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NUMERICAL TABLES ON THE RANDOM FORCE

BY

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ABSTRACT

Numerical tables are given for evaluating characteristics of the random force or/and its time derivative.

Introduction

The idea of the random force originated from Holtsmark (1919) was first applied to the star field by Chandrasekhar and von Neumann (1942, 1943). According to the results of these authors, however, all the moments of the random force except for its mean do not converge. Such inaptness may be avoided by considering a test-star to have a non-zero radius, instead of a point mass, as shown by Camm (1963). Nevertheless, even with Camm's formulae the computed values of the mean and the variance turn out unreasonably larger than expected. Hence, the senior author tried to reformulate the random force under the following assumptions : (i) the stars with the same mass and radius are scattered randomly but uniformly in the large, (ii) the frequency distribution of the field-star's velocity is Maxwellian, and (iii) only the field-stars with the escape-velocities referred to the test-star can contribute to the random force on the test-star. Actual treatment to the required theoretical formulae is given elsewhere (Shimizu, 1969). Because of the last assumption, on which the binary encounter theory has also been based, the new result comes out reasonable and seems to be applicable to the real stellar system. But, the newly obtained theoretical formulae are not expressed, in general, by the elementary functions. Hence, we provided here the numerical tables together with the theoretical formulae for computing characteristics of the random force.

The following notations are used throughout.

G : gravitational constant,

m : mass of the star,

V_0 : velocity of the test-star,

δ : effective radius of the test-star,

n : average star density in space,

σ : dispersion in one velocity-component for field-stars, so the dispersion in the space-velocity for field-stars should be $\sqrt{3}\sigma$.

$\mu = 4Gm$, $x = \mu/2\sigma^2\delta$, $y = 2V_0^2/\sigma^2$, $y_1 = V_0/\sqrt{2}\sigma$.

$\mathbf{F} = (X, Y, Z)$: force acted on the unit mass of the test-star,

$\mathbf{F} = |\mathbf{F}|$, $\dot{\mathbf{F}} = (\dot{X}, \dot{Y}, \dot{Z}) = d\mathbf{F}/dt$, $\ddot{\mathbf{F}} = d\dot{\mathbf{F}}/dt = |\ddot{\mathbf{F}}|$,

$$\begin{aligned}
I\left(\nu + \frac{1}{2}\right) &: \text{gamma function,} \\
r\left(\nu + \frac{1}{2}, x\right) &: \text{incomplete gamma function of the first kind,} \\
I\left(\nu + \frac{1}{2}, x\right) &= r\left(\nu + \frac{1}{2}, x\right) / \Gamma\left(\nu + \frac{1}{2}\right), \\
II(0, 3/2) &= e^{-y/4} \sum_{\nu=0}^{\infty} \left\{ \frac{(y/4)^{\nu}}{\nu !} I\left(\nu + \frac{3}{2}, x\right) \right\}, \\
II\left(\frac{2k+1}{2}, \frac{2k+2l+1}{2}\right) &= e^{-y/4} \sum_{\nu=0}^{\infty} \left\{ \frac{(y/4)^{\nu}}{\nu !} \left(\nu + \frac{2k+1}{2} \right) \left(\nu + \frac{2k+3}{2} \right) \dots \right. \\
&\quad \left. \times \left(\nu + \frac{2k+2l-1}{2} \right) I\left(\nu + \frac{2k+2l+1}{2}, x\right) \right\}.
\end{aligned}$$

(A) The moments of the random force acted on the unit mass of the moving test-star with its velocity V_0 in the z -direction due to the escaping field-stars are given by

$$\begin{aligned}
\bar{F}^2 &= n_0 \sigma^2 \mu C02, \\
\bar{F}^4 &= n_0 \sigma^{10} \mu^{-1} C04 [1 + n_0 (5\mu^3 C02^2 / 3\sigma^6 C04)], \\
\bar{F}^6 &= n_0 \sigma^{18} \mu^{-3} C06 [1 + n_0 (7\mu^3 C02 \cdot C04 / \sigma^6 C06) + n_0^2 (35\mu^6 C02^3 / 9\sigma^{12} C06)], \\
\bar{F}^8 &= n_0 \sigma^{26} \mu^{-5} C08 [1 + n_0 (63\mu^3 C04^2 / 5\sigma^6 C08) + n_0 (12\mu^3 C02 \cdot C06 / \sigma^6 C08) \\
&\quad + n_0^2 (42\mu^6 C02^2 \cdot C04 / \sigma^{12} C08) + n_0^3 (35\mu^3 C04^4 / 4\sigma^{18} C08)],
\end{aligned}$$

where $C02, C04, C06, C08$ are defined as followings.

$$\begin{aligned}
C02 &= (\pi/2)x[1 + (1/x)\Pi(3/2, 5/2) - \Pi(0, 3/2)], \\
C04 &= (\pi/10)x^5[1 + (1/x^5)\Pi(3/2, 13/2) - \Pi(0, 3/2)], \\
C06 &= (\pi/18)x^9[1 + (1/x^9)\Pi(3/2, 21/2) - \Pi(0, 3/2)], \\
C08 &= (\pi/26)x^{13}[1 + (1/x^{13})\Pi(3/2, 29/2) - \Pi(0, 3/2)].
\end{aligned}$$

Throughout in this paper, the numerical values are expressed in the units of solar mass, parsec, and 10^6 years. As the unit of the velocity, km/s is adopted but this is nearly equal to pc/ 10^6 yr.

Table 1 gives the numerical values of $C02, C04, C06, C08$ for assigned values of x and y .

Table 2 gives $\log C02, \log C04, \log C06, \log C08$.

Table 3 gives $E1 = 5C02/3C04, E2 = 7C02 \cdot C04/C06, E3 = 35C02/9C06, E4 = 63C02/5C08, E5 = 12C02 \cdot C06/C08, E6 = 42C02 \cdot C04/C08, E7 = 35C02/4C08$.

Table 4 gives $\log E1, \log E2, \log E3, \log E4, \log E5, \log E6, \log E7$.

(B) The moments of the time derivative of the random force are given by

$$\begin{aligned}
\dot{\bar{F}}^2 &= n_0 (\sigma^8 / \mu) (3D21 + 10D22*), \\
\dot{\bar{Z}}^3 &= n_0 (\sigma^{15} / \mu^3) (D31* - (2/3)D32*), \\
\dot{\bar{F}}^4 &= n_0 (\sigma^{22} / \mu^5) (D41 - (1/3)D42* + 8D43*) \\
&\quad + 2n_0^2 (\sigma^{16} / \mu^2) (D21 + 3D22*) (5D21 + 16D22*),
\end{aligned}$$

where \dot{Z} is the component of \dot{F} along the motion of the test-star or along the z -axis. Terms marked with * vanish when the test-star is at rest.

Table 5 gives $D21, D22, D31, D32, D41, D42, D43$.

Table 6 gives $\log D21, \log D22, \log D31, \log D32, \log D41, \log D42, \log D43$.

(C) The cross moments of the random force and its time derivative when the test star is moving in the z -direction are given by

$$\begin{aligned}
\bar{X}^2 \dot{\bar{Z}} &= \bar{Y}^2 \dot{\bar{Z}} = -n_0 (\sigma^9 / \mu) E12*, \\
\bar{Z}^2 \dot{\bar{Z}} &= 2n_0 (\sigma^9 / \mu) E12*, \\
\bar{F}^2 \dot{\bar{F}}^2 &= n (\sigma^{16} / \mu^3) (45E221 + 70E222*) \text{ etc.}
\end{aligned}$$

X and Z are respectively the x- and the z- component of the random force. Terms marked by * vanish when the test-star is at rest.

Table 7 gives E12, $\log E12$, E221, $\log E221$, E222, $\log E222$.

(D) Table 8 gives $I\left(\nu + \frac{1}{2}, x\right) = r\left(\nu + \frac{1}{2}, x\right)/\Gamma\left(\nu + \frac{1}{2}\right)$.

Table 9 gives $G(N) \equiv \Gamma(\nu)$, $\log G(N) \equiv \log \Gamma(\nu)$, $G\left(N + \frac{1}{2}\right) \equiv \Gamma\left(\nu + \frac{1}{2}\right)$, $\log G\left(N + \frac{1}{2}\right) \equiv \log \Gamma\left(\nu + \frac{1}{2}\right)$.

(E) The probability $\tau(x, y_1)$ that an escaping star occurs at a distance x from the test-star is given by

$$\tau(x, y_1) = 1 - \frac{2}{\sqrt{\pi}} e^{-y_1^2} \sum_{\nu=0}^{\infty} \left\{ \frac{y_1^{2\nu}}{\nu!} I\left(\nu + \frac{3}{2}, x\right) \right\}.$$

Table 10 gives $T(x, y) \equiv \tau(x, y_1)$, $dT/dx \equiv \frac{\partial \tau}{\partial x}$, $ddT/ddx \equiv \frac{\partial^2 \tau}{\partial x^2}$, $I(x, y) \equiv - \int \frac{\partial \tau}{\partial x} \log x dx$, $J(x, y) \equiv \int \frac{1}{x} \frac{\partial \tau}{\partial x} dx$.

Table 11 gives INT. $T(x, y) \equiv \int \tau(x, y_1) dx$, INT. $T/x \equiv \int \frac{\tau(x, y_1)}{x} dx$, INT. $T/x^2 \equiv \int \frac{\tau(x, y_1)}{x^2} dx$, INT. $T/x^3 \equiv \int \frac{\tau(x, y_1)}{x^3} dx$, INT. $T/x^4 \equiv \int \frac{\tau(x, y_1)}{x^4} dx$, INT. $T \times x \equiv \int \tau(x, y_1) x dx$.

In the above tables except for Table 8 and Table 9, each value for $x=50.0$ can hold still for $x>50.0$. And for the convenience we expressed $\log 0$ as 0.

(F) Table 12 gives the values of x and y for various sets of σ , δ and μ .

(G) Examples for calculations of the moments of $F = \sqrt{X^2 + Y^2 + Z^2}$ and its time derivative \dot{F} .

We shall show four examples in the case of $\delta = 4.51 \times 10^{-8}$ parsec ($= 2R_\odot$). As regards the frequency distribution function of F we adopted an approximate formula as follows,

$$w(F) = \frac{\alpha^{\frac{r+1}{\beta}}}{2\Gamma\left(\frac{r+1}{\beta}\right)} e^{-\alpha F^\beta} F^r,$$

where α , β , r are adjustable constants. Then the k-th moment of F is given by

$$M_k = \frac{\Gamma\left(\frac{k+r+1}{\beta}\right)}{\alpha^{\frac{k}{\beta}} \Gamma\left(\frac{r+1}{\beta}\right)},$$

or

$$\log M_k = \log \Gamma\left(\frac{r+1+k}{\beta}\right) - \log \Gamma\left(\frac{r+1}{\beta}\right) - \frac{k}{\beta} \log \alpha.$$

Fitting with $\frac{r+1}{\beta} = 1/2$ or 1 seems to be most convenient and probable.

The probability that a force less than an assigned value of F_0 occurs, or $\Pr(F \leq F_0)$, is then given by the formula

$$\Pr(F \leq F_0) = \frac{r\left(\frac{r+1}{\beta}, \alpha F_0^\beta\right)}{\Gamma\left(\frac{r+1}{\beta}\right)} = I\left(\frac{r+1}{\beta}, \alpha F_0^\beta\right).$$

Case (a) $n_0=0.1$, $\sigma=10$, $\mu=1.8 \times 10^{-2}$, $y=2$, $x=2 \times 10^4$.

from table	constants	fitted value
$\log \bar{F}^2 = -0.2475$		$\log \bar{F}^2 = 0.8851$
$\log \bar{F}^4 = 13.2894$	$\alpha = 7.1$	$\log \bar{F}^4 = 12.3185$
$\log \bar{F}^6 = 28.4489$	$\beta = 2/19$	$\log \bar{F}^6 = 28.0077$
$\log \bar{F}^8 = 44.3725$	$\gamma = -17/19$	$\log \bar{F}^8 = 46.4754$
		$\bar{F} = 9.0 \times 10^{-3}$, $\Pr(F \leq \bar{F}) = 0.9869$
		$\sqrt{\bar{F}^2} = 7.5 \times 10^{-1}$, $\Pr(F \leq \sqrt{\bar{F}^2}) = 0.9991$

As for \bar{F} too, the same approximate formulae as above are applicable.

from table		
D21 = 2.78555×10^2		
D22 = 5.36165×10	$\bar{F}^2 = 8.0 \times 10^{11}$	
D41 = 1.70579×10^{10}	$\sqrt{\bar{F}^2} = 8.9 \times 10^5$	
D42 = 1.88187×10^9	$\bar{F}^4 = 8.7 \times 10^{39}$	
D43 = 6.37439×10^6		

Case (b) $n_0=3$, $\sigma=1$, $\mu=7.2 \times 10^{-2}$, $y=2$, $x=8 \times 10^5$

from table	constants	fitted value
$\log \bar{F}^2 = 0.8376$		$\log \bar{F}^2 = 0.4024$
$\log \bar{F}^4 = 4.1644$	$\alpha = 3.0$	$\log \bar{F}^4 = 4.3404$
$\log \bar{F}^6 = 10.1199$	$\beta = 2/7$	$\log \bar{F}^6 = 9.8083$
$\log \bar{F}^8 = 16.8383$	$\gamma = -5/7$	$\log \bar{F}^8 = 16.2841$
		$\bar{F} = 2.6 \times 10^{-1}$, $\Pr(F \leq \bar{F}) = 0.8672$
		$\sqrt{\bar{F}^2} = 2.6$, $\Pr(F \leq \sqrt{\bar{F}^2}) = 0.9795$

from table		
D21 = 2.78555×10^2		
D22 = 5.36165×10	$\bar{F}^2 = 6.0 \times 10^2$	
D41 = 1.70579×10^{10}	$\sqrt{\bar{F}^2} = 2.5 \times 10$	
D42 = 1.88187×10^9	$\bar{F}^4 = 2.7 \times 10^{16}$	
D43 = 6.37438×10^6		

Case (c) $n_0=50$, $\sigma=5$, $\mu=1.8 \times 10^{-2}$, $y=5$, $x=8 \times 10^3$

from table	constants	fitted value
$\log \bar{F}^2 = 1.9876$		$\log \bar{F}^2 = 2.9943$
$\log \bar{F}^4 = 13.7148$	$\alpha = 3.3$	$\log \bar{F}^4 = 13.0056$
$\log \bar{F}^6 = 26.4723$	$\beta = 2/13$	$\log \bar{F}^6 = 25.9096$
$\log \bar{F}^8 = 40.2152$	$\gamma = -11/13$	$\log \bar{F}^8 = 40.7066$
		$\bar{F} = 7.5 \times 10^{-1}$, $\Pr(F \leq \bar{F}) = 0.9588$
		$\sqrt{\bar{F}^2} = 9.9$, $\Pr(F \leq \sqrt{\bar{F}^2}) = 0.9912$

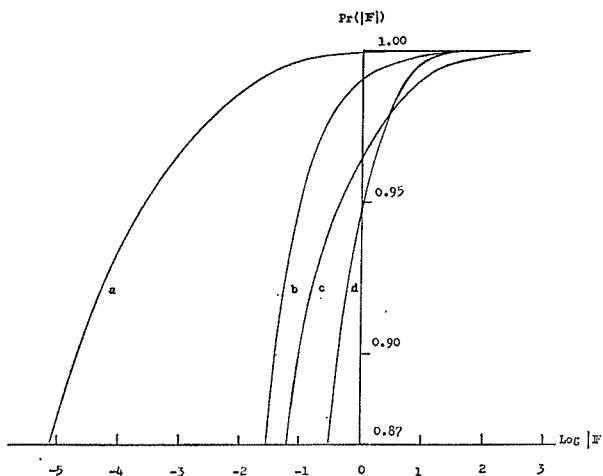
from table		
D21 = 5.08873×10^2		
D22 = 2.16950×10^2	$\bar{F}^2 = 4.0 \times 10^{11}$	
D41 = 1.26771×10^{11}	$\sqrt{\bar{F}^2} = 6.3 \times 10^5$	
D42 = 1.81042×10^{10}	$\bar{F}^4 = 7.9 \times 10^{32}$	
D43 = 1.01546×10^8		

Case (d) $n_0=50$, $\sigma=1$, $\mu=1.8 \times 10^{-2}$, $y=0.0$, $x=2 \times 10^5$

from table	constants	fitted value
$\log \bar{F}^2 = 0.3264$		$\log \bar{F}^2 = -0.4402$
$\log \bar{F}^4 = 5.4525$	$\alpha = 4.8$	$\log \bar{F}^4 = 4.7861$
$\log \bar{F}^6 = 12.2818$	$\beta = 1/5$	$\log \bar{F}^6 = 12.0237$
$\log \bar{F}^8 = 19.9207$	$\gamma = -4/5$	$\log \bar{F}^8 = 20.7116$
	$\bar{F} = 4.8 \times 10^{-2}$, $\Pr(F \leq \bar{F}) = 0.9261$	
	$\sqrt{\bar{F}^2} = 1.5$, $\Pr(F \leq \sqrt{\bar{F}^2}) = 0.9942$	
from table		
$D21 = 1.64934 \times 10^2$	$\bar{F}^2 = 1.4 \times 10^6$	
$D41 = 1.65593 \times 10^9$	$\sqrt{\bar{F}^2} = 1.2 \times 10^3$	
	$\bar{F}^4 = 4.4 \times 10^{19}$	

The part of curve of these approximated distribution function $\Pr(|F|) \equiv \Pr(F \leq F_0)$ is shown in Figure I.

Figure I



Caption of Tables

- Table 1. CO2, ..., CO8.
- Table 2. logCO2, ..., logCO8.
- Table 3. E1 = 5CO2/3CO4, ..., E7 = 35CO2/4CO8.
- Table 4. logE1, ..., logE7.
- Table 5. D21, ..., D43.
- Table 6. logD21, ..., logD43.
- Table 7. E12, ..., logE222.
- Table 8. $I\left(\nu + \frac{1}{2}, x\right) = r\left(\nu + \frac{1}{2}, x\right) / \Gamma\left(\nu + \frac{1}{2}\right)$.
- Table 9. $G(N) \equiv \Gamma(\nu), \dots, \log G\left(N + \frac{1}{2}\right) \equiv \log \Gamma\left(\nu + \frac{1}{2}\right)$.
- Table 10. $T(x, y) \equiv \tau(x, y_1), \dots, J(x, y) \equiv \int \frac{1}{x} \frac{\partial \tau}{\partial x} dx$.

