	0.37
17.274	681.00	0.44	17.274	622.69	0.40	17.274	559.41	0.37
17.294	681.45	0.44	17.294	623.24	0.40	17.294	560.01	0.37
17.314	681.85	0.44	17.314	623.85	0.40	17.314	560.64	0.37
17.334	682.33	0.44	17.334	624.46	0.40	17.334	561.22	0.37
17.354	682.75	0.44	17.354	625.03	0.40	17.354	561.80	0.37
17.374	683.21	0.44	17.374	625.59	0.40	17.374	562.47	0.37
17.394	683.64	0.44	17.394	626.16	0.40	17.394	563.13	0.37
17.414	684.05	0.44	17.414	626.74	0.40	17.414	563.74	0.37
17.434	684.50	0.44	17.434	627.34	0.40	17.434	564.43	0.37
17.454	684.89	0.44	17.454	627.85	0.40	17.454	565.08	0.37
17.474	685.32	0.44	17.474	628.45	0.40	17.474	565.73	0.37
17.493	685.75	0.44	17.493	628.96	0.40	17.493	566.33	0.37
17.513	686.17	0.44	17.513	629.58	0.40	17.513	567.01	0.37
17.533	686.61	0.44	17.533	630.17	0.40	17.533	567.68	0.37
17.553	687.09	0.44	17.553	630.71	0.40	17.553	568.29	0.37
17.573	687.52	0.44	17.573	631.23	0.41	17.573	569.00	0.37
17.593	687.98	0.44	17.593	631.81	0.41	17.593	569.60	0.37
17.613	688.46	0.44	17.613	632.39	0.41	17.613	570.21	0.37
17.633	688.91	0.44	17.633	632.89	0.41	17.633	570.86	0.37
17.653	689.35	0.44	17.653	633.49	0.41	17.653	571.45	0.37
17.673	689.85	0.44	17.673	634.02	0.41	17.673	572.09	0.37
17.693	690.25	0.44	17.693	634.56	0.41	17.693	572.65	0.37
17.713	690.68	0.44	17.713	635.10	0.41	17.713	573.28	0.37
17.733	691.12	0.44	17.733	635.63	0.41	17.733	573.93	0.37
17.753	691.61	0.44	17.753	636.22	0.41	17.753	574.57	0.37
17.773	692.08	0.44	17.773	636.74	0.41	17.773	575.22	0.37
17.793	692.46	0.44	17.793	637.31	0.41	17.793	575.88	0.37
17.813	692.92	0.44	17.813	637.82	0.41	17.813	576.46	0.37
17.833	693.32	0.44	17.833	638.36	0.41	17.833	577.10	0.37
17.853	693.77	0.44	17.853	638.89	0.41	17.853	577.66	0.37

17.872	694.21	0.44	17.872	639.42	0.41	17.872	578.28	0.37
17.892	694.62	0.44	17.892	639.94	0.41	17.892	578.96	0.37
17.912	695.07	0.44	17.912	640.50	0.41	17.912	579.54	0.37
17.932	695.49	0.44	17.932	641.02	0.41	17.932	580.14	0.37
17.952	695.91	0.44	17.952	641.54	0.41	17.952	580.76	0.38
17.972	696.33	0.44	17.972	642.02	0.41	17.972	581.36	0.38
17.992	696.76	0.44	17.992	642.60	0.41	17.992	581.94	0.38
18.012	697.22	0.44	18.012	643.13	0.41	18.012	582.51	0.38
18.032	697.64	0.44	18.032	643.63	0.41	18.032	583.12	0.38
18.052	698.06	0.44	18.052	644.11	0.41	18.052	583.74	0.38
18.072	698.48	0.44	18.072	644.65	0.41	18.072	584.35	0.38
18.092	698.89	0.44	18.092	645.16	0.41	18.092	584.93	0.38
18.112	699.29	0.44	18.112	645.70	0.41	18.112	585.56	0.38
18.132	699.69	0.44	18.132	646.22	0.41	18.132	586.13	0.38
18.152	700.07	0.44	18.152	646.73	0.41	18.152	586.72	0.38
18.172	700.45	0.44	18.172	647.18	0.41	18.172	587.29	0.38
18.192	700.90	0.44	18.192	647.73	0.41	18.192	587.89	0.38
18.212	701.29	0.44	18.212	648.20	0.41	18.212	588.47	0.38
18.231	701.67	0.44	18.231	648.75	0.41	18.231	589.04	0.38
18.251	702.06	0.44	18.251	649.25	0.41	18.251	589.68	0.38
18.271	702.43	0.44	18.271	649.74	0.41	18.271	590.22	0.38
18.291	702.81	0.44	18.291	650.22	0.41	18.291	590.80	0.38
18.311	703.25	0.44	18.311	650.69	0.41	18.311	591.36	0.38
18.331	703.63	0.44	18.331	651.21	0.41	18.331	591.92	0.38
18.351	703.99	0.44	18.351	651.68	0.41	18.351	592.50	0.38
18.371	704.38	0.44	18.371	652.18	0.41	18.371	593.08	0.38
18.391	704.74	0.44	18.391	652.67	0.41	18.391	593.63	0.38
18.411	705.09	0.44	18.411	653.13	0.41	18.411	594.19	0.38
18.431	705.48	0.44	18.431	653.66	0.41	18.431	594.73	0.38
18.451	705.85	0.44	18.451	654.16	0.41	18.451	595.27	0.38
18.471	706.23	0.44	18.471	654.67	0.41	18.471	595.82	0.38
18.491	706.62	0.44	18.491	655.12	0.41	18.491	596.42	0.38
18.511	706.95	0.44	18.511	655.61	0.41	18.511	596.98	0.38
18.531	707.33	0.44	18.531	656.10	0.41	18.531	597.49	0.38
18.551	707.69	0.44	18.551	656.54	0.41	18.551	598.04	0.38
18.571	708.11	0.44	18.571	657.05	0.41	18.571	598.63	0.38
18.591	708.57	0.44	18.591	657.53	0.41	18.591	599.18	0.38
18.610	708.89	0.44	18.610	658.02	0.41	18.610	599.72	0.38
18.630	709.31	0.44	18.630	658.48	0.41	18.630	600.30	0.38
18.650	709.74	0.44	18.650	658.91	0.41	18.650	600.87	0.38
18.670	710.10	0.44	18.670	659.39	0.41	18.670	601.39	0.38
18.690	710.49	0.44	18.690	659.87	0.41	18.690	601.94	0.38
18.710	710.87	0.44	18.710	660.36	0.41	18.710	602.42	0.38
18.730	711.26	0.44	18.730	660.84	0.42	18.730	602.98	0.38
18.750	711.73	0.44	18.750	661.27	0.42	18.750	603.49	0.38

18.770	712.07	0.44	18.770	661.72	0.42	18.770	604.02	0.38
18.790	712.46	0.44	18.790	662.19	0.42	18.790	604.57	0.38
18.810	712.87	0.44	18.810	662.66	0.42	18.810	605.10	0.38
18.830	713.23	0.44	18.830	663.11	0.42	18.830	605.63	0.38
18.850	713.62	0.44	18.850	663.58	0.42	18.850	606.15	0.38
18.870	714.02	0.44	18.870	664.04	0.42	18.870	606.67	0.38
18.890	714.39	0.44	18.890	664.49	0.42	18.890	607.19	0.39
18.910	714.81	0.44	18.910	664.95	0.42	18.910	607.71	0.39
18.930	715.10	0.44	18.930	665.41	0.42	18.930	608.28	0.39
18.950	715.54	0.44	18.950	665.86	0.42	18.950	608.80	0.39
18.970	715.96	0.44	18.970	666.31	0.42	18.970	609.29	0.39
18.989	716.31	0.44	18.989	666.77	0.42	18.989	609.81	0.39
19.009	716.67	0.44	19.009	667.21	0.42	19.009	610.30	0.39
19.029	717.05	0.44	19.029	667.66	0.42	19.029	610.79	0.39
19.049	717.39	0.44	19.049	668.10	0.42	19.049	611.35	0.39
19.069	717.77	0.44	19.069	668.55	0.42	19.069	611.86	0.39
19.089	718.17	0.45	19.089	668.99	0.42	19.089	612.36	0.39
19.109	718.49	0.45	19.109	669.43	0.42	19.109	612.87	0.39
19.129	718.91	0.45	19.129	669.87	0.42	19.129	613.34	0.39
19.149	719.24	0.45	19.149	670.30	0.42	19.149	613.83	0.39
19.169	719.63	0.45	19.169	670.73	0.42	19.169	614.30	0.39
19.189	720.01	0.45	19.189	671.17	0.42	19.189	614.75	0.39
19.209	720.39	0.45	19.209	671.61	0.42	19.209	615.23	0.39
19.229	720.74	0.45	19.229	672.03	0.42	19.229	615.71	0.39
19.249	721.10	0.45	19.249	672.45	0.42	19.249	616.19	0.39
19.269	721.49	0.45	19.269	672.87	0.42	19.269	616.68	0.39
19.289	721.86	0.45	19.289	673.30	0.42	19.289	617.14	0.39
19.309	722.19	0.45	19.309	673.71	0.42	19.309	617.61	0.39
19.329	722.53	0.45	19.329	674.14	0.42	19.329	618.13	0.39
19.349	722.89	0.45	19.349	674.57	0.42	19.349	618.60	0.39
19.368	723.27	0.45	19.368	674.99	0.42	19.368	619.04	0.39
19.388	723.61	0.45	19.388	675.42	0.42	19.388	619.46	0.39
19.408	723.97	0.45	19.408	675.90	0.42	19.408	619.93	0.39
19.428	724.33	0.45	19.428	676.33	0.42	19.428	620.46	0.39
19.448	724.67	0.45	19.448	676.75	0.42	19.448	620.93	0.39
19.468	725.03	0.45	19.468	677.11	0.42	19.468	621.40	0.39
19.488	725.39	0.45	19.488	677.59	0.42	19.488	621.89	0.39
19.508	725.74	0.45	19.508	677.94	0.42	19.508	622.38	0.39
19.528	726.10	0.45	19.528	678.43	0.42	19.528	622.86	0.39
19.548	726.43	0.45	19.548	678.84	0.42	19.548	623.36	0.39
19.568	726.84	0.45	19.568	679.24	0.42	19.568	623.85	0.39
19.588	727.14	0.45	19.588	679.65	0.42	19.588	624.32	0.39
19.608	727.48	0.45	19.608	680.05	0.42	19.608	624.80	0.39
19.628	727.85	0.45	19.628	680.45	0.42	19.628	625.29	0.39
19.648	728.12	0.45	19.648	680.86	0.42	19.648	625.72	0.39

19.668	728.51	0.45	19.668	681.26	0.42	19.668	626.18	0.39
19.688	728.81	0.45	19.688	681.73	0.42	19.688	626.69	0.39
19.708	729.16	0.45	19.708	682.14	0.42	19.708	627.15	0.39
19.727	729.52	0.45	19.727	682.54	0.42	19.727	627.56	0.39
19.747	729.84	0.45	19.747	682.93	0.42	19.747	628.04	0.39
19.767	730.18	0.45	19.767	683.32	0.42	19.767	628.52	0.39
19.787	730.47	0.45	19.787	683.72	0.42	19.787	628.99	0.39
19.807	730.80	0.45	19.807	684.12	0.42	19.807	629.46	0.39
19.827	731.18	0.45	19.827	684.56	0.42	19.827	629.90	0.39
19.847	731.48	0.45	19.847	684.91	0.42	19.847	630.41	0.39
19.867	731.80	0.45	19.867	685.31	0.42	19.867	630.88	0.39
19.887	732.17	0.45	19.887	685.72	0.42	19.887	631.27	0.39
19.907	732.51	0.45	19.907	686.11	0.42	19.907	631.70	0.39
19.927	732.76	0.45	19.927	686.50	0.42	19.927	632.16	0.39
19.947	733.10	0.45	19.947	686.89	0.42	19.947	632.59	0.39
19.967	733.44	0.45	19.967	687.27	0.42	19.967	633.03	0.40
19.987	733.74	0.45	19.987	687.65	0.42	19.987	633.49	0.40
20.007	734.07	0.45	20.007	688.05	0.42	20.007	633.92	0.40
20.027	734.36	0.45	20.027	688.50	0.42	20.027	634.41	0.40
20.047	734.66	0.45	20.047	688.86	0.42	20.047	634.88	0.40
20.067	734.97	0.45	20.067	689.25	0.42	20.067	635.29	0.40
20.087	735.30	0.45	20.087	689.61	0.43	20.087	635.68	0.40
20.106	735.64	0.45	20.106	690.04	0.43	20.106	636.20	0.40
20.126	735.93	0.45	20.126	690.43	0.43	20.126	636.65	0.40
20.146	736.17	0.45	20.146	690.79	0.43	20.146	637.06	0.40
20.166	736.53	0.45	20.166	691.16	0.43	20.166	637.47	0.40
20.186	736.86	0.45	20.186	691.56	0.43	20.186	637.92	0.40
20.206	737.18	0.45	20.206	691.96	0.43	20.206	638.38	0.40
20.226	737.47	0.45	20.226	692.32	0.43	20.226	638.78	0.40
20.246	737.82	0.45	20.246	692.69	0.43	20.246	639.17	0.40
20.266	738.09	0.45	20.266	693.10	0.43	20.266	639.60	0.40
20.286	738.43	0.45	20.286	693.47	0.43	20.286	640.02	0.40
20.306	738.77	0.45	20.306	693.82	0.43	20.306	640.43	0.40
20.326	739.07	0.45	20.326	694.22	0.43	20.326	640.89	0.40
20.346	739.34	0.45	20.346	694.60	0.43	20.346	641.29	0.40
20.366	739.68	0.45	20.366	694.97	0.43	20.366	641.72	0.40
20.386	740.02	0.45	20.386	695.37	0.43	20.386	642.15	0.40
20.406	740.29	0.45	20.406	695.71	0.43	20.406	642.57	0.40
20.426	740.63	0.45	20.426	696.05	0.43	20.426	642.99	0.40
20.446	740.96	0.45	20.446	696.46	0.43	20.446	643.38	0.40
20.466	741.26	0.45	20.466	696.82	0.43	20.466	643.78	0.40
20.485	741.51	0.45	20.485	697.17	0.43	20.485	644.22	0.40
20.505	741.89	0.45	20.505	697.54	0.43	20.505	644.65	0.40
20.525	742.18	0.45	20.525	697.94	0.43	20.525	645.03	0.40
20.545	742.49	0.45	20.545	698.29	0.43	20.545	645.46	0.40

20.565	742.82	0.45	20.565	698.69	0.43	20.565	645.87	0.40
20.585	743.10	0.45	20.585	699.04	0.43	20.585	646.25	0.40
20.605	743.37	0.45	20.605	699.42	0.43	20.605	646.61	0.40
20.625	743.70	0.45	20.625	699.79	0.43	20.625	647.01	0.40
20.645	744.02	0.45	20.645	700.12	0.43	20.645	647.44	0.40
20.665	744.28	0.45	20.665	700.46	0.43	20.665	647.86	0.40
20.685	744.62	0.45	20.685	700.85	0.43	20.685	648.25	0.40
20.705	744.95	0.45	20.705	701.23	0.43	20.705	648.65	0.40
20.725	745.23	0.45	20.725	701.58	0.43	20.725	649.05	0.40
20.745	745.55	0.45	20.745	701.91	0.43	20.745	649.43	0.40
20.765	745.81	0.45	20.765	702.27	0.43	20.765	649.80	0.40
20.785	746.11	0.45	20.785	702.64	0.43	20.785	650.19	0.40
20.805	746.45	0.45	20.805	703.01	0.43	20.805	650.60	0.40
20.825	746.74	0.45	20.825	703.37	0.43	20.825	650.96	0.40
20.845	747.00	0.45	20.845	703.72	0.43	20.845	651.33	0.40
20.864	747.33	0.45	20.864	704.07	0.43	20.864	651.72	0.40
20.884	747.62	0.45	20.884	704.42	0.43	20.884	652.11	0.40
20.904	747.92	0.45	20.904	704.76	0.43	20.904	652.50	0.40
20.924	748.20	0.45	20.924	705.10	0.43	20.924	652.89	0.40
20.944	748.53	0.45	20.944	705.44	0.43	20.944	653.28	0.40
20.964	748.81	0.45	20.964	705.78	0.43	20.964	653.66	0.40
20.984	749.08	0.45	20.984	706.12	0.43	20.984	654.00	0.40
21.004	749.40	0.45	21.004	706.46	0.43	21.004	654.36	0.40
21.024	749.67	0.45	21.024	706.79	0.43	21.024	654.73	0.40
21.044	749.98	0.45	21.044	707.12	0.43	21.044	655.12	0.40
21.064	750.24	0.45	21.064	707.45	0.43	21.064	655.48	0.40
21.084	750.53	0.45	21.084	707.77	0.43	21.084	655.83	0.40
21.104	750.77	0.45	21.104	708.15	0.43	21.104	656.20	0.40
21.124	751.12	0.45	21.124	708.50	0.43	21.124	656.56	0.40
21.144	751.40	0.46	21.144	708.84	0.43	21.144	656.88	0.40
21.164	751.68	0.46	21.164	709.22	0.43	21.164	657.23	0.40
21.184	751.96	0.46	21.184	709.53	0.43	21.184	657.65	0.40
21.204	752.19	0.46	21.204	709.85	0.43	21.204	658.01	0.40
21.223	752.45	0.46	21.223	710.19	0.43	21.223	658.38	0.40
21.243	752.73	0.46	21.243	710.54	0.43	21.243	658.78	0.41
21.263	753.02	0.46	21.263	710.87	0.43	21.263	659.17	0.41
21.283	753.31	0.46	21.283	711.18	0.43	21.283	659.55	0.41
21.303	753.58	0.46	21.303	711.53	0.43	21.303	659.98	0.41
21.323	753.80	0.46	21.323	711.88	0.43	21.323	660.35	0.41
21.343	754.08	0.46	21.343	712.20	0.43	21.343	660.71	0.41
21.363	754.35	0.46	21.363	712.57	0.43	21.363	661.07	0.41
21.383	754.63	0.46	21.383	712.89	0.43	21.383	661.47	0.41
21.403	754.91	0.46	21.403	713.22	0.43	21.403	661.80	0.41
21.423	755.16	0.46	21.423	713.58	0.43	21.423	662.18	0.41
21.443	755.47	0.46	21.443	713.87	0.43	21.443	662.56	0.41



21.463	755.72	0.46	21.463	714.22	0.43	21.463	662.96	0.41
21.483	756.03	0.46	21.483	714.55	0.43	21.483	663.28	0.41
21.503	756.31	0.46	21.503	714.86	0.43	21.503	663.72	0.41
21.523	756.57	0.46	21.523	715.20	0.43	21.523	664.04	0.41
21.543	756.84	0.46	21.543	715.52	0.43	21.543	664.47	0.41
21.563	757.10	0.46	21.563	715.84	0.43	21.563	664.79	0.41
21.583	757.38	0.46	21.583	716.21	0.43	21.583	665.18	0.41
21.602	757.70	0.46	21.602	716.50	0.43	21.602	665.60	0.41
21.622	757.92	0.46	21.622	716.83	0.43	21.622	665.93	0.41
21.642	758.18	0.46	21.642	717.17	0.44	21.642	666.29	0.41
21.662	758.49	0.46	21.662	717.46	0.44	21.662	666.67	0.41
21.682	758.75	0.46	21.682	717.80	0.44	21.682	667.08	0.41
21.702	758.99	0.46	21.702	718.12	0.44	21.702	667.44	0.41
21.722	759.31	0.46	21.722	718.41	0.44	21.722	667.84	0.41
21.742	759.60	0.46	21.742	718.75	0.44	21.742	668.19	0.41
21.762	759.80	0.46	21.762	719.09	0.44	21.762	668.56	0.41
21.782	760.08	0.46	21.782	719.42	0.44	21.782	668.91	0.41
21.802	760.33	0.46	21.802	719.69	0.44	21.802	669.23	0.41
21.822	760.60	0.46	21.822	720.02	0.44	21.822	669.58	0.41
21.842	760.85	0.46	21.842	720.34	0.44	21.842	669.93	0.41
21.862	761.14	0.46	21.862	720.62	0.44	21.862	670.31	0.41
21.882	761.42	0.46	21.882	720.95	0.44	21.882	670.66	0.41
21.902	761.71	0.46	21.902	721.28	0.44	21.902	671.00	0.41
21.922	762.01	0.46	21.922	721.61	0.44	21.922	671.35	0.41
21.942	762.29	0.46	21.942	721.94	0.44	21.942	671.77	0.41
21.962	762.51	0.46	21.962	722.24	0.44	21.962	672.10	0.41
21.981	762.81	0.46	21.981	722.52	0.44	21.981	672.43	0.41
22.001	763.04	0.46	22.001	722.85	0.44	22.001	672.85	0.41
22.021	763.36	0.46	22.021	723.18	0.44	22.021	673.22	0.41
22.041	763.60	0.46	22.041	723.49	0.44	22.041	673.57	0.41
22.061	763.88	0.46	22.061	723.76	0.44	22.061	673.88	0.41
22.081	764.13	0.46	22.081	724.06	0.44	22.081	674.32	0.41
22.101	764.44	0.46	22.101	724.39	0.44	22.101	674.65	0.41
22.121	764.73	0.46	22.121	724.71	0.44	22.121	674.95	0.41
22.141	764.98	0.46	22.141	725.03	0.44	22.141	675.33	0.41
22.161	765.22	0.46	22.161	725.34	0.44	22.161	675.64	0.41
22.181	765.47	0.46	22.181	725.61	0.44	22.181	676.03	0.41
22.201	765.74	0.46	22.201	725.90	0.44	22.201	676.35	0.41
22.221	766.02	0.46	22.221	726.22	0.44	22.221	676.71	0.41
22.241	766.26	0.46	22.241	726.54	0.44	22.241	677.03	0.41
22.261	766.57	0.46	22.261	726.85	0.44	22.261	677.39	0.41
22.281	766.77	0.46	22.281	727.15	0.44	22.281	677.75	0.41
22.301	767.06	0.46	22.301	727.46	0.44	22.301	678.12	0.41
22.321	767.32	0.46	22.321	727.77	0.44	22.321	678.43	0.41
22.340	767.54	0.46	22.340	728.09	0.44	22.340	678.76	0.41

22.360	767.86	0.46	22.360	728.35	0.44	22.360	679.11	0.41
22.380	768.14	0.46	22.380	728.62	0.44	22.380	679.45	0.41
22.400	768.39	0.46	22.400	728.93	0.44	22.400	679.79	0.41
22.420	768.63	0.46	22.420	729.23	0.44	22.420	680.12	0.41
22.440	768.90	0.46	22.440	729.54	0.44	22.440	680.43	0.41
22.460	769.13	0.46	22.460	729.85	0.44	22.460	680.78	0.41
22.480	769.35	0.46	22.480	730.15	0.44	22.480	681.11	0.41
22.500	769.62	0.46	22.500	730.45	0.44	22.500	681.47	0.41
22.520	769.88	0.46	22.520	730.75	0.44	22.520	681.79	0.41
22.540	770.14	0.46	22.540	731.05	0.44	22.540	682.09	0.41
22.560	770.36	0.46	22.560	731.35	0.44	22.560	682.47	0.41
22.580	770.65	0.46	22.580	731.64	0.44	22.580	682.76	0.41
22.600	770.88	0.46	22.600	731.93	0.44	22.600	683.13	0.41
22.620	771.13	0.46	22.620	732.22	0.44	22.620	683.43	0.41
22.640	771.36	0.46	22.640	732.51	0.44	22.640	683.77	0.42
22.660	771.64	0.46	22.660	732.81	0.44	22.660	684.09	0.42
22.680	771.85	0.46	22.680	733.10	0.44	22.680	684.44	0.42
22.700	772.10	0.46	22.700	733.38	0.44	22.700	684.76	0.42
22.719	772.32	0.46	22.719	733.67	0.44	22.719	685.12	0.42
22.739	772.58	0.46	22.739	733.96	0.44	22.739	685.43	0.42
22.759	772.78	0.46	22.759	734.25	0.44	22.759	685.74	0.42
22.779	773.05	0.46	22.779	734.53	0.44	22.779	686.10	0.42
22.799	773.31	0.46	22.799	734.82	0.44	22.799	686.40	0.42
22.819	773.54	0.46	22.819	735.10	0.44	22.819	686.71	0.42
22.839	773.76	0.46	22.839	735.38	0.44	22.839	687.08	0.42
22.859	774.01	0.46	22.859	735.66	0.44	22.859	687.36	0.42
22.879	774.25	0.46	22.879	735.94	0.44	22.879	687.66	0.42
22.899	774.44	0.46	22.899	736.21	0.44	22.899	687.98	0.42
22.919	774.67	0.46	22.919	736.49	0.44	22.919	688.32	0.42
22.939	774.94	0.46	22.939	736.77	0.44	22.939	688.68	0.42
22.959	775.20	0.46	22.959	737.05	0.44	22.959	689.02	0.42
22.979	775.42	0.46	22.979	737.34	0.44	22.979	689.32	0.42
22.999	775.66	0.46	22.999	737.67	0.44	22.999	689.61	0.42
23.019	775.89	0.46	23.019	737.96	0.44	23.019	689.96	0.42
23.039	776.17	0.46	23.039	738.23	0.44	23.039	690.29	0.42
23.059	776.37	0.46	23.059	738.51	0.44	23.059	690.57	0.42
23.079	776.66	0.46	23.079	738.78	0.44	23.079	690.92	0.42
23.098	776.84	0.46	23.098	739.05	0.44	23.098	691.20	0.42
23.118	777.09	0.46	23.118	739.32	0.44	23.118	691.49	0.42
23.138	777.31	0.46	23.138	739.59	0.44	23.138	691.81	0.42
23.158	777.54	0.46	23.158	739.87	0.44	23.158	692.13	0.42
23.178	777.82	0.46	23.178	740.14	0.44	23.178	692.44	0.42
23.198	778.03	0.46	23.198	740.41	0.44	23.198	692.75	0.42
23.218	778.29	0.46	23.218	740.67	0.44	23.218	693.05	0.42
23.238	778.50	0.46	23.238	740.98	0.44	23.238	693.36	0.42

23.258	778.72	0.46	23.258	741.29	0.44	23.258	693.69	0.42
23.278	778.96	0.46	23.278	741.55	0.44	23.278	694.00	0.42
23.298	779.14	0.46	23.298	741.81	0.44	23.298	694.26	0.42
23.318	779.43	0.46	23.318	742.07	0.44	23.318	694.57	0.42
23.338	779.65	0.46	23.338	742.36	0.44	23.338	694.88	0.42
23.358	779.87	0.46	23.358	742.66	0.44	23.358	695.18	0.42
23.378	780.08	0.46	23.378	742.93	0.44	23.378	695.54	0.42
23.398	780.39	0.46	23.398	743.17	0.44	23.398	695.84	0.42
23.418	780.61	0.46	23.418	743.43	0.45	23.418	696.12	0.42
23.438	780.81	0.46	23.438	743.69	0.45	23.438	696.41	0.42
23.458	781.08	0.46	23.458	743.98	0.45	23.458	696.71	0.42
23.477	781.32	0.47	23.477	744.28	0.45	23.477	697.02	0.42
23.497	781.56	0.47	23.497	744.54	0.45	23.497	697.35	0.42
23.517	781.79	0.47	23.517	744.79	0.45	23.517	697.65	0.42
23.537	782.03	0.47	23.537	745.04	0.45	23.537	697.93	0.42
23.557	782.26	0.47	23.557	745.30	0.45	23.557	698.20	0.42
23.577	782.49	0.47	23.577	745.59	0.45	23.577	698.54	0.42
23.597	782.73	0.47	23.597	745.88	0.45	23.597	698.85	0.42
23.617	783.00	0.47	23.617	746.13	0.45	23.617	699.14	0.42
23.637	783.21	0.47	23.637	746.38	0.45	23.637	699.42	0.42
23.657	783.41	0.47	23.657	746.63	0.45	23.657	699.71	0.42
23.677	783.68	0.47	23.677	746.89	0.45	23.677	699.98	0.42
23.697	783.87	0.47	23.697	747.18	0.45	23.697	700.23	0.42
23.717	784.12	0.47	23.717	747.45	0.45	23.717	700.56	0.42
23.737	784.36	0.47	23.737	747.70	0.45	23.737	700.85	0.42
23.757	784.58	0.47	23.757	747.96	0.45	23.757	701.13	0.42
23.777	784.81	0.47	23.777	748.24	0.45	23.777	701.41	0.42
23.797	785.05	0.47	23.797	748.51	0.45	23.797	701.68	0.42
23.817	785.25	0.47	23.817	748.75	0.45	23.817	701.96	0.42
23.836	785.48	0.47	23.836	748.99	0.45	23.836	702.25	0.42
23.856	785.72	0.47	23.856	749.23	0.45	23.856	702.55	0.42
23.876	785.94	0.47	23.876	749.49	0.45	23.876	702.83	0.42
23.896	786.17	0.47	23.896	749.77	0.45	23.896	703.11	0.42
23.916	786.40	0.47	23.916	750.04	0.45	23.916	703.40	0.42
23.936	786.61	0.47	23.936	750.28	0.45	23.936	703.71	0.42
23.956	786.82	0.47	23.956	750.53	0.45	23.956	704.03	0.42
23.976	787.00	0.47	23.976	750.81	0.45	23.976	704.28	0.42
23.996	787.28	0.47	23.996	751.08	0.45	23.996	704.54	0.42
24.016	787.48	0.47	24.016	751.35	0.45	24.016	704.79	0.42
24.036	787.69	0.47	24.036	751.61	0.45	24.036	705.07	0.42
24.056	787.90	0.47	24.056	751.85	0.45	24.056	705.37	0.42
24.076	788.15	0.47	24.076	752.09	0.45	24.076	705.65	0.42
24.096	788.32	0.47	24.096	752.36	0.45	24.096	705.88	0.42
24.116	788.52	0.47	24.116	752.62	0.45	24.116	706.22	0.42
24.136	788.75	0.47	24.136	752.85	0.45	24.136	706.49	0.42

24.156	788.93	0.47	24.156	753.07	0.45	24.156	706.77	0.42
24.176	789.17	0.47	24.176	753.34	0.45	24.176	707.07	0.42
24.196	789.38	0.47	24.196	753.61	0.45	24.196	707.30	0.42
24.215	789.59	0.47	24.215	753.84	0.45	24.215	707.56	0.42
24.235	789.76	0.47	24.235	754.07	0.45	24.235	707.86	0.42
24.255	790.05	0.47	24.255	754.32	0.45	24.255	708.10	0.42
24.275	790.26	0.47	24.275	754.59	0.45	24.275	708.38	0.43
24.295	790.47	0.47	24.295	754.85	0.45	24.295	708.64	0.43
24.315	790.67	0.47	24.315	755.10	0.45	24.315	708.98	0.43
24.335	790.88	0.47	24.335	755.34	0.45	24.335	709.24	0.43
24.355	791.13	0.47	24.355	755.57	0.45	24.355	709.55	0.43
24.375	791.33	0.47	24.375	755.80	0.45	24.375	709.80	0.43
24.395	791.58	0.47	24.395	756.06	0.45	24.395	710.05	0.43
24.415	791.80	0.47	24.415	756.32	0.45	24.415	710.35	0.43
24.435	792.04	0.47	24.435	756.57	0.45	24.435	710.63	0.43
24.455	792.27	0.47	24.455	756.83	0.45	24.455	710.88	0.43
24.475	792.41	0.47	24.475	757.06	0.45	24.475	711.14	0.43
24.495	792.67	0.47	24.495	757.28	0.45	24.495	711.42	0.43
24.515	792.88	0.47	24.515	757.52	0.45	24.515	711.71	0.43
24.535	793.15	0.47	24.535	757.77	0.45	24.535	712.00	0.43
24.555	793.37	0.47	24.555	758.02	0.45	24.555	712.25	0.43
24.575	793.57	0.47	24.575	758.27	0.45	24.575	712.52	0.43
24.594	793.77	0.47	24.594	758.52	0.45	24.594	712.81	0.43
24.614	793.95	0.47	24.614	758.77	0.45	24.614	713.06	0.43
24.634	794.22	0.47	24.634	759.02	0.45	24.634	713.34	0.43
24.654	794.44	0.47	24.654	759.23	0.45	24.654	713.60	0.43
24.674	794.68	0.47	24.674	759.45	0.45	24.674	713.91	0.43
24.694	794.86	0.47	24.694	759.68	0.45	24.694	714.15	0.43
24.714	795.09	0.47	24.714	759.93	0.45	24.714	714.40	0.43
24.734	795.31	0.47	24.734	760.17	0.45	24.734	714.66	0.43
24.754	795.55	0.47	24.754	760.41	0.45	24.754	714.92	0.43
24.774	795.72	0.47	24.774	760.66	0.45	24.774	715.17	0.43
24.794	795.95	0.47	24.794	760.90	0.45	24.794	715.45	0.43
24.814	796.19	0.47	24.814	761.14	0.45	24.814	715.72	0.43
24.834	796.35	0.47	24.834	761.36	0.45	24.834	715.96	0.43
24.854	796.59	0.47	24.854	761.57	0.45	24.854	716.22	0.43
24.874	796.82	0.47	24.874	761.79	0.45	24.874	716.49	0.43
24.894	797.03	0.47	24.894	762.02	0.45	24.894	716.79	0.43
24.914	797.26	0.47	24.914	762.26	0.45	24.914	717.02	0.43
24.934	797.41	0.47	24.934	762.50	0.45	24.934	717.25	0.43
24.954	797.69	0.47	24.954	762.73	0.45	24.954	717.51	0.43
24.973	797.90	0.47	24.973	762.97	0.45	24.973	717.80	0.43
24.993	798.09	0.47	24.993	763.20	0.45	24.993	718.00	0.43
25.013	798.28	0.47	25.013	763.44	0.45	25.013	718.25	0.43
25.033	798.48	0.47	25.033	763.67	0.45	25.033	718.56	0.43

25.053	798.73	0.47	25.053	763.90	0.45	25.053	718.78	0.43
25.073	798.91	0.47	25.073	764.14	0.45	25.073	719.02	0.43
25.093	799.15	0.47	25.093	764.37	0.45	25.093	719.32	0.43
25.113	799.34	0.47	25.113	764.60	0.45	25.113	719.53	0.43
25.133	799.56	0.47	25.133	764.83	0.45	25.133	719.79	0.43
25.153	799.75	0.47	25.153	765.06	0.45	25.153	720.11	0.43
25.173	799.96	0.47	25.173	765.29	0.45	25.173	720.33	0.43
25.193	800.16	0.47	25.193	765.52	0.45	25.193	720.57	0.43
25.213	800.37	0.47	25.213	765.75	0.45	25.213	720.84	0.43
25.233	800.55	0.47	25.233	765.97	0.45	25.233	721.13	0.43
25.253	800.78	0.47	25.253	766.20	0.45	25.253	721.39	0.43
25.273	801.01	0.47	25.273	766.43	0.45	25.273	721.71	0.43
25.293	801.17	0.47	25.293	766.65	0.45	25.293	721.93	0.43
25.313	801.37	0.47	25.313	766.87	0.45	25.313	722.22	0.43
25.332	801.61	0.47	25.332	767.10	0.45	25.332	722.49	0.43
25.352	801.82	0.47	25.352	767.32	0.45	25.352	722.68	0.43
25.372	802.01	0.47	25.372	767.54	0.45	25.372	722.96	0.43
25.392	802.22	0.47	25.392	767.77	0.45	25.392	723.20	0.43
25.412	802.43	0.47	25.412	767.97	0.45	25.412	723.50	0.43
25.432	802.67	0.47	25.432	768.16	0.45	25.432	723.76	0.43
25.452	802.80	0.47	25.452	768.35	0.45	25.452	723.99	0.43
25.472	803.00	0.47	25.472	768.59	0.45	25.472	724.23	0.43
25.492	803.19	0.47	25.492	768.84	0.45	25.492	724.50	0.43
25.512	803.38	0.47	25.512	769.08	0.45	25.512	724.75	0.43
25.532	803.59	0.47	25.532	769.30	0.46	25.532	725.02	0.43
25.552	803.86	0.47	25.552	769.52	0.46	25.552	725.27	0.43
25.572	804.05	0.47	25.572	769.74	0.46	25.572	725.57	0.43
25.592	804.24	0.47	25.592	769.96	0.46	25.592	725.81	0.43
25.612	804.44	0.47	25.612	770.18	0.46	25.612	726.04	0.43
25.632	804.62	0.47	25.632	770.39	0.46	25.632	726.32	0.43
25.652	804.74	0.47	25.652	770.61	0.46	25.652	726.60	0.43
25.672	804.96	0.47	25.672	770.82	0.46	25.672	726.85	0.43
25.692	805.15	0.47	25.692	771.04	0.46	25.692	727.09	0.43
25.711	805.38	0.47	25.711	771.25	0.46	25.711	727.28	0.43
25.731	805.59	0.47	25.731	771.46	0.46	25.731	727.59	0.43
25.751	805.74	0.47	25.751	771.67	0.46	25.751	727.82	0.43
25.771	805.98	0.47	25.771	771.88	0.46	25.771	728.06	0.43
25.791	806.18	0.47	25.791	772.09	0.46	25.791	728.32	0.43
25.811	806.36	0.47	25.811	772.31	0.46	25.811	728.58	0.43
25.831	806.55	0.47	25.831	772.52	0.46	25.831	728.83	0.43
25.851	806.73	0.47	25.851	772.72	0.46	25.851	729.08	0.43
25.871	806.91	0.47	25.871	772.93	0.46	25.871	729.33	0.43
25.891	807.11	0.47	25.891	773.14	0.46	25.891	729.56	0.43
25.911	807.34	0.47	25.911	773.34	0.46	25.911	729.83	0.43
25.931	807.53	0.47	25.931	773.54	0.46	25.931	730.09	0.43

25.951	807.71	0.47	25.951	773.75	0.46	25.951	730.34	0.43
25.971	807.90	0.47	25.971	773.95	0.46	25.971	730.58	0.43
25.991	808.11	0.47	25.991	774.15	0.46	25.991	730.82	0.43
26.011	808.29	0.47	26.011	774.35	0.46	26.011	731.09	0.43
26.031	808.46	0.47	26.031	774.56	0.46	26.031	731.33	0.43
26.051	808.63	0.47	26.051	774.76	0.46	26.051	731.52	0.43
26.071	808.85	0.48	26.071	774.96	0.46	26.071	731.78	0.43
26.090	809.04	0.48	26.090	775.17	0.46	26.090	732.04	0.43
26.110	809.22	0.48	26.110	775.37	0.46	26.110	732.28	0.43
26.130	809.38	0.48	26.130	775.58	0.46	26.130	732.51	0.44
26.150	809.54	0.48	26.150	775.78	0.46	26.150	732.76	0.44
26.170	809.72	0.48	26.170	776.00	0.46	26.170	733.01	0.44
26.190	809.94	0.48	26.190	776.23	0.46	26.190	733.26	0.44
26.210	810.13	0.48	26.210	776.45	0.46	26.210	733.50	0.44
26.230	810.32	0.48	26.230	776.65	0.46	26.230	733.73	0.44
26.250	810.50	0.48	26.250	776.85	0.46	26.250	733.99	0.44
26.270	810.68	0.48	26.270	777.05	0.46	26.270	734.24	0.44
26.290	810.86	0.48	26.290	777.24	0.46	26.290	734.50	0.44
26.310	811.04	0.48	26.310	777.44	0.46	26.310	734.71	0.44
26.330	811.22	0.48	26.330	777.64	0.46	26.330	734.93	0.44
26.350	811.38	0.48	26.350	777.83	0.46	26.350	735.21	0.44
26.370	811.63	0.48	26.370	778.02	0.46	26.370	735.45	0.44
26.390	811.82	0.48	26.390	778.21	0.46	26.390	735.67	0.44
26.410	812.00	0.48	26.410	778.40	0.46	26.410	735.93	0.44
26.430	812.15	0.48	26.430	778.59	0.46	26.430	736.17	0.44
26.450	812.39	0.48	26.450	778.79	0.46	26.450	736.41	0.44
26.469	812.57	0.48	26.469	779.01	0.46	26.469	736.64	0.44
26.489	812.72	0.48	26.489	779.22	0.46	26.489	736.90	0.44
26.509	812.89	0.48	26.509	779.41	0.46	26.509	737.13	0.44
26.529	813.11	0.48	26.529	779.56	0.46	26.529	737.36	0.44
26.549	813.30	0.48	26.549	779.72	0.46	26.549	737.57	0.44
26.569	813.46	0.48	26.569	779.91	0.46	26.569	737.81	0.44
26.589	813.69	0.48	26.589	780.14	0.46	26.589	738.06	0.44
26.609	813.84	0.48	26.609	780.37	0.46	26.609	738.29	0.44
26.629	814.01	0.48	26.629	780.59	0.46	26.629	738.52	0.44
26.649	814.16	0.48	26.649	780.81	0.46	26.649	738.77	0.44
26.669	814.36	0.48	26.669	781.05	0.46	26.669	738.99	0.44
26.689	814.58	0.48	26.689	781.20	0.46	26.689	739.22	0.44
26.709	814.75	0.48	26.709	781.41	0.46	26.709	739.49	0.44
26.729	814.91	0.48	26.729	781.64	0.46	26.729	739.70	0.44
26.749	815.08	0.48	26.749	781.91	0.46	26.749	739.96	0.44
26.769	815.25	0.48	26.769	782.17	0.46	26.769	740.23	0.44
26.789	815.48	0.48	26.789	782.40	0.46	26.789	740.46	0.44
26.809	815.64	0.48	26.809	782.58	0.46	26.809	740.70	0.44
26.828	815.86	0.48	26.828	782.79	0.46	26.828	740.90	0.44

26.848	816.01	0.48	26.848	783.01	0.46	26.848	741.11	0.44
26.868	816.21	0.48	26.868	783.23	0.46	26.868	741.35	0.44
26.888	816.36	0.48	26.888	783.46	0.46	26.888	741.58	0.44
26.908	816.52	0.48	26.908	783.67	0.46	26.908	741.78	0.44
26.928	816.70	0.48	26.928	783.88	0.46	26.928	742.02	0.44
26.948	816.89	0.48	26.948	784.05	0.46	26.948	742.27	0.44
26.968	817.04	0.48	26.968	784.23	0.46	26.968	742.48	0.44
26.988	817.27	0.48	26.988	784.45	0.46	26.988	742.71	0.44
27.008	817.49	0.48	27.008	784.66	0.46	27.008	742.95	0.44
27.028	817.62	0.48	27.028	784.87	0.46	27.028	743.18	0.44
27.048	817.82	0.48	27.048	785.08	0.46	27.048	743.38	0.44
27.068	818.04	0.48	27.068	785.30	0.46	27.068	743.61	0.44
27.088	818.16	0.48	27.088	785.50	0.46	27.088	743.85	0.44
27.108	818.37	0.48	27.108	785.72	0.46	27.108	744.06	0.44
27.128	818.54	0.48	27.128	785.93	0.46	27.128	744.29	0.44
27.148	818.71	0.48	27.148	786.13	0.46	27.148	744.54	0.44
27.168	818.92	0.48	27.168	786.34	0.46	27.168	744.77	0.44
27.188	819.11	0.48	27.188	786.54	0.46	27.188	744.98	0.44
27.207	819.31	0.48	27.207	786.71	0.46	27.207	745.19	0.44
27.227	819.49	0.48	27.227	786.87	0.46	27.227	745.38	0.44
27.247	819.63	0.48	27.247	787.08	0.46	27.247	745.60	0.44
27.267	819.83	0.48	27.267	787.29	0.46	27.267	745.82	0.44
27.287	820.04	0.48	27.287	787.49	0.46	27.287	746.07	0.44
27.307	820.18	0.48	27.307	787.69	0.46	27.307	746.29	0.44
27.327	820.35	0.48	27.327	787.90	0.46	27.327	746.50	0.44
27.347	820.55	0.48	27.347	788.09	0.46	27.347	746.76	0.44
27.367	820.69	0.48	27.367	788.28	0.46	27.367	746.96	0.44
27.387	820.87	0.48	27.387	788.55	0.46	27.387	747.18	0.44
27.407	821.05	0.48	27.407	788.69	0.46	27.407	747.40	0.44
27.427	821.25	0.48	27.427	788.96	0.46	27.427	747.64	0.44
27.447	821.42	0.48	27.447	789.16	0.46	27.447	747.87	0.44
27.467	821.61	0.48	27.467	789.36	0.46	27.467	748.09	0.44
27.487	821.79	0.48	27.487	789.56	0.46	27.487	748.31	0.44
27.507	821.95	0.48	27.507	789.76	0.46	27.507	748.54	0.44
27.527	822.13	0.48	27.527	789.95	0.46	27.527	748.75	0.44
27.547	822.30	0.48	27.547	790.16	0.46	27.547	748.96	0.44
27.567	822.46	0.48	27.567	790.35	0.46	27.567	749.17	0.44
27.586	822.67	0.48	27.586	790.54	0.46	27.586	749.41	0.44
27.606	822.82	0.48	27.606	790.73	0.46	27.606	749.60	0.44
27.626	822.99	0.48	27.626	790.93	0.46	27.626	749.79	0.44
27.646	823.17	0.48	27.646	791.12	0.46	27.646	750.02	0.44
27.666	823.32	0.48	27.666	791.31	0.46	27.666	750.27	0.44
27.686	823.49	0.48	27.686	791.50	0.46	27.686	750.51	0.44
27.706	823.69	0.48	27.706	791.69	0.46	27.706	750.68	0.44
27.726	823.83	0.48	27.726	791.88	0.46	27.726	750.87	0.44

27.746	823.98	0.48	27.746	792.06	0.46	27.746	751.10	0.44
27.766	824.18	0.48	27.766	792.26	0.46	27.766	751.35	0.44
27.786	824.34	0.48	27.786	792.52	0.46	27.786	751.57	0.44
27.806	824.51	0.48	27.806	792.72	0.46	27.806	751.77	0.44
27.826	824.69	0.48	27.826	792.90	0.46	27.826	751.96	0.44
27.846	824.84	0.48	27.846	793.09	0.46	27.846	752.16	0.44
27.866	825.05	0.48	27.866	793.27	0.46	27.866	752.37	0.44
27.886	825.19	0.48	27.886	793.45	0.46	27.886	752.60	0.44
27.906	825.39	0.48	27.906	793.64	0.46	27.906	752.84	0.44
27.926	825.53	0.48	27.926	793.90	0.46	27.926	753.05	0.44
27.946	825.67	0.48	27.946	794.08	0.46	27.946	753.26	0.44
27.965	825.85	0.48	27.965	794.27	0.46	27.965	753.47	0.44
27.985	826.02	0.48	27.985	794.45	0.47	27.985	753.66	0.44
28.005	826.15	0.48	28.005	794.63	0.47	28.005	753.86	0.44
28.025	826.28	0.48	28.025	794.82	0.47	28.025	754.08	0.44
28.045	826.45	0.48	28.045	795.00	0.47	28.045	754.32	0.44
28.065	826.66	0.48	28.065	795.17	0.47	28.065	754.48	0.44
28.085	826.84	0.48	28.085	795.44	0.47	28.085	754.67	0.44
28.105	826.96	0.48	28.105	795.61	0.47	28.105	754.90	0.44
28.125	827.15	0.48	28.125	795.79	0.47	28.125	755.13	0.44
28.145	827.32	0.48	28.145	795.97	0.47	28.145	755.33	0.44
28.165	827.43	0.48	28.165	796.14	0.47	28.165	755.53	0.44
28.185	827.58	0.48	28.185	796.36	0.47	28.185	755.77	0.44
28.205	827.73	0.48	28.205	796.58	0.47	28.205	755.92	0.44
28.225	827.88	0.48	28.225	796.75	0.47	28.225	756.11	0.44
28.245	828.03	0.48	28.245	796.92	0.47	28.245	756.33	0.44
28.265	828.24	0.48	28.265	797.09	0.47	28.265	756.54	0.45
28.285	828.41	0.48	28.285	797.26	0.47	28.285	756.75	0.45
28.305	828.54	0.48	28.305	797.50	0.47	28.305	756.98	0.45
28.324	828.73	0.48	28.324	797.68	0.47	28.324	757.16	0.45
28.344	828.87	0.48	28.344	797.85	0.47	28.344	757.32	0.45
28.364	829.03	0.48	28.364	798.10	0.47	28.364	757.54	0.45
28.384	829.17	0.48	28.384	798.27	0.47	28.384	757.77	0.45
28.404	829.37	0.48	28.404	798.43	0.47	28.404	757.99	0.45
28.424	829.54	0.48	28.424	798.60	0.47	28.424	758.19	0.45
28.444	829.70	0.48	28.444	798.78	0.47	28.444	758.37	0.45
28.464	829.86	0.48	28.464	799.01	0.47	28.464	758.56	0.45
28.484	830.02	0.48	28.484	799.17	0.47	28.484	758.75	0.45
28.504	830.20	0.48	28.504	799.36	0.47	28.504	758.94	0.45
28.524	830.36	0.48	28.524	799.58	0.47	28.524	759.16	0.45
28.544	830.51	0.48	28.544	799.74	0.47	28.544	759.37	0.45
28.564	830.66	0.48	28.564	799.90	0.47	28.564	759.54	0.45
28.584	830.83	0.48	28.584	800.07	0.47	28.584	759.73	0.45
28.604	831.02	0.48	28.604	800.30	0.47	28.604	759.93	0.45
28.624	831.22	0.48	28.624	800.46	0.47	28.624	760.13	0.45



28.644	831.33	0.48	28.644	800.63	0.47	28.644	760.32	0.45
28.664	831.52	0.48	28.664	800.86	0.47	28.664	760.49	0.45
28.684	831.69	0.48	28.684	801.01	0.47	28.684	760.69	0.45
28.703	831.86	0.48	28.703	801.18	0.47	28.703	760.90	0.45
28.723	832.03	0.48	28.723	801.41	0.47	28.723	761.10	0.45
28.743	832.16	0.48	28.743	801.56	0.47	28.743	761.29	0.45
28.763	832.37	0.48	28.763	801.72	0.47	28.763	761.46	0.45
28.783	832.51	0.48	28.783	801.87	0.47	28.783	761.66	0.45
28.803	832.66	0.48	28.803	802.09	0.47	28.803	761.84	0.45
28.823	832.86	0.48	28.823	802.26	0.47	28.823	762.04	0.45
28.843	833.00	0.48	28.843	802.47	0.47	28.843	762.24	0.45
28.863	833.19	0.48	28.863	802.64	0.47	28.863	762.47	0.45
28.883	833.32	0.48	28.883	802.79	0.47	28.883	762.69	0.45
28.903	833.52	0.48	28.903	803.00	0.47	28.903	762.86	0.45
28.923	833.70	0.48	28.923	803.18	0.47	28.923	763.06	0.45
28.943	833.84	0.48	28.943	803.36	0.47	28.943	763.30	0.45
28.963	834.03	0.48	28.963	803.55	0.47	28.963	763.49	0.45
28.983	834.15	0.48	28.983	803.69	0.47	28.983	763.69	0.45
29.003	834.34	0.48	29.003	803.89	0.47	29.003	763.86	0.45
29.023	834.50	0.48	29.023	804.09	0.47	29.023	764.04	0.45
29.043	834.66	0.48	29.043	804.27	0.47	29.043	764.27	0.45
29.063	834.86	0.48	29.063	804.42	0.47	29.063	764.47	0.45
29.082	834.98	0.49	29.082	804.60	0.47	29.082	764.66	0.45
29.102	835.16	0.49	29.102	804.79	0.47	29.102	764.86	0.45
29.122	835.33	0.49	29.122	804.96	0.47	29.122	765.04	0.45
29.142	835.47	0.49	29.142	805.18	0.47	29.142	765.22	0.45
29.162	835.61	0.49	29.162	805.33	0.47	29.162	765.45	0.45
29.182	835.80	0.49	29.182	805.49	0.47	29.182	765.63	0.45
29.202	835.99	0.49	29.202	805.69	0.47	29.202	765.84	0.45
29.222	836.14	0.49	29.222	805.86	0.47	29.222	766.04	0.45
29.242	836.30	0.49	29.242	806.08	0.47	29.242	766.24	0.45
29.262	836.47	0.49	29.262	806.22	0.47	29.262	766.39	0.45
29.282	836.64	0.49	29.282	806.38	0.47	29.282	766.62	0.45
29.302	836.81	0.49	29.302	806.58	0.47	29.302	766.85	0.45
29.322	836.95	0.49	29.322	806.76	0.47	29.322	767.04	0.45
29.342	837.10	0.49	29.342	806.95	0.47	29.342	767.22	0.45
29.362	837.25	0.49	29.362	807.14	0.47	29.362	767.43	0.45
29.382	837.40	0.49	29.382	807.31	0.47	29.382	767.57	0.45
29.402	837.61	0.49	29.402	807.52	0.47	29.402	767.83	0.45
29.422	837.76	0.49	29.422	807.65	0.47	29.422	767.97	0.45
29.441	837.91	0.49	29.441	807.82	0.47	29.441	768.14	0.45
29.461	838.07	0.49	29.461	808.00	0.47	29.461	768.38	0.45
29.481	838.25	0.49	29.481	808.22	0.47	29.481	768.57	0.45
29.501	838.38	0.49	29.501	808.38	0.47	29.501	768.73	0.45
29.521	838.53	0.49	29.521	808.57	0.47	29.521	768.95	0.45

29.541	838.72	0.49	29.541	808.71	0.47	29.541	769.17	0.45
29.561	838.88	0.49	29.561	808.91	0.47	29.561	769.32	0.45
29.581	839.02	0.49	29.581	809.12	0.47	29.581	769.53	0.45
29.601	839.17	0.49	29.601	809.25	0.47	29.601	769.69	0.45
29.621	839.35	0.49	29.621	809.46	0.47	29.621	769.87	0.45
29.641	839.49	0.49	29.641	809.60	0.47	29.641	770.08	0.45
29.661	839.66	0.49	29.661	809.79	0.47	29.661	770.27	0.45
29.681	839.83	0.49	29.681	809.97	0.47	29.681	770.45	0.45
29.701	840.01	0.49	29.701	810.13	0.47	29.701	770.69	0.45
29.721	840.13	0.49	29.721	810.33	0.47	29.721	770.89	0.45
29.741	840.28	0.49	29.741	810.45	0.47	29.741	771.08	0.45
29.761	840.44	0.49	29.761	810.65	0.47	29.761	771.29	0.45
29.781	840.62	0.49	29.781	810.86	0.47	29.781	771.45	0.45
29.801	840.79	0.49	29.801	811.05	0.47	29.801	771.59	0.45
29.820	840.93	0.49	29.820	811.17	0.47	29.820	771.81	0.45
29.840	841.05	0.49	29.840	811.36	0.47	29.840	772.02	0.45
29.860	841.21	0.49	29.860	811.56	0.47	29.860	772.18	0.45
29.880	841.37	0.49	29.880	811.69	0.47	29.880	772.39	0.45
29.900	841.54	0.49	29.900	811.87	0.47	29.900	772.56	0.45
29.920	841.70	0.49	29.920	812.05	0.47	29.920	772.76	0.45
29.940	841.85	0.49	29.940	812.22	0.47	29.940	772.98	0.45
29.960	842.01	0.49	29.960	812.37	0.47	29.960	773.17	0.45
29.980	842.16	0.49	29.980	812.57	0.47	29.980	773.37	0.45
30.000	842.30	0.49	30.000	812.76	0.47	30.000	773.53	0.45

**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for  $\text{CO}_2+\text{SO}_2$  mixtures.

<b><math>T = 353.15 \pm 0.04 \text{ K}</math></b>								
<b><math>x_{\text{CO}_2} = 0.9698</math></b>			<b><math>x_{\text{CO}_2} = 0.9931</math></b>					
<b><math>P</math></b> <b>(MPa)</b>	<b><math>\rho</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>P</math></b> <b>(MPa)</b>	<b><math>\rho</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math></b> <b>(<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>			
0.100	1.23	0.20	0.100	1.40	0.21			
0.120	1.53	0.21	0.120	1.40	0.20			
0.140	1.86	0.21	0.140	1.68	0.20			
0.160	2.18	0.21	0.160	1.99	0.21			
0.180	2.46	0.21	0.180	2.26	0.21			
0.200	2.77	0.21	0.200	2.58	0.21			
0.220	3.08	0.21	0.220	2.86	0.21			
0.240	3.42	0.22	0.240	3.17	0.21			
0.260	3.73	0.22	0.260	3.47	0.21			
0.280	4.01	0.22	0.280	3.77	0.21			
0.299	4.31	0.22	0.299	4.06	0.21			
0.319	4.68	0.22	0.319	4.38	0.21			
0.339	4.96	0.22	0.339	4.67	0.21			
0.359	5.27	0.22	0.359	5.03	0.21			
0.379	5.60	0.22	0.379	5.36	0.22			
0.399	5.93	0.22	0.399	5.63	0.21			
0.419	6.19	0.22	0.419	5.93	0.22			
0.439	6.52	0.22	0.439	6.26	0.22			
0.459	6.85	0.22	0.459	6.62	0.22			
0.479	7.11	0.22	0.479	6.87	0.22			
0.499	7.45	0.22	0.499	7.17	0.22			
0.519	7.72	0.22	0.519	7.50	0.22			
0.539	8.06	0.22	0.539	7.79	0.22			
0.559	8.36	0.22	0.559	8.16	0.22			
0.579	8.67	0.22	0.579	8.40	0.22			
0.599	9.00	0.22	0.599	8.76	0.22			
0.619	9.34	0.22	0.619	9.05	0.22			
0.639	9.63	0.22	0.639	9.39	0.22			
0.659	9.95	0.22	0.659	9.71	0.22			
0.678	10.27	0.22	0.678	10.01	0.22			
0.698	10.57	0.22	0.698	10.35	0.22			
0.718	10.85	0.22	0.718	10.60	0.22			
0.738	11.20	0.22	0.738	10.98	0.22			
0.758	11.54	0.22	0.758	11.26	0.22			
0.778	11.84	0.22	0.778	11.55	0.22			
0.798	12.13	0.22	0.798	11.84	0.22			

