ORGANOMETALLICS

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Supplementary Material for "Reactivity of Permethylscandocene Derivatives with Acetylene. Structure of *Bis* (permethylscandocene) Acetylene-diyl, $(\eta^5\text{-}C_5\,Me_5)_2\,Sc\text{–}C\equiv C\text{–}Sc(\eta^5\text{-}C_5\,Me_5)_2$"

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Abstract.

The structure of bis (bis (pentamethylcyclopentadienyl) scandium) acetylene, $(C_{10}H_{15})_2\,Sc\text{-}C\equiv C\text{-}Sc\,(C_{10}H_{15})_2\cdot 1/2\,C_7\,H_8$, has been determined. It crystallizes in the tetragonal system, in space group $P\bar{4}2_1c$ (#114), with $a=15.057(3)$Å, $c=18.617(6)$Å, volume$=4220.7(18)$ Å^3; $z=4$.

Experimental. A long prism was cleaved with a razor blade in an argon atmosphere and a fragment was placed with a little grease in a capillary. The crystal was centered on the diffractometer and preliminary cell dimensions plus an orientation matrix were calculated from the setting angles of 25 reflections. Two octants of data were collected and final cell dimensions were obtained from the setting angles of 24 reflections with $25° < 2\theta < 38°$. The data were corrected for a slight decay (2.2%) and Lorentz and polarization factors plus a Wilson scale factor were applied. The Laue group and the systematic absences in the diffractometer data were only consistent with the non-centrosymmetric space group $P\bar{4}2_1c$. The scandium atom was located from a Patterson map and the remaining atoms of the molecule found with

subsequent structure factor–Fourier cycles. Full matrix least squares converged with an R-index of 15%; the difference map had many peaks in it, but none greater than |0.75| eÅ^{-3}. A region of positive density centered at 1/2, 1/2, 0 (a $\bar{4}$ point) was interpreted as a disordered toluene molecule; because the atoms of the toluene all have z coordinates nearly equal to zero, the disorder is effectively four-fold. An idealized toluene was fitted to the map (C-C ring, 1.38Å; C-CH_3, 1.56Å) with isotropic thermal parameters, B, of 10Å^2 assigned; the toluene parameters were not refined, but were re-adjusted once toward the end of the refinement. Hydrogen atoms were introduced on the Cp* methyl groups at idealized positions based on difference maps calculated in the planes where they were expected; they were assigned isotropic thermal parameters 20% greater than the equivalent isotropic thermal parameter of their carbon atom. These hydrogen atoms were also adjusted once toward the end of the refinement. Refinement of the rest of the scandium dimer concluded smoothly, with the final R-index for reflections with $F_o^2 > 3\sigma(F_o^2)$ being 0.047. Crystal data are given in Table I, final parameters in Table II and selected distances and angles in Table III.

Calculations were done with programs of the CRYM Crystallographic Computing System and ORTEP. Scattering factors and corrections for anomalous scattering were taken from a standard reference (International Tables for X-ray Crystallography, Vol. IV, p. 71, p. 149; Birmingham, Kynoch Press, 1974). $R = \Sigma||F_o| - |F_c||/\Sigma F_o$, for only $F_o^2 > 0$, and goodness of fit $= [\Sigma w(F_o^2 - F_c^2)^2/(n-p)]^{\frac{1}{2}}$ where n is the number of data and p the number of parameters refined. The function minimized in least squares was $\Sigma w(F_o^2 - F_c^2)^2$, where $w = 1/\sigma^2(F_o^2)$. Variances of the individual reflections were assigned based on counting statistics plus an additional term, $0.014I^2$. Variances of the merged reflections were determined by standard propagation of error plus another additional term, $0.014\langle I\rangle^2$. The secondary extinction parameter (Larson, E. C. Acta Cryst. 1967, *23*, 664, eqn. 3) refined to $0.08(6) \times 10^{-6}$.