Table 11. $\text{INT. } T(x, y) \equiv \int \tau(x, y_1) dx, \dots, \text{INT. } T \times x \equiv \int \tau(x, y_1) x dx.$

Table 12. x and y .

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Table 1.

$y = 0.0$	$y = 5.0$								
x	C02	C04	C06	C08	x	C02	C04	C06	C08
1.00E-04	1.57080E-04	3.14159E-21	1.74533E-37	0.00000E+00	1.00E-04	1.57080E-04	3.14159E-21	1.74533E-37	0.00000E+00
5.00E-04	7.85396E-04	9.81739E-18	3.40882E-31	1.47497E-44	5.00E-04	7.85397E-04	9.81745E-18	3.40884E-31	1.47498E-44
1.00E-03	1.57078E-03	3.14152E-16	1.74529E-28	1.20828E-40	1.00E-03	1.57079E-03	3.14157E-16	1.74532E-28	1.20830E-40
5.00E-03	7.85315E-03	9.81576E-13	3.40794E-22	1.47459E-31	5.00E-03	7.85337E-03	9.81698E-13	3.40859E-22	1.47467E-31
1.00E-02	1.57033E-02	3.13978E-11	1.74402E-19	1.20740E-27	1.00E-02	1.57066E-02	3.14107E-11	1.74495E-19	1.20804E-27
5.00E-02	7.82812E-02	9.75559E-08	3.38102E-13	1.46294E-18	5.00E-02	7.84644E-02	9.79936E-08	3.40057E-13	1.47145E-18
1.00E-01	1.55647E-01	3.08700E-06	1.71202E-10	1.18123E-14	1.00E-01	1.56655E-01	3.12527E-06	1.73522E-10	1.20016E-14
2.50E-01	3.79407E-01	2.87275E-04	6.18909E-07	1.65464E-09	2.50E-01	3.88550E-01	3.00591E-04	6.50806E-07	1.75337E-09
5.00E-01	7.17504E-01	8.25762E-03	2.81346E-04	1.20723E-05	5.00E-01	7.62465E-01	9.27186E-03	3.19843E-04	1.37954E-05
7.50E-01	1.00861E+00	5.52701E-02	9.40303E-03	2.03054E-03	7.50E-01	1.11652E+00	6.71854E-02	1.16698E-02	2.54264E-03
1.00E+00	1.25458E+00	2.02916E-01	1.07456E-01	7.28608E-02	1.00E+00	1.44792E+00	2.68060E-01	1.46221E-01	1.00409E-01
2.50E+00	2.05095E+00	7.80228E+00	1.43878E+02	3.63413E+03	2.50E+00	2.03416E+00	1.69396E+01	3.42046E+02	8.96241E+03
5.00E+00	2.32474E+00	4.94612E+01	1.10355E+04	3.99949E+06	5.00E+00	2.38151E+01	2.12248E+02	5.96404E+04	2.35819E+07
7.50E+00	2.35318E+00	8.42299E+00	6.33216E+04	9.93287E+07	7.50E+00	2.49141E+00	5.75861E+02	6.67053E+05	2.28858E+09
1.00E+01	2.35592E+00	9.76688E+01	1.36474E+05	5.42216E+08	1.00E+01	4.0644E+00	8.76448E+02	2.42177E+06	1.25784E+10
1.35E+01	2.35619E+00	1.01618E+02	2.00562E+05	1.70716E+09	1.35E+01	4.31858E+00	1.06889E+03	5.83417E+06	8.05296E+10
2.50E+01	2.35619E+00	1.02053E+02	2.23199E+05	3.14525E+09	2.50E+01	4.31969E+00	1.12632E+03	9.45281E+06	3.91852E+11
5.00E+01	2.35619E+00	1.02053E+02	2.23187E+05	3.14847E+09	5.00E+01	4.31969E+00	1.12641E+03	9.49774E+06	4.16281E+11
$y = 0.5$	$y = 10.0$								
x	C02	C04	C06	C08	x	C02	C04	C06	C08
1.00E-04	1.57080E-04	3.14159E-21	1.74533E-37	0.00000E+00	1.00E-04	1.57080E-04	3.14159E-21	1.74533E-37	0.00000E+00
5.00E-04	7.85396E-04	9.81740E-18	3.40882E-31	1.47497E-44	5.00E-04	7.85398E-04	9.81747E-18	3.40884E-31	1.47498E-44
1.00E-03	1.57078E-03	3.14153E-16	1.74529E-28	1.20828E-40	1.00E-03	1.57080E-03	3.14159E-16	1.74533E-28	1.20830E-40
5.00E-03	7.85325E-03	9.81596E-13	3.40805E-24	1.47464E-31	5.00E-03	7.85339E-03	9.81733E-13	3.40877E-22	1.47495E-31
1.00E-02	1.57033E-02	3.14000E-11	1.74418E-19	1.20751E-27	1.00E-02	1.57076E-02	3.14144E-11	1.74522E-19	1.20823E-27
5.00E-02	7.83112E-02	9.76274E-08	3.38423E-13	1.46433E-18	5.00E-02	7.85178E-02	9.81217E-08	3.40645E-13	1.47394E-18
1.00E-01	1.55811E-01	3.09321E-06	1.71577E-10	1.18429E-14	1.00E-01	1.56954E-01	3.13672E-06	1.74227E-10	1.20585E-14
2.50E-01	3.80867E-01	2.89387E-04	6.23956E-07	1.67007E-09	2.50E-01	3.91406E-01	3.04829E-04	6.61014E-07	1.78535E-09
5.00E-01	7.24472E-01	8.41252E-03	2.87200E-04	1.23323E-05	5.00E-01	7.77659E-01	9.62837E-03	3.33525E-04	1.44115E-05
7.50E-01	1.02485E+00	5.70230E-02	9.73426E-03	2.10513E-03	7.50E-01	1.15595E+00	7.17868E-02	1.25595E-02	2.74511E-03
1.00E+00	1.28288E+00	2.12150E-01	1.12899E-01	7.67122E-02	1.00E+00	1.52378E+00	2.95568E-01	1.62941E-01	1.12409E-01
2.50E+00	2.16268E+00	8.84520E+00	1.65843E+02	4.21702E+03	2.50E+00	3.42359E+00	2.30346E+01	4.81058E+02	1.27852E+04
5.00E+00	2.50491E+00	6.28983E+01	1.47255E+04	5.43492E+06	5.00E+00	5.27750E+00	4.01544E+02	1.22382E+05	4.99825E+07
7.50E+00	2.54717E+00	1.15642E+02	9.57778E+04	1.55915E+08	7.50E+00	5.98796E+00	1.46474E+03	1.89743E+06	3.69482E+09
1.00E+01	2.55196E+00	1.39530E+02	2.27757E+05	9.66660E+08	1.00E+01	6.20710E+00	2.60339E+03	9.05317E+06	5.13248E+10
1.35E+01	2.55252E+00	1.47839E+02	3.45205E+05	3.51724E+09	1.35E+01	6.27361E+00	3.699779E+03	2.93331E+07	4.71801E+11
2.50E+01	2.55254E+00	1.49891E+02	4.26865E+05	7.66779E+09	2.50E+01	6.28318E+00	4.24103E+03	6.75678E+07	4.41522E+12
5.00E+01	2.55254E+00	1.49891E+02	4.26964E+05	7.72625E+09	5.00E+01	6.28319E+00	4.23644E+03	6.88347E+07	5.14591E+12
$y = 2.0$	$y = 20.0$								
x	C02	C04	C06	C08	x	C02	C04	C06	C08
1.00E-04	1.57080E-04	3.14159E-21	1.74533E-37	0.00000E+00	1.00E-04	1.57080E-04	3.14159E-21	1.74533E-37	0.00000E+00
5.00E-04	7.85397E-04	9.81743E-18	3.40883E-31	1.47497E-44	5.00E-04	7.85398E-04	9.81748E-18	3.40885E-31	1.47498E-44
1.00E-03	1.57079E-03	3.14155E-16	1.74530E-28	1.20829E-40	1.00E-03	1.57080E-03	3.14159E-16	1.74533E-28	1.20830E-40
5.00E-03	7.85338E-03	9.81643E-13	3.40830E-22	1.47474E-31	5.00E-03	7.85398E-03	9.81747E-13	3.40884E-22	1.47498E-31
1.00E-02	1.57051E-02	3.14049E-11	1.74454E-19	1.20776E-27	1.00E-02	1.57079E-02	3.14115E-11	1.74532E-19	1.20830E-27
5.00E-02	7.83318E-02	9.77961E-08	3.39180E-13	1.46761E-18	5.00E-02	7.85379E-02	9.81702E-08	3.40864E-13	1.47489E-18
1.00E-01	1.56199E-01	3.10791E-06	1.72466E-10	1.19155E-14	1.00E-01	1.57069E-01	3.14116E-06	1.74505E-10	1.20808E-14
2.50E-01	3.84354E-01	2.94449E-04	6.36072E-07	1.70757E-09	2.50E-01	3.92574E-01	3.06600E-04	6.65308E-07	1.79896E-09
5.00E-01	7.41386E-01	8.79153E-03	3.01557E-04	1.29765E-05	5.00E-01	7.84540E-01	9.79527E-03	3.40007E-04	1.47081E-05
7.50E-01	1.06491E+00	6.13990E-02	1.05641E-02	2.29235E-03	7.50E-01	1.17530E+00	7.41778E-02	1.30295E-02	2.85303E-03
1.00E+00	1.35370E+00	2.35662E-01	1.26829E-01	8.65990E-02	1.00E+00	1.56416E+00	3.11314E-01	1.72716E-01	1.19495E-01
2.50E+00	2.46409E+00	1.18153E+01	2.29359E+02	5.91400E+03	2.50E+00	3.0964E+00	2.86507E+01	6.14861E+02	1.65397E+04
5.00E+00	3.02733E+00	1.07757E+02	2.75794E+04	1.05239E+07	5.00E+00	6.85225E+00	7.12879E+02	2.34508E+05	9.89284E+07
7.50E+00	3.12442E+00	2.33681E+02	2.87553E+05	3.95970E+08	7.50E+00	8.71871E+00	3.55244E+03	5.47725E+06	1.29553E+10
1.00E+01	3.13919E+00	3.08990E+02	6.55527E+05	3.08181E+09	1.00E+01	9.63470E+00	8.72836E+03	3.79875E+07	2.35501E+11
1.35E+01	3.14145E+00	3.43659E+02	1.24747E+06	1.44533E+10	1.35E+01	1.00860E+01	1.65915E+04	1.92029E+08	3.59872E+12
2.50E+01	3.14159E+00	3.50441E+02	1.63765E+06	4.35497E+10	2.50E+01	1.02099E+01	2.45560E+04	9.05906E+08	9.99728E+13
5.00E+01	3.14159E+00	3.50445E+02	1.63755E+06	4.45344E+10	5.00E+01	1.02102E+01	2.47071E+04	9.91587E+08	1.55725E+14

Table 2.

y = 0.0				y = 5.0					
x	log C02	log C04	log C06	x	log C02	log C04	log C06		
1.00E-04	-3.80388E+00	-2.05029E+01	-3.67581E+01	0.00000E+00	1.00E-04	-3.80388E+00	-2.05029E+01	-3.67581E+01	0.00000E+00
5.00E-04	-3.10491E+00	-1.70080E+01	-3.04674E+01	-4.38312E+01	5.00E-04	-3.10491E+00	-1.70080E+01	-3.04674E+01	-4.38312E+01
1.00E-03	-2.80388E+00	-1.55029E+01	-2.77581E+01	-3.99178E+01	1.00E-03	-2.80388E+00	-1.55029E+01	-2.77581E+01	-3.99178E+01
5.00E-03	-2.10494E+00	-1.20081E+01	-2.14675E+01	-3.08313E+01	5.00E-03	-2.10494E+00	-1.20081E+01	-2.14675E+01	-3.08313E+01
1.00E-02	-1.80401E+00	-1.05031E+01	-1.87584E+01	-2.69181E+01	1.00E-02	-1.80392E+00	-1.05029E+01	-1.87582E+01	-2.69179E+01
5.00E-02	-1.10634E+00	-7.01075E+00	-1.24710E+01	-1.78348E+01	5.00E-02	-1.10533E+00	-7.00880E+00	-1.24684E+01	-1.78323E+01
1.00E-01	-8.07858E+00	-5.51046E+00	-9.76649E+00	-1.39277E+01	1.00E-01	-8.05057E+00	-5.50511E+00	-9.76064E+00	-1.39208E+01
2.50E-01	-4.20895E+00	-3.54120E+00	-6.20837E+00	-8.78134E+00	2.50E-01	-4.10553E+00	-3.52202E+00	-6.18655E+00	-8.75613E+00
5.00E-01	-1.44176E+00	-2.08315E+00	-3.55076E+00	-6.91821E+00	5.00E-01	-1.17780E+00	-2.03283E+00	-3.49506E+00	-8.60262E+00
7.50E-01	3.72121E-03	-1.25751E+00	-2.02673E+00	-2.69239E+00	7.50E-01	4.78667E-02	-1.17273E+00	-1.93294E+00	-2.59472E+00
1.00E+00	9.84977E-02	-6.92683E-01	-9.68771E-01	-1.13751E+00	1.00E+00	1.60746E-01	-5.71768E-01	-8.34990E-01	-9.98228E-01
2.50E+00	3.11954E-01	8.92221E-01	2.157799E+00	3.56040E+00	2.50E+00	4.67484E-01	1.28890E+00	2.53408E+00	3.95242E+00
5.00E+00	3.66375E-01	1.69427E+00	4.04279E+00	6.60200E+00	5.00E+00	6.00047E-01	2.32684E+00	4.77554E+00	7.37258E+00
7.50E+00	3.71655E-01	1.92547E+00	5.08155E+00	7.99707E+00	7.50E+00	6.28301E-01	2.76032E+00	5.82416E+00	9.08940E+00
1.00E+01	3.72160E-01	1.98976E+00	5.13505E+00	8.73417E+00	1.00E+01	6.34118E-01	2.94273E+00	6.38433E+00	1.00996E+01
1.35E+01	3.72209E-01	2.00697E+00	5.30225E+00	9.23227E+00	1.35E+01	6.35341E-01	3.02893E+00	6.76598E+00	1.01096E+01
2.50E+01	3.72211E-01	2.00882E+00	5.34869E+00	9.49766E+00	2.50E+01	6.35453E-01	3.05166E+00	6.97556E+00	1.15931E+01
5.00E+01	3.72211E-01	2.00882E+00	5.34867E+00	9.49810E+00	5.00E+01	6.35453E-01	3.05170E+00	6.97762E+00	1.16119E+01
y = 0.5				y = 10.0					
x	log C02	log C04	log C06	x	log C02	log C04	log C06		
1.00E-04	-3.80388E+00	-2.05029E+01	-3.67581E+01	0.00000E+00	1.00E-04	-3.80388E+00	-2.05029E+01	-3.67581E+01	0.00000E+00
5.00E-04	-3.10491E+00	-1.70080E+01	-3.04674E+01	-4.38312E+01	5.00E-04	-3.10491E+00	-1.70080E+01	-3.04674E+01	-4.38312E+01
1.00E-03	-2.80388E+00	-1.55029E+01	-2.77581E+01	-3.99178E+01	1.00E-03	-2.80388E+00	-1.55029E+01	-2.77581E+01	-3.99178E+01
5.00E-03	-2.10495E+00	-1.20081E+01	-2.14675E+01	-3.08313E+01	5.00E-03	-2.10494E+00	-1.20080E+01	-2.14674E+01	-3.08312E+01
1.00E-02	-1.80400E+00	-1.05031E+01	-1.87584E+01	-2.69181E+01	1.00E-02	-1.80389E+00	-1.05029E+01	-1.87581E+01	-2.69179E+01
5.00E-02	-1.10618E+00	-7.01043E+00	-1.24705E+01	-1.78344E+01	5.00E-02	-1.10503E+00	-7.00823E+00	-1.24677E+01	-1.78315E+01
1.00E-01	-8.07402E+00	-5.50959E+00	-9.76554E+00	-1.39265E+01	1.00E-01	-8.04229E+00	-5.50352E+00	-9.75898E+00	-1.39187E+01
2.50E-01	-4.19227E+00	-3.53585E+00	-6.20485E+00	-8.77727E+00	2.50E-01	-4.07373E+00	-3.51594E+00	-6.17979E+00	-8.74828E+00
5.00E-01	-1.39978E+00	-2.07507E+00	-3.51822E+00	-6.90889E+00	5.00E-01	-1.09193E+00	-2.01645E+00	-3.47687E+00	-6.48129E+00
7.50E-01	1.06609E+00	-1.24395E+00	-2.01170E+00	-6.67672E+00	7.50E-01	6.69382E+00	-1.14396E+00	-1.90103E+00	-2.56144E+00
1.00E+00	1.08186E+00	-6.73355E+00	-9.47309E+00	-1.11514E+00	1.00E+00	1.82921E+00	-5.29343E+00	-7.87970E+00	-9.49199E+00
2.50E+00	3.34992E+00	9.46708E+00	2.19370E+00	3.62501E+00	2.50E+00	5.34482E+00	1.36238E+00	2.68220E+00	4.10671E+00
5.00E+00	3.98793E+00	1.79864E+00	4.16807E+00	6.73519E+00	5.00E+00	7.22428E+00	2.60373E+00	5.08772E+00	7.69882E+00
7.50E+00	4.06057E+00	2.06312E+00	4.98127E+00	8.19289E+00	7.50E+00	7.72727E+00	3.15121E+00	6.27817E+00	9.56793E+00
1.00E+01	4.06874E+00	2.14467E+00	5.35747E+00	8.98527E+00	1.00E+01	7.92886E+00	3.41559E+00	6.95680E+00	1.07103E+01
1.35E+01	4.06969E+00	2.16979E+00	5.62654E+00	9.54620E+00	1.35E+01	7.97517E+00	3.56818E+00	7.46736E+00	1.16738E+01
2.50E+01	4.06973E+00	2.17313E+00	5.63029E+00	9.88468E+00	2.50E+01	7.98180E+00	3.62675E+00	7.82974E+00	1.26450E+01
5.00E+01	4.06973E+00	2.17313E+00	5.63039E+00	9.88797E+00	5.00E+01	7.98180E+00	3.62700E+00	7.83781E+00	1.27115E+01
y = 2.0				y = 20.0					
x	log C02	log C04	log C06	x	log C02	log C04	log C06		
1.00E-04	-3.80388E+00	-2.05029E+01	-3.67581E+01	0.00000E+00	1.00E-04	-3.80388E+00	-2.05029E+01	-3.67581E+01	0.00000E+00
5.00E-04	-3.10491E+00	-1.70080E+01	-3.04674E+01	-4.38312E+01	5.00E-04	-3.10491E+00	-1.70080E+01	-3.04674E+01	-4.38312E+01
1.00E-03	-2.80388E+00	-1.55029E+01	-2.77581E+01	-3.99178E+01	1.00E-03	-2.80388E+00	-1.55029E+01	-2.77581E+01	-3.99178E+01
5.00E-03	-2.10494E+00	-1.20080E+01	-2.14675E+01	-3.08313E+01	5.00E-03	-2.10494E+00	-1.20080E+01	-2.14674E+01	-3.08312E+01
1.00E-02	-1.80396E+00	-1.05030E+01	-1.87583E+01	-2.69180E+01	1.00E-02	-1.80388E+00	-1.05029E+01	-1.87581E+01	-2.69179E+01
5.00E-02	-1.10578E+00	-7.00966E+00	-1.24696E+01	-1.78341E+01	5.00E-02	-1.10492E+00	-7.00802E+00	-1.24674E+01	-1.78312E+01
1.00E-01	-8.06323E+00	-5.50753E+00	-9.76330E+00	-1.39239E+01	1.00E-01	-8.03911E+00	-5.50291E+00	-9.75819E+00	-1.39179E+01
2.50E-01	-4.15268E+00	-3.53099E+00	-6.19649E+00	-8.76762E+00	2.50E-01	-4.06078E+00	-3.53133E+00	-6.17698E+00	-8.74948E+00
5.00E-01	-1.29955E+00	-2.05594E+00	-3.52063E+00	-6.88684E+00	5.00E-01	-1.05385E+00	-2.00898E+00	-3.46851E+00	-6.83244E+00
7.50E-01	2.73110E-02	-1.21184E+00	-1.97617E+00	-2.63972E+00	7.50E-01	7.01496E-02	-1.12973E+00	-1.88507E+00	-2.54469E+00
1.00E+00	1.31523E-01	-6.27711E-01	-8.06781E-01	-1.06253E+00	1.00E+00	1.94282E-01	-5.06802E-01	-7.62666E-01	-9.22651E-01
2.50E+00	3.91656E-01	1.07245E+00	2.36052E+00	3.77188E+00	2.50E+00	5.80884E-01	1.45713E+00	2.78878E+00	4.21853E+00
5.00E+00	4.81060E-01	2.03245E+00	4.40659E+00	7.02218E+00	5.00E+00	8.35833E-01	2.85302E+00	5.37016E+00	7.99532E+00
7.50E+00	4.94770E-01	2.36862E+00	5.35937E+00	8.59766E+00	7.50E+00	9.40452E-01	3.55053E+00	6.73856E+00	1.00529E+01
1.00E+01	4.96818E-01	2.48974E+00	5.81659E+00	9.48881E+00	1.00E+01	9.83838E-01	3.94093E+00	7.57964E+00	1.13720E+01
1.35E+01	4.97131E-01	2.53613E+00	6.09005E+00	1.01594E+01	1.35E+01	1.00372E+00	4.21939E+00	8.28337E+00	1.25561E+01
2.50E+01	4.97130E-01	2.54461E+00	6.21422E+00	1.06390E+01	2.50E+01	1.00902E+00	4.39016E+00	8.95708E+00	1.39999E+01
5.00E+01	4.97150E-01	2.54462E+00	6.21473E+00	1.06489E+01	5.00E+01	1.00903E+00	4.39282E+00	8.99637E+00	1.41924E+01