0.818	12.51	0.22	0.818	12.19	0.22			
0.838	12.79	0.22	0.838	12.46	0.22			
0.858	13.09	0.22	0.858	12.80	0.22			
0.878	13.39	0.22	0.878	13.13	0.22			
0.898	13.77	0.22	0.898	13.46	0.22			
0.918	14.08	0.22	0.918	13.73	0.22			
0.938	14.39	0.22	0.938	14.07	0.22			
0.958	14.71	0.22	0.958	14.32	0.22			
0.978	15.01	0.22	0.978	14.64	0.22			
0.998	15.36	0.22	0.998	15.00	0.22			
1.018	15.68	0.22	1.018	15.29	0.22			
1.037	15.98	0.22	1.037	15.61	0.22			
1.057	16.35	0.22	1.057	15.90	0.22			
1.077	16.64	0.22	1.077	16.25	0.22			
1.097	16.94	0.22	1.097	16.59	0.22			
1.117	17.32	0.22	1.117	16.89	0.22			
1.137	17.62	0.22	1.137	17.19	0.22			
1.157	17.92	0.22	1.157	17.51	0.22			
1.177	18.23	0.22	1.177	17.85	0.22			
1.197	18.55	0.22	1.197	18.17	0.22			
1.217	18.93	0.22	1.217	18.44	0.22			
1.237	19.25	0.22	1.237	18.80	0.22			
1.257	19.59	0.22	1.257	19.13	0.22			
1.277	19.91	0.22	1.277	19.43	0.22			
1.297	20.23	0.22	1.297	19.78	0.22			
1.317	20.57	0.22	1.317	20.08	0.22			
1.337	20.85	0.22	1.337	20.39	0.22			
1.357	21.17	0.22	1.357	20.74	0.22			
1.377	21.49	0.22	1.377	21.08	0.22			
1.397	21.83	0.22	1.397	21.39	0.22			
1.416	22.18	0.22	1.416	21.73	0.22			
1.436	22.49	0.22	1.436	22.06	0.22			
1.456	22.80	0.22	1.456	22.37	0.22			
1.476	23.16	0.22	1.476	22.69	0.22			
1.496	23.49	0.22	1.496	23.05	0.22			
1.516	23.80	0.22	1.516	23.35	0.22			
1.536	24.18	0.22	1.536	23.66	0.22			
1.556	24.47	0.22	1.556	24.00	0.22			
1.576	24.85	0.22	1.576	24.34	0.22			
1.596	25.14	0.22	1.596	24.67	0.22			
1.616	25.47	0.22	1.616	25.01	0.22			
1.636	25.81	0.22	1.636	25.32	0.22			
1.656	26.15	0.22	1.656	25.70	0.22			
1.676	26.45	0.22	1.676	26.02	0.22			
1.696	26.80	0.22	1.696	26.31	0.22			

1.716	27.15	0.22	1.716	26.69	0.22			
1.736	27.44	0.22	1.736	26.96	0.22			
1.756	27.80	0.22	1.756	27.31	0.22			
1.776	28.17	0.22	1.776	27.66	0.22			
1.795	28.51	0.22	1.795	27.98	0.22			
1.815	28.84	0.22	1.815	28.31	0.22			
1.835	29.17	0.22	1.835	28.63	0.22			
1.855	29.51	0.22	1.855	28.97	0.22			
1.875	29.83	0.22	1.875	29.26	0.22			
1.895	30.18	0.22	1.895	29.63	0.22			
1.915	30.54	0.22	1.915	29.98	0.22			
1.935	30.87	0.22	1.935	30.29	0.22			
1.955	31.23	0.22	1.955	30.65	0.22			
1.975	31.58	0.22	1.975	30.97	0.22			
1.995	31.94	0.22	1.995	31.29	0.22			
2.015	32.30	0.22	2.015	31.66	0.22			
2.035	32.66	0.22	2.035	32.01	0.22			
2.055	33.03	0.22	2.055	32.35	0.22			
2.075	33.31	0.22	2.075	32.64	0.22			
2.095	33.69	0.22	2.095	32.99	0.22			
2.115	34.05	0.22	2.115	33.32	0.22			
2.135	34.42	0.22	2.135	33.66	0.22			
2.155	34.79	0.22	2.155	33.98	0.22			
2.174	35.10	0.22	2.174	34.32	0.22			
2.194	35.48	0.22	2.194	34.70	0.22			
2.214	35.86	0.22	2.214	35.01	0.22			
2.234	36.19	0.22	2.234	35.32	0.22			
2.254	36.56	0.22	2.254	35.71	0.22			
2.274	36.89	0.22	2.274	36.08	0.22			
2.294	37.24	0.22	2.294	36.38	0.22			
2.314	37.58	0.22	2.314	36.75	0.22			
2.334	38.02	0.22	2.334	37.09	0.22			
2.354	38.38	0.22	2.354	37.43	0.22			
2.374	38.73	0.22	2.374	37.76	0.22			
2.394	39.08	0.22	2.394	38.11	0.22			
2.414	39.43	0.22	2.414	38.45	0.22			
2.434	39.78	0.22	2.434	38.80	0.22			
2.454	40.13	0.22	2.454	39.14	0.22			
2.474	40.50	0.22	2.474	39.48	0.22			
2.494	40.87	0.23	2.494	39.84	0.22			
2.514	41.24	0.23	2.514	40.15	0.22			
2.533	41.61	0.23	2.533	40.52	0.22			
2.553	41.99	0.23	2.553	40.89	0.22			
2.573	42.36	0.23	2.573	41.23	0.22			
2.593	42.66	0.23	2.593	41.59	0.22			

2.613	43.04	0.23	2.613	41.96	0.22			
2.633	43.42	0.23	2.633	42.30	0.22			
2.653	43.81	0.23	2.653	42.65	0.22			
2.673	44.14	0.23	2.673	43.00	0.22			
2.693	44.53	0.23	2.693	43.34	0.22			
2.713	44.89	0.23	2.713	43.68	0.22			
2.733	45.26	0.23	2.733	44.01	0.22			
2.753	45.59	0.23	2.753	44.37	0.22			
2.773	46.01	0.23	2.773	44.76	0.22			
2.793	46.36	0.23	2.793	45.14	0.22			
2.813	46.75	0.23	2.813	45.43	0.22			
2.833	47.07	0.23	2.833	45.80	0.22			
2.853	47.46	0.23	2.853	46.18	0.22			
2.873	47.81	0.23	2.873	46.55	0.22			
2.893	48.20	0.23	2.893	46.86	0.22			
2.912	48.54	0.23	2.912	47.21	0.22			
2.932	48.94	0.23	2.932	47.61	0.22			
2.952	49.27	0.23	2.952	47.92	0.22			
2.972	49.69	0.23	2.972	48.32	0.22			
2.992	50.06	0.23	2.992	48.68	0.22			
3.012	50.45	0.23	3.012	49.03	0.22			
3.032	50.76	0.23	3.032	49.42	0.22			
3.052	51.17	0.23	3.052	49.74	0.22			
3.072	51.51	0.23	3.072	50.12	0.22			
3.092	51.89	0.23	3.092	50.47	0.22			
3.112	52.29	0.23	3.112	50.87	0.22			
3.132	52.66	0.23	3.132	51.19	0.22			
3.152	53.01	0.23	3.152	51.59	0.22			
3.172	53.40	0.23	3.172	51.94	0.22			
3.192	53.74	0.23	3.192	52.29	0.22			
3.212	54.15	0.23	3.212	52.67	0.22			
3.232	54.49	0.23	3.232	53.03	0.22			
3.252	54.90	0.23	3.252	53.38	0.22			
3.272	55.28	0.23	3.272	53.76	0.22			
3.291	55.65	0.23	3.291	54.15	0.22			
3.311	56.03	0.23	3.311	54.50	0.22			
3.331	56.37	0.23	3.331	54.86	0.22			
3.351	56.77	0.23	3.351	55.25	0.22			
3.371	57.16	0.23	3.371	55.63	0.22			
3.391	57.50	0.23	3.391	56.00	0.22			
3.411	57.91	0.23	3.411	56.37	0.22			
3.431	58.26	0.23	3.431	56.74	0.22			
3.451	58.67	0.23	3.451	57.10	0.22			
3.471	59.05	0.23	3.471	57.46	0.22			
3.491	59.45	0.23	3.491	57.82	0.22			

3.511	59.82	0.23	3.511	58.20	0.22			
3.531	60.19	0.23	3.531	58.56	0.22			
3.551	60.60	0.23	3.551	58.91	0.22			
3.571	60.94	0.23	3.571	59.33	0.22			
3.591	61.35	0.23	3.591	59.70	0.22			
3.611	61.73	0.23	3.611	60.03	0.22			
3.631	62.12	0.23	3.631	60.39	0.22			
3.651	62.46	0.23	3.651	60.81	0.22			
3.670	62.89	0.23	3.670	61.19	0.22			
3.690	63.26	0.23	3.690	61.53	0.22			
3.710	63.62	0.23	3.710	61.91	0.22			
3.730	64.03	0.23	3.730	62.33	0.22			
3.750	64.41	0.23	3.750	62.68	0.22			
3.770	64.83	0.23	3.770	63.06	0.22			
3.790	65.18	0.23	3.790	63.46	0.22			
3.810	65.56	0.23	3.810	63.79	0.22			
3.830	65.98	0.23	3.830	64.16	0.22			
3.850	66.32	0.23	3.850	64.55	0.22			
3.870	66.74	0.23	3.870	64.94	0.22			
3.890	67.13	0.23	3.890	65.33	0.22			
3.910	67.51	0.23	3.910	65.72	0.22			
3.930	67.92	0.23	3.930	66.11	0.22			
3.950	68.31	0.23	3.950	66.49	0.22			
3.970	68.67	0.23	3.970	66.87	0.22			
3.990	69.04	0.23	3.990	67.25	0.22			
4.010	69.48	0.23	4.010	67.63	0.22			
4.029	69.87	0.23	4.029	68.01	0.22			
4.049	70.25	0.23	4.049	68.41	0.22			
4.069	70.62	0.23	4.069	68.80	0.22			
4.089	71.01	0.23	4.089	69.16	0.22			
4.109	71.40	0.23	4.109	69.56	0.22			
4.129	71.83	0.23	4.129	69.99	0.22			
4.149	72.21	0.23	4.149	70.34	0.22			
4.169	72.61	0.23	4.169	70.70	0.22			
4.189	73.05	0.23	4.189	71.11	0.22			
4.209	73.43	0.23	4.209	71.49	0.22			
4.229	73.87	0.23	4.229	71.87	0.22			
4.249	74.26	0.23	4.249	72.28	0.22			
4.269	74.63	0.23	4.269	72.69	0.22			
4.289	75.02	0.23	4.289	73.09	0.22			
4.309	75.45	0.23	4.309	73.42	0.22			
4.329	75.87	0.23	4.329	73.81	0.22			
4.349	76.27	0.23	4.349	74.21	0.22			
4.369	76.67	0.23	4.369	74.60	0.22			
4.389	77.08	0.23	4.389	75.00	0.22			

4.408	77.49	0.23	4.408	75.41	0.23			
4.428	77.89	0.23	4.428	75.82	0.23			
4.448	78.31	0.23	4.448	76.16	0.23			
4.468	78.65	0.23	4.468	76.61	0.23			
4.488	79.13	0.23	4.488	76.99	0.23			
4.508	79.52	0.23	4.508	77.38	0.23			
4.528	79.91	0.23	4.528	77.81	0.23			
4.548	80.32	0.23	4.548	78.18	0.23			
4.568	80.72	0.23	4.568	78.58	0.23			
4.588	81.17	0.23	4.588	79.00	0.23			
4.608	81.54	0.23	4.608	79.42	0.23			
4.628	81.97	0.23	4.628	79.81	0.23			
4.648	82.39	0.23	4.648	80.20	0.23			
4.668	82.81	0.23	4.668	80.57	0.23			
4.688	83.25	0.23	4.688	81.00	0.23			
4.708	83.68	0.23	4.708	81.42	0.23			
4.728	84.12	0.23	4.728	81.83	0.23			
4.748	84.48	0.23	4.748	82.25	0.23			
4.768	84.93	0.23	4.768	82.68	0.23			
4.787	85.38	0.23	4.787	83.09	0.23			
4.807	85.76	0.23	4.807	83.48	0.23			
4.827	86.16	0.23	4.827	83.85	0.23			
4.847	86.58	0.23	4.847	84.31	0.23			
4.867	87.06	0.23	4.867	84.74	0.23			
4.887	87.48	0.23	4.887	85.15	0.23			
4.907	87.93	0.23	4.907	85.54	0.23			
4.927	88.35	0.23	4.927	85.99	0.23			
4.947	88.71	0.23	4.947	86.40	0.23			
4.967	89.16	0.23	4.967	86.79	0.23			
4.987	89.62	0.23	4.987	87.19	0.23			
5.007	90.05	0.23	5.007	87.62	0.23			
5.027	90.45	0.23	5.027	88.06	0.23			
5.047	90.92	0.23	5.047	88.47	0.23			
5.067	91.30	0.23	5.067	88.90	0.23			
5.087	91.77	0.23	5.087	89.32	0.23			
5.107	92.19	0.23	5.107	89.74	0.23			
5.127	92.66	0.23	5.127	90.18	0.23			
5.147	93.09	0.23	5.147	90.62	0.23			
5.166	93.47	0.23	5.166	91.06	0.23			
5.186	93.92	0.23	5.186	91.49	0.23			
5.206	94.39	0.23	5.206	91.87	0.23			
5.226	94.83	0.23	5.226	92.29	0.23			
5.246	95.23	0.23	5.246	92.73	0.23			
5.266	95.69	0.23	5.266	93.18	0.23			
5.286	96.17	0.23	5.286	93.59	0.23			



5.306	96.57	0.23	5.306	94.04	0.23			
5.326	96.99	0.23	5.326	94.49	0.23			
5.346	97.49	0.23	5.346	94.89	0.23			
5.366	97.90	0.23	5.366	95.31	0.23			
5.386	98.39	0.23	5.386	95.73	0.23			
5.406	98.80	0.23	5.406	96.22	0.23			
5.426	99.24	0.23	5.426	96.67	0.23			
5.446	99.72	0.23	5.446	97.08	0.23			
5.466	100.15	0.23	5.466	97.53	0.23			
5.486	100.62	0.23	5.486	97.96	0.23			
5.506	101.04	0.23	5.506	98.38	0.23			
5.525	101.53	0.23	5.525	98.82	0.23			
5.545	101.97	0.23	5.545	99.27	0.23			
5.565	102.40	0.23	5.565	99.72	0.23			
5.585	102.87	0.23	5.585	100.17	0.23			
5.605	103.37	0.23	5.605	100.64	0.23			
5.625	103.81	0.23	5.625	101.09	0.23			
5.645	104.25	0.23	5.645	101.52	0.23			
5.665	104.69	0.23	5.665	101.99	0.23			
5.685	105.14	0.23	5.685	102.47	0.23			
5.705	105.63	0.23	5.705	102.93	0.23			
5.725	106.04	0.23	5.725	103.37	0.23			
5.745	106.54	0.23	5.745	103.85	0.23			
5.765	106.97	0.23	5.765	104.29	0.23			
5.785	107.43	0.23	5.785	104.74	0.23			
5.805	107.91	0.23	5.805	105.21	0.23			
5.825	108.38	0.23	5.825	105.72	0.23			
5.845	108.84	0.23	5.845	106.16	0.23			
5.865	109.33	0.23	5.865	106.63	0.23			
5.885	109.77	0.23	5.885	107.11	0.23			
5.904	110.27	0.23	5.904	107.59	0.23			
5.924	110.75	0.23	5.924	108.05	0.23			
5.944	111.20	0.23	5.944	108.59	0.23			
5.964	111.66	0.23	5.964	109.10	0.23			
5.984	112.13	0.23	5.984	109.53	0.23			
6.004	112.62	0.23	6.004	110.05	0.23			
6.024	113.06	0.23	6.024	110.55	0.23			
6.044	113.54	0.23	6.044	110.98	0.23			
6.064	113.99	0.23	6.064	111.52	0.23			
6.084	114.48	0.23	6.084	111.99	0.23			
6.104	114.96	0.23	6.104	112.49	0.23			
6.124	115.45	0.23	6.124	113.01	0.23			
6.144	115.95	0.23	6.144	113.50	0.23			
6.164	116.39	0.23	6.164	114.07	0.23			
6.184	116.93	0.23	6.184	114.55	0.23			

6.204	117.37	0.23	6.204	115.04	0.23			
6.224	117.87	0.23	6.224	115.54	0.23			
6.244	118.33	0.23	6.244	116.04	0.23			
6.264	118.80	0.23	6.264	116.56	0.23			
6.283	119.30	0.23	6.283	117.11	0.23			
6.303	119.80	0.23	6.303	117.61	0.23			
6.323	120.28	0.23	6.323	118.17	0.23			
6.343	120.75	0.23	6.343	118.72	0.23			
6.363	121.26	0.23	6.363	119.16	0.23			
6.383	121.76	0.23	6.383	119.70	0.23			
6.403	122.24	0.23	6.403	120.15	0.23			
6.423	122.72	0.23	6.423	120.65	0.23			
6.443	123.21	0.23	6.443	121.13	0.23			
6.463	123.72	0.23	6.463	121.58	0.23			
6.483	124.18	0.23	6.483	122.05	0.23			
6.503	124.66	0.23	6.503	122.46	0.23			
6.523	125.17	0.23	6.523	122.95	0.23			
6.543	125.70	0.23	6.543	123.42	0.23			
6.563	126.17	0.23	6.563	123.88	0.23			
6.583	126.64	0.23	6.583	124.29	0.23			
6.603	127.15	0.23	6.603	124.76	0.23			
6.623	127.63	0.23	6.623	125.18	0.23			
6.642	128.19	0.23	6.642	125.63	0.23			
6.662	128.73	0.24	6.662	126.08	0.23			
6.682	129.19	0.24	6.682	126.49	0.23			
6.702	129.65	0.24	6.702	126.94	0.23			
6.722	130.19	0.24	6.722	127.37	0.23			
6.742	130.73	0.24	6.742	127.80	0.23			
6.762	131.22	0.24	6.762	128.29	0.23			
6.782	131.71	0.24	6.782	128.78	0.23			
6.802	132.22	0.24	6.802	129.28	0.23			
6.822	132.79	0.24	6.822	129.70	0.23			
6.842	133.30	0.24	6.842	130.17	0.23			
6.862	133.81	0.24	6.862	130.69	0.23			
6.882	134.28	0.24	6.882	131.20	0.23			
6.902	134.78	0.24	6.902	131.64	0.23			
6.922	135.32	0.24	6.922	132.10	0.23			
6.942	135.85	0.24	6.942	132.63	0.23			
6.962	136.42	0.24	6.962	133.14	0.23			
6.982	136.90	0.24	6.982	133.62	0.23			
7.002	137.43	0.24	7.002	134.09	0.23			
7.021	137.96	0.24	7.021	134.66	0.23			
7.041	138.46	0.24	7.041	135.19	0.23			
7.061	138.97	0.24	7.061	135.66	0.23			
7.081	139.52	0.24	7.081	136.13	0.23			

7.101	140.04	0.24	7.101	136.74	0.23			
7.121	140.55	0.24	7.121	137.21	0.23			
7.141	141.10	0.24	7.141	137.75	0.23			
7.161	141.67	0.24	7.161	138.22	0.23			
7.181	142.19	0.24	7.181	138.74	0.23			
7.201	142.71	0.24	7.201	139.25	0.23			
7.221	143.19	0.24	7.221	139.79	0.23			
7.241	143.78	0.24	7.241	140.25	0.23			
7.261	144.28	0.24	7.261	140.81	0.23			
7.281	144.80	0.24	7.281	141.30	0.23			
7.301	145.38	0.24	7.301	141.81	0.23			
7.321	145.89	0.24	7.321	142.32	0.23			
7.341	146.42	0.24	7.341	142.84	0.23			
7.361	146.96	0.24	7.361	143.33	0.23			
7.381	147.47	0.24	7.381	143.87	0.23			
7.400	148.03	0.24	7.400	144.38	0.23			
7.420	148.56	0.24	7.420	144.90	0.24			
7.440	149.09	0.24	7.440	145.42	0.24			
7.460	149.65	0.24	7.460	145.91	0.24			
7.480	150.22	0.24	7.480	146.49	0.24			
7.500	150.78	0.24	7.500	147.02	0.24			
7.520	151.30	0.24	7.520	147.54	0.24			
7.540	151.85	0.24	7.540	148.07	0.24			
7.560	152.41	0.24	7.560	148.59	0.24			
7.580	152.96	0.24	7.580	149.13	0.24			
7.600	153.46	0.24	7.600	149.66	0.24			
7.620	154.08	0.24	7.620	150.23	0.24			
7.640	154.63	0.24	7.640	150.78	0.24			
7.660	155.18	0.24	7.660	151.25	0.24			
7.680	155.75	0.24	7.680	151.83	0.24			
7.700	156.33	0.24	7.700	152.36	0.24			
7.720	156.91	0.24	7.720	152.89	0.24			
7.740	157.45	0.24	7.740	153.47	0.24			
7.760	158.00	0.24	7.760	153.95	0.24			
7.779	158.56	0.24	7.779	154.53	0.24			
7.799	159.16	0.24	7.799	155.06	0.24			
7.819	159.76	0.24	7.819	155.58	0.24			
7.839	160.34	0.24	7.839	156.13	0.24			
7.859	160.89	0.24	7.859	156.71	0.24			
7.879	161.44	0.24	7.879	157.28	0.24			
7.899	162.00	0.24	7.899	157.79	0.24			
7.919	162.56	0.24	7.919	158.37	0.24			
7.939	163.14	0.24	7.939	158.94	0.24			
7.959	163.74	0.24	7.959	159.47	0.24			
7.979	164.32	0.24	7.979	160.00	0.24			

7.999	164.89	0.24	7.999	160.56	0.24			
8.019	165.50	0.24	8.019	161.11	0.24			
8.039	166.09	0.24	8.039	161.70	0.24			
8.059	166.66	0.24	8.059	162.24	0.24			
8.079	167.22	0.24	8.079	162.80	0.24			
8.099	167.81	0.24	8.099	163.41	0.24			
8.119	168.39	0.24	8.119	163.96	0.24			
8.138	168.98	0.24	8.138	164.53	0.24			
8.158	169.58	0.24	8.158	165.04	0.24			
8.178	170.20	0.24	8.178	165.61	0.24			
8.198	170.81	0.24	8.198	166.25	0.24			
8.218	171.39	0.24	8.218	166.80	0.24			
8.238	171.96	0.24	8.238	167.31	0.24			
8.258	172.58	0.24	8.258	167.88	0.24			
8.278	173.20	0.24	8.278	168.46	0.24			
8.298	173.74	0.24	8.298	169.04	0.24			
8.318	174.33	0.24	8.318	169.69	0.24			
8.338	174.96	0.24	8.338	170.22	0.24			
8.358	175.59	0.24	8.358	170.76	0.24			
8.378	176.19	0.24	8.378	171.34	0.24			
8.398	176.80	0.24	8.398	171.95	0.24			
8.418	177.43	0.24	8.418	172.57	0.24			
8.438	178.03	0.24	8.438	173.11	0.24			
8.458	178.66	0.24	8.458	173.68	0.24			
8.478	179.30	0.24	8.478	174.27	0.24			
8.498	179.88	0.24	8.498	174.85	0.24			
8.517	180.49	0.24	8.517	175.44	0.24			
8.537	181.12	0.24	8.537	176.04	0.24			
8.557	181.72	0.24	8.557	176.66	0.24			
8.577	182.33	0.25	8.577	177.21	0.24			
8.597	182.96	0.25	8.597	177.80	0.24			
8.617	183.59	0.25	8.617	178.41	0.24			
8.637	184.21	0.25	8.637	179.05	0.24			
8.657	184.85	0.25	8.657	179.66	0.24			
8.677	185.47	0.25	8.677	180.23	0.24			
8.697	186.08	0.25	8.697	180.80	0.24			
8.717	186.72	0.25	8.717	181.40	0.24			
8.737	187.36	0.25	8.737	182.02	0.24			
8.757	188.00	0.25	8.757	182.63	0.24			
8.777	188.65	0.25	8.777	183.25	0.24			
8.797	189.31	0.25	8.797	183.87	0.24			
8.817	189.97	0.25	8.817	184.43	0.24			
8.837	190.58	0.25	8.837	185.06	0.24			
8.857	191.21	0.25	8.857	185.63	0.24			
8.877	191.85	0.25	8.877	186.27	0.24			

8.896	192.49	0.25	8.896	186.86	0.24			
8.916	193.12	0.25	8.916	187.45	0.24			
8.936	193.81	0.25	8.936	188.08	0.24			
8.956	194.44	0.25	8.956	188.75	0.24			
8.976	195.07	0.25	8.976	189.36	0.24			
8.996	195.74	0.25	8.996	189.97	0.24			
9.016	196.39	0.25	9.016	190.60	0.24			
9.036	197.03	0.25	9.036	191.22	0.24			
9.056	197.71	0.25	9.056	191.84	0.24			
9.076	198.34	0.25	9.076	192.44	0.24			
9.096	199.05	0.25	9.096	193.06	0.24			
9.116	199.67	0.25	9.116	193.69	0.24			
9.136	200.31	0.25	9.136	194.32	0.24			
9.156	201.00	0.25	9.156	194.93	0.24			
9.176	201.70	0.25	9.176	195.58	0.24			
9.196	202.38	0.25	9.196	196.23	0.25			
9.216	203.01	0.25	9.216	196.86	0.25			
9.236	203.70	0.25	9.236	197.49	0.25			
9.256	204.36	0.25	9.256	198.12	0.25			
9.275	205.01	0.25	9.275	198.73	0.25			
9.295	205.69	0.25	9.295	199.36	0.25			
9.315	206.38	0.25	9.315	200.01	0.25			
9.335	207.09	0.25	9.335	200.66	0.25			
9.355	207.76	0.25	9.355	201.31	0.25			
9.375	208.46	0.25	9.375	201.97	0.25			
9.395	209.18	0.25	9.395	202.63	0.25			
9.415	209.85	0.25	9.415	203.28	0.25			
9.435	210.51	0.25	9.435	203.93	0.25			
9.455	211.17	0.25	9.455	204.58	0.25			
9.475	211.89	0.25	9.475	205.24	0.25			
9.495	212.61	0.25	9.495	205.93	0.25			
9.515	213.23	0.25	9.515	206.60	0.25			
9.535	213.95	0.25	9.535	207.24	0.25			
9.555	214.71	0.25	9.555	207.88	0.25			
9.575	215.38	0.25	9.575	208.56	0.25			
9.595	216.05	0.25	9.595	209.21	0.25			
9.615	216.73	0.25	9.615	209.85	0.25			
9.634	217.51	0.25	9.634	210.51	0.25			
9.654	218.20	0.25	9.654	211.21	0.25			
9.674	218.91	0.25	9.674	211.83	0.25			
9.694	219.62	0.25	9.694	212.49	0.25			
9.714	220.35	0.25	9.714	213.19	0.25			
9.734	221.08	0.25	9.734	213.85	0.25			
9.754	221.77	0.25	9.754	214.49	0.25			
9.774	222.42	0.25	9.774	215.16	0.25			

9.794	223.20	0.25	9.794	215.85	0.25			
9.814	223.90	0.25	9.814	216.55	0.25			
9.834	224.63	0.25	9.834	217.18	0.25			
9.854	225.31	0.26	9.854	217.89	0.25			
9.874	226.10	0.26	9.874	218.58	0.25			
9.894	226.82	0.26	9.894	219.22	0.25			
9.914	227.56	0.26	9.914	219.95	0.25			
9.934	228.22	0.26	9.934	220.60	0.25			
9.954	228.96	0.26	9.954	221.30	0.25			
9.974	229.71	0.26	9.974	222.01	0.25			
9.994	230.47	0.26	9.994	222.68	0.25			
10.013	231.22	0.26	10.013	223.35	0.25			
10.033	231.94	0.26	10.033	224.06	0.25			
10.053	232.68	0.26	10.053	224.75	0.25			
10.073	233.43	0.26	10.073	225.45	0.25			
10.093	234.18	0.26	10.093	226.16	0.25			
10.113	234.94	0.26	10.113	226.87	0.25			
10.133	235.74	0.26	10.133	227.55	0.25			
10.153	236.47	0.26	10.153	228.24	0.25			
10.173	237.19	0.26	10.173	228.94	0.25			
10.193	237.94	0.26	10.193	229.68	0.25			
10.213	238.67	0.26	10.213	230.40	0.25			
10.233	239.39	0.26	10.233	231.11	0.25			
10.253	240.15	0.26	10.253	231.78	0.25			
10.273	240.94	0.26	10.273	232.43	0.25			
10.293	241.69	0.26	10.293	233.17	0.25			
10.313	242.46	0.26	10.313	233.94	0.25			
10.333	243.22	0.26	10.333	234.63	0.25			
10.353	244.03	0.26	10.353	235.28	0.25			
10.373	244.76	0.26	10.373	236.04	0.25			
10.392	245.57	0.26	10.392	236.79	0.25			
10.412	246.27	0.26	10.412	237.51	0.25			
10.432	247.09	0.26	10.432	238.24	0.25			
10.452	247.86	0.26	10.452	238.96	0.25			
10.472	248.65	0.26	10.472	239.67	0.26			
10.492	249.43	0.26	10.492	240.37	0.26			
10.512	250.18	0.26	10.512	241.13	0.26			
10.532	250.96	0.26	10.532	241.86	0.26			
10.552	251.80	0.26	10.552	242.59	0.26			
10.572	252.56	0.26	10.572	243.36	0.26			
10.592	253.30	0.26	10.592	244.08	0.26			
10.612	254.14	0.26	10.612	244.82	0.26			
10.632	254.94	0.26	10.632	245.58	0.26			
10.652	255.77	0.26	10.652	246.30	0.26			
10.672	256.59	0.26	10.672	247.03	0.26			

10.692	257.42	0.26	10.692	247.79	0.26			
10.712	258.23	0.26	10.712	248.55	0.26			
10.732	259.06	0.26	10.732	249.29	0.26			
10.752	259.85	0.26	10.752	250.04	0.26			
10.771	260.66	0.26	10.771	250.77	0.26			
10.791	261.48	0.26	10.791	251.55	0.26			
10.811	262.26	0.26	10.811	252.31	0.26			
10.831	263.05	0.27	10.831	253.03	0.26			
10.851	263.87	0.27	10.851	253.79	0.26			
10.871	264.69	0.27	10.871	254.57	0.26			
10.891	265.48	0.27	10.891	255.36	0.26			
10.911	266.29	0.27	10.911	256.11	0.26			
10.931	267.11	0.27	10.931	256.84	0.26			
10.951	268.01	0.27	10.951	257.61	0.26			
10.971	268.84	0.27	10.971	258.35	0.26			
10.991	269.68	0.27	10.991	259.13	0.26			
11.011	270.54	0.27	11.011	259.92	0.26			
11.031	271.37	0.27	11.031	260.70	0.26			
11.051	272.16	0.27	11.051	261.44	0.26			
11.071	273.01	0.27	11.071	262.24	0.26			
11.091	273.83	0.27	11.091	263.03	0.26			
11.111	274.75	0.27	11.111	263.77	0.26			
11.130	275.55	0.27	11.130	264.55	0.26			
11.150	276.37	0.27	11.150	265.32	0.26			
11.170	277.21	0.27	11.170	266.18	0.26			
11.190	278.01	0.27	11.190	266.96	0.26			
11.210	278.87	0.27	11.210	267.75	0.26			
11.230	279.74	0.27	11.230	268.54	0.26			
11.250	280.64	0.27	11.250	269.33	0.26			
11.270	281.48	0.27	11.270	270.08	0.26			
11.290	282.30	0.27	11.290	270.86	0.26			
11.310	283.12	0.27	11.310	271.69	0.26			
11.330	284.04	0.27	11.330	272.52	0.26			
11.350	284.94	0.27	11.350	273.29	0.26			
11.370	285.73	0.27	11.370	274.06	0.26			
11.390	286.65	0.27	11.390	274.89	0.26			
11.410	287.54	0.27	11.410	275.69	0.26			
11.430	288.37	0.27	11.430	276.51	0.26			
11.450	289.22	0.27	11.450	277.30	0.27			
11.470	290.07	0.27	11.470	278.10	0.27			
11.490	290.99	0.27	11.490	278.93	0.27			
11.509	291.87	0.27	11.509	279.74	0.27			
11.529	292.75	0.27	11.529	280.58	0.27			
11.549	293.59	0.27	11.549	281.33	0.27			
11.569	294.42	0.27	11.569	282.14	0.27			

11.589	295.31	0.27	11.589	282.94	0.27			
11.609	296.24	0.27	11.609	283.78	0.27			
11.629	297.13	0.28	11.629	284.62	0.27			
11.649	297.98	0.28	11.649	285.44	0.27			
11.669	298.95	0.28	11.669	286.29	0.27			
11.689	299.87	0.28	11.689	287.10	0.27			
11.709	300.65	0.28	11.709	287.89	0.27			
11.729	301.57	0.28	11.729	288.78	0.27			
11.749	302.50	0.28	11.749	289.63	0.27			
11.769	303.41	0.28	11.769	290.50	0.27			
11.789	304.31	0.28	11.789	291.29	0.27			
11.809	305.24	0.28	11.809	292.09	0.27			
11.829	306.14	0.28	11.829	292.92	0.27			
11.849	307.03	0.28	11.849	293.77	0.27			
11.869	307.94	0.28	11.869	294.62	0.27			
11.888	308.85	0.28	11.888	295.45	0.27			
11.908	309.75	0.28	11.908	296.30	0.27			
11.928	310.64	0.28	11.928	297.10	0.27			
11.948	311.57	0.28	11.948	298.03	0.27			
11.968	312.54	0.28	11.968	298.87	0.27			
11.988	313.43	0.28	11.988	299.76	0.27			
12.008	314.29	0.28	12.008	300.58	0.27			
12.028	315.30	0.28	12.028	301.38	0.27			
12.048	316.28	0.28	12.048	302.23	0.27			
12.068	317.23	0.28	12.068	303.11	0.27			
12.088	318.03	0.28	12.088	303.94	0.27			
12.108	319.08	0.28	12.108	304.80	0.27			
12.128	320.07	0.28	12.128	305.66	0.27			
12.148	321.00	0.28	12.148	306.49	0.27			
12.168	321.91	0.28	12.168	307.34	0.27			
12.188	322.88	0.28	12.188	308.19	0.27			
12.208	323.85	0.28	12.208	309.09	0.27			
12.228	324.78	0.28	12.228	310.00	0.27			
12.248	325.73	0.28	12.248	310.87	0.27			
12.267	326.73	0.28	12.267	311.71	0.28			
12.287	327.61	0.28	12.287	312.57	0.28			
12.307	328.56	0.28	12.307	313.44	0.28			
12.327	329.45	0.29	12.327	314.30	0.28			
12.347	330.32	0.29	12.347	315.22	0.28			
12.367	331.25	0.29	12.367	316.05	0.28			
12.387	332.26	0.29	12.387	316.97	0.28			
12.407	333.21	0.29	12.407	317.84	0.28			
12.427	334.20	0.29	12.427	318.69	0.28			
12.447	335.17	0.29	12.447	319.60	0.28			
12.467	336.15	0.29	12.467	320.47	0.28			



12.487	337.11	0.29	12.487	321.33	0.28			
12.507	338.16	0.29	12.507	322.22	0.28			
12.527	339.17	0.29	12.527	323.11	0.28			
12.547	340.06	0.29	12.547	324.00	0.28			
12.567	340.95	0.29	12.567	324.90	0.28			
12.587	342.04	0.29	12.587	325.75	0.28			
12.607	343.00	0.29	12.607	326.66	0.28			
12.626	343.90	0.29	12.626	327.53	0.28			
12.646	344.90	0.29	12.646	328.46	0.28			
12.666	345.89	0.29	12.666	329.35	0.28			
12.686	346.86	0.29	12.686	330.22	0.28			
12.706	347.79	0.29	12.706	331.14	0.28			
12.726	348.80	0.29	12.726	332.05	0.28			
12.746	349.83	0.29	12.746	332.94	0.28			
12.766	350.79	0.29	12.766	333.84	0.28			
12.786	351.85	0.29	12.786	334.74	0.28			
12.806	352.81	0.29	12.806	335.63	0.28			
12.826	353.80	0.29	12.826	336.57	0.28			
12.846	354.81	0.29	12.846	337.47	0.28			
12.866	355.79	0.29	12.866	338.35	0.28			
12.886	356.75	0.29	12.886	339.18	0.28			
12.906	357.72	0.29	12.906	340.06	0.28			
12.926	358.67	0.29	12.926	340.96	0.28			
12.946	359.62	0.29	12.946	341.87	0.28			
12.966	360.61	0.30	12.966	342.80	0.28			
12.986	361.57	0.30	12.986	343.68	0.28			
13.005	362.50	0.30	13.005	344.56	0.29			
13.025	363.39	0.30	13.025	345.47	0.29			
13.045	364.32	0.30	13.045	346.42	0.29			
13.065	365.31	0.30	13.065	347.32	0.29			
13.085	366.32	0.30	13.085	348.22	0.29			
13.105	367.26	0.30	13.105	349.13	0.29			
13.125	368.26	0.30	13.125	350.05	0.29			
13.145	369.18	0.30	13.145	350.95	0.29			
13.165	370.18	0.30	13.165	351.86	0.29			
13.185	371.16	0.30	13.185	352.76	0.29			
13.205	372.16	0.30	13.205	353.65	0.29			
13.225	373.17	0.30	13.225	354.56	0.29			
13.245	374.22	0.30	13.245	355.51	0.29			
13.265	375.17	0.30	13.265	356.42	0.29			
13.285	376.15	0.30	13.285	357.32	0.29			
13.305	377.17	0.30	13.305	358.23	0.29			
13.325	378.19	0.30	13.325	359.14	0.29			
13.345	379.18	0.30	13.345	360.07	0.29			
13.365	380.10	0.30	13.365	360.99	0.29			

13.384	381.01	0.30	13.384	361.90	0.29			
13.404	381.99	0.30	13.404	362.77	0.29			
13.424	383.01	0.30	13.424	363.65	0.29			
13.444	384.01	0.30	13.444	364.57	0.29			
13.464	384.90	0.30	13.464	365.43	0.29			
13.484	385.79	0.30	13.484	366.33	0.29			
13.504	386.69	0.30	13.504	367.26	0.29			
13.524	387.66	0.30	13.524	368.19	0.29			
13.544	388.65	0.30	13.544	369.10	0.29			
13.564	389.62	0.30	13.564	370.01	0.29			
13.584	390.57	0.31	13.584	370.93	0.29			
13.604	391.50	0.31	13.604	371.79	0.29			
13.624	392.49	0.31	13.624	372.69	0.29			
13.644	393.41	0.31	13.644	373.61	0.29			
13.664	394.33	0.31	13.664	374.53	0.29			
13.684	395.31	0.31	13.684	375.42	0.30			
13.704	396.37	0.31	13.704	376.29	0.30			
13.724	397.26	0.31	13.724	377.18	0.30			
13.744	398.22	0.31	13.744	378.10	0.30			
13.763	399.19	0.31	13.763	379.01	0.30			
13.783	400.16	0.31	13.783	379.89	0.30			
13.803	401.16	0.31	13.803	380.77	0.30			
13.823	401.97	0.31	13.823	381.66	0.30			
13.843	402.78	0.31	13.843	382.58	0.30			
13.863	403.88	0.31	13.863	383.44	0.30			
13.883	404.87	0.31	13.883	384.28	0.30			
13.903	405.82	0.31	13.903	385.19	0.30			
13.923	406.76	0.31	13.923	386.08	0.30			
13.943	407.71	0.31	13.943	386.94	0.30			
13.963	408.64	0.31	13.963	387.83	0.30			
13.983	409.59	0.31	13.983	388.71	0.30			
14.003	410.51	0.31	14.003	389.57	0.30			
14.023	411.45	0.31	14.023	390.43	0.30			
14.043	412.42	0.31	14.043	391.30	0.30			
14.063	413.35	0.31	14.063	392.15	0.30			
14.083	414.36	0.31	14.083	393.02	0.30			
14.103	415.27	0.31	14.103	393.90	0.30			
14.122	416.30	0.31	14.122	394.77	0.30			
14.142	417.23	0.31	14.142	395.64	0.30			
14.162	418.25	0.31	14.162	396.50	0.30			
14.182	419.18	0.31	14.182	397.34	0.30			
14.202	420.09	0.31	14.202	398.18	0.30			
14.222	420.99	0.32	14.222	398.94	0.30			
14.242	421.90	0.32	14.242	399.74	0.30			
14.262	422.84	0.32	14.262	400.65	0.30			

14.282	423.76	0.32	14.282	401.54	0.30			
14.302	424.79	0.32	14.302	402.47	0.30			
14.322	425.80	0.32	14.322	403.38	0.30			
14.342	426.70	0.32	14.342	404.30	0.30			
14.362	427.62	0.32	14.362	405.15	0.30			
14.382	428.58	0.32	14.382	406.10	0.31			
14.402	429.56	0.32	14.402	407.05	0.31			
14.422	430.49	0.32	14.422	407.94	0.31			
14.442	431.47	0.32	14.442	408.88	0.31			
14.462	432.48	0.32	14.462	409.73	0.31			
14.482	433.37	0.32	14.482	410.59	0.31			
14.501	434.26	0.32	14.501	411.55	0.31			
14.521	435.21	0.32	14.521	412.40	0.31			
14.541	436.18	0.32	14.541	413.30	0.31			
14.561	437.06	0.32	14.561	414.27	0.31			
14.581	438.05	0.32	14.581	415.18	0.31			
14.601	439.07	0.32	14.601	416.10	0.31			
14.621	440.05	0.32	14.621	417.04	0.31			
14.641	440.95	0.32	14.641	417.84	0.31			
14.661	441.87	0.32	14.661	418.78	0.31			
14.681	442.79	0.32	14.681	419.68	0.31			
14.701	443.80	0.32	14.701	420.57	0.31			
14.721	444.74	0.32	14.721	421.48	0.31			
14.741	445.63	0.32	14.741	422.39	0.31			
14.761	446.55	0.32	14.761	423.26	0.31			
14.781	447.46	0.32	14.781	424.19	0.31			
14.801	448.32	0.32	14.801	425.07	0.31			
14.821	449.24	0.33	14.821	425.93	0.31			
14.841	450.13	0.33	14.841	426.85	0.31			
14.861	451.05	0.33	14.861	427.74	0.31			
14.880	451.97	0.33	14.880	428.66	0.31			
14.900	452.83	0.33	14.900	429.55	0.31			
14.920	453.75	0.33	14.920	430.40	0.31			
14.940	454.65	0.33	14.940	431.26	0.31			
14.960	455.53	0.33	14.960	432.14	0.31			
14.980	456.43	0.33	14.980	432.95	0.31			
15.000	457.36	0.33	15.000	433.83	0.31			
15.020	458.25	0.33	15.020	434.74	0.32			
15.040	459.10	0.33	15.040	435.63	0.32			
15.060	459.90	0.33	15.060	436.48	0.32			
15.080	460.85	0.33	15.080	437.36	0.32			
15.100	461.86	0.33	15.100	438.25	0.32			
15.120	462.76	0.33	15.120	439.12	0.32			
15.140	463.58	0.33	15.140	440.00	0.32			
15.160	464.43	0.33	15.160	440.83	0.32			

15.180	465.28	0.33	15.180	441.68	0.32			
15.200	466.15	0.33	15.200	442.57	0.32			
15.220	467.03	0.33	15.220	443.46	0.32			
15.239	467.88	0.33	15.239	444.36	0.32			
15.259	468.72	0.33	15.259	445.24	0.32			
15.279	469.61	0.33	15.279	446.10	0.32			
15.299	470.47	0.33	15.299	446.89	0.32			
15.319	471.34	0.33	15.319	447.76	0.32			
15.339	472.16	0.33	15.339	448.69	0.32			
15.359	472.95	0.33	15.359	449.60	0.32			
15.379	473.81	0.33	15.379	450.42	0.32			
15.399	474.65	0.33	15.399	451.30	0.32			
15.419	475.50	0.33	15.419	452.14	0.32			
15.439	476.32	0.33	15.439	452.94	0.32			
15.459	477.11	0.33	15.459	453.76	0.32			
15.479	477.84	0.34	15.479	454.60	0.32			
15.499	478.60	0.34	15.499	455.44	0.32			
15.519	479.49	0.34	15.519	456.25	0.32			
15.539	480.37	0.34	15.539	457.07	0.32			
15.559	481.20	0.34	15.559	457.94	0.32			
15.579	482.11	0.34	15.579	458.83	0.32			
15.599	482.92	0.34	15.599	459.65	0.32			
15.618	483.84	0.34	15.618	460.42	0.32			
15.638	484.66	0.34	15.638	461.29	0.32			
15.658	485.49	0.34	15.658	462.11	0.33			
15.678	486.31	0.34	15.678	463.01	0.33			
15.698	487.17	0.34	15.698	463.84	0.33			
15.718	487.97	0.34	15.718	464.68	0.33			
15.738	488.87	0.34	15.738	465.46	0.33			
15.758	489.73	0.34	15.758	466.26	0.33			
15.778	490.54	0.34	15.778	467.08	0.33			
15.798	491.36	0.34	15.798	467.90	0.33			
15.818	492.25	0.34	15.818	468.75	0.33			
15.838	493.02	0.34	15.838	469.58	0.33			
15.858	493.96	0.34	15.858	470.40	0.33			
15.878	494.76	0.34	15.878	471.22	0.33			
15.898	495.58	0.34	15.898	471.99	0.33			
15.918	496.40	0.34	15.918	472.75	0.33			
15.938	497.28	0.34	15.938	473.61	0.33			
15.958	498.09	0.34	15.958	474.40	0.33			
15.978	498.88	0.34	15.978	475.17	0.33			
15.997	499.70	0.34	15.997	475.99	0.33			
16.017	500.46	0.34	16.017	476.80	0.33			
16.037	501.26	0.34	16.037	477.57	0.33			
16.057	502.04	0.34	16.057	478.34	0.33			

16.077	502.83	0.34	16.077	479.17	0.33			
16.097	503.62	0.34	16.097	480.00	0.33			
16.117	504.39	0.34	16.117	480.78	0.33			
16.137	505.17	0.35	16.137	481.55	0.33			
16.157	505.98	0.35	16.157	482.33	0.33			
16.177	506.77	0.35	16.177	483.10	0.33			
16.197	507.57	0.35	16.197	483.87	0.33			
16.217	508.35	0.35	16.217	484.66	0.33			
16.237	509.15	0.35	16.237	485.48	0.33			
16.257	509.97	0.35	16.257	486.26	0.33			
16.277	510.69	0.35	16.277	487.01	0.33			
16.297	511.46	0.35	16.297	487.74	0.33			
16.317	512.31	0.35	16.317	488.48	0.33			
16.337	513.08	0.35	16.337	489.25	0.34			
16.357	513.84	0.35	16.357	489.99	0.34			
16.376	514.62	0.35	16.376	490.73	0.34			
16.396	515.40	0.35	16.396	491.48	0.34			
16.416	516.15	0.35	16.416	492.22	0.34			
16.436	516.89	0.35	16.436	492.92	0.34			
16.456	517.63	0.35	16.456	493.68	0.34			
16.476	518.40	0.35	16.476	494.43	0.34			
16.496	519.16	0.35	16.496	495.15	0.34			
16.516	519.89	0.35	16.516	495.90	0.34			
16.536	520.66	0.35	16.536	496.60	0.34			
16.556	521.38	0.35	16.556	497.35	0.34			
16.576	522.10	0.35	16.576	498.14	0.34			
16.596	522.83	0.35	16.596	498.81	0.34			
16.616	523.55	0.35	16.616	499.50	0.34			
16.636	524.26	0.35	16.636	500.20	0.34			
16.656	524.97	0.35	16.656	500.90	0.34			
16.676	525.64	0.35	16.676	501.61	0.34			
16.696	526.31	0.35	16.696	502.31	0.34			
16.716	527.04	0.35	16.716	503.02	0.34			
16.735	527.80	0.35	16.735	503.74	0.34			
16.755	528.45	0.35	16.755	504.48	0.34			
16.775	529.23	0.35	16.775	505.17	0.34			
16.795	529.94	0.35	16.795	505.84	0.34			
16.815	530.70	0.35	16.815	506.52	0.34			
16.835	531.40	0.35	16.835	507.19	0.34			
16.855	532.11	0.35	16.855	507.88	0.34			
16.875	532.79	0.36	16.875	508.58	0.34			
16.895	533.49	0.36	16.895	509.29	0.34			
16.915	534.21	0.36	16.915	509.93	0.34			
16.935	534.93	0.36	16.935	510.49	0.34			
16.955	535.66	0.36	16.955	511.19	0.34			

16.975	536.32	0.36	16.975	511.95	0.34			
16.995	537.00	0.36	16.995	512.62	0.34			
17.015	537.68	0.36	17.015	513.30	0.34			
17.035	538.37	0.36	17.035	514.04	0.34			
17.055	538.98	0.36	17.055	514.73	0.34			
17.075	539.60	0.36	17.075	515.44	0.34			
17.095	540.28	0.36	17.095	516.19	0.35			
17.114	541.00	0.36	17.114	516.92	0.35			
17.134	541.70	0.36	17.134	517.59	0.35			
17.154	542.34	0.36	17.154	518.28	0.35			
17.174	542.99	0.36	17.174	519.05	0.35			
17.194	543.66	0.36	17.194	519.75	0.35			
17.214	544.33	0.36	17.214	520.47	0.35			
17.234	545.00	0.36	17.234	521.21	0.35			
17.254	545.62	0.36	17.254	521.87	0.35			
17.274	546.27	0.36	17.274	522.56	0.35			
17.294	546.94	0.36	17.294	523.29	0.35			
17.314	547.60	0.36	17.314	523.97	0.35			
17.334	548.17	0.36	17.334	524.62	0.35			
17.354	548.73	0.36	17.354	525.35	0.35			
17.374	549.39	0.36	17.374	526.00	0.35			
17.394	550.01	0.36	17.394	526.68	0.35			
17.414	550.63	0.36	17.414	527.38	0.35			
17.434	551.25	0.36	17.434	528.01	0.35			
17.454	551.86	0.36	17.454	528.73	0.35			
17.474	552.48	0.36	17.474	529.38	0.35			
17.493	553.11	0.36	17.493	530.05	0.35			
17.513	553.76	0.36	17.513	530.69	0.35			
17.533	554.40	0.36	17.533	531.38	0.35			
17.553	555.01	0.36	17.553	532.08	0.35			
17.573	555.60	0.36	17.573	532.75	0.35			
17.593	556.19	0.36	17.593	533.41	0.35			
17.613	556.80	0.36	17.613	534.04	0.35			
17.633	557.44	0.36	17.633	534.69	0.35			
17.653	558.04	0.36	17.653	535.32	0.35			
17.673	558.64	0.36	17.673	535.91	0.35			
17.693	559.13	0.36	17.693	536.64	0.35			
17.713	559.62	0.36	17.713	537.30	0.35			
17.733	560.19	0.37	17.733	537.91	0.35			
17.753	560.81	0.37	17.753	538.55	0.35			
17.773	561.43	0.37	17.773	539.23	0.35			
17.793	562.01	0.37	17.793	539.91	0.35			
17.813	562.65	0.37	17.813	540.55	0.35			
17.833	563.22	0.37	17.833	541.15	0.35			
17.853	563.79	0.37	17.853	541.80	0.35			

17.872	564.45	0.37	17.872	542.42	0.36			
17.892	565.05	0.37	17.892	543.10	0.36			
17.912	565.75	0.37	17.912	543.71	0.36			
17.932	566.35	0.37	17.932	544.32	0.36			
17.952	566.93	0.37	17.952	544.98	0.36			
17.972	567.60	0.37	17.972	545.61	0.36			
17.992	568.20	0.37	17.992	546.19	0.36			
18.012	568.77	0.37	18.012	546.90	0.36			
18.032	569.37	0.37	18.032	547.50	0.36			
18.052	569.95	0.37	18.052	548.16	0.36			
18.072	570.53	0.37	18.072	548.80	0.36			
18.092	571.17	0.37	18.092	549.38	0.36			
18.112	571.78	0.37	18.112	549.99	0.36			
18.132	572.33	0.37	18.132	550.62	0.36			
18.152	572.98	0.37	18.152	551.25	0.36			
18.172	573.58	0.37	18.172	551.79	0.36			
18.192	574.19	0.37	18.192	552.35	0.36			
18.212	574.78	0.37	18.212	552.94	0.36			
18.231	575.38	0.37	18.231	553.59	0.36			
18.251	575.97	0.37	18.251	554.16	0.36			
18.271	576.55	0.37	18.271	554.71	0.36			
18.291	577.13	0.37	18.291	555.26	0.36			
18.311	577.66	0.37	18.311	555.86	0.36			
18.331	578.24	0.37	18.331	556.43	0.36			
18.351	578.74	0.37	18.351	557.07	0.36			
18.371	579.39	0.37	18.371	557.70	0.36			
18.391	579.95	0.37	18.391	558.28	0.36			
18.411	580.55	0.37	18.411	558.89	0.36			
18.431	581.10	0.37	18.431	559.48	0.36			
18.451	581.71	0.37	18.451	560.06	0.36			
18.471	582.32	0.37	18.471	560.63	0.36			
18.491	582.88	0.37	18.491	561.20	0.36			
18.511	583.39	0.37	18.511	561.79	0.36			
18.531	583.97	0.37	18.531	562.36	0.36			
18.551	584.56	0.37	18.551	562.95	0.36			
18.571	585.10	0.37	18.571	563.53	0.36			
18.591	585.68	0.37	18.591	564.10	0.36			
18.610	586.21	0.38	18.610	564.68	0.36			
18.630	586.76	0.38	18.630	565.21	0.36			
18.650	587.32	0.38	18.650	565.80	0.36			
18.670	587.85	0.38	18.670	566.39	0.36			
18.690	588.36	0.38	18.690	566.96	0.36			
18.710	588.87	0.38	18.710	567.50	0.36			
18.730	589.38	0.38	18.730	568.06	0.37			
18.750	589.93	0.38	18.750	568.67	0.37			

18.770	590.45	0.38	18.770	569.23	0.37			
18.790	591.08	0.38	18.790	569.75	0.37			
18.810	591.63	0.38	18.810	570.27	0.37			
18.830	592.16	0.38	18.830	570.79	0.37			
18.850	592.66	0.38	18.850	571.34	0.37			
18.870	593.25	0.38	18.870	571.90	0.37			
18.890	593.79	0.38	18.890	572.43	0.37			
18.910	594.34	0.38	18.910	572.97	0.37			
18.930	594.89	0.38	18.930	573.50	0.37			
18.950	595.38	0.38	18.950	574.05	0.37			
18.970	595.86	0.38	18.970	574.57	0.37			
18.989	596.43	0.38	18.989	575.12	0.37			
19.009	596.95	0.38	19.009	575.66	0.37			
19.029	597.48	0.38	19.029	576.18	0.37			
19.049	597.96	0.38	19.049	576.72	0.37			
19.069	598.44	0.38	19.069	577.26	0.37			
19.089	598.95	0.38	19.089	577.79	0.37			
19.109	599.45	0.38	19.109	578.30	0.37			
19.129	599.92	0.38	19.129	578.81	0.37			
19.149	600.48	0.38	19.149	579.31	0.37			
19.169	600.98	0.38	19.169	579.82	0.37			
19.189	601.50	0.38	19.189	580.31	0.37			
19.209	602.00	0.38	19.209	580.78	0.37			
19.229	602.57	0.38	19.229	581.27	0.37			
19.249	603.04	0.38	19.249	581.79	0.37			
19.269	603.52	0.38	19.269	582.31	0.37			
19.289	604.07	0.38	19.289	582.80	0.37			
19.309	604.56	0.38	19.309	583.29	0.37			
19.329	605.02	0.38	19.329	583.82	0.37			
19.349	605.56	0.38	19.349	584.31	0.37			
19.368	606.08	0.38	19.368	584.79	0.37			
19.388	606.57	0.38	19.388	585.29	0.37			
19.408	607.09	0.38	19.408	585.80	0.37			
19.428	607.57	0.38	19.428	586.29	0.37			
19.448	608.01	0.38	19.448	586.76	0.37			
19.468	608.46	0.38	19.468	587.24	0.37			
19.488	608.98	0.38	19.488	587.72	0.37			
19.508	609.41	0.38	19.508	588.20	0.37			
19.528	609.89	0.38	19.528	588.66	0.37			
19.548	610.40	0.38	19.548	589.19	0.37			
19.568	610.94	0.38	19.568	589.68	0.37			
19.588	611.36	0.38	19.588	590.19	0.37			
19.608	611.86	0.39	19.608	590.72	0.37			
19.628	612.34	0.39	19.628	591.21	0.37			
19.648	612.86	0.39	19.648	591.73	0.37			



19.668	613.28	0.39	19.668	592.20	0.37			
19.688	613.76	0.39	19.688	592.72	0.37			
19.708	614.31	0.39	19.708	593.26	0.38			
19.727	614.81	0.39	19.727	593.72	0.38			
19.747	615.24	0.39	19.747	594.21	0.38			
19.767	615.73	0.39	19.767	594.77	0.38			
19.787	616.18	0.39	19.787	595.27	0.38			
19.807	616.65	0.39	19.807	595.77	0.38			
19.827	617.11	0.39	19.827	596.23	0.38			
19.847	617.49	0.39	19.847	596.69	0.38			
19.867	617.96	0.39	19.867	597.21	0.38			
19.887	618.49	0.39	19.887	597.68	0.38			
19.907	618.93	0.39	19.907	598.19	0.38			
19.927	619.37	0.39	19.927	598.64	0.38			
19.947	619.82	0.39	19.947	599.17	0.38			
19.967	620.26	0.39	19.967	599.65	0.38			
19.987	620.68	0.39	19.987	600.16	0.38			
20.007	621.08	0.39	20.007	600.64	0.38			
20.027	621.54	0.39	20.027	601.09	0.38			
20.047	622.02	0.39	20.047	601.54	0.38			
20.067	622.45	0.39	20.067	601.98	0.38			
20.087	622.86	0.39	20.087	602.46	0.38			
20.106	623.32	0.39	20.106	602.92	0.38			
20.126	623.80	0.39	20.126	603.45	0.38			
20.146	624.24	0.39	20.146	603.97	0.38			
20.166	624.70	0.39	20.166	604.44	0.38			
20.186	625.17	0.39	20.186	604.91	0.38			
20.206	625.54	0.39	20.206	605.37	0.38			
20.226	626.00	0.39	20.226	605.81	0.38			
20.246	626.42	0.39	20.246	606.23	0.38			
20.266	626.82	0.39	20.266	606.68	0.38			
20.286	627.29	0.39	20.286	607.18	0.38			
20.306	627.73	0.39	20.306	607.66	0.38			
20.326	628.16	0.39	20.326	608.08	0.38			
20.346	628.56	0.39	20.346	608.52	0.38			
20.366	628.96	0.39	20.366	608.98	0.38			
20.386	629.31	0.39	20.386	609.46	0.38			
20.406	629.66	0.39	20.406	609.95	0.38			
20.426	630.12	0.39	20.426	610.41	0.38			
20.446	630.52	0.39	20.446	610.84	0.38			
20.466	630.98	0.39	20.466	611.30	0.38			
20.485	631.46	0.39	20.485	611.73	0.38			
20.505	631.81	0.39	20.505	612.18	0.38			
20.525	632.16	0.39	20.525	612.63	0.38			
20.545	632.57	0.39	20.545	613.07	0.38			