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Table SI. Crystal and Intensity Collection Data

Formula:	Formula Weight: 700.93
Crystal Color: pale yellow	Habit: prismatic
$a = 15.057(3)$ Å	
$c = 18.617(6)$ Å	
$v = 4220.7(18)$ Å^3	$z = 4$
$\lambda = 0.71073$ Å	T: 22
Graphite monochromator	
Space group: $P\bar{4}2_1c$	Absences: h00, $h = 2n+1$; hhl, $l = 2n+1$
Crystal Size: .22 x .35 x .48mm	$\mu = 3.56$ cm^{-1} ($\mu r_{max} = 0.11$)
CAD-4 Diffractometer	ω scan
2θ range: 2° - 40°	Octants collected: h, k, $\pm$l

Number reflections measured: 5284

Number of independent reflections: 1460

Number with $F_o^2 > 0$: 1327

Number with $F_o^2 > 3\sigma(F_o^2)$: 894

Goodness of fit for merging data: 0.967

Final R-index: 0.0835

Final goodness of fit: 1.71

L-527-M4

Table SII. Final Parameters for Bis[(bis Cp*)Sc] Acetylene.

x, y, z and $U_{eq}{}^{a} \times 10^4$

Atom	x	y	z	U_{eq}
Sc	3220(.8)	537(.9)	1529(.8)	370(4)
C1	4616(4)	133(5)	1451(4)	439(21)
Cp1	1852(5)	275(5)	815(4)	409(24)
Cp2	2552(6)	346(6)	326(4)	444(24)
Cp3	3110(5)	−393(6)	427(4)	486(26)
Cp4	2767(5)	−887(5)	997(4)	436(25)
Cp5	1976(5)	−483(5)	1240(4)	437(24)
Me1	1018(5)	840(5)	785(4)	721(29)
Me2	2682(6)	1053(6)	−240(4)	837(32)
Me3	3899(5)	−667(6)	−31(4)	808(28)
Me4	3135(6)	−1757(5)	1285(5)	855(32)
Me5	1350(5)	−864(5)	1787(4)	714(27)
Cp6	3602(6)	2026(5)	1985(5)	502(29)
Cp7	3873(6)	1434(6)	2535(5)	490(26)
Cp8	3095(7)	1027(5)	2785(4)	484(24)
Cp9	2357(6)	1404(6)	2428(5)	500(26)
Cp10	2675(6)	2006(5)	1927(5)	521(29)
Me6	4237(5)	2603(5)	1563(6)	817(28)
Me7	4792(5)	1328(5)	2836(4)	679(27)
Me8	3049(6)	356(6)	3392(5)	889(29)
Me9	1391(5)	1264(6)	2637(4)	720(30)
Me10	2143(5)	2653(5)	1489(5)	794(28)

[a] $U_{eq} = \frac{1}{3} \sum_i \sum_j [U_{ij} (a_i^* a_j^*) (\vec{a}_i \cdot \vec{a}_j)]$

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Table SIII. Assigned Parameters for $(Cp_2^*Sc)_2C_2$.

x, y and $z \times 10^4$

Atom	x	y	z	B
C2	4608	4880	31	10.0
C3	5418	4475	95	10.0
C4	6170	5000	104	10.0
C5	6125	5920	48	10.0
C6	5290	6301	−17	10.0
C7	4530	5780	−25	10.0
C8	3741	4310	21	10.0
H 1A	645	717	1197	6.2
H 1B	689	699	360	6.2
H 1C	1171	1450	785	6.2
H 2A	2127	1166	−473	7.9
H 2B	3090	819	−600	7.9
H 2C	2916	1564	−35	7.9
H 3A	4394	−687	213	8.2
H 3B	3925	−221	−431	8.2
H 3C	3733	−1218	−267	8.2
H 4A	3748	−1640	1417	7.8
H 4B	3130	−2170	900	7.8
H 4C	2812	−1945	1675	7.8
H 5A	1679	−1274	2076	6.8
H 5B	898	−1185	1531	6.8
H 5C	1110	−409	2058	6.8
H6AA	4030	3209	1551	7.6
H6AB	4334	2395	1095	7.6
H6AC	4816	2619	1813	7.6
H6BA	4381	3136	1849	7.6
H6BB	4003	2787	1122	7.6
H6BC	4796	2299	1488	7.6
H 7A	4911	1799	3172	6.5
H 7B	5225	1344	2464	6.5
H 7C	4835	772	3087	6.5
H 8A	3638	189	3545	7.4
H 8B	2756	−184	3227	7.4
H 8C	2730	579	3793	7.4
H9AA	1348	693	2904	6.4
H9AB	1006	1253	2256	6.4
H9AC	1219	1716	2985	6.4
H9BA	1382	1136	3168	6.4
H9BB	1146	756	2413	6.4
H9BC	1046	1769	2564	6.4
H10A	1531	2502	1542	7.4
H10B	2330	2641	1021	7.4
H10C	2236	3233	1703	7.4
H10D	1830	3031	1834	7.4
H10E	1734	2344	1213	7.4
H10F	2533	3001	1219	7.4

2-527-M6

Table SIV. Anisotropic Displacement Parameters for $(Cp^*_2Sc)_2C_2$.