Table 3.

$y = 0.0$	x	$E1$	$E2$	$E3$	$E4$	$E5$	$E6$	$E7$	x	$E1$	$E2$	$E3$	$E4$	$E5$	$E6$	$E7$	
	$1.00E-04$	$1.393008E+13$	$1.97920E+13$	$8.63590E+25$	$0.000000E+00$	$0.000000E+00$	$0.000000E+00$	$0.000000E+00$	$1.00E-04$	$1.390000E+13$	$1.97920E+13$	$8.63590E+25$	$0.000000E+00$	$0.000000E+00$	$0.000000E+00$	$0.000000E+00$	$0.000000E+00$
	$5.00E-04$	$1.047705E+11$	$1.59356E+11$	$5.28597E+21$	$6.12391E+20$	$2.11781E+22$	$2.25726E+22$	$5.103E+04$	$1.047705E+11$	$1.59356E+11$	$5.28597E+21$	$6.12391E+20$	$2.11781E+22$	$2.25726E+22$	$5.103E+04$	$1.72441E+22$	
	$1.00E-03$	$1.390905E+10$	$1.97918E+10$	$8.63598E+19$	$1.09163E+10$	$2.72859E+10$	$4.08638E+20$	$4.26935E+20$	$1.00E-03$	$1.390905E+10$	$1.97918E+10$	$8.63598E+19$	$1.09163E+10$	$2.72859E+10$	$4.08638E+20$	$4.26935E+20$	
	$5.00E-03$	$1.047163E+08$	$1.59334E+08$	$5.28568E+08$	$6.12391E+08$	$2.11781E+08$	$2.25726E+08$	$5.103E+03$	$1.047163E+08$	$1.59334E+08$	$5.28568E+08$	$6.12391E+08$	$2.11781E+08$	$2.25726E+08$	$5.103E+03$	$1.40875E+20$	
	$1.00E-02$	$1.30837E+07$	$1.97855E+07$	$8.63546E+13$	$1.06875E+07$	$2.72108E+07$	$4.04677E+20$	$4.26935E+20$	$1.00E-02$	$1.30837E+07$	$1.97855E+07$	$8.63546E+13$	$1.06875E+07$	$2.72108E+07$	$4.04677E+20$	$4.26935E+20$	
	$5.00E-02$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+02$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+02$	$2.35040E+14$	
	$1.00E-01$	$1.30766E+04$	$1.96497E+04$	$8.63628E+07$	$1.06518E+04$	$2.70707E+04$	$4.05975E+18$	$4.26935E+18$	$1.00E-01$	$1.30838E+04$	$1.97019E+04$	$8.63628E+07$	$1.06518E+04$	$2.70707E+04$	$4.05975E+18$	$4.26935E+18$	
	$5.00E-01$	$8.35115E+02$	$1.22277E+03$	$5.10377E+02$	$6.97151E+03$	$2.05658E+02$	$2.02989E+04$	$5.00E+01$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+01$	$1.11310E+08$	
	$1.00E-01$	$1.03907E+01$	$1.47463E+02$	$5.10397E+01$	$7.11689E+01$	$2.05658E+01$	$2.02989E+02$	$5.00E+01$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+01$	$2.03751E+05$	
	$5.00E-01$	$3.05937E+01$	$4.14935E+01$	$1.68597E+01$	$4.24349E+02$	$1.06875E+01$	$1.04691E+03$	$5.00E+01$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+01$	$4.90767E+03$	
	$1.00E+00$	$1.29279E+01$	$1.65838E+01$	$7.14646E+01$	$7.12052E+00$	$2.20201E+01$	$1.84065E+02$	$2.97515E+02$	$1.00E+00$	$1.29600E+01$	$1.67627E+01$	$7.14646E+01$	$7.12052E+00$	$2.20201E+01$	$1.84065E+02$	$2.97515E+02$	
	$5.00E+00$	$8.99515E+01$	$7.20538E+01$	$2.33168E+01$	$9.74430E+01$	$3.09296E+01$	$3.29926E+01$	$2.50E+00$	$8.86567E+01$	$8.88558E+01$	$6.47148E+01$	$3.47447E+02$	$1.56213E+01$	$1.49738E+02$	$1.71708E+01$	$5.15454E+02$	
	$1.00E+00$	$8.99515E+01$	$7.20538E+01$	$2.33168E+01$	$9.74430E+01$	$3.09296E+01$	$3.29926E+01$	$2.50E+00$	$8.86567E+01$	$8.88558E+01$	$6.47148E+01$	$3.47447E+02$	$1.56213E+01$	$1.49738E+02$	$1.71708E+01$	$5.15454E+02$	
	$5.00E+00$	$8.99515E+01$	$7.20538E+01$	$2.33168E+01$	$9.74430E+01$	$3.09296E+01$	$3.29926E+01$	$2.50E+00$	$8.86567E+01$	$8.88558E+01$	$6.47148E+01$	$3.47447E+02$	$1.56213E+01$	$1.49738E+02$	$1.71708E+01$	$5.15454E+02$	
	$1.00E+00$	$8.99515E+01$	$7.20538E+01$	$2.33168E+01$	$9.74430E+01$	$3.09296E+01$	$3.29926E+01$	$2.50E+00$	$8.86567E+01$	$8.88558E+01$	$6.47148E+01$	$3.47447E+02$	$1.56213E+01$	$1.49738E+02$	$1.71708E+01$	$5.15454E+02$	
	$5.00E+00$	$8.99515E+01$	$7.20538E+01$	$2.33168E+01$	$9.74430E+01$	$3.09296E+01$	$3.29926E+01$	$2.50E+00$	$8.86567E+01$	$8.88558E+01$	$6.47148E+01$	$3.47447E+02$	$1.56213E+01$	$1.49738E+02$	$1.71708E+01$	$5.15454E+02$	
	$1.00E+00$	$1.81212E+01$	$7.23979E+02$	$6.42397E+02$	$7.07152E+02$	$1.80317E+02$	$1.97240E+03$	$5.00E+00$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+00$	$6.98315E+05$	
	$5.00E+00$	$1.04691E+01$	$1.81212E+01$	$7.23979E+02$	$6.42397E+02$	$7.07152E+02$	$1.80317E+02$	$1.97240E+03$	$5.00E+00$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+00$	$6.98315E+05$
	$1.00E+00$	$9.49156E+02$	$1.18022E+02$	$5.26512E+02$	$2.23827E+02$	$7.11571E+03$	$4.19906E+03$	$4.97135E+07$	$1.00E+01$	$9.31516E+02$	$1.03797E+02$	$5.21572E+02$	$2.23827E+02$	$7.11571E+03$	$4.19906E+03$	$4.97135E+07$	
	$1.00E+01$	$9.05510E+02$	$8.35664E+03$	$2.51353E+04$	$6.76152E+05$	$1.33174E+03$	$1.87997E+05$	$1.57569E+07$	$1.00E+01$	$9.35510E+01$	$6.05794E+01$	$1.05794E+05$	$4.97135E+07$	$1.00E+01$	$9.05510E+02$	$8.35664E+03$	
	$2.50E+01$	$9.05510E+02$	$7.59123E+03$	$2.27931E+04$	$2.05658E+03$	$2.05658E+03$	$7.65357E+06$	$5.00E+01$	$9.35510E+01$	$6.05794E+01$	$1.05794E+05$	$4.97135E+07$	$1.00E+01$	$9.05510E+02$	$8.35664E+03$	$2.53523E+07$	
	$5.00E+01$	$9.05510E+02$	$7.59123E+03$	$2.27931E+04$	$2.05658E+03$	$2.05658E+03$	$7.65357E+06$	$5.00E+01$	$9.35510E+01$	$6.05794E+01$	$1.05794E+05$	$4.97135E+07$	$1.00E+01$	$9.05510E+02$	$8.35664E+03$	$2.53523E+07$	
	$1.00E+00$	$1.30837E+01$	$1.97855E+01$	$8.63598E+01$	$1.06875E+01$	$2.72108E+01$	$2.11781E+14$	$5.00E+00$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+00$	$8.35664E+03$	
	$5.00E+00$	$1.29835E+02$	$6.23502E+02$	$2.43729E+02$	$1.91797E+02$	$5.61652E+01$	$5.13167E+01$	$5.00E+00$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+00$	$7.37735E+08$	
	$1.00E+00$	$7.28835E+02$	$7.28835E+02$	$6.23502E+02$	$2.43729E+02$	$1.91797E+02$	$5.61652E+01$	$5.13167E+01$	$5.00E+00$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+00$	$7.37735E+08$
	$5.00E+00$	$7.28835E+02$	$7.28835E+02$	$6.23502E+02$	$2.43729E+02$	$1.91797E+02$	$5.61652E+01$	$5.13167E+01$	$5.00E+00$	$1.04691E+05$	$1.58111E+05$	$6.15921E+05$	$7.17100E+05$	$2.11781E+04$	$2.17510E+14$	$5.00E+00$	$7.37735E+08$

Table 3. (continued)

Table 4.