20.565	633.03	0.39	20.565	613.52	0.38			
20.585	633.45	0.39	20.585	613.99	0.38			
20.605	633.88	0.39	20.605	614.47	0.38			
20.625	634.29	0.39	20.625	614.88	0.38			
20.645	634.68	0.39	20.645	615.29	0.38			
20.665	635.09	0.39	20.665	615.71	0.38			
20.685	635.54	0.39	20.685	616.17	0.38			
20.705	635.95	0.39	20.705	616.64	0.38			
20.725	636.36	0.39	20.725	617.08	0.38			
20.745	636.74	0.39	20.745	617.49	0.38			
20.765	637.20	0.40	20.765	617.98	0.39			
20.785	637.60	0.40	20.785	618.41	0.39			
20.805	638.01	0.40	20.805	618.83	0.39			
20.825	638.43	0.40	20.825	619.26	0.39			
20.845	638.78	0.40	20.845	619.70	0.39			
20.864	639.24	0.40	20.864	620.12	0.39			
20.884	639.67	0.40	20.884	620.54	0.39			
20.904	640.06	0.40	20.904	620.96	0.39			
20.924	640.50	0.40	20.924	621.39	0.39			
20.944	640.93	0.40	20.944	621.83	0.39			
20.964	641.33	0.40	20.964	622.23	0.39			
20.984	641.76	0.40	20.984	622.58	0.39			
21.004	642.18	0.40	21.004	623.01	0.39			
21.024	642.56	0.40	21.024	623.45	0.39			
21.044	642.95	0.40	21.044	623.87	0.39			
21.064	643.34	0.40	21.064	624.29	0.39			
21.084	643.74	0.40	21.084	624.75	0.39			
21.104	644.14	0.40	21.104	625.18	0.39			
21.124	644.54	0.40	21.124	625.57	0.39			
21.144	644.92	0.40	21.144	625.97	0.39			
21.164	645.31	0.40	21.164	626.40	0.39			
21.184	645.75	0.40	21.184	626.79	0.39			
21.204	646.13	0.40	21.204	627.23	0.39			
21.223	646.47	0.40	21.223	627.65	0.39			
21.243	646.84	0.40	21.243	628.09	0.39			
21.263	647.23	0.40	21.263	628.52	0.39			
21.283	647.62	0.40	21.283	628.94	0.39			
21.303	648.00	0.40	21.303	629.36	0.39			
21.323	648.35	0.40	21.323	629.74	0.39			
21.343	648.76	0.40	21.343	630.10	0.39			
21.363	649.21	0.40	21.363	630.48	0.39			
21.383	649.55	0.40	21.383	630.86	0.39			
21.403	649.89	0.40	21.403	631.26	0.39			
21.423	650.30	0.40	21.423	631.65	0.39			
21.443	650.69	0.40	21.443	632.06	0.39			

21.463	651.07	0.40	21.463	632.44	0.39			
21.483	651.46	0.40	21.483	632.81	0.39			
21.503	651.82	0.40	21.503	633.19	0.39			
21.523	652.17	0.40	21.523	633.57	0.39			
21.543	652.55	0.40	21.543	633.96	0.39			
21.563	652.92	0.40	21.563	634.34	0.39			
21.583	653.30	0.40	21.583	634.71	0.39			
21.602	653.65	0.40	21.602	635.10	0.39			
21.622	654.02	0.40	21.622	635.50	0.39			
21.642	654.39	0.40	21.642	635.84	0.39			
21.662	654.77	0.40	21.662	636.21	0.39			
21.682	655.18	0.40	21.682	636.61	0.39			
21.702	655.54	0.40	21.702	636.94	0.39			
21.722	655.93	0.40	21.722	637.28	0.39			
21.742	656.26	0.40	21.742	637.75	0.39			
21.762	656.68	0.40	21.762	638.14	0.39			
21.782	657.03	0.40	21.782	638.52	0.39			
21.802	657.37	0.40	21.802	638.90	0.39			
21.822	657.73	0.40	21.822	639.28	0.39			
21.842	658.11	0.40	21.842	639.66	0.39			
21.862	658.49	0.40	21.862	640.03	0.39			
21.882	658.82	0.40	21.882	640.40	0.39			
21.902	659.21	0.40	21.902	640.78	0.39			
21.922	659.63	0.40	21.922	641.18	0.39			
21.942	659.99	0.40	21.942	641.62	0.39			
21.962	660.31	0.40	21.962	641.98	0.39			
21.981	660.62	0.40	21.981	642.41	0.39			
22.001	661.02	0.40	22.001	642.79	0.40			
22.021	661.39	0.40	22.021	643.14	0.40			
22.041	661.71	0.40	22.041	643.48	0.40			
22.061	662.02	0.40	22.061	643.88	0.40			
22.081	662.33	0.41	22.081	644.27	0.40			
22.101	662.67	0.41	22.101	644.64	0.40			
22.121	663.03	0.41	22.121	645.00	0.40			
22.141	663.40	0.41	22.141	645.39	0.40			
22.161	663.71	0.41	22.161	645.75	0.40			
22.181	664.08	0.41	22.181	646.10	0.40			
22.201	664.43	0.41	22.201	646.49	0.40			
22.221	664.80	0.41	22.221	646.90	0.40			
22.241	665.13	0.41	22.241	647.27	0.40			
22.261	665.48	0.41	22.261	647.65	0.40			
22.281	665.83	0.41	22.281	648.05	0.40			
22.301	666.22	0.41	22.301	648.44	0.40			
22.321	666.54	0.41	22.321	648.81	0.40			
22.340	666.88	0.41	22.340	649.12	0.40			

22.360	667.25	0.41	22.360	649.47	0.40			
22.380	667.56	0.41	22.380	649.83	0.40			
22.400	667.88	0.41	22.400	650.20	0.40			
22.420	668.24	0.41	22.420	650.55	0.40			
22.440	668.58	0.41	22.440	650.90	0.40			
22.460	668.92	0.41	22.460	651.23	0.40			
22.480	669.25	0.41	22.480	651.59	0.40			
22.500	669.55	0.41	22.500	651.98	0.40			
22.520	669.90	0.41	22.520	652.36	0.40			
22.540	670.22	0.41	22.540	652.73	0.40			
22.560	670.56	0.41	22.560	653.05	0.40			
22.580	670.93	0.41	22.580	653.41	0.40			
22.600	671.28	0.41	22.600	653.77	0.40			
22.620	671.58	0.41	22.620	654.13	0.40			
22.640	671.92	0.41	22.640	654.47	0.40			
22.660	672.28	0.41	22.660	654.80	0.40			
22.680	672.64	0.41	22.680	655.18	0.40			
22.700	672.98	0.41	22.700	655.57	0.40			
22.719	673.29	0.41	22.719	655.95	0.40			
22.739	673.62	0.41	22.739	656.27	0.40			
22.759	673.96	0.41	22.759	656.60	0.40			
22.779	674.28	0.41	22.779	656.91	0.40			
22.799	674.56	0.41	22.799	657.27	0.40			
22.819	674.90	0.41	22.819	657.63	0.40			
22.839	675.22	0.41	22.839	657.93	0.40			
22.859	675.55	0.41	22.859	658.26	0.40			
22.879	675.91	0.41	22.879	658.61	0.40			
22.899	676.20	0.41	22.899	658.99	0.40			
22.919	676.54	0.41	22.919	659.34	0.40			
22.939	676.86	0.41	22.939	659.65	0.40			
22.959	677.18	0.41	22.959	659.97	0.40			
22.979	677.51	0.41	22.979	660.30	0.40			
22.999	677.85	0.41	22.999	660.66	0.40			
23.019	678.18	0.41	23.019	661.06	0.40			
23.039	678.48	0.41	23.039	661.38	0.40			
23.059	678.83	0.41	23.059	661.69	0.40			
23.079	679.13	0.41	23.079	662.00	0.40			
23.098	679.45	0.41	23.098	662.34	0.40			
23.118	679.80	0.41	23.118	662.68	0.40			
23.138	680.13	0.41	23.138	663.01	0.40			
23.158	680.40	0.41	23.158	663.37	0.40			
23.178	680.70	0.41	23.178	663.71	0.40			
23.198	681.02	0.41	23.198	664.03	0.40			
23.218	681.36	0.41	23.218	664.36	0.40			
23.238	681.64	0.41	23.238	664.69	0.40			

23.258	681.96	0.41	23.258	665.03	0.40			
23.278	682.31	0.41	23.278	665.35	0.40			
23.298	682.57	0.41	23.298	665.66	0.40			
23.318	682.87	0.41	23.318	665.99	0.40			
23.338	683.21	0.41	23.338	666.31	0.40			
23.358	683.53	0.41	23.358	666.64	0.40			
23.378	683.83	0.41	23.378	666.96	0.41			
23.398	684.13	0.41	23.398	667.28	0.41			
23.418	684.47	0.41	23.418	667.60	0.41			
23.438	684.80	0.41	23.438	667.92	0.41			
23.458	685.11	0.41	23.458	668.24	0.41			
23.477	685.44	0.41	23.477	668.55	0.41			
23.497	685.75	0.41	23.497	668.85	0.41			
23.517	686.04	0.41	23.517	669.16	0.41			
23.537	686.35	0.41	23.537	669.48	0.41			
23.557	686.65	0.41	23.557	669.81	0.41			
23.577	686.94	0.42	23.577	670.12	0.41			
23.597	687.23	0.42	23.597	670.47	0.41			
23.617	687.52	0.42	23.617	670.80	0.41			
23.637	687.83	0.42	23.637	671.11	0.41			
23.657	688.13	0.42	23.657	671.41	0.41			
23.677	688.40	0.42	23.677	671.71	0.41			
23.697	688.70	0.42	23.697	672.01	0.41			
23.717	689.01	0.42	23.717	672.33	0.41			
23.737	689.33	0.42	23.737	672.66	0.41			
23.757	689.64	0.42	23.757	672.95	0.41			
23.777	689.95	0.42	23.777	673.25	0.41			
23.797	690.26	0.42	23.797	673.55	0.41			
23.817	690.54	0.42	23.817	673.86	0.41			
23.836	690.81	0.42	23.836	674.20	0.41			
23.856	691.14	0.42	23.856	674.51	0.41			
23.876	691.44	0.42	23.876	674.79	0.41			
23.896	691.70	0.42	23.896	675.06	0.41			
23.916	692.00	0.42	23.916	675.33	0.41			
23.936	692.30	0.42	23.936	675.61	0.41			
23.956	692.60	0.42	23.956	675.91	0.41			
23.976	692.92	0.42	23.976	676.22	0.41			
23.996	693.21	0.42	23.996	676.50	0.41			
24.016	693.48	0.42	24.016	676.78	0.41			
24.036	693.75	0.42	24.036	677.08	0.41			
24.056	694.05	0.42	24.056	677.40	0.41			
24.076	694.39	0.42	24.076	677.73	0.41			
24.096	694.69	0.42	24.096	678.00	0.41			
24.116	694.98	0.42	24.116	678.27	0.41			
24.136	695.31	0.42	24.136	678.54	0.41			

24.156	695.58	0.42	24.156	678.82	0.41			
24.176	695.82	0.42	24.176	679.13	0.41			
24.196	696.10	0.42	24.196	679.43	0.41			
24.215	696.39	0.42	24.215	679.70	0.41			
24.235	696.71	0.42	24.235	679.98	0.41			
24.255	697.01	0.42	24.255	680.28	0.41			
24.275	697.29	0.42	24.275	680.57	0.41			
24.295	697.57	0.42	24.295	680.86	0.41			
24.315	697.84	0.42	24.315	681.14	0.41			
24.335	698.12	0.42	24.335	681.42	0.41			
24.355	698.40	0.42	24.355	681.70	0.41			
24.375	698.70	0.42	24.375	681.97	0.41			
24.395	698.97	0.42	24.395	682.23	0.41			
24.415	699.21	0.42	24.415	682.49	0.41			
24.435	699.49	0.42	24.435	682.74	0.41			
24.455	699.79	0.42	24.455	683.01	0.41			
24.475	700.07	0.42	24.475	683.30	0.41			
24.495	700.36	0.42	24.495	683.59	0.41			
24.515	700.61	0.42	24.515	683.85	0.41			
24.535	700.86	0.42	24.535	684.11	0.41			
24.555	701.14	0.42	24.555	684.35	0.41			
24.575	701.41	0.42	24.575	684.59	0.41			
24.594	701.68	0.42	24.594	684.88	0.41			
24.614	701.96	0.42	24.614	685.20	0.41			
24.634	702.25	0.42	24.634	685.51	0.41			
24.654	702.51	0.42	24.654	685.89	0.41			
24.674	702.76	0.42	24.674	686.26	0.41			
24.694	703.03	0.42	24.694	686.51	0.41			
24.714	703.30	0.42	24.714	686.86	0.41			
24.734	703.61	0.42	24.734	687.16	0.41			
24.754	703.89	0.42	24.754	687.55	0.41			
24.774	704.16	0.42	24.774	687.85	0.41			
24.794	704.41	0.42	24.794	688.10	0.41			
24.814	704.65	0.42	24.814	688.45	0.41			
24.834	704.91	0.42	24.834	688.79	0.41			
24.854	705.18	0.42	24.854	689.09	0.41			
24.874	705.46	0.42	24.874	689.38	0.41			
24.894	705.75	0.42	24.894	689.64	0.41			
24.914	706.02	0.42	24.914	689.96	0.41			
24.934	706.29	0.42	24.934	690.25	0.41			
24.954	706.55	0.42	24.954	690.58	0.41			
24.973	706.80	0.42	24.973	690.82	0.42			
24.993	707.03	0.42	24.993	691.16	0.42			
25.013	707.27	0.42	25.013	691.53	0.42			
25.033	707.52	0.42	25.033	691.77	0.42			

25.053	707.79	0.42	25.053	692.03	0.42			
25.073	708.05	0.42	25.073	692.30	0.42			
25.093	708.34	0.42	25.093	692.60	0.42			
25.113	708.61	0.42	25.113	692.90	0.42			
25.133	708.88	0.42	25.133	693.18	0.42			
25.153	709.13	0.42	25.153	693.50	0.42			
25.173	709.38	0.42	25.173	693.75	0.42			
25.193	709.64	0.42	25.193	694.06	0.42			
25.213	709.90	0.42	25.213	694.31	0.42			
25.233	710.15	0.42	25.233	694.62	0.42			
25.253	710.41	0.42	25.253	694.88	0.42			
25.273	710.63	0.42	25.273	695.17	0.42			
25.293	710.85	0.42	25.293	695.47	0.42			
25.313	711.12	0.43	25.313	695.73	0.42			
25.332	711.37	0.43	25.332	696.03	0.42			
25.352	711.63	0.43	25.352	696.32	0.42			
25.372	711.89	0.43	25.372	696.57	0.42			
25.392	712.14	0.43	25.392	696.87	0.42			
25.412	712.41	0.43	25.412	697.17	0.42			
25.432	712.71	0.43	25.432	697.41	0.42			
25.452	712.98	0.43	25.452	697.70	0.42			
25.472	713.25	0.43	25.472	697.97	0.42			
25.492	713.52	0.43	25.492	698.25	0.42			
25.512	713.75	0.43	25.512	698.53	0.42			
25.532	713.98	0.43	25.532	698.79	0.42			
25.552	714.19	0.43	25.552	699.07	0.42			
25.572	714.53	0.43	25.572	699.35	0.42			
25.592	714.79	0.43	25.592	699.63	0.42			
25.612	715.00	0.43	25.612	699.92	0.42			
25.632	715.28	0.43	25.632	700.17	0.42			
25.652	715.53	0.43	25.652	700.42	0.42			
25.672	715.80	0.43	25.672	700.69	0.42			
25.692	716.09	0.43	25.692	700.98	0.42			
25.711	716.35	0.43	25.711	701.28	0.42			
25.731	716.64	0.43	25.731	701.56	0.42			
25.751	716.91	0.43	25.751	701.82	0.42			
25.771	717.16	0.43	25.771	702.08	0.42			
25.791	717.39	0.43	25.791	702.35	0.42			
25.811	717.63	0.43	25.811	702.63	0.42			
25.831	717.88	0.43	25.831	702.86	0.42			
25.851	718.13	0.43	25.851	703.11	0.42			
25.871	718.38	0.43	25.871	703.35	0.42			
25.891	718.61	0.43	25.891	703.63	0.42			
25.911	718.86	0.43	25.911	703.90	0.42			
25.931	719.13	0.43	25.931	704.17	0.42			

25.951	719.41	0.43	25.951	704.44	0.42			
25.971	719.68	0.43	25.971	704.71	0.42			
25.991	719.89	0.43	25.991	704.96	0.42			
26.011	720.11	0.43	26.011	705.23	0.42			
26.031	720.37	0.43	26.031	705.52	0.42			
26.051	720.62	0.43	26.051	705.78	0.42			
26.071	720.87	0.43	26.071	706.04	0.42			
26.090	721.11	0.43	26.090	706.32	0.42			
26.110	721.38	0.43	26.110	706.58	0.42			
26.130	721.61	0.43	26.130	706.82	0.42			
26.150	721.84	0.43	26.150	707.08	0.42			
26.170	722.08	0.43	26.170	707.33	0.42			
26.190	722.36	0.43	26.190	707.59	0.42			
26.210	722.63	0.43	26.210	707.88	0.42			
26.230	722.89	0.43	26.230	708.13	0.42			
26.250	723.14	0.43	26.250	708.36	0.42			
26.270	723.38	0.43	26.270	708.68	0.42			
26.290	723.62	0.43	26.290	708.95	0.42			
26.310	723.85	0.43	26.310	709.20	0.42			
26.330	724.08	0.43	26.330	709.47	0.42			
26.350	724.33	0.43	26.350	709.73	0.42			
26.370	724.58	0.43	26.370	709.99	0.42			
26.390	724.81	0.43	26.390	710.25	0.42			
26.410	725.04	0.43	26.410	710.51	0.42			
26.430	725.27	0.43	26.430	710.75	0.42			
26.450	725.50	0.43	26.450	710.98	0.42			
26.469	725.73	0.43	26.469	711.22	0.42			
26.489	725.98	0.43	26.489	711.46	0.42			
26.509	726.22	0.43	26.509	711.73	0.42			
26.529	726.52	0.43	26.529	712.00	0.42			
26.549	726.74	0.43	26.549	712.24	0.42			
26.569	726.97	0.43	26.569	712.49	0.42			
26.589	727.22	0.43	26.589	712.74	0.42			
26.609	727.50	0.43	26.609	713.01	0.42			
26.629	727.74	0.43	26.629	713.29	0.42			
26.649	727.98	0.43	26.649	713.54	0.42			
26.669	728.20	0.43	26.669	713.76	0.42			
26.689	728.43	0.43	26.689	714.01	0.42			
26.709	728.65	0.43	26.709	714.31	0.42			
26.729	728.87	0.43	26.729	714.54	0.43			
26.749	729.08	0.43	26.749	714.77	0.43			
26.769	729.33	0.43	26.769	715.03	0.43			
26.789	729.60	0.43	26.789	715.29	0.43			
26.809	729.84	0.43	26.809	715.56	0.43			
26.828	730.06	0.43	26.828	715.83	0.43			



26.848	730.27	0.43	26.848	716.07	0.43			
26.868	730.52	0.43	26.868	716.31	0.43			
26.888	730.77	0.43	26.888	716.54	0.43			
26.908	730.98	0.43	26.908	716.76	0.43			
26.928	731.21	0.43	26.928	717.03	0.43			
26.948	731.44	0.43	26.948	717.30	0.43			
26.968	731.70	0.43	26.968	717.56	0.43			
26.988	731.94	0.43	26.988	717.78	0.43			
27.008	732.17	0.43	27.008	718.00	0.43			
27.028	732.42	0.43	27.028	718.22	0.43			
27.048	732.63	0.43	27.048	718.44	0.43			
27.068	732.85	0.43	27.068	718.65	0.43			
27.088	733.08	0.43	27.088	718.91	0.43			
27.108	733.33	0.43	27.108	719.19	0.43			
27.128	733.60	0.43	27.128	719.44	0.43			
27.148	733.81	0.43	27.148	719.69	0.43			
27.168	734.02	0.43	27.168	719.92	0.43			
27.188	734.25	0.43	27.188	720.14	0.43			
27.207	734.47	0.43	27.207	720.36	0.43			
27.227	734.71	0.43	27.227	720.59	0.43			
27.247	734.94	0.43	27.247	720.82	0.43			
27.267	735.17	0.44	27.267	721.07	0.43			
27.287	735.38	0.44	27.287	721.31	0.43			
27.307	735.60	0.44	27.307	721.55	0.43			
27.327	735.81	0.44	27.327	721.79	0.43			
27.347	736.03	0.44	27.347	722.07	0.43			
27.367	736.29	0.44	27.367	722.32	0.43			
27.387	736.54	0.44	27.387	722.53	0.43			
27.407	736.73	0.44	27.407	722.77	0.43			
27.427	736.96	0.44	27.427	723.03	0.43			
27.447	737.20	0.44	27.447	723.29	0.43			
27.467	737.40	0.44	27.467	723.50	0.43			
27.487	737.63	0.44	27.487	723.70	0.43			
27.507	737.89	0.44	27.507	723.92	0.43			
27.527	738.11	0.44	27.527	724.15	0.43			
27.547	738.29	0.44	27.547	724.38	0.43			
27.567	738.53	0.44	27.567	724.62	0.43			
27.586	738.76	0.44	27.586	724.86	0.43			
27.606	738.97	0.44	27.606	725.10	0.43			
27.626	739.18	0.44	27.626	725.35	0.43			
27.646	739.41	0.44	27.646	725.59	0.43			
27.666	739.64	0.44	27.666	725.81	0.43			
27.686	739.87	0.44	27.686	726.03	0.43			
27.706	740.10	0.44	27.706	726.25	0.43			
27.726	740.32	0.44	27.726	726.46	0.43			

27.746	740.51	0.44	27.746	726.68	0.43			
27.766	740.73	0.44	27.766	726.94	0.43			
27.786	740.95	0.44	27.786	727.20	0.43			
27.806	741.17	0.44	27.806	727.44	0.43			
27.826	741.39	0.44	27.826	727.68	0.43			
27.846	741.64	0.44	27.846	727.91	0.43			
27.866	741.88	0.44	27.866	728.13	0.43			
27.886	742.12	0.44	27.886	728.35	0.43			
27.906	742.34	0.44	27.906	728.57	0.43			
27.926	742.55	0.44	27.926	728.78	0.43			
27.946	742.74	0.44	27.946	728.99	0.43			
27.965	742.92	0.44	27.965	729.20	0.43			
27.985	743.17	0.44	27.985	729.42	0.43			
28.005	743.41	0.44	28.005	729.64	0.43			
28.025	743.65	0.44	28.025	729.85	0.43			
28.045	743.84	0.44	28.045	730.07	0.43			
28.065	744.04	0.44	28.065	730.28	0.43			
28.085	744.27	0.44	28.085	730.51	0.43			
28.105	744.49	0.44	28.105	730.74	0.43			
28.125	744.70	0.44	28.125	730.97	0.43			
28.145	744.92	0.44	28.145	731.20	0.43			
28.165	745.16	0.44	28.165	731.42	0.43			
28.185	745.39	0.44	28.185	731.65	0.43			
28.205	745.60	0.44	28.205	731.87	0.43			
28.225	745.81	0.44	28.225	732.09	0.43			
28.245	746.01	0.44	28.245	732.30	0.43			
28.265	746.22	0.44	28.265	732.51	0.43			
28.285	746.42	0.44	28.285	732.72	0.43			
28.305	746.62	0.44	28.305	732.94	0.43			
28.324	746.82	0.44	28.324	733.16	0.43			
28.344	747.02	0.44	28.344	733.38	0.43			
28.364	747.25	0.44	28.364	733.59	0.43			
28.384	747.50	0.44	28.384	733.81	0.43			
28.404	747.72	0.44	28.404	734.03	0.43			
28.424	747.89	0.44	28.424	734.25	0.43			
28.444	748.07	0.44	28.444	734.47	0.43			
28.464	748.28	0.44	28.464	734.69	0.43			
28.484	748.49	0.44	28.484	734.90	0.43			
28.504	748.72	0.44	28.504	735.11	0.43			
28.524	748.95	0.44	28.524	735.33	0.43			
28.544	749.16	0.44	28.544	735.55	0.43			
28.564	749.37	0.44	28.564	735.77	0.43			
28.584	749.58	0.44	28.584	735.98	0.43			
28.604	749.79	0.44	28.604	736.20	0.43			
28.624	750.00	0.44	28.624	736.42	0.43			

28.644	750.21	0.44	28.644	736.63	0.43			
28.664	750.41	0.44	28.664	736.83	0.43			
28.684	750.61	0.44	28.684	737.03	0.43			
28.703	750.80	0.44	28.703	737.24	0.43			
28.723	751.00	0.44	28.723	737.44	0.43			
28.743	751.22	0.44	28.743	737.66	0.43			
28.763	751.45	0.44	28.763	737.88	0.44			
28.783	751.67	0.44	28.783	738.11	0.44			
28.803	751.88	0.44	28.803	738.32	0.44			
28.823	752.06	0.44	28.823	738.53	0.44			
28.843	752.24	0.44	28.843	738.74	0.44			
28.863	752.47	0.44	28.863	738.95	0.44			
28.883	752.70	0.44	28.883	739.16	0.44			
28.903	752.88	0.44	28.903	739.37	0.44			
28.923	753.06	0.44	28.923	739.58	0.44			
28.943	753.27	0.44	28.943	739.78	0.44			
28.963	753.47	0.44	28.963	739.99	0.44			
28.983	753.67	0.44	28.983	740.19	0.44			
29.003	753.87	0.44	29.003	740.40	0.44			
29.023	754.08	0.44	29.023	740.60	0.44			
29.043	754.30	0.44	29.043	740.80	0.44			
29.063	754.53	0.44	29.063	741.00	0.44			
29.082	754.75	0.44	29.082	741.22	0.44			
29.102	754.96	0.44	29.102	741.45	0.44			
29.122	755.17	0.44	29.122	741.66	0.44			
29.142	755.38	0.44	29.142	741.86	0.44			
29.162	755.58	0.44	29.162	742.06	0.44			
29.182	755.78	0.44	29.182	742.27	0.44			
29.202	755.96	0.44	29.202	742.49	0.44			
29.222	756.15	0.44	29.222	742.70	0.44			
29.242	756.35	0.44	29.242	742.90	0.44			
29.262	756.56	0.44	29.262	743.10	0.44			
29.282	756.77	0.44	29.282	743.30	0.44			
29.302	756.96	0.44	29.302	743.48	0.44			
29.322	757.15	0.44	29.322	743.66	0.44			
29.342	757.35	0.44	29.342	743.85	0.44			
29.362	757.56	0.44	29.362	744.05	0.44			
29.382	757.76	0.44	29.382	744.26	0.44			
29.402	757.95	0.44	29.402	744.46	0.44			
29.422	758.14	0.44	29.422	744.65	0.44			
29.441	758.34	0.44	29.441	744.85	0.44			
29.461	758.53	0.44	29.461	745.04	0.44			
29.481	758.76	0.45	29.481	745.25	0.44			
29.501	758.97	0.45	29.501	745.46	0.44			
29.521	759.15	0.45	29.521	745.68	0.44			

29.541	759.36	0.45	29.541	745.87	0.44			
29.561	759.59	0.45	29.561	746.04	0.44			
29.581	759.82	0.45	29.581	746.21	0.44			
29.601	760.01	0.45	29.601	746.39	0.44			
29.621	760.20	0.45	29.621	746.60	0.44			
29.641	760.38	0.45	29.641	746.80	0.44			
29.661	760.55	0.45	29.661	747.01	0.44			
29.681	760.72	0.45	29.681	747.19	0.44			
29.701	760.89	0.45	29.701	747.38	0.44			
29.721	761.10	0.45	29.721	747.57	0.44			
29.741	761.29	0.45	29.741	747.76	0.44			
29.761	761.48	0.45	29.761	747.97	0.44			
29.781	761.68	0.45	29.781	748.17	0.44			
29.801	761.90	0.45	29.801	748.37	0.44			
29.820	762.12	0.45	29.820	748.56	0.44			
29.840	762.32	0.45	29.840	748.76	0.44			
29.860	762.52	0.45	29.860	748.95	0.44			
29.880	762.69	0.45	29.880	749.13	0.44			
29.900	762.85	0.45	29.900	749.31	0.44			
29.920	763.02	0.45	29.920	749.49	0.44			
29.940	763.23	0.45	29.940	749.66	0.44			
29.960	763.44	0.45	29.960	749.86	0.44			
29.980	763.64	0.45	29.980	750.07	0.44			
30.000	763.84	0.45	30.000	750.28	0.44			

**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  mixtures.

$T = 373.15 \pm 0.04 \text{ K}$								
$x_{\text{CO}_2} = 0.8029$			$x_{\text{CO}_2} = 0.8969$			$x_{\text{CO}_2} = 0.9532$		
$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$P$ (MPa)	$\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_\rho$ ( $\text{kg}\cdot\text{m}^{-3}$ )
3.012	48.77	0.20	0.100	1.32	0.21	0.220	3.26	0.23
3.032	49.09	0.20	0.120	1.32	0.20	0.240	3.50	0.23
3.052	49.47	0.20	0.140	1.48	0.20	0.260	3.81	0.23
3.072	49.82	0.19	0.160	1.80	0.20	0.280	4.12	0.23
3.092	50.14	0.19	0.180	2.10	0.20	0.299	4.35	0.23
3.112	50.55	0.19	0.200	2.36	0.20	0.319	4.66	0.23
3.132	50.93	0.19	0.220	2.67	0.21	0.339	4.97	0.23
3.152	51.29	0.19	0.240	3.03	0.21	0.359	5.22	0.23
3.172	51.64	0.19	0.260	3.33	0.21	0.379	5.52	0.23
3.192	52.01	0.20	0.280	3.57	0.21	0.399	5.82	0.23
3.212	52.38	0.20	0.299	3.87	0.21	0.419	6.14	0.23
3.232	52.76	0.20	0.319	4.16	0.21	0.439	6.40	0.23
3.252	53.15	0.20	0.339	4.47	0.21	0.459	6.70	0.23
3.272	53.55	0.20	0.359	4.74	0.21	0.479	6.97	0.23
3.291	53.92	0.20	0.379	5.05	0.21	0.499	7.28	0.23
3.311	54.26	0.20	0.399	5.40	0.22	0.519	7.57	0.23
3.331	54.64	0.20	0.419	5.68	0.22	0.539	7.84	0.23
3.351	55.02	0.21	0.439	5.98	0.22	0.559	8.17	0.23
3.371	55.41	0.21	0.459	6.27	0.22	0.579	8.44	0.23
3.391	55.78	0.21	0.479	6.60	0.22	0.599	8.74	0.23
3.411	56.12	0.21	0.499	6.89	0.22	0.619	9.01	0.23
3.431	56.51	0.21	0.519	7.20	0.22	0.639	9.35	0.23
3.451	56.91	0.21	0.539	7.48	0.22	0.659	9.66	0.23
3.471	57.27	0.21	0.559	7.78	0.22	0.678	9.93	0.23
3.491	57.66	0.21	0.579	8.12	0.22	0.698	10.17	0.23
3.511	58.03	0.21	0.599	8.40	0.22	0.718	10.53	0.23
3.531	58.38	0.21	0.619	8.68	0.22	0.738	10.82	0.23
3.551	58.77	0.21	0.639	9.00	0.22	0.758	11.09	0.23
3.571	59.16	0.21	0.659	9.29	0.22	0.778	11.39	0.23
3.591	59.55	0.21	0.678	9.62	0.22	0.798	11.71	0.23
3.611	59.94	0.21	0.698	9.92	0.22	0.818	12.01	0.23
3.631	60.32	0.21	0.718	10.21	0.22	0.838	12.30	0.23
3.651	60.69	0.21	0.738	10.54	0.22	0.858	12.61	0.23
3.670	61.12	0.21	0.758	10.85	0.22	0.878	12.94	0.23
3.690	61.50	0.21	0.778	11.16	0.22	0.898	13.26	0.23
3.710	61.86	0.22	0.798	11.45	0.22	0.918	13.56	0.23

3.730	62.26	0.22	0.818	11.78	0.22	0.938	13.85	0.23
3.750	62.66	0.22	0.838	12.11	0.22	0.958	14.15	0.23
3.770	63.06	0.22	0.858	12.42	0.22	0.978	14.47	0.23
3.790	63.44	0.22	0.878	12.72	0.22	0.998	14.78	0.23
3.810	63.81	0.22	0.898	12.97	0.22	1.018	15.11	0.23
3.830	64.20	0.22	0.918	13.28	0.22	1.037	15.39	0.23
3.850	64.62	0.22	0.938	13.62	0.22	1.057	15.68	0.23
3.870	65.03	0.22	0.958	13.91	0.22	1.077	15.98	0.23
3.890	65.43	0.22	0.978	14.25	0.22	1.097	16.30	0.23
3.910	65.81	0.22	0.998	14.54	0.22	1.117	16.63	0.23
3.930	66.17	0.22	1.018	14.88	0.22	1.137	16.95	0.23
3.950	66.60	0.22	1.037	15.17	0.22	1.157	17.27	0.23
3.970	66.91	0.22	1.057	15.50	0.22	1.177	17.57	0.23
3.990	67.27	0.22	1.077	15.81	0.22	1.197	17.87	0.23
4.010	67.65	0.22	1.097	16.11	0.22	1.217	18.15	0.23
4.029	68.03	0.22	1.117	16.40	0.22	1.237	18.50	0.23
4.049	68.38	0.22	1.137	16.69	0.22	1.257	18.77	0.23
4.069	68.76	0.22	1.157	17.01	0.22	1.277	19.10	0.23
4.089	69.20	0.22	1.177	17.34	0.22	1.297	19.42	0.23
4.109	69.60	0.22	1.197	17.66	0.22	1.317	19.73	0.23
4.129	69.99	0.22	1.217	17.94	0.22	1.337	20.03	0.23
4.149	70.39	0.22	1.237	18.28	0.22	1.357	20.32	0.23
4.169	70.79	0.22	1.257	18.61	0.22	1.377	20.62	0.23
4.189	71.18	0.22	1.277	18.92	0.22	1.397	20.93	0.23
4.209	71.57	0.22	1.297	19.22	0.22	1.416	21.22	0.23
4.229	71.96	0.22	1.317	19.53	0.22	1.436	21.57	0.23
4.249	72.35	0.22	1.337	19.91	0.22	1.456	21.84	0.23
4.269	72.73	0.22	1.357	20.20	0.22	1.476	22.18	0.23
4.289	73.13	0.22	1.377	20.52	0.22	1.496	22.45	0.23
4.309	73.53	0.22	1.397	20.84	0.22	1.516	22.80	0.23
4.329	73.94	0.22	1.416	21.16	0.22	1.536	23.12	0.23
4.349	74.35	0.22	1.436	21.46	0.22	1.556	23.42	0.23
4.369	74.76	0.22	1.456	21.78	0.22	1.576	23.75	0.23
4.389	75.17	0.22	1.476	22.10	0.22	1.596	23.99	0.23
4.408	75.55	0.22	1.496	22.40	0.22	1.616	24.31	0.23
4.428	75.98	0.22	1.516	22.73	0.22	1.636	24.63	0.23
4.448	76.41	0.22	1.536	23.05	0.22	1.656	24.93	0.23
4.468	76.82	0.22	1.556	23.37	0.22	1.676	25.29	0.23
4.488	77.24	0.22	1.576	23.72	0.22	1.696	25.60	0.23
4.508	77.63	0.22	1.596	24.03	0.22	1.716	25.88	0.23
4.528	78.01	0.22	1.616	24.32	0.22	1.736	26.19	0.23
4.548	78.41	0.22	1.636	24.67	0.22	1.756	26.51	0.23
4.568	78.83	0.22	1.656	25.01	0.22	1.776	26.85	0.23
4.588	79.25	0.22	1.676	25.27	0.22	1.795	27.13	0.23
4.608	79.66	0.22	1.696	25.62	0.22	1.815	27.47	0.23

4.628	80.07	0.22	1.716	25.93	0.22	1.835	27.79	0.23
4.648	80.49	0.22	1.736	26.27	0.22	1.855	28.07	0.22
4.668	80.92	0.22	1.756	26.60	0.22	1.875	28.44	0.23
4.688	81.36	0.22	1.776	26.91	0.22	1.895	28.76	0.23
4.708	81.78	0.22	1.795	27.21	0.22	1.915	29.07	0.23
4.728	82.19	0.22	1.815	27.59	0.22	1.935	29.38	0.23
4.748	82.61	0.22	1.835	27.87	0.22	1.955	29.67	0.23
4.768	83.01	0.23	1.855	28.23	0.22	1.975	30.01	0.23
4.787	83.43	0.23	1.875	28.51	0.22	1.995	30.34	0.23
4.807	83.88	0.23	1.895	28.86	0.22	2.015	30.67	0.23
4.827	84.28	0.23	1.915	29.19	0.22	2.035	30.98	0.23
4.847	84.68	0.23	1.935	29.51	0.22	2.055	31.29	0.23
4.867	85.13	0.23	1.955	29.81	0.22	2.075	31.60	0.23
4.887	85.59	0.23	1.975	30.17	0.22	2.095	31.94	0.23
4.907	86.03	0.23	1.995	30.53	0.22	2.115	32.28	0.23
4.927	86.45	0.23	2.015	30.80	0.22	2.135	32.59	0.23
4.947	86.87	0.23	2.035	31.14	0.22	2.155	32.93	0.23
4.967	87.28	0.23	2.055	31.48	0.22	2.174	33.26	0.23
4.987	87.68	0.23	2.075	31.80	0.22	2.194	33.58	0.23
5.007	88.09	0.23	2.095	32.12	0.22	2.214	33.89	0.23
5.027	88.50	0.23	2.115	32.50	0.23	2.234	34.27	0.23
5.047	88.83	0.23	2.135	32.87	0.23	2.254	34.58	0.23
5.067	89.27	0.23	2.155	33.14	0.23	2.274	34.88	0.23
5.087	89.69	0.23	2.174	33.49	0.23	2.294	35.25	0.23
5.107	90.13	0.23	2.194	33.83	0.23	2.314	35.54	0.23
5.127	90.56	0.23	2.214	34.17	0.23	2.334	35.90	0.23
5.147	90.98	0.23	2.234	34.51	0.23	2.354	36.17	0.23
5.166	91.40	0.23	2.254	34.82	0.23	2.374	36.52	0.23
5.186	91.80	0.23	2.274	35.17	0.23	2.394	36.82	0.23
5.206	92.21	0.23	2.294	35.50	0.23	2.414	37.14	0.23
5.226	92.66	0.23	2.314	35.80	0.23	2.434	37.48	0.23
5.246	93.12	0.23	2.334	36.15	0.23	2.454	37.81	0.23
5.266	93.57	0.23	2.354	36.52	0.23	2.474	38.15	0.23
5.286	94.02	0.23	2.374	36.82	0.23	2.494	38.48	0.23
5.306	94.46	0.23	2.394	37.20	0.23	2.514	38.79	0.23
5.326	94.91	0.23	2.414	37.52	0.23	2.533	39.13	0.23
5.346	95.34	0.23	2.434	37.82	0.23	2.553	39.51	0.23
5.366	95.78	0.23	2.454	38.16	0.23	2.573	39.82	0.23
5.386	96.22	0.23	2.474	38.52	0.23	2.593	40.14	0.23
5.406	96.65	0.23	2.494	38.85	0.23	2.613	40.45	0.23
5.426	97.08	0.23	2.514	39.18	0.23	2.633	40.82	0.23
5.446	97.52	0.23	2.533	39.55	0.23	2.653	41.12	0.23
5.466	97.97	0.23	2.553	39.89	0.23	2.673	41.47	0.23
5.486	98.42	0.23	2.573	40.20	0.23	2.693	41.79	0.23
5.506	98.88	0.23	2.593	40.55	0.23	2.713	42.10	0.23

5.525	99.34	0.23	2.613	40.90	0.23	2.733	42.44	0.23
5.545	99.79	0.23	2.633	41.27	0.23	2.753	42.78	0.23
5.565	100.25	0.23	2.653	41.57	0.23	2.773	43.11	0.23
5.585	100.70	0.23	2.673	41.95	0.23	2.793	43.44	0.23
5.605	101.15	0.23	2.693	42.24	0.23	2.813	43.78	0.23
5.625	101.59	0.23	2.713	42.61	0.23	2.833	44.09	0.23
5.645	102.03	0.23	2.733	42.96	0.23	2.853	44.48	0.23
5.665	102.48	0.23	2.753	43.32	0.23	2.873	44.78	0.23
5.685	102.85	0.23	2.773	43.65	0.23	2.893	45.09	0.23
5.705	103.19	0.23	2.793	43.99	0.23	2.912	45.48	0.23
5.725	103.66	0.23	2.813	44.33	0.23	2.932	45.77	0.23
5.745	104.12	0.23	2.833	44.65	0.23	2.952	46.14	0.23
5.765	104.56	0.23	2.853	45.02	0.23	2.972	46.43	0.23
5.785	105.00	0.23	2.873	45.38	0.23	2.992	46.79	0.23
5.805	105.44	0.23	2.893	45.68	0.23	3.012	47.15	0.23
5.825	105.90	0.23	2.912	46.07	0.23	3.032	47.50	0.23
5.845	106.36	0.23	2.932	46.37	0.23	3.052	47.77	0.23
5.865	106.82	0.23	2.952	46.76	0.23	3.072	48.12	0.23
5.885	107.28	0.23	2.972	47.12	0.23	3.092	48.45	0.23
5.904	107.75	0.23	2.992	47.43	0.23	3.112	48.79	0.23
5.924	108.22	0.23	3.012	47.78	0.23	3.132	49.14	0.23
5.944	108.69	0.23	3.032	48.13	0.23	3.152	49.54	0.23
5.964	109.17	0.23	3.052	48.48	0.23	3.172	49.87	0.23
5.984	109.65	0.23	3.072	48.83	0.23	3.192	50.20	0.23
6.004	110.11	0.23	3.092	49.20	0.23	3.212	50.52	0.23
6.024	110.56	0.23	3.112	49.53	0.23	3.232	50.85	0.23
6.044	111.02	0.23	3.132	49.91	0.23	3.252	51.23	0.23
6.064	111.49	0.23	3.152	50.23	0.23	3.272	51.54	0.23
6.084	111.98	0.23	3.172	50.60	0.23	3.291	51.92	0.23
6.104	112.45	0.23	3.192	50.98	0.23	3.311	52.23	0.23
6.124	112.92	0.23	3.212	51.28	0.23	3.331	52.61	0.23
6.144	113.42	0.23	3.232	51.64	0.23	3.351	52.91	0.23
6.164	113.93	0.23	3.252	52.01	0.23	3.371	53.28	0.23
6.184	114.41	0.23	3.272	52.37	0.23	3.391	53.65	0.23
6.204	114.88	0.23	3.291	52.72	0.23	3.411	53.96	0.23
6.224	115.36	0.23	3.311	53.07	0.23	3.431	54.31	0.23
6.244	115.84	0.23	3.331	53.42	0.23	3.451	54.63	0.23
6.264	116.33	0.23	3.351	53.75	0.23	3.471	54.98	0.23
6.283	116.82	0.23	3.371	54.18	0.23	3.491	55.32	0.23
6.303	117.30	0.23	3.391	54.51	0.23	3.511	55.68	0.23
6.323	117.77	0.23	3.411	54.84	0.23	3.531	56.03	0.23
6.343	118.24	0.23	3.431	55.23	0.23	3.551	56.38	0.23
6.363	118.71	0.23	3.451	55.57	0.23	3.571	56.74	0.23
6.383	119.14	0.23	3.471	55.96	0.23	3.591	57.08	0.23
6.403	119.53	0.23	3.491	56.27	0.23	3.611	57.43	0.23



6.423	120.03	0.23	3.511	56.65	0.23	3.631	57.79	0.23
6.443	120.52	0.23	3.531	57.05	0.23	3.651	58.11	0.23
6.463	121.00	0.23	3.551	57.38	0.23	3.670	58.48	0.23
6.483	121.50	0.23	3.571	57.73	0.23	3.690	58.86	0.23
6.503	122.00	0.23	3.591	58.10	0.23	3.710	59.19	0.23
6.523	122.49	0.23	3.611	58.49	0.23	3.730	59.56	0.23
6.543	122.98	0.23	3.631	58.86	0.23	3.750	59.93	0.23
6.563	123.48	0.23	3.651	59.17	0.23	3.770	60.25	0.23
6.583	123.99	0.23	3.670	59.61	0.23	3.790	60.61	0.23
6.603	124.49	0.23	3.690	59.94	0.23	3.810	60.99	0.23
6.623	124.99	0.23	3.710	60.29	0.23	3.830	61.35	0.23
6.642	125.49	0.23	3.730	60.67	0.23	3.850	61.72	0.23
6.662	126.00	0.23	3.750	61.04	0.23	3.870	62.03	0.23
6.682	126.52	0.23	3.770	61.43	0.23	3.890	62.36	0.23
6.702	127.03	0.23	3.790	61.75	0.23	3.910	62.72	0.23
6.722	127.54	0.23	3.810	62.15	0.23	3.930	63.08	0.23
6.742	128.03	0.23	3.830	62.46	0.23	3.950	63.50	0.23
6.762	128.51	0.23	3.850	62.84	0.23	3.970	63.84	0.23
6.782	128.99	0.23	3.870	63.23	0.23	3.990	64.18	0.23
6.802	129.44	0.23	3.890	63.61	0.23	4.010	64.52	0.23
6.822	129.86	0.23	3.910	63.97	0.23	4.029	64.86	0.23
6.842	130.38	0.23	3.930	64.34	0.23	4.049	65.28	0.23
6.862	130.81	0.23	3.950	64.71	0.23	4.069	65.61	0.23
6.882	131.36	0.23	3.970	65.07	0.23	4.089	65.95	0.23
6.902	131.87	0.23	3.990	65.43	0.23	4.109	66.35	0.23
6.922	132.38	0.23	4.010	65.78	0.23	4.129	66.68	0.23
6.942	132.89	0.23	4.029	66.19	0.23	4.149	67.00	0.23
6.962	133.37	0.23	4.049	66.57	0.23	4.169	67.41	0.23
6.982	133.88	0.23	4.069	66.91	0.23	4.189	67.79	0.23
7.002	134.43	0.23	4.089	67.33	0.23	4.209	68.12	0.23
7.021	134.96	0.23	4.109	67.68	0.23	4.229	68.48	0.23
7.041	135.45	0.23	4.129	68.09	0.23	4.249	68.84	0.23
7.061	135.95	0.23	4.149	68.45	0.23	4.269	69.23	0.23
7.081	136.48	0.23	4.169	68.82	0.23	4.289	69.57	0.23
7.101	137.01	0.23	4.189	69.23	0.23	4.309	69.92	0.23
7.121	137.53	0.23	4.209	69.58	0.23	4.329	70.31	0.23
7.141	138.06	0.23	4.229	69.92	0.23	4.349	70.66	0.23
7.161	138.58	0.23	4.249	70.34	0.23	4.369	71.06	0.23
7.181	139.11	0.23	4.269	70.70	0.23	4.389	71.39	0.23
7.201	139.62	0.23	4.289	71.10	0.23	4.408	71.78	0.23
7.221	140.13	0.23	4.309	71.51	0.23	4.428	72.14	0.23
7.241	140.60	0.23	4.329	71.84	0.23	4.448	72.50	0.23
7.261	141.08	0.23	4.349	72.23	0.23	4.468	72.88	0.23
7.281	141.58	0.23	4.369	72.63	0.23	4.488	73.24	0.23
7.301	142.14	0.23	4.389	73.02	0.23	4.508	73.60	0.23

7.321	142.61	0.23	4.408	73.34	0.23	4.528	73.97	0.23
7.341	143.11	0.23	4.428	73.73	0.23	4.548	74.36	0.23
7.361	143.67	0.23	4.448	74.12	0.23	4.568	74.74	0.23
7.381	144.19	0.23	4.468	74.57	0.23	4.588	75.08	0.23
7.400	144.70	0.23	4.488	74.96	0.23	4.608	75.48	0.23
7.420	145.24	0.23	4.508	75.33	0.23	4.628	75.86	0.23
7.440	145.77	0.23	4.528	75.71	0.23	4.648	76.25	0.23
7.460	146.29	0.23	4.548	76.08	0.23	4.668	76.61	0.23
7.480	146.82	0.23	4.568	76.45	0.23	4.688	76.97	0.23
7.500	147.35	0.23	4.588	76.83	0.23	4.708	77.35	0.23
7.520	147.92	0.23	4.608	77.25	0.23	4.728	77.71	0.23
7.540	148.49	0.23	4.628	77.63	0.23	4.748	78.07	0.23
7.560	149.03	0.23	4.648	78.05	0.23	4.768	78.44	0.23
7.580	149.57	0.24	4.668	78.40	0.23	4.787	78.87	0.23
7.600	150.11	0.24	4.688	78.81	0.23	4.807	79.23	0.23
7.620	150.65	0.24	4.708	79.21	0.23	4.827	79.58	0.23
7.640	151.19	0.24	4.728	79.59	0.23	4.847	79.94	0.23
7.660	151.72	0.24	4.748	79.98	0.23	4.867	80.35	0.23
7.680	152.26	0.24	4.768	80.39	0.23	4.887	80.71	0.23
7.700	152.80	0.24	4.787	80.73	0.23	4.907	81.07	0.23
7.720	153.39	0.24	4.807	81.15	0.23	4.927	81.48	0.23
7.740	153.96	0.24	4.827	81.56	0.23	4.947	81.84	0.23
7.760	154.49	0.24	4.847	81.96	0.23	4.967	82.24	0.23
7.779	155.04	0.24	4.867	82.36	0.23	4.987	82.62	0.23
7.799	155.61	0.24	4.887	82.77	0.23	5.007	83.00	0.23
7.819	156.18	0.24	4.907	83.15	0.23	5.027	83.38	0.23
7.839	156.76	0.24	4.927	83.54	0.23	5.047	83.75	0.23
7.859	157.31	0.24	4.947	83.94	0.23	5.067	84.13	0.23
7.879	157.84	0.24	4.967	84.34	0.23	5.087	84.55	0.23
7.899	158.39	0.24	4.987	84.77	0.23	5.107	84.89	0.23
7.919	159.00	0.24	5.007	85.14	0.23	5.127	85.29	0.23
7.939	159.51	0.24	5.027	85.54	0.23	5.147	85.69	0.23
7.959	160.13	0.24	5.047	85.96	0.23	5.166	86.02	0.23
7.979	160.68	0.24	5.067	86.36	0.23	5.186	86.42	0.23
7.999	161.22	0.24	5.087	86.72	0.23	5.206	86.83	0.23
8.019	161.83	0.24	5.107	87.14	0.23	5.226	87.23	0.23
8.039	162.38	0.24	5.127	87.56	0.23	5.246	87.63	0.23
8.059	163.00	0.24	5.147	87.96	0.23	5.266	88.01	0.23
8.079	163.56	0.24	5.166	88.35	0.23	5.286	88.34	0.23
8.099	164.13	0.24	5.186	88.75	0.23	5.306	88.74	0.23
8.119	164.74	0.24	5.206	89.15	0.23	5.326	89.13	0.23
8.138	165.33	0.24	5.226	89.55	0.23	5.346	89.52	0.23
8.158	165.91	0.24	5.246	89.95	0.23	5.366	89.91	0.23
8.178	166.52	0.24	5.266	90.35	0.23	5.386	90.28	0.23
8.198	167.15	0.24	5.286	90.78	0.23	5.406	90.69	0.23

8.218	167.75	0.24	5.306	91.19	0.23	5.426	91.13	0.23
8.238	168.35	0.24	5.326	91.60	0.23	5.446	91.52	0.23
8.258	168.96	0.24	5.346	92.03	0.23	5.466	91.90	0.23
8.278	169.54	0.24	5.366	92.42	0.23	5.486	92.28	0.23
8.298	170.10	0.24	5.386	92.80	0.23	5.506	92.68	0.23
8.318	170.57	0.24	5.406	93.25	0.23	5.525	93.11	0.23
8.338	170.97	0.24	5.426	93.63	0.23	5.545	93.49	0.23
8.358	171.52	0.24	5.446	94.09	0.23	5.565	93.85	0.23
8.378	172.06	0.24	5.466	94.46	0.23	5.585	94.29	0.23
8.398	172.70	0.24	5.486	94.88	0.23	5.605	94.67	0.23
8.418	173.25	0.24	5.506	95.26	0.23	5.625	95.04	0.23
8.438	173.88	0.24	5.525	95.72	0.23	5.645	95.46	0.23
8.458	174.45	0.24	5.545	96.15	0.23	5.665	95.85	0.23
8.478	175.01	0.24	5.565	96.51	0.23	5.685	96.25	0.23
8.498	175.62	0.24	5.585	96.95	0.23	5.705	96.68	0.23
8.517	176.25	0.24	5.605	97.38	0.23	5.725	97.09	0.23
8.537	176.86	0.24	5.625	97.81	0.23	5.745	97.47	0.23
8.557	177.47	0.24	5.645	98.24	0.23	5.765	97.88	0.23
8.577	178.02	0.24	5.665	98.58	0.23	5.785	98.23	0.23
8.597	178.66	0.24	5.685	99.08	0.23	5.805	98.66	0.23
8.617	179.29	0.24	5.705	99.49	0.23	5.825	99.09	0.23
8.637	179.87	0.24	5.725	99.92	0.23	5.845	99.46	0.23
8.657	180.48	0.24	5.745	100.33	0.23	5.865	99.85	0.23
8.677	181.11	0.24	5.765	100.75	0.23	5.885	100.27	0.23
8.697	181.72	0.24	5.785	101.15	0.23	5.904	100.68	0.23
8.717	182.36	0.24	5.805	101.56	0.23	5.924	101.10	0.23
8.737	183.02	0.24	5.825	101.96	0.23	5.944	101.52	0.23
8.757	183.65	0.24	5.845	102.42	0.23	5.964	101.93	0.23
8.777	184.28	0.24	5.865	102.85	0.23	5.984	102.33	0.23
8.797	184.92	0.24	5.885	103.26	0.23	6.004	102.74	0.23
8.817	185.57	0.24	5.904	103.73	0.23	6.024	103.15	0.23
8.837	186.23	0.24	5.924	104.13	0.23	6.044	103.55	0.23
8.857	186.89	0.24	5.944	104.52	0.23	6.064	103.96	0.23
8.877	187.52	0.24	5.964	105.00	0.24	6.084	104.36	0.23
8.896	188.14	0.24	5.984	105.39	0.24	6.104	104.76	0.23
8.916	188.74	0.24	6.004	105.83	0.24	6.124	105.15	0.23
8.936	189.29	0.24	6.024	106.27	0.24	6.144	105.55	0.23
8.956	189.78	0.24	6.044	106.72	0.24	6.164	106.02	0.23
8.976	190.38	0.24	6.064	107.10	0.24	6.184	106.43	0.23
8.996	191.04	0.24	6.084	107.57	0.24	6.204	106.82	0.23
9.016	191.65	0.24	6.104	108.00	0.24	6.224	107.22	0.23
9.036	192.29	0.24	6.124	108.42	0.24	6.244	107.62	0.23
9.056	192.98	0.24	6.144	108.87	0.24	6.264	108.08	0.23
9.076	193.58	0.24	6.164	109.29	0.24	6.283	108.47	0.23
9.096	194.23	0.24	6.184	109.71	0.24	6.303	108.86	0.23

9.116	194.87	0.24	6.204	110.14	0.24	6.323	109.28	0.23
9.136	195.55	0.24	6.224	110.61	0.24	6.343	109.73	0.23
9.156	196.20	0.24	6.244	111.04	0.24	6.363	110.17	0.23
9.176	196.81	0.24	6.264	111.45	0.24	6.383	110.55	0.23
9.196	197.46	0.24	6.283	111.95	0.24	6.403	110.98	0.23
9.216	198.12	0.24	6.303	112.36	0.24	6.423	111.38	0.23
9.236	198.81	0.24	6.323	112.76	0.24	6.443	111.79	0.23
9.256	199.48	0.24	6.343	113.25	0.24	6.463	112.23	0.23
9.275	200.15	0.24	6.363	113.65	0.24	6.483	112.68	0.23
9.295	200.83	0.24	6.383	114.14	0.24	6.503	113.05	0.23
9.315	201.49	0.24	6.403	114.54	0.24	6.523	113.47	0.23
9.335	202.14	0.24	6.423	115.02	0.24	6.543	113.91	0.23
9.355	202.85	0.24	6.443	115.41	0.24	6.563	114.34	0.23
9.375	203.57	0.24	6.463	115.89	0.24	6.583	114.77	0.23
9.395	204.27	0.24	6.483	116.28	0.24	6.603	115.20	0.23
9.415	204.91	0.24	6.503	116.76	0.24	6.623	115.63	0.23
9.435	205.55	0.24	6.523	117.24	0.24	6.642	116.06	0.23
9.455	206.24	0.24	6.543	117.63	0.24	6.662	116.51	0.23
9.475	206.89	0.24	6.563	118.10	0.24	6.682	116.93	0.23
9.495	207.56	0.24	6.583	118.57	0.24	6.702	117.35	0.23
9.515	208.25	0.24	6.603	118.99	0.24	6.722	117.77	0.23
9.535	208.95	0.24	6.623	119.41	0.24	6.742	118.19	0.23
9.555	209.66	0.24	6.642	119.89	0.24	6.762	118.60	0.23
9.575	210.35	0.24	6.662	120.35	0.24	6.782	119.03	0.23
9.595	211.06	0.24	6.682	120.80	0.24	6.802	119.45	0.23
9.615	211.80	0.24	6.702	121.26	0.24	6.822	119.89	0.23
9.634	212.52	0.24	6.722	121.73	0.24	6.842	120.37	0.23
9.654	213.21	0.24	6.742	122.19	0.24	6.862	120.78	0.23
9.674	213.92	0.24	6.762	122.63	0.24	6.882	121.18	0.23
9.694	214.65	0.25	6.782	123.09	0.24	6.902	121.61	0.23
9.714	215.41	0.25	6.802	123.55	0.24	6.922	122.09	0.23
9.734	216.12	0.25	6.822	124.00	0.24	6.942	122.49	0.23
9.754	216.83	0.25	6.842	124.45	0.24	6.962	122.94	0.23
9.774	217.55	0.25	6.862	124.91	0.24	6.982	123.39	0.23
9.794	218.25	0.25	6.882	125.35	0.24	7.002	123.80	0.23
9.814	219.01	0.25	6.902	125.79	0.24	7.021	124.26	0.23
9.834	219.73	0.25	6.922	126.30	0.24	7.041	124.69	0.23
9.854	220.43	0.25	6.942	126.69	0.24	7.061	125.11	0.23
9.874	221.19	0.25	6.962	127.19	0.24	7.081	125.57	0.23
9.894	221.93	0.25	6.982	127.64	0.24	7.101	125.97	0.23
9.914	222.67	0.25	7.002	128.07	0.24	7.121	126.41	0.23
9.934	223.44	0.25	7.021	128.56	0.24	7.141	126.87	0.23
9.954	224.22	0.25	7.041	129.02	0.24	7.161	127.32	0.23
9.974	224.98	0.25	7.061	129.47	0.24	7.181	127.77	0.23
9.994	225.75	0.25	7.081	129.97	0.24	7.201	128.23	0.23