Atom	U_{11}	U_{22}	U_{33}	U_{12}	U_{13}	U_{23}
Sc	284(9)	410(10)	415(8)	28(8)	−25(10)	−26(10)
C1	395(53)	489(47)	434(49)	−26(47)	−97(43)	−28(48)
Cp1	222(46)	471(60)	534(56)	6(48)	−72(52)	−90(47)
Cp2	416(57)	519(67)	397(53)	−64(57)	−44(49)	−15(50)
Cp3	358(57)	686(71)	413(51)	−138(63)	3(51)	−192(54)
Cp4	388(58)	338(55)	581(59)	37(44)	−160(51)	−96(49)
Cp5	388(59)	377(54)	545(58)	−40(51)	−51(47)	32(50)
Me1	433(54)	711(70)	1018(72)	12(54)	−250(58)	−179(59)
Me2	927(81)	968(85)	615(63)	−14(62)	8(60)	355(65)
Me3	657(60)	1152(82)	616(58)	−14(70)	−60(54)	−414(63)
Me4	869(68)	510(57)	1187(97)	11(57)	−375(67)	−64(63)
Me5	673(60)	706(67)	763(68)	−201(53)	102(53)	−40(53)
Cp6	449(64)	361(63)	695(71)	10(51)	79(55)	−63(54)
Cp7	361(58)	512(61)	596(63)	−70(53)	22(56)	−234(53)
Cp8	581(65)	481(53)	391(55)	25(58)	98(60)	−174(46)
Cp9	377(61)	553(64)	570(62)	26(53)	47(56)	−180(53)
Cp10	478(68)	358(61)	727(68)	107(52)	−41(58)	−12(52)
Me6	711(64)	634(59)	1107(77)	−248(54)	98(72)	2(74)
Me7	590(67)	802(70)	645(57)	50(52)	−182(52)	−364(55)
Me8	1154(78)	913(73)	601(55)	−107(67)	149(76)	−189(67)
Me9	472(62)	740(71)	949(73)	−11(52)	165(57)	−164(63)
Me10	759(65)	545(57)	1078(74)	147(50)	−129(71)	−128(68)

The form of the displacement factor is:

$$\exp -2\pi^2(U_{11}h^2a^{*2} + U_{22}k^2b^{*2} + U_{33}\ell^2c^{*2} + 2U_{12}hka^*b^* + 2U_{13}h\ell a^*c^* + 2U_{23}k\ell b^*c^*)$$

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Table SV. Complete Distances and Angles for $(Cp_2^*Sc)_2C_2$.