$y = 10.0$	x	$E1$	$E2$	$E3$	$E4$	$E5$	$E6$	$E7$	$E8$	x	$\log E1$	$\log E2$	$\log E3$	$\log E4$	$\log E5$	$\log E6$	$\log E7$	
1.00E-04	1.359305E+13	1.979205E+13	6.653908E+25	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	1.00E-04	2.131165E+01	1.393655E+01	2.591505E+01	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	
5.00E-04	1.047058E+11	1.59365E+11	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	5.00E-04	1.102005E+01	1.11598E+01	2.422256E+01	2.422256E+01	2.422256E+01	2.422256E+01	2.422256E+01	
1.00E-03	1.293902E+10	1.979203E+10	8.635905E+19	1.03938E+10	2.287204E+09	2.691404E+20	4.407070E+29	1.00E-03	1.01169E+01	1.02056E+01	1.93953E+01	1.010325E+01	1.010325E+01	1.010325E+01	1.010325E+01	1.010325E+01		
5.00E-03	1.047195E+08	1.583356E+08	8.23395E+07	2.232558E+08	2.232558E+08	2.232558E+08	2.232558E+08	2.232558E+08	2.232558E+08	5.00E-03	7.00E-02	8.020201E+00	8.19597E+00	8.33805E+00	8.33805E+00	8.33805E+00	8.33805E+00	
1.00E-02	1.363935E+07	1.979183E+07	8.625905E+07	1.039255E+07	2.422558E+07	2.69131E+20	4.40515E+20	1.00E-02	7.115193E+01	7.29573E+00	1.39562E+01	7.012325E+00	7.45467E+00	1.44303E+01	2.05644E+01	2.05644E+01		
5.00E-02	1.04718E+06	1.58335E+06	8.23395E+06	2.232558E+06	2.232558E+06	2.232558E+06	2.232558E+06	2.232558E+06	2.232558E+06	5.00E-02	5.00E-02	5.010399E+00	5.19595E+00	5.491305E+00	5.491305E+00	5.491305E+00	5.491305E+00	
1.00E-01	1.363928E+05	1.979182E+05	8.625905E+05	1.039255E+05	2.232558E+05	2.69131E+20	4.40515E+20	1.00E-01	1.041505E+00	4.29324E+00	7.93274E+00	4.007211E+00	4.493205E+00	8.42879E+00	1.16383E+01	1.16383E+01		
5.00E-01	8.276262E+02	1.285299E+03	1.753995E+02	1.753995E+03	1.753995E+03	1.753995E+03	1.753995E+03	1.753995E+03	1.753995E+03	5.00E-01	2.50E-01	2.92771E+00	3.07638E+00	3.21210E+00	3.21210E+00	3.21210E+00	3.21210E+00	
1.00E-01	3.102885E+01	1.575156E+02	5.484208E+04	2.287204E+04	1.697210E+04	2.159772E+02	6.16761E+03	7.509E-01	5.00E-01	2.01669E+00	2.16859E+00	3.70806E+00	2.320246E+00	4.46596E+00	5.2853E+00	5.2853E+00	5.2853E+00	
5.00E-01	7.959E-01	3.102885E+01	4.634938E+01	4.767225E+02	2.259255E+02	2.259255E+02	2.259255E+02	2.259255E+02	2.259255E+02	5.00E-01	1.48868E+00	1.63085E+00	2.67772E+00	1.27774E+00	1.74765E+00	3.46495E+00	3.46495E+00	3.46495E+00
1.00E+00	1.35939E+01	1.979182E+01	8.625905E+01	1.039255E+01	2.232558E+01	2.69131E+20	4.40515E+20	1.00E+00	1.111535E+00	1.215638E+00	1.834949E+00	1.047115E+00	1.047115E+00	1.047115E+00	1.047115E+00	1.047115E+00		
5.00E+00	8.459705E+01	1.172735E+02	5.289102E+01	5.656128E+01	5.656128E+01	5.656128E+01	5.656128E+01	5.656128E+01	5.656128E+01	2.50E+00	4.646464E+02	-4.767597E+01	-4.210228E+01	-4.210228E+01	-4.210228E+01	-4.210228E+01	-4.210228E+01	
1.00E+00	5.00E+00	1.154505E+01	1.212212E+01	4.634938E+02	1.697210E+02	1.697210E+02	1.697210E+02	1.697210E+02	1.697210E+02	5.00E+00	7.39327E+00	-1.13766E+00	-2.13598E+00	-2.13598E+00	-2.13598E+00	-2.13598E+00	-2.13598E+00	
5.00E+00	7.959E+00	4.248785E+02	1.31595E+02	1.63916E+03	1.63916E+03	1.63916E+03	1.63916E+03	1.63916E+03	1.63916E+03	1.00E+00	9.946397E+01	-1.59353E+00	-3.05958E+00	-3.05958E+00	-3.05958E+00	-3.05958E+00	-3.05958E+00	
1.00E+01	2.44859E+02	1.29595E+02	1.66414E+03	1.31313E+02	1.31313E+02	1.31313E+02	1.31313E+02	1.31313E+02	1.31313E+02	1.00E+01	1.023395E+00	-1.92608E+00	-3.48739E+00	-3.48739E+00	-3.48739E+00	-3.48739E+00	-3.48739E+00	
5.00E+01	1.772329E+02	5.53939E+02	3.272555E+05	1.476068E+03	1.476068E+03	1.476068E+03	1.476068E+03	1.476068E+03	1.476068E+03	1.00E+01	1.05721E+00	-2.07797E+00	-3.59795E+00	-4.11795E+00	-4.11795E+00	-4.11795E+00	-4.11795E+00	
1.00E+02	2.50E+01	1.575156E+02	4.634938E+02	4.634938E+02	4.634938E+02	4.634938E+02	4.634938E+02	4.634938E+02	4.634938E+02	2.50E+01	1.040721E+00	-1.040721E+00	-2.07797E+00	-3.61223E+00	-4.26756E+00	-4.85761E+00	-4.85761E+00	
5.00E+02	1.575156E+01	1.575156E+02	2.706595E+03	1.4042139E+03	4.39950E+05	4.39950E+05	1.003957E+03	1.003957E+03	1.003957E+03	5.00E+01	1.040721E+00	-2.12525E+00	-4.61231E+00	-4.36058E+00	-4.36058E+00	-4.36058E+00	-4.36058E+00	
$y = 20.0$	x	$E1$	$E2$	$E3$	$E4$	$E5$	$E6$	$E7$	x	$\log E1$	$\log E2$	$\log E3$	$\log E4$	$\log E5$	$\log E6$	$\log E7$		
1.00E-04	1.359309E+13	1.979182E+13	8.625905E+25	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	1.00E-04	1.00E-04	1.313159E+01	1.393655E+01	2.591505E+01	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	
5.00E-04	1.047028E+11	1.59365E+11	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	2.259268E+21	5.00E-04	1.010200E+01	1.11998E+01	2.174207E+01	2.59353E+01	1.010200E+01	2.174207E+01	2.59353E+01	
1.00E-03	1.293902E+10	1.979182E+10	8.625905E+19	1.039255E+10	2.232558E+09	2.72271E+20	4.40515E+20	1.00E-03	1.01169E+01	1.10998E+01	2.174207E+01	2.59353E+01	1.010200E+01	2.174207E+01	2.59353E+01	2.59353E+01		
5.00E-03	1.047028E+09	1.59365E+09	8.625905E+08	1.039255E+09	2.232558E+08	2.72271E+19	4.40515E+19	5.00E-03	1.010200E+01	1.10998E+01	2.174207E+01	2.59353E+01	1.010200E+01	2.174207E+01	2.59353E+01	2.59353E+01		
1.00E-02	1.359393E+07	1.979182E+07	8.625905E+07	1.039255E+07	2.232558E+07	2.72271E+07	4.40515E+07	1.00E-02	1.010200E+01	1.10998E+01	2.174207E+01	2.59353E+01	1.010200E+01	2.174207E+01	2.59353E+01	2.59353E+01		
5.00E-02	1.047028E+06	1.59365E+06	8.625905E+06	1.039255E+06	2.232558E+06	2.72271E+06	4.40515E+06	5.00E-02	1.010200E+01	1.10998E+01	2.174207E+01	2.59353E+01	1.010200E+01	2.174207E+01	2.59353E+01	2.59353E+01		
1.00E-01	1.359393E+05	1.979182E+05	8.625905E+05	1.039255E+05	2.232558E+05	2.72271E+05	4.40515E+05	1.00E-01	1.010200E+01	1.10998E+01	2.174207E+01	2.59353E+01	1.010200E+01	2.174207E+01	2.59353E+01	2.59353E+01		
5.00E-01	8.37760E+02	1.26539E+02	1.26539E+02	1.26539E+02	1.26539E+02	1.26539E+02	1.26539E+02	1.26539E+02	1.26539E+02	2.50E-01	2.82798E+00	3.09220E+00	5.29599E+00	2.174207E+00	3.23255E+00	8.04393E+00		
1.00E-01	1.61571E+02	1.59365E+02	1.59365E+02	1.59365E+02	1.59365E+02	1.59365E+02	1.59365E+02	1.59365E+02	1.59365E+02	1.00E-01	2.03697E+00	2.174207E+00	3.23255E+00	1.85911E+00	2.46756E+00	5.29599E+00		
5.00E-01	7.959E-01	1.30165E+02	1.30165E+02	1.30165E+02	1.30165E+02	1.30165E+02	1.30165E+02	1.30165E+02	1.30165E+02	7.959E-01	1.023395E+00	1.10998E+00	2.174207E+00	3.23255E+00	3.07739E+00	3.68137E+00		
1.00E-00	1.30165E+01	1.979182E+01	8.625905E+01	1.039255E+01	2.232558E+01	2.72271E+01	4.40515E+01	1.00E-00	1.011535E+00	1.111535E+00	2.174207E+00	2.59353E+01	1.010200E+01	2.174207E+00	3.23255E+00	3.23255E+00		
2.50E-00	8.44279E+01	1.26539E+01	1.26539E+01	1.26539E+01	1.26539E+01	1.26539E+01	1.26539E+01	1.26539E+01	1.26539E+01	2.50E-01	5.4875E+00	-9.28998E+02	-6.28899E+02	-2.53597E+00	-1.36305E+00	-1.36305E+00		
5.00E-00	5.09774E-01	1.45618E-01	1.52559E-01	1.52559E-01	1.52559E-01	1.52559E-01	1.52559E-01	1.52559E-01	1.52559E-01	5.00E-01	4.792097E+00	-1.15398E+02	-4.93958E+02	-2.174207E+00	-1.69441E+00	-1.69441E+00		
1.00E-01	1.77752E-02	3.98359E-02	3.98359E-02	3.98359E-02	3.98359E-02	3.98359E-02	3.98359E-02	3.98359E-02	3.98359E-02	1.00E-01	-1.02097E+00	-1.96083E+00	-3.57957E+00	-2.14717E+00	-4.05152E+00	-6.15975E+00		
1.35E-01	1.02387E-02	6.10007E-03	2.07293E-05	9.51819E-04	6.48890E-05	4.40515E+00	1.07393E-02	9.51819E-04	9.51819E-04	1.35E-01	-1.13N0E+00	-2.16708E+00	-3.75180E+00	-2.14717E+00	-4.43934E+00	-6.97628E+00		
2.50E-01	7.07313E-03	1.95792E-03	4.56823E-06	7.59980E-05	1.10202E-05	9.51819E-04	1.07393E-02	9.51819E-04	9.51819E-04	2.50E-01	2.50E-01	-2.13739E+00	-2.426939E+00	-5.27359E+00	-4.77359E+00	-7.31317E+00	-7.27764E+00	
5.00E-01	7.02233E-03	1.20285E-03	4.12065E-06	4.12065E-05	6.49392E-05	7.80245E-04	1.07393E-02	7.80245E-04	7.80245E-04	5.00E-01	-1.13739E+00	-2.20319E+00	-3.81958E+00	-2.27764E+00	-5.18137E+00	-7.18137E+00		

Table 4. (Continued)

$\gamma = 2.0$											
$\gamma = 10.0$											
x	$\log E_1$	$\log E_2$	$\log E_3$	$\log E_4$	$\log E_5$	$\log E_6$	$\log E_7$	x	$\log E_1$	$\log E_2$	$\log E_3$
1.00E+00	1.31169E+01	1.35965E+01	2.99268E+01	5.14695E+01	1.13915E+01	1.21713E+00	1.00E+04	1.21159E+01	1.12056E+01	2.59535E+01	2.00E+00
5.00E+04	1.1020E+01	1.11965E+01	2.47193E+01	5.13958E+01	1.10230E+01	1.10230E+01	5.00E+04	1.12056E+01	1.11965E+01	2.25256E+01	1.33381E+01
1.00E+05	1.01619E+01	1.02605E+01	1.99463E+01	1.00128E+01	1.01052E+01	1.01119E+01	1.00E+05	1.01619E+01	1.01619E+01	1.01595E+01	1.66563E+01
5.00E+05	8.10200E+00	8.19958E+00	1.47792E+01	7.93195E+00	8.33005E+00	8.39903E+00	5.00E+05	8.02020E+00	8.19958E+00	1.35309E+00	1.33508E+01
1.00E+06	7.11159E+00	7.29646E+00	1.29365E+01	7.01239E+00	7.43442E+01	1.44749E+01	1.00E+02	7.11159E+00	7.29646E+00	1.39353E+01	2.06474E+01
5.00E+02	5.61999E+00	5.11992E+00	9.77496E+00	4.91140E+00	1.02355E+00	1.45923E+01	5.00E+02	5.61999E+00	5.11992E+00	1.02355E+00	1.02355E+00
1.00E+03	4.11679E+00	4.29454E+00	7.23936E+00	4.00919E+00	4.43935E+00	5.24696E+00	1.00E+01	4.11679E+00	4.29454E+00	7.93628E+00	4.01203E+00
2.00E+03	2.98230E+00	3.09553E+00	5.54505E+00	2.80692E+00	6.02035E+00	8.04085E+00	2.50E+01	2.98230E+00	3.09553E+00	5.07767E+00	6.01067E+00
5.00E+01	2.01789E+00	2.17894E+00	3.20591E+00	1.87559E+00	2.35154E+00	4.19935E+00	5.00E+01	2.01789E+00	2.17894E+00	5.19812E+00	2.23971E+00
7.50E+01	1.48531E+00	1.63674E+00	2.64579E+00	1.31641E+00	1.77075E+00	3.10275E+00	1.50E+01	1.48531E+00	1.63674E+00	2.65975E+00	3.16661E+00
1.00E+00	1.11166E+00	1.24569E+00	1.68118E+00	9.07447E+00	1.377645E+00	2.12112E+00	2.52056E+00	1.11166E+00	1.24569E+00	1.28562E+00	2.40354E+00
2.50E+00	-6.72835E-02	-5.13159E-02	-5.59721E-01	-5.26630E-01	-1.26323E+00	-2.42879E+01	-2.50E+00	-5.13159E-02	-5.59721E-01	-1.89573E-01	-2.02772E+00
5.00E+00	-8.48176E-01	-1.03039E+00	-1.40575E+00	-1.02135E+00	-2.40538E+00	-4.15993E+00	-5.00E+00	-1.03039E+00	-1.40575E+00	-1.35615E+00	-5.86210E+00
7.50E+00	-1.15972E+00	-1.63908E+00	-2.38232E+00	-2.76703E+00	-1.66548E+00	-3.01282E+00	-7.50E+00	-1.15972E+00	-1.63908E+00	-2.16461E+00	-5.2159E+00
1.00E+01	-1.27446E+00	-1.94735E+00	-2.75631E+00	-2.04035E+00	-2.04062E+00	-4.33198E+00	-6.55593E+00	-1.27446E+00	-1.94735E+00	-2.77831E+00	-6.59877E+00
1.50E+01	-1.33030E+00	-2.27707E+00	-4.02161E+00	-3.98673E+00	-2.46792E+00	-5.00773E+00	-7.28283E+00	-1.33030E+00	-2.27707E+00	-4.49468E+00	-7.54668E+00
2.00E+01	-1.38487E+00	-2.32767E+00	-4.13596E+00	-4.44939E+00	-2.84815E+00	-5.79632E+00	-7.01393E+00	-1.38487E+00	-2.32767E+00	-4.85354E+00	-7.51281E+00
5.00E+01	-1.32847E+00	-2.32766E+00	-4.13595E+00	-4.45938E+00	-2.85703E+00	-5.74672E+00	-7.01283E+00	-1.32847E+00	-2.32766E+00	-4.85645E+00	-7.50747E+00
$\gamma = 5.0$											
x	$\log E_1$	$\log E_2$	$\log E_3$	$\log E_4$	$\log E_5$	$\log E_6$	$\log E_7$	x	$\log E_1$	$\log E_2$	$\log E_3$
1.00E+00	1.31169E+01	1.35965E+01	2.99268E+01	5.14695E+01	1.13915E+01	1.21713E+00	1.00E+04	1.21159E+01	1.11649E+01	2.59535E+01	2.00E+00
5.00E+04	1.1020E+01	1.11965E+01	2.47193E+01	5.13958E+01	1.10230E+01	1.10230E+01	5.00E+04	1.12056E+01	1.11965E+01	2.25256E+01	1.33381E+01
1.00E+05	1.01619E+01	1.02605E+01	1.99463E+01	1.00128E+01	1.01052E+01	1.01119E+01	1.00E+05	1.01619E+01	1.01619E+01	1.01595E+01	1.66563E+01
5.00E+05	8.02000E+00	8.19958E+00	1.47792E+01	7.93195E+00	8.33005E+00	8.39903E+00	5.00E+05	8.02020E+00	8.19958E+00	1.35309E+00	1.33508E+01
1.00E+06	7.11159E+00	7.29646E+00	1.29365E+01	7.01239E+00	7.43442E+01	1.44749E+01	1.00E+02	7.11159E+00	7.29646E+00	1.39353E+01	2.06474E+01
5.00E+02	5.19940E+00	5.19940E+00	9.77496E+00	4.91140E+00	1.02355E+00	1.45923E+01	5.00E+02	5.19940E+00	5.19940E+00	1.02355E+00	1.02355E+00
1.00E+03	4.11679E+00	4.29454E+00	7.23936E+00	4.00919E+00	4.43935E+00	5.24696E+00	1.00E+01	4.11679E+00	4.29454E+00	7.93628E+00	4.01203E+00
2.00E+03	2.98230E+00	3.09553E+00	5.54505E+00	2.80692E+00	6.02035E+00	8.04085E+00	2.50E+01	2.98230E+00	3.09553E+00	5.07767E+00	6.01067E+00
5.00E+01	2.01789E+00	2.17894E+00	3.20591E+00	1.87559E+00	2.35154E+00	4.19935E+00	5.00E+01	2.01789E+00	2.17894E+00	5.19812E+00	2.23971E+00
7.50E+01	1.48531E+00	1.63674E+00	2.64579E+00	1.31641E+00	1.77075E+00	3.10275E+00	1.50E+01	1.48531E+00	1.63674E+00	2.65975E+00	3.16661E+00
1.00E+00	1.11166E+00	1.24569E+00	1.68118E+00	9.07447E+00	1.377645E+00	2.12112E+00	2.52056E+00	1.11166E+00	1.24569E+00	1.28562E+00	2.40354E+00
2.50E+00	-7.40072E+00	-5.13159E+00	-5.59721E+01	-2.37353E+00	-1.20520E+00	-2.42879E+01	-2.50E+00	-5.13159E+00	-5.59721E+00	-1.89573E+01	-2.02772E+00
5.00E+00	-9.01990E+00	-1.03039E+00	-1.40575E+00	-1.02135E+00	-2.40538E+00	-4.15993E+00	-5.00E+00	-1.03039E+00	-1.40575E+00	-1.35615E+00	-5.86210E+00
7.50E+00	-1.28387E+00	-1.59044E+00	-2.38575E+00	-2.76703E+00	-1.66548E+00	-3.01282E+00	-7.50E+00	-1.28387E+00	-1.59044E+00	-2.16461E+00	-5.2159E+00
1.00E+01	-1.49331E+00	-2.01942E+00	-3.21995E+00	-1.89797E+00	-2.36260E+00	-3.42132E+00	-1.00E+01	-1.49331E+00	-2.01942E+00	-3.21995E+00	-4.23973E+00
2.00E+01	-1.47561E+00	-2.45552E+00	-4.12595E+00	-4.38543E+00	-2.90223E+00	-5.63450E+00	-2.00E+01	-1.47561E+00	-2.45552E+00	-4.39354E+00	-5.64535E+00
5.00E+01	-1.35891E+00	-2.43755E+00	-4.05109E+00	-4.41556E+00	-2.92733E+00	-5.63257E+00	-1.00E+01	-1.35891E+00	-2.43755E+00	-4.05109E+00	-5.64535E+00
7.50E+01	-1.32847E+00	-2.32767E+00	-4.13595E+00	-4.45938E+00	-2.85703E+00	-5.74672E+00	-1.00E+01	-1.32847E+00	-2.32766E+00	-4.46945E+00	-5.75074E+00
1.00E+00	1.11151E+01	1.25965E+01	1.90794E+00	1.47446E+00	1.47446E+00	2.12722E+00	2.59535E+00	1.11151E+01	1.25965E+01	1.39535E+01	2.61479E+00
2.50E+00	-7.40072E+00	-5.13159E+00	-5.59721E+01	-1.20520E+00	-1.05305E+00	-2.42879E+01	-2.50E+00	-7.40072E+00	-5.13159E+00	-1.89573E+01	-2.02772E+00
5.00E+00	-9.01990E+00	-1.03039E+00	-1.40575E+00	-1.02135E+00	-2.40538E+00	-4.09235E+00	-5.00E+00	-9.01990E+00	-1.03039E+00	-1.87956E+00	-2.01942E+00
7.50E+00	-1.28387E+00	-1.59044E+00	-2.38575E+00	-2.46810E+00	-3.44252E+00	-5.63450E+00	-7.50E+00	-1.28387E+00	-1.59044E+00	-3.23758E+00	-5.34908E+00
1.00E+01	-1.49331E+00	-2.01942E+00	-3.21995E+00	-3.11139E+00	-4.25545E+00	-6.62115E+00	-1.00E+01	-1.49331E+00	-2.01942E+00	-4.05305E+00	-6.64535E+00
2.00E+01	-1.47561E+00	-2.45552E+00	-4.27013E+00	-3.74772E+00	-4.45515E+00	-7.45936E+00	-1.00E+01	-1.47561E+00	-2.45552E+00	-4.70558E+00	-7.59327E+00
5.00E+01	-1.35891E+00	-2.43755E+00	-4.12595E+00	-4.38543E+00	-2.90223E+00	-5.63450E+00	-2.00E+01	-1.35891E+00	-2.43755E+00	-4.39354E+00	-5.64535E+00
7.50E+01	-1.32847E+00	-2.32767E+00	-4.13595E+00	-4.45938E+00	-2.85703E+00	-5.74672E+00	-2.00E+01	-1.32847E+00	-2.32766E+00	-4.46945E+00	-5.75074E+00
1.00E+00	-1.35891E+00	-2.43755E+00	-4.12595E+00	-4.41556E+00	-2.92733E+00	-5.63257E+00	-1.00E+01	-1.35891E+00	-2.43755E+00	-4.39354E+00	-5.64535E+00

Table 5.