10.013	226.52	0.25	7.101	130.41	0.24	7.221	128.67	0.23
10.033	227.23	0.25	7.121	130.85	0.24	7.241	129.12	0.23
10.053	227.73	0.25	7.141	131.36	0.24	7.261	129.54	0.23
10.073	228.13	0.25	7.161	131.80	0.24	7.281	129.95	0.23
10.093	228.73	0.25	7.181	132.28	0.24	7.301	130.40	0.23
10.113	229.46	0.25	7.201	132.76	0.24	7.321	130.84	0.23
10.133	230.15	0.25	7.221	133.23	0.24	7.341	131.28	0.23
10.153	230.85	0.25	7.241	133.65	0.24	7.361	131.72	0.23
10.173	231.59	0.25	7.261	134.16	0.24	7.381	132.22	0.23
10.193	232.35	0.25	7.281	134.64	0.24	7.400	132.68	0.23
10.213	233.03	0.25	7.301	135.09	0.24	7.420	133.12	0.23
10.233	233.78	0.25	7.321	135.58	0.24	7.440	133.57	0.23
10.253	234.53	0.25	7.341	136.06	0.24	7.460	134.00	0.23
10.273	235.35	0.25	7.361	136.51	0.24	7.480	134.44	0.23
10.293	236.11	0.25	7.381	137.00	0.24	7.500	134.87	0.23
10.313	236.86	0.25	7.400	137.47	0.24	7.520	135.36	0.23
10.333	237.63	0.25	7.420	137.91	0.24	7.540	135.83	0.23
10.353	238.33	0.25	7.440	138.40	0.24	7.560	136.26	0.23
10.373	239.15	0.25	7.460	138.88	0.24	7.580	136.75	0.23
10.392	239.94	0.25	7.480	139.40	0.24	7.600	137.20	0.23
10.412	240.72	0.25	7.500	139.84	0.24	7.620	137.63	0.23
10.432	241.49	0.25	7.520	140.29	0.24	7.640	138.11	0.23
10.452	242.27	0.25	7.540	140.78	0.24	7.660	138.57	0.23
10.472	243.07	0.25	7.560	141.28	0.24	7.680	139.01	0.23
10.492	243.84	0.25	7.580	141.75	0.24	7.700	139.48	0.23
10.512	244.63	0.25	7.600	142.26	0.24	7.720	139.92	0.23
10.532	245.46	0.25	7.620	142.70	0.24	7.740	140.37	0.23
10.552	246.25	0.25	7.640	143.22	0.24	7.760	140.85	0.23
10.572	247.03	0.25	7.660	143.72	0.24	7.779	141.32	0.23
10.592	247.73	0.25	7.680	144.14	0.24	7.799	141.79	0.23
10.612	248.51	0.25	7.700	144.65	0.24	7.819	142.27	0.23
10.632	249.25	0.25	7.720	145.15	0.24	7.839	142.75	0.23
10.652	250.05	0.25	7.740	145.65	0.24	7.859	143.20	0.23
10.672	250.81	0.25	7.760	146.09	0.24	7.879	143.61	0.23
10.692	251.63	0.25	7.779	146.60	0.24	7.899	144.08	0.23
10.712	252.38	0.25	7.799	147.12	0.24	7.919	144.55	0.23
10.732	253.20	0.25	7.819	147.60	0.24	7.939	145.01	0.23
10.752	253.96	0.25	7.839	148.11	0.24	7.959	145.48	0.23
10.771	254.76	0.25	7.859	148.61	0.24	7.979	145.94	0.23
10.791	255.60	0.25	7.879	149.09	0.24	7.999	146.40	0.23
10.811	256.38	0.25	7.899	149.56	0.24	8.019	146.87	0.23
10.831	257.18	0.25	7.919	150.10	0.24	8.039	147.35	0.23
10.851	258.00	0.25	7.939	150.60	0.24	8.059	147.82	0.23
10.871	258.82	0.25	7.959	151.09	0.24	8.079	148.31	0.23
10.891	259.69	0.25	7.979	151.59	0.24	8.099	148.81	0.23

10.911	260.53	0.25	7.999	152.09	0.24	8.119	149.28	0.23
10.931	261.32	0.25	8.019	152.59	0.24	8.138	149.74	0.23
10.951	262.15	0.25	8.039	153.08	0.24	8.158	150.21	0.23
10.971	263.02	0.25	8.059	153.58	0.24	8.178	150.71	0.23
10.991	263.85	0.25	8.079	154.07	0.24	8.198	151.18	0.23
11.011	264.69	0.25	8.099	154.57	0.24	8.218	151.63	0.23
11.031	265.54	0.25	8.119	155.06	0.24	8.238	152.10	0.23
11.051	266.35	0.25	8.138	155.54	0.24	8.258	152.58	0.23
11.071	267.19	0.25	8.158	156.10	0.24	8.278	153.08	0.23
11.091	268.02	0.25	8.178	156.60	0.24	8.298	153.57	0.23
11.111	268.82	0.25	8.198	157.09	0.24	8.318	154.05	0.23
11.130	269.70	0.25	8.218	157.59	0.24	8.338	154.51	0.23
11.150	270.52	0.25	8.238	158.08	0.24	8.358	155.01	0.23
11.170	271.37	0.26	8.258	158.64	0.25	8.378	155.49	0.23
11.190	272.27	0.26	8.278	159.13	0.25	8.398	155.94	0.23
11.210	273.14	0.26	8.298	159.61	0.25	8.418	156.42	0.23
11.230	273.98	0.26	8.318	160.15	0.25	8.438	156.91	0.23
11.250	274.80	0.26	8.338	160.66	0.25	8.458	157.41	0.23
11.270	275.65	0.26	8.358	161.17	0.25	8.478	157.91	0.23
11.290	276.40	0.26	8.378	161.71	0.25	8.498	158.41	0.23
11.310	277.19	0.26	8.398	162.20	0.25	8.517	158.90	0.23
11.330	278.00	0.26	8.418	162.69	0.25	8.537	159.39	0.23
11.350	278.85	0.26	8.438	163.24	0.25	8.557	159.88	0.23
11.370	279.73	0.26	8.458	163.73	0.25	8.577	160.37	0.23
11.390	280.52	0.26	8.478	164.27	0.25	8.597	160.87	0.23
11.410	281.41	0.26	8.498	164.77	0.25	8.617	161.37	0.23
11.430	282.24	0.26	8.517	165.28	0.25	8.637	161.87	0.23
11.450	283.09	0.26	8.537	165.83	0.25	8.657	162.36	0.23
11.470	283.94	0.26	8.557	166.31	0.25	8.677	162.84	0.23
11.490	284.79	0.26	8.577	166.86	0.25	8.697	163.32	0.23
11.509	285.65	0.26	8.597	167.36	0.25	8.717	163.80	0.23
11.529	286.56	0.26	8.617	167.86	0.25	8.737	164.28	0.23
11.549	287.42	0.26	8.637	168.40	0.25	8.757	164.78	0.23
11.569	288.29	0.26	8.657	168.94	0.25	8.777	165.32	0.23
11.589	289.19	0.26	8.677	169.44	0.25	8.797	165.82	0.23
11.609	290.08	0.26	8.697	170.01	0.25	8.817	166.30	0.23
11.629	290.99	0.26	8.717	170.50	0.25	8.837	166.79	0.23
11.649	291.91	0.26	8.737	171.04	0.25	8.857	167.29	0.23
11.669	292.88	0.26	8.757	171.54	0.25	8.877	167.82	0.23
11.689	293.80	0.26	8.777	172.11	0.25	8.896	168.30	0.23
11.709	294.70	0.26	8.797	172.62	0.25	8.916	168.77	0.23
11.729	295.57	0.26	8.817	173.15	0.25	8.936	169.30	0.23
11.749	296.51	0.26	8.837	173.64	0.25	8.956	169.81	0.23
11.769	297.37	0.26	8.857	174.20	0.25	8.976	170.29	0.23
11.789	298.34	0.26	8.877	174.70	0.25	8.996	170.81	0.23

11.809	299.23	0.26	8.896	175.25	0.25	9.016	171.33	0.23
11.829	300.14	0.26	8.916	175.80	0.25	9.036	171.85	0.23
11.849	301.11	0.26	8.936	176.38	0.25	9.056	172.37	0.23
11.869	301.92	0.26	8.956	176.88	0.25	9.076	172.88	0.23
11.888	302.70	0.26	8.976	177.41	0.25	9.096	173.41	0.23
11.908	303.32	0.26	8.996	177.96	0.25	9.116	173.92	0.23
11.928	304.06	0.26	9.016	178.46	0.25	9.136	174.39	0.23
11.948	304.82	0.26	9.036	179.04	0.25	9.156	174.88	0.23
11.968	305.57	0.26	9.056	179.58	0.25	9.176	175.40	0.23
11.988	306.35	0.26	9.076	180.15	0.25	9.196	175.91	0.23
12.008	307.20	0.26	9.096	180.67	0.25	9.216	176.43	0.23
12.028	308.12	0.26	9.116	181.21	0.25	9.236	176.94	0.23
12.048	308.92	0.26	9.136	181.76	0.25	9.256	177.46	0.23
12.068	309.75	0.26	9.156	182.29	0.25	9.275	177.98	0.23
12.088	310.56	0.26	9.176	182.90	0.25	9.295	178.49	0.23
12.108	311.49	0.26	9.196	183.43	0.25	9.315	178.99	0.23
12.128	312.38	0.26	9.216	183.94	0.25	9.335	179.51	0.23
12.148	313.40	0.26	9.236	184.48	0.25	9.355	180.06	0.23
12.168	314.28	0.26	9.256	185.03	0.25	9.375	180.62	0.23
12.188	315.14	0.26	9.275	185.58	0.25	9.395	181.14	0.23
12.208	316.08	0.26	9.295	186.14	0.25	9.415	181.64	0.23
12.228	317.02	0.26	9.315	186.71	0.25	9.435	182.14	0.23
12.248	317.93	0.26	9.335	187.29	0.25	9.455	182.66	0.23
12.267	318.84	0.26	9.355	187.82	0.25	9.475	183.22	0.23
12.287	319.77	0.26	9.375	188.37	0.25	9.495	183.74	0.23
12.307	320.72	0.27	9.395	188.92	0.25	9.515	184.24	0.23
12.327	321.63	0.27	9.415	189.46	0.25	9.535	184.80	0.23
12.347	322.47	0.27	9.435	190.02	0.25	9.555	185.33	0.23
12.367	323.44	0.27	9.455	190.62	0.25	9.575	185.83	0.23
12.387	324.40	0.27	9.475	191.16	0.25	9.595	186.36	0.23
12.407	325.30	0.27	9.495	191.74	0.25	9.615	186.91	0.23
12.427	326.30	0.27	9.515	192.26	0.25	9.634	187.42	0.23
12.447	327.21	0.27	9.535	192.85	0.25	9.654	187.93	0.23
12.467	328.11	0.27	9.555	193.36	0.25	9.674	188.49	0.23
12.487	329.10	0.27	9.575	193.95	0.25	9.694	189.04	0.23
12.507	330.05	0.27	9.595	194.55	0.25	9.714	189.57	0.24
12.527	331.01	0.27	9.615	195.09	0.25	9.734	190.12	0.24
12.547	331.93	0.27	9.634	195.66	0.25	9.754	190.68	0.24
12.567	332.87	0.27	9.654	196.23	0.25	9.774	191.21	0.24
12.587	333.83	0.27	9.674	196.81	0.25	9.794	191.73	0.24
12.607	334.74	0.27	9.694	197.39	0.25	9.814	192.23	0.24
12.626	335.70	0.27	9.714	197.94	0.25	9.834	192.75	0.24
12.646	336.64	0.27	9.734	198.52	0.25	9.854	193.29	0.24
12.666	337.53	0.27	9.754	199.10	0.25	9.874	193.87	0.24
12.686	338.36	0.27	9.774	199.70	0.25	9.894	194.46	0.24

12.706	339.34	0.27	9.794	200.24	0.25	9.914	194.94	0.24
12.726	340.23	0.27	9.814	200.87	0.25	9.934	195.46	0.24
12.746	341.19	0.27	9.834	201.41	0.25	9.954	196.04	0.24
12.766	342.10	0.27	9.854	202.01	0.25	9.974	196.60	0.24
12.786	343.02	0.27	9.874	202.55	0.25	9.994	197.13	0.24
12.806	343.89	0.27	9.894	203.17	0.26	10.013	197.67	0.24
12.826	344.79	0.27	9.914	203.77	0.26	10.033	198.20	0.24
12.846	345.75	0.27	9.934	204.31	0.26	10.053	198.74	0.24
12.866	346.66	0.27	9.954	204.93	0.26	10.073	199.28	0.24
12.886	347.57	0.27	9.974	205.51	0.26	10.093	199.86	0.24
12.906	348.54	0.27	9.994	206.12	0.26	10.113	200.41	0.24
12.926	349.44	0.27	10.013	206.68	0.26	10.133	200.94	0.24
12.946	350.39	0.27	10.033	207.26	0.26	10.153	201.50	0.24
12.966	351.36	0.27	10.053	207.89	0.26	10.173	202.06	0.24
12.986	352.23	0.27	10.073	208.45	0.26	10.193	202.61	0.24
13.005	353.12	0.27	10.093	209.00	0.26	10.213	203.15	0.24
13.025	354.04	0.27	10.113	209.65	0.26	10.233	203.73	0.24
13.045	354.98	0.27	10.133	210.20	0.26	10.253	204.30	0.24
13.065	355.88	0.27	10.153	210.86	0.26	10.273	204.87	0.24
13.085	356.89	0.27	10.173	211.43	0.26	10.293	205.41	0.24
13.105	357.81	0.27	10.193	212.03	0.26	10.313	205.94	0.24
13.125	358.75	0.27	10.213	212.65	0.26	10.333	206.50	0.24
13.145	359.69	0.27	10.233	213.16	0.26	10.353	207.06	0.24
13.165	360.64	0.27	10.253	213.79	0.26	10.373	207.64	0.24
13.185	361.58	0.28	10.273	214.41	0.26	10.392	208.21	0.24
13.205	362.53	0.28	10.293	215.01	0.26	10.412	208.79	0.24
13.225	363.53	0.28	10.313	215.64	0.26	10.432	209.36	0.24
13.245	364.45	0.28	10.333	216.25	0.26	10.452	209.93	0.24
13.265	365.36	0.28	10.353	216.86	0.26	10.472	210.49	0.24
13.285	366.29	0.28	10.373	217.46	0.26	10.492	211.05	0.24
13.305	367.22	0.28	10.392	218.06	0.26	10.512	211.62	0.24
13.325	368.10	0.28	10.412	218.65	0.26	10.532	212.19	0.24
13.345	368.95	0.28	10.432	219.23	0.26	10.552	212.76	0.24
13.365	369.91	0.28	10.452	219.90	0.26	10.572	213.33	0.24
13.384	370.87	0.28	10.472	220.49	0.26	10.592	213.89	0.24
13.404	371.79	0.28	10.492	221.11	0.26	10.612	214.46	0.24
13.424	372.65	0.28	10.512	221.74	0.26	10.632	215.02	0.24
13.444	373.64	0.28	10.532	222.33	0.26	10.652	215.58	0.24
13.464	374.55	0.28	10.552	222.95	0.26	10.672	216.14	0.24
13.484	375.47	0.28	10.572	223.56	0.26	10.692	216.74	0.24
13.504	376.35	0.28	10.592	224.18	0.26	10.712	217.35	0.24
13.524	377.22	0.28	10.612	224.79	0.26	10.732	217.92	0.24
13.544	378.09	0.28	10.632	225.43	0.26	10.752	218.49	0.24
13.564	378.93	0.28	10.652	226.00	0.26	10.771	219.07	0.24
13.584	379.76	0.28	10.672	226.65	0.26	10.791	219.65	0.24



13.604	380.60	0.28	10.692	227.29	0.26	10.811	220.22	0.24
13.624	381.43	0.28	10.712	227.87	0.26	10.831	220.80	0.24
13.644	382.29	0.28	10.732	228.54	0.26	10.851	221.41	0.24
13.664	383.05	0.28	10.752	229.13	0.26	10.871	221.97	0.24
13.684	383.85	0.28	10.771	229.79	0.26	10.891	222.53	0.24
13.704	384.58	0.28	10.791	230.43	0.26	10.911	223.12	0.24
13.724	385.36	0.28	10.811	230.98	0.26	10.931	223.71	0.24
13.744	386.17	0.28	10.831	231.65	0.26	10.951	224.31	0.24
13.763	386.93	0.28	10.851	232.28	0.26	10.971	224.91	0.24
13.783	387.84	0.28	10.871	232.88	0.26	10.991	225.50	0.24
13.803	388.67	0.28	10.891	233.53	0.26	11.011	226.08	0.24
13.823	389.53	0.28	10.911	234.15	0.26	11.031	226.64	0.24
13.843	390.51	0.28	10.931	234.76	0.26	11.051	227.21	0.24
13.863	391.44	0.28	10.951	235.40	0.26	11.071	227.80	0.24
13.883	392.35	0.29	10.971	236.03	0.26	11.091	228.42	0.24
13.903	393.37	0.29	10.991	236.69	0.26	11.111	229.06	0.24
13.923	394.31	0.29	11.011	237.29	0.26	11.130	229.65	0.24
13.943	395.27	0.29	11.031	237.95	0.26	11.150	230.23	0.24
13.963	396.23	0.29	11.051	238.59	0.26	11.170	230.82	0.24
13.983	397.14	0.29	11.071	239.20	0.26	11.190	231.41	0.24
14.003	398.04	0.29	11.091	239.80	0.26	11.210	232.00	0.24
14.023	398.96	0.29	11.111	240.46	0.26	11.230	232.60	0.24
14.043	399.91	0.29	11.130	241.08	0.27	11.250	233.18	0.24
14.063	400.88	0.29	11.150	241.69	0.27	11.270	233.77	0.24
14.083	401.79	0.29	11.170	242.37	0.27	11.290	234.36	0.24
14.103	402.75	0.29	11.190	243.03	0.27	11.310	234.96	0.24
14.122	403.63	0.29	11.210	243.63	0.27	11.330	235.59	0.24
14.142	404.62	0.29	11.230	244.31	0.27	11.350	236.20	0.24
14.162	405.56	0.29	11.250	244.91	0.27	11.370	236.79	0.24
14.182	406.51	0.29	11.270	245.56	0.27	11.390	237.40	0.24
14.202	407.42	0.29	11.290	246.21	0.27	11.410	238.03	0.24
14.222	408.40	0.29	11.310	246.91	0.27	11.430	238.65	0.24
14.242	409.35	0.29	11.330	247.56	0.27	11.450	239.27	0.24
14.262	410.26	0.29	11.350	248.20	0.27	11.470	239.86	0.24
14.282	411.24	0.29	11.370	248.85	0.27	11.490	240.44	0.24
14.302	412.17	0.29	11.390	249.47	0.27	11.509	241.06	0.24
14.322	413.08	0.29	11.410	250.11	0.27	11.529	241.68	0.24
14.342	414.12	0.29	11.430	250.81	0.27	11.549	242.30	0.24
14.362	415.01	0.29	11.450	251.41	0.27	11.569	242.92	0.24
14.382	415.92	0.29	11.470	252.08	0.27	11.589	243.54	0.24
14.402	416.83	0.29	11.490	252.72	0.27	11.609	244.16	0.24
14.422	417.82	0.29	11.509	253.36	0.27	11.629	244.78	0.24
14.442	418.71	0.29	11.529	254.05	0.27	11.649	245.39	0.24
14.462	419.64	0.29	11.549	254.71	0.27	11.669	246.00	0.24
14.482	420.59	0.29	11.569	255.35	0.27	11.689	246.62	0.24

14.501	421.53	0.29	11.589	256.00	0.27	11.709	247.24	0.24
14.521	422.46	0.29	11.609	256.65	0.27	11.729	247.85	0.24
14.541	423.45	0.30	11.629	257.34	0.27	11.749	248.46	0.24
14.561	424.36	0.30	11.649	257.99	0.27	11.769	249.08	0.24
14.581	425.34	0.30	11.669	258.66	0.27	11.789	249.71	0.24
14.601	426.25	0.30	11.689	259.30	0.27	11.809	250.32	0.24
14.621	427.20	0.30	11.709	260.00	0.27	11.829	250.93	0.24
14.641	428.15	0.30	11.729	260.67	0.27	11.849	251.56	0.24
14.661	429.09	0.30	11.749	261.36	0.27	11.869	252.20	0.24
14.681	429.98	0.30	11.769	261.98	0.27	11.888	252.83	0.24
14.701	430.95	0.30	11.789	262.63	0.27	11.908	253.46	0.24
14.721	431.89	0.30	11.809	263.33	0.27	11.928	254.09	0.24
14.741	432.87	0.30	11.829	264.07	0.27	11.948	254.72	0.24
14.761	433.81	0.30	11.849	264.71	0.27	11.968	255.33	0.24
14.781	434.72	0.30	11.869	265.39	0.27	11.988	255.94	0.24
14.801	435.66	0.30	11.888	266.04	0.27	12.008	256.59	0.24
14.821	436.56	0.30	11.908	266.78	0.27	12.028	257.25	0.24
14.841	437.50	0.30	11.928	267.44	0.27	12.048	257.88	0.24
14.861	438.43	0.30	11.948	268.14	0.27	12.068	258.52	0.24
14.880	439.31	0.30	11.968	268.84	0.27	12.088	259.13	0.24
14.900	440.21	0.30	11.988	269.52	0.27	12.108	259.74	0.24
14.920	441.16	0.30	12.008	270.16	0.27	12.128	260.38	0.24
14.940	442.05	0.30	12.028	270.90	0.27	12.148	261.02	0.24
14.960	442.99	0.30	12.048	271.58	0.27	12.168	261.66	0.24
14.980	443.85	0.30	12.068	272.24	0.27	12.188	262.30	0.24
15.000	444.78	0.30	12.088	272.93	0.27	12.208	262.93	0.24
15.020	445.67	0.30	12.108	273.65	0.27	12.228	263.56	0.24
15.040	446.54	0.30	12.128	274.35	0.27	12.248	264.20	0.24
15.060	447.48	0.30	12.148	274.99	0.27	12.267	264.84	0.24
15.080	448.40	0.30	12.168	275.70	0.27	12.287	265.51	0.24
15.100	449.19	0.30	12.188	276.43	0.28	12.307	266.17	0.24
15.120	450.17	0.30	12.208	277.11	0.28	12.327	266.80	0.24
15.140	451.08	0.30	12.228	277.81	0.28	12.347	267.43	0.24
15.160	451.99	0.30	12.248	278.48	0.28	12.367	268.07	0.24
15.180	452.96	0.31	12.267	279.20	0.28	12.387	268.71	0.24
15.200	453.80	0.31	12.287	279.85	0.28	12.407	269.32	0.24
15.220	454.74	0.31	12.307	280.58	0.28	12.427	269.95	0.24
15.239	455.62	0.31	12.327	281.29	0.28	12.447	270.62	0.24
15.259	456.53	0.31	12.347	282.00	0.28	12.467	271.27	0.24
15.279	457.49	0.31	12.367	282.69	0.28	12.487	271.89	0.24
15.299	458.36	0.31	12.387	283.38	0.28	12.507	272.52	0.25
15.319	459.25	0.31	12.407	284.12	0.28	12.527	273.18	0.25
15.339	460.17	0.31	12.427	284.82	0.28	12.547	273.84	0.25
15.359	461.05	0.31	12.447	285.50	0.28	12.567	274.53	0.25
15.379	461.92	0.31	12.467	286.19	0.28	12.587	275.20	0.25

15.399	462.84	0.31	12.487	286.91	0.28	12.607	275.85	0.25
15.419	463.69	0.31	12.507	287.60	0.28	12.626	276.50	0.25
15.439	464.56	0.31	12.527	288.30	0.28	12.646	277.14	0.25
15.459	465.39	0.31	12.547	289.03	0.28	12.666	277.79	0.25
15.479	466.29	0.31	12.567	289.71	0.28	12.686	278.44	0.25
15.499	467.12	0.31	12.587	290.45	0.28	12.706	279.09	0.25
15.519	467.87	0.31	12.607	291.14	0.28	12.726	279.75	0.25
15.539	468.71	0.31	12.626	291.83	0.28	12.746	280.40	0.25
15.559	469.55	0.31	12.646	292.60	0.28	12.766	281.05	0.25
15.579	470.39	0.31	12.666	293.24	0.28	12.786	281.69	0.25
15.599	471.19	0.31	12.686	293.98	0.28	12.806	282.34	0.25
15.618	472.02	0.31	12.706	294.71	0.28	12.826	282.99	0.25
15.638	472.92	0.31	12.726	295.43	0.28	12.846	283.67	0.25
15.658	473.76	0.31	12.746	296.14	0.28	12.866	284.35	0.25
15.678	474.59	0.31	12.766	296.85	0.28	12.886	285.00	0.25
15.698	475.48	0.31	12.786	297.62	0.28	12.906	285.64	0.25
15.718	476.26	0.31	12.806	298.31	0.28	12.926	286.30	0.25
15.738	477.08	0.31	12.826	299.04	0.28	12.946	286.97	0.25
15.758	477.96	0.32	12.846	299.73	0.28	12.966	287.62	0.25
15.778	478.75	0.32	12.866	300.48	0.28	12.986	288.27	0.25
15.798	479.62	0.32	12.886	301.17	0.28	13.005	288.92	0.25
15.818	480.47	0.32	12.906	301.93	0.28	13.025	289.59	0.25
15.838	481.29	0.32	12.926	302.65	0.28	13.045	290.25	0.25
15.858	482.15	0.32	12.946	303.40	0.28	13.065	290.92	0.25
15.878	482.96	0.32	12.966	304.10	0.28	13.085	291.59	0.25
15.898	483.81	0.32	12.986	304.82	0.28	13.105	292.25	0.25
15.918	484.59	0.32	13.005	305.56	0.28	13.125	292.91	0.25
15.938	485.45	0.32	13.025	306.29	0.28	13.145	293.58	0.25
15.958	486.27	0.32	13.045	307.06	0.28	13.165	294.25	0.25
15.978	487.09	0.32	13.065	307.73	0.28	13.185	294.91	0.25
15.997	487.93	0.32	13.085	308.47	0.28	13.205	295.57	0.25
16.017	488.74	0.32	13.105	309.21	0.29	13.225	296.22	0.25
16.037	489.57	0.32	13.125	309.94	0.29	13.245	296.87	0.25
16.057	490.40	0.32	13.145	310.67	0.29	13.265	297.54	0.25
16.077	491.19	0.32	13.165	311.42	0.29	13.285	298.23	0.25
16.097	492.02	0.32	13.185	312.17	0.29	13.305	298.91	0.25
16.117	492.84	0.32	13.205	312.87	0.29	13.325	299.56	0.25
16.137	493.68	0.32	13.225	313.63	0.29	13.345	300.23	0.25
16.157	494.48	0.32	13.245	314.32	0.29	13.365	300.91	0.25
16.177	495.29	0.32	13.265	315.03	0.29	13.384	301.58	0.25
16.197	496.09	0.32	13.285	315.81	0.29	13.404	302.23	0.25
16.217	496.93	0.32	13.305	316.57	0.29	13.424	302.88	0.25
16.237	497.70	0.32	13.325	317.30	0.29	13.444	303.56	0.25
16.257	498.50	0.32	13.345	318.06	0.29	13.464	304.24	0.25
16.277	499.33	0.32	13.365	318.81	0.29	13.484	304.89	0.25

16.297	500.14	0.32	13.384	319.49	0.29	13.504	305.52	0.25
16.317	500.93	0.32	13.404	320.26	0.29	13.524	306.19	0.25
16.337	501.69	0.32	13.424	320.98	0.29	13.544	306.91	0.25
16.357	502.55	0.33	13.444	321.72	0.29	13.564	307.61	0.25
16.376	503.32	0.33	13.464	322.46	0.29	13.584	308.28	0.25
16.396	504.17	0.33	13.484	323.22	0.29	13.604	308.94	0.25
16.416	504.97	0.33	13.504	323.94	0.29	13.624	309.59	0.25
16.436	505.72	0.33	13.524	324.67	0.29	13.644	310.24	0.25
16.456	506.49	0.33	13.544	325.38	0.29	13.664	310.90	0.25
16.476	507.30	0.33	13.564	326.17	0.29	13.684	311.57	0.25
16.496	508.01	0.33	13.584	326.91	0.29	13.704	312.23	0.25
16.516	508.83	0.33	13.604	327.64	0.29	13.724	312.88	0.25
16.536	509.61	0.33	13.624	328.34	0.29	13.744	313.54	0.25
16.556	510.37	0.33	13.644	329.03	0.29	13.763	314.24	0.25
16.576	511.15	0.33	13.664	329.81	0.29	13.783	314.93	0.25
16.596	511.93	0.33	13.684	330.52	0.29	13.803	315.61	0.25
16.616	512.71	0.33	13.704	331.25	0.29	13.823	316.28	0.25
16.636	513.48	0.33	13.724	332.04	0.29	13.843	316.94	0.25
16.656	514.31	0.33	13.744	332.76	0.29	13.863	317.59	0.25
16.676	515.02	0.33	13.763	333.50	0.29	13.883	318.24	0.25
16.696	515.84	0.33	13.783	334.23	0.29	13.903	318.90	0.25
16.716	516.61	0.33	13.803	335.00	0.29	13.923	319.56	0.25
16.735	517.32	0.33	13.823	335.74	0.29	13.943	320.23	0.25
16.755	518.09	0.33	13.843	336.55	0.29	13.963	320.91	0.25
16.775	518.90	0.33	13.863	337.22	0.29	13.983	321.57	0.25
16.795	519.63	0.33	13.883	338.03	0.29	14.003	322.23	0.25
16.815	520.40	0.33	13.903	338.76	0.29	14.023	322.89	0.25
16.835	521.15	0.33	13.923	339.52	0.29	14.043	323.55	0.25
16.855	521.89	0.33	13.943	340.28	0.29	14.063	324.21	0.25
16.875	522.61	0.33	13.963	341.04	0.30	14.083	324.88	0.25
16.895	523.37	0.33	13.983	341.80	0.30	14.103	325.56	0.25
16.915	524.15	0.33	14.003	342.52	0.30	14.122	326.21	0.25
16.935	524.82	0.33	14.023	343.31	0.30	14.142	326.78	0.25
16.955	525.51	0.33	14.043	344.09	0.30	14.162	327.34	0.25
16.975	526.24	0.33	14.063	344.83	0.30	14.182	328.02	0.25
16.995	526.98	0.33	14.083	345.59	0.30	14.202	328.75	0.25
17.015	527.70	0.34	14.103	346.36	0.30	14.222	329.44	0.25
17.035	528.43	0.34	14.122	347.10	0.30	14.242	330.14	0.25
17.055	529.13	0.34	14.142	347.90	0.30	14.262	330.81	0.25
17.075	529.81	0.34	14.162	348.62	0.30	14.282	331.53	0.25
17.095	530.48	0.34	14.182	349.39	0.30	14.302	332.26	0.25
17.114	531.08	0.34	14.202	350.15	0.30	14.322	332.96	0.25
17.134	531.73	0.34	14.222	350.91	0.30	14.342	333.69	0.25
17.154	532.43	0.34	14.242	351.67	0.30	14.362	334.46	0.25
17.174	533.13	0.34	14.262	352.40	0.30	14.382	335.14	0.25

17.194	533.85	0.34	14.282	353.21	0.30	14.402	335.88	0.25
17.214	534.53	0.34	14.302	353.94	0.30	14.422	336.68	0.25
17.234	535.22	0.34	14.322	354.71	0.30	14.442	337.42	0.25
17.254	535.96	0.34	14.342	355.42	0.30	14.462	338.22	0.25
17.274	536.62	0.34	14.362	356.21	0.30	14.482	338.96	0.25
17.294	537.35	0.34	14.382	356.95	0.30	14.501	339.70	0.25
17.314	538.03	0.34	14.402	357.73	0.30	14.521	340.47	0.25
17.334	538.69	0.34	14.422	358.51	0.30	14.541	341.22	0.25
17.354	539.42	0.34	14.442	359.27	0.30	14.561	341.95	0.25
17.374	540.05	0.34	14.462	360.02	0.30	14.581	342.71	0.25
17.394	540.76	0.34	14.482	360.78	0.30	14.601	343.43	0.25
17.414	541.46	0.34	14.501	361.51	0.30	14.621	344.13	0.26
17.434	542.18	0.34	14.521	362.25	0.30	14.641	344.82	0.26
17.454	542.83	0.34	14.541	363.00	0.30	14.661	345.52	0.26
17.474	543.55	0.34	14.561	363.80	0.30	14.681	346.28	0.26
17.493	544.24	0.34	14.581	364.50	0.30	14.701	346.97	0.26
17.513	544.87	0.34	14.601	365.25	0.30	14.721	347.65	0.26
17.533	545.65	0.34	14.621	366.00	0.30	14.741	348.33	0.26
17.553	546.30	0.34	14.641	366.72	0.30	14.761	349.04	0.26
17.573	547.00	0.34	14.661	367.55	0.30	14.781	349.76	0.26
17.593	547.67	0.35	14.681	368.25	0.30	14.801	350.44	0.26
17.613	548.31	0.35	14.701	369.08	0.30	14.821	351.12	0.26
17.633	549.02	0.35	14.721	369.80	0.30	14.841	351.82	0.26
17.653	549.67	0.35	14.741	370.59	0.30	14.861	352.52	0.26
17.673	550.33	0.35	14.761	371.35	0.31	14.880	353.20	0.26
17.693	550.98	0.35	14.781	372.11	0.31	14.900	353.88	0.26
17.713	551.70	0.35	14.801	372.87	0.31	14.920	354.56	0.26
17.733	552.39	0.35	14.821	373.66	0.31	14.940	355.23	0.26
17.753	553.05	0.35	14.841	374.38	0.31	14.960	355.92	0.26
17.773	553.70	0.35	14.861	375.19	0.31	14.980	356.61	0.26
17.793	554.34	0.35	14.880	375.95	0.31	15.000	357.29	0.26
17.813	555.02	0.35	14.900	376.69	0.31	15.020	357.95	0.26
17.833	555.67	0.35	14.920	377.49	0.31	15.040	358.60	0.26
17.853	556.44	0.35	14.940	378.22	0.31	15.060	359.29	0.26
17.872	557.12	0.35	14.960	378.96	0.31	15.080	359.99	0.26
17.892	557.74	0.35	14.980	379.73	0.31	15.100	360.66	0.26
17.912	558.39	0.35	15.000	380.46	0.31	15.120	361.31	0.26
17.932	559.06	0.35	15.020	381.25	0.31	15.140	361.97	0.26
17.952	559.73	0.35	15.040	382.04	0.31	15.160	362.66	0.26
17.972	560.38	0.35	15.060	382.75	0.31	15.180	363.35	0.26
17.992	561.06	0.35	15.080	383.53	0.31	15.200	364.03	0.26
18.012	561.70	0.35	15.100	384.25	0.31	15.220	364.69	0.26
18.032	562.33	0.35	15.120	385.05	0.31	15.239	365.35	0.26
18.052	562.99	0.35	15.140	385.75	0.31	15.259	366.02	0.26
18.072	563.66	0.35	15.160	386.56	0.31	15.279	366.68	0.26

18.092	564.24	0.35	15.180	387.29	0.31	15.299	367.34	0.26
18.112	564.87	0.35	15.200	388.07	0.31	15.319	367.97	0.26
18.132	565.51	0.35	15.220	388.81	0.31	15.339	368.60	0.26
18.152	566.13	0.35	15.239	389.52	0.31	15.359	369.24	0.26
18.172	566.78	0.35	15.259	390.32	0.31	15.379	369.78	0.26
18.192	567.43	0.35	15.279	391.04	0.31	15.399	370.42	0.26
18.212	568.08	0.36	15.299	391.76	0.31	15.419	371.17	0.26
18.231	568.71	0.36	15.319	392.55	0.31	15.439	371.87	0.26
18.251	569.30	0.36	15.339	393.28	0.31	15.459	372.65	0.26
18.271	569.88	0.36	15.359	393.99	0.31	15.479	373.42	0.26
18.291	570.48	0.36	15.379	394.74	0.31	15.499	374.18	0.26
18.311	571.06	0.36	15.399	395.50	0.31	15.519	374.90	0.26
18.331	571.64	0.36	15.419	396.20	0.31	15.539	375.70	0.26
18.351	572.26	0.36	15.439	396.95	0.31	15.559	376.50	0.26
18.371	572.89	0.36	15.459	397.72	0.31	15.579	377.28	0.26
18.391	573.51	0.36	15.479	398.43	0.31	15.599	377.96	0.26
18.411	574.06	0.36	15.499	399.12	0.31	15.618	378.70	0.26
18.431	574.62	0.36	15.519	399.85	0.31	15.638	379.45	0.26
18.451	575.21	0.36	15.539	400.59	0.31	15.658	380.18	0.26
18.471	575.77	0.36	15.559	401.33	0.32	15.678	380.87	0.26
18.491	576.34	0.36	15.579	402.04	0.32	15.698	381.60	0.26
18.511	576.95	0.36	15.599	402.72	0.32	15.718	382.34	0.26
18.531	577.54	0.36	15.618	403.44	0.32	15.738	383.04	0.26
18.551	578.11	0.36	15.638	404.14	0.32	15.758	383.72	0.26
18.571	578.70	0.36	15.658	404.91	0.32	15.778	384.43	0.26
18.591	579.30	0.36	15.678	405.64	0.32	15.798	385.15	0.26
18.610	579.86	0.36	15.698	406.29	0.32	15.818	385.84	0.26
18.630	580.42	0.36	15.718	406.96	0.32	15.838	386.51	0.26
18.650	580.95	0.36	15.738	407.63	0.32	15.858	387.16	0.26
18.670	581.50	0.36	15.758	408.42	0.32	15.878	387.82	0.26
18.690	582.06	0.36	15.778	409.18	0.32	15.898	388.49	0.26
18.710	582.62	0.36	15.798	409.92	0.32	15.918	389.17	0.26
18.730	583.15	0.36	15.818	410.66	0.32	15.938	389.86	0.26
18.750	583.70	0.36	15.838	411.41	0.32	15.958	390.55	0.26
18.770	584.25	0.36	15.858	412.19	0.32	15.978	391.23	0.26
18.790	584.74	0.36	15.878	412.91	0.32	15.997	391.90	0.26
18.810	585.21	0.36	15.898	413.67	0.32	16.017	392.53	0.26
18.830	585.84	0.36	15.918	414.41	0.32	16.037	393.17	0.26
18.850	586.35	0.36	15.938	415.16	0.32	16.057	393.83	0.26
18.870	586.91	0.36	15.958	415.93	0.32	16.077	394.51	0.26
18.890	587.49	0.36	15.978	416.67	0.32	16.097	395.18	0.26
18.910	588.00	0.37	15.997	417.44	0.32	16.117	395.84	0.26
18.930	588.59	0.37	16.017	418.18	0.32	16.137	396.49	0.26
18.950	589.09	0.37	16.037	418.89	0.32	16.157	397.15	0.26
18.970	589.63	0.37	16.057	419.62	0.32	16.177	397.80	0.26

18.989	590.19	0.37	16.077	420.38	0.32	16.197	398.45	0.26
19.009	590.69	0.37	16.097	421.10	0.32	16.217	399.10	0.26
19.029	591.22	0.37	16.117	421.86	0.32	16.237	399.74	0.26
19.049	591.77	0.37	16.137	422.62	0.32	16.257	400.39	0.26
19.069	592.35	0.37	16.157	423.36	0.32	16.277	401.03	0.26
19.089	592.83	0.37	16.177	424.08	0.32	16.297	401.66	0.26
19.109	593.37	0.37	16.197	424.87	0.32	16.317	402.30	0.26
19.129	593.89	0.37	16.217	425.61	0.32	16.337	402.91	0.26
19.149	594.47	0.37	16.237	426.27	0.32	16.357	403.46	0.26
19.169	595.01	0.37	16.257	427.03	0.32	16.376	404.01	0.26
19.189	595.54	0.37	16.277	427.81	0.32	16.396	404.57	0.26
19.209	596.07	0.37	16.297	428.50	0.32	16.416	405.22	0.26
19.229	596.63	0.37	16.317	429.28	0.32	16.436	405.91	0.26
19.249	597.19	0.37	16.337	429.98	0.32	16.456	406.66	0.26
19.269	597.64	0.37	16.357	430.72	0.33	16.476	407.32	0.26
19.289	598.22	0.37	16.376	431.47	0.33	16.496	407.97	0.26
19.309	598.76	0.37	16.396	432.21	0.33	16.516	408.67	0.26
19.329	599.29	0.37	16.416	432.90	0.33	16.536	409.35	0.26
19.349	599.81	0.37	16.436	433.66	0.33	16.556	410.01	0.26
19.368	600.34	0.37	16.456	434.40	0.33	16.576	410.73	0.26
19.388	600.80	0.37	16.476	435.09	0.33	16.596	411.40	0.26
19.408	601.33	0.37	16.496	435.81	0.33	16.616	412.08	0.26
19.428	601.87	0.37	16.516	436.58	0.33	16.636	412.75	0.26
19.448	602.37	0.37	16.536	437.28	0.33	16.656	413.46	0.27
19.468	602.89	0.37	16.556	438.02	0.33	16.676	414.14	0.27
19.488	603.40	0.37	16.576	438.73	0.33	16.696	414.78	0.27
19.508	603.89	0.37	16.596	439.41	0.33	16.716	415.52	0.27
19.528	604.40	0.37	16.616	440.14	0.33	16.735	416.21	0.27
19.548	604.93	0.37	16.636	440.88	0.33	16.755	416.91	0.27
19.568	605.45	0.37	16.656	441.60	0.33	16.775	417.58	0.27
19.588	605.90	0.37	16.676	442.29	0.33	16.795	418.30	0.27
19.608	606.42	0.37	16.696	443.02	0.33	16.815	419.05	0.27
19.628	606.98	0.37	16.716	443.71	0.33	16.835	419.72	0.27
19.648	607.45	0.37	16.735	444.39	0.33	16.855	420.48	0.27
19.668	607.97	0.38	16.755	445.11	0.33	16.875	421.20	0.27
19.688	608.42	0.38	16.775	445.78	0.33	16.895	421.98	0.27
19.708	608.95	0.38	16.795	446.52	0.33	16.915	422.69	0.27
19.727	609.44	0.38	16.815	447.20	0.33	16.935	423.48	0.27
19.747	609.92	0.38	16.835	447.90	0.33	16.955	424.28	0.27
19.767	610.44	0.38	16.855	448.61	0.33	16.975	425.08	0.27
19.787	610.96	0.38	16.875	449.23	0.33	16.995	425.87	0.27
19.807	611.48	0.38	16.895	449.91	0.33	17.015	426.66	0.27
19.827	611.97	0.38	16.915	450.65	0.33	17.035	427.45	0.27
19.847	612.43	0.38	16.935	451.35	0.33	17.055	428.18	0.27
19.867	612.91	0.38	16.955	452.02	0.33	17.075	428.95	0.27

19.887	613.41	0.38	16.975	452.68	0.33	17.095	429.65	0.27
19.907	613.89	0.38	16.995	453.33	0.33	17.114	430.42	0.27
19.927	614.38	0.38	17.015	454.00	0.33	17.134	431.10	0.27
19.947	614.86	0.38	17.035	454.70	0.33	17.154	431.85	0.27
19.967	615.34	0.38	17.055	455.39	0.33	17.174	432.52	0.27
19.987	615.83	0.38	17.075	455.99	0.33	17.194	433.22	0.27
20.007	616.32	0.38	17.095	456.67	0.33	17.214	433.92	0.27
20.027	616.78	0.38	17.114	457.33	0.33	17.234	434.60	0.27
20.047	617.24	0.38	17.134	457.99	0.33	17.254	435.25	0.27
20.067	617.73	0.38	17.154	458.63	0.33	17.274	435.89	0.27
20.087	618.17	0.38	17.174	459.25	0.33	17.294	436.55	0.27
20.106	618.73	0.38	17.194	459.90	0.34	17.314	437.20	0.27
20.126	619.15	0.38	17.214	460.56	0.34	17.334	437.87	0.27
20.146	619.63	0.38	17.234	461.25	0.34	17.354	438.53	0.27
20.166	620.09	0.38	17.254	461.98	0.34	17.374	439.18	0.27
20.186	620.57	0.38	17.274	462.67	0.34	17.394	439.82	0.27
20.206	621.09	0.38	17.294	463.33	0.34	17.414	440.46	0.27
20.226	621.54	0.38	17.314	464.05	0.34	17.434	441.12	0.27
20.246	622.00	0.38	17.334	464.73	0.34	17.454	441.78	0.27
20.266	622.43	0.38	17.354	465.43	0.34	17.474	442.42	0.27
20.286	622.87	0.38	17.374	466.09	0.34	17.493	443.04	0.27
20.306	623.33	0.38	17.394	466.79	0.34	17.513	443.66	0.27
20.326	623.79	0.38	17.414	467.52	0.34	17.533	444.27	0.27
20.346	624.27	0.38	17.434	468.16	0.34	17.553	444.88	0.27
20.366	624.75	0.38	17.454	468.86	0.34	17.573	445.48	0.27
20.386	625.19	0.38	17.474	469.57	0.34	17.593	446.09	0.27
20.406	625.62	0.38	17.493	470.23	0.34	17.613	446.70	0.27
20.426	626.09	0.38	17.513	470.90	0.34	17.633	447.31	0.27
20.446	626.60	0.38	17.533	471.59	0.34	17.653	447.93	0.27
20.466	627.01	0.38	17.553	472.24	0.34	17.673	448.56	0.27
20.485	627.51	0.38	17.573	472.92	0.34	17.693	449.18	0.27
20.505	627.89	0.38	17.593	473.60	0.34	17.713	449.81	0.27
20.525	628.35	0.38	17.613	474.25	0.34	17.733	450.42	0.27
20.545	628.82	0.39	17.633	474.90	0.34	17.753	451.01	0.27
20.565	629.25	0.39	17.653	475.61	0.34	17.773	451.59	0.27
20.585	629.67	0.39	17.673	476.29	0.34	17.793	452.17	0.27
20.605	630.17	0.39	17.693	477.01	0.34	17.813	452.77	0.27
20.625	630.55	0.39	17.713	477.62	0.34	17.833	453.38	0.27
20.645	631.00	0.39	17.733	478.29	0.34	17.853	454.00	0.27
20.665	631.42	0.39	17.753	478.96	0.34	17.872	454.61	0.27
20.685	631.86	0.39	17.773	479.64	0.34	17.892	455.20	0.27
20.705	632.31	0.39	17.793	480.23	0.34	17.912	455.79	0.27
20.725	632.68	0.39	17.813	480.90	0.34	17.932	456.37	0.27
20.745	633.15	0.39	17.833	481.57	0.34	17.952	456.96	0.27
20.765	633.58	0.39	17.853	482.23	0.34	17.972	457.54	0.27



20.785	634.00	0.39	17.872	482.90	0.34	17.992	458.12	0.27
20.805	634.42	0.39	17.892	483.55	0.34	18.012	458.69	0.27
20.825	634.79	0.39	17.912	484.26	0.34	18.032	459.27	0.27
20.845	635.20	0.39	17.932	484.90	0.34	18.052	459.85	0.27
20.864	635.61	0.39	17.952	485.51	0.34	18.072	460.44	0.27
20.884	636.02	0.39	17.972	486.17	0.34	18.092	461.02	0.27
20.904	636.44	0.39	17.992	486.81	0.34	18.112	461.61	0.27
20.924	636.85	0.39	18.012	487.48	0.34	18.132	462.20	0.27
20.944	637.24	0.39	18.032	488.14	0.35	18.152	462.69	0.27
20.964	637.61	0.39	18.052	488.78	0.35	18.172	463.17	0.27
20.984	637.99	0.39	18.072	489.36	0.35	18.192	463.65	0.27
21.004	638.37	0.39	18.092	490.08	0.35	18.212	464.13	0.27
21.024	638.79	0.39	18.112	490.68	0.35	18.231	464.60	0.27
21.044	639.18	0.39	18.132	491.37	0.35	18.251	465.28	0.27
21.064	639.56	0.39	18.152	491.99	0.35	18.271	465.89	0.27
21.084	639.96	0.39	18.172	492.63	0.35	18.291	466.51	0.27
21.104	640.34	0.39	18.192	493.23	0.35	18.311	467.06	0.27
21.124	640.75	0.39	18.212	493.88	0.35	18.331	467.68	0.27
21.144	641.15	0.39	18.231	494.48	0.35	18.351	468.31	0.27
21.164	641.59	0.39	18.251	495.11	0.35	18.371	468.94	0.27
21.184	641.96	0.39	18.271	495.75	0.35	18.391	469.51	0.27
21.204	642.37	0.39	18.291	496.38	0.35	18.411	470.17	0.27
21.223	642.77	0.39	18.311	496.98	0.35	18.431	470.75	0.27
21.243	643.16	0.39	18.331	497.56	0.35	18.451	471.39	0.27
21.263	643.54	0.39	18.351	498.23	0.35	18.471	471.99	0.27
21.283	643.94	0.39	18.371	498.83	0.35	18.491	472.61	0.27
21.303	644.38	0.39	18.391	499.45	0.35	18.511	473.24	0.27
21.323	644.78	0.39	18.411	500.04	0.35	18.531	473.83	0.27
21.343	645.11	0.39	18.431	500.63	0.35	18.551	474.45	0.27
21.363	645.53	0.39	18.451	501.23	0.35	18.571	475.07	0.27
21.383	645.91	0.39	18.471	501.80	0.35	18.591	475.65	0.27
21.403	646.30	0.39	18.491	502.43	0.35	18.610	476.29	0.27
21.423	646.66	0.39	18.511	503.03	0.35	18.630	476.91	0.27
21.443	647.04	0.39	18.531	503.62	0.35	18.650	477.50	0.28
21.463	647.39	0.39	18.551	504.24	0.35	18.670	478.09	0.28
21.483	647.84	0.39	18.571	504.83	0.35	18.690	478.69	0.28
21.503	648.17	0.39	18.591	505.44	0.35	18.710	479.32	0.28
21.523	648.58	0.39	18.610	506.04	0.35	18.730	479.95	0.28
21.543	648.94	0.39	18.630	506.62	0.35	18.750	480.52	0.28
21.563	649.32	0.40	18.650	507.18	0.35	18.770	481.17	0.28
21.583	649.74	0.40	18.670	507.79	0.35	18.790	481.77	0.28
21.602	650.10	0.40	18.690	508.39	0.35	18.810	482.39	0.28
21.622	650.50	0.40	18.710	508.94	0.35	18.830	482.96	0.28
21.642	650.83	0.40	18.730	509.52	0.35	18.850	483.63	0.28
21.662	651.24	0.40	18.750	510.09	0.35	18.870	484.21	0.28

21.682	651.59	0.40	18.770	510.65	0.35	18.890	484.83	0.28
21.702	651.99	0.40	18.790	511.17	0.35	18.910	485.47	0.28
21.722	652.32	0.40	18.810	511.71	0.35	18.930	486.05	0.28
21.742	652.70	0.40	18.830	512.32	0.35	18.950	486.70	0.28
21.762	653.07	0.40	18.850	512.94	0.35	18.970	487.33	0.28
21.782	653.44	0.40	18.870	513.56	0.35	18.989	487.92	0.28
21.802	653.83	0.40	18.890	514.15	0.35	19.009	488.57	0.28
21.822	654.17	0.40	18.910	514.73	0.35	19.029	489.23	0.28
21.842	654.50	0.40	18.930	515.34	0.35	19.049	489.81	0.28
21.862	654.85	0.40	18.950	515.91	0.35	19.069	490.48	0.28
21.882	655.25	0.40	18.970	516.54	0.35	19.089	491.09	0.28
21.902	655.64	0.40	18.989	517.10	0.36	19.109	491.75	0.28
21.922	655.96	0.40	19.009	517.69	0.36	19.129	492.41	0.28
21.942	656.33	0.40	19.029	518.26	0.36	19.149	493.04	0.28
21.962	656.71	0.40	19.049	518.85	0.36	19.169	493.68	0.28
21.981	657.05	0.40	19.069	519.47	0.36	19.189	494.38	0.28
22.001	657.44	0.40	19.089	520.08	0.36	19.209	495.02	0.28
22.021	657.80	0.40	19.109	520.60	0.36	19.229	495.68	0.28
22.041	658.14	0.40	19.129	521.21	0.36	19.249	496.30	0.28
22.061	658.54	0.40	19.149	521.80	0.36	19.269	497.00	0.28
22.081	658.88	0.40	19.169	522.36	0.36	19.289	497.65	0.28
22.101	659.25	0.40	19.189	522.92	0.36	19.309	498.24	0.28
22.121	659.66	0.40	19.209	523.49	0.36	19.329	498.89	0.28
22.141	659.97	0.40	19.229	524.13	0.36	19.349	499.54	0.28
22.161	660.33	0.40	19.249	524.70	0.36	19.368	500.19	0.28
22.181	660.68	0.40	19.269	525.29	0.36	19.388	500.80	0.28
22.201	661.02	0.40	19.289	525.88	0.36	19.408	501.41	0.28
22.221	661.40	0.40	19.309	526.44	0.36	19.428	502.04	0.28
22.241	661.70	0.40	19.329	526.99	0.36	19.448	502.59	0.28
22.261	662.09	0.40	19.349	527.56	0.36	19.468	503.14	0.28
22.281	662.47	0.40	19.368	528.11	0.36	19.488	503.72	0.28
22.301	662.79	0.40	19.388	528.69	0.36	19.508	504.30	0.28
22.321	663.14	0.40	19.408	529.26	0.36	19.528	504.91	0.28
22.340	663.50	0.40	19.428	529.83	0.36	19.548	505.50	0.28
22.360	663.86	0.40	19.448	530.41	0.36	19.568	506.04	0.28
22.380	664.19	0.40	19.468	530.95	0.36	19.588	506.59	0.28
22.400	664.57	0.40	19.488	531.53	0.36	19.608	507.13	0.28
22.420	664.93	0.40	19.508	532.10	0.36	19.628	507.68	0.28
22.440	665.29	0.40	19.528	532.67	0.36	19.648	508.22	0.28
22.460	665.64	0.40	19.548	533.19	0.36	19.668	508.76	0.28
22.480	665.91	0.40	19.568	533.74	0.36	19.688	509.31	0.28
22.500	666.28	0.40	19.588	534.34	0.36	19.708	509.85	0.28
22.520	666.68	0.40	19.608	534.92	0.36	19.727	510.39	0.28
22.540	667.03	0.40	19.628	535.46	0.36	19.747	510.92	0.28
22.560	667.38	0.40	19.648	535.99	0.36	19.767	511.45	0.28

22.580	667.71	0.40	19.668	536.53	0.36	19.787	511.98	0.28
22.600	668.05	0.40	19.688	537.12	0.36	19.807	512.51	0.28
22.620	668.36	0.40	19.708	537.64	0.36	19.827	513.04	0.28
22.640	668.70	0.40	19.727	538.18	0.36	19.847	513.57	0.28
22.660	669.03	0.40	19.747	538.72	0.36	19.867	514.09	0.28
22.680	669.34	0.40	19.767	539.21	0.36	19.887	514.60	0.28
22.700	669.70	0.40	19.787	539.77	0.36	19.907	515.12	0.28
22.719	670.04	0.40	19.807	540.32	0.36	19.927	515.63	0.28
22.739	670.34	0.40	19.827	540.85	0.36	19.947	516.14	0.28
22.759	670.69	0.40	19.847	541.38	0.36	19.967	516.64	0.28
22.779	671.03	0.40	19.867	541.91	0.36	19.987	517.14	0.28
22.799	671.35	0.40	19.887	542.44	0.36	20.007	517.63	0.28
22.819	671.70	0.41	19.907	542.97	0.36	20.027	518.13	0.28
22.839	672.05	0.41	19.927	543.49	0.36	20.047	518.63	0.28
22.859	672.36	0.41	19.947	544.01	0.36	20.067	519.13	0.28
22.879	672.72	0.41	19.967	544.56	0.36	20.087	519.64	0.28
22.899	673.00	0.41	19.987	545.11	0.37	20.106	520.14	0.28
22.919	673.32	0.41	20.007	545.63	0.37	20.126	520.64	0.28
22.939	673.63	0.41	20.027	546.13	0.37	20.146	521.13	0.28
22.959	673.94	0.41	20.047	546.64	0.37	20.166	521.63	0.28
22.979	674.29	0.41	20.067	547.18	0.37	20.186	522.12	0.28
22.999	674.65	0.41	20.087	547.68	0.37	20.206	522.62	0.28
23.019	674.97	0.41	20.106	548.18	0.37	20.226	523.12	0.28
23.039	675.28	0.41	20.126	548.69	0.37	20.246	523.60	0.28
23.059	675.56	0.41	20.146	549.21	0.37	20.266	524.07	0.28
23.079	675.92	0.41	20.166	549.72	0.37	20.286	524.55	0.28
23.098	676.21	0.41	20.186	550.23	0.37	20.306	525.03	0.28
23.118	676.59	0.41	20.206	550.72	0.37	20.326	525.50	0.28
23.138	676.92	0.41	20.226	551.21	0.37	20.346	525.98	0.28
23.158	677.23	0.41	20.246	551.71	0.37	20.366	526.46	0.28
23.178	677.55	0.41	20.266	552.21	0.37	20.386	526.95	0.28
23.198	677.83	0.41	20.286	552.69	0.37	20.406	527.43	0.28
23.218	678.15	0.41	20.306	553.17	0.37	20.426	527.91	0.28
23.238	678.45	0.41	20.326	553.66	0.37	20.446	528.40	0.28
23.258	678.79	0.41	20.346	554.19	0.37	20.466	528.88	0.28
23.278	679.11	0.41	20.366	554.67	0.37	20.485	529.34	0.28
23.298	679.43	0.41	20.386	555.13	0.37	20.505	529.81	0.28
23.318	679.75	0.41	20.406	555.64	0.37	20.525	530.27	0.28
23.338	680.07	0.41	20.426	556.15	0.37	20.545	530.74	0.28
23.358	680.37	0.41	20.446	556.65	0.37	20.565	531.20	0.28
23.378	680.71	0.41	20.466	557.12	0.37	20.585	531.66	0.28
23.398	681.00	0.41	20.485	557.56	0.37	20.605	532.12	0.28
23.418	681.37	0.41	20.505	558.02	0.37	20.625	532.57	0.28
23.438	681.64	0.41	20.525	558.50	0.37	20.645	533.03	0.28
23.458	681.95	0.41	20.545	559.00	0.37	20.665	533.48	0.28