	Distance(Å)		Distance(Å)
Sc -C1	2.194(7)	Me6 -H6AA	0.964(9)
Sc -Cp1	2.483(8)	Me6 -H6AB	0.937(9)
Sc -Cp2	2.472(8)	Me6 -H6AC	0.989(9)
Sc -Cp3	2.490(8)	Me6 -H6BA	0.987(9)
Sc -Cp4	2.457(8)	Me6 -H6BB	0.936(9)
Sc -Cp5	2.480(8)	Me6 -H6BC	0.968(9)
Sc -Cp6	2.465(9)	Me7 -H 7A	0.963(8)
Sc -Cp7	2.510(9)	Me7 -H 7B	0.951(8)
Sc -Cp8	2.458(8)	Me7 -H 7C	0.961(8)
Sc -Cp9	2.488(9)	Me8 -H 8A	0.964(9)
Sc -Cp10	2.473(8)	Me8 -H 8B	0.975(9)
C1 -C1	1.224(9)	Me8 -H 8C	0.950(9)
Cp1 -Cp2	1.396(11)	Me9 -H9AA	0.995(8)
Cp1 -Cp5	1.401(11)	Me9 -H9AB	0.916(8)
Cp1 -Me1	1.518(11)	Me9 -H9AC	0.974(8)
Cp2 -Cp3	1.407(11)	Me9 -H9BA	1.007(8)
Cp2 -Me2	1.510(12)	Me9 -H9BB	0.946(8)
Cp3 -Cp4	1.396(11)	Me9 -H9BC	0.932(8)
Cp3 -Me3	1.520(12)	Me10-H10A	0.954(8)
Cp4 -Cp5	1.411(11)	Me10-H10B	0.916(8)
Cp4 -Me4	1.521(11)	Me10-H10C	0.970(8)
Cp5 -Me5	1.502(11)	Me10-H10D	0.979(8)
Me1 -H 1A	0.968(8)	Me10-H10E	0.928(8)
Me1 -H 1B	0.957(8)	Me10-H10F	0.933(8)
Me1 -H 1C	0.947(8)	C2 -C3	1.369(0)
Me2 -H 2A	0.956(9)	C2 -C7	1.364(0)
Me2 -H 2B	0.974(9)	C2 -C8	1.563(0)
Me2 -H 2C	0.928(9)	C3 -C4	1.381(0)
Me3 -H 3A	0.874(8)	C4 -C5	1.391(0)
Me3 -H 3B	1.004(8)	C5 -C6	1.387(0)
Me3 -H 3C	0.971(8)	C6 -C7	1.387(0)
Me4 -H 4A	0.971(8)		
Me4 -H 4B	0.949(8)		
Me4 -H 4C	0.919(8)		
Me5 -H 5A	0.957(8)		
Me5 -H 5B	0.961(8)		
Me5 -H 5C	0.925(8)		
Cp6 -Cp7	1.418(12)		
Cp6 -Cp10	1.401(12)		
Cp6 -Me6	1.512(12)		
Cp7 -Cp8	1.402(12)		
Cp7 -Me7	1.501(12)		
Cp8 -Cp9	1.415(12)		
Cp8 -Me8	1.517(12)		
Cp9 -Cp10	1.384(12)		
Cp9 -Me9	1.521(12)		
Cp10-Me10	1.503(12)		

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Table SV. (Cont.)