$y = 0.0$	$y = 2.0$	$y = 5.0$	D21	D22	D23	D41	D42	D43	x	D21	D22	D23	D41	D42	D43
x	D21	D22	D23	D41	D42	D43	x		D21	D22	D23	D41	D42	D43	
1.00E-4d	4.18879E-12	0.00000E+00	0.00000E+00	4.0231E-35	0.00000E+00	0.00000E+00	1.00E-04	4.3879E-12	4.18879E-13	6.03126E-24	2.18078E-26	6.92015E-26	1.37686E-35	6.8388E-39	
5.00E-04	5.23599E-10	0.00000E+00	0.00000E+00	7.35398E-29	0.00000E+00	0.00000E+00	5.00E-04	5.23599E-10	5.23599E-11	9.42478E-20	1.14202E-21	1.35126E-20	3.48952E-30	1.3571E-32	
1.00E-03	4.1879E-09	0.00000E+00	0.00000E+00	4.0231E-26	0.00000E+00	0.00000E+00	1.00E-03	4.1879E-09	4.1879E-10	6.03126E-18	7.18200E-19	7.42478E-19	1.37686E-22	6.8388E-30	
5.00E-03	5.23599E-07	0.00000E+00	0.00000E+00	7.35398E-20	0.00000E+00	0.00000E+00	5.00E-03	5.23599E-07	5.23599E-08	9.42478E-14	1.14202E-15	1.35126E-19	3.48952E-21	1.3571E-23	
1.00E-02	4.1879E-06	0.00000E+00	0.00000E+00	4.0231E-17	0.00000E+00	0.00000E+00	1.00E-02	4.1879E-06	4.1879E-07	6.03126E-12	7.18200E-14	7.42478E-14	1.37686E-18	6.8388E-21	
5.00E-02	5.23599E-04	0.00000E+00	0.00000E+00	7.35398E-11	0.00000E+00	0.00000E+00	5.00E-02	5.23599E-04	5.23599E-05	9.42478E-08	1.14202E-09	1.35126E-10	3.48952E-12	1.3571E-14	
1.00E-01	4.1879E-03	0.00000E+00	0.00000E+00	4.0231E-08	0.00000E+00	0.00000E+00	1.00E-01	4.1879E-03	4.1879E-04	6.03126E-06	7.18200E-08	7.42478E-08	1.37686E-09	6.8388E-12	
2.50E-01	6.51608E-02	0.00000E+00	0.00000E+00	1.5335E-05	0.00000E+00	0.00000E+00	2.50E-01	6.52891E-02	6.52891E-03	1.4725E-03	1.75310E-03	2.65849E-03	1.66961E-05	2.60988E-05	
5.00E-01	5.12309E-01	0.00000E+00	0.00000E+00	7.02359E-02	0.00000E+00	0.00000E+00	5.00E-01	5.16539E-01	5.16539E-02	9.40749E-02	1.14202E-03	1.35931E-01	3.49671E-05	1.35568E-05	
7.50E-01	1.67636E-00	0.00000E+00	0.00000E+00	2.97920E-00	0.00000E+00	0.00000E+00	7.50E-01	1.70713E-00	1.66646E-00	1.27653E-02	2.18078E-02	2.28560E-01	5.13111E-04		
1.00E+00	3.80467E-00	0.00000E+00	0.00000E+00	3.88919E-01	0.00000E+00	0.00000E+00	1.00E+00	3.92864E-00	4.13159E-01	5.91688E-00	6.87908E-01	4.26154E-00	6.83445E-03		
2.50E+00	3.65762E-01	0.00000E+00	0.00000E+00	1.10397E-05	0.00000E+00	0.00000E+00	2.50E+00	4.65280E-01	5.57115E-01	1.21531E-01	2.24523E-01	4.25657E-04	5.15151E-02		
5.00E+00	1.16848E-02	0.00000E+00	0.00000E+00	2.05931E-07	0.00000E+00	0.00000E+00	5.00E+00	1.65380E-02	2.554973E-03	3.93130E-04	6.33529E-05	5.85975E-07	4.67949E-06	9.20928E-03	
7.50E+00	1.52195E-02	0.00000E+00	0.00000E+00	2.05753E-08	0.00000E+00	0.00000E+00	7.50E+00	2.40265E-02	4.29983E-01	1.74077E-05	3.424957E-03	8.44604E-08	2.54182E-07	7.60705E-05	
1.00E+01	1.66569E-02	0.00000E+00	0.00000E+00	6.43176E-03	0.00000E+00	0.00000E+00	1.00E+01	2.63841E-02	5.02755E-01	3.46093E-05	7.10001E-03	5.636615E-09	3.49738E-08	9.85555E-05	
1.50E+01	1.64765E-02	0.00000E+00	0.00000E+00	1.65879E-09	0.00000E+00	0.00000E+00	1.50E+01	2.77727E-02	5.31729E-01	5.00368E-05	1.10095E-04	9.656527E-09	1.06524E-09	3.02460E-09	
2.50E+01	1.66934E-02	0.00000E+00	0.00000E+00	1.65849E-09	0.00000E+00	0.00000E+00	2.50E+01	2.78551E-02	5.36161E-01	5.63101E-05	1.28397E-04	1.65657E-10	1.85936E-09	6.31468E-06	
5.00E+01	1.64949E-02	0.00000E+00	0.00000E+00	1.655193E-09	0.00000E+00	0.00000E+00	5.00E+01	2.48355E-02	5.361565E-02	5.63243E-05	1.28347E-04	1.70579E-10	1.83187E-09	6.37432E-05	
$y = 5.0$															
x	D21	D22	D23	D41	D42	D43	x		D21	D22	D23	D41	D42	D43	
1.00E-04	4.18879E-12	1.046720E-13	4.63399E-24	8.97598E-27	4.07020E-35	9.42743E-10	1.00E-04	4.3879E-12	4.18879E-13	6.03126E-20	1.12915E-12	1.12915E-23	2.53549E-34	1.29938E-35	
5.00E-04	5.23599E-10	1.20930E-11	4.61233E-22	1.462020E-22	1.135020E-29	1.39528E-30	5.00E-04	5.23599E-10	5.23599E-10	1.36900E-10	1.86291E-19	4.35205E-21	2.42154E-28	2.52975E-29	
1.00E-03	4.1879E-09	1.046720E-10	4.61233E-21	1.462020E-20	1.135020E-28	1.39528E-29	1.00E-03	4.1879E-09	4.1879E-10	1.047020E-09	1.82151E-17	2.34998E-25	1.29938E-26	2.47243E-29	
5.00E-03	5.23599E-07	1.20930E-09	4.61233E-20	1.462020E-19	1.135020E-27	1.39528E-28	5.00E-03	5.23599E-07	5.23599E-07	1.047020E-09	1.82151E-17	2.43504E-25	1.52575E-20	2.49345E-23	
1.00E-02	4.1879E-06	1.046720E-07	4.61233E-19	1.462020E-18	1.135020E-26	1.39528E-27	1.00E-02	4.1879E-06	4.1879E-06	1.047020E-06	1.19215E-11	2.43504E-19	1.29938E-17	2.47302E-20	
5.00E-02	5.23599E-04	1.20930E-06	4.61233E-18	1.462020E-17	1.135020E-25	1.39528E-26	5.00E-02	5.23599E-04	5.23599E-04	1.047020E-06	1.19215E-11	2.43504E-19	1.29938E-17	2.47302E-20	
1.00E-01	4.1879E-03	1.046720E-05	4.61233E-17	1.462020E-16	1.135020E-24	1.39528E-25	1.00E-01	4.1879E-03	4.1879E-03	1.047020E-05	1.19215E-11	2.43504E-19	1.29938E-17	2.47302E-20	
2.50E-01	6.51969E-02	1.046720E-04	4.61233E-16	1.462020E-15	1.135020E-23	1.39528E-24	2.50E-01	6.52891E-02	6.52891E-02	1.047020E-05	1.19215E-11	2.43504E-19	1.29938E-17	2.47302E-20	
5.00E-01	1.15490E-01	1.046720E-03	4.61133E-15	1.46133E-14	1.134913E-22	1.38493E-23	5.00E-01	5.19863E-01	5.19863E-01	1.047020E-05	1.19215E-11	2.43504E-19	1.29938E-17	2.47302E-20	
7.50E-01	1.65521E-01	4.38485E-02	4.61133E-14	1.46133E-13	1.134913E-21	1.38493E-22	7.50E-01	4.44640E-01	2.11546E-01	5.04693E-02	2.11546E-10	9.29235E-01	9.75138E-01	3.20390E-03	
1.00E-00	3.80467E-00	1.02779E-01	4.57953E-06	8.9335E-05	4.09327E-03	9.48641E-10	1.00E-00	4.04462E-00	1.03997E-00	1.03997E-00	1.19215E-03	2.46164E-10	2.53785E-11	8.44619E-14	
2.50E-00	4.02265E-01	1.32520E-01	4.57953E-05	1.94811E-05	1.34811E-03	4.27105E-10	2.50E-01	5.15352E-01	1.48210E-01	1.48210E-01	1.26156E-03	2.61815E-01	4.27248E-02	1.59502E-02	
5.00E-00	1.28479E-01	2.53594E-01	4.57953E-04	7.03036E-01	2.48401E-01	9.48326E-05	5.00E-00	2.50393E-01	7.82793E-01	7.82793E-01	1.03454E-05	2.97532E-01	4.42261E-08	6.45497E-04	
7.50E-00	1.73792E-01	8.556567E-02	4.57953E-03	1.13171E-01	3.246122E-02	3.44958E-03	7.50E-00	3.38944E-02	1.48311E-02	5.81646E-05	2.81309E-09	2.49359E-08	1.44035E-06		
1.00E-01	1.87050E-01	9.86976E-02	4.57953E-02	1.13171E-01	3.246122E-01	4.37685E-04	1.00E-01	4.68393E-02	1.92694E-02	1.92694E-02	1.38227E-05	1.46192E-10	5.16074E-09	8.83181E-06	
1.25E-01	1.92021E-01	1.00301E-01	4.57953E-01	9.22829E-02	2.50252E-03	1.26041E-03	1.25E-01	5.02871E-02	2.11391E-02	2.35955E-06	8.22571E-09	1.46192E-10	5.16074E-09	3.55310E-07	
2.50E-01	1.90555E-01	1.00709E-01	4.57953E-01	1.02852E-01	1.02852E-01	1.57230E-03	2.50E-01	5.03856E-02	2.16956E-02	2.92170E-06	1.07531E-01	1.27557E-10	9.91972E-07	3.02460E-06	
5.00E-01	1.90555E-01	1.00709E-01	4.57953E-01	1.02852E-01	1.02852E-01	5.26223E-03	5.00E-01	5.08872E-02	2.16956E-02	2.97516E-06	1.07531E-01	1.31042E-10	1.01346E-03		

Table 5. (continued)

Table 6.

$y = 10.0$	x	D21	D22	D23	D24	D25	D26	D27	D28	D29	D30	D31	D32	D33	D34	D35	D36	D37	D38
1.00E+04	4.16879E-12	2.65940E-12	2.14979E-23	8.02850E-25	2.41279E-35	5.28265E-35	1.70971E-37	1.00E+04	-1.13779E+01	0.00000E+00	0.00000E+00	-3.45956E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+04	5.12559E-10	2.61799E-10	3.15134E-19	1.35145E-20	4.71239E-26	6.41118E-29	3.35938E-31	5.00E+04	-9.28103E+00	0.00000E+00	0.00000E+00	-2.61049E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+05	4.18897E-09	2.09446E-09	1.42579E-07	3.15134E-07	1.24129E-14	3.28265E-25	1.70971E-28	5.00E+05	-6.37792E+00	0.00000E+00	0.00000E+00	-2.55956E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
1.00E+05	4.18897E-09	2.09446E-09	1.42579E-07	3.15134E-07	1.24129E-14	3.28265E-25	1.70971E-28	5.00E+05	-6.28103E+00	0.00000E+00	0.00000E+00	-1.91048E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+06	2.09446E-06	2.09446E-06	1.42579E-11	6.02853E-13	2.41279E-16	3.28265E-17	1.70971E-19	1.00E+02	-5.37792E+00	0.00000E+00	0.00000E+00	-1.67955E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+08	5.21595E-04	2.61799E-04	3.15134E-04	1.35145E-03	4.71239E-03	6.41118E-11	3.35938E-13	5.00E+02	-5.28103E+00	0.00000E+00	0.00000E+00	-1.012049E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
1.00E+01	4.18897E-03	2.09446E-03	1.42579E-02	6.02853E-03	2.41279E-07	3.28265E-08	1.70971E-10	1.00E+01	-1.00E+01	0.00000E+00	0.00000E+00	-7.39565E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
2.50E+01	5.22358E-01	2.62794E-02	5.18480E-03	1.16600E-04	9.20361E-04	1.25223E-04	6.52202E-07	2.50E+01	-1.16501E+00	0.00000E+00	0.00000E+00	-3.61494E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+01	1.70597E-01	6.02853E-01	3.15134E-02	1.35145E-02	4.71239E-01	6.41118E-02	3.35938E-04	5.00E+01	-2.50E+01	0.00000E+00	0.00000E+00	-1.60585E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
7.50E+01	6.02853E-01	5.22358E-01	3.49971E-03	1.16600E-01	9.20361E-01	1.25223E-01	6.52202E-02	7.50E+01	-2.20593E+01	0.00000E+00	0.00000E+00	4.7410102E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
1.00E+02	4.15502E+00	2.68559E+00	2.42429E+01	8.02850E+01	2.40225E+01	3.25205E+01	1.70952E+01	1.00E+00	-5.80351E+01	0.00000E+00	0.00000E+00	-1.55086E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
2.50E+02	5.09639E-03	2.14729E-03	2.24749E-03	8.02850E-07	2.40225E-07	3.25205E-08	1.70952E-10	2.50E+01	-1.00E+01	0.00000E+00	0.00000E+00	-5.00E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+02	3.26461E-02	1.96019E-02	2.112019E-05	1.00E+00	3.65367E-05	5.28265E-05	1.70952E-05	5.00E+00	-2.05E+00	0.00000E+00	0.00000E+00	-2.30563E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
7.50E+02	6.51679E-02	1.45949E-02	1.12020E-06	7.45705E-04	3.15134E-04	1.35145E-04	7.02972E-07	7.50E+02	-1.15601E+00	0.00000E+00	0.00000E+00	-2.10525E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
1.00E+03	6.37591E-02	6.27132E-02	5.93925E-05	6.289352E-05	2.29359E-05	3.15134E-05	6.16210E-10	9.20361E-09	5.00E+02	-2.21016E+00	0.00000E+00	0.00000E+00	8.86532E-05	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
1.35E+03	1.05604E+03	7.71216E-02	1.15952E-02	5.10585E-07	2.95627E-05	4.59493E-10	3.08051E-08	1.35E+01	-2.26767E+00	0.00000E+00	0.00000E+00	-1.73546E+01	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
2.50E+03	1.07843E+03	8.18938E-02	1.08836E-02	8.02850E-07	3.46130E-05	1.89376E-12	1.13501E-09	2.50E+01	-2.20721E+00	0.00000E+00	0.00000E+00	-9.20867E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
5.00E+03	1.07851E+03	8.18938E-02	1.08836E-02	8.02850E-07	3.46130E-05	1.89376E-12	1.13501E-09	5.00E+01	-2.17101E+00	0.00000E+00	0.00000E+00	-9.21504E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	
1.00E+04	4.16879E-12	4.16879E-12	4.76660E-23	2.27276E-24	5.76737E-34	9.30308E-35	6.83864E-37	1.00E+04	-1.13779E+01	-1.29840E+01	-2.57767E+01	-2.61669E+01	-3.45271E+01	-3.45961E+01	-3.45961E+01	-3.45961E+01	-3.45961E+01	-3.45961E+01	
5.00E+04	5.22358E-10	5.22358E-10	5.18480E-19	4.86660E-19	1.81567E-20	1.35571E-20	1.70952E-20	5.00E+04	-1.15030E+00	-1.08311E+01	-2.50564E+01	-2.50564E+01	-3.20563E+01	-3.20563E+01	-3.20563E+01	-3.20563E+01	-3.20563E+01	-3.20563E+01	
1.00E+05	4.18897E-09	4.18897E-09	4.18897E-09	4.18897E-09	2.27076E-09	5.76573E-25	9.30308E-26	1.00E+05	-8.37791E+00	-1.27598E+01	-2.00466E+01	-2.00466E+01	-2.52327E+01	-2.52327E+01	-2.52327E+01	-2.52327E+01	-2.52327E+01	-2.52327E+01	
2.50E+05	5.21595E-07	5.21595E-07	5.21595E-07	5.21595E-07	1.12559E-05	3.46836E-14	5.13571E-16	5.00E+05	-4.62310E+00	-7.15265E+00	-1.25354E+01	-1.25354E+01	-1.90535E+01	-1.90535E+01	-1.90535E+01	-1.90535E+01	-1.90535E+01	-1.90535E+01	
5.00E+06	4.18897E-06	4.18897E-06	4.18897E-06	4.18897E-06	2.27076E-12	5.76573E-22	9.30308E-24	1.00E+06	-1.00E+02	-1.357791E+00	-6.579797E+00	-1.12885E+01	-1.12885E+01	-1.62327E+01	-1.62327E+01	-1.62327E+01	-1.62327E+01	-1.62327E+01	
1.00E+07	4.18897E-06	4.18897E-06	4.18897E-06	4.18897E-06	2.27076E-12	5.76573E-22	9.30308E-24	1.00E+07	-1.25810E+00	-2.27810E+00	-3.19015E+00	-3.19015E+00	-7.32721E+00	-7.32721E+00	-7.32721E+00	-7.32721E+00	-7.32721E+00		
2.50E+07	6.51679E-02	6.51679E-02	6.51679E-02	6.51679E-02	1.21597E-05	3.51579E-04	5.12038E-04	2.50E+07	-1.15203E+00	-2.25021E+00	-3.15203E+00	-3.15203E+00	-7.10282E+00	-7.10282E+00	-7.10282E+00	-7.10282E+00	-7.10282E+00		
5.00E+07	5.23546E-01	5.23546E-01	5.23546E-01	5.23546E-01	1.12559E-03	3.12020E-05	5.32793E-05	1.00E+08	-1.00E+01	-2.27191E+00	-5.04622E+00	-1.027123E+01	-1.027123E+01	-2.05054E+01	-2.05054E+01	-2.05054E+01	-2.05054E+01	-2.05054E+01	
1.00E+08	4.18897E-01	4.18897E-01	4.18897E-01	4.18897E-01	4.18897E-01	4.04339E-01	4.25766E-01	5.00E+08	-1.00E+02	-2.28061E+00	-5.09891E+00	-1.01232E+01	-1.01232E+01	-2.02806E+01	-2.02806E+01	-2.02806E+01	-2.02806E+01	-2.02806E+01	
2.50E+08	4.18897E-01	4.18897E-01	4.18897E-01	4.18897E-01	4.18897E-01	4.04339E-01	4.25766E-01	5.00E+09	-1.00E+03	-2.28061E+00	-5.09891E+00	-1.01232E+02	-1.01232E+02	-2.02806E+02	-2.02806E+02	-2.02806E+02	-2.02806E+02	-2.02806E+02	
5.00E+09	4.18897E-01	4.18897E-01	4.18897E-01	4.18897E-01	4.18897E-01	4.04339E-01	4.25766E-01	5.00E+10	-1.00E+04	-2.28061E+00	-5.09891E+00	-1.01232E+03	-1.01232E+03	-2.02806E+03	-2.02806E+03	-2.02806E+03	-2.02806E+03	-2.02806E+03	