23.477	682.28	0.41	20.565	559.50	0.37	20.685	533.93	0.28
23.497	682.60	0.41	20.585	559.97	0.37	20.705	534.38	0.28
23.517	682.91	0.41	20.605	560.43	0.37	20.725	534.83	0.28
23.537	683.24	0.41	20.625	560.88	0.37	20.745	535.25	0.28
23.557	683.54	0.41	20.645	561.34	0.37	20.765	535.63	0.28
23.577	683.90	0.41	20.665	561.79	0.37	20.785	536.01	0.28
23.597	684.17	0.41	20.685	562.25	0.37	20.805	536.40	0.28
23.617	684.50	0.41	20.705	562.70	0.37	20.825	536.78	0.28
23.637	684.79	0.41	20.725	563.14	0.37	20.845	537.17	0.28
23.657	685.13	0.41	20.745	563.62	0.37	20.864	537.58	0.28
23.677	685.43	0.41	20.765	564.11	0.37	20.884	538.08	0.28
23.697	685.73	0.41	20.785	564.51	0.37	20.904	538.59	0.28
23.717	686.05	0.41	20.805	564.91	0.37	20.924	539.08	0.29
23.737	686.35	0.41	20.825	565.41	0.37	20.944	539.57	0.29
23.757	686.66	0.41	20.845	565.84	0.37	20.964	540.12	0.29
23.777	686.97	0.41	20.864	566.37	0.37	20.984	540.54	0.29
23.797	687.31	0.41	20.884	566.85	0.37	21.004	541.08	0.29
23.817	687.61	0.41	20.904	567.35	0.37	21.024	541.53	0.29
23.836	687.88	0.41	20.924	567.81	0.37	21.044	542.02	0.29
23.856	688.18	0.41	20.944	568.29	0.37	21.064	542.55	0.29
23.876	688.49	0.41	20.964	568.76	0.37	21.084	543.05	0.29
23.896	688.80	0.41	20.984	569.27	0.37	21.104	543.52	0.29
23.916	689.12	0.41	21.004	569.74	0.37	21.124	544.04	0.29
23.936	689.44	0.41	21.024	570.19	0.37	21.144	544.51	0.29
23.956	689.76	0.41	21.044	570.69	0.37	21.164	544.98	0.29
23.976	690.07	0.41	21.064	571.16	0.37	21.184	545.49	0.29
23.996	690.35	0.41	21.084	571.62	0.37	21.204	545.97	0.29
24.016	690.64	0.41	21.104	572.08	0.37	21.223	546.45	0.29
24.036	690.95	0.41	21.124	572.53	0.37	21.243	546.97	0.29
24.056	691.27	0.41	21.144	572.99	0.38	21.263	547.41	0.29
24.076	691.56	0.41	21.164	573.53	0.38	21.283	547.95	0.29
24.096	691.85	0.41	21.184	573.91	0.38	21.303	548.45	0.29
24.116	692.14	0.41	21.204	574.42	0.38	21.323	548.95	0.29
24.136	692.45	0.41	21.223	574.87	0.38	21.343	549.42	0.29
24.156	692.78	0.41	21.243	575.36	0.38	21.363	549.94	0.29
24.176	693.02	0.41	21.263	575.81	0.38	21.383	550.44	0.29
24.196	693.28	0.41	21.283	576.26	0.38	21.403	550.89	0.29
24.215	693.62	0.41	21.303	576.71	0.38	21.423	551.41	0.29
24.235	693.93	0.41	21.323	577.14	0.38	21.443	551.95	0.29
24.255	694.19	0.41	21.343	577.62	0.38	21.463	552.43	0.29
24.275	694.48	0.41	21.363	578.06	0.38	21.483	552.94	0.29
24.295	694.77	0.41	21.383	578.53	0.38	21.503	553.45	0.29
24.315	695.04	0.41	21.403	578.95	0.38	21.523	553.95	0.29
24.335	695.37	0.42	21.423	579.41	0.38	21.543	554.46	0.29
24.355	695.69	0.42	21.443	579.82	0.38	21.563	554.99	0.29

24.375	695.98	0.42	21.463	580.28	0.38	21.583	555.46	0.29
24.395	696.25	0.42	21.483	580.74	0.38	21.602	556.01	0.29
24.415	696.53	0.42	21.503	581.20	0.38	21.622	556.54	0.29
24.435	696.85	0.42	21.523	581.66	0.38	21.642	557.10	0.29
24.455	697.13	0.42	21.543	582.11	0.38	21.662	557.65	0.29
24.475	697.39	0.42	21.563	582.56	0.38	21.682	558.15	0.29
24.495	697.68	0.42	21.583	582.98	0.38	21.702	558.71	0.29
24.515	697.98	0.42	21.602	583.49	0.38	21.722	559.24	0.29
24.535	698.25	0.42	21.622	583.91	0.38	21.742	559.84	0.29
24.555	698.51	0.42	21.642	584.36	0.38	21.762	560.37	0.29
24.575	698.78	0.42	21.662	584.81	0.38	21.782	560.98	0.29
24.594	699.07	0.42	21.682	585.22	0.38	21.802	561.48	0.29
24.614	699.37	0.42	21.702	585.68	0.38	21.822	562.08	0.29
24.634	699.65	0.42	21.722	586.14	0.38	21.842	562.64	0.29
24.654	699.97	0.42	21.742	586.56	0.38	21.862	563.21	0.29
24.674	700.22	0.42	21.762	587.04	0.38	21.882	563.80	0.29
24.694	700.50	0.42	21.782	587.47	0.38	21.902	564.38	0.29
24.714	700.80	0.42	21.802	587.91	0.38	21.922	564.93	0.29
24.734	701.09	0.42	21.822	588.37	0.38	21.942	565.46	0.29
24.754	701.33	0.42	21.842	588.78	0.38	21.962	566.00	0.29
24.774	701.61	0.42	21.862	589.27	0.38	21.981	566.53	0.29
24.794	701.88	0.42	21.882	589.66	0.38	22.001	567.04	0.29
24.814	702.13	0.42	21.902	590.12	0.38	22.021	567.53	0.29
24.834	702.42	0.42	21.922	590.60	0.38	22.041	568.01	0.29
24.854	702.70	0.42	21.942	590.99	0.38	22.061	568.51	0.29
24.874	702.97	0.42	21.962	591.46	0.38	22.081	569.02	0.29
24.894	703.20	0.42	21.981	591.88	0.38	22.101	569.49	0.29
24.914	703.47	0.42	22.001	592.31	0.38	22.121	569.94	0.29
24.934	703.77	0.42	22.021	592.72	0.38	22.141	570.38	0.29
24.954	704.05	0.42	22.041	593.17	0.38	22.161	570.85	0.29
24.973	704.28	0.42	22.061	593.61	0.38	22.181	571.31	0.29
24.993	704.53	0.42	22.081	594.05	0.38	22.201	571.78	0.29
25.013	704.79	0.42	22.101	594.49	0.38	22.221	572.21	0.29
25.033	705.07	0.42	22.121	594.94	0.38	22.241	572.64	0.29
25.053	705.36	0.42	22.141	595.33	0.38	22.261	573.07	0.29
25.073	705.62	0.42	22.161	595.72	0.38	22.281	573.50	0.29
25.093	705.85	0.42	22.181	596.21	0.38	22.301	573.92	0.29
25.113	706.14	0.42	22.201	596.65	0.38	22.321	574.34	0.29
25.133	706.41	0.42	22.221	597.06	0.38	22.340	574.76	0.29
25.153	706.67	0.42	22.241	597.48	0.38	22.360	575.18	0.29
25.173	706.94	0.42	22.261	597.87	0.38	22.380	575.60	0.29
25.193	707.24	0.42	22.281	598.27	0.38	22.400	576.02	0.29
25.213	707.50	0.42	22.301	598.73	0.38	22.420	576.43	0.29
25.233	707.77	0.42	22.321	599.13	0.38	22.440	576.85	0.29
25.253	708.04	0.42	22.340	599.56	0.38	22.460	577.27	0.29

25.273	708.28	0.42	22.360	599.97	0.38	22.480	577.68	0.29
25.293	708.56	0.42	22.380	600.39	0.39	22.500	578.09	0.29
25.313	708.86	0.42	22.400	600.83	0.39	22.520	578.50	0.29
25.332	709.14	0.42	22.420	601.23	0.39	22.540	578.91	0.29
25.352	709.43	0.42	22.440	601.60	0.39	22.560	579.32	0.29
25.372	709.71	0.42	22.460	602.03	0.39	22.580	579.73	0.29
25.392	709.97	0.42	22.480	602.46	0.39	22.600	580.13	0.29
25.412	710.24	0.42	22.500	602.82	0.39	22.620	580.53	0.29
25.432	710.52	0.42	22.520	603.25	0.39	22.640	580.93	0.29
25.452	710.75	0.42	22.540	603.62	0.39	22.660	581.34	0.29
25.472	711.03	0.42	22.560	604.03	0.39	22.680	581.74	0.29
25.492	711.29	0.42	22.580	604.45	0.39	22.700	582.14	0.29
25.512	711.58	0.42	22.600	604.88	0.39	22.719	582.53	0.29
25.532	711.85	0.42	22.620	605.28	0.39	22.739	582.92	0.29
25.552	712.11	0.42	22.640	605.65	0.39	22.759	583.31	0.29
25.572	712.37	0.42	22.660	606.06	0.39	22.779	583.70	0.29
25.592	712.62	0.42	22.680	606.49	0.39	22.799	584.09	0.29
25.612	712.90	0.42	22.700	606.92	0.39	22.819	584.48	0.29
25.632	713.15	0.42	22.719	607.33	0.39	22.839	584.87	0.29
25.652	713.44	0.42	22.739	607.74	0.39	22.859	585.26	0.29
25.672	713.69	0.42	22.759	608.15	0.39	22.879	585.66	0.29
25.692	713.96	0.42	22.779	608.55	0.39	22.899	586.05	0.29
25.711	714.26	0.42	22.799	608.93	0.39	22.919	586.44	0.29
25.731	714.50	0.42	22.819	609.35	0.39	22.939	586.84	0.29
25.751	714.78	0.42	22.839	609.76	0.39	22.959	587.23	0.29
25.771	715.07	0.42	22.859	610.13	0.39	22.979	587.62	0.29
25.791	715.31	0.42	22.879	610.53	0.39	22.999	588.01	0.29
25.811	715.56	0.42	22.899	610.94	0.39	23.019	588.38	0.29
25.831	715.84	0.42	22.919	611.31	0.39	23.039	588.75	0.29
25.851	716.08	0.42	22.939	611.73	0.39	23.059	589.11	0.29
25.871	716.32	0.42	22.959	612.08	0.39	23.079	589.48	0.29
25.891	716.61	0.42	22.979	612.51	0.39	23.098	589.85	0.29
25.911	716.84	0.42	22.999	612.90	0.39	23.118	590.21	0.29
25.931	717.16	0.42	23.019	613.33	0.39	23.138	590.58	0.29
25.951	717.37	0.42	23.039	613.72	0.39	23.158	590.95	0.29
25.971	717.66	0.42	23.059	614.09	0.39	23.178	591.32	0.29
25.991	717.89	0.42	23.079	614.47	0.39	23.198	591.69	0.29
26.011	718.15	0.42	23.098	614.86	0.39	23.218	592.06	0.29
26.031	718.43	0.42	23.118	615.27	0.39	23.238	592.43	0.29
26.051	718.68	0.42	23.138	615.68	0.39	23.258	592.80	0.29
26.071	718.92	0.42	23.158	616.03	0.39	23.278	593.17	0.29
26.090	719.20	0.42	23.178	616.44	0.39	23.298	593.54	0.29
26.110	719.47	0.42	23.198	616.85	0.39	23.318	593.91	0.29
26.130	719.68	0.42	23.218	617.26	0.39	23.338	594.28	0.29
26.150	719.93	0.42	23.238	617.63	0.39	23.358	594.64	0.29

26.170	720.21	0.43	23.258	617.98	0.39	23.378	595.00	0.29
26.190	720.49	0.43	23.278	618.37	0.39	23.398	595.36	0.30
26.210	720.73	0.43	23.298	618.76	0.39	23.418	595.72	0.30
26.230	720.94	0.43	23.318	619.15	0.39	23.438	596.08	0.30
26.250	721.20	0.43	23.338	619.53	0.39	23.458	596.44	0.30
26.270	721.46	0.43	23.358	619.90	0.39	23.477	596.80	0.30
26.290	721.70	0.43	23.378	620.28	0.39	23.497	597.16	0.30
26.310	721.95	0.43	23.398	620.70	0.39	23.517	597.52	0.30
26.330	722.23	0.43	23.418	621.07	0.39	23.537	597.88	0.30
26.350	722.49	0.43	23.438	621.43	0.39	23.557	598.23	0.30
26.370	722.74	0.43	23.458	621.79	0.39	23.577	598.59	0.30
26.390	723.00	0.43	23.477	622.15	0.39	23.597	598.94	0.30
26.410	723.25	0.43	23.497	622.54	0.39	23.617	599.29	0.30
26.430	723.50	0.43	23.517	622.93	0.39	23.637	599.64	0.30
26.450	723.73	0.43	23.537	623.28	0.39	23.657	599.99	0.30
26.469	723.97	0.43	23.557	623.66	0.39	23.677	600.34	0.30
26.489	724.21	0.43	23.577	624.03	0.39	23.697	600.70	0.30
26.509	724.46	0.43	23.597	624.37	0.39	23.717	601.05	0.30
26.529	724.71	0.43	23.617	624.75	0.39	23.737	601.40	0.30
26.549	724.92	0.43	23.637	625.12	0.39	23.757	601.75	0.30
26.569	725.18	0.43	23.657	625.49	0.39	23.777	602.10	0.30
26.589	725.43	0.43	23.677	625.88	0.39	23.797	602.45	0.30
26.609	725.66	0.43	23.697	626.25	0.39	23.817	602.80	0.30
26.629	725.92	0.43	23.717	626.61	0.40	23.836	603.15	0.30
26.649	726.19	0.43	23.737	626.98	0.40	23.856	603.50	0.30
26.669	726.38	0.43	23.757	627.31	0.40	23.876	603.85	0.30
26.689	726.63	0.43	23.777	627.61	0.40	23.896	604.20	0.30
26.709	726.90	0.43	23.797	628.00	0.40	23.916	604.55	0.30
26.729	727.17	0.43	23.817	628.38	0.40	23.936	604.90	0.30
26.749	727.41	0.43	23.836	628.72	0.40	23.956	605.26	0.30
26.769	727.66	0.43	23.856	629.06	0.40	23.976	605.61	0.30
26.789	727.90	0.43	23.876	629.40	0.40	23.996	605.95	0.30
26.809	728.14	0.43	23.896	629.74	0.40	24.016	606.28	0.30
26.828	728.38	0.43	23.916	630.09	0.40	24.036	606.62	0.30
26.848	728.57	0.43	23.936	630.48	0.40	24.056	606.95	0.30
26.868	728.80	0.43	23.956	630.82	0.40	24.076	607.28	0.30
26.888	729.04	0.43	23.976	631.15	0.40	24.096	607.61	0.30
26.908	729.29	0.43	23.996	631.51	0.40	24.116	607.94	0.30
26.928	729.60	0.43	24.016	631.86	0.40	24.136	608.28	0.30
26.948	729.84	0.43	24.036	632.18	0.40	24.156	608.61	0.30
26.968	730.07	0.43	24.056	632.51	0.40	24.176	608.94	0.30
26.988	730.28	0.43	24.076	632.87	0.40	24.196	609.27	0.30
27.008	730.52	0.43	24.096	633.22	0.40	24.215	609.60	0.30
27.028	730.74	0.43	24.116	633.57	0.40	24.235	609.94	0.30
27.048	730.96	0.43	24.136	633.91	0.40	24.255	610.23	0.30

27.068	731.19	0.43	24.156	634.25	0.40	24.275	610.51	0.30
27.088	731.45	0.43	24.176	634.56	0.40	24.295	610.80	0.30
27.108	731.72	0.43	24.196	634.87	0.40	24.315	611.08	0.30
27.128	731.94	0.43	24.215	635.21	0.40	24.335	611.37	0.30
27.148	732.15	0.43	24.235	635.55	0.40	24.355	611.66	0.30
27.168	732.38	0.43	24.255	635.89	0.40	24.375	611.94	0.30
27.188	732.67	0.43	24.275	636.22	0.40	24.395	612.23	0.30
27.207	732.89	0.43	24.295	636.54	0.40	24.415	612.52	0.30
27.227	733.10	0.43	24.315	636.87	0.40	24.435	612.80	0.30
27.247	733.30	0.43	24.335	637.19	0.40	24.455	613.09	0.30
27.267	733.53	0.43	24.355	637.50	0.40	24.475	613.38	0.30
27.287	733.75	0.43	24.375	637.81	0.40	24.495	613.75	0.30
27.307	733.96	0.43	24.395	638.11	0.40	24.515	614.09	0.30
27.327	734.20	0.43	24.415	638.43	0.40	24.535	614.44	0.30
27.347	734.45	0.43	24.435	638.77	0.40	24.555	614.80	0.30
27.367	734.71	0.43	24.455	639.11	0.40	24.575	615.18	0.30
27.387	734.94	0.43	24.475	639.44	0.40	24.594	615.50	0.30
27.407	735.17	0.43	24.495	639.85	0.40	24.614	615.85	0.30
27.427	735.38	0.43	24.515	640.19	0.40	24.634	616.22	0.30
27.447	735.59	0.43	24.535	640.51	0.40	24.654	616.58	0.30
27.467	735.80	0.43	24.555	640.83	0.40	24.674	616.89	0.30
27.487	736.02	0.43	24.575	641.18	0.40	24.694	617.23	0.30
27.507	736.28	0.43	24.594	641.55	0.40	24.714	617.60	0.30
27.527	736.51	0.43	24.614	641.87	0.40	24.734	617.97	0.30
27.547	736.73	0.43	24.634	642.17	0.40	24.754	618.28	0.30
27.567	737.00	0.43	24.654	642.52	0.40	24.774	618.63	0.30
27.586	737.23	0.43	24.674	642.86	0.40	24.794	618.99	0.30
27.606	737.43	0.43	24.694	643.24	0.40	24.814	619.36	0.30
27.626	737.63	0.43	24.714	643.56	0.40	24.834	619.72	0.30
27.646	737.86	0.43	24.734	643.92	0.40	24.854	620.04	0.30
27.666	738.10	0.43	24.754	644.27	0.40	24.874	620.38	0.30
27.686	738.31	0.43	24.774	644.58	0.40	24.894	620.72	0.30
27.706	738.50	0.43	24.794	644.95	0.40	24.914	621.03	0.30
27.726	738.76	0.43	24.814	645.26	0.40	24.934	621.38	0.30
27.746	739.00	0.43	24.834	645.59	0.40	24.954	621.73	0.30
27.766	739.22	0.43	24.854	645.92	0.40	24.973	622.07	0.30
27.786	739.43	0.43	24.874	646.22	0.40	24.993	622.44	0.30
27.806	739.66	0.43	24.894	646.56	0.40	25.013	622.76	0.30
27.826	739.90	0.43	24.914	646.91	0.40	25.033	623.08	0.30
27.846	740.15	0.43	24.934	647.19	0.40	25.053	623.44	0.30
27.866	740.33	0.43	24.954	647.55	0.40	25.073	623.78	0.30
27.886	740.57	0.43	24.973	647.90	0.40	25.093	624.14	0.30
27.906	740.79	0.43	24.993	648.25	0.40	25.113	624.47	0.30
27.926	741.02	0.43	25.013	648.60	0.40	25.133	624.78	0.30
27.946	741.25	0.43	25.033	648.89	0.40	25.153	625.16	0.30



27.965	741.44	0.43	25.053	649.19	0.40	25.173	625.50	0.30
27.985	741.65	0.43	25.073	649.55	0.40	25.193	625.85	0.30
28.005	741.88	0.43	25.093	649.88	0.40	25.213	626.21	0.30
28.025	742.11	0.43	25.113	650.20	0.40	25.233	626.49	0.30
28.045	742.32	0.43	25.133	650.54	0.40	25.253	626.82	0.30
28.065	742.53	0.43	25.153	650.82	0.40	25.273	627.16	0.30
28.085	742.78	0.43	25.173	651.15	0.40	25.293	627.48	0.30
28.105	743.00	0.43	25.193	651.42	0.40	25.313	627.81	0.30
28.125	743.22	0.43	25.213	651.82	0.40	25.332	628.16	0.30
28.145	743.44	0.43	25.233	652.11	0.40	25.352	628.51	0.30
28.165	743.66	0.43	25.253	652.44	0.40	25.372	628.84	0.30
28.185	743.88	0.43	25.273	652.76	0.40	25.392	629.17	0.30
28.205	744.09	0.43	25.293	653.09	0.41	25.412	629.51	0.30
28.225	744.30	0.44	25.313	653.42	0.41	25.432	629.85	0.30
28.245	744.51	0.44	25.332	653.74	0.41	25.452	630.20	0.30
28.265	744.75	0.44	25.352	654.06	0.41	25.472	630.51	0.30
28.285	744.95	0.44	25.372	654.38	0.41	25.492	630.80	0.30
28.305	745.18	0.44	25.392	654.69	0.41	25.512	631.15	0.30
28.324	745.43	0.44	25.412	655.01	0.41	25.532	631.49	0.30
28.344	745.65	0.44	25.432	655.32	0.41	25.552	631.83	0.30
28.364	745.87	0.44	25.452	655.63	0.41	25.572	632.17	0.30
28.384	746.07	0.44	25.472	655.93	0.41	25.592	632.49	0.30
28.404	746.26	0.44	25.492	656.24	0.41	25.612	632.81	0.30
28.424	746.47	0.44	25.512	656.55	0.41	25.632	633.13	0.30
28.444	746.72	0.44	25.532	656.93	0.41	25.652	633.47	0.30
28.464	746.95	0.44	25.552	657.24	0.41	25.672	633.80	0.30
28.484	747.17	0.44	25.572	657.48	0.41	25.692	634.11	0.30
28.504	747.39	0.44	25.592	657.83	0.41	25.711	634.45	0.30
28.524	747.61	0.44	25.612	658.16	0.41	25.731	634.76	0.30
28.544	747.80	0.44	25.632	658.48	0.41	25.751	635.07	0.30
28.564	748.01	0.44	25.652	658.73	0.41	25.771	635.40	0.30
28.584	748.24	0.44	25.672	659.05	0.41	25.791	635.72	0.30
28.604	748.44	0.44	25.692	659.37	0.41	25.811	636.03	0.30
28.624	748.63	0.44	25.711	659.69	0.41	25.831	636.36	0.30
28.644	748.86	0.44	25.731	660.00	0.41	25.851	636.69	0.30
28.664	749.09	0.44	25.751	660.31	0.41	25.871	637.01	0.30
28.684	749.31	0.44	25.771	660.61	0.41	25.891	637.35	0.30
28.703	749.51	0.44	25.791	660.91	0.41	25.911	637.64	0.30
28.723	749.69	0.44	25.811	661.29	0.41	25.931	637.92	0.30
28.743	749.92	0.44	25.831	661.58	0.41	25.951	638.28	0.30
28.763	750.15	0.44	25.851	661.88	0.41	25.971	638.61	0.30
28.783	750.37	0.44	25.871	662.19	0.41	25.991	638.93	0.30
28.803	750.58	0.44	25.891	662.49	0.41	26.011	639.24	0.30
28.823	750.79	0.44	25.911	662.79	0.41	26.031	639.56	0.30
28.843	750.99	0.44	25.931	663.10	0.41	26.051	639.86	0.30

28.863	751.17	0.44	25.951	663.41	0.41	26.071	640.18	0.30
28.883	751.38	0.44	25.971	663.72	0.41	26.090	640.50	0.30
28.903	751.62	0.44	25.991	664.03	0.41	26.110	640.80	0.30
28.923	751.82	0.44	26.011	664.33	0.41	26.130	641.12	0.30
28.943	752.00	0.44	26.031	664.62	0.41	26.150	641.42	0.30
28.963	752.19	0.44	26.051	664.92	0.41	26.170	641.70	0.30
28.983	752.40	0.44	26.071	665.21	0.41	26.190	642.00	0.30
29.003	752.60	0.44	26.090	665.51	0.41	26.210	642.31	0.30
29.023	752.80	0.44	26.110	665.86	0.41	26.230	642.62	0.30
29.043	753.00	0.44	26.130	666.16	0.41	26.250	642.94	0.30
29.063	753.22	0.44	26.150	666.44	0.41	26.270	643.26	0.30
29.082	753.44	0.44	26.170	666.73	0.41	26.290	643.57	0.30
29.102	753.65	0.44	26.190	667.02	0.41	26.310	643.88	0.30
29.122	753.88	0.44	26.210	667.33	0.41	26.330	644.19	0.30
29.142	754.11	0.44	26.230	667.66	0.41	26.350	644.53	0.30
29.162	754.31	0.44	26.250	667.94	0.41	26.370	644.86	0.30
29.182	754.50	0.44	26.270	668.23	0.41	26.390	645.17	0.30
29.202	754.70	0.44	26.290	668.50	0.41	26.410	645.47	0.30
29.222	754.89	0.44	26.310	668.81	0.41	26.430	645.77	0.30
29.242	755.09	0.44	26.330	669.12	0.41	26.450	646.05	0.30
29.262	755.28	0.44	26.350	669.41	0.41	26.469	646.35	0.30
29.282	755.47	0.44	26.370	669.71	0.41	26.489	646.65	0.30
29.302	755.67	0.44	26.390	669.99	0.41	26.509	646.96	0.30
29.322	755.87	0.44	26.410	670.27	0.41	26.529	647.26	0.30
29.342	756.07	0.44	26.430	670.57	0.41	26.549	647.55	0.30
29.362	756.28	0.44	26.450	670.93	0.41	26.569	647.85	0.30
29.382	756.50	0.44	26.469	671.21	0.41	26.589	648.16	0.30
29.402	756.71	0.44	26.489	671.49	0.41	26.609	648.49	0.30
29.422	756.92	0.44	26.509	671.76	0.41	26.629	648.80	0.30
29.441	757.13	0.44	26.529	672.06	0.41	26.649	649.11	0.30
29.461	757.32	0.44	26.549	672.38	0.41	26.669	649.40	0.30
29.481	757.51	0.44	26.569	672.66	0.41	26.689	649.69	0.30
29.501	757.69	0.44	26.589	673.00	0.41	26.709	649.96	0.30
29.521	757.87	0.44	26.609	673.27	0.41	26.729	650.26	0.30
29.541	758.09	0.44	26.629	673.53	0.41	26.749	650.55	0.30
29.561	758.31	0.44	26.649	673.82	0.41	26.769	650.85	0.30
29.581	758.50	0.44	26.669	674.13	0.41	26.789	651.16	0.30
29.601	758.67	0.44	26.689	674.44	0.41	26.809	651.46	0.30
29.621	758.86	0.44	26.709	674.70	0.41	26.828	651.76	0.30
29.641	759.08	0.44	26.729	674.99	0.41	26.848	652.05	0.30
29.661	759.29	0.44	26.749	675.29	0.41	26.868	652.33	0.31
29.681	759.47	0.44	26.769	675.59	0.41	26.888	652.62	0.31
29.701	759.65	0.44	26.789	675.90	0.41	26.908	652.93	0.31
29.721	759.84	0.44	26.809	676.16	0.41	26.928	653.24	0.31
29.741	760.04	0.44	26.828	676.43	0.41	26.948	653.52	0.31

29.761	760.24	0.44	26.848	676.73	0.41	26.968	653.81	0.31
29.781	760.44	0.44	26.868	677.02	0.41	26.988	654.10	0.31
29.801	760.64	0.44	26.888	677.31	0.41	27.008	654.42	0.31
29.820	760.81	0.44	26.908	677.60	0.41	27.028	654.72	0.31
29.840	760.99	0.44	26.928	677.90	0.41	27.048	654.99	0.31
29.860	761.18	0.44	26.948	678.13	0.41	27.068	655.27	0.31
29.880	761.38	0.44	26.968	678.39	0.41	27.088	655.55	0.31
29.900	761.58	0.44	26.988	678.68	0.42	27.108	655.86	0.31
29.920	761.78	0.44	27.008	678.96	0.42	27.128	656.16	0.31
29.940	761.97	0.44	27.028	679.23	0.42	27.148	656.43	0.31
29.960	762.17	0.44	27.048	679.52	0.42	27.168	656.70	0.31
29.980	762.36	0.44	27.068	679.85	0.42	27.188	656.98	0.31
30.000	762.55	0.44	27.088	680.14	0.42	27.207	657.29	0.31
			27.108	680.42	0.42	27.227	657.62	0.31
			27.128	680.69	0.42	27.247	657.89	0.31
			27.148	680.96	0.42	27.267	658.16	0.31
			27.168	681.22	0.42	27.287	658.48	0.31
			27.188	681.48	0.42	27.307	658.78	0.31
			27.207	681.79	0.42	27.327	659.04	0.31
			27.227	682.10	0.42	27.347	659.31	0.31
			27.247	682.36	0.42	27.367	659.57	0.31
			27.267	682.63	0.42	27.387	659.85	0.31
			27.287	682.89	0.42	27.407	660.13	0.31
			27.307	683.16	0.42	27.427	660.43	0.31
			27.327	683.42	0.42	27.447	660.73	0.31
			27.347	683.69	0.42	27.467	661.01	0.31
			27.367	684.01	0.42	27.487	661.29	0.31
			27.387	684.28	0.42	27.507	661.58	0.31
			27.407	684.54	0.42	27.527	661.86	0.31
			27.427	684.79	0.42	27.547	662.12	0.31
			27.447	685.05	0.42	27.567	662.41	0.31
			27.467	685.33	0.42	27.586	662.72	0.31
			27.487	685.63	0.42	27.606	662.99	0.31
			27.507	685.90	0.42	27.626	663.24	0.31
			27.527	686.16	0.42	27.646	663.53	0.31
			27.547	686.45	0.42	27.666	663.83	0.31
			27.567	686.73	0.42	27.686	664.09	0.31
			27.586	686.98	0.42	27.706	664.35	0.31
			27.606	687.22	0.42	27.726	664.67	0.31
			27.626	687.47	0.42	27.746	664.96	0.31
			27.646	687.75	0.42	27.766	665.21	0.31
			27.666	688.04	0.42	27.786	665.48	0.31
			27.686	688.34	0.42	27.806	665.78	0.31
			27.706	688.59	0.42	27.826	666.05	0.31
			27.726	688.82	0.42	27.846	666.30	0.31

			27.746	689.11	0.42	27.866	666.59	0.31
			27.766	689.38	0.42	27.886	666.89	0.31
			27.786	689.61	0.42	27.906	667.14	0.31
			27.806	689.87	0.42	27.926	667.38	0.31
			27.826	690.14	0.42	27.946	667.66	0.31
			27.846	690.42	0.42	27.965	667.96	0.31
			27.866	690.69	0.42	27.985	668.25	0.31
			27.886	690.92	0.42	28.005	668.54	0.31
			27.906	691.16	0.42	28.025	668.78	0.31
			27.926	691.43	0.42	28.045	669.02	0.31
			27.946	691.70	0.42	28.065	669.30	0.31
			27.965	691.97	0.42	28.085	669.59	0.31
			27.985	692.24	0.42	28.105	669.87	0.31
			28.005	692.51	0.42	28.125	670.15	0.31
			28.025	692.77	0.42	28.145	670.40	0.31
			28.045	693.03	0.42	28.165	670.65	0.31
			28.065	693.29	0.42	28.185	670.93	0.31
			28.085	693.56	0.42	28.205	671.21	0.31
			28.105	693.83	0.42	28.225	671.45	0.31
			28.125	694.09	0.42	28.245	671.70	0.31
			28.145	694.34	0.42	28.265	671.99	0.31
			28.165	694.60	0.42	28.285	672.28	0.31
			28.185	694.85	0.42	28.305	672.56	0.31
			28.205	695.10	0.42	28.324	672.83	0.31
			28.225	695.36	0.42	28.344	673.07	0.31
			28.245	695.60	0.42	28.364	673.32	0.31
			28.265	695.85	0.42	28.384	673.59	0.31
			28.285	696.10	0.42	28.404	673.86	0.31
			28.305	696.35	0.42	28.424	674.10	0.31
			28.324	696.60	0.42	28.444	674.34	0.31
			28.344	696.85	0.42	28.464	674.61	0.31
			28.364	697.09	0.42	28.484	674.88	0.31
			28.384	697.33	0.42	28.504	675.16	0.31
			28.404	697.58	0.42	28.524	675.44	0.31
			28.424	697.83	0.42	28.544	675.70	0.31
			28.444	698.07	0.42	28.564	675.96	0.31
			28.464	698.31	0.42	28.584	676.22	0.31
			28.484	698.56	0.42	28.604	676.48	0.31
			28.504	698.80	0.42	28.624	676.74	0.31
			28.524	699.08	0.42	28.644	677.00	0.31
			28.544	699.36	0.42	28.664	677.25	0.31
			28.564	699.59	0.42	28.684	677.49	0.31
			28.584	699.83	0.42	28.703	677.74	0.31
			28.604	700.06	0.42	28.723	678.01	0.31
			28.624	700.29	0.42	28.743	678.27	0.31

			28.644	700.56	0.42	28.763	678.50	0.31
			28.664	700.82	0.42	28.783	678.75	0.31
			28.684	701.06	0.42	28.803	679.02	0.31
			28.703	701.29	0.42	28.823	679.28	0.31
			28.723	701.52	0.42	28.843	679.54	0.31
			28.743	701.75	0.42	28.863	679.80	0.31
			28.763	702.01	0.42	28.883	680.07	0.31
			28.783	702.28	0.42	28.903	680.33	0.31
			28.803	702.52	0.42	28.923	680.56	0.31
			28.823	702.74	0.42	28.943	680.79	0.31
			28.843	702.99	0.42	28.963	681.06	0.31
			28.863	703.25	0.42	28.983	681.33	0.31
			28.883	703.50	0.42	29.003	681.59	0.31
			28.903	703.72	0.43	29.023	681.85	0.31
			28.923	703.94	0.43	29.043	682.08	0.31
			28.943	704.16	0.43	29.063	682.31	0.31
			28.963	704.38	0.43	29.082	682.55	0.31
			28.983	704.63	0.43	29.102	682.81	0.31
			29.003	704.89	0.43	29.122	683.07	0.31
			29.023	705.14	0.43	29.142	683.33	0.31
			29.043	705.39	0.43	29.162	683.58	0.31
			29.063	705.62	0.43	29.182	683.80	0.31
			29.082	705.84	0.43	29.202	684.02	0.31
			29.102	706.07	0.43	29.222	684.27	0.31
			29.122	706.31	0.43	29.242	684.52	0.31
			29.142	706.56	0.43	29.262	684.77	0.31
			29.162	706.77	0.43	29.282	685.02	0.31
			29.182	706.99	0.43	29.302	685.27	0.31
			29.202	707.23	0.43	29.322	685.51	0.31
			29.222	707.47	0.43	29.342	685.76	0.31
			29.242	707.71	0.43	29.362	686.02	0.31
			29.262	707.94	0.43	29.382	686.27	0.31
			29.282	708.17	0.43	29.402	686.51	0.31
			29.302	708.38	0.43	29.422	686.75	0.31
			29.322	708.59	0.43	29.441	686.99	0.31
			29.342	708.82	0.43	29.461	687.25	0.31
			29.362	709.06	0.43	29.481	687.49	0.31
			29.382	709.29	0.43	29.501	687.74	0.31
			29.402	709.53	0.43	29.521	687.97	0.31
			29.422	709.76	0.43	29.541	688.18	0.31
			29.441	709.99	0.43	29.561	688.39	0.31
			29.461	710.23	0.43	29.581	688.63	0.31
			29.481	710.46	0.43	29.601	688.88	0.31
			29.501	710.68	0.43	29.621	689.12	0.31
			29.521	710.91	0.43	29.641	689.36	0.31

			29.541	711.14	0.43	29.661	689.61	0.31
			29.561	711.37	0.43	29.681	689.84	0.31
			29.581	711.59	0.43	29.701	690.08	0.31
			29.601	711.81	0.43	29.721	690.32	0.31
			29.621	712.04	0.43	29.741	690.56	0.31
			29.641	712.33	0.43	29.761	690.79	0.31
			29.661	712.62	0.43	29.781	691.03	0.31
			29.681	712.58	0.43	29.801	691.26	0.31
			29.701	712.86	0.43	29.820	691.50	0.31
			29.721	713.13	0.43	29.840	691.73	0.31
			29.741	713.40	0.43	29.860	691.97	0.31
			29.761	713.68	0.43	29.880	692.20	0.31
			29.781	713.92	0.43	29.900	692.43	0.31
			29.801	714.14	0.43	29.920	692.66	0.31
			29.820	714.36	0.43	29.940	692.89	0.31
			29.840	714.58	0.43	29.960	693.12	0.31
			29.860	714.80	0.43	29.980	693.35	0.31
			29.880	715.01	0.43	30.000	693.58	0.31
			29.900	715.19	0.43			
			29.920	715.37	0.43			
			29.940	715.55	0.43			
			29.960	715.73	0.43			
			29.980	715.90	0.43			
			30.000	716.13	0.43			

**Table S1 (continued).**  $P\rho T x_{\text{CO}_2}$  experimental data for  $\text{CO}_2+\text{SO}_2$  mixtures.

<b><math>T = 373.15 \pm 0.04 \text{ K}</math></b>								
<b><math>x_{\text{CO}_2} = 0.9698</math></b>			<b><math>x_{\text{CO}_2} = 0.9931</math></b>					
<b><math>P</math> (MPa)</b>	<b><math>\rho</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>P</math> (MPa)</b>	<b><math>\rho</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>	<b><math>u(\rho)</math> (<math>\text{kg}\cdot\text{m}^{-3}</math>)</b>			
0.100	1.04	0.20	0.100	1.32	0.21			
0.120	1.29	0.20	0.120	1.32	0.20			
0.140	1.61	0.20	0.140	1.42	0.20			
0.160	1.90	0.21	0.160	1.70	0.20			
0.180	2.18	0.21	0.180	1.96	0.20			
0.200	2.46	0.21	0.200	2.27	0.20			
0.220	2.78	0.21	0.220	2.59	0.20			
0.240	3.04	0.21	0.240	2.85	0.20			
0.260	3.33	0.21	0.260	3.18	0.21			
0.280	3.62	0.21	0.280	3.41	0.21			
0.299	3.92	0.21	0.299	3.70	0.21			
0.319	4.23	0.21	0.319	3.97	0.21			
0.339	4.54	0.21	0.339	4.29	0.21			
0.359	4.80	0.21	0.359	4.56	0.21			
0.379	5.10	0.21	0.379	4.85	0.21			
0.399	5.42	0.22	0.399	5.18	0.21			
0.419	5.67	0.22	0.419	5.46	0.21			
0.439	5.99	0.22	0.439	5.77	0.21			
0.459	6.24	0.22	0.459	6.03	0.21			
0.479	6.58	0.22	0.479	6.34	0.21			
0.499	6.83	0.22	0.499	6.63	0.21			
0.519	7.16	0.22	0.519	6.94	0.21			
0.539	7.47	0.22	0.539	7.18	0.21			
0.559	7.72	0.22	0.559	7.47	0.21			
0.579	8.05	0.22	0.579	7.77	0.21			
0.599	8.31	0.22	0.599	8.05	0.21			
0.619	8.64	0.22	0.619	8.39	0.21			
0.639	8.89	0.22	0.639	8.70	0.22			
0.659	9.23	0.22	0.659	8.97	0.22			
0.678	9.50	0.22	0.678	9.26	0.22			
0.698	9.78	0.22	0.698	9.52	0.22			
0.718	10.12	0.22	0.718	9.84	0.22			
0.738	10.40	0.22	0.738	10.14	0.22			
0.758	10.70	0.22	0.758	10.44	0.22			
0.778	11.03	0.22	0.778	10.76	0.22			
0.798	11.32	0.22	0.798	10.99	0.22			

0.818	11.61	0.22	0.818	11.35	0.22			
0.838	11.90	0.22	0.838	11.63	0.22			
0.858	12.16	0.22	0.858	11.90	0.22			
0.878	12.50	0.22	0.878	12.16	0.22			
0.898	12.78	0.22	0.898	12.48	0.22			
0.918	13.05	0.22	0.918	12.77	0.22			
0.938	13.37	0.22	0.938	13.06	0.22			
0.958	13.68	0.22	0.958	13.34	0.22			
0.978	14.02	0.22	0.978	13.68	0.22			
0.998	14.32	0.22	0.998	13.96	0.22			
1.018	14.58	0.22	1.018	14.23	0.22			
1.037	14.88	0.22	1.037	14.54	0.22			
1.057	15.17	0.22	1.057	14.84	0.22			
1.077	15.46	0.22	1.077	15.15	0.22			
1.097	15.80	0.22	1.097	15.40	0.22			
1.117	16.07	0.22	1.117	15.74	0.22			
1.137	16.41	0.22	1.137	16.01	0.22			
1.157	16.71	0.22	1.157	16.33	0.22			
1.177	17.00	0.22	1.177	16.65	0.22			
1.197	17.29	0.22	1.197	16.89	0.22			
1.217	17.60	0.22	1.217	17.19	0.22			
1.237	17.90	0.22	1.237	17.48	0.22			
1.257	18.24	0.22	1.257	17.81	0.22			
1.277	18.52	0.22	1.277	18.13	0.22			
1.297	18.79	0.22	1.297	18.42	0.22			
1.317	19.13	0.22	1.317	18.73	0.22			
1.337	19.45	0.22	1.337	19.03	0.22			
1.357	19.76	0.22	1.357	19.32	0.22			
1.377	20.06	0.22	1.377	19.63	0.22			
1.397	20.40	0.22	1.397	19.95	0.22			
1.416	20.67	0.22	1.416	20.25	0.22			
1.436	21.04	0.22	1.436	20.55	0.22			
1.456	21.32	0.22	1.456	20.84	0.22			
1.476	21.61	0.22	1.476	21.13	0.22			
1.496	21.97	0.22	1.496	21.45	0.22			
1.516	22.28	0.22	1.516	21.76	0.22			
1.536	22.58	0.22	1.536	22.04	0.22			
1.556	22.88	0.22	1.556	22.38	0.22			
1.576	23.18	0.22	1.576	22.67	0.22			
1.596	23.49	0.22	1.596	22.96	0.22			
1.616	23.80	0.22	1.616	23.24	0.22			
1.636	24.11	0.22	1.636	23.58	0.22			
1.656	24.43	0.22	1.656	23.91	0.22			
1.676	24.74	0.22	1.676	24.21	0.22			
1.696	25.07	0.22	1.696	24.49	0.22			



1.716	25.39	0.22	1.716	24.80	0.22			
1.736	25.66	0.22	1.736	25.11	0.22			
1.756	25.96	0.22	1.756	25.42	0.22			
1.776	26.29	0.22	1.776	25.70	0.22			
1.795	26.62	0.22	1.795	26.01	0.22			
1.815	26.88	0.22	1.815	26.36	0.22			
1.835	27.22	0.22	1.835	26.65	0.22			
1.855	27.56	0.22	1.855	26.97	0.22			
1.875	27.88	0.22	1.875	27.25	0.22			
1.895	28.17	0.22	1.895	27.60	0.22			
1.915	28.52	0.22	1.915	27.87	0.22			
1.935	28.83	0.22	1.935	28.21	0.22			
1.955	29.16	0.22	1.955	28.47	0.22			
1.975	29.45	0.22	1.975	28.80	0.22			
1.995	29.80	0.22	1.995	29.11	0.22			
2.015	30.09	0.22	2.015	29.43	0.22			
2.035	30.43	0.22	2.035	29.75	0.22			
2.055	30.75	0.22	2.055	30.06	0.22			
2.075	31.07	0.22	2.075	30.36	0.22			
2.095	31.42	0.22	2.095	30.66	0.22			
2.115	31.70	0.22	2.115	31.03	0.22			
2.135	32.03	0.22	2.135	31.31	0.22			
2.155	32.36	0.22	2.155	31.59	0.22			
2.174	32.66	0.22	2.174	31.94	0.22			
2.194	33.03	0.22	2.194	32.29	0.22			
2.214	33.33	0.22	2.214	32.56	0.22			
2.234	33.62	0.22	2.234	32.90	0.22			
2.254	34.00	0.22	2.254	33.19	0.22			
2.274	34.30	0.22	2.274	33.50	0.22			
2.294	34.61	0.22	2.294	33.82	0.22			
2.314	34.91	0.22	2.314	34.15	0.22			
2.334	35.30	0.22	2.334	34.46	0.22			
2.354	35.62	0.22	2.354	34.81	0.22			
2.374	35.93	0.22	2.374	35.10	0.22			
2.394	36.26	0.22	2.394	35.44	0.22			
2.414	36.58	0.22	2.414	35.78	0.22			
2.434	36.90	0.22	2.434	36.07	0.22			
2.454	37.22	0.22	2.454	36.35	0.22			
2.474	37.56	0.22	2.474	36.68	0.22			
2.494	37.89	0.22	2.494	37.02	0.22			
2.514	38.23	0.22	2.514	37.32	0.22			
2.533	38.56	0.22	2.533	37.68	0.22			
2.553	38.90	0.22	2.553	38.00	0.22			
2.573	39.18	0.22	2.573	38.33	0.22			
2.593	39.53	0.22	2.593	38.64	0.22			

2.613	39.86	0.22	2.613	38.95	0.22			
2.633	40.21	0.22	2.633	39.24	0.22			
2.653	40.55	0.22	2.653	39.60	0.22			
2.673	40.86	0.22	2.673	39.91	0.22			
2.693	41.22	0.22	2.693	40.24	0.22			
2.713	41.52	0.22	2.713	40.56	0.22			
2.733	41.88	0.22	2.733	40.88	0.22			
2.753	42.17	0.22	2.753	41.21	0.22			
2.773	42.55	0.22	2.773	41.54	0.22			
2.793	42.85	0.22	2.793	41.86	0.22			
2.813	43.16	0.22	2.813	42.19	0.22			
2.833	43.55	0.22	2.833	42.51	0.22			
2.853	43.85	0.22	2.853	42.83	0.22			
2.873	44.17	0.22	2.873	43.16	0.22			
2.893	44.52	0.22	2.893	43.47	0.22			
2.912	44.86	0.22	2.912	43.83	0.22			
2.932	45.20	0.22	2.932	44.14	0.22			
2.952	45.54	0.22	2.952	44.46	0.22			
2.972	45.87	0.22	2.972	44.77	0.22			
2.992	46.21	0.22	2.992	45.13	0.22			
3.012	46.53	0.22	3.012	45.47	0.22			
3.032	46.89	0.22	3.032	45.78	0.22			
3.052	47.17	0.22	3.052	46.07	0.22			
3.072	47.53	0.22	3.072	46.41	0.22			
3.092	47.90	0.22	3.092	46.74	0.22			
3.112	48.27	0.22	3.112	47.06	0.22			
3.132	48.57	0.22	3.132	47.40	0.22			
3.152	48.94	0.22	3.152	47.73	0.22			
3.172	49.24	0.22	3.172	48.05	0.22			
3.192	49.54	0.22	3.192	48.41	0.22			
3.212	49.93	0.22	3.212	48.76	0.22			
3.232	50.23	0.22	3.232	49.07	0.22			
3.252	50.56	0.22	3.252	49.38	0.22			
3.272	50.94	0.22	3.272	49.77	0.22			
3.291	51.29	0.22	3.291	50.08	0.22			
3.311	51.65	0.22	3.311	50.38	0.22			
3.331	51.96	0.22	3.331	50.75	0.22			
3.351	52.29	0.22	3.351	51.06	0.22			
3.371	52.66	0.22	3.371	51.38	0.22			
3.391	52.98	0.22	3.391	51.76	0.22			
3.411	53.38	0.22	3.411	52.07	0.22			
3.431	53.70	0.22	3.431	52.43	0.22			
3.451	54.03	0.22	3.451	52.72	0.22			
3.471	54.36	0.22	3.471	53.07	0.22			
3.491	54.68	0.22	3.491	53.42	0.22			

3.511	55.07	0.22	3.511	53.73	0.22			
3.531	55.43	0.22	3.531	54.06	0.22			
3.551	55.78	0.22	3.551	54.42	0.22			
3.571	56.12	0.22	3.571	54.79	0.22			
3.591	56.47	0.22	3.591	55.07	0.22			
3.611	56.81	0.22	3.611	55.44	0.22			
3.631	57.13	0.22	3.631	55.75	0.22			
3.651	57.52	0.22	3.651	56.08	0.22			
3.670	57.85	0.22	3.670	56.43	0.22			
3.690	58.19	0.22	3.690	56.76	0.22			
3.710	58.58	0.23	3.710	57.08	0.22			
3.730	58.90	0.23	3.730	57.48	0.22			
3.750	59.24	0.23	3.750	57.82	0.22			
3.770	59.58	0.23	3.770	58.13	0.22			
3.790	59.92	0.23	3.790	58.47	0.22			
3.810	60.26	0.23	3.810	58.85	0.22			
3.830	60.61	0.23	3.830	59.17	0.22			
3.850	60.96	0.23	3.850	59.50	0.22			
3.870	61.32	0.23	3.870	59.82	0.22			
3.890	61.68	0.23	3.890	60.18	0.22			
3.910	62.06	0.23	3.910	60.51	0.22			
3.930	62.41	0.23	3.930	60.87	0.22			
3.950	62.73	0.23	3.950	61.18	0.22			
3.970	63.09	0.23	3.970	61.56	0.22			
3.990	63.47	0.23	3.990	61.91	0.22			
4.010	63.78	0.23	4.010	62.21	0.22			
4.029	64.17	0.23	4.029	62.60	0.22			
4.049	64.49	0.23	4.049	62.90	0.22			
4.069	64.87	0.23	4.069	63.25	0.22			
4.089	65.25	0.23	4.089	63.61	0.22			
4.109	65.58	0.23	4.109	63.96	0.22			
4.129	65.92	0.23	4.129	64.33	0.22			
4.149	66.29	0.23	4.149	64.69	0.22			
4.169	66.62	0.23	4.169	65.03	0.22			
4.189	67.03	0.23	4.189	65.37	0.22			
4.209	67.34	0.23	4.209	65.70	0.22			
4.229	67.73	0.23	4.229	66.04	0.22			
4.249	68.09	0.23	4.249	66.39	0.22			
4.269	68.44	0.23	4.269	66.72	0.22			
4.289	68.78	0.23	4.289	67.05	0.22			
4.309	69.16	0.23	4.309	67.39	0.22			
4.329	69.51	0.23	4.329	67.75	0.22			
4.349	69.86	0.23	4.349	68.10	0.22			
4.369	70.25	0.23	4.369	68.46	0.22			
4.389	70.57	0.23	4.389	68.85	0.22			

4.408	70.97	0.23	4.408	69.13	0.22			
4.428	71.31	0.23	4.428	69.52	0.22			
4.448	71.70	0.23	4.448	69.86	0.22			
4.468	72.05	0.23	4.468	70.21	0.22			
4.488	72.38	0.23	4.488	70.59	0.22			
4.508	72.73	0.23	4.508	70.91	0.22			
4.528	73.12	0.23	4.528	71.28	0.22			
4.548	73.50	0.23	4.548	71.65	0.22			
4.568	73.85	0.23	4.568	72.02	0.22			
4.588	74.21	0.23	4.588	72.37	0.22			
4.608	74.57	0.23	4.608	72.70	0.22			
4.628	74.92	0.23	4.628	73.08	0.22			
4.648	75.29	0.23	4.648	73.45	0.22			
4.668	75.67	0.23	4.668	73.81	0.22			
4.688	76.05	0.23	4.688	74.17	0.22			
4.708	76.42	0.23	4.708	74.52	0.22			
4.728	76.75	0.23	4.728	74.87	0.22			
4.748	77.14	0.23	4.748	75.22	0.22			
4.768	77.46	0.23	4.768	75.57	0.22			
4.787	77.88	0.23	4.787	75.92	0.22			
4.807	78.26	0.23	4.807	76.30	0.22			
4.827	78.61	0.23	4.827	76.68	0.22			
4.847	78.96	0.23	4.847	77.05	0.22			
4.867	79.36	0.23	4.867	77.41	0.22			
4.887	79.72	0.23	4.887	77.77	0.22			
4.907	80.07	0.23	4.907	78.13	0.22			
4.927	80.44	0.23	4.927	78.48	0.22			
4.947	80.79	0.23	4.947	78.82	0.22			
4.967	81.24	0.23	4.967	79.20	0.22			
4.987	81.54	0.23	4.987	79.58	0.22			
5.007	81.93	0.23	5.007	79.92	0.22			
5.027	82.32	0.23	5.027	80.29	0.22			
5.047	82.72	0.23	5.047	80.69	0.22			
5.067	83.10	0.23	5.067	81.08	0.22			
5.087	83.43	0.23	5.087	81.46	0.22			
5.107	83.84	0.23	5.107	81.80	0.22			
5.127	84.19	0.23	5.127	82.16	0.22			
5.147	84.59	0.23	5.147	82.54	0.22			
5.166	84.97	0.23	5.166	82.90	0.22			
5.186	85.36	0.23	5.186	83.27	0.22			
5.206	85.71	0.23	5.206	83.64	0.22			
5.226	86.07	0.23	5.226	84.00	0.22			
5.246	86.51	0.23	5.246	84.37	0.22			
5.266	86.88	0.23	5.266	84.75	0.22			
5.286	87.24	0.23	5.286	85.12	0.22			

5.306	87.63	0.23	5.306	85.50	0.22			
5.326	88.02	0.23	5.326	85.87	0.22			
5.346	88.42	0.23	5.346	86.24	0.22			
5.366	88.74	0.23	5.366	86.62	0.22			
5.386	89.14	0.23	5.386	86.99	0.23			
5.406	89.54	0.23	5.406	87.37	0.23			
5.426	89.93	0.23	5.426	87.77	0.23			
5.446	90.34	0.23	5.446	88.16	0.23			
5.466	90.69	0.23	5.466	88.52	0.23			
5.486	91.13	0.23	5.486	88.91	0.23			
5.506	91.49	0.23	5.506	89.29	0.23			
5.525	91.89	0.23	5.525	89.66	0.23			
5.545	92.29	0.23	5.545	90.03	0.23			
5.565	92.66	0.23	5.565	90.43	0.23			
5.585	93.04	0.23	5.585	90.85	0.23			
5.605	93.41	0.23	5.605	91.24	0.23			
5.625	93.84	0.23	5.625	91.63	0.23			
5.645	94.20	0.23	5.645	92.02	0.23			
5.665	94.60	0.23	5.665	92.40	0.23			
5.685	95.01	0.23	5.685	92.79	0.23			
5.705	95.41	0.23	5.705	93.20	0.23			
5.725	95.82	0.23	5.725	93.57	0.23			
5.745	96.16	0.23	5.745	93.96	0.23			
5.765	96.58	0.23	5.765	94.34	0.23			
5.785	96.96	0.23	5.785	94.72	0.23			
5.805	97.37	0.23	5.805	95.13	0.23			
5.825	97.78	0.23	5.825	95.56	0.23			
5.845	98.18	0.23	5.845	95.95	0.23			
5.865	98.57	0.23	5.865	96.33	0.23			
5.885	98.96	0.23	5.885	96.73	0.23			
5.904	99.35	0.23	5.904	97.17	0.23			
5.924	99.75	0.23	5.924	97.55	0.23			
5.944	100.15	0.23	5.944	97.93	0.23			
5.964	100.57	0.23	5.964	98.40	0.23			
5.984	100.99	0.23	5.984	98.83	0.23			
6.004	101.36	0.23	6.004	99.22	0.23			
6.024	101.75	0.23	6.024	99.65	0.23			
6.044	102.21	0.23	6.044	100.09	0.23			
6.064	102.59	0.23	6.064	100.55	0.23			
6.084	102.98	0.23	6.084	100.93	0.23			
6.104	103.37	0.23	6.104	101.42	0.23			
6.124	103.76	0.23	6.124	101.83	0.23			
6.144	104.18	0.23	6.144	102.25	0.23			
6.164	104.57	0.23	6.164	102.63	0.23			
6.184	104.99	0.23	6.184	103.03	0.23			

6.204	105.42	0.23	6.204	103.45	0.23			
6.224	105.84	0.23	6.224	103.87	0.23			
6.244	106.21	0.23	6.244	104.31	0.23			
6.264	106.64	0.23	6.264	104.72	0.23			
6.283	107.07	0.23	6.283	105.12	0.23			
6.303	107.46	0.23	6.303	105.59	0.23			
6.323	107.88	0.23	6.323	106.03	0.23			
6.343	108.31	0.23	6.343	106.44	0.23			
6.363	108.70	0.23	6.363	106.86	0.23			
6.383	109.13	0.23	6.383	107.33	0.23			
6.403	109.54	0.23	6.403	107.84	0.23			
6.423	109.94	0.23	6.423	108.18	0.23			
6.443	110.36	0.23	6.443	108.61	0.23			
6.463	110.77	0.23	6.463	109.00	0.23			
6.483	111.19	0.23	6.483	109.42	0.23			
6.503	111.60	0.23	6.503	109.83	0.23			
6.523	112.01	0.23	6.523	110.22	0.23			
6.543	112.44	0.23	6.543	110.62	0.23			
6.563	112.85	0.23	6.563	111.03	0.23			
6.583	113.28	0.23	6.583	111.43	0.23			
6.603	113.70	0.23	6.603	111.83	0.23			
6.623	114.14	0.23	6.623	112.21	0.23			
6.642	114.51	0.23	6.642	112.59	0.23			
6.662	114.96	0.23	6.662	112.99	0.23			
6.682	115.34	0.23	6.682	113.36	0.23			
6.702	115.83	0.23	6.702	113.73	0.23			
6.722	116.20	0.23	6.722	114.14	0.23			
6.742	116.62	0.23	6.742	114.55	0.23			
6.762	117.03	0.23	6.762	114.94	0.23			
6.782	117.50	0.23	6.782	115.32	0.23			
6.802	117.92	0.23	6.802	115.69	0.23			
6.822	118.33	0.23	6.822	116.07	0.23			
6.842	118.73	0.23	6.842	116.43	0.23			
6.862	119.17	0.23	6.862	116.80	0.23			
6.882	119.55	0.23	6.882	117.22	0.23			
6.902	120.00	0.23	6.902	117.61	0.23			
6.922	120.44	0.23	6.922	117.98	0.23			
6.942	120.85	0.23	6.942	118.38	0.23			
6.962	121.28	0.23	6.962	118.79	0.23			
6.982	121.67	0.23	6.982	119.19	0.23			
7.002	122.13	0.23	7.002	119.59	0.23			
7.021	122.55	0.23	7.021	120.02	0.23			
7.041	122.95	0.23	7.041	120.45	0.23			
7.061	123.37	0.23	7.061	120.91	0.23			
7.081	123.80	0.23	7.081	121.27	0.23			