	Angle(°)		Angle(°)
C1 -C1 -Sc	175.1(6)	Me6 -Cp6 -Cp7	123.7(8)
Cp5 -Cp1 -Cp2	109.3(7)	Me6 -Cp6 -Cp10	127.1(8)
Me1 -Cp1 -Cp2	123.9(7)	Cp8 -Cp7 -Cp6	105.9(7)
Me1 -Cp1 -Cp5	125.9(7)	Me7 -Cp7 -Cp6	127.0(8)
Cp3 -Cp2 -Cp1	107.6(7)	Me7 -Cp7 -Cp8	126.9(8)
Me2 -Cp2 -Cp1	127.4(7)	Cp9 -Cp8 -Cp7	108.9(7)
Me2 -Cp2 -Cp3	124.9(7)	Me8 -Cp8 -Cp7	125.2(8)
Cp4 -Cp3 -Cp2	107.6(7)	Me8 -Cp8 -Cp9	125.6(8)
Me3 -Cp3 -Cp2	127.4(7)	Cp10 -Cp9 -Cp8	107.9(8)
Me3 -Cp3 -Cp4	124.8(7)	Me9 -Cp9 -Cp8	125.1(8)
Cp5 -Cp4 -Cp3	109.1(7)	Me9 -Cp9 -Cp10	126.4(8)
Me4 -Cp4 -Cp3	126.3(7)	Cp9 -Cp10-Cp6	107.9(7)
Me4 -Cp4 -Cp5	124.5(7)	Me10 -Cp10-Cp6	123.9(7)
Cp4 -Cp5 -Cp1	106.4(7)	Me10 -Cp10-Cp9	127.3(8)
Me5 -Cp5 -Cp1	127.7(7)	H6AA-Me6 -Cp6	110.6(8)
Me5 -Cp5 -Cp4	125.6(7)	H6AB-Me6 -Cp6	112.9(8)
H 1A-Me1 -Cp1	110.2(7)	H6AC-Me6 -Cp6	109.1(8)
H 1B-Me1 -Cp1	109.6(7)	H6BA-Me6 -Cp6	109.0(8)
H 1C-Me1 -Cp1	110.0(7)	H6BB-Me6 -Cp6	112.9(8)
H 1B-Me1 -H 1A	108.2(8)	H6BC-Me6 -Cp6	110.7(8)
H 1C-Me1 -H 1A	109.0(8)	H6AB-Me6 -H6AA	110.1(9)
H 1C-Me1 -H 1B	109.9(8)	H6AC-Me6 -H6AA	105.8(8)
H 2A-Me2 -Cp2	109.2(8)	H6AC-Me6 -H6AB	108.0(8)
H 2B-Me2 -Cp2	107.9(8)	H6BB-Me6 -H6BA	108.3(8)
H 2C-Me2 -Cp2	110.3(8)	H6BC-Me6 -H6BA	105.7(8)
H 2B-Me2 -H 2A	107.7(9)	H6BC-Me6 -H6BB	109.9(9)
H 2C-Me2 -H 2A	111.7(9)	H 7A -Me7 -Cp7	109.6(7)
H 2C-Me2 -H 2B	110.1(9)	H 7B -Me7 -Cp7	111.0(7)
H 3A-Me3 -Cp3	112.6(8)	H 7C -Me7 -Cp7	109.7(7)
H 3B-Me3 -Cp3	105.3(7)	H 7B -Me7 -H 7A	109.1(8)
H 3C-Me3 -Cp3	106.4(7)	H 7C -Me7 -H 7A	108.2(7)
H 3B-Me3 -H 3A	112.1(8)	H 7C -Me7 -H 7B	109.3(8)
H 3C-Me3 -H 3A	115.3(9)	H 8A -Me8 -Cp8	110.6(8)
H 3C-Me3 -H 3B	104.3(8)	H 8B -Me8 -Cp8	110.0(8)
H 4A-Me4 -Cp4	106.2(7)	H 8C -Me8 -Cp8	111.9(8)
H 4B-Me4 -Cp4	107.1(7)	H 8B -Me8 -H 8A	107.0(8)
H 4C-Me4 -Cp4	110.5(8)	H 8C -Me8 -H 8A	109.0(8)
H 4B-Me4 -H 4A	108.5(8)	H 8C -Me8 -H 8B	108.3(8)
H 4C-Me4 -H 4A	111.2(8)	H9AA-Me9 -Cp9	108.1(7)
H 4C-Me4 -H 4B	113.1(8)	H9AB-Me9 -Cp9	114.1(8)
H 5A-Me5 -Cp5	107.6(7)	H9AC-Me9 -Cp9	109.1(7)
H 5B-Me5 -Cp5	107.5(7)	H9BA-Me9 -Cp9	106.9(7)
H 5C-Me5 -Cp5	109.3(7)	H9BB-Me9 -Cp9	111.9(8)
H 5B-Me5 -H 5A	108.8(8)	H9BC-Me9 -Cp9	112.5(8)
H 5C-Me5 -H 5A	111.8(8)	H9AB-Me9 -H9AA	109.3(8)
H 5C-Me5 -H 5B	111.6(8)	H9AC-Me9 -H9AA	104.7(8)
Cp10-Cp6 -Cp7	109.2(8)	H9AC-Me9 -H9AB	111.1(8)

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Table SV. (Cont.)

Angle(°)

H9BB	-Me9	-H9BA	105.9(8)
H9BC	-Me9	-H9BA	107.0(8)
H9BC	-Me9	-H9BB	112.2(8)
H10A	-Me10	-Cp10	107.6(7)
H10B	-Me10	-Cp10	109.8(8)
H10C	-Me10	-Cp10	106.5(7)
H10D	-Me10	-Cp10	106.1(7)
H10E	-Me10	-Cp10	109.2(8)
H10F	-Me10	-Cp10	108.7(7)
H10B	-Me10	-H10A	113.0(8)
H10C	-Me10	-H10A	108.2(8)
H10C	-Me10	-H10B	111.4(8)
H10E	-Me10	-H10D	109.6(8)
H10F	-Me10	-H10D	109.3(8)
H10F	-Me10	-H10E	113.7(9)
C7	-C2	-C3	121.7(0)
C8	-C2	-C3	120.1(0)
C8	-C2	-C7	118.2(0)
C4	-C3	-C2	118.4(0)
C5	-C4	-C3	121.9(0)
C6	-C5	-C4	117.6(0)
C7	-C6	-C5	121.0(0)
C6	-C7	-C2	119.3(0)