Table 6. (continued)

$y = 2.0$											
x	$\log D_{21}$	$\log D_{22}$	$\log D_{31}$	$\log D_{32}$	$\log D_{41}$	$\log D_{42}$	$\log D_{43}$	x	$\log D_{21}$	$\log D_{22}$	$\log D_{31}$
1.00E+0	-1.35779E+01	-1.23779E+01	-2.32195E+01	-2.51134E+01	-3.41568E+01	-3.55598E+01	-3.81560E+01	1.00E+0	-1.15797E+01	-1.15678E+01	-2.46487E+01
1.00E+0	-1.08510E+01	-1.08510E+01	-2.09508E+01	-2.78661E+01	-2.90508E+01	-3.18748E+01	-3.19150E+01	5.00E+0	-9.88100E+00	-9.88100E+00	-1.85548E+01
5.00E+0	-9.37794E+00	-9.37794E+00	-1.91508E+01	-2.51568E+01	-2.55598E+01	-2.90508E+01	-2.90508E+01	5.00E+0	-8.37918E+00	-8.37918E+00	-1.66848E+01
5.00E+0	-8.37794E+00	-8.37794E+00	-1.91508E+01	-2.49508E+01	-2.49508E+01	-2.88661E+01	-2.88661E+01	5.00E+0	-8.28300E+00	-8.28300E+00	-1.24744E+01
5.00E+0	-6.28100E+00	-6.28100E+00	-1.91508E+01	-2.09508E+01	-2.09508E+01	-2.09508E+01	-2.09508E+01	5.00E+0	-6.28300E+00	-6.28300E+00	-1.39036E+01
1.00E-0	-5.37794E+00	-6.37794E+00	-1.12195E+01	-1.31434E+01	-1.61568E+01	-1.75958E+01	-2.01560E+01	1.00E-0	-5.37794E+00	-5.37794E+00	-1.28944E+01
5.00E-0	-5.37794E+00	-6.37794E+00	-1.12195E+01	-7.02857E+00	-8.49508E+00	-9.86603E+00	-1.10661E+01	5.00E-0	-5.38203E+00	-6.45460E+00	-1.90155E+01
1.00E-0	-4.28100E+00	-4.28100E+00	-7.02857E+00	-7.14567E+00	-7.15676E+00	-7.35758E+00	-7.41568E+00	1.00E-0	-4.28100E+00	-4.64822E+00	-6.09527E+00
2.50E-0	-3.37794E+00	-3.37794E+00	-2.13319E+00	-4.75616E+00	-3.57956E+00	-2.77798E+00	-7.58558E+00	2.50E-0	-1.84271E+00	-1.85131E+00	-2.36505E+00
5.00E-0	-2.38100E+00	-2.38100E+00	-2.13319E+00	-2.59523E+00	-2.59523E+00	-2.66520E+00	-2.67150E+00	5.00E-0	-8.62023E+00	-5.42214E+01	-1.90157E+00
7.50E-0	-2.38266E+00	-2.38266E+00	-1.26217E+00	-1.02652E+00	-1.66562E+01	-1.66562E+01	-1.66562E+01	7.50E-0	-2.38953E+00	-2.38953E+00	-1.39398E+00
1.00E-0	-5.94244E-01	-3.85863E-01	-1.23559E+01	-1.45529E+01	-2.16550E+00	-2.16550E+00	-2.16550E+00	1.00E-0	-6.16476E+01	-3.19161E+01	-1.35687E+00
2.50E-0	-1.55035E+00	-7.48492E+00	-3.84849E+00	-3.84849E+00	-3.84915E+00	-3.84915E+00	-3.84915E+00	2.50E-0	-1.26772E+00	-1.49512E+00	-5.08942E+00
5.00E-0	-2.21299E+00	-1.40735E+00	-4.39959E+00	-2.80319E+00	-2.80319E+00	-6.656977E+00	-7.67088E+00	5.00E-0	-2.31381E+00	-2.39128E+00	-5.41698E+00
7.50E-0	-2.38065E+00	-1.62934E+00	-3.51318E+00	-3.51318E+00	-3.51318E+00	-3.51318E+00	-3.51318E+00	7.50E-0	-6.26707E+00	-2.64435E+00	-4.26434E+00
1.00E-0	-2.42312E+00	-1.70129E+00	-5.23591E+00	-3.85224E+00	-3.85224E+00	-8.53824E+00	-9.56313E+00	1.00E-0	-5.95221E+00	-2.60923E+00	-6.27372E+00
1.355E+01	-2.44931E+00	-1.72592E+00	-5.69321E+00	-4.04117E+00	-6.48667E+00	-6.48667E+00	-6.48667E+00	1.355E+01	-1.01536E+01	-2.58272E+00	-7.25958E+00
2.50E+01	-2.44919E+00	-1.72592E+00	-5.69321E+00	-4.10832E+00	-6.40832E+00	-9.27169E+00	-1.02285E+01	2.50E+01	-2.91317E+00	-5.91658E+00	-1.26602E+01
5.00E+01	-2.44494E+00	-1.72592E+00	-5.69321E+00	-4.10832E+00	-6.40832E+00	-9.27169E+00	-1.02285E+01	5.00E+01	-3.02387E+00	-2.91324E+00	-5.91839E+00
$y = 5.0$	$y = 20.0$										
x	$\log D_{21}$	$\log D_{22}$	$\log D_{31}$	$\log D_{32}$	$\log D_{41}$	$\log D_{42}$	$\log D_{43}$	x	$\log D_{21}$	$\log D_{22}$	$\log D_{31}$
1.00E-0	-1.12779E+01	-1.15800E+01	-2.29297E+01	-2.45469E+01	-3.30566E+01	-3.48656E+01	-3.75694E+01	1.00E-0	-1.15797E+01	-1.15797E+01	-2.32115E+01
5.00E-0	-9.28100E+00	-8.93566E+00	-1.87298E+01	-2.03532E+01	-2.26159E+01	-2.48595E+01	-2.81085E+01	5.00E-0	-9.88100E+00	-9.88100E+00	-1.85505E+01
1.00E-0	-8.37794E+00	-8.79797E+00	-1.69537E+01	-1.69537E+01	-2.03532E+01	-2.26159E+01	-2.53591E+01	1.00E-0	-8.37918E+00	-8.37918E+00	-1.62121E+01
1.00E-0	-6.81356E+00	-6.81356E+00	-1.45313E+01	-1.45313E+01	-1.86119E+01	-1.86119E+01	-1.86119E+01	1.00E-0	-1.23273E+00	-1.23273E+00	-1.79686E+01
1.00E-0	-5.37794E+00	-5.37794E+00	-1.09537E+01	-1.25485E+01	-1.58566E+01	-1.58566E+01	-1.58566E+01	1.00E-0	-5.37794E+00	-5.37794E+00	-1.03213E+01
5.00E-0	-3.81010E+00	-3.81010E+00	-6.35310E+00	-6.35310E+00	-6.35310E+00	-6.35310E+00	-6.35310E+00	5.00E-0	-5.82100E+00	-5.82100E+00	-1.16458E+01
1.00E-0	-2.37794E+00	-2.37794E+00	-4.22567E+00	-6.96623E+00	-7.30784E+00	-7.30784E+00	-7.30784E+00	1.00E-0	-6.12779E+00	-6.12779E+00	-1.18745E+01
2.50E-0	-1.18468E+00	-1.76639E+00	-4.15366E+00	-4.15366E+00	-4.15366E+00	-4.15366E+00	-4.15366E+00	2.50E-0	-1.87298E+00	-1.87298E+00	-3.01448E+00
5.00E-0	-1.28110E+00	-8.83943E+00	-2.30183E+00	-2.30183E+00	-2.30183E+00	-2.30183E+00	-2.30183E+00	5.00E-0	-2.15111E+00	-2.15111E+00	-3.46202E+00
7.50E-0	-2.39309E+01	-3.56034E+01	-1.28680E+00	-1.28680E+00	-1.28680E+00	-1.28680E+00	-1.28680E+00	7.50E-0	-2.4638E+01	-2.4638E+01	-4.46685E+01
1.00E-0	-6.06336E+01	-1.68136E+02	-1.02198E+00	-5.47713E+01	-2.09129E+00	-1.11032E+00	-1.65328E+00	1.00E+00	-6.21339E+01	-6.21339E+01	-1.96860E+00
5.00E-0	-1.71228E+00	-1.169348E+00	-3.41630E+00	-1.617918E+00	-4.67265E+00	-2.20340E+00	-4.63506E+00	1.00E+00	-1.80566E+00	-1.80566E+00	-5.45481E+00
1.00E-0	-2.36228E+00	-1.897318E+00	-5.02303E+00	-3.47568E+00	-8.16523E+00	-7.25398E+00	-8.08968E+00	5.00E+00	-2.45505E+00	-2.45505E+00	-6.23558E+00
5.00E-0	-2.55045E+00	-2.17554E+00	-4.25645E+00	-5.76164E+00	-8.23598E+00	-6.15397E+00	-6.79867E+00	3.00E+00	-3.12129E+00	-3.12129E+00	-5.93565E+00
1.00E-0	-1.00361	-2.28272E+00	-6.12459E+00	-6.12459E+00	-1.01639E+01	-9.98057E+00	-1.49163E+01	1.00E-01	-2.16459E+00	-2.16459E+00	-2.67459E+00
1.25E+01	-2.70111E+00	-2.36269E+00	-6.47829E+00	-9.15168E+00	-1.07127E+01	-9.84717E+00	-7.59321E+00	1.25E+01	-3.42523E+00	-3.53202E+00	-6.59127E+00
2.50E+01	-2.70661E+00	-2.35655E+00	-6.47702E+00	-9.09538E+00	-1.09545E+01	-9.82949E+00	-7.51204E+00	2.50E+01	-3.45668E+00	-3.61204E+00	-6.105035E+00
5.00E+01	-2.70561E+00	-2.35655E+00	-6.47702E+00	-9.02578E+00	-1.10203E+01	-9.76205E+00	-7.42005E+00	5.00E+01	-3.45622E+00	-3.46205E+00	-1.20542E+01

Table 7.

$y = 0.0$	x	$E12$	$\log E12$	$E221$	$\log E221$	$E222$	$\log E222$	x	$E12$	$\log E12$	$E221$	$\log E221$	$E222$	$\log E222$		
1.00E-04	0.00000E+00	1.19580E-29	-2.89220E-01	0.00000E+00	0.00000E+00	1.00E-04	1.04720E-17	-1.63800E+01	1.19680E-29	-2.89220E+01	2.56477E-30	-2.95910E+01	2.56477E-30	-2.95910E+01		
5.00E-04	0.00000E+00	9.34499E-25	-2.40292E+01	0.00000E+00	0.00000E+00	5.00E-04	6.54498E-15	-1.48181E+01	9.34499E-25	-2.40292E+01	2.00357E-25	-2.46918E+01	2.00357E-25	-2.46918E+01		
1.00E-03	0.00000E+00	1.19580E-22	-2.19220E+01	0.00000E+00	0.00000E+00	1.00E-03	1.04720E-13	-1.28800E+01	1.19680E-22	-2.19220E+01	2.56477E-23	-2.29910E+01	2.56477E-23	-2.29910E+01		
5.00E-03	0.00000E+00	9.42499E-18	-1.70292E+01	0.00000E+00	0.00000E+00	5.00E-03	6.54498E-11	-1.01841E+01	9.42499E-18	-1.70292E+01	2.00357E-18	-1.76918E+01	2.00357E-18	-1.76918E+01		
1.00E-02	0.00000E+00	1.19580E-15	-1.49220E+01	0.00000E+00	0.00000E+00	1.00E-02	1.04720E-09	-8.97997E+00	1.19680E-15	-1.49220E+01	2.56477E-16	-1.59108E+01	2.56477E-16	-1.59108E+01		
5.00E-02	0.00000E+00	9.42499E-07	-1.00393E+01	0.00000E+00	0.00000E+00	5.00E-02	6.54498E-07	-6.18425E+00	9.34499E-11	-1.00292E+01	2.00357E-11	-1.06982E+01	2.00357E-11	-1.06982E+01		
1.00E-01	0.00000E+00	1.19580E-05	-7.92285E+00	0.00000E+00	0.00000E+00	1.00E-01	1.04720E-05	-4.98025E+00	1.19680E-05	-7.92285E+00	2.56477E-05	-8.50939E+00	2.56477E-05	-8.50939E+00		
2.50E-01	0.00000E+00	0.00000E+00	-7.26515E-06	0.00000E+00	0.00000E+00	2.50E-01	4.07974E-04	-3.38956E+00	7.27776E-06	-5.38013E+00	1.56442E-06	-5.80531E+00	1.56442E-06	-5.80531E+00		
5.00E-01	0.00000E+00	9.08350E-04	-3.04765E+00	0.00000E+00	0.00000E+00	5.00E-01	6.44326E-03	-2.10098E+00	9.17787E-04	-3.03726E+00	1.98901E-04	-3.69988E+00	1.98901E-04	-3.69988E+00		
7.50E-01	0.00000E+00	1.48999E-02	-1.82682E+00	0.00000E+00	0.00000E+00	7.50E-01	3.18795E-02	-1.46554E+00	1.52607E-02	-1.816435E+00	3.39553E-03	-2.46919E+00	3.39553E-03	-2.46919E+00		
1.00E-00	0.00000E+00	0.00000E+00	1.05475E-01	-9.76502E-01	0.00000E+00	1.00E-00	9.74654E-02	-1.01113E+00	1.09974E-01	-9.88711E-01	2.51555E-02	-1.59397E+00	2.51555E-02	-1.59397E+00		
2.50E-00	0.00000E+00	3.64902E-01	-3.64902E+00	0.00000E+00	0.00000E+00	2.50E-00	2.66960E+00	4.24646E-01	4.24646E-01	1.29504E+00	1.09737E+00	1.29504E+00	1.09737E+00			
5.00E-00	0.00000E+00	1.20830E-01	-3.05235E+00	0.00000E+00	0.00000E+00	5.00E-00	1.750172E+01	1.20830E+00	1.94722E+01	3.38954E+00	7.49395E+02	2.87125E+00	7.49395E+02	2.87125E+00		
7.50E-00	0.00000E+00	4.63346E-03	-2.66620E+00	0.00000E+00	0.00000E+00	7.50E-00	3.31115E+00	1.51938E+00	9.55446E+03	5.86924E+00	4.46820E+03	3.65017E+00	4.46820E+03	3.65017E+00		
1.00E-01	0.00000E+00	7.99780E-03	-3.90297E+00	0.00000E+00	0.00000E+00	1.00E-01	4.11559E-01	1.61446E+00	1.98685E+04	4.99316E+00	1.09924E+04	4.05254E+00	1.09924E+04	4.05254E+00		
2.50E-01	0.00000E+00	1.01795E+00	-4.00773E+00	0.00000E+00	0.00000E+00	2.50E-01	4.44353E+01	1.64777E+00	2.94723E+04	4.64943E+00	1.72899E+04	4.24030E+00	1.72899E+04	4.24030E+00		
5.00E-01	0.00000E+00	1.07295E+04	-4.03598E+00	0.00000E+00	0.00000E+00	5.00E-01	4.500323E+01	1.65324E+00	3.35170E+04	4.52326E+00	2.087214E+04	4.31955E+00	2.087214E+04	4.31955E+00		
$y = 2.0$	x	$E12$	$\log E12$	$E221$	$\log E221$	$E222$	$\log E222$	x	$E12$	$\log E12$	$E221$	$\log E221$	$E222$	$\log E222$		
1.00E-00	5.23599E-18	-1.72810E+01	1.19580E-29	-2.89220E+01	6.41141E-31	-3.01939E+01	1.00E-04	1.65576E-17	-1.67810E+01	1.19680E-29	-2.89220E+01	6.41141E-30	-2.91939E+01	6.41141E-30	-2.91939E+01	
2.00E-00	-1.44851E+01	-3.64902E+01	-2.89220E+01	6.41141E-26	-2.50305E+01	5.00E-04	1.65576E-14	-1.39851E+01	9.34499E+01	-2.89220E+01	6.41141E-25	-2.43030E+01	6.41141E-25	-2.43030E+01		
3.00E-00	5.23599E-14	-1.32810E+01	1.19580E+00	-2.31920E+01	6.41141E-24	-2.31920E+01	1.00E-03	1.65576E-13	-1.27810E+01	1.19680E+00	-2.31920E+01	6.41141E-23	-2.24390E+01	6.41141E-23	-2.24390E+01	
5.00E-00	3.22749E-11	-1.04851E+01	9.46947E-18	-1.70292E+01	5.00E-02	-1.80852E-19	-1.83050E+01	5.00E-03	1.049851E-10	-9.98512E+00	9.34499E+00	-1.70292E+01	5.00E-02	-1.73095E+01	5.00E-02	-1.73095E+01
7.50E-00	5.23598E-10	-9.26100E+00	1.19679E+05	-1.46220E+01	6.41141E-17	-1.63920E+01	1.00E-02	1.65576E-09	-8.73100E+00	1.19680E-15	-1.49220E+01	6.41141E-16	-1.59108E+01	6.41141E-16	-1.59108E+01	
5.00E-02	3.27280E-07	-6.48316E+00	9.34646E+11	-1.00393E+01	5.00E-02	1.03482E-06	-5.98513E+00	9.34646E-11	-1.00292E+01	5.00E-01	1.03482E-11	-1.03030E+01	5.00E-01	-1.03030E+01	5.00E-01	-1.03030E+01
1.00E-01	5.23599E-18	-1.72810E+01	1.19580E-29	-2.89220E+01	6.41141E-31	-3.01939E+01	1.00E-04	1.65576E-17	-1.67810E+01	1.19680E-29	-2.89220E+01	6.41141E-30	-2.91939E+01	6.41141E-30	-2.91939E+01	
2.00E-01	-2.03628E-04	-3.69116E+00	7.26515E+00	-5.13869E+00	5.902E-01	-5.40761E+00	2.50E-01	6.49791E-04	-3.16991E+00	7.29130E+00	-5.40761E+00	3.91279E-06	-5.40752E+00	3.91279E-06	-5.40752E+00	
3.00E-01	3.20171E-03	-2.49462E+00	9.1109E+00	-4.30164E+00	4.92026E-05	-4.30164E+00	5.00E-01	1.03656E-02	-1.98862E+00	9.26087E+00	-4.30164E+00	3.02335E-04	-3.50076E+00	3.02335E-04	-3.50076E+00	
7.50E-01	1.57094E-02	-1.80384E+00	1.30044E+02	-1.82579E+00	8.46200E-04	-3.07294E+00	7.50E-01	5.12209E-02	-1.28971E+00	1.59594E-02	-1.28971E+00	8.52165E-03	-2.06947E+00	8.52165E-03	-2.06947E+00	
1.00E-00	4.72516E-02	-1.32310E+00	1.05676E+00	-9.71578E+00	6.24551E-03	-2.20447E+00	1.00E-00	1.59109E-01	-7.98122E+00	1.14221E-01	-9.71578E+00	6.34747E-02	-1.19759E+00	6.34747E-02	-1.19759E+00	
2.00E-00	1.18672E-00	7.43489E-02	3.85792E+00	4.605774E+00	2.503E-00	4.95110E+00	6.49791E-01	5.35956E+01	1.26597E+00	3.40313E+01	1.52188E+00	3.40313E+01	1.52188E+00	3.40313E+01	1.52188E+00	
5.00E-00	6.63040E-00	8.21540E-01	1.38792E+00	1.58576E+00	5.005E+00	4.09472E+01	1.61222E+00	3.10909E+03	3.49263E+00	2.46516E+03	3.39712E+00	2.46516E+03	3.39712E+00	2.46516E+03	3.39712E+00	
7.50E-00	1.11873E-01	1.04872E+00	5.72819E+00	3.75972E+00	7.50E+00	1.98648E+01	1.96628E+00	1.95122E+04	4.29031E+00	1.83596E+04	4.26191E+00	1.83596E+04	4.26191E+00	1.83596E+04	4.26191E+00	
1.00E-01	1.35565E+01	1.13530E+00	1.04921E+00	4.018672E+00	1.67795E+03	3.22847E+00	1.67795E+03	1.67795E+03	4.92124E+00	2.10859E+00	5.21595E+00	4.72112E+00	5.01100E+00	5.01100E+00		
2.00E-01	1.37308E+01	1.13769E+00	1.49195E+00	4.17375E+00	4.17375E+03	2.787021E+02	2.787021E+03	2.787021E+03	5.49232E+00	1.12861E+00	1.12861E+00	5.49232E+00	5.15370E+00	5.15370E+00		
5.00E-01	1.37308E+01	1.13770E+00	1.49200E+00	4.17376E+00	4.17376E+03	2.787021E+02	2.787021E+03	2.787021E+03	5.49233E+00	1.12861E+00	1.12861E+00	5.49233E+00	5.15371E+00	5.15371E+00		