7.101	124.24	0.23	7.101	121.74	0.23			
7.121	124.67	0.23	7.121	122.15	0.23			
7.141	125.06	0.23	7.141	122.56	0.23			
7.161	125.53	0.23	7.161	123.03	0.23			
7.181	125.92	0.23	7.181	123.42	0.23			
7.201	126.39	0.23	7.201	123.83	0.23			
7.221	126.84	0.23	7.221	124.28	0.23			
7.241	127.25	0.23	7.241	124.64	0.23			
7.261	127.71	0.23	7.261	125.07	0.23			
7.281	128.14	0.23	7.281	125.48	0.23			
7.301	128.54	0.23	7.301	125.90	0.23			
7.321	129.00	0.23	7.321	126.34	0.23			
7.341	129.42	0.23	7.341	126.74	0.23			
7.361	129.85	0.23	7.361	127.17	0.23			
7.381	130.28	0.23	7.381	127.58	0.23			
7.400	130.71	0.23	7.400	128.00	0.23			
7.420	131.15	0.23	7.420	128.37	0.23			
7.440	131.59	0.23	7.440	128.86	0.23			
7.460	132.02	0.23	7.460	129.26	0.23			
7.480	132.50	0.23	7.480	129.69	0.23			
7.500	132.93	0.23	7.500	130.12	0.23			
7.520	133.36	0.23	7.520	130.58	0.23			
7.540	133.85	0.23	7.540	130.97	0.23			
7.560	134.29	0.23	7.560	131.40	0.23			
7.580	134.73	0.23	7.580	131.80	0.23			
7.600	135.18	0.23	7.600	132.24	0.23			
7.620	135.62	0.23	7.620	132.68	0.23			
7.640	136.03	0.23	7.640	133.12	0.23			
7.660	136.50	0.23	7.660	133.54	0.23			
7.680	136.92	0.23	7.680	133.96	0.23			
7.700	137.40	0.23	7.700	134.40	0.23			
7.720	137.84	0.23	7.720	134.86	0.23			
7.740	138.29	0.24	7.740	135.29	0.23			
7.760	138.76	0.24	7.760	135.75	0.23			
7.779	139.15	0.24	7.779	136.14	0.23			
7.799	139.63	0.24	7.799	136.59	0.23			
7.819	140.08	0.24	7.819	137.03	0.23			
7.839	140.53	0.24	7.839	137.47	0.23			
7.859	141.03	0.24	7.859	137.95	0.23			
7.879	141.45	0.24	7.879	138.37	0.23			
7.899	141.88	0.24	7.899	138.80	0.23			
7.919	142.37	0.24	7.919	139.25	0.23			
7.939	142.77	0.24	7.939	139.70	0.23			
7.959	143.25	0.24	7.959	140.14	0.23			
7.979	143.77	0.24	7.979	140.59	0.23			

7.999	144.16	0.24	7.999	141.04	0.23			
8.019	144.64	0.24	8.019	141.48	0.23			
8.039	145.13	0.24	8.039	141.91	0.23			
8.059	145.56	0.24	8.059	142.37	0.23			
8.079	146.01	0.24	8.079	142.81	0.23			
8.099	146.47	0.24	8.099	143.24	0.23			
8.119	146.95	0.24	8.119	143.72	0.23			
8.138	147.37	0.24	8.138	144.16	0.23			
8.158	147.85	0.24	8.158	144.60	0.23			
8.178	148.34	0.24	8.178	145.04	0.23			
8.198	148.82	0.24	8.198	145.50	0.23			
8.218	149.27	0.24	8.218	145.97	0.23			
8.238	149.72	0.24	8.238	146.40	0.23			
8.258	150.17	0.24	8.258	146.87	0.23			
8.278	150.70	0.24	8.278	147.28	0.23			
8.298	151.15	0.24	8.298	147.73	0.23			
8.318	151.62	0.24	8.318	148.20	0.23			
8.338	152.02	0.24	8.338	148.69	0.23			
8.358	152.51	0.24	8.358	149.10	0.23			
8.378	153.01	0.24	8.378	149.57	0.23			
8.398	153.50	0.24	8.398	150.04	0.23			
8.418	153.93	0.24	8.418	150.50	0.23			
8.438	154.39	0.24	8.438	150.96	0.23			
8.458	154.90	0.24	8.458	151.43	0.23			
8.478	155.35	0.24	8.478	151.84	0.24			
8.498	155.84	0.24	8.498	152.33	0.24			
8.517	156.32	0.24	8.517	152.81	0.24			
8.537	156.76	0.24	8.537	153.21	0.24			
8.557	157.26	0.24	8.557	153.71	0.24			
8.577	157.69	0.24	8.577	154.16	0.24			
8.597	158.22	0.24	8.597	154.61	0.24			
8.617	158.67	0.24	8.617	155.08	0.24			
8.637	159.13	0.24	8.637	155.53	0.24			
8.657	159.60	0.24	8.657	155.98	0.24			
8.677	160.09	0.24	8.677	156.46	0.24			
8.697	160.56	0.24	8.697	156.95	0.24			
8.717	161.07	0.24	8.717	157.43	0.24			
8.737	161.53	0.24	8.737	157.85	0.24			
8.757	161.98	0.24	8.757	158.33	0.24			
8.777	162.49	0.24	8.777	158.83	0.24			
8.797	163.02	0.24	8.797	159.30	0.24			
8.817	163.48	0.24	8.817	159.72	0.24			
8.837	163.93	0.24	8.837	160.21	0.24			
8.857	164.45	0.24	8.857	160.69	0.24			
8.877	164.95	0.24	8.877	161.18	0.24			



8.896	165.43	0.24	8.896	161.65	0.24			
8.916	165.87	0.24	8.916	162.11	0.24			
8.936	166.38	0.24	8.936	162.59	0.24			
8.956	166.85	0.24	8.956	163.03	0.24			
8.976	167.33	0.24	8.976	163.53	0.24			
8.996	167.83	0.24	8.996	163.98	0.24			
9.016	168.30	0.24	9.016	164.44	0.24			
9.036	168.81	0.24	9.036	164.94	0.24			
9.056	169.30	0.24	9.056	165.44	0.24			
9.076	169.83	0.24	9.076	165.91	0.24			
9.096	170.33	0.24	9.096	166.37	0.24			
9.116	170.81	0.24	9.116	166.85	0.24			
9.136	171.29	0.24	9.136	167.32	0.24			
9.156	171.81	0.24	9.156	167.82	0.24			
9.176	172.33	0.24	9.176	168.31	0.24			
9.196	172.79	0.24	9.196	168.77	0.24			
9.216	173.31	0.24	9.216	169.26	0.24			
9.236	173.82	0.24	9.236	169.72	0.24			
9.256	174.34	0.24	9.256	170.23	0.24			
9.275	174.77	0.24	9.275	170.70	0.24			
9.295	175.30	0.24	9.295	171.20	0.24			
9.315	175.79	0.24	9.315	171.66	0.24			
9.335	176.28	0.24	9.335	172.12	0.24			
9.355	176.80	0.24	9.355	172.62	0.24			
9.375	177.33	0.24	9.375	173.14	0.24			
9.395	177.80	0.24	9.395	173.61	0.24			
9.415	178.34	0.24	9.415	174.08	0.24			
9.435	178.84	0.24	9.435	174.57	0.24			
9.455	179.37	0.24	9.455	175.09	0.24			
9.475	179.83	0.24	9.475	175.59	0.24			
9.495	180.36	0.24	9.495	176.02	0.24			
9.515	180.87	0.24	9.515	176.55	0.24			
9.535	181.38	0.24	9.535	177.04	0.24			
9.555	181.88	0.24	9.555	177.55	0.24			
9.575	182.36	0.24	9.575	178.01	0.24			
9.595	182.88	0.24	9.595	178.47	0.24			
9.615	183.46	0.24	9.615	179.02	0.24			
9.634	183.94	0.24	9.634	179.54	0.24			
9.654	184.47	0.24	9.654	180.03	0.24			
9.674	184.97	0.24	9.674	180.51	0.24			
9.694	185.48	0.24	9.694	180.99	0.24			
9.714	186.01	0.24	9.714	181.51	0.24			
9.734	186.50	0.24	9.734	182.02	0.24			
9.754	187.03	0.24	9.754	182.50	0.24			
9.774	187.53	0.24	9.774	183.01	0.24			

9.794	188.07	0.24	9.794	183.49	0.24			
9.814	188.61	0.24	9.814	183.99	0.24			
9.834	189.10	0.24	9.834	184.51	0.24			
9.854	189.59	0.24	9.854	184.97	0.24			
9.874	190.14	0.25	9.874	185.48	0.24			
9.894	190.67	0.25	9.894	185.99	0.24			
9.914	191.19	0.25	9.914	186.50	0.24			
9.934	191.69	0.25	9.934	187.02	0.24			
9.954	192.21	0.25	9.954	187.49	0.24			
9.974	192.74	0.25	9.974	188.04	0.24			
9.994	193.28	0.25	9.994	188.52	0.24			
10.013	193.79	0.25	10.013	189.05	0.24			
10.033	194.34	0.25	10.033	189.55	0.24			
10.053	194.88	0.25	10.053	190.05	0.24			
10.073	195.42	0.25	10.073	190.54	0.24			
10.093	195.96	0.25	10.093	191.07	0.24			
10.113	196.46	0.25	10.113	191.55	0.24			
10.133	197.01	0.25	10.133	192.09	0.24			
10.153	197.52	0.25	10.153	192.62	0.24			
10.173	198.08	0.25	10.173	193.13	0.24			
10.193	198.63	0.25	10.193	193.64	0.24			
10.213	199.17	0.25	10.213	194.14	0.24			
10.233	199.68	0.25	10.233	194.67	0.24			
10.253	200.18	0.25	10.253	195.19	0.24			
10.273	200.73	0.25	10.273	195.67	0.24			
10.293	201.27	0.25	10.293	196.18	0.24			
10.313	201.80	0.25	10.313	196.69	0.24			
10.333	202.32	0.25	10.333	197.23	0.24			
10.353	202.87	0.25	10.353	197.73	0.24			
10.373	203.42	0.25	10.373	198.26	0.24			
10.392	203.98	0.25	10.392	198.79	0.24			
10.412	204.52	0.25	10.412	199.31	0.24			
10.432	205.07	0.25	10.432	199.82	0.24			
10.452	205.60	0.25	10.452	200.33	0.24			
10.472	206.16	0.25	10.472	200.89	0.24			
10.492	206.71	0.25	10.492	201.42	0.24			
10.512	207.25	0.25	10.512	201.94	0.24			
10.532	207.82	0.25	10.532	202.46	0.25			
10.552	208.32	0.25	10.552	202.99	0.25			
10.572	208.91	0.25	10.572	203.50	0.25			
10.592	209.46	0.25	10.592	203.98	0.25			
10.612	210.00	0.25	10.612	204.54	0.25			
10.632	210.53	0.25	10.632	205.07	0.25			
10.652	211.08	0.25	10.652	205.60	0.25			
10.672	211.61	0.25	10.672	206.09	0.25			

10.692	212.20	0.25	10.692	206.65	0.25			
10.712	212.72	0.25	10.712	207.18	0.25			
10.732	213.29	0.25	10.732	207.72	0.25			
10.752	213.83	0.25	10.752	208.26	0.25			
10.771	214.38	0.25	10.771	208.76	0.25			
10.791	214.97	0.25	10.791	209.29	0.25			
10.811	215.53	0.25	10.811	209.88	0.25			
10.831	216.07	0.25	10.831	210.39	0.25			
10.851	216.64	0.25	10.851	210.91	0.25			
10.871	217.19	0.25	10.871	211.40	0.25			
10.891	217.75	0.25	10.891	211.96	0.25			
10.911	218.29	0.25	10.911	212.54	0.25			
10.931	218.83	0.25	10.931	213.04	0.25			
10.951	219.45	0.25	10.951	213.57	0.25			
10.971	219.99	0.25	10.971	214.10	0.25			
10.991	220.57	0.25	10.991	214.66	0.25			
11.011	221.14	0.25	11.011	215.22	0.25			
11.031	221.69	0.25	11.031	215.73	0.25			
11.051	222.25	0.25	11.051	216.27	0.25			
11.071	222.80	0.25	11.071	216.83	0.25			
11.091	223.35	0.25	11.091	217.36	0.25			
11.111	223.93	0.25	11.111	217.90	0.25			
11.130	224.49	0.25	11.130	218.41	0.25			
11.150	225.06	0.25	11.150	218.97	0.25			
11.170	225.61	0.25	11.170	219.51	0.25			
11.190	226.21	0.25	11.190	220.06	0.25			
11.210	226.78	0.25	11.210	220.63	0.25			
11.230	227.34	0.25	11.230	221.16	0.25			
11.250	227.93	0.25	11.250	221.71	0.25			
11.270	228.52	0.25	11.270	222.27	0.25			
11.290	229.08	0.25	11.290	222.80	0.25			
11.310	229.63	0.25	11.310	223.35	0.25			
11.330	230.22	0.25	11.330	223.88	0.25			
11.350	230.80	0.25	11.350	224.48	0.25			
11.370	231.40	0.25	11.370	225.05	0.25			
11.390	231.98	0.25	11.390	225.55	0.25			
11.410	232.58	0.25	11.410	226.08	0.25			
11.430	233.14	0.26	11.430	226.63	0.25			
11.450	233.71	0.26	11.450	227.20	0.25			
11.470	234.28	0.26	11.470	227.77	0.25			
11.490	234.88	0.26	11.490	228.30	0.25			
11.509	235.48	0.26	11.509	228.93	0.25			
11.529	236.08	0.26	11.529	229.43	0.25			
11.549	236.64	0.26	11.549	229.99	0.25			
11.569	237.24	0.26	11.569	230.55	0.25			

11.589	237.82	0.26	11.589	231.12	0.25			
11.609	238.41	0.26	11.609	231.65	0.25			
11.629	239.00	0.26	11.629	232.22	0.25			
11.649	239.58	0.26	11.649	232.82	0.25			
11.669	240.17	0.26	11.669	233.40	0.25			
11.689	240.75	0.26	11.689	233.97	0.25			
11.709	241.34	0.26	11.709	234.50	0.25			
11.729	241.95	0.26	11.729	235.06	0.25			
11.749	242.53	0.26	11.749	235.63	0.25			
11.769	243.13	0.26	11.769	236.17	0.25			
11.789	243.65	0.26	11.789	236.74	0.25			
11.809	244.29	0.26	11.809	237.29	0.25			
11.829	244.92	0.26	11.829	237.91	0.25			
11.849	245.48	0.26	11.849	238.45	0.25			
11.869	246.05	0.26	11.869	239.01	0.25			
11.888	246.64	0.26	11.888	239.56	0.25			
11.908	247.24	0.26	11.908	240.14	0.25			
11.928	247.84	0.26	11.928	240.71	0.25			
11.948	248.45	0.26	11.948	241.25	0.25			
11.968	249.05	0.26	11.968	241.87	0.25			
11.988	249.66	0.26	11.988	242.43	0.25			
12.008	250.25	0.26	12.008	243.00	0.25			
12.028	250.88	0.26	12.028	243.58	0.25			
12.048	251.51	0.26	12.048	244.12	0.25			
12.068	252.10	0.26	12.068	244.78	0.26			
12.088	252.67	0.26	12.088	245.31	0.26			
12.108	253.24	0.26	12.108	245.90	0.26			
12.128	253.84	0.26	12.128	246.44	0.26			
12.148	254.45	0.26	12.148	247.02	0.26			
12.168	255.07	0.26	12.168	247.56	0.26			
12.188	255.67	0.26	12.188	248.18	0.26			
12.208	256.30	0.26	12.208	248.75	0.26			
12.228	256.94	0.26	12.228	249.33	0.26			
12.248	257.48	0.26	12.248	249.90	0.26			
12.267	258.09	0.26	12.267	250.49	0.26			
12.287	258.71	0.26	12.287	251.07	0.26			
12.307	259.33	0.26	12.307	251.66	0.26			
12.327	259.96	0.26	12.327	252.28	0.26			
12.347	260.57	0.26	12.347	252.84	0.26			
12.367	261.18	0.26	12.367	253.40	0.26			
12.387	261.82	0.26	12.387	253.98	0.26			
12.407	262.43	0.26	12.407	254.55	0.26			
12.427	263.05	0.26	12.427	255.13	0.26			
12.447	263.65	0.26	12.447	255.73	0.26			
12.467	264.27	0.26	12.467	256.34	0.26			

12.487	264.90	0.26	12.487	256.93	0.26			
12.507	265.45	0.26	12.507	257.54	0.26			
12.527	266.12	0.26	12.527	258.11	0.26			
12.547	266.74	0.26	12.547	258.71	0.26			
12.567	267.35	0.26	12.567	259.29	0.26			
12.587	267.92	0.26	12.587	259.87	0.26			
12.607	268.56	0.26	12.607	260.47	0.26			
12.626	269.22	0.26	12.626	261.05	0.26			
12.646	269.83	0.26	12.646	261.62	0.26			
12.666	270.42	0.26	12.666	262.18	0.26			
12.686	271.00	0.27	12.686	262.77	0.26			
12.706	271.68	0.27	12.706	263.38	0.26			
12.726	272.31	0.27	12.726	263.99	0.26			
12.746	272.90	0.27	12.746	264.62	0.26			
12.766	273.53	0.27	12.766	265.15	0.26			
12.786	274.17	0.27	12.786	265.76	0.26			
12.806	274.77	0.27	12.806	266.32	0.26			
12.826	275.40	0.27	12.826	266.95	0.26			
12.846	276.07	0.27	12.846	267.58	0.26			
12.866	276.70	0.27	12.866	268.19	0.26			
12.886	277.29	0.27	12.886	268.74	0.26			
12.906	277.87	0.27	12.906	269.36	0.26			
12.926	278.50	0.27	12.926	269.94	0.26			
12.946	279.18	0.27	12.946	270.52	0.26			
12.966	279.78	0.27	12.966	271.13	0.26			
12.986	280.40	0.27	12.986	271.73	0.26			
13.005	281.04	0.27	13.005	272.33	0.26			
13.025	281.65	0.27	13.025	272.94	0.26			
13.045	282.29	0.27	13.045	273.54	0.26			
13.065	282.95	0.27	13.065	274.12	0.26			
13.085	283.57	0.27	13.085	274.76	0.26			
13.105	284.16	0.27	13.105	275.36	0.26			
13.125	284.81	0.27	13.125	275.95	0.26			
13.145	285.49	0.27	13.145	276.53	0.26			
13.165	286.09	0.27	13.165	277.13	0.26			
13.185	286.75	0.27	13.185	277.73	0.26			
13.205	287.36	0.27	13.205	278.40	0.26			
13.225	288.00	0.27	13.225	279.02	0.26			
13.245	288.62	0.27	13.245	279.58	0.26			
13.265	289.31	0.27	13.265	280.24	0.26			
13.285	289.97	0.27	13.285	280.82	0.26			
13.305	290.61	0.27	13.305	281.40	0.26			
13.325	291.24	0.27	13.325	282.05	0.27			
13.345	291.86	0.27	13.345	282.66	0.27			
13.365	292.50	0.27	13.365	283.27	0.27			

13.384	293.16	0.27	13.384	283.88	0.27			
13.404	293.80	0.27	13.404	284.50	0.27			
13.424	294.39	0.27	13.424	285.09	0.27			
13.444	295.11	0.27	13.444	285.69	0.27			
13.464	295.74	0.27	13.464	286.33	0.27			
13.484	296.38	0.27	13.484	286.94	0.27			
13.504	297.00	0.27	13.504	287.53	0.27			
13.524	297.68	0.27	13.524	288.12	0.27			
13.544	298.32	0.27	13.544	288.75	0.27			
13.564	298.94	0.27	13.564	289.41	0.27			
13.584	299.59	0.27	13.584	290.02	0.27			
13.604	300.26	0.27	13.604	290.60	0.27			
13.624	300.89	0.27	13.624	291.22	0.27			
13.644	301.48	0.27	13.644	291.86	0.27			
13.664	302.17	0.27	13.664	292.50	0.27			
13.684	302.86	0.27	13.684	293.11	0.27			
13.704	303.51	0.27	13.704	293.72	0.27			
13.724	304.13	0.27	13.724	294.28	0.27			
13.744	304.80	0.27	13.744	294.94	0.27			
13.763	305.44	0.27	13.763	295.57	0.27			
13.783	306.04	0.28	13.783	296.20	0.27			
13.803	306.72	0.28	13.803	296.83	0.27			
13.823	307.34	0.28	13.823	297.43	0.27			
13.843	308.04	0.28	13.843	298.03	0.27			
13.863	308.68	0.28	13.863	298.70	0.27			
13.883	309.33	0.28	13.883	299.26	0.27			
13.903	309.93	0.28	13.903	299.88	0.27			
13.923	310.57	0.28	13.923	300.50	0.27			
13.943	311.27	0.28	13.943	301.11	0.27			
13.963	311.91	0.28	13.963	301.77	0.27			
13.983	312.59	0.28	13.983	302.41	0.27			
14.003	313.23	0.28	14.003	303.03	0.27			
14.023	313.83	0.28	14.023	303.68	0.27			
14.043	314.54	0.28	14.043	304.33	0.27			
14.063	315.20	0.28	14.063	304.91	0.27			
14.083	315.81	0.28	14.083	305.53	0.27			
14.103	316.49	0.28	14.103	306.18	0.27			
14.122	317.12	0.28	14.122	306.80	0.27			
14.142	317.75	0.28	14.142	307.37	0.27			
14.162	318.48	0.28	14.162	308.04	0.27			
14.182	319.12	0.28	14.182	308.69	0.27			
14.202	319.77	0.28	14.202	309.29	0.27			
14.222	320.46	0.28	14.222	309.95	0.27			
14.242	321.11	0.28	14.242	310.62	0.27			
14.262	321.73	0.28	14.262	311.24	0.27			

14.282	322.46	0.28	14.282	311.85	0.27			
14.302	323.09	0.28	14.302	312.46	0.27			
14.322	323.75	0.28	14.322	313.08	0.27			
14.342	324.41	0.28	14.342	313.74	0.27			
14.362	325.05	0.28	14.362	314.34	0.27			
14.382	325.70	0.28	14.382	314.97	0.27			
14.402	326.37	0.28	14.402	315.61	0.27			
14.422	327.07	0.28	14.422	316.25	0.27			
14.442	327.73	0.28	14.442	316.87	0.28			
14.462	328.41	0.28	14.462	317.46	0.28			
14.482	329.01	0.28	14.482	318.09	0.28			
14.501	329.67	0.28	14.501	318.76	0.28			
14.521	330.35	0.28	14.521	319.41	0.28			
14.541	331.04	0.28	14.541	320.02	0.28			
14.561	331.73	0.28	14.561	320.64	0.28			
14.581	332.38	0.28	14.581	321.28	0.28			
14.601	333.02	0.28	14.601	321.93	0.28			
14.621	333.70	0.28	14.621	322.58	0.28			
14.641	334.38	0.28	14.641	323.22	0.28			
14.661	335.02	0.28	14.661	323.82	0.28			
14.681	335.64	0.28	14.681	324.44	0.28			
14.701	336.36	0.28	14.701	325.07	0.28			
14.721	337.05	0.28	14.721	325.72	0.28			
14.741	337.68	0.28	14.741	326.40	0.28			
14.761	338.35	0.28	14.761	327.00	0.28			
14.781	339.04	0.29	14.781	327.64	0.28			
14.801	339.68	0.29	14.801	328.28	0.28			
14.821	340.33	0.29	14.821	328.93	0.28			
14.841	341.04	0.29	14.841	329.57	0.28			
14.861	341.67	0.29	14.861	330.21	0.28			
14.880	342.34	0.29	14.880	330.84	0.28			
14.900	343.06	0.29	14.900	331.46	0.28			
14.920	343.70	0.29	14.920	332.07	0.28			
14.940	344.40	0.29	14.940	332.68	0.28			
14.960	345.04	0.29	14.960	333.37	0.28			
14.980	345.68	0.29	14.980	334.03	0.28			
15.000	346.34	0.29	15.000	334.65	0.28			
15.020	347.06	0.29	15.020	335.28	0.28			
15.040	347.70	0.29	15.040	335.94	0.28			
15.060	348.39	0.29	15.060	336.59	0.28			
15.080	349.10	0.29	15.080	337.24	0.28			
15.100	349.74	0.29	15.100	337.87	0.28			
15.120	350.42	0.29	15.120	338.50	0.28			
15.140	351.08	0.29	15.140	339.14	0.28			
15.160	351.74	0.29	15.160	339.81	0.28			

15.180	352.37	0.29	15.180	340.42	0.28			
15.200	353.09	0.29	15.200	341.03	0.28			
15.220	353.71	0.29	15.220	341.65	0.28			
15.239	354.39	0.29	15.239	342.30	0.28			
15.259	355.06	0.29	15.259	342.96	0.28			
15.279	355.79	0.29	15.279	343.62	0.28			
15.299	356.44	0.29	15.299	344.27	0.28			
15.319	357.15	0.29	15.319	344.88	0.28			
15.339	357.81	0.29	15.339	345.49	0.28			
15.359	358.46	0.29	15.359	346.14	0.28			
15.379	359.12	0.29	15.379	346.79	0.28			
15.399	359.77	0.29	15.399	347.43	0.28			
15.419	360.45	0.29	15.419	348.08	0.28			
15.439	361.10	0.29	15.439	348.69	0.28			
15.459	361.80	0.29	15.459	349.33	0.29			
15.479	362.45	0.29	15.479	349.98	0.29			
15.499	363.11	0.29	15.499	350.63	0.29			
15.519	363.76	0.29	15.519	351.28	0.29			
15.539	364.48	0.29	15.539	351.92	0.29			
15.559	365.14	0.29	15.559	352.56	0.29			
15.579	365.81	0.29	15.579	353.19	0.29			
15.599	366.45	0.29	15.599	353.80	0.29			
15.618	367.13	0.29	15.618	354.42	0.29			
15.638	367.78	0.29	15.638	355.08	0.29			
15.658	368.42	0.29	15.658	355.75	0.29			
15.678	369.08	0.29	15.678	356.34	0.29			
15.698	369.78	0.29	15.698	356.95	0.29			
15.718	370.46	0.30	15.718	357.58	0.29			
15.738	371.13	0.30	15.738	358.28	0.29			
15.758	371.77	0.30	15.758	358.90	0.29			
15.778	372.48	0.30	15.778	359.47	0.29			
15.798	373.16	0.30	15.798	360.19	0.29			
15.818	373.81	0.30	15.818	360.83	0.29			
15.838	374.51	0.30	15.838	361.43	0.29			
15.858	375.16	0.30	15.858	362.10	0.29			
15.878	375.82	0.30	15.878	362.74	0.29			
15.898	376.46	0.30	15.898	363.37	0.29			
15.918	377.16	0.30	15.918	364.01	0.29			
15.938	377.83	0.30	15.938	364.64	0.29			
15.958	378.47	0.30	15.958	365.26	0.29			
15.978	379.15	0.30	15.978	365.90	0.29			
15.997	379.78	0.30	15.997	366.55	0.29			
16.017	380.47	0.30	16.017	367.16	0.29			
16.037	381.11	0.30	16.037	367.80	0.29			
16.057	381.79	0.30	16.057	368.46	0.29			



16.077	382.46	0.30	16.077	369.09	0.29			
16.097	383.15	0.30	16.097	369.72	0.29			
16.117	383.79	0.30	16.117	370.33	0.29			
16.137	384.52	0.30	16.137	370.96	0.29			
16.157	385.15	0.30	16.157	371.60	0.29			
16.177	385.81	0.30	16.177	372.22	0.29			
16.197	386.46	0.30	16.197	372.83	0.29			
16.217	387.11	0.30	16.217	373.45	0.29			
16.237	387.80	0.30	16.237	374.11	0.29			
16.257	388.43	0.30	16.257	374.78	0.29			
16.277	389.10	0.30	16.277	375.39	0.29			
16.297	389.77	0.30	16.297	376.02	0.29			
16.317	390.46	0.30	16.317	376.67	0.29			
16.337	391.09	0.30	16.337	377.29	0.29			
16.357	391.73	0.30	16.357	377.87	0.29			
16.376	392.41	0.30	16.376	378.50	0.29			
16.396	393.04	0.30	16.396	379.13	0.29			
16.416	393.76	0.30	16.416	379.75	0.30			
16.436	394.39	0.30	16.436	380.37	0.30			
16.456	395.10	0.30	16.456	380.98	0.30			
16.476	395.76	0.30	16.476	381.61	0.30			
16.496	396.36	0.30	16.496	382.24	0.30			
16.516	397.01	0.30	16.516	382.88	0.30			
16.536	397.68	0.30	16.536	383.50	0.30			
16.556	398.31	0.30	16.556	384.10	0.30			
16.576	399.02	0.30	16.576	384.73	0.30			
16.596	399.69	0.30	16.596	385.37	0.30			
16.616	400.28	0.31	16.616	385.98	0.30			
16.636	400.96	0.31	16.636	386.59	0.30			
16.656	401.66	0.31	16.656	387.21	0.30			
16.676	402.24	0.31	16.676	387.82	0.30			
16.696	402.89	0.31	16.696	388.40	0.30			
16.716	403.53	0.31	16.716	389.00	0.30			
16.735	404.21	0.31	16.735	389.63	0.30			
16.755	404.88	0.31	16.755	390.24	0.30			
16.775	405.52	0.31	16.775	390.86	0.30			
16.795	406.14	0.31	16.795	391.50	0.30			
16.815	406.85	0.31	16.815	392.13	0.30			
16.835	407.50	0.31	16.835	392.75	0.30			
16.855	408.16	0.31	16.855	393.38	0.30			
16.875	408.82	0.31	16.875	394.01	0.30			
16.895	409.50	0.31	16.895	394.69	0.30			
16.915	410.14	0.31	16.915	395.28	0.30			
16.935	410.73	0.31	16.935	395.91	0.30			
16.955	411.40	0.31	16.955	396.57	0.30			

16.975	412.05	0.31	16.975	397.13	0.30			
16.995	412.66	0.31	16.995	397.77	0.30			
17.015	413.28	0.31	17.015	398.44	0.30			
17.035	413.98	0.31	17.035	399.05	0.30			
17.055	414.67	0.31	17.055	399.62	0.30			
17.075	415.31	0.31	17.075	400.26	0.30			
17.095	415.94	0.31	17.095	400.88	0.30			
17.114	416.57	0.31	17.114	401.46	0.30			
17.134	417.21	0.31	17.134	402.07	0.30			
17.154	417.83	0.31	17.154	402.73	0.30			
17.174	418.46	0.31	17.174	403.36	0.30			
17.194	419.12	0.31	17.194	403.96	0.30			
17.214	419.77	0.31	17.214	404.58	0.30			
17.234	420.36	0.31	17.234	405.21	0.30			
17.254	420.96	0.31	17.254	405.85	0.30			
17.274	421.60	0.31	17.274	406.47	0.30			
17.294	422.24	0.31	17.294	407.07	0.30			
17.314	422.89	0.31	17.314	407.67	0.30			
17.334	423.55	0.31	17.334	408.26	0.30			
17.354	424.18	0.31	17.354	408.88	0.30			
17.374	424.83	0.31	17.374	409.49	0.31			
17.394	425.44	0.31	17.394	410.11	0.31			
17.414	426.05	0.31	17.414	410.75	0.31			
17.434	426.70	0.31	17.434	411.33	0.31			
17.454	427.31	0.31	17.454	411.91	0.31			
17.474	427.92	0.31	17.474	412.52	0.31			
17.493	428.54	0.31	17.493	413.17	0.31			
17.513	429.13	0.32	17.513	413.77	0.31			
17.533	429.79	0.32	17.533	414.37	0.31			
17.553	430.38	0.32	17.553	414.98	0.31			
17.573	431.06	0.32	17.573	415.59	0.31			
17.593	431.66	0.32	17.593	416.17	0.31			
17.613	432.27	0.32	17.613	416.72	0.31			
17.633	432.87	0.32	17.633	417.34	0.31			
17.653	433.48	0.32	17.653	417.97	0.31			
17.673	434.09	0.32	17.673	418.58	0.31			
17.693	434.70	0.32	17.693	419.16	0.31			
17.713	435.32	0.32	17.713	419.73	0.31			
17.733	435.96	0.32	17.733	420.30	0.31			
17.753	436.54	0.32	17.753	420.89	0.31			
17.773	437.12	0.32	17.773	421.48	0.31			
17.793	437.73	0.32	17.793	422.07	0.31			
17.813	438.29	0.32	17.813	422.70	0.31			
17.833	438.91	0.32	17.833	423.31	0.31			
17.853	439.53	0.32	17.853	423.87	0.31			

17.872	440.13	0.32	17.872	424.45	0.31			
17.892	440.71	0.32	17.892	425.05	0.31			
17.912	441.34	0.32	17.912	425.66	0.31			
17.932	441.89	0.32	17.932	426.24	0.31			
17.952	442.46	0.32	17.952	426.80	0.31			
17.972	443.04	0.32	17.972	427.38	0.31			
17.992	443.62	0.32	17.992	427.99	0.31			
18.012	444.24	0.32	18.012	428.61	0.31			
18.032	444.78	0.32	18.032	429.19	0.31			
18.052	445.36	0.32	18.052	429.75	0.31			
18.072	445.96	0.32	18.072	430.29	0.31			
18.092	446.57	0.32	18.092	430.89	0.31			
18.112	447.16	0.32	18.112	431.53	0.31			
18.132	447.83	0.32	18.132	432.04	0.31			
18.152	448.36	0.32	18.152	432.57	0.31			
18.172	449.02	0.32	18.172	433.15	0.31			
18.192	449.55	0.32	18.192	433.75	0.31			
18.212	450.21	0.32	18.212	434.30	0.31			
18.231	450.81	0.32	18.231	434.91	0.31			
18.251	451.42	0.32	18.251	435.53	0.31			
18.271	452.05	0.32	18.271	436.14	0.31			
18.291	452.66	0.32	18.291	436.73	0.31			
18.311	453.27	0.32	18.311	437.27	0.31			
18.331	453.89	0.32	18.331	437.83	0.31			
18.351	454.44	0.32	18.351	438.47	0.32			
18.371	455.02	0.32	18.371	439.06	0.32			
18.391	455.64	0.32	18.391	439.65	0.32			
18.411	456.22	0.32	18.411	440.19	0.32			
18.431	456.83	0.32	18.431	440.80	0.32			
18.451	457.44	0.32	18.451	441.36	0.32			
18.471	458.07	0.33	18.471	442.02	0.32			
18.491	458.62	0.33	18.491	442.55	0.32			
18.511	459.27	0.33	18.511	443.17	0.32			
18.531	459.84	0.33	18.531	443.69	0.32			
18.551	460.42	0.33	18.551	444.34	0.32			
18.571	461.01	0.33	18.571	444.89	0.32			
18.591	461.60	0.33	18.591	445.43	0.32			
18.610	462.17	0.33	18.610	446.05	0.32			
18.630	462.76	0.33	18.630	446.59	0.32			
18.650	463.37	0.33	18.650	447.27	0.32			
18.670	463.97	0.33	18.670	447.80	0.32			
18.690	464.50	0.33	18.690	448.43	0.32			
18.710	465.11	0.33	18.710	448.96	0.32			
18.730	465.73	0.33	18.730	449.50	0.32			
18.750	466.33	0.33	18.750	450.06	0.32			

18.770	466.89	0.33	18.770	450.63	0.32			
18.790	467.49	0.33	18.790	451.23	0.32			
18.810	468.04	0.33	18.810	451.78	0.32			
18.830	468.61	0.33	18.830	452.36	0.32			
18.850	469.18	0.33	18.850	452.96	0.32			
18.870	469.82	0.33	18.870	453.51	0.32			
18.890	470.40	0.33	18.890	454.11	0.32			
18.910	470.99	0.33	18.910	454.63	0.32			
18.930	471.58	0.33	18.930	455.30	0.32			
18.950	472.13	0.33	18.950	455.82	0.32			
18.970	472.73	0.33	18.970	456.33	0.32			
18.989	473.32	0.33	18.989	456.91	0.32			
19.009	473.91	0.33	19.009	457.49	0.32			
19.029	474.45	0.33	19.029	458.05	0.32			
19.049	475.05	0.33	19.049	458.62	0.32			
19.069	475.58	0.33	19.069	459.19	0.32			
19.089	476.18	0.33	19.089	459.78	0.32			
19.109	476.75	0.33	19.109	460.29	0.32			
19.129	477.33	0.33	19.129	460.88	0.32			
19.149	477.92	0.33	19.149	461.44	0.32			
19.169	478.45	0.33	19.169	462.01	0.32			
19.189	479.05	0.33	19.189	462.58	0.32			
19.209	479.63	0.33	19.209	463.13	0.32			
19.229	480.16	0.33	19.229	463.69	0.32			
19.249	480.75	0.33	19.249	464.22	0.32			
19.269	481.33	0.33	19.269	464.85	0.32			
19.289	481.80	0.33	19.289	465.39	0.32			
19.309	482.39	0.33	19.309	465.94	0.33			
19.329	483.01	0.33	19.329	466.49	0.33			
19.349	483.56	0.33	19.349	467.02	0.33			
19.368	484.15	0.33	19.368	467.60	0.33			
19.388	484.62	0.33	19.388	468.16	0.33			
19.408	485.21	0.34	19.408	468.72	0.33			
19.428	485.79	0.34	19.428	469.25	0.33			
19.448	486.33	0.34	19.448	469.77	0.33			
19.468	486.87	0.34	19.468	470.40	0.33			
19.488	487.42	0.34	19.488	470.91	0.33			
19.508	488.01	0.34	19.508	471.43	0.33			
19.528	488.59	0.34	19.528	471.98	0.33			
19.548	489.10	0.34	19.548	472.48	0.33			
19.568	489.65	0.34	19.568	473.02	0.33			
19.588	490.21	0.34	19.588	473.58	0.33			
19.608	490.74	0.34	19.608	474.13	0.33			
19.628	491.28	0.34	19.628	474.67	0.33			
19.648	491.92	0.34	19.648	475.22	0.33			

19.668	492.39	0.34	19.668	475.78	0.33			
19.688	492.97	0.34	19.688	476.32	0.33			
19.708	493.52	0.34	19.708	476.85	0.33			
19.727	494.08	0.34	19.727	477.42	0.33			
19.747	494.57	0.34	19.747	477.96	0.33			
19.767	495.16	0.34	19.767	478.49	0.33			
19.787	495.68	0.34	19.787	479.02	0.33			
19.807	496.26	0.34	19.807	479.56	0.33			
19.827	496.83	0.34	19.827	480.13	0.33			
19.847	497.33	0.34	19.847	480.63	0.33			
19.867	497.85	0.34	19.867	481.16	0.33			
19.887	498.41	0.34	19.887	481.72	0.33			
19.907	498.92	0.34	19.907	482.26	0.33			
19.927	499.49	0.34	19.927	482.77	0.33			
19.947	500.00	0.34	19.947	483.31	0.33			
19.967	500.50	0.34	19.967	483.90	0.33			
19.987	501.04	0.34	19.987	484.39	0.33			
20.007	501.59	0.34	20.007	484.87	0.33			
20.027	502.10	0.34	20.027	485.39	0.33			
20.047	502.61	0.34	20.047	485.91	0.33			
20.067	503.17	0.34	20.067	486.44	0.33			
20.087	503.74	0.34	20.087	486.96	0.33			
20.106	504.23	0.34	20.106	487.50	0.33			
20.126	504.79	0.34	20.126	488.06	0.33			
20.146	505.32	0.34	20.146	488.60	0.33			
20.166	505.83	0.34	20.166	489.07	0.33			
20.186	506.37	0.34	20.186	489.69	0.33			
20.206	506.87	0.34	20.206	490.18	0.33			
20.226	507.44	0.34	20.226	490.64	0.33			
20.246	507.95	0.34	20.246	491.16	0.33			
20.266	508.56	0.34	20.266	491.70	0.33			
20.286	509.05	0.34	20.286	492.24	0.33			
20.306	509.51	0.34	20.306	492.75	0.34			
20.326	510.03	0.34	20.326	493.27	0.34			
20.346	510.54	0.34	20.346	493.80	0.34			
20.366	511.09	0.34	20.366	494.28	0.34			
20.386	511.56	0.34	20.386	494.77	0.34			
20.406	512.08	0.35	20.406	495.28	0.34			
20.426	512.62	0.35	20.426	495.78	0.34			
20.446	513.12	0.35	20.446	496.30	0.34			
20.466	513.65	0.35	20.466	496.87	0.34			
20.485	514.14	0.35	20.485	497.38	0.34			
20.505	514.64	0.35	20.505	497.87	0.34			
20.525	515.17	0.35	20.525	498.36	0.34			
20.545	515.72	0.35	20.545	498.88	0.34			

20.565	516.22	0.35	20.565	499.38	0.34			
20.585	516.66	0.35	20.585	499.84	0.34			
20.605	517.20	0.35	20.605	500.39	0.34			
20.625	517.66	0.35	20.625	500.94	0.34			
20.645	518.12	0.35	20.645	501.47	0.34			
20.665	518.68	0.35	20.665	501.96	0.34			
20.685	519.22	0.35	20.685	502.45	0.34			
20.705	519.71	0.35	20.705	502.94	0.34			
20.725	520.25	0.35	20.725	503.43	0.34			
20.745	520.74	0.35	20.745	503.91	0.34			
20.765	521.23	0.35	20.765	504.40	0.34			
20.785	521.72	0.35	20.785	504.96	0.34			
20.805	522.19	0.35	20.805	505.49	0.34			
20.825	522.64	0.35	20.825	506.00	0.34			
20.845	523.12	0.35	20.845	506.50	0.34			
20.864	523.64	0.35	20.864	506.98	0.34			
20.884	524.15	0.35	20.884	507.46	0.34			
20.904	524.66	0.35	20.904	507.96	0.34			
20.924	525.19	0.35	20.924	508.46	0.34			
20.944	525.68	0.35	20.944	508.94	0.34			
20.964	526.18	0.35	20.964	509.43	0.34			
20.984	526.65	0.35	20.984	509.91	0.34			
21.004	527.13	0.35	21.004	510.40	0.34			
21.024	527.63	0.35	21.024	510.89	0.34			
21.044	528.12	0.35	21.044	511.38	0.34			
21.064	528.59	0.35	21.064	511.89	0.34			
21.084	529.07	0.35	21.084	512.38	0.34			
21.104	529.55	0.35	21.104	512.83	0.34			
21.124	530.03	0.35	21.124	513.31	0.34			
21.144	530.52	0.35	21.144	513.81	0.34			
21.164	531.02	0.35	21.164	514.29	0.34			
21.184	531.53	0.35	21.184	514.77	0.34			
21.204	532.01	0.35	21.204	515.27	0.34			
21.223	532.45	0.35	21.223	515.78	0.34			
21.243	532.93	0.35	21.243	516.27	0.34			
21.263	533.40	0.35	21.263	516.72	0.34			
21.283	533.86	0.35	21.283	517.16	0.34			
21.303	534.35	0.35	21.303	517.63	0.34			
21.323	534.87	0.35	21.323	518.11	0.34			
21.343	535.31	0.35	21.343	518.61	0.34			
21.363	535.83	0.35	21.363	519.11	0.35			
21.383	536.31	0.35	21.383	519.57	0.35			
21.403	536.77	0.35	21.403	520.04	0.35			
21.423	537.23	0.35	21.423	520.50	0.35			
21.443	537.65	0.35	21.443	520.97	0.35			

21.463	538.16	0.35	21.463	521.44	0.35			
21.483	538.61	0.36	21.483	521.92	0.35			
21.503	539.08	0.36	21.503	522.41	0.35			
21.523	539.54	0.36	21.523	522.91	0.35			
21.543	540.01	0.36	21.543	523.40	0.35			
21.563	540.50	0.36	21.563	523.90	0.35			
21.583	540.93	0.36	21.583	524.39	0.35			
21.602	541.37	0.36	21.602	524.87	0.35			
21.622	541.87	0.36	21.622	525.33	0.35			
21.642	542.34	0.36	21.642	525.76	0.35			
21.662	542.78	0.36	21.662	526.20	0.35			
21.682	543.24	0.36	21.682	526.65	0.35			
21.702	543.73	0.36	21.702	527.11	0.35			
21.722	544.18	0.36	21.722	527.57	0.35			
21.742	544.68	0.36	21.742	528.04	0.35			
21.762	545.13	0.36	21.762	528.50	0.35			
21.782	545.55	0.36	21.782	528.96	0.35			
21.802	546.03	0.36	21.802	529.41	0.35			
21.822	546.50	0.36	21.822	529.87	0.35			
21.842	546.89	0.36	21.842	530.33	0.35			
21.862	547.38	0.36	21.862	530.80	0.35			
21.882	547.86	0.36	21.882	531.26	0.35			
21.902	548.30	0.36	21.902	531.71	0.35			
21.922	548.73	0.36	21.922	532.17	0.35			
21.942	549.18	0.36	21.942	532.63	0.35			
21.962	549.67	0.36	21.962	533.08	0.35			
21.981	550.13	0.36	21.981	533.54	0.35			
22.001	550.56	0.36	22.001	533.99	0.35			
22.021	550.99	0.36	22.021	534.45	0.35			
22.041	551.45	0.36	22.041	534.90	0.35			
22.061	551.89	0.36	22.061	535.33	0.35			
22.081	552.33	0.36	22.081	535.76	0.35			
22.101	552.77	0.36	22.101	536.23	0.35			
22.121	553.21	0.36	22.121	536.69	0.35			
22.141	553.63	0.36	22.141	537.14	0.35			
22.161	554.09	0.36	22.161	537.58	0.35			
22.181	554.53	0.36	22.181	538.03	0.35			
22.201	554.96	0.36	22.201	538.48	0.35			
22.221	555.39	0.36	22.221	538.91	0.35			
22.241	555.82	0.36	22.241	539.34	0.35			
22.261	556.27	0.36	22.261	539.80	0.35			
22.281	556.71	0.36	22.281	540.26	0.35			
22.301	557.13	0.36	22.301	540.70	0.35			
22.321	557.55	0.36	22.321	541.13	0.35			
22.340	558.00	0.36	22.340	541.57	0.35			

22.360	558.45	0.36	22.360	542.00	0.35			
22.380	558.88	0.36	22.380	542.44	0.35			
22.400	559.32	0.36	22.400	542.86	0.35			
22.420	559.78	0.36	22.420	543.28	0.35			
22.440	560.24	0.36	22.440	543.72	0.35			
22.460	560.63	0.36	22.460	544.18	0.35			
22.480	561.03	0.36	22.480	544.64	0.35			
22.500	561.47	0.36	22.500	545.05	0.36			
22.520	561.87	0.36	22.520	545.47	0.36			
22.540	562.25	0.36	22.540	545.91	0.36			
22.560	562.68	0.36	22.560	546.36	0.36			
22.580	563.11	0.36	22.580	546.79	0.36			
22.600	563.55	0.36	22.600	547.20	0.36			
22.620	563.98	0.36	22.620	547.60	0.36			
22.640	564.38	0.36	22.640	548.02	0.36			
22.660	564.79	0.37	22.660	548.44	0.36			
22.680	565.24	0.37	22.680	548.86	0.36			
22.700	565.64	0.37	22.700	549.30	0.36			
22.719	566.04	0.37	22.719	549.73	0.36			
22.739	566.47	0.37	22.739	550.16	0.36			
22.759	566.89	0.37	22.759	550.58	0.36			
22.779	567.30	0.37	22.779	551.00	0.36			
22.799	567.72	0.37	22.799	551.41	0.36			
22.819	568.13	0.37	22.819	551.82	0.36			
22.839	568.52	0.37	22.839	552.27	0.36			
22.859	568.92	0.37	22.859	552.72	0.36			
22.879	569.32	0.37	22.879	553.14	0.36			
22.899	569.77	0.37	22.899	553.54	0.36			
22.919	570.19	0.37	22.919	553.95	0.36			
22.939	570.58	0.37	22.939	554.37	0.36			
22.959	571.00	0.37	22.959	554.80	0.36			
22.979	571.42	0.37	22.979	555.21	0.36			
22.999	571.79	0.37	22.999	555.60	0.36			
23.019	572.17	0.37	23.019	556.00	0.36			
23.039	572.59	0.37	23.039	556.40	0.36			
23.059	572.99	0.37	23.059	556.81	0.36			
23.079	573.37	0.37	23.079	557.22	0.36			
23.098	573.79	0.37	23.098	557.65	0.36			
23.118	574.20	0.37	23.118	558.08	0.36			
23.138	574.58	0.37	23.138	558.49	0.36			
23.158	574.99	0.37	23.158	558.90	0.36			
23.178	575.42	0.37	23.178	559.31	0.36			
23.198	575.79	0.37	23.198	559.70	0.36			
23.218	576.16	0.37	23.218	560.09	0.36			
23.238	576.54	0.37	23.238	560.48	0.36			



23.258	576.94	0.37	23.258	560.89	0.36			
23.278	577.36	0.37	23.278	561.29	0.36			
23.298	577.77	0.37	23.298	561.69	0.36			
23.318	578.17	0.37	23.318	562.09	0.36			
23.338	578.52	0.37	23.338	562.48	0.36			
23.358	578.87	0.37	23.358	562.89	0.36			
23.378	579.28	0.37	23.378	563.30	0.36			
23.398	579.69	0.37	23.398	563.71	0.36			
23.418	580.08	0.37	23.418	564.10	0.36			
23.438	580.46	0.37	23.438	564.48	0.36			
23.458	580.84	0.37	23.458	564.86	0.36			
23.477	581.21	0.37	23.477	565.26	0.36			
23.497	581.58	0.37	23.497	565.65	0.36			
23.517	581.95	0.37	23.517	566.04	0.36			
23.537	582.32	0.37	23.537	566.44	0.36			
23.557	582.70	0.37	23.557	566.83	0.36			
23.577	583.07	0.37	23.577	567.23	0.36			
23.597	583.45	0.37	23.597	567.64	0.36			
23.617	583.86	0.37	23.617	568.04	0.36			
23.637	584.25	0.37	23.637	568.44	0.36			
23.657	584.58	0.37	23.657	568.82	0.36			
23.677	584.91	0.37	23.677	569.21	0.36			
23.697	585.28	0.37	23.697	569.59	0.36			
23.717	585.65	0.37	23.717	569.98	0.36			
23.737	586.04	0.37	23.737	570.36	0.37			
23.757	586.42	0.37	23.757	570.74	0.37			
23.777	586.79	0.37	23.777	571.12	0.37			
23.797	587.15	0.37	23.797	571.50	0.37			
23.817	587.52	0.37	23.817	571.87	0.37			
23.836	587.87	0.37	23.836	572.24	0.37			
23.856	588.20	0.37	23.856	572.61	0.37			
23.876	588.56	0.37	23.876	572.98	0.37			
23.896	588.95	0.37	23.896	573.36	0.37			
23.916	589.31	0.37	23.916	573.75	0.37			
23.936	589.67	0.37	23.936	574.13	0.37			
23.956	590.02	0.37	23.956	574.50	0.37			
23.976	590.38	0.37	23.976	574.88	0.37			
23.996	590.74	0.38	23.996	575.25	0.37			
24.016	591.09	0.38	24.016	575.62	0.37			
24.036	591.44	0.38	24.036	575.98	0.37			
24.056	591.79	0.38	24.056	576.35	0.37			
24.076	592.15	0.38	24.076	576.73	0.37			
24.096	592.56	0.38	24.096	577.13	0.37			
24.116	592.89	0.38	24.116	577.53	0.37			
24.136	593.31	0.38	24.136	577.92	0.37			

24.156	593.67	0.38	24.156	578.25	0.37			
24.176	594.00	0.38	24.176	578.59	0.37			
24.196	594.40	0.38	24.196	578.92	0.37			
24.215	594.76	0.38	24.215	579.28	0.37			
24.235	595.11	0.38	24.235	579.64	0.37			
24.255	595.48	0.38	24.255	580.01	0.37			
24.275	595.89	0.38	24.275	580.38	0.37			
24.295	596.23	0.38	24.295	580.73	0.37			
24.315	596.62	0.38	24.315	581.07	0.37			
24.335	596.97	0.38	24.335	581.42	0.37			
24.355	597.32	0.38	24.355	581.79	0.37			
24.375	597.68	0.38	24.375	582.16	0.37			
24.395	598.04	0.38	24.395	582.53	0.37			
24.415	598.41	0.38	24.415	582.90	0.37			
24.435	598.75	0.38	24.435	583.25	0.37			
24.455	599.14	0.38	24.455	583.61	0.37			
24.475	599.49	0.38	24.475	583.96	0.37			
24.495	599.85	0.38	24.495	584.31	0.37			
24.515	600.23	0.38	24.515	584.65	0.37			
24.535	600.60	0.38	24.535	585.00	0.37			
24.555	600.93	0.38	24.555	585.35	0.37			
24.575	601.27	0.38	24.575	585.71	0.37			
24.594	601.63	0.38	24.594	586.07	0.37			
24.614	601.96	0.38	24.614	586.43	0.37			
24.634	602.37	0.38	24.634	586.79	0.37			
24.654	602.72	0.38	24.654	587.13	0.37			
24.674	603.05	0.38	24.674	587.48	0.37			
24.694	603.45	0.38	24.694	587.83	0.37			
24.714	603.76	0.38	24.714	588.17	0.37			
24.734	604.11	0.38	24.734	588.50	0.37			
24.754	604.47	0.38	24.754	588.83	0.37			
24.774	604.80	0.38	24.774	589.16	0.37			
24.794	605.21	0.38	24.794	589.50	0.37			
24.814	605.53	0.38	24.814	589.85	0.37			
24.834	605.86	0.38	24.834	590.19	0.37			
24.854	606.25	0.38	24.854	590.54	0.37			
24.874	606.65	0.38	24.874	590.88	0.37			
24.894	606.97	0.38	24.894	591.21	0.37			
24.914	607.31	0.38	24.914	591.55	0.37			
24.934	607.64	0.38	24.934	591.88	0.37			
24.954	607.98	0.38	24.954	592.22	0.37			
24.973	608.30	0.38	24.973	592.55	0.37			
24.993	608.62	0.38	24.993	592.88	0.37			
25.013	609.01	0.38	25.013	593.21	0.37			
25.033	609.31	0.38	25.033	593.54	0.37			

25.053	609.67	0.38	25.053	593.89	0.37			
25.073	610.07	0.38	25.073	594.24	0.37			
25.093	610.39	0.38	25.093	594.59	0.37			
25.113	610.75	0.38	25.113	594.94	0.37			
25.133	611.08	0.38	25.133	595.26	0.37			
25.153	611.36	0.38	25.153	595.59	0.38			
25.173	611.74	0.38	25.173	595.91	0.38			
25.193	612.11	0.38	25.193	596.24	0.38			
25.213	612.45	0.38	25.213	596.57	0.38			
25.233	612.79	0.38	25.233	596.91	0.38			
25.253	613.09	0.38	25.253	597.24	0.38			
25.273	613.39	0.38	25.273	597.57	0.38			
25.293	613.73	0.38	25.293	597.88	0.38			
25.313	614.11	0.38	25.313	598.20	0.38			
25.332	614.45	0.38	25.332	598.51	0.38			
25.352	614.74	0.38	25.352	598.83	0.38			
25.372	615.11	0.38	25.372	599.12	0.38			
25.392	615.43	0.38	25.392	599.40	0.38			
25.412	615.75	0.39	25.412	599.68	0.38			
25.432	616.08	0.39	25.432	599.96	0.38			
25.452	616.43	0.39	25.452	600.30	0.38			
25.472	616.78	0.39	25.472	600.70	0.38			
25.492	617.08	0.39	25.492	601.10	0.38			
25.512	617.44	0.39	25.512	601.38	0.38			
25.532	617.72	0.39	25.532	601.68	0.38			
25.552	618.04	0.39	25.552	602.06	0.38			
25.572	618.38	0.39	25.572	602.41	0.38			
25.592	618.75	0.39	25.592	602.74	0.38			
25.612	619.09	0.39	25.612	603.06	0.38			
25.632	619.40	0.39	25.632	603.39	0.38			
25.652	619.71	0.39	25.652	603.71	0.38			
25.672	620.04	0.39	25.672	604.08	0.38			
25.692	620.40	0.39	25.692	604.43	0.38			
25.711	620.69	0.39	25.711	604.73	0.38			
25.731	621.00	0.39	25.731	605.07	0.38			
25.751	621.33	0.39	25.751	605.41	0.38			
25.771	621.67	0.39	25.771	605.71	0.38			
25.791	622.05	0.39	25.791	606.03	0.38			
25.811	622.37	0.39	25.811	606.38	0.38			
25.831	622.67	0.39	25.831	606.76	0.38			
25.851	623.04	0.39	25.851	607.08	0.38			
25.871	623.38	0.39	25.871	607.38	0.38			
25.891	623.68	0.39	25.891	607.72	0.38			
25.911	623.95	0.39	25.911	608.06	0.38			
25.931	624.27	0.39	25.931	608.38	0.38			

25.951	624.56	0.39	25.951	608.71	0.38			
25.971	624.95	0.39	25.971	609.06	0.38			
25.991	625.22	0.39	25.991	609.41	0.38			
26.011	625.56	0.39	26.011	609.74	0.38			
26.031	625.90	0.39	26.031	610.05	0.38			
26.051	626.28	0.39	26.051	610.38	0.38			
26.071	626.58	0.39	26.071	610.71	0.38			
26.090	626.87	0.39	26.090	611.04	0.38			
26.110	627.18	0.39	26.110	611.36	0.38			
26.130	627.50	0.39	26.130	611.65	0.38			
26.150	627.82	0.39	26.150	611.94	0.38			
26.170	628.15	0.39	26.170	612.31	0.38			
26.190	628.51	0.39	26.190	612.66	0.38			
26.210	628.80	0.39	26.210	612.96	0.38			
26.230	629.11	0.39	26.230	613.28	0.38			
26.250	629.45	0.39	26.250	613.62	0.38			
26.270	629.77	0.39	26.270	613.93	0.38			
26.290	630.06	0.39	26.290	614.23	0.38			
26.310	630.32	0.39	26.310	614.54	0.38			
26.330	630.72	0.39	26.330	614.85	0.38			
26.350	631.01	0.39	26.350	615.17	0.38			
26.370	631.33	0.39	26.370	615.50	0.38			
26.390	631.64	0.39	26.390	615.81	0.38			
26.410	631.94	0.39	26.410	616.11	0.38			
26.430	632.22	0.39	26.430	616.47	0.38			
26.450	632.57	0.39	26.450	616.80	0.38			
26.469	632.88	0.39	26.469	617.11	0.38			
26.489	633.15	0.39	26.489	617.41	0.38			
26.509	633.43	0.39	26.509	617.71	0.38			
26.529	633.73	0.39	26.529	618.03	0.38			
26.549	634.05	0.39	26.549	618.37	0.38			
26.569	634.39	0.39	26.569	618.71	0.38			
26.589	634.69	0.39	26.589	618.99	0.38			
26.609	634.96	0.39	26.609	619.28	0.38			
26.629	635.28	0.39	26.629	619.63	0.38			
26.649	635.60	0.39	26.649	619.94	0.38			
26.669	635.90	0.39	26.669	620.23	0.39			
26.689	636.20	0.39	26.689	620.54	0.39			
26.709	636.48	0.39	26.709	620.85	0.39			
26.729	636.76	0.39	26.729	621.19	0.39			
26.749	637.07	0.39	26.749	621.50	0.39			
26.769	637.43	0.39	26.769	621.80	0.39			
26.789	637.76	0.39	26.789	622.11	0.39			
26.809	638.06	0.39	26.809	622.43	0.39			
26.828	638.30	0.39	26.828	622.72	0.39			