L.527.M10

Table SVI. Observed and Calculated Structure Factors for Bis [(bis Cp*)Sc] Acetylene

The columns contain, in order, ℓ, $10F_{obs}$, $10F_{calc}$ and $10\left(\frac{F^2_{obs}-F^2_{calc}}{\sigma F^2_{obs}}\right)$. A minus sign preceeding F_{obs} indicates that F^2_{obs} is negative.

	0 0 1		
4	228	247	-28
6	1880	1911	-19
8	874	895	-23
10	1003	971	31
12	530	531	0
14	347	346	1
16	519	523	-3
18	188	134	7
	1 0 1		
2	1866	1854	8
3	640	611	52
4	90	95	-4
5	834	831	4
6	985	977	9
7	313	334	-34
8	963	969	-7
9	357	376	-30
10	157	159	-1
11	80	81	0
12	336	328	9
13	73	43	7
14	109	113	-1
15	63	93	-8
16	123	129	-2
17	127	141	-6
18	304	318	-4
19	-137	55	-12
	1 1 1		
2	1014	994	21
4	923	892	36
6	767	709	69
8	515	488	35
10	756	742	16
12	198	170	15
14	275	243	21
16	322	326	-3
18	102	125	-2
	2 0 1		
1	1636	1645	-6
2	1128	1118	10
3	1292	1255	35
4	331	341	-20
5	594	578	26
6	243	271	-41
7	211	208	3
8	107	140	-25
9	542	529	21
10	78	27	14
11	455	442	18
12	182	128	35
13	59	49	2
14	216	237	-16
15	271	260	9
16	111	79	11
17	284	262	18
18	25	51	-1
19	190	163	5
	2 1 1		
0	1369	1381	-10
1	1317	1324	-6
2	1539	1558	-15
3	688	712	-39
4	677	652	40
5	659	634	40
6	305	294	17
7	592	637	-76
8	211	207	4
9	145	144	0
10	441	434	10
11	380	377	4
12	226	216	8
13	114	134	-9
14	149	114	17
15	194	157	23
16	212	206	4
17	201	164	22
18	143	83	8
19	85	83	0
	2 2 1		
0	1053	1062	-9
2	466	435	51
4	1346	1370	-19
6	137	168	-21
8	697	672	29
10	527	535	-10
12	92	123	-9
14	74	107	-7
16	398	384	11
18	115	118	0
	3 0 1		
1	817	781	52
2	281	276	10
3	227	236	-15
4	522	505	31
5	272	243	41
6	44	19	5
7	378	358	34
8	-82	30	-22
9	254	274	-26
10	82	102	-9
11	467	458	12
12	111	113	-1
13	308	286	21
14	109	126	-7
15	138	161	-12
16	-57	17	-6
17	285	281	3
18	210	97	23
19	171	194	-5
	3 1 1		
0	661	689	-51
1	213	212	0
2	247	240	11
3	753	737	24
4	576	618	-77
5	977	969	10
6	583	573	17
7	604	596	13
8	326	354	-43
9	617	630	-19
10	227	226	1
11	469	485	-22
12	249	201	42
13	234	237	-2
14	138	167	-16
15	230	232	-1
16	214	213	1
17	303	319	-14
18	210	128	17
19	152	145	1
	3 2 1		
0	8	41	-7
1	253	262	-16
2	802	805	-4
3	615	563	85
4	1004	993	13
5	1116	1068	50
6	83	76	3
7	490	493	-3
8	719	701	25
9	291	337	-67
10	314	288	32
11	324	311	15
12	192	178	10
13	177	149	18
14	238	236	2
15	136	149	-6
16	71	117	-15
17	121	116	1
18	251	207	12
19	147	107	5
	3 3 1		
0	129	155	-18
2	474	502	-42
4	880	904	-27
6	500	475	32
8	373	313	63
10	604	587	18
12	233	262	-18
14	-20	66	-6
16	325	311	10
18	105	152	-5
	4 0 1		
0	179	181	-1
1	54	2	11
2	662	655	10
3	901	886	18
4	1222	1173	48
5	765	756	14
6	718	731	-20
7	755	721	47
8	204	207	-3
9	142	170	-23
10	202	192	9
11	218	204	12
12	237	255	-17
13	72	4	10
14	-119	14	-26
15	130	173	-22
16	192	191	0
17	27	27	0
18	-114	90	-12
	4 1 1		
0	638	641	-4
1	305	310	-8
2	282	266	26
3	755	750	6
4	896	876	26
5	717	727	-15
6	245	254	-13
7	284	268	23
8	156	156	0
9	332	319	18
10	608	620	-18
11	396	415	-25
12	169	162	4
13	224	211	10
14	182	162	12
15	413	411	1
16	255	269	-11
17	140	148	-3
18	-73	37	-4
	4 2 1		
0	184	213	-38
1	204	198	9
2	119	107	8
3	1099	1098	1
4	162	160	1
5	227	243	-23
6	426	452	-46
7	894	870	29
8	318	323	-7
9	429	429	0
10	174	135	27
11	326	296	34
12	118	125	-3
13	276	257	17
14	99	147	-21
15	49	51	0
16	73	39	7
17	142	154	-6
18	-107	44	-8
	4 3 1		
0	1263	1262	0
1	644	659	-25
2	414	416	-3
3	452	425	46
4	308	326	-30
5	644	671	-44
6	959	979	-24
7	95	116	-13
8	301	287	18
9	241	237	4
10	474	476	-3
11	179	189	-7
12	199	199	0
13	173	153	12
14	244	233	9
15	157	151	3
16	254	258	-3
17	125	76	6
18	-150	56	-18
	4 4 1		
0	412	361	65
2	720	732	-21
4	495	518	-32
6	995	1001	-6
8	673	697	-29
10	282	257	19
12	447	423	21
14	207	200	3
16	114	143	-9
18	93	144	-5
	5 0 1		
1	369	381	-22
2	388	366	39
3	166	149	18
4	29	29	0
5	539	535	7
6	300	281	27
7	544	548	-5
8	263	271	-10
9	612	584	40
10	120	129	-5
11	92	121	-13
12	90	84	2
13	-40	70	-12
14	-59	7	-6
15	170	156	8
16	66	86	-5
17	-93	110	-13
18	152	147	0
	5 1 1		
0	1315	1365	-47
1	571	581	-18
2	798	782	22
3	543	551	-14