Table 8.
Table 7. (continued)

Table 8. (continued)

x	0.7500	1.0000	2.5000	5.0000	7.5000	10.0000	13.5200	25.0000	50.0000
N									
0	0.7793286	0.8427008	0.9746527	0.9984346	0.9998925	0.9999923	0.9999998	1.0000000	1.0000000
1	0.3177297	0.4275933	0.8282029	0.9814339	0.9981834	0.9998303	0.0000042	1.0000000	1.0000000
2	0.0869302	0.1508550	0.5841198	0.9247648	0.9896377	0.9987503	0.9999440	1.0000000	1.0000000
3	0.0176903	0.0401596	0.3400368	0.8114265	0.9640006	0.9944303	0.9996722	1.0000000	1.0000000
4	0.0028532	0.0085324	0.1656917	0.6495148	0.9090640	0.9820876	0.9986224	0.9999999	1.0000000
5	0.0003804	0.0015041	0.0688334	0.4696128	0.8175031	0.9546593	0.9954683	0.9999994	1.0000000
6	0.0000432	0.0002263	0.0248069	0.3060656	0.6926472	0.9047897	0.9877149	0.9999970	1.0000000
7	0.0000043	0.0000297	0.0078736	0.1802601	0.5485828	0.8280673	0.9715879	0.9999880	1.0000000
8	0.0000004	0.0000034	0.0022292	0.0963897	0.4045184	0.7257707	0.9425162	0.9999578	1.0000000
9	0.0000000	0.0000004	0.0005690	0.0470542	0.27794027	0.6054218	0.8962752	0.9998689	1.0000000
10	0.0000000	0.0000000	0.0001322	0.0210881	0.1770482	0.4787387	0.8304669	0.9996352	1.0000000
11	0.0000000	0.0000000	0.0000281	0.0087234	0.1053664	0.3580882	0.7457309	0.9990787	1.0000000
12	0.0000000	0.0000000	0.0000055	0.0033474	0.0586174	0.2531747	0.6461108	0.9978688	1.0000000
13	0.0000000	0.0000000	0.0000010	0.0011970	0.0305680	0.1692439	0.5383618	0.9954492	1.0000000
14	0.0000000	0.0000000	0.0000002	0.0004005	0.0149850	0.1070729	0.4304531	0.9909683	1.0000000
15	0.0000000	0.0000000	0.0000000	0.0001259	0.0069249	0.0641964	0.3298375	0.9832427	1.0000000
16	0.0000000	0.0000000	0.0000000	0.0000373	0.0030248	0.0365341	0.2420748	0.9707821	1.0000000
17	0.0000000	0.0000000	0.0000000	0.0000104	0.0012520	0.0197691	0.1701626	0.9519023	1.0000000
18	0.0000000	0.0000000	0.0000000	0.0000028	0.0004923	0.0101891	0.1146052	0.9249312	0.9999999
19	0.0000000	0.0000000	0.0000000	0.0000007	0.0001843	0.0050107	0.0740033	0.8884837	0.9999997
20	0.0000000	0.0000000	0.0000000	0.0000002	0.0000658	0.0023551	0.0458527	0.8417562	0.9999992
21	0.0000000	0.0000000	0.0000000	0.0000000	0.0000225	0.0010597	0.0272870	0.7847715	0.9999981
22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000073	0.0004572	0.0156122	0.7185101	0.9999953
23	0.0000000	0.0000000	0.0000000	0.0000000	0.0000023	0.0001894	0.0085969	0.6448864	0.9999893
24	0.0000000	0.0000000	0.0000000	0.0000000	0.0000007	0.0000755	0.0045609	0.5665633	0.9999763
25	0.0000000	0.0000000	0.0000000	0.0000000	0.0000002	0.0000289	0.0023337	0.4866418	0.9999500
26	0.0000000	0.0000000	0.0000000	0.0000000	0.0000001	0.0000107	0.0011528	0.4082873	0.9998984
27	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000038	0.0005503	0.3343680	0.9998010
28	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000013	0.0002541	0.2671687	0.9996238
29	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000004	0.0001136	0.2082219	0.9993130
30	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000001	0.0000492	0.1582670	0.9987863
31	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000207	0.1173203	0.9979228
32	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000084	0.0848230	0.9965521
33	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000033	0.0598250	0.9944434
34	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000013	0.0411698	0.9912961
35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000005	0.0276516	0.9867347
36	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000002	0.0181317	0.9803103
37	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000001	0.0116112	0.9715097
38	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0072642	0.9597755
39	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0044415	0.9445364
40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0026550	0.9252464
41	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0015522	0.9014315
42	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0008878	0.8727389
43	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0004970	0.8389829
44	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0002724	0.8001829
45	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0001463	0.7565874
46	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000769	0.7086802
47	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000397	0.6571671
48	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000201	0.6029428
49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000099	0.5470415

Table 8. (continued)

Table 9.

N	$\sigma(N)$	$\log \sigma(N)$	$G(N+1/2)$	$\log G(N+1/2)$	$\sigma(N)$	$\log \sigma(N)$	$G(N+1/2)$	$\log G(N+1/2)$	$\sigma(N)$	$\log \sigma(N)$	$G(N+1/2)$	$\log G(N+1/2)$
0	1.000000E+000	0.00000000	1.77245E+000	0.2485749	40	2.03979E+046	46.2095851	1.28605E+047	47.1029579	80	8.96618E+116	116.9516377
1	1.000000E+000	0.00000000	8.66227E+001	1.9475449	41	8.11952E+047	47.5116651	5.20850E+048	48.71567130	81	7.11695E+118	118.857277
2	1.000000E+000	0.00000000	3.32351E+000	0.12536562	42	3.34552E+049	49.5242389	2.16353E+050	50.3377631	82	5.72735E+120	120.2652327
3	0.3010300	3.28235E+000	0.5215762	43	1.40501E+050	52.1147692	9.18650E+051	9.361770266	83	4.72546E+122	122.0770266	
4	6.000000E+000	0.7781513	1.16317E+001	1.0656442	44	6.04135E+052	52.7831467	3.96613E+053	53.6016392	84	3.91552E+124	124.9562047
5	2.400000E+001	1.28821E+012	5.25242E+001	1.7188568	45	2.65827E+054	54.42469593	1.77828E+055	55.2499593	85	3.31454E+126	126.5205840
6	7.200000E+002	2.0793182	2.87858E+002	2.4692195	46	1.16622E+056	56.0778119	8.09116E+056	56.980106	86	2.87105E+128	128.4498029
7	2.000000E+003	7.2857325	2.28525E+003	3.2722328	47	2.85202E+057	57.26239E+058	3.76239E+059	3.76239E+059	87	2.42721E+130	130.3843013
8	5.000000E+003	1.7085495	1.10504E+004	4.8121591	48	2.86353E+059	59.126566	1.37212E+060	60.2521272	88	2.107265E+132	132.2328056
9	4.000000E+004	4.0695805	1.19899E+005	5.0766130	49	1.24193E+061	61.0993988	8.667608E+061	61.9378990	89	1.839435E+134	134.6883033
10	3.628500E+005	5.5597630	1.13328E+006	6.0543766	50	6.08282E+062	62.781049	4.29046E+063	63.6325042	90	1.65020E+136	136.2176933
11	3.628500E+006	6.5597630	1.18696E+007	7.0752529	51	3.01011E+064	64.4820719	2.16668E+065	65.3357555	91	1.45522E+138	138.7291958
12	3.993488E+007	7.6011357	8.1362E+028	8.1362E+028	52	1.59121E+066	66.13966490	67.6476027	68.27677821	92	1.35205E+140	140.3097750
13	4.790282E+008	8.48032370	2.17059E+029	9.231338	53	8.05562E+067	67.9056684	5.88817E+068	68.7677821	93	1.24584E+142	142.0967550
14	6.257205E+009	9.7942803	2.399523E+030	10.3534675	54	4.274648E+069	69.63039245	3.134612E+070	70.4945158	94	1.15672E+144	144.0632480
15	10.9404684	3.24639E+011	11.5246835	55	2.30844E+071	71.363180	1.70810E+072	72.23525124	95	1.08737E+146	146.0535758	
16	1.30757E+012	12.1146956	1.19008E+012	12.7152672	56	5.40844E+073	73.1036507	7.97600E+073	73.9760053	96	1.01881E+148	148.0109094
17	2.09282E+013	13.2626596	8.65506E+013	13.9126552	57	1.70998E+075	74.8516687	5.25616E+075	75.25616307	97	9.56782E+149	149.9362307
18	3.55687E+014	14.5931085	2.496515E+015	15.1756892	58	4.02629E+076	76.607736	3.07979E+077	77.4865216	98	9.63988E+151	151.9853124
19	6.40237E+015	15.8063910	2.77349E+016	16.4428669	59	2.35056E+078	78.371716	1.80168E+079	79.2556775	99	9.46699E+153	153.971985
20	1.20645E+017	17.0850946	5.16E+245	17.7238556	60	1.36635E+080	80.1423256	2.07203E+081	81.0301945	100	9.32626E+155	155.5700037
21	4.42490E+018	18.3615246	1.040481519	19.040481519	61	4.18209E+081	81.8201748	82.61319498	83.4201748	101	8.61200E+156	156.9594668
22	5.10959E+019	1.70928E+020	2.86865E+020	20.3708797	62	5.07502E+083	83.77095E+083	83.19201748	84.60020E+084	102	8.05025E+157	157.0050250
23	1.14240E+021	21.057666	5.46130E+021	21.7292704	63	3.17702E+085	84.49786E+085	84.49786E+085	85.49786E+085	103	7.49292E+158	158.4974051
24	2.59520E+022	22.1214944	1.05591E+023	23.100382	64	1.96521E+087	87.2597239	1.26839E+088	88.1939478	104	7.17917E+159	159.1791737
25	6.02448E+023	25.7927057	3.08977E+024	31.6832960	65	1.26887E+089	89.2010459	1.02030E+090	90.0080284	105	6.68775E+160	160.687757
26	1.51120E+025	25.9665057	2.72326E+025	25.860445	66	8.27655E+090	90.9153303	6.08750E+091	91.8325257	106	5.64813E+161	161.5648103
27	4.02451E+026	26.46565190	2.08589E+027	27.3295904	67	5.46305E+092	94.7358742	4.47495E+093	95.47474051	107	4.20403E+162	162.8075757
28	1.08895E+028	28.0598182	9.75918E+028	28.36130E+028	68	3.67711E+094	96.166390	2.49290E+095	97.3319057	108	3.13885E+164	164.3138820
29	3.01881E+029	30.4646579	1.439481E+029	30.2374679	69	2.46045E+096	98.29144579	1.051650387	99.13262E+097	109	2.06925E+165	165.2069250
30	8.81765E+030	30.94652688	4.82270E+031	31.6832960	70	1.71212E+098	98.23323070	1.12915E+099	99.1550805	110	1.59429E+166	166.1594292
31	2.6226235E+032	32.4256601	1.70928E+032	33.1675858	71	1.17976E+100	100.0720459	1.00750E+101	101.0032656	111	2.12372E+167	167.2123757
32	8.222494E+033	33.9130218	4.333414E+034	34.6659004	72	8.50479E+101	101.5266394	8.50479E+102	102.8075757	112	1.02807E+168	168.1028074
33	2.612125E+035	35.4282327	2.10989E+036	36.1777837	73	6.12352E+103	103.5829399	5.22292E+104	104.7179137	113	1.61619160	161.161619160
34	5.593285E+036	36.5266508	4.472526205	37.7028285	74	4.47032E+105	105.1650387	3.00929E+106	106.5464207	114	1.02807E+166	166.1028074
35	2.9152775E+038	38.4701646	1.74039E+039	39.2064746	75	3.30798E+107	107.5195505	2.85956E+108	108.4653573	115	1.59429E+168	168.1594292
36	1.37371E+040	40.4034226	6.17846E+040	40.7908760	76	2.48091E+109	109.591617	2.15928E+110	110.5916194	116	1.59429E+169	169.1594292
37	4.79193E+041	41.7905531	1.72512E+041	41.2516688	77	1.25918E+110	111.2591853	1.122372E+111	112.2372557	117	1.59429E+170	170.1594292
38	1.203203E+043	43.30745E+043	4.30745E+043	43.9272001	78	1.45133E+111	113.1616190	1.28017E+112	114.1028074	118	1.59429E+171	171.1594292
39	5.25073E+044	44.72526205	3.25568E+045	45.52126608	79	1.13283E+112	115.0540366	1.00929E+113	116.00929516	120	1.59429E+172	172.1594292

Table 10.