26.848	638.61	0.39	26.848	623.03	0.39			
26.868	638.96	0.39	26.868	623.38	0.39			
26.888	639.22	0.39	26.888	623.71	0.39			
26.908	639.54	0.39	26.908	624.02	0.39			
26.928	639.83	0.39	26.928	624.31	0.39			
26.948	640.14	0.39	26.948	624.60	0.39			
26.968	640.45	0.40	26.968	624.92	0.39			
26.988	640.72	0.40	26.988	625.25	0.39			
27.008	641.05	0.40	27.008	625.58	0.39			
27.028	641.35	0.40	27.028	625.89	0.39			
27.048	641.62	0.40	27.048	626.20	0.39			
27.068	641.89	0.40	27.068	626.48	0.39			
27.088	642.18	0.40	27.088	626.77	0.39			
27.108	642.54	0.40	27.108	627.06	0.39			
27.128	642.80	0.40	27.128	627.34	0.39			
27.148	643.10	0.40	27.148	627.64	0.39			
27.168	643.38	0.40	27.168	627.95	0.39			
27.188	643.67	0.40	27.188	628.25	0.39			
27.207	644.00	0.40	27.207	628.53	0.39			
27.227	644.29	0.40	27.227	628.81	0.39			
27.247	644.56	0.40	27.247	629.08	0.39			
27.267	644.85	0.40	27.267	629.41	0.39			
27.287	645.16	0.40	27.287	629.77	0.39			
27.307	645.45	0.40	27.307	630.07	0.39			
27.327	645.70	0.40	27.327	630.36	0.39			
27.347	646.01	0.40	27.347	630.64	0.39			
27.367	646.33	0.40	27.367	630.90	0.39			
27.387	646.60	0.40	27.387	631.16	0.39			
27.407	646.83	0.40	27.407	631.47	0.39			
27.427	647.20	0.40	27.427	631.78	0.39			
27.447	647.45	0.40	27.447	632.10	0.39			
27.467	647.73	0.40	27.467	632.41	0.39			
27.487	648.05	0.40	27.487	632.71	0.39			
27.507	648.29	0.40	27.507	633.01	0.39			
27.527	648.56	0.40	27.527	633.30	0.39			
27.547	648.83	0.40	27.547	633.58	0.39			
27.567	649.10	0.40	27.567	633.87	0.39			
27.586	649.40	0.40	27.586	634.16	0.39			
27.606	649.73	0.40	27.606	634.44	0.39			
27.626	650.01	0.40	27.626	634.72	0.39			
27.646	650.27	0.40	27.646	635.00	0.39			
27.666	650.54	0.40	27.666	635.29	0.39			
27.686	650.84	0.40	27.686	635.59	0.39			
27.706	651.12	0.40	27.706	635.88	0.39			
27.726	651.40	0.40	27.726	636.17	0.39			

27.746	651.68	0.40	27.746	636.46	0.39			
27.766	652.04	0.40	27.766	636.74	0.39			
27.786	652.32	0.40	27.786	637.01	0.39			
27.806	652.58	0.40	27.806	637.29	0.39			
27.826	652.83	0.40	27.826	637.56	0.39			
27.846	653.10	0.40	27.846	637.87	0.39			
27.866	653.39	0.40	27.866	638.18	0.39			
27.886	653.69	0.40	27.886	638.47	0.39			
27.906	653.93	0.40	27.906	638.76	0.39			
27.926	654.20	0.40	27.926	639.03	0.39			
27.946	654.48	0.40	27.946	639.29	0.39			
27.965	654.78	0.40	27.965	639.57	0.39			
27.985	655.06	0.40	27.985	639.89	0.39			
28.005	655.34	0.40	28.005	640.21	0.39			
28.025	655.62	0.40	28.025	640.48	0.39			
28.045	655.89	0.40	28.045	640.76	0.39			
28.065	656.16	0.40	28.065	641.03	0.39			
28.085	656.42	0.40	28.085	641.29	0.39			
28.105	656.68	0.40	28.105	641.55	0.39			
28.125	656.97	0.40	28.125	641.81	0.39			
28.145	657.25	0.40	28.145	642.08	0.39			
28.165	657.53	0.40	28.165	642.34	0.39			
28.185	657.81	0.40	28.185	642.65	0.39			
28.205	658.08	0.40	28.205	642.97	0.39			
28.225	658.36	0.40	28.225	643.24	0.39			
28.245	658.66	0.40	28.245	643.49	0.39			
28.265	658.91	0.40	28.265	643.74	0.39			
28.285	659.17	0.40	28.285	644.02	0.39			
28.305	659.43	0.40	28.305	644.30	0.39			
28.324	659.68	0.40	28.324	644.57	0.40			
28.344	659.95	0.40	28.344	644.84	0.40			
28.364	660.23	0.40	28.364	645.12	0.40			
28.384	660.52	0.40	28.384	645.40	0.40			
28.404	660.79	0.40	28.404	645.69	0.40			
28.424	661.05	0.40	28.424	645.96	0.40			
28.444	661.33	0.40	28.444	646.21	0.40			
28.464	661.60	0.40	28.464	646.48	0.40			
28.484	661.87	0.40	28.484	646.79	0.40			
28.504	662.14	0.40	28.504	647.10	0.40			
28.524	662.40	0.40	28.524	647.35	0.40			
28.544	662.65	0.40	28.544	647.60	0.40			
28.564	662.94	0.40	28.564	647.87	0.40			
28.584	663.21	0.40	28.584	648.15	0.40			
28.604	663.47	0.40	28.604	648.43	0.40			
28.624	663.72	0.40	28.624	648.69	0.40			

28.644	663.96	0.40	28.644	648.96	0.40			
28.664	664.20	0.40	28.664	649.22	0.40			
28.684	664.49	0.40	28.684	649.49	0.40			
28.703	664.76	0.40	28.703	649.77	0.40			
28.723	665.01	0.41	28.723	650.03	0.40			
28.743	665.27	0.41	28.743	650.27	0.40			
28.763	665.54	0.41	28.763	650.52	0.40			
28.783	665.82	0.41	28.783	650.80	0.40			
28.803	666.07	0.41	28.803	651.08	0.40			
28.823	666.33	0.41	28.823	651.36	0.40			
28.843	666.60	0.41	28.843	651.63	0.40			
28.863	666.85	0.41	28.863	651.91	0.40			
28.883	667.09	0.41	28.883	652.19	0.40			
28.903	667.35	0.41	28.903	652.47	0.40			
28.923	667.62	0.41	28.923	652.72	0.40			
28.943	667.91	0.41	28.943	652.97	0.40			
28.963	668.17	0.41	28.963	653.23	0.40			
28.983	668.38	0.41	28.983	653.49	0.40			
29.003	668.65	0.41	29.003	653.76	0.40			
29.023	668.94	0.41	29.023	654.02	0.40			
29.043	669.22	0.41	29.043	654.28	0.40			
29.063	669.49	0.41	29.063	654.54	0.40			
29.082	669.73	0.41	29.082	654.80	0.40			
29.102	669.96	0.41	29.102	655.05	0.40			
29.122	670.19	0.41	29.122	655.31	0.40			
29.142	670.47	0.41	29.142	655.60	0.40			
29.162	670.72	0.41	29.162	655.88	0.40			
29.182	670.96	0.41	29.182	656.12	0.40			
29.202	671.24	0.41	29.202	656.36	0.40			
29.222	671.50	0.41	29.222	656.60	0.40			
29.242	671.76	0.41	29.242	656.87	0.40			
29.262	672.00	0.41	29.262	657.13	0.40			
29.282	672.24	0.41	29.282	657.39	0.40			
29.302	672.51	0.41	29.302	657.64	0.40			
29.322	672.78	0.41	29.322	657.88	0.40			
29.342	673.02	0.41	29.342	658.14	0.40			
29.362	673.28	0.41	29.362	658.39	0.40			
29.382	673.56	0.41	29.382	658.65	0.40			
29.402	673.79	0.41	29.402	658.92	0.40			
29.422	674.04	0.41	29.422	659.19	0.40			
29.441	674.29	0.41	29.441	659.46	0.40			
29.461	674.55	0.41	29.461	659.69	0.40			
29.481	674.80	0.41	29.481	659.92	0.40			
29.501	675.02	0.41	29.501	660.16	0.40			
29.521	675.25	0.41	29.521	660.43	0.40			

29.541	675.52	0.41	29.541	660.70	0.40			
29.561	675.78	0.41	29.561	660.95	0.40			
29.581	676.03	0.41	29.581	661.20	0.40			
29.601	676.28	0.41	29.601	661.45	0.40			
29.621	676.53	0.41	29.621	661.70	0.40			
29.641	676.76	0.41	29.641	661.95	0.40			
29.661	677.01	0.41	29.661	662.20	0.40			
29.681	677.26	0.41	29.681	662.46	0.40			
29.701	677.52	0.41	29.701	662.72	0.40			
29.721	677.77	0.41	29.721	662.98	0.40			
29.741	678.02	0.41	29.741	663.23	0.40			
29.761	678.28	0.41	29.761	663.48	0.40			
29.781	678.51	0.41	29.781	663.73	0.40			
29.801	678.75	0.41	29.801	663.97	0.40			
29.820	679.01	0.41	29.820	664.20	0.40			
29.840	679.26	0.41	29.840	664.44	0.40			
29.860	679.51	0.41	29.860	664.67	0.40			
29.880	679.76	0.41	29.880	664.91	0.40			
29.900	680.01	0.41	29.900	665.14	0.40			
29.920	680.25	0.41	29.920	665.41	0.40			
29.940	680.48	0.41	29.940	665.68	0.40			
29.960	680.70	0.41	29.960	665.94	0.40			
29.980	680.92	0.41	29.980	666.18	0.40			
30.000	681.15	0.41	30.000	666.41	0.40			

Standard uncertainties:

$u_T = 0.006$  K;  $u_p = 0.0015$  MPa from 0.1 to 6 MPa;  $u_p = 0.0175$  MPa from 6 to 30 MPa;

$$u_x = 2 \times 10^{-4}$$



**Table S2.** Experimental dew and bubble pressures,  $P_{\text{dew}}$  and  $P_{\text{bubble}}$ , and densities of the vapor,  $\rho_V$ , and liquid,  $\rho_L$ , phases in the *VLE* for  $\text{CO}_2+\text{SO}_2$  mixtures and respective uncertainties.

$T$ (K)	$P_{\text{dew}}$ (MPa)	$u_{P_{\text{dew}}}$ (MPa)	$P_{\text{bubble}}$ (MPa)	$u_{P_{\text{bubble}}}$ (MPa)	$\rho_V$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_{\rho_V}$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$\rho_L$ ( $\text{kg}\cdot\text{m}^{-3}$ )	$u_{\rho_L}$ ( $\text{kg}\cdot\text{m}^{-3}$ )
$x_{\text{CO}_2} = 0.8029$								
<b>313.15</b>	3.475	0.028	6.737	0.018	78.19	0.93	807.05	1.58
<b>333.15</b>	6.399	0.030	9.003	0.020	163.71	0.73	650.04	1.22
$x_{\text{CO}_2} = 0.8969$								
<b>313.15</b>	5.716	0.014	7.300	0.021	153.05	0.86	693.95	1.19
$x_{\text{CO}_2} = 0.9532$								
<b>313.15</b>	7.619	0.022	7.933	0.021	277.09	0.81	576.75	0.91

**Table S3.**  $PcTx_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$  mixtures.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.8029; x_{\text{SO}_2} = 0.1971$							
$T = 313.15 \pm 0.01 \text{ K}$		$T = 333.15 \pm 0.01 \text{ K}$		$T = 353.15 \pm 0.02 \text{ K}$		$T = 373.15 \pm 0.04 \text{ K}$	
139.99	1177.6	154.94	1168.7	160.00	1140.0	169.99	1127.3
134.94	1162.7	149.98	1156.8	154.93	1125.2	164.93	1112.7
129.98	1149.6	144.94	1141.7	150.00	1112.4	160.00	1100.2
124.93	1133.8	140.00	1128.8	144.93	1097.0	154.93	1085.1
119.99	1119.9	134.93	1112.9	140.00	1083.5	149.99	1071.9
114.93	1103.1	129.99	1099.2	134.93	1067.4	144.94	1056.0
110.00	1088.6	124.93	1082.7	130.00	1053.0	140.00	1042.1
104.97	1070.7	120.00	1068.4	124.94	1036.1	134.99	1026.6
99.98	1054.9	114.93	1050.7	120.00	1020.9	130.00	1010.9
94.93	1036.2	109.99	1035.4	115.00	1003.9	124.99	994.4
89.99	1019.1	104.94	1016.7	109.99	986.6	119.97	977.6
85.00	1000.3	99.98	1000.2	105.00	968.6	119.09	974.4
79.99	980.7	94.93	980.2	100.01	950.2	114.95	960.2
74.98	960.3	89.99	962.5			109.96	942.3
70.00	938.8	84.99	942.5				
65.00	916.3	81.99	930.1				
62.00	902.2						

Standard uncertainties:

$$u_T = 0.015 \text{ K}, u_P = 0.05 \text{ MPa}, u_x = 2 \times 10^{-4}, u_c^*(\text{repeatability uncertainty}) = 6.2 \times 10^{-4}c,$$

$$u_c = 6.2 \times 10^{-4}c.$$

**Table S3 (continued).**  $PcTx_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$  mixtures.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.9457; x_{\text{CH}_3\text{OH}} = 0.0075; x_{\text{SO}_2} = 0.0468$							
$T = 313.15 \pm 0.02 \text{ K}$		$T = 333.15 \pm 0.01 \text{ K}$		$T = 353.15 \pm 0.02 \text{ K}$		$T = 373.15 \pm 0.04 \text{ K}$	
189.94	1288.8	190.02	1244.7	189.96	1203.3	190.01	1165.5
180.03	1265.1	180.05	1219.8	180.00	1177.8	185.00	1152.6
169.97	1239.9	170.07	1194.0	169.98	1151.4	179.99	1139.6
160.06	1213.9	159.99	1166.9	160.00	1123.8	175.05	1126.3
149.97	1186.5	150.01	1138.8	149.97	1094.8	169.97	1112.5
140.06	1158.0	140.00	1109.4	140.00	1064.6	164.98	1098.7
129.98	1128.0	130.00	1078.2	130.00	1032.8	159.96	1084.4
120.01	1096.8	120.00	1045.5	124.99	1016.1	154.95	1069.8
110.03	1063.1	110.00	1010.7	120.00	998.9	150.01	1055.0
100.02	1027.4	105.00	992.5	114.95	981.1	144.97	1039.6
89.97	988.9	99.96	973.4	110.01	963.0	139.99	1023.9
79.98	947.5	95.03	953.9	105.01	944.1	135.02	1008.0
75.02	925.7	89.98	933.6			129.94	991.2
70.03	902.5					120.01	956.8
65.01	878.0						

Standard uncertainties:

$$u_T = 0.015 \text{ K}, \quad u_P = 0.05 \text{ MPa}, \quad u_x = 2 \times 10^{-4}, \quad u_c^*(\text{repetibility uncertainty}) = 8.1 \times 10^{-4}c, \\ u_c = 8.1 \times 10^{-4}c.$$

**Table S3 (continued).**  $PcTx_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$  mixtures.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.9617$ ; $x_{\text{CH}_3\text{OH}} = 0.0081$ ; $x_{\text{SO}_2} = 0.0302$							
$T = 313.15 \pm 0.01 \text{ K}$		$T = 333.15 \pm 0.01 \text{ K}$		$T = 353.15 \pm 0.02 \text{ K}$		$T = 373.15 \pm 0.04 \text{ K}$	
190.02	1287.6	189.97	1242.7	190.04	1201.5	190.00	1163.6
179.96	1263.3	180.10	1218.1	180.01	1176.1	179.99	1137.8
169.99	1238.2	170.03	1191.9	169.98	1149.4	175.01	1124.3
159.97	1211.9	160.02	1164.9	159.98	1121.6	169.95	1110.5
149.99	1184.7	150.01	1136.4	154.97	1107.3	164.97	1096.5
139.99	1156.0	140.01	1107.1	150.04	1092.9	160.00	1082.2
130.01	1126.2	130.05	1076.0	145.01	1077.7	144.97	1037.4
120.02	1094.3	119.99	1042.9	139.97	1062.3	140.02	1021.9
109.99	1060.8	110.04	1008.2	135.05	1046.8	155.00	1067.7
99.99	1024.9	105.03	989.8	129.97	1030.2	150.02	1052.8
90.02	986.7	100.06	970.9	124.97	1013.5	135.00	1005.7
79.98	945.0	94.96	950.9	120.00	996.3	130.02	989.1
74.98	922.7			114.99	978.6	125.02	972.1
				110.02	960.4		

Standard uncertainties:

$$u_T = 0.015 \text{ K}, u_P = 0.05 \text{ MPa}, u_x = 2 \times 10^{-4}, u_c^*(\text{repeatability uncertainty}) = 8.1 \times 10^{-4} c, \\ u_c = 8.1 \times 10^{-4} c.$$

**Table S3 (continued).**  $PcTx_{\text{CO}_2}$  experimental data for the  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$  mixtures.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.9851; x_{\text{CH}_3\text{OH}} = 0.0080; x_{\text{SO}_2} = 0.0069$							
$T = 313.15 \pm 0.01 \text{ K}$		$T = 333.15 \pm 0.01 \text{ K}$		$T = 353.15 \pm 0.02 \text{ K}$		$T = 373.15 \pm 0.04 \text{ K}$	
189.99	1284.9	190.00	1239.6	189.94	1198.7	189.95	1161.0
179.98	1260.5	179.98	1214.7	184.99	1186.0	185.02	1148.4
169.98	1235.1	169.98	1188.7	179.97	1173.1	179.99	1135.1
160.02	1208.8	159.95	1161.4	174.91	1159.7	177.48	1128.4
150.00	1181.2	149.99	1133.1	170.00	1146.4	174.97	1121.6
140.01	1152.2	144.97	1118.3	164.96	1132.5	172.45	1114.7
130.02	1122.1	139.98	1103.4	160.01	1118.7	169.97	1107.9
120.05	1090.2	135.07	1088.0	155.04	1104.3	167.46	1100.9
110.16	1056.8	130.09	1072.2	150.02	1089.5	164.97	1093.8
105.00	1038.3	124.95	1055.9	145.04	1074.5	162.46	1086.6
99.97	1020.6	119.97	1039.2	139.96	1059.1	159.96	1079.8
94.99	1001.6	114.98	1022.0	134.96	1043.2	155.01	1065.2
90.00	981.9	110.00	1004.2	129.98	1027.0	149.99	1050.3
84.99	961.3						
79.97	939.8						

Standard uncertainties:

$$u_T = 0.015 \text{ K}, \quad u_P = 0.05 \text{ MPa}, \quad u_x = 2 \times 10^{-4}, \quad u_c^*(\text{repetibility uncertainty}) = 8.1 \times 10^{-4} c, \\ u_c = 8.1 \times 10^{-4} c.$$

**Table S4.** Coefficients  $a_i$  and  $P^\#$  values of equation 1 in the correlation of the experimental speed of sound,  $c$ , as a function of pressure,  $P$ , in the mixtures of CO<sub>2</sub>+SO<sub>2</sub> (undoped) and CO<sub>2</sub>+CH<sub>3</sub>OH+SO<sub>2</sub> (doped) at compositions  $x$  and temperatures  $T$  and the mean relative deviations.

$x_{\text{CO}_2}$ $x_{\text{CH}_3\text{OH}}$ $x_{\text{SO}_2}$	$T/\text{K}$	$P^\#$ (MPa)	$10 \times a_1$ (MPa·m <sup>-1</sup> ·s)	$10^4 \times a_2$ (MPa·m <sup>-2</sup> ·s <sup>2</sup> )	$10^8 \times a_3$ (MPa·m <sup>-3</sup> ·s <sup>3</sup> )	$MRD_c$ (%)
0.8029 0.0000 0.1971	313.15	80	2.50237	2.5974	8.192	0.037
	333.15	95	2.66706	2.6444	8.275	0.050
	353.15	115	2.94076	2.6137	6.378	0.032
	373.15	125	3.03243	2.5966	6.249	0.032
0.8889* 0.0080 0.1031	313.15	70	2.18093	2.3652	7.610	0.022
	333.15	90	2.45822	2.4444	7.766	0.007
	353.15	100	2.55448	2.4461	8.000	0.007
	373.15	115	2.76184	2.4798	7.882	0.007
0.9457 0.0075 0.0468	313.15	80	2.31380	2.3943	7.824	0.008
	333.15	110	2.78480	2.5431	7.457	0.003
	353.15	120	2.87319	2.5374	7.683	0.004
	373.15	140	3.14674	2.6374	8.221	0.004
0.9617 0.0081 0.0302	313.15	95	2.60553	2.5199	7.624	0.005
	333.15	110	2.77546	2.5212	7.205	0.004
	353.15	120	2.86367	2.5318	7.706	0.007
	373.15	140	3.14304	2.5780	7.260	0.005
0.9851 0.0080 0.0069	313.15	90	2.49836	2.4360	6.734	0.011
	333.15	130	3.11867	2.6569	6.978	0.010
	353.15	150	3.36420	2.6573	6.071	0.005
	373.15	165	3.54227	2.7212	6.712	0.007
Overall mean relative deviation $\overline{MRD}_c = 0.014\%$						

$$MRD_c = \frac{100}{N} \sum_i^N \left| \frac{c_i - c_{i,fit}}{c_i} \right|; N: \text{number of experimental points at each composition and temperature.}$$

$$\overline{MRD}_c = \frac{100}{N'} \sum_i^{N'} \left| \frac{c_i - c_{i,fit}}{c_i} \right|; N': \text{total number of experimental points.}$$

\*Experimental data from Ref. [34].

**Table S5.**  $PcTx_{\text{CO}_2}$  extrapolated values for  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$  mixtures, using  $P^\#$  and coefficients from Table S4.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.8029; x_{\text{SO}_2} = 0.1971$							
$T = 313.15 \text{ K}$		$T = 333.15 \text{ K}$		$T = 353.15 \text{ K}$		$T = 373.15 \text{ K}$	
61.00	897.5	81.00	926.1	99.00	946.4	109.00	938.8
60.00	892.7	80.00	921.9	98.00	942.6	108.00	935.2
59.00	887.9	79.00	917.7	97.00	938.8	107.00	931.5
58.00	882.9	78.00	913.4	96.00	934.9	106.00	927.8
57.00	878.0	77.00	909.0	95.00	931.1	105.00	924.1
56.00	872.9	76.00	904.7	94.00	927.2	104.00	920.3
55.00	867.8	75.00	900.2	93.00	923.2	103.00	916.6
54.00	862.7	74.00	895.8	92.00	919.3	102.00	912.8
53.00	857.4	73.00	891.3	91.00	915.3	101.00	908.9
52.00	852.1	72.00	886.7	90.00	911.2	100.00	905.1
51.00	846.8	71.00	882.1	89.00	907.2	99.00	901.2
50.00	841.3	70.00	877.5	88.00	903.1	98.00	897.3
49.00	835.8	69.00	872.8	87.00	899.0	97.00	893.3
48.00	830.2	68.00	868.1	86.00	894.8	96.00	889.4
47.00	824.6	67.00	863.3	85.00	890.6	95.00	885.4
46.00	818.8	66.00	858.4	84.00	886.4	94.00	881.3
45.00	813.0	65.00	853.5	83.00	882.1	93.00	877.3
44.00	807.1	64.00	848.6	82.00	877.8	92.00	873.2
43.00	801.1	63.00	843.6	81.00	873.5	91.00	869.1
42.00	794.9	62.00	838.5	80.00	869.1	90.00	864.9
41.00	788.7	61.00	833.4	79.00	864.7	89.00	860.7
40.00	782.4	60.00	828.2	78.00	860.2	88.00	856.5
39.00	776.0	59.00	822.9	77.00	855.7	87.00	852.2
38.00	769.5	58.00	817.6	76.00	851.1	86.00	847.9
37.00	762.8	57.00	812.2	75.00	846.6	85.00	843.5
36.00	756.0	56.00	806.7	74.00	841.9	84.00	839.2
35.00	749.1	55.00	801.2	73.00	837.2	83.00	834.7

34.00	742.0	54.00	795.6	72.00	832.5	82.00	830.3
33.00	734.8	53.00	789.9	71.00	827.7	81.00	825.8
32.00	727.5	52.00	784.1	70.00	822.9	80.00	821.2
31.00	720.0	51.00	778.3	69.00	818.0	79.00	816.6
30.00	712.3	50.00	772.3	68.00	813.1	78.00	812.0
29.00	704.4	49.00	766.3	67.00	808.1	77.00	807.3
28.00	696.4	48.00	760.1	66.00	803.0	76.00	802.6
27.00	688.1	47.00	753.9	65.00	797.9	75.00	797.8
26.00	679.6	46.00	747.6	64.00	792.7	74.00	793.0
25.00	670.9	45.00	741.1	63.00	787.5	73.00	788.2
24.00	661.9	44.00	734.6	62.00	782.2	72.00	783.2
23.00	652.6	43.00	727.9	61.00	776.9	71.00	778.3
22.00	643.1	42.00	721.1	60.00	771.4	70.00	773.2
21.00	633.2	41.00	714.2	59.00	765.9	69.00	768.1
20.00	623.0	40.00	707.1	58.00	760.3	68.00	763.0
19.00	612.4	39.00	699.9	57.00	754.7	67.00	757.8
18.00	601.3	38.00	692.5	56.00	749.0	66.00	752.5
17.00	589.8	37.00	685.0	55.00	743.2	65.00	747.2
16.00	577.7	36.00	677.4	54.00	737.3	64.00	741.8
15.00	565.0	35.00	669.5	53.00	731.3	63.00	736.3
14.00	551.6	34.00	661.5	52.00	725.2	62.00	730.8
13.00	537.5	33.00	653.2	51.00	719.0	61.00	725.2
12.00	522.3	32.00	644.8	50.00	712.8	60.00	719.5
11.00	506.0	31.00	636.1	49.00	706.4	59.00	713.7
10.00	488.4	30.00	627.1	48.00	699.9	58.00	707.9
9.00	469.0	29.00	617.9	47.00	693.3	57.00	702.0
8.00	447.2	28.00	608.5	46.00	686.6	56.00	695.9
7.00	422.2	27.00	598.7	45.00	679.8	55.00	689.8
6.60	410.9	26.00	588.6	44.00	672.8	54.00	683.6
		25.00	578.1	43.00	665.7	53.00	677.3
		24.00	567.2	42.00	658.4	52.00	670.9
		23.00	555.9	41.00	651.0	51.00	664.4
		22.00	544.1	40.00	643.4	50.00	657.8
		21.00	531.7	39.00	635.7	49.00	651.1



		20.00	518.8	38.00	627.8	48.00	644.2
		19.00	505.1	37.00	619.6	47.00	637.2
		18.00	490.6	36.00	611.3	46.00	630.1
		17.00	475.1	35.00	602.7	45.00	622.8
		16.00	458.5	34.00	593.9	44.00	615.4
		15.00	440.5	33.00	584.9	43.00	607.8
		14.00	420.7	32.00	575.5	42.00	600.1
		13.00	398.7	31.00	565.9	41.00	592.2
		12.00	373.6	30.00	555.9	40.00	584.1
		11.00	343.9	29.00	545.5	39.00	575.8
		10.00	306.1	28.00	534.8	38.00	567.2
		9.10	256.4	27.00	523.6	37.00	558.5
				26.00	511.8	36.00	549.5
				25.00	499.5	35.00	540.2
				24.00	486.5	34.00	530.6
				23.00	472.8	33.00	520.7
				22.00	458.1	32.00	510.5
				21.00	442.3	31.00	499.8
				20.00	425.2	30.00	488.8
				19.00	406.3	29.00	477.3
				18.00	385.0	28.00	465.2
						27.00	452.5
						26.00	439.2
						25.00	425.0
						24.00	409.9
						23.00	393.6

**Table S5 (continued).**  $PcTx_{\text{CO}_2}$  extrapolated values for  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$ mixtures, using  $P^\#$  and coefficients from Table S4.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.8889$ ; $x_{\text{CH}_3\text{OH}} = 0.0080$ ; $x_{\text{SO}_2} = 0.1031$							
$T = 313.15 \text{ K}$		$T = 333.15 \text{ K}$		$T = 353.15 \text{ K}$		$T = 373.15 \text{ K}$	
54.00	838.0	69.00	851.5	84.00	868.3	99.00	886.5
53.00	832.5	68.00	846.5	83.00	863.9	98.00	882.5
52.00	826.9	67.00	841.5	82.00	859.3	97.00	878.4
51.00	821.2	66.00	836.4	81.00	854.8	96.00	874.2
50.00	815.4	65.00	831.2	80.00	850.1	95.00	870.1
49.00	809.5	64.00	826.0	79.00	845.5	94.00	865.9
48.00	803.6	63.00	820.8	78.00	840.8	93.00	861.6
47.00	797.5	62.00	815.4	77.00	836.0	92.00	857.4
46.00	791.4	61.00	810.0	76.00	831.2	91.00	853.1
45.00	785.2	60.00	804.5	75.00	826.4	90.00	848.7
44.00	778.8	59.00	799.0	74.00	821.5	89.00	844.4
43.00	772.4	58.00	793.4	73.00	816.5	88.00	839.9
42.00	765.8	57.00	787.7	72.00	811.5	87.00	835.5
41.00	759.2	56.00	781.9	71.00	806.4	86.00	831.0
40.00	752.4	55.00	776.1	70.00	801.3	85.00	826.5
39.00	745.5	54.00	770.1	69.00	796.1	84.00	821.9
38.00	738.4	53.00	764.1	68.00	790.9	83.00	817.3
37.00	731.2	52.00	758.0	67.00	785.6	82.00	812.6
36.00	723.9	51.00	751.8	66.00	780.2	81.00	807.9
35.00	716.4	50.00	745.5	65.00	774.8	80.00	803.1
34.00	708.7	49.00	739.1	64.00	769.3	79.00	798.3
33.00	700.9	48.00	732.6	63.00	763.8	78.00	793.5
32.00	692.9	47.00	725.9	62.00	758.1	77.00	788.6
31.00	684.6	46.00	719.2	61.00	752.4	76.00	783.6
30.00	676.2	45.00	712.4	60.00	746.6	75.00	778.6
29.00	667.5	44.00	705.4	59.00	740.8	74.00	773.6
28.00	658.6	43.00	698.3	58.00	734.8	73.00	768.5

27.00	649.5	42.00	691.0	57.00	728.8	72.00	763.3
26.00	640.0	41.00	683.6	56.00	722.7	71.00	758.1
25.00	630.3	40.00	676.1	55.00	716.5	70.00	752.8
24.00	620.2	39.00	668.3	54.00	710.2	69.00	747.5
23.00	609.7	38.00	660.5	53.00	703.8	68.00	742.1
22.00	598.9	37.00	652.4	52.00	697.3	67.00	736.6
21.00	587.6	36.00	644.1	51.00	690.7	66.00	731.1
20.00	575.8	35.00	635.7	50.00	684.0	65.00	725.5
19.00	563.4	34.00	627.0	49.00	677.1	64.00	719.9
18.00	550.4	33.00	618.1	48.00	670.2	63.00	714.1
17.00	536.7	32.00	608.9	47.00	663.1	62.00	708.3
16.00	522.2	31.00	599.5	46.00	655.9	61.00	702.4
15.00	506.6	30.00	589.8	45.00	648.6	60.00	696.5
14.00	489.9	29.00	579.8	44.00	641.1	59.00	690.4
13.00	471.7	28.00	569.4	43.00	633.5	58.00	684.3
12.00	451.5	27.00	558.7	42.00	625.7	57.00	678.1
11.00	428.9	26.00	547.6	41.00	617.7	56.00	671.7
10.00	402.6	25.00	536.0	40.00	609.6	55.00	665.3
9.00	370.6	24.00	524.0	39.00	601.3	54.00	658.8
8.00	326.6	23.00	511.3	38.00	592.8	53.00	652.2
7.50	292.9	22.00	498.1	37.00	584.0	52.00	645.5
		21.00	484.2	36.00	575.1	51.00	638.7
		20.00	469.5	35.00	565.9	50.00	631.8
		19.00	453.8	34.00	556.5	49.00	624.7
		18.00	437.0	33.00	546.8	48.00	617.6
		17.00	418.9	32.00	536.8	47.00	610.3
		16.00	399.2	31.00	526.5	46.00	602.8
		15.00	377.3	30.00	515.9	45.00	595.2
		14.00	352.7	29.00	504.9	44.00	587.5
		13.00	324.0	28.00	493.5	43.00	579.6
		12.00	289.1	27.00	481.7	42.00	571.6
				26.00	469.4	41.00	563.4
				25.00	456.5	40.00	555.0
				24.00	443.1	39.00	546.4

				23.00	429.0	38.00	537.6
				22.00	414.2	37.00	528.6
				21.00	398.6	36.00	519.4
				20.00	381.9	35.00	510.0
				19.00	364.2	34.00	500.2
				18.00	345.1	33.00	490.3
				17.00	324.3	32.00	480.0
				16.00	301.6	31.00	469.4
						30.00	458.5
						29.00	447.2
						28.00	435.5
						27.00	423.4
						26.00	410.9
						25.00	397.8
						24.00	384.2
						23.00	369.9
						22.00	355.0
						21.00	339.2
						20.00	322.6

**Table S5 (continued).**  $PcTx_{\text{CO}_2}$  extrapolated values for  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$ mixtures, using  $P^\#$  and coefficients from Table S4.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.9457; x_{\text{CH}_3\text{OH}} = 0.0075; x_{\text{SO}_2} = 0.0468$							
$T = 313.15 \text{ K}$		$T = 333.15 \text{ K}$		$T = 353.15 \text{ K}$		$T = 373.15 \text{ K}$	
64.00	872.9	89.00	929.4	104.00	940.2	119.00	953.2
63.00	867.8	88.00	925.2	103.00	936.3	118.00	949.6
62.00	862.6	87.00	920.9	102.00	932.4	117.00	945.9
61.00	857.4	86.00	916.7	101.00	928.5	116.00	942.3
60.00	852.1	85.00	912.3	100.00	924.5	115.00	938.6
59.00	846.7	84.00	908.0	99.00	920.5	114.00	934.9
58.00	841.3	83.00	903.6	98.00	916.5	113.00	931.2
57.00	835.8	82.00	899.2	97.00	912.4	112.00	927.5
56.00	830.2	81.00	894.7	96.00	908.3	111.00	923.7
55.00	824.6	80.00	890.2	95.00	904.2	110.00	919.9
54.00	818.9	79.00	885.6	94.00	900.0	109.00	916.1
53.00	813.1	78.00	881.0	93.00	895.8	108.00	912.2
52.00	807.2	77.00	876.4	92.00	891.6	107.00	908.3
51.00	801.2	76.00	871.7	91.00	887.3	106.00	904.4
50.00	795.1	75.00	866.9	90.00	883.0	105.00	900.5
49.00	789.0	74.00	862.1	89.00	878.7	104.00	896.5
48.00	782.7	73.00	857.3	88.00	874.3	103.00	892.6
47.00	776.4	72.00	852.4	87.00	869.9	102.00	888.5
46.00	769.9	71.00	847.5	86.00	865.5	101.00	884.5
45.00	763.4	70.00	842.5	85.00	861.0	100.00	880.4
44.00	756.7	69.00	837.4	84.00	856.5	99.00	876.3
43.00	749.9	68.00	832.3	83.00	851.9	98.00	872.1
42.00	743.0	67.00	827.2	82.00	847.3	97.00	868.0
41.00	735.9	66.00	822.0	81.00	842.6	96.00	863.8
40.00	728.8	65.00	816.7	80.00	837.9	95.00	859.5
39.00	721.4	64.00	811.3	79.00	833.2	94.00	855.2
38.00	713.9	63.00	805.9	78.00	828.4	93.00	850.9

37.00	706.3	62.00	800.4	77.00	823.5	92.00	846.6
36.00	698.5	61.00	794.9	76.00	818.6	91.00	842.2
35.00	690.5	60.00	789.3	75.00	813.7	90.00	837.8
34.00	682.3	59.00	783.6	74.00	808.7	89.00	833.3
33.00	674.0	58.00	777.8	73.00	803.6	88.00	828.8
32.00	665.4	57.00	772.0	72.00	798.5	87.00	824.3
31.00	656.5	56.00	766.0	71.00	793.4	86.00	819.7
30.00	647.5	55.00	760.0	70.00	788.2	85.00	815.1
29.00	638.1	54.00	753.9	69.00	782.9	84.00	810.4
28.00	628.5	53.00	747.7	68.00	777.5	83.00	805.7
27.00	618.6	52.00	741.4	67.00	772.1	82.00	800.9
26.00	608.4	51.00	735.0	66.00	766.7	81.00	796.1
25.00	597.8	50.00	728.6	65.00	761.1	80.00	791.3
24.00	586.8	49.00	722.0	64.00	755.5	79.00	786.4
23.00	575.3	48.00	715.2	63.00	749.9	78.00	781.5
22.00	563.4	47.00	708.4	62.00	744.1	77.00	776.5
21.00	550.9	46.00	701.5	61.00	738.3	76.00	771.4
20.00	537.8	45.00	694.4	60.00	732.4	75.00	766.3
19.00	524.0	44.00	687.2	59.00	726.4	74.00	761.2
18.00	509.5	43.00	679.8	58.00	720.4	73.00	756.0
17.00	494.0	42.00	672.3	57.00	714.2	72.00	750.7
16.00	477.4	41.00	664.7	56.00	708.0	71.00	745.4
15.00	459.5	40.00	656.8	55.00	701.7	70.00	740.0
14.00	439.9	39.00	648.9	54.00	695.2	69.00	734.6
13.00	418.2	38.00	640.7	53.00	688.7	68.00	729.1
12.00	393.8	37.00	632.3	52.00	682.1	67.00	723.5
11.00	365.3	36.00	623.7	51.00	675.4	66.00	717.9
10.00	330.4	35.00	614.9	50.00	668.5	65.00	712.2
9.00	282.4	34.00	605.9	49.00	661.5	64.00	706.4
8.20	210.5	33.00	596.6	48.00	654.5	63.00	700.6
		32.00	587.1	47.00	647.2	62.00	694.6
		31.00	577.2	46.00	639.9	61.00	688.6
		30.00	567.1	45.00	632.4	60.00	682.6
		29.00	556.6	44.00	624.8	59.00	676.4

		28.00	545.7	43.00	617.0	58.00	670.2
		27.00	534.4	42.00	609.0	57.00	663.8
		26.00	522.7	41.00	600.9	56.00	657.4
		25.00	510.5	40.00	592.6	55.00	650.9
		24.00	497.7	39.00	584.1	54.00	644.3
		23.00	484.3	38.00	575.4	53.00	637.6
		22.00	470.2	37.00	566.5	52.00	630.8
		21.00	455.2	36.00	557.4	51.00	623.8
		20.00	439.3	35.00	548.1	50.00	616.8
		19.00	422.3	34.00	538.4	49.00	609.7
		18.00	403.9	33.00	528.5	48.00	602.4
		17.00	383.9	32.00	518.4	47.00	595.0
		16.00	361.7	31.00	507.8	46.00	587.5
		15.00	336.7	30.00	497.0	45.00	579.8
		14.00	307.5	29.00	485.8	44.00	572.0
				28.00	474.2	43.00	564.0
				27.00	462.1	42.00	555.9
				26.00	449.5	41.00	547.6
				25.00	436.5	40.00	539.2
				24.00	422.8	39.00	530.6
				23.00	408.4	38.00	521.8
				22.00	393.4	37.00	512.7
				21.00	377.4	36.00	503.5
				20.00	360.5	35.00	494.1
				19.00	342.4	34.00	484.4
				18.00	323.0	33.00	474.5
				17.00	302.0	32.00	464.3
						31.00	453.9
						30.00	443.1
						29.00	432.1
						28.00	420.7
						27.00	409.0
						26.00	396.8
						25.00	384.3

						24.00	371.4
						23.00	357.9
						22.00	344.0
						21.00	329.5
						20.00	314.4



**Table S5 (continued).**  $PcTx_{\text{CO}_2}$  extrapolated values for  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$ mixtures, using  $P^\#$  and coefficients from Table S4.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.9617; x_{\text{CH}_3\text{OH}} = 0.0081; x_{\text{SO}_2} = 0.0302$							
$T = 313.15 \text{ K}$		$T = 333.15 \text{ K}$		$T = 353.15 \text{ K}$		$T = 373.15 \text{ K}$	
74.00	918.2	94.00	947.0	109.00	956.7	124.00	968.6
73.00	913.6	93.00	943.0	108.00	952.9	123.00	965.1
72.00	909.0	92.00	938.9	107.00	949.1	122.00	961.6
71.00	904.3	91.00	934.8	106.00	945.3	121.00	958.1
70.00	899.5	90.00	930.6	105.00	941.5	120.00	954.5
69.00	894.7	89.00	926.4	104.00	937.6	119.00	950.9
68.00	889.9	88.00	922.2	103.00	933.7	118.00	947.3
67.00	885.0	87.00	917.9	102.00	929.8	117.00	943.7
66.00	880.0	86.00	913.7	101.00	925.8	116.00	940.1
65.00	875.0	85.00	909.3	100.00	921.8	115.00	936.4
64.00	869.9	84.00	905.0	99.00	917.8	114.00	932.7
63.00	864.8	83.00	900.5	98.00	913.8	113.00	929.0
62.00	859.6	82.00	896.1	97.00	909.7	112.00	925.3
61.00	854.4	81.00	891.6	96.00	905.6	111.00	921.5
60.00	849.0	80.00	887.1	95.00	901.4	110.00	917.7
59.00	843.7	79.00	882.5	94.00	897.2	109.00	913.9
58.00	838.2	78.00	877.9	93.00	893.0	108.00	910.0
57.00	832.7	77.00	873.2	92.00	888.8	107.00	906.2
56.00	827.1	76.00	868.5	91.00	884.5	106.00	902.3
55.00	821.4	75.00	863.8	90.00	880.2	105.00	898.4
54.00	815.7	74.00	859.0	89.00	875.8	104.00	894.4
53.00	809.9	73.00	854.1	88.00	871.4	103.00	890.4
52.00	804.0	72.00	849.2	87.00	867.0	102.00	886.4
51.00	798.0	71.00	844.3	86.00	862.5	101.00	882.4
50.00	791.9	70.00	839.3	85.00	858.0	100.00	878.3
49.00	785.7	69.00	834.2	84.00	853.5	99.00	874.2

48.00	779.4	68.00	829.1	83.00	848.9	98.00	870.1
47.00	773.1	67.00	823.9	82.00	844.2	97.00	865.9
46.00	766.6	66.00	818.7	81.00	839.6	96.00	861.7
45.00	760.0	65.00	813.4	80.00	834.8	95.00	857.5
44.00	753.3	64.00	808.0	79.00	830.1	94.00	853.2
43.00	746.4	63.00	802.6	78.00	825.2	93.00	848.9
42.00	739.5	62.00	797.1	77.00	820.4	92.00	844.6
41.00	732.4	61.00	791.5	76.00	815.4	91.00	840.2
40.00	725.2	60.00	785.9	75.00	810.5	90.00	835.8
39.00	717.8	59.00	780.2	74.00	805.5	89.00	831.4
38.00	710.3	58.00	774.4	73.00	800.4	88.00	826.9
37.00	702.6	57.00	768.5	72.00	795.2	87.00	822.4
36.00	694.7	56.00	762.5	71.00	790.1	86.00	817.8
35.00	686.7	55.00	756.5	70.00	784.8	85.00	813.2
34.00	678.4	54.00	750.4	69.00	779.5	84.00	808.6
33.00	670.0	53.00	744.2	68.00	774.1	83.00	803.9
32.00	661.4	52.00	737.8	67.00	768.7	82.00	799.1
31.00	652.5	51.00	731.4	66.00	763.2	81.00	794.4
30.00	643.3	50.00	724.9	65.00	757.7	80.00	789.5
29.00	633.9	49.00	718.3	64.00	752.0	79.00	784.7
28.00	624.2	48.00	711.5	63.00	746.3	78.00	779.7
27.00	614.2	47.00	704.7	62.00	740.5	77.00	774.8
26.00	603.8	46.00	697.7	61.00	734.7	76.00	769.8
25.00	593.1	45.00	690.6	60.00	728.7	75.00	764.7
24.00	581.9	44.00	683.3	59.00	722.7	74.00	759.6
23.00	570.3	43.00	675.9	58.00	716.6	73.00	754.4
22.00	558.2	42.00	668.4	57.00	710.4	72.00	749.1
21.00	545.5	41.00	660.7	56.00	704.2	71.00	743.8
20.00	532.2	40.00	652.8	55.00	697.8	70.00	738.5
19.00	518.1	39.00	644.8	54.00	691.3	69.00	733.1
18.00	503.2	38.00	636.6	53.00	684.7	68.00	727.6
17.00	487.3	37.00	628.1	52.00	678.1	67.00	722.1
16.00	470.1	36.00	619.5	51.00	671.3	66.00	716.4
15.00	451.5	35.00	610.6	50.00	664.4	65.00	710.8

14.00	431.1	34.00	601.5	49.00	657.4	64.00	705.0
13.00	408.2	33.00	592.1	48.00	650.2	63.00	699.2
12.00	381.8	32.00	582.5	47.00	643.0	62.00	693.3
11.00	350.3	31.00	572.6	46.00	635.5	61.00	687.3
10.00	309.2	30.00	562.3	45.00	628.0	60.00	681.3
		29.00	551.7	44.00	620.3	59.00	675.1
		28.00	540.6	43.00	612.4	58.00	668.9
		27.00	529.2	42.00	604.4	57.00	662.6
		26.00	517.3	41.00	596.2	56.00	656.2
		25.00	504.8	40.00	587.8	55.00	649.7
		24.00	491.8	39.00	579.3	54.00	643.1
		23.00	478.1	38.00	570.5	53.00	636.4
		22.00	463.6	37.00	561.5	52.00	629.5
		21.00	448.2	36.00	552.3	51.00	622.6
		20.00	431.8	35.00	542.8	50.00	615.6
		19.00	414.1	34.00	533.1	49.00	608.4
		18.00	394.9	33.00	523.1	48.00	601.1
		17.00	373.7	32.00	512.8	47.00	593.7
		16.00	349.9	31.00	502.2	46.00	586.1
		15.00	322.3	30.00	491.2	45.00	578.4
				29.00	479.8	44.00	570.6
				28.00	468.0	43.00	562.6
				27.00	455.8	42.00	554.4
				26.00	443.1	41.00	546.0
				25.00	429.8	40.00	537.5
				24.00	415.9	39.00	528.7
				23.00	401.3	38.00	519.8
				22.00	386.0	37.00	510.6
				21.00	369.7	36.00	501.2
				20.00	352.5	35.00	491.5
				19.00	334.1	34.00	481.6
						33.00	471.4
						32.00	460.9
						31.00	450.0

						30.00	438.8
						29.00	427.2
						28.00	415.2
						27.00	402.7
						26.00	389.7
						25.00	376.2
						24.00	362.0

**Table S5 (continued).**  $PcTx_{\text{CO}_2}$  extrapolated values for  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{SO}_2+\text{CH}_3\text{OH}$ mixtures, using  $P^\#$  and coefficients from Table S4.

$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )	$P$ (MPa)	$c$ ( $\text{m}\cdot\text{s}^{-1}$ )
$x_{\text{CO}_2} = 0.9851; x_{\text{CH}_3\text{OH}} = 0.0080; x_{\text{SO}_2} = 0.0069$							
$T = 313.15 \text{ K}$		$T = 333.15 \text{ K}$		$T = 353.15 \text{ K}$		$T = 373.15 \text{ K}$	
79.00	935.7	109.00	1000.7	129.00	1023.8	149.00	1047.2
78.00	931.3	108.00	997.0	128.00	1020.5	148.00	1044.2
77.00	926.9	107.00	993.3	127.00	1017.1	147.00	1041.1
76.00	922.4	106.00	989.6	126.00	1013.8	146.00	1038.1
75.00	917.9	105.00	985.9	125.00	1010.4	145.00	1035.0
74.00	913.3	104.00	982.2	124.00	1007.0	144.00	1031.9
73.00	908.7	103.00	978.4	123.00	1003.6	143.00	1028.7
72.00	904.0	102.00	974.6	122.00	1000.2	142.00	1025.6
71.00	899.3	101.00	970.7	121.00	996.7	141.00	1022.4
70.00	894.5	100.00	966.9	120.00	993.2	140.00	1019.3
69.00	889.7	99.00	963.0	119.00	989.7	139.00	1016.1
68.00	884.8	98.00	959.1	118.00	986.2	138.00	1012.9
67.00	879.9	97.00	955.1	117.00	982.7	137.00	1009.7
66.00	874.9	96.00	951.2	116.00	979.1	136.00	1006.4
65.00	869.9	95.00	947.1	115.00	975.5	135.00	1003.2
64.00	864.8	94.00	943.1	114.00	971.9	134.00	999.9
63.00	859.7	93.00	939.0	113.00	968.3	133.00	996.6
62.00	854.5	92.00	934.9	112.00	964.6	132.00	993.3
61.00	849.2	91.00	930.8	111.00	961.0	131.00	990.0
60.00	843.9	90.00	926.6	110.00	957.3	130.00	986.6
59.00	838.5	89.00	922.4	109.00	953.5	129.00	983.3
58.00	833.0	88.00	918.2	108.00	949.8	128.00	979.9
57.00	827.5	87.00	913.9	107.00	946.0	127.00	976.5
56.00	821.9	86.00	909.6	106.00	942.2	126.00	973.1
55.00	816.2	85.00	905.3	105.00	938.4	125.00	969.6
54.00	810.4	84.00	900.9	104.00	934.5	124.00	966.1
53.00	804.6	83.00	896.4	103.00	930.6	123.00	962.7

52.00	798.7	82.00	892.0	102.00	926.7	122.00	959.2
51.00	792.6	81.00	887.5	101.00	922.8	121.00	955.6
50.00	786.5	80.00	882.9	100.00	918.8	120.00	952.1
49.00	780.3	79.00	878.3	99.00	914.8	119.00	948.5
48.00	774.0	78.00	873.7	98.00	910.8	118.00	944.9
47.00	767.6	77.00	869.0	97.00	906.7	117.00	941.3
46.00	761.1	76.00	864.3	96.00	902.6	116.00	937.7
45.00	754.5	75.00	859.5	95.00	898.5	115.00	934.0
44.00	747.7	74.00	854.7	94.00	894.4	114.00	930.3
43.00	740.9	73.00	849.8	93.00	890.2	113.00	926.6
42.00	733.8	72.00	844.9	92.00	885.9	112.00	922.9
41.00	726.7	71.00	839.9	91.00	881.7	111.00	919.1
40.00	719.4	70.00	834.9	90.00	877.4	110.00	915.3
39.00	712.0	69.00	829.8	89.00	873.1	109.00	911.5
38.00	704.4	68.00	824.6	88.00	868.7	108.00	907.7
37.00	696.6	67.00	819.4	87.00	864.3	107.00	903.8
36.00	688.7	66.00	814.1	86.00	859.8	106.00	899.9
35.00	680.5	65.00	808.8	85.00	855.3	105.00	896.0
34.00	672.2	64.00	803.4	84.00	850.8	104.00	892.1
33.00	663.6	63.00	797.9	83.00	846.3	103.00	888.1
32.00	654.8	62.00	792.4	82.00	841.6	102.00	884.1
31.00	645.8	61.00	786.8	81.00	837.0	101.00	880.1
30.00	636.5	60.00	781.1	80.00	832.3	100.00	876.0
29.00	626.9	59.00	775.4	79.00	827.5	99.00	871.9
28.00	616.9	58.00	769.5	78.00	822.7	98.00	867.8
27.00	606.6	57.00	763.6	77.00	817.9	97.00	863.6
26.00	596.0	56.00	757.6	76.00	813.0	96.00	859.4
25.00	584.9	55.00	751.5	75.00	808.1	95.00	855.2
24.00	573.3	54.00	745.3	74.00	803.1	94.00	850.9
23.00	561.2	53.00	739.1	73.00	798.0	93.00	846.7
22.00	548.5	52.00	732.7	72.00	792.9	92.00	842.3
21.00	535.1	51.00	726.2	71.00	787.8	91.00	838.0
20.00	520.8	50.00	719.6	70.00	782.5	90.00	833.6
19.00	505.7	49.00	712.9	69.00	777.3	89.00	829.1

18.00	489.3	48.00	706.1	68.00	771.9	88.00	824.6
17.00	471.6	47.00	699.2	67.00	766.5	87.00	820.1
16.00	452.0	46.00	692.1	66.00	761.0	86.00	815.5
15.00	430.0	45.00	684.9	65.00	755.5	85.00	810.9
		44.00	677.5	64.00	749.9	84.00	806.3
		43.00	670.0	63.00	744.2	83.00	801.6
		42.00	662.4	62.00	738.4	82.00	796.9
		41.00	654.5	61.00	732.6	81.00	792.1
		40.00	646.5	60.00	726.6	80.00	787.3
		39.00	638.4	59.00	720.6	79.00	782.4
		38.00	630.0	58.00	714.5	78.00	777.5
		37.00	621.4	57.00	708.3	77.00	772.5
		36.00	612.6	56.00	702.0	76.00	767.5
		35.00	603.5	55.00	695.7	75.00	762.4
		34.00	594.2	54.00	689.2	74.00	757.3
		33.00	584.5	53.00	682.6	73.00	752.1
		32.00	574.6	52.00	675.9	72.00	746.8
		31.00	564.4	51.00	669.0	71.00	741.5
		30.00	553.8	50.00	662.1	70.00	736.2
		29.00	542.8	49.00	655.0	69.00	730.7
		28.00	531.4	48.00	647.8	68.00	725.2
		27.00	519.4	47.00	640.4	67.00	719.7
		26.00	507.0	46.00	632.9	66.00	714.0
		25.00	493.9	45.00	625.2	65.00	708.3
		24.00	480.1	44.00	617.4	64.00	702.6
		23.00	465.5	43.00	609.3	63.00	696.7
		22.00	450.0	42.00	601.1	62.00	690.8
		21.00	433.3	41.00	592.7	61.00	684.8
		20.00	415.3	40.00	584.1	60.00	678.7
		19.00	395.5	39.00	575.2	59.00	672.5
				38.00	566.1	58.00	666.2
				37.00	556.7	57.00	659.8
				36.00	547.0	56.00	653.4
				35.00	537.0	55.00	646.8

				34.00	526.7	54.00	640.1
				33.00	516.0	53.00	633.4
				32.00	504.8	52.00	626.5
				31.00	493.2	51.00	619.4
				30.00	481.0	50.00	612.3
				29.00	468.3	49.00	605.0
				28.00	454.9	48.00	597.6
				27.00	440.7	47.00	590.1
						46.00	582.4
						45.00	574.5
						44.00	566.5
						43.00	558.3
						42.00	549.9
						41.00	541.3
						40.00	532.4
						39.00	523.4
						38.00	514.1
						37.00	504.6
						36.00	494.8
						35.00	484.7
						34.00	474.2
						33.00	463.4
						32.00	452.2
						31.00	440.7
						30.00	428.6
						29.00	416.0



**Table S6.** Comparison between the experimental (exp)  $P\rho T x_{\text{CO}_2}$ , the experimental (exp) and extrapolated (ext)  $PcT x_{\text{CO}_2}$  data presented in this work for the  $\text{CO}_2+\text{SO}_2$  system and those calculated using EOS-CG and PC-SAFT EoSs. The doped mixtures for  $c$  measurements were modeled as pseudo-binary mixtures where the mole fraction of methanol was added to that of  $\text{CO}_2$ .

Composition	$T(\text{K})$	exp-EoS $MRD_\rho(\%)$				exp-EoS $MRD_c(\%)$				ext-EoS $MRD_c(\%)$			
		313.15	333.15	353.15	373.15	313.15	333.15	353.15	373.15	313.15	333.15	353.15	373.15
$x_{\text{CO}_2} = 0.8029$	EOS-CG	2.96	1.55	6.54	6.10	0.54	0.61	0.57	0.49	0.48	0.37	0.49	0.43
	PC-SAFT	2.22	0.97	5.24	5.22	0.61	0.61	0.74	0.95	3.30	3.82	2.93	3.08
$x_{\text{CO}_2}$ or $x_{\text{CO}_2+\text{CH}_3\text{OH}}$ $= 0.8969$	EOS-CG	2.32	1.24	0.80	3.17	0.32	0.25	0.18	0.14	0.63	0.34	0.25	0.31
	PC-SAFT	1.75	1.35	1.66	3.66	2.27	2.12	1.94	1.76	3.64	3.12	2.49	1.99
$x_{\text{CO}_2}$ or $x_{\text{CO}_2+\text{CH}_3\text{OH}}$ $= 0.9532$	EOS-CG	0.28	0.49	0.98	0.24	0.30	0.25	0.19	0.13	0.24	0.29	0.28	0.23
	PC-SAFT	0.84	1.50	1.78	1.95	3.61	3.51	3.31	3.14	3.53	2.73	2.49	2.30
$x_{\text{CO}_2}$ or $x_{\text{CO}_2+\text{CH}_3\text{OH}}$ $= 0.9698$	EOS-CG	0.61	0.38	0.46	0.76	0.29	0.24	0.19	0.13	0.36	0.43	0.25	0.31
	PC-SAFT	1.18	1.37	1.82	2.41	4.15	3.91	3.69	3.48	3.32	2.92	2.68	2.57
$x_{\text{CO}_2}$ or $x_{\text{CO}_2+\text{CH}_3\text{OH}}$ $= 0.9931$	EOS-CG	0.88	0.66	0.60	0.90	0.27	0.28	0.21	0.11	0.63	0.46	0.42	0.36
	PC-SAFT	1.28	1.87	2.31	2.79	4.61	4.40	4.18	3.96	3.20	3.42	3.47	3.38
$\overline{MRD}_X(\%)$	EOS-CG	1.59				0.26				0.38			
	PC-SAFT	2.21				2.63				3.24			

$$MRD_X(\%)[\text{exp-EoS}] = \frac{100}{N} \sum \left| \frac{X_{\text{EoS}} - X_{\text{exp}}}{X_{\text{exp}}} \right| \quad MRD_c(\%)[\text{ext-EoS}] = \frac{100}{N} \sum \left| \frac{c_{\text{ext}} - c_{\text{EoS}}}{c_{\text{EoS}}} \right| \quad N: \text{ number of points for each composition and temperature.}$$

$$\overline{MRD}_X(\%)[\text{exp-EoS}] = \frac{100}{N'} \sum \left| \frac{X_{\text{EoS}} - X_{\text{exp}}}{X_{\text{exp}}} \right| \quad \overline{MRD}_c(\%)[\text{ext-EoS}] = \frac{100}{N'} \sum \left| \frac{c_{\text{ext}} - c_{\text{EoS}}}{c_{\text{EoS}}} \right| \quad N': \text{ total number of points for each property.}$$

**Table S7.** Comparison between the experimental *VLE* data presented in this work for the CO<sub>2</sub>+SO<sub>2</sub> system and those calculated using the EOS-CG or PC-SAFT EoSs in terms of relative deviation, *RD*(%), and overall mean relative deviation,  $\overline{MRD}_X$ (%).