$y = 2.0$									
x	$\tau(x,y)$	$d\tau/dx$	$d^2\tau/dx^2$	$I(x,y)$	$J(x,y)$	x	$\tau(x,y)$	$d\tau/dx$	$d^2\tau/dx^2$
1.00E+04	9.9999925E-01	-1.1126263E-02	-5.6402034E-01	-7.4295722E-06	-2.495663E-02	1.00E-04	9.9999999E-01	-2.0670150E-04	-1.0328659E-00
5.00E+04	9.9999159E-01	-2.528171E-02	-2.5192464E-01	-5.04E+04	-2.3425154E-01	5.00E-04	9.9999956E-01	-4.625194E-04	-4.4501135E-06
1.00E+05	9.9999623E-01	-5.5646191E-02	-1.7767762E-01	-2.34163E-02	-1.234163E-01	1.00E-05	9.9999956E-01	-3.2610754E-01	-1.2581643E-05
5.00E+05	9.9974032E-01	-7.9350109E-02	-7.595664E-01	-1.5191976E-03	-1.591135E-01	5.00E-05	1.4979047E-01	-1.4887494E-05	-2.9208714E-03
1.00E+06	9.9922424E-01	-2.1112151E-01	-5.4716492E-00	-3.51932416E-03	-2.4642583E-01	1.00E-06	9.996668E-01	-2.1031163E-03	-1.0849884E-01
5.00E+02	9.9163742E-01	-2.4000779E-01	-2.1600770E-00	-2.956203E-02	-4.9634072E-01	5.00E-02	9.998526E-01	-5.0095191E-03	-5.7740581E-02
1.00E+03	9.7758930E-01	-3.2856492E-01	-1.5917283E-00	-6.6309766E-02	-6.905354E-01	1.00E-03	9.9952032E-01	-6.625256E-03	-4.8927310E-02
2.50E+03	9.1882141E-01	-4.3939129E-01	-1.3998592E-00	-1.6862861E-02	-1.686538E-01	2.50E-03	9.9830052E-01	-1.4540401E-02	-4.9662865E-02
5.00E+03	8.0129156E-01	-4.859444E-01	-1.3653790E-00	-1.686538E-02	-1.3653790E-01	5.00E-03	9.9967991E-01	-4.6471615E-02	-4.6826216E-02
7.50E+03	6.8322033E-01	-6.1998997E-01	-1.3386612E-00	-3.4707184E-02	-1.5566735E-01	7.50E-03	9.8947010E-01	-3.8947010E-02	-5.1171463E-02
1.00E+04	5.7246570E-01	-4.1530750E-01	-2.075325E-01	-3.5908713E-01	-1.6854016E-00	1.00E-04	9.723247E-01	-5.1871031E-02	-5.15240675E-02
2.50E+04	1.7272742E-01	-1.4644648E-01	-1.1758865E-01	-1.7662144E-01	-1.9430515E-00	2.50E-04	8.4154559E-01	-1.1857021E-01	-3.1352401E-02
5.00E+04	1.63561352E-02	-1.7000725E-02	1.53006603E-02	-3.2028659E-03	-1.9986895E-00	5.00E-05	5.06164287E-01	-1.3940210E-01	-1.0465640E-02
7.50E+04	1.8166490E-03	-1.7031270E-03	1.5919235E-03	-3.2028638E-02	-1.9957055E-00	7.50E-06	2.2848456E-01	-8.1707495E-02	-6.6471615E-02
1.00E+05	1.6697216E-04	-1.6198226E-04	1.5389821E-04	-3.6082957E-02	-1.999945E-00	1.00E+01	6.6505395E-02	-5.652055E-02	-1.3427375E-02
1.00E+02	5.7747584E-06	-5.5724768E-06	5.2682832E-06	-5.8648997E-02	-5.999995E-00	1.35E-01	1.7129551E-02	-8.4722744E-03	-3.8644420E-03
2.50E+02	1.4000218E-10	-7.8353473E-11	7.8727246E-11	-2.0000000E-00	-2.0000000E-00	2.50E-01	2.8151956E-05	-1.74646531E-05	-1.4545979E-05
5.00E+02	0.0000000E-00	-1.5393197E-21	1.53253505E-21	-3.6189397E-02	-2.0000000E-00	5.00E-01	1.0091936E-11	-9.5759595E-13	-6.8672101E-13
$y = 0.5$									
x	$\tau(x,y)$	$d\tau/dx$	$d^2\tau/dx^2$	$I(x,y)$	$J(x,y)$	x	$\tau(x,y)$	$d\tau/dx$	$d^2\tau/dx^2$
1.00E-04	9.99999415E-01	-8.78702935E-03	-1.35281452E-01	-5.7279299E-06	-1.7575163E-02	1.00E-04	1.0000000E+00	-1.2635120E-13	-5.0148278E-07
5.00E-04	9.99997375E-01	-1.9643199E-02	-1.0552523E-01	-5.4550005E-02	-5.00E-04	1.0000000E+00	-2.3316020E-13	-3.5656755E-06	-5.6159312E-13
1.00E-03	9.9999146E-01	-2.77676597E-02	-1.36565395E-01	-1.4029399E-04	-5.9535055E-02	1.00E-03	1.0000000E+00	-2.0353397E-13	-2.5597216E-10
2.00E-03	9.9979359E-01	-6.13556202E-02	-6.13556202E-01	-1.23262105E-03	-2.44620235E-01	5.00E-03	1.0000000E+00	-1.1967767E-12	-2.3748117E-12
1.00E-02	9.9945797E-01	-8.716534E-02	-4.2885295E-01	-5.0737395E-02	-2.8372101E-01	1.00E-02	1.0000000E+00	-2.02332025E-09	-1.1768669E-10
5.00E-02	9.9561112E-01	-1.88479881E-01	-1.22762735E-00	-2.3440657E-02	-3.87251164E-01	5.00E-02	1.0000000E+00	-6.8935928E-12	-1.5082264E-10
1.00E-01	9.8837338E-01	-2.5561624E-01	-1.06497721E-01	-1.4570576E-02	-5.2734836E-02	1.00E-01	1.0000000E+00	-6.7916160E-11	-1.6606103E-11
2.50E-01	9.3325154E-01	-3.5683538E-01	-4.3510305E-01	-1.35057099E-01	-2.12329372E-01	2.50E-01	1.0000000E+00	-9.0561635E-11	-1.7351683E-10
5.00E-01	6.3979914E-01	-4.0594642E-01	-6.6021205E-02	-2.33105059E-01	-1.0355223E-00	5.00E-01	1.0000000E+00	-5.9595286E-10	-1.3970856E-09
7.50E-01	7.3531019E-01	-4.6514583E-01	-7.08505305E-02	-2.8372101E-01	-1.05579215E-00	7.50E-01	1.0000000E+00	-2.13232025E-09	-1.0323405E-08
1.00E+00	6.3862352E-01	-3.79292614E-01	-1.2049752E-01	-2.9440724E-02	-3.87251164E-01	1.00E+00	1.0000000E+00	-6.8935928E-12	-1.5082264E-10
2.50E+00	2.35656162E-01	-1.6788479E-01	-1.1020185E-01	-1.0581389E-01	-1.62351542E-01	2.50E+00	9.9999881E-01	-4.75281861E-07	-8.22256597E-06
5.00E+00	3.4479724E-02	-2.7384592E-02	-2.11394727E-01	-1.35057099E-01	-2.71462887E-01	5.00E+00	9.9998777E-01	-7.0421477E-01	-4.50370592E-05
7.50E+00	4.51828298E-02	-3.7427231E-02	-3.05765615E-01	-1.65720127E-01	-2.80372101E-01	7.50E+00	9.9644571E-01	-3.5925354E-04	-5.46128165E-05
1.00E+01	5.55796112E-04	-1.0422835E-04	-5.9577463E-04	-1.98070545E-01	-1.05765952E-00	1.00E+01	9.9725052E-01	-2.9821926E-03	-1.1987083E-04
1.50E+01	2.68933730E-05	-2.3323486E-05	-2.02147842E-05	-1.9212268E-01	-1.0577452E-00	1.50E+01	9.7933192E-01	-9.7975972E-03	-1.61379668E-03
2.50E+01	1.08047083E-09	-9.0561183E-09	-8.15042282E-10	-1.92049483E-01	-1.0577452E-00	2.50E+01	5.5641956E-01	-5.64481958E-02	-2.2782108E-02
5.00E+01	0.00000000E+00	-9.9782219E-20	9.27564572E-20	-1.92049483E-01	-1.0577452E-00	5.00E+01	2.4745545E-03	-2.73746212E-04	-4.0668415E-02

Table 11.

$y = 0.0$									
x	$\text{INT.7}(x, y)$	$\text{INT.7}/x$	$\text{INT.7}/x^2$	$\text{INT.7}/x^3$	$\text{INT.7}/x^4$	$\text{INT.5}, x$	$\text{INT.5}, x$	$\text{INT.5}, x$	$\text{INT.5}, x$
5.00E-04	3.9993935E-04	1.6094328E+00	7.2993314E+03	4.7993375E+07	3.4956621D+11	1.1995093E+07	5.00E+04	1.6094350E+00	7.9999999E+03
1.00E-03	2.3026572E+00	8.9999975E+01	4.9999937E+07	3.4951209E+07	4.951395E+11	1.00E+03	8.9999932E+06	2.305765E+00	9.7999994E+03
5.00E-03	4.5914695E+03	3.9993495E+03	4.9993495E+07	3.4953590E+07	5.00E+03	4.9993495E+05	3.9993495E+03	4.5914695E+03	3.33333299E+11
1.00E-02	9.3970202E-03	4.6046720E+00	9.4993443E+03	4.6973435E+07	4.9973435E+07	1.2444287E+03	9.8999465E+03	4.6046720E+00	4.9994650E+03
5.00E-02	4.975542E-02	6.2690135E+00	9.9755285E+03	4.9993656E+07	5.00E+02	6.2131948E+00	9.9755285E+03	4.9993656E+02	3.33333325E+11
1.00E-01	5.8933335E+02	6.8924535E+00	9.8935436E+03	4.9993375E+07	5.00E+01	9.9310195E+03	1.00E+01	6.303724E+00	9.9310195E+03
2.00E-01	2.4137972E+01	7.7666593E+00	9.9922323E+01	4.999374E+07	2.975119E+02	2.50E+01	7.217972E+00	9.9922323E+01	1.213797E+01
5.00E-01	4.567273E+01	8.368109E+00	9.997072E+00	4.999350E+07	3.100E+01	6.9152235E+01	5.00E+01	9.997072E+00	3.3333325E+11
7.50E-01	6.4193905E+01	8.670294E+00	9.997515E+01	4.9993495E+07	1.2509794E+01	7.50E+00	7.4531287E+01	8.9135359E+00	1.264156E+01
1.00E+00	7.9333913E+01	8.8515257E+00	9.9977728E+01	4.9993215E+07	1.00E+00	9.9455667E+01	1.00E+00	9.9333325E+01	2.789999E+01
2.50E+00	1.3052520E+00	9.1895565E+00	9.9951972E+05	4.9993232E+07	3.100E+00	2.100E+00	2.100E+00	9.9951972E+00	1.00E+00
5.00E+00	1.4773737E+00	9.2613498E+00	9.9950149E+00	4.9993232E+07	5.00E+00	5.00E+00	5.00E+00	9.9950149E+00	1.00E+00
7.50E+00	1.4973931E+00	9.2450265E+00	9.9952053E+00	4.9993232E+07	7.50E+00	4.9992166E+00	1.00E+00	9.9952053E+00	1.00E+00
1.00E+01	1.4937223E+00	9.2463172E+00	9.9950159E+01	4.9993232E+07	1.00E+01	1.00E+01	1.00E+01	9.9950159E+01	1.00E+01
1.35E+01	1.4993465E+00	9.2463244E+00	9.9950159E+01	4.9993232E+07	1.75E+01	1.6749112E+00	1.75E+01	9.9950159E+01	1.00E+01
2.00E+01	1.4926302E+00	9.2463608E+00	9.9950159E+01	4.9993232E+07	2.50E+01	1.875000E+00	2.50E+01	9.9950159E+01	1.00E+01
5.00E+01	1.4999332E+00	9.2463656E+00	9.9950159E+01	4.9993232E+07	5.00E+01	5.00E+01	5.00E+01	9.9950159E+01	1.00E+01
$y = 0.5$	$\text{INT.7}(x, y)$	$\text{INT.7}/x$	$\text{INT.7}/x^2$	$\text{INT.7}/x^3$	$\text{INT.7}/x^4$	$\text{INT.7}, x$	$\text{INT.7}, x$	$\text{INT.7}, x$	$\text{INT.7}, x$
5.00E-04	2.9993936E-04	1.6094339E+00	7.2993355E+03	4.7993455E+07	3.4956631E+11	1.1995095E+07	5.00E+04	1.6094350E+00	7.9999999E+03
1.00E-03	4.9993936E-03	2.3026572E+00	8.9999949E+03	4.9999937E+07	3.4951209E+11	1.00E+03	4.9999932E+04	2.305765E+00	9.7999998E+03
5.00E-03	4.9993936E-03	3.9993495E+03	4.9993495E+07	3.4953590E+07	5.00E+03	4.9993495E+05	3.9993495E+03	4.9993495E+03	3.33333299E+11
1.00E-02	9.3970202E-03	4.6046720E+00	9.4993443E+03	4.6973435E+07	4.9973435E+07	1.2444287E+03	9.8999465E+03	4.6046720E+00	4.9994650E+03
5.00E-02	4.975542E-02	6.2690135E+00	9.9755285E+03	4.9993656E+07	5.00E+02	6.2131948E+00	9.9755285E+03	4.9993656E+02	3.33333325E+11
1.00E-01	5.8933335E+02	6.8924535E+00	9.8935436E+03	4.9993375E+07	5.00E+01	9.9310195E+03	1.00E+01	6.303724E+00	9.9310195E+03
2.00E-01	2.4137972E+01	7.7666593E+00	9.9922323E+01	4.999374E+07	2.975119E+02	2.50E+01	7.217972E+00	9.9922323E+01	1.213797E+01
5.00E-01	4.567273E+01	8.368109E+00	9.997072E+00	4.999350E+07	3.100E+01	6.9152235E+01	5.00E+01	9.997072E+00	3.3333325E+11
7.50E-01	6.4193905E+01	8.670294E+00	9.997515E+01	4.9993495E+07	1.2509794E+01	7.50E+00	7.4531287E+01	8.9135359E+00	1.264156E+01
1.00E+00	7.9333913E+01	8.8515257E+00	9.9977728E+01	4.9993215E+07	1.00E+00	9.9455667E+01	1.00E+00	9.9333325E+01	1.00E+00
2.50E+00	1.4443795E+00	9.3789368E+00	9.9992871E+03	4.999374E+07	3.100E+00	1.3783395E+01	2.50E+00	2.4692995E+00	9.1213795E+01
5.00E+00	1.7074049E+00	9.3985010E+00	9.999314E+03	4.999374E+07	5.00E+00	2.2675925E+00	5.00E+00	4.999374E+00	1.2499335E+01
7.50E+00	1.7445123E+00	9.4046148E+00	9.999314E+03	4.999374E+07	7.50E+00	2.4644355E+00	7.50E+00	4.999374E+00	2.812824E+01
1.00E+01	1.7494335E+01	9.4054828E+00	9.999314E+03	4.999374E+07	1.00E+01	9.9453955E+00	1.00E+01	4.999374E+01	4.999374E+01
1.35E+01	1.7494335E+01	9.4054828E+00	9.999314E+03	4.999374E+07	1.35E+01	1.2483008E+01	1.35E+01	5.0000000E+01	5.0000000E+01
2.00E+01	1.7494335E+01	9.4054828E+00	9.999314E+03	4.999374E+07	2.00E+01	2.2672535E+01	2.00E+01	5.0000000E+01	5.0000000E+01
5.00E+01	1.7494335E+01	9.4054828E+00	9.999314E+03	4.999374E+07	5.00E+01	1.24949235E+01	5.00E+01	5.0000000E+01	5.0000000E+01

Table 12.

Table of x

 $\mu = 4.500E-03$

$\sigma \backslash \delta$	2R \odot 4.51E-08 pc		IAU 4.85E-06 pc	
	x	log x	x	log x
1	4.98891E+04	4.69801E+00	4.63918E+02	2.66644E+00
5	1.99557E+03	3.30007E+00	1.85567E+01	1.26850E+00
10	4.98891E+02	2.69801E+00	4.63918E+00	6.66441E-01
15	2.21729E+02	2.34582E+00	2.06186E+00	3.14258E-01
20	1.24723E+02	2.09595E+00	1.15979E+00	6.43808E-02

 $\mu = 1.800E-02$

$\sigma \backslash \delta$	2R \odot 4.51E-08 pc		IAU 4.85E-06 pc	
	x	log x	x	log x
1	1.99557E+05	5.30007E+00	1.85567E+03	3.26850E+00
5	7.98226E+03	3.90213E+00	7.42268E+01	1.87056E+00
10	1.99557E+03	3.30007E+00	1.85567E+01	1.26850E+00
15	8.86918E+02	2.94788E+00	8.24742E+00	9.16318E-01
20	4.98891E+02	2.69801E+00	4.63918E+00	6.66441E-01

 $\mu = 7.200E-02$

$\sigma \backslash \delta$	2R \odot 4.51E-08 pc		IAU 4.85E-06 pc	
	x	log x	x	log x
1	7.98226E+05	5.90213E+00	7.42268E+03	3.87056E+00
5	3.19290E+04	4.50419E+00	2.96907E+02	2.47262E+00
10	7.98226E+03	3.90213E+00	7.42268E+01	1.87056E+00
15	3.54767E+03	3.54994E+00	3.29897E+01	1.51838E+00
20	1.99557E+03	3.30007E+00	1.85567E+01	1.26850E+00

Table of y

$\sigma \backslash V_e$	$V_e = 2.0$		$V_e = 5.0$		$V_e = 10.0$		$V_e = 20.0$	
	y	log y	y	log y	y	log y	y	log y
1	8.00000E+00	9.03090E-01	5.00000E+01	1.69897E+00	2.00000E+02	2.30103E+00	8.00000E+02	2.90309E+00
5	3.20000E-01	-4.94850E-01	2.00000E+00	3.01030E-01	8.00000E+00	9.03090E-01	3.20000E+01	1.50515E+00
10	8.00000E-02	-1.09691E+00	5.00000E-01	-3.01030E-01	2.00000E+00	3.01030E-01	8.00000E+00	9.03090E-01
15	3.55556E-02	-1.44909E+00	2.22222E-01	-6.53213E-01	8.88889E-01	-5.11525E-02	3.55556E+00	5.50907E-01
20	2.00000E-02	-1.69897E+00	1.25000E-01	-9.03090E-01	5.00000E-01	-3.01030E-01	2.00000E+00	3.01030E-01