Composition	EoS	$RD_{P_{\text{bubble}}}(\%)$	$RD_{\rho_L}(\%)$	$RD_{P_{\text{dew}}}(\%)$	$RD_{\rho_V}(\%)$
$x_{\text{CO}_2} = 0.8029$ $T=313.15 \text{ K}$	EOS-CG	2.66	6.10	10.05	8.44
	PC-SAFT	3.38	4.93	4.54	1.62
$x_{\text{CO}_2} = 0.8029$ $T=333.15 \text{ K}$	EOS-CG	0.62	1.85	8.66	8.13
	PC-SAFT	0.47	0.64	2.18	3.15
$x_{\text{CO}_2} = 0.8969$ $T=313.15 \text{ K}$	EOS-CG	1.87	4.56	6.08	6.17
	PC-SAFT	0.12	4.42	1.46	1.48
$x_{\text{CO}_2} = 0.9532$ $T=313.15 \text{ K}$	EOS-CG	1.52	8.80	0.42	10.26
	PC-SAFT	0.71	5.14	2.45	2.78
$\overline{MRD}_X(\%)$	EOS-CG	1.67	5.33	6.30	8.25
	PC-SAFT	0.92	4.11	2.42	2.22

$$RD_X(\%) = 100 \left| \frac{X_{\text{EoS}} - X_{\text{exp}}}{X_{\text{exp}}} \right|$$

$$\overline{MRD}_X(\%) = \frac{100}{N'} \sum \left| \frac{X_{\text{EoS}} - X_{\text{exp}}}{X_{\text{exp}}} \right|$$

$N'$ : number of experimental points for each property.

**Table S8.** Parameters used in the modeling of the CO<sub>2</sub>+SO<sub>2</sub> system with the PC-SAFT EoS.

Pure Compound Parameter	CO <sub>2</sub>	SO <sub>2</sub>
$m/M$ (mol/g)	0.04710 <sup>a</sup>	0.04466 <sup>a</sup>
$\sigma$ (Å)	2.7852 <sup>a</sup>	2.6826 <sup>a</sup>
$\varepsilon$ (K)	169.21 <sup>a</sup>	205.35 <sup>a</sup>
$\Delta v_c$ (cm <sup>3</sup> /g)	0.02 <sup>b</sup>	0.01 <sup>c</sup>
<b>Binary interaction parameter CO<sub>2</sub> – SO<sub>2</sub> : <math>k_{ij} = 0.03</math><sup>d</sup></b>		

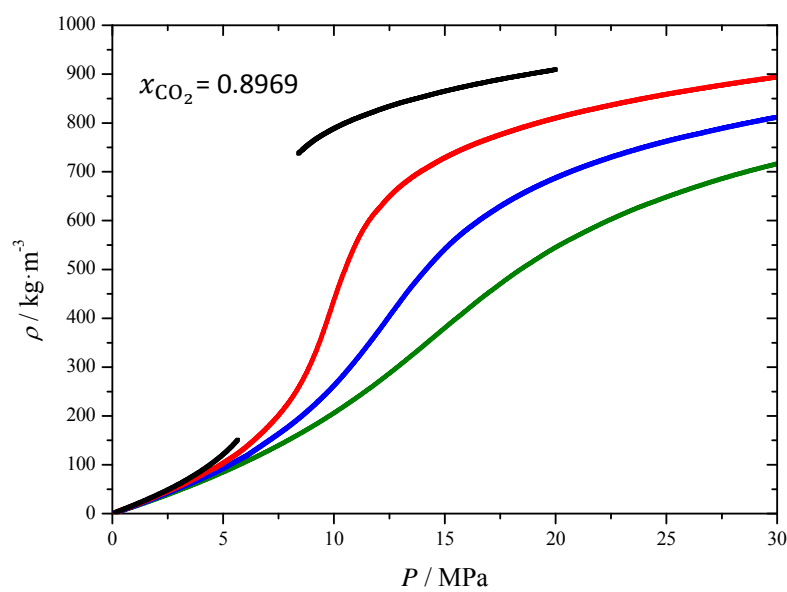
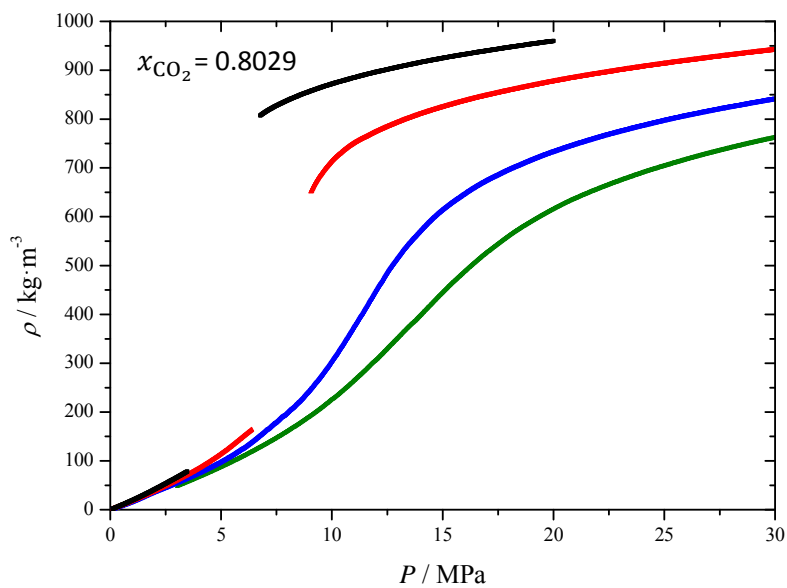
<sup>a</sup> Gross J, Sadowski G. Perturbed-Chain SAFT: An Equation of State based on a perturbation theory for chain molecules. *Industrial & Engineering Chemistry Research* 2001; 40(4): 1244-60. DOI 10.1021/ie0003887.

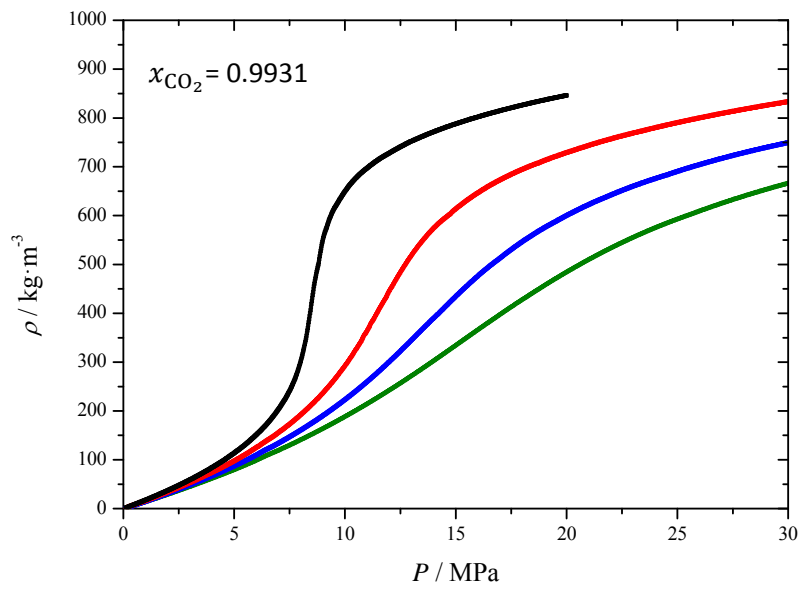
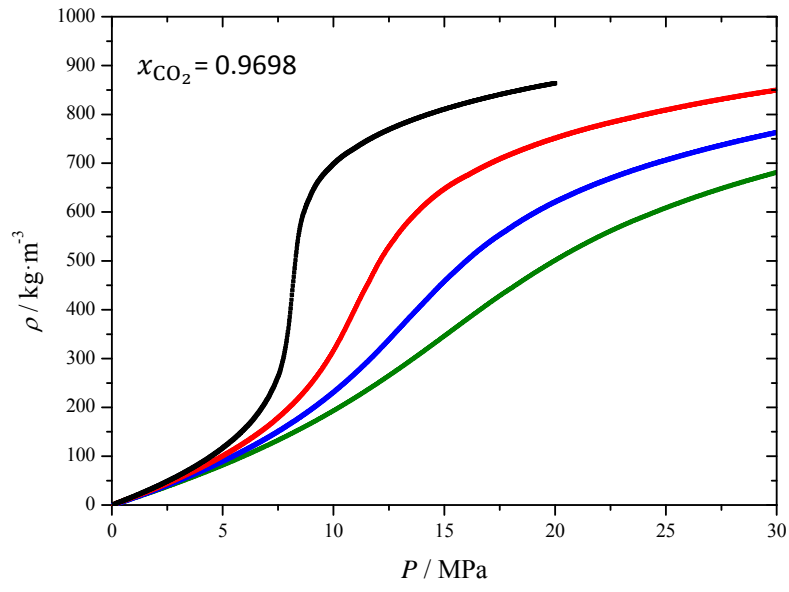
<sup>b</sup> Rivas C, Blanco ST, Fernández J, Artal M, Velasco I. Influence of methane and carbon monoxide in the volumetric behaviour of the anthropogenic CO<sub>2</sub>: Experimental data and modelling in the critical region. *International Journal of Greenhouse Gas Control* 2013; 18: 264-76. DOI 10.1016/j.ijggc.2013.07.019.

<sup>c</sup> This work

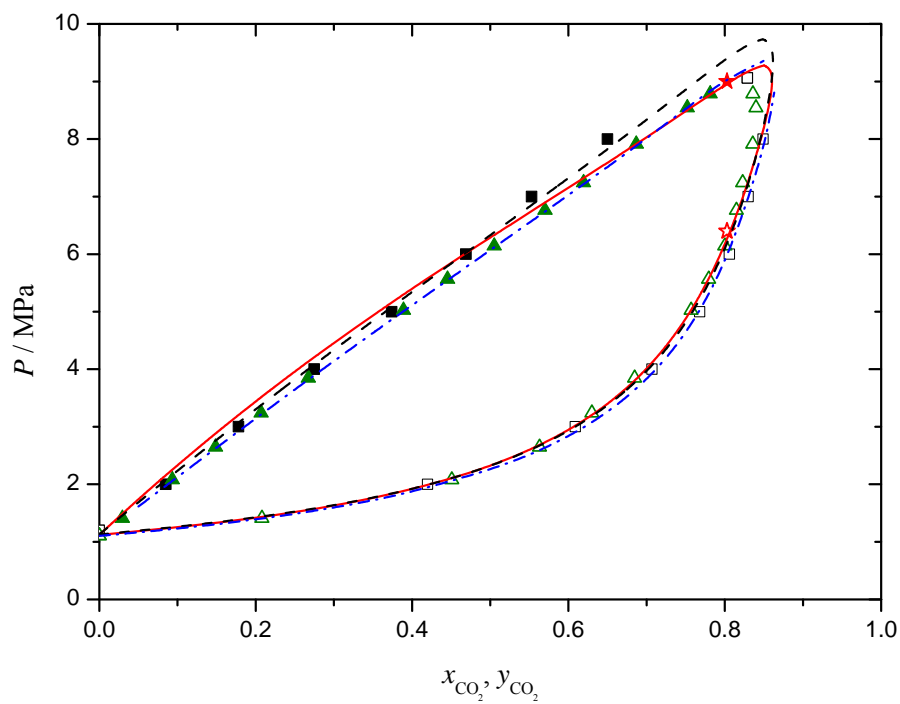
<sup>d</sup> Diamantonis NI, Boulougouris GC, Mansoor E, Tsangaris DM, Economou, IG. Evaluation of cubic, SAFT, and PC-SAFT equations of state for the vapor-liquid equilibrium modeling of CO<sub>2</sub> mixtures with other gases. *Industrial & Engineering Chemistry Research* 2013; 52(10): 3933-42. DOI 10.1021/ie303248q.

**Figure S1.** Experimental densities,  $\rho$ , for the CO<sub>2</sub>+SO<sub>2</sub> studied mixtures, versus pressure,  $P$ , at several compositions,  $x_{\text{CO}_2}$ , and temperatures: (■),  $T = 313.15$  K; (▲),  $T = 333.15$  K; (▼),  $T = 353.15$  K; (★),  $T = 373.15$  K.

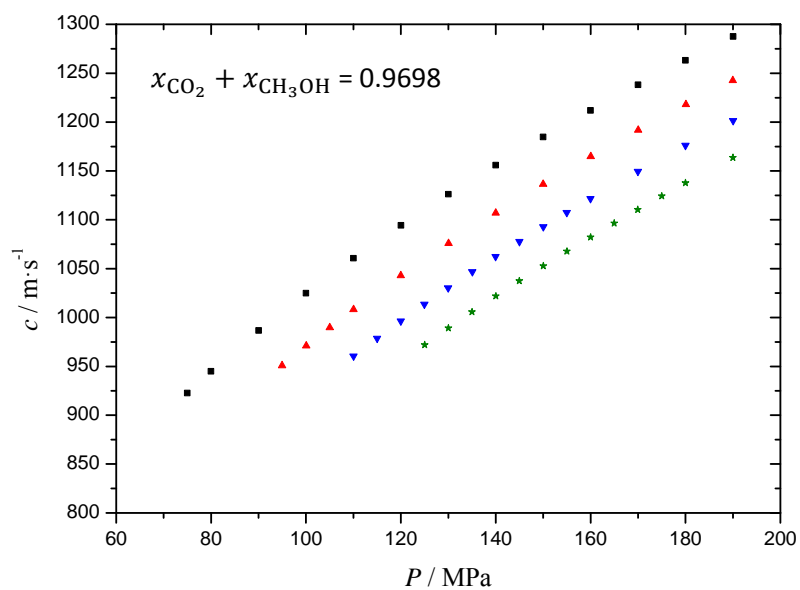
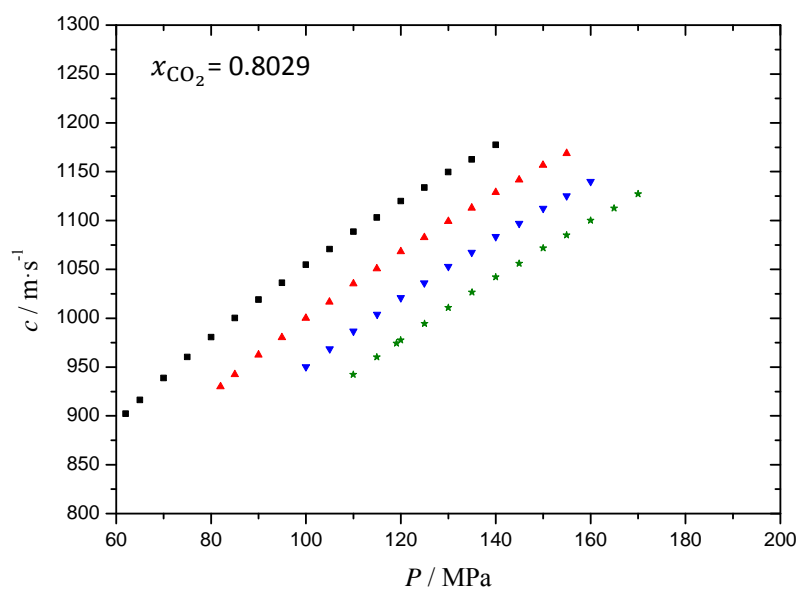


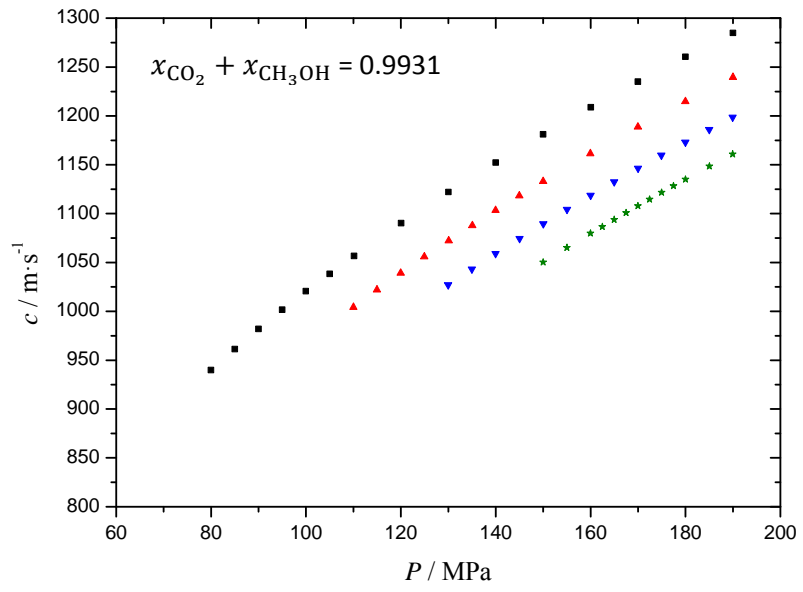


**Figure S2.** *VLE* for the  $\text{CO}_2 + \text{SO}_2$  system. ( $\star$ ), Experimental data at  $T = 333.15$  K (this work); ( $\blacktriangle$ ), Experimental data at  $T = 333.21$  K [45]; ( $\blacksquare$ ), MC simulation data at  $T = 332.00$  K [23]; (—), PC-SAFT EoS [27] with parameters from Table S6; (---), PC-SAFT EoS [23]; (- · -), EOS-CG [52]. Full symbols: bubble point. Empty symbols: dew point.



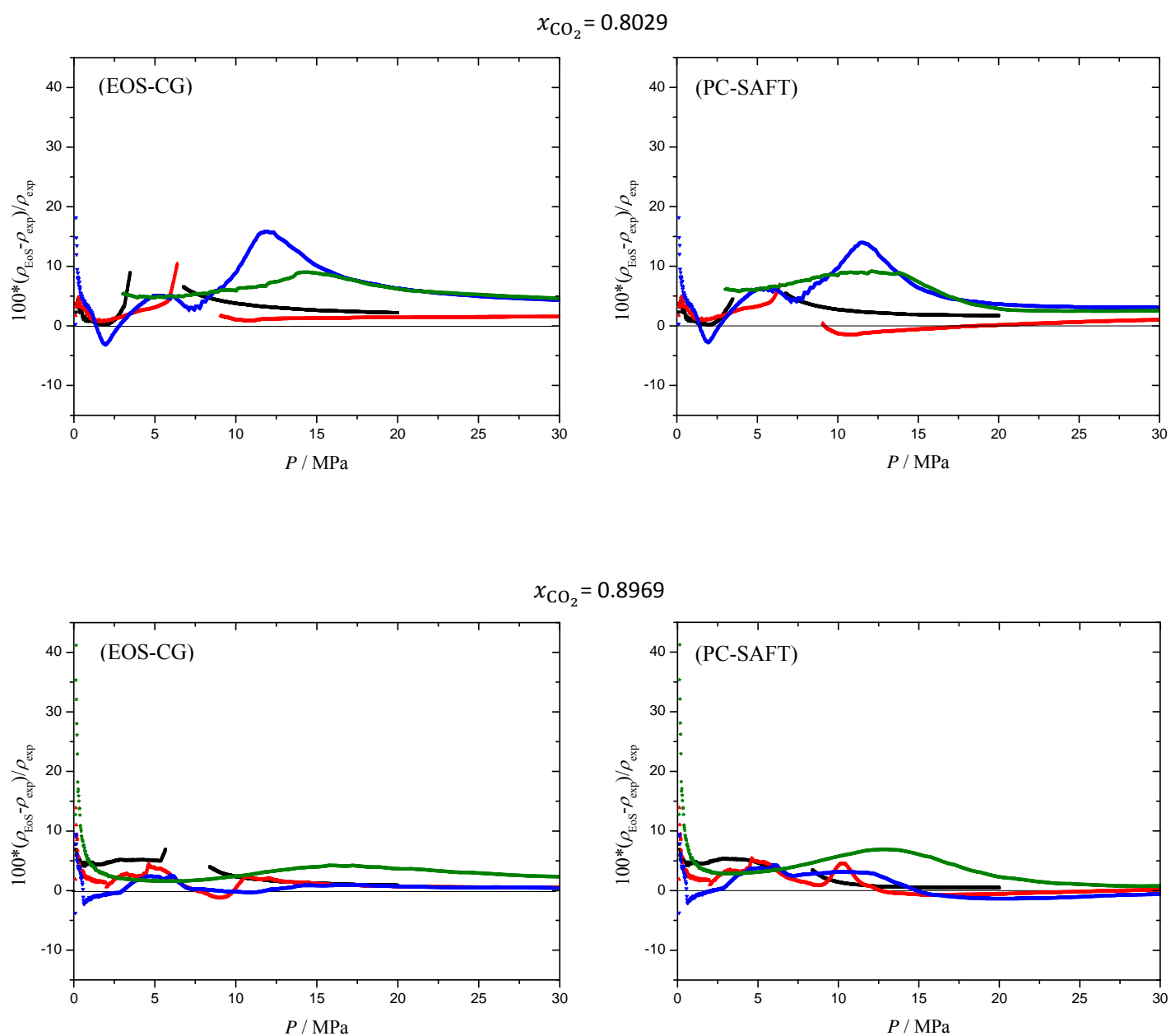
**Figure S3.** Experimental speed of sound,  $c$ , for the binary  $\text{CO}_2+\text{SO}_2$  and ternary  $\text{CO}_2+\text{CH}_3\text{OH}+\text{SO}_2$  mixtures ( $x_{\text{CO}_2} > 0.9$ ) with  $\approx 0.8$  mole % methanol at several temperatures: (■),  $T = 313.15$  K; (▲),  $T = 333.15$  K; (▼),  $T = 353.15$  K; (★),  $T = 373.15$  K.



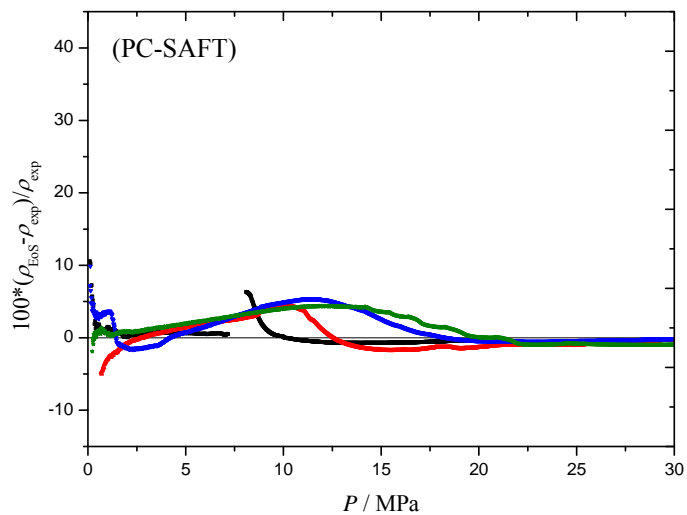
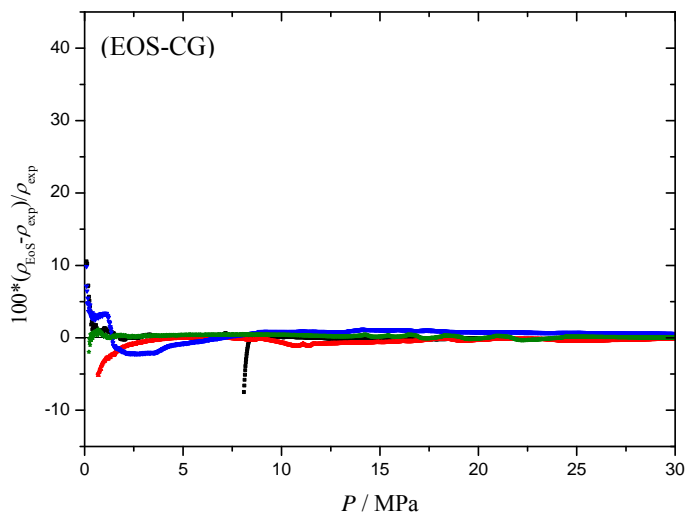




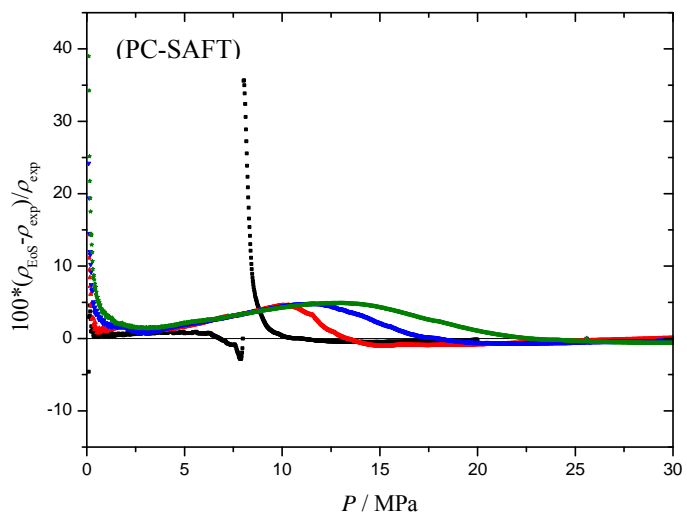
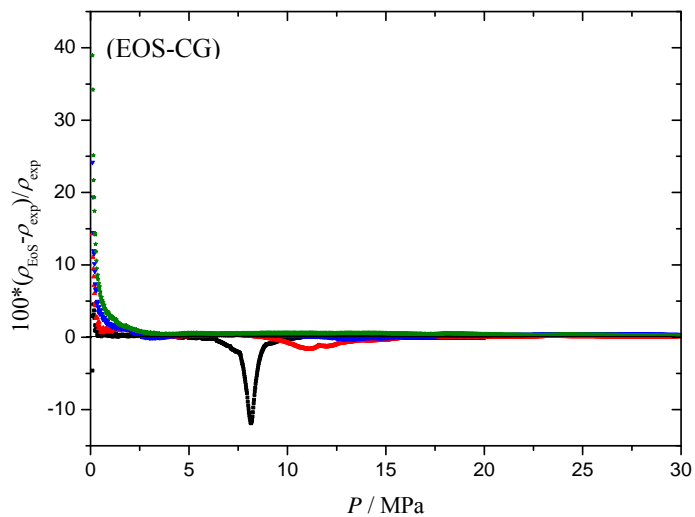
**Figure S4.** Relative deviations between the experimental densities,  $\rho_{\text{exp}}$ , in this work and the values calculated from the EOS-CG and PC-SAFT EoSs,  $\rho_{\text{EoS}}$ , for the  $\text{CO}_2+\text{SO}_2$  mixtures at several compositions,  $x_{\text{CO}_2}$ , and temperatures: (■),  $T = 313.15$  K; (▲),  $T = 333.15$  K; (▼),  $T = 353.15$  K; (★),  $T = 373.15$  K.



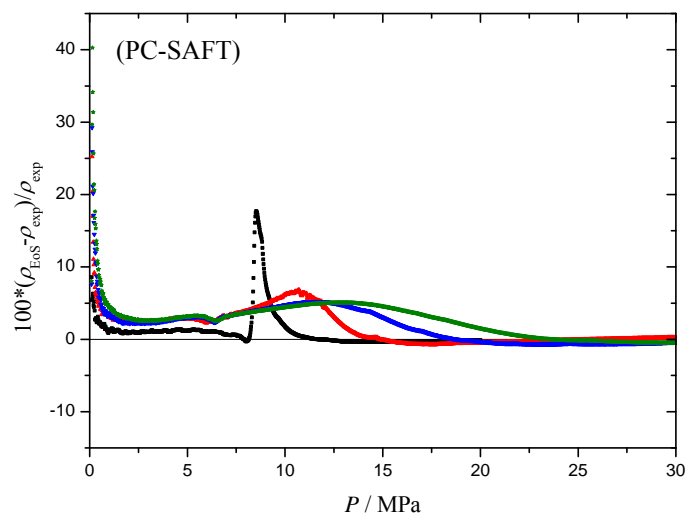
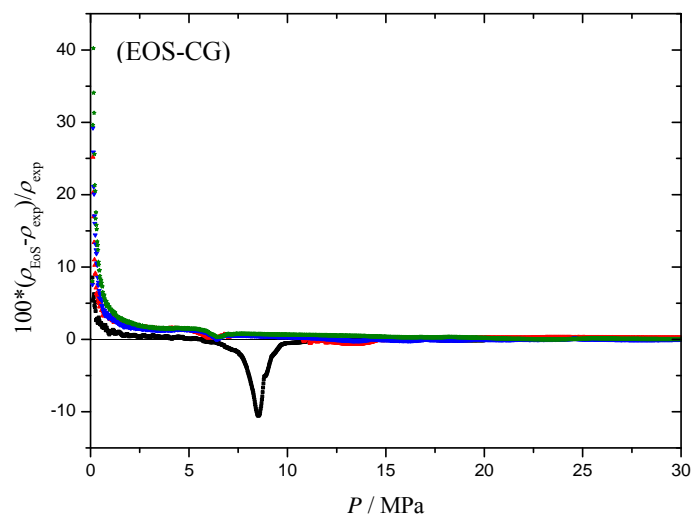
$x_{\text{CO}_2} = 0.9532$



$x_{\text{CO}_2} = 0.9698$

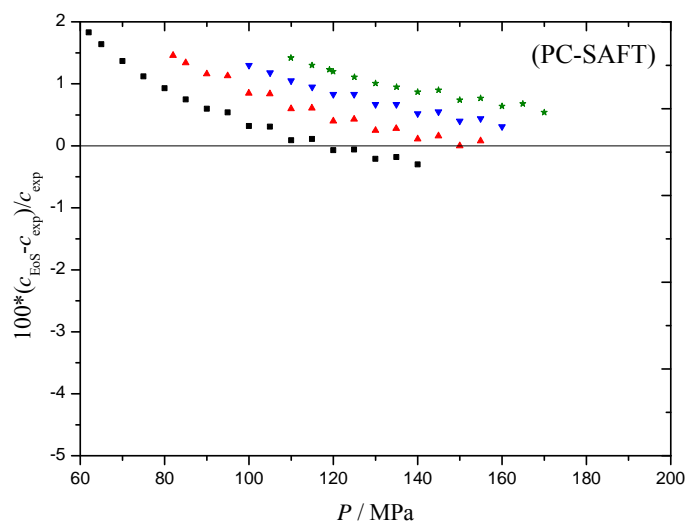
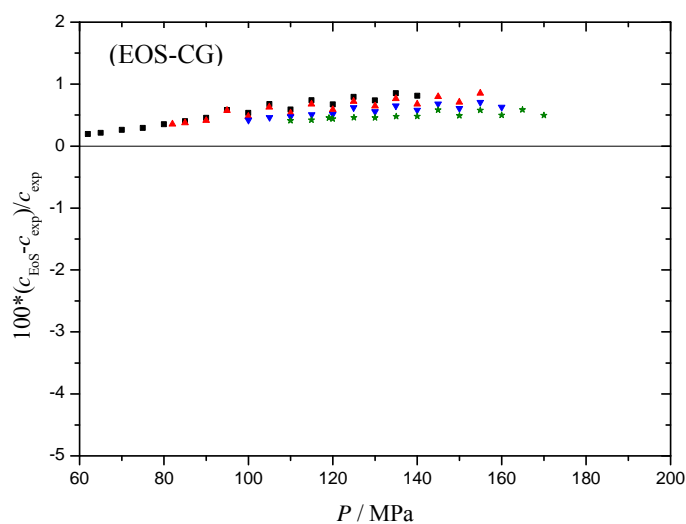


$x_{\text{CO}_2} = 0.9931$

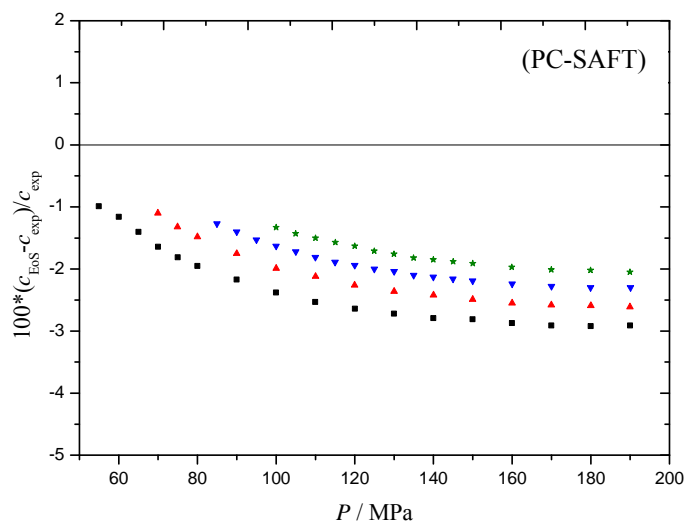
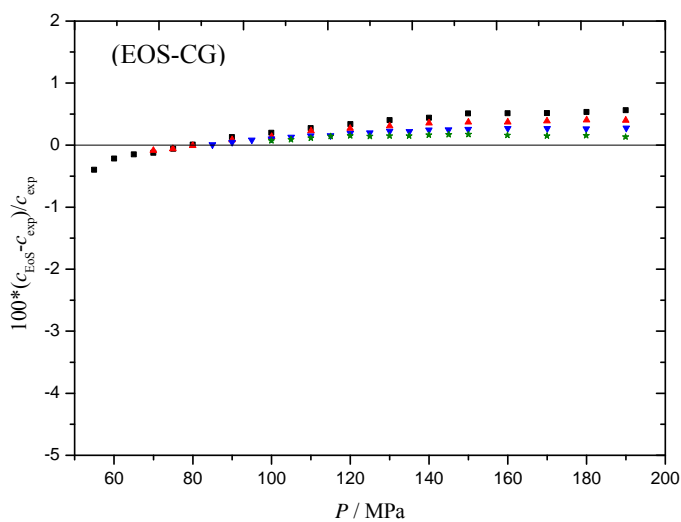


**Figure S5.** Relative deviations between the experimental speed of sound,  $c_{\text{exp}}$ , in this work and the values calculated from the EOS-CG and PC-SAFT EoSs,  $c_{\text{EoS}}$ , for the  $\text{CO}_2+\text{SO}_2$  and  $\text{CO}_2+\text{CH}_3\text{OH}+\text{SO}_2$  mixtures at several and temperatures: (■),  $T = 313.15$  K; (▲),  $T = 333.15$  K; (▼),  $T = 353.15$  K; (★),  $T = 373.15$  K. The ternary mixtures ( $x_{\text{CO}_2} > 0.9$ ) with  $\approx 0.8$  mole % methanol were modeled as binary mixtures by adding the methanol mole fraction to the  $\text{CO}_2$ . Experimental data for  $x_{\text{CO}_2} + x_{\text{CH}_3\text{OH}} = 0.8969$  were taken from ref. [34].

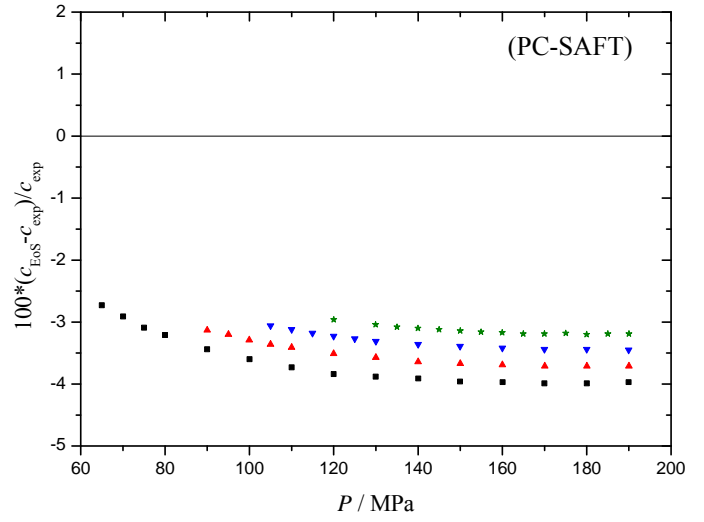
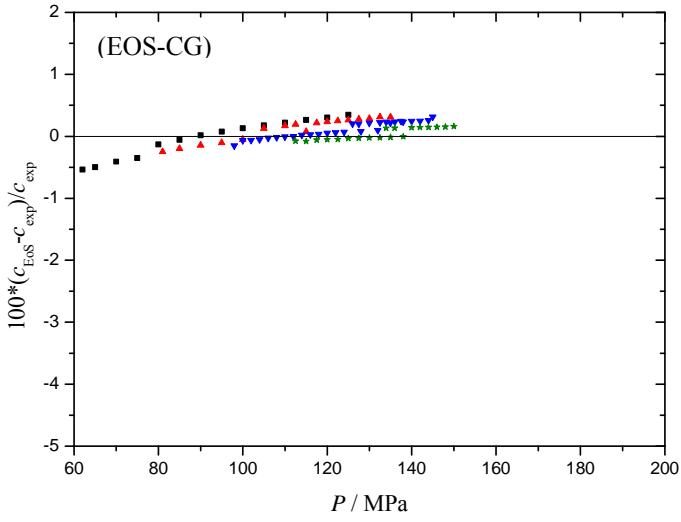
$$x_{\text{CO}_2} = 0.8029$$



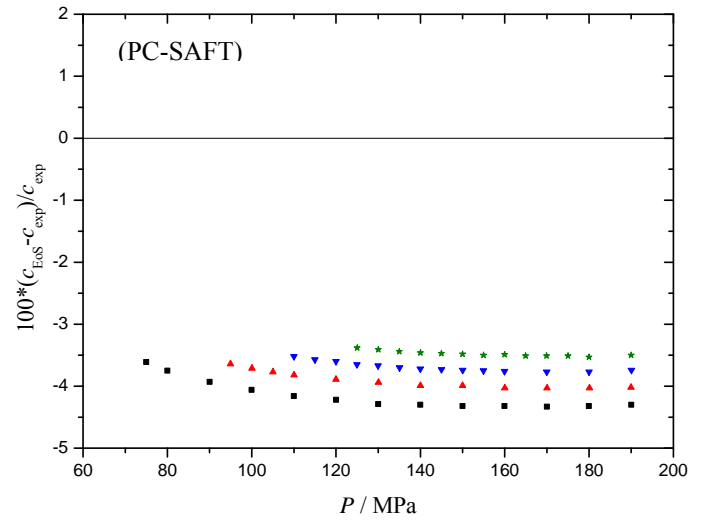
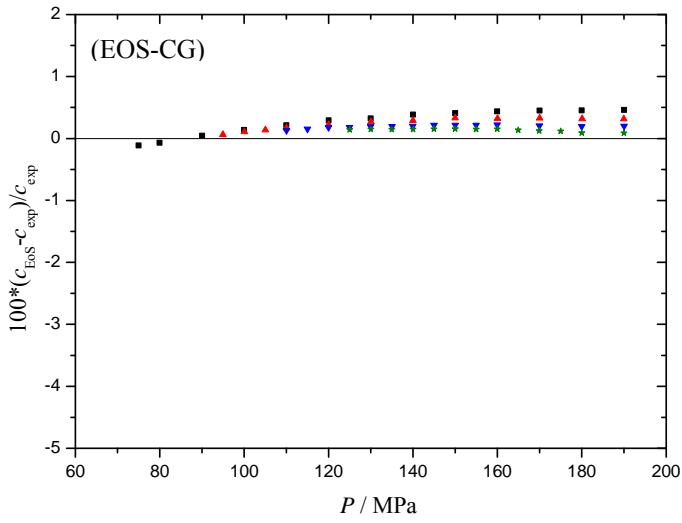
$$x_{\text{CO}_2} + x_{\text{CH}_3\text{OH}} = 0.8969$$



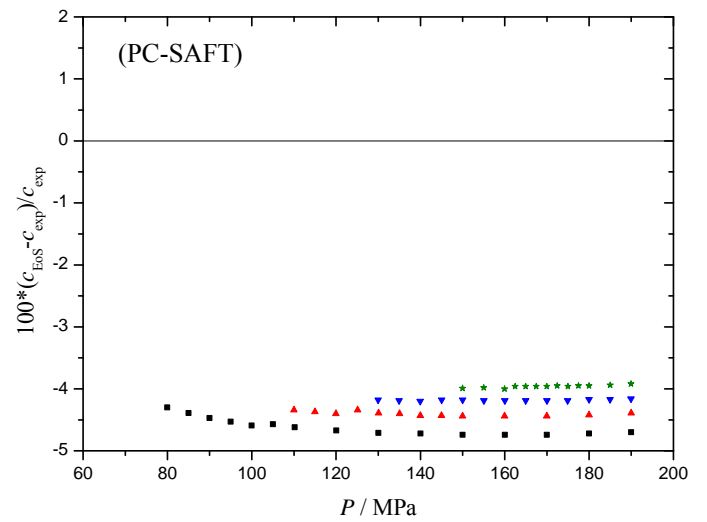
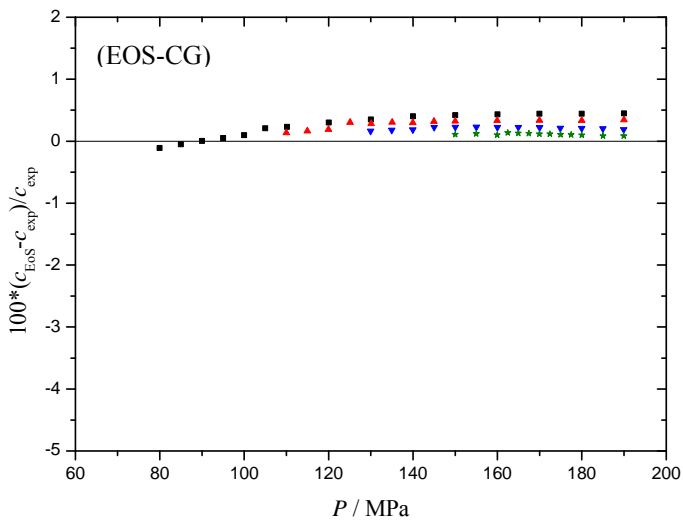
$$x_{\text{CO}_2} + x_{\text{CH}_3\text{OH}} = 0.9532$$



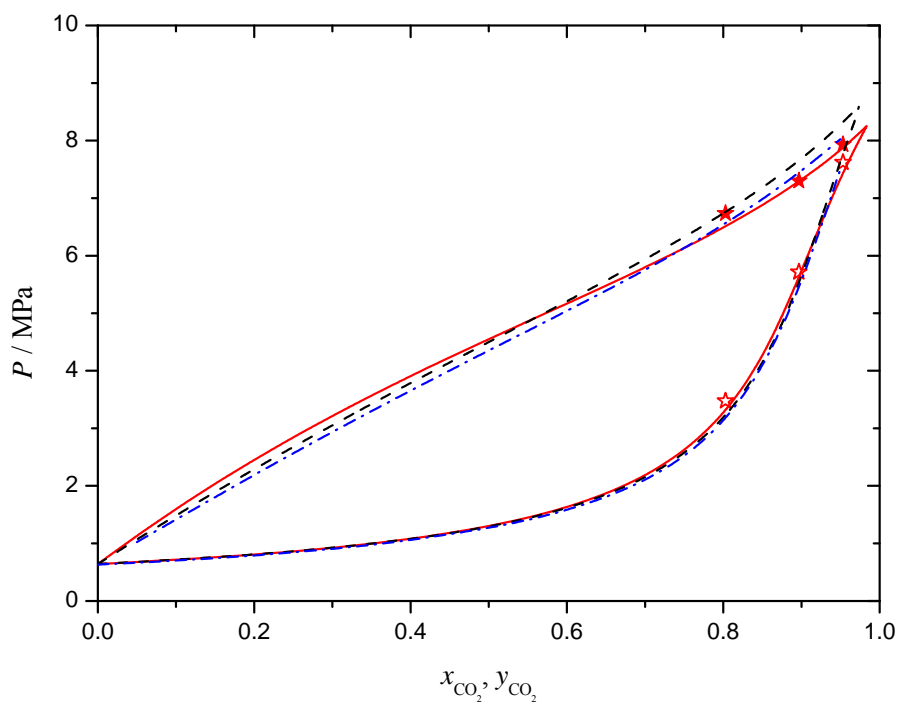
$$x_{\text{CO}_2} + x_{\text{CH}_3\text{OH}} = 0.9698$$



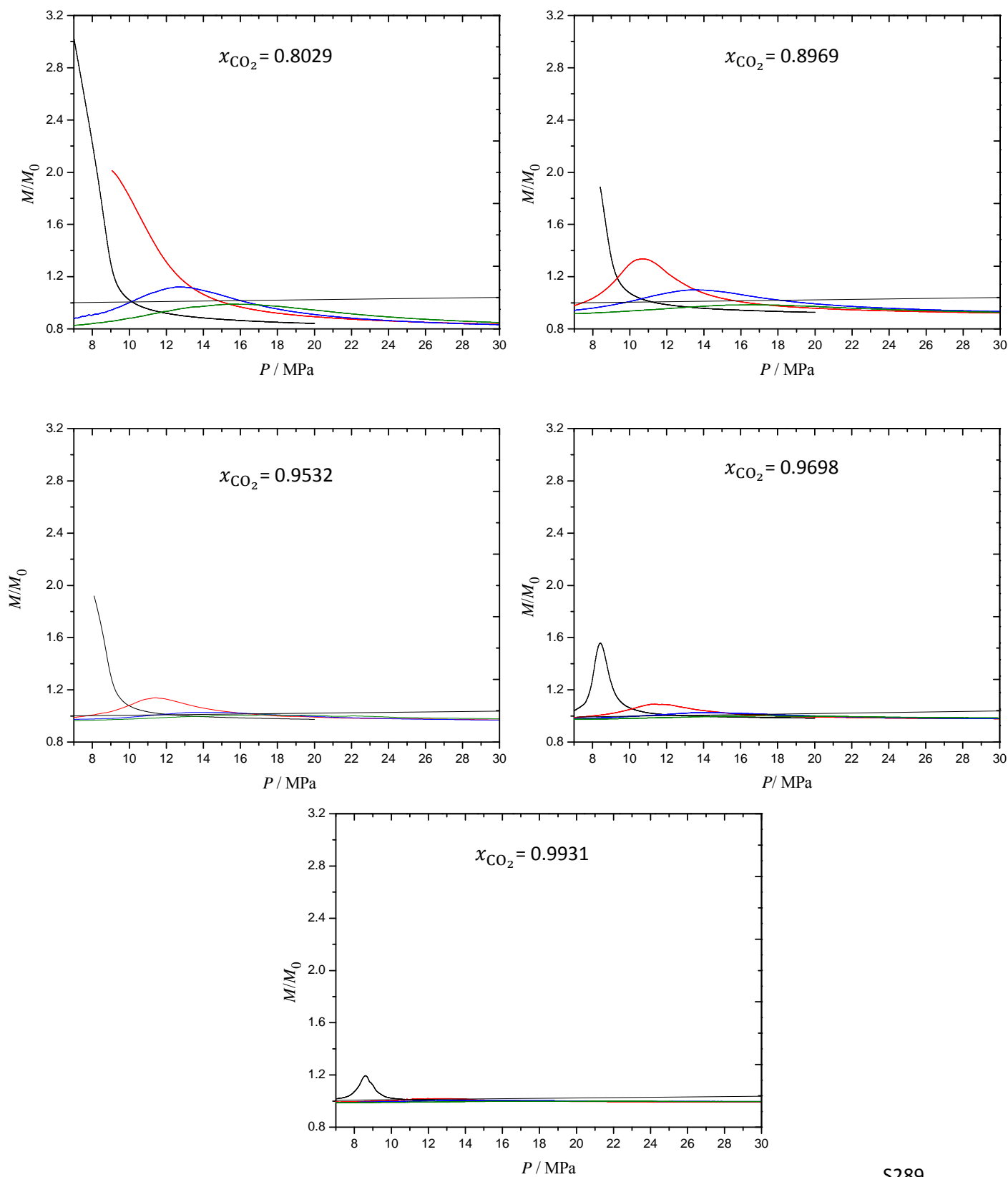
$$x_{\text{CO}_2} + x_{\text{CH}_3\text{OH}} = 0.9931$$



**Figure S6.** *VLE* for the  $\text{CO}_2 + \text{SO}_2$  system at  $T = 313.15$  K. ( $\star$ ), Experimental data (this work); (—); PC-SAFT EoS [27] with parameters from Table S6; (---), PC-SAFT EoS [23]; (-·-), EOS-CG [52]. Full symbols: bubble point. Empty symbols: dew point.

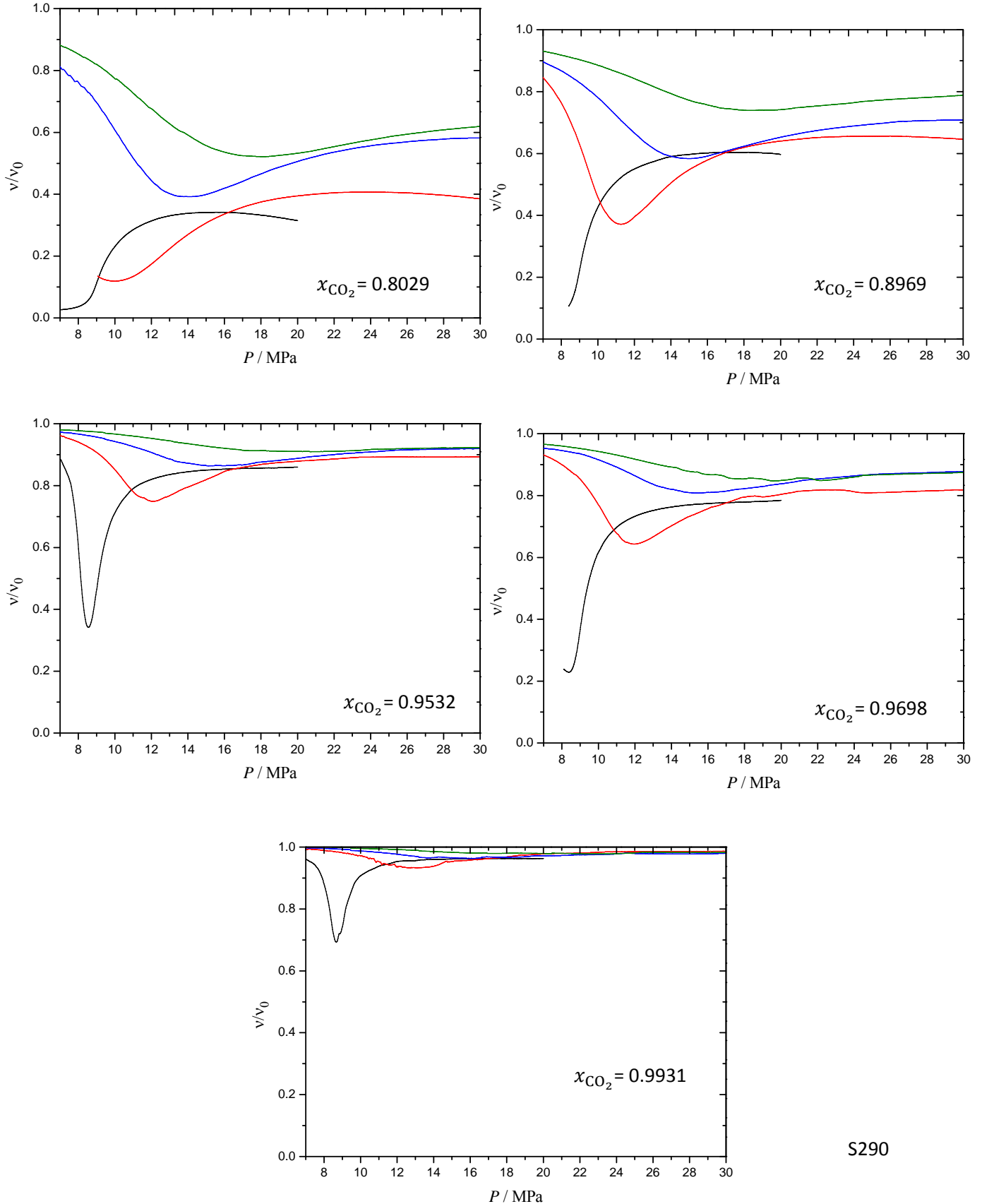


**Figure S7.** Normalized storage capacity,  $M/M_0$ , for the  $\text{CO}_2+\text{SO}_2$  studied mixtures, versus pressure,  $P$ , at several compositions,  $x_{\text{CO}_2}$ , and temperatures; (—),  $T = 313.15$  K; (—),  $T = 333.15$  K; (—),  $T = 353.15$  K; (—),  $T = 373.15$  K.

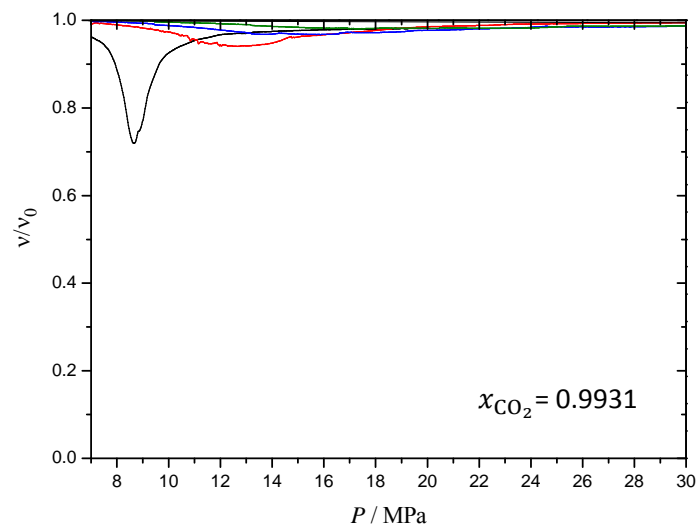
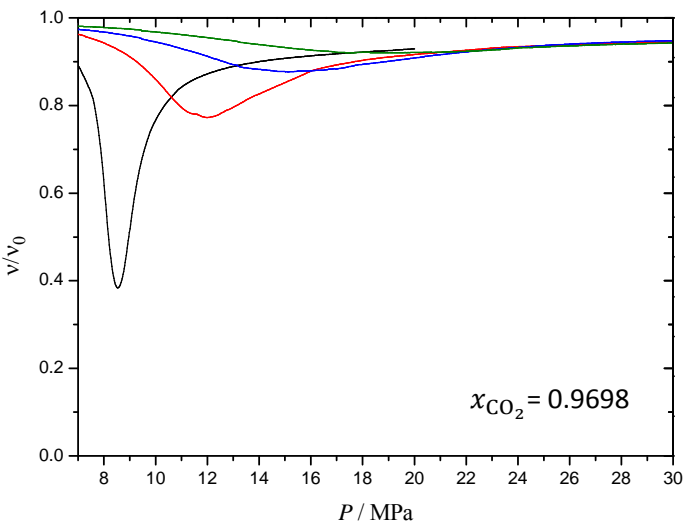
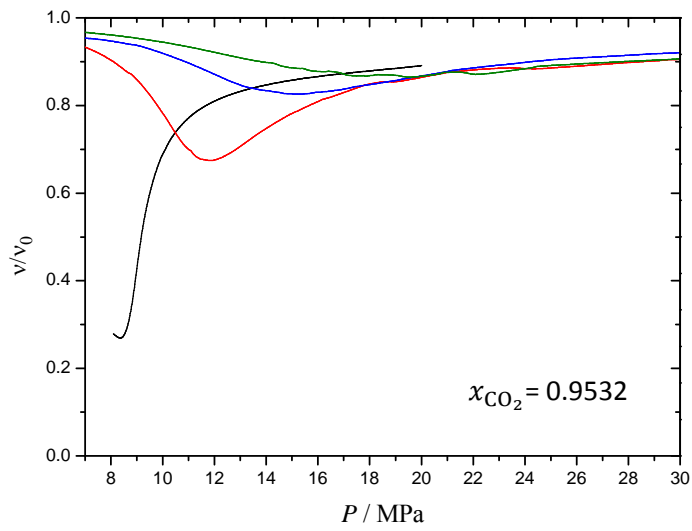
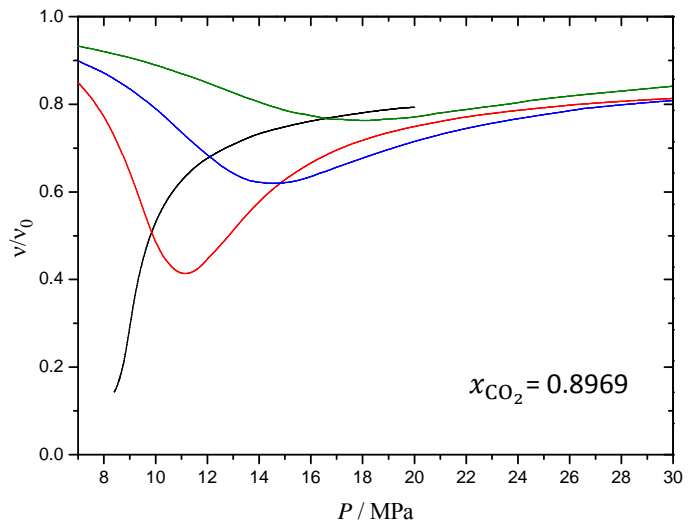
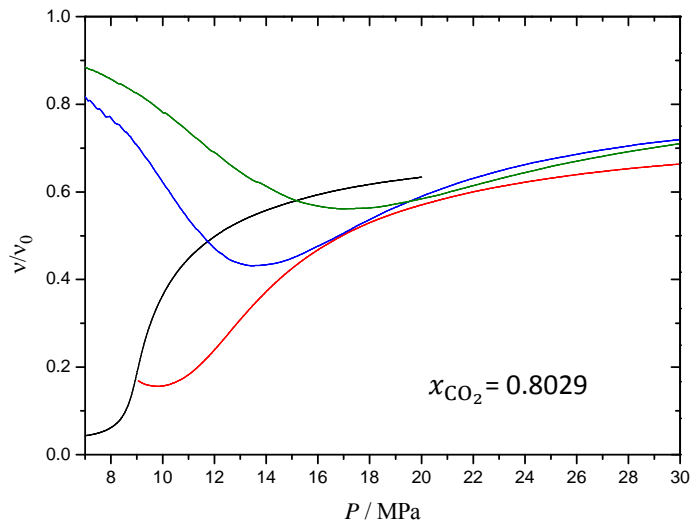


**Figure S8.** Normalized rising velocity in saline aquifers,  $v/v_0$ , for the  $\text{CO}_2+\text{SO}_2$  studied mixtures, versus pressure,  $P$ , at several compositions,  $x_{\text{CO}_2}$ , and temperatures; (—),  $T = 313.15$  K; (—),  $T = 333.15$  K; (—),  $T = 353.15$  K; (—),  $T = 373.15$  K. (a)  $\rho_{br} = 1,025$  kg/m<sup>3</sup>; (b)  $\rho_{br} = 1,250$  kg/m<sup>3</sup>.

(a)



(b)





**Figure S9.** Normalized permeation flux,  $\dot{M}/\dot{M}_0$ , for the CO<sub>2</sub>+SO<sub>2</sub> studied mixtures, versus pressure,  $P$ , at several compositions,  $x_{\text{CO}_2}$ , and temperatures; (—),  $T = 313.15$  K; (—),  $T = 333.15$  K; (—),  $T = 353.15$  K; (—),  $T = 373.15$  K.