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4	665	671	-9
5	306	284	35
6	514	540	-44
7	402	413	-18
8	430	429	1
9	365	366	-1
10	382	393	-15
11	201	200	0
12	237	255	-16
13	304	309	-5
14	235	237	-1
15	247	236	8
16	261	267	-5
17	330	349	-6
18	144	60	10

5 2 1

0	493	481	23
1	715	708	10
2	408	389	33
3	354	373	-33
4	454	455	-2
5	842	854	-16
6	712	720	-11
7	169	171	-2
8	442	406	55
9	504	503	1
10	215	199	14
11	299	337	-43
12	263	267	-4
13	97	63	10
14	180	144	20
15	312	310	2
16	65	55	2
17	91	138	-6
18	276	198	23

5 3 1

0	253	226	38
1	275	288	-21
2	304	299	8
3	616	613	4
4	-37	28	-7
5	378	385	-12
6	251	265	-19
7	451	456	-7
8	392	402	-14
9	218	216	2
10	357	359	-2
11	85	91	-2
12	156	164	-4
13	208	199	7
14	157	137	10
15	69	57	2
16	194	204	-7
17	-157	20	-14
18	162	132	5

5 4 1

0	673	670	5
1	405	414	-15
2	560	542	30
3	253	220	44
4	660	682	-33
5	294	314	-28
6	561	565	-6
7	185	172	11
8	417	378	54
9	295	284	12
10	411	427	-22
11	170	170	0
12	227	224	1
13	-34	32	-4
14	245	239	4
15	98	79	6
16	213	198	10
17	-97	4	-6

5 5 1

0	308	300	9
2	326	296	33
4	355	316	42
6	625	627	-2
8	182	181	0
10	257	243	9
12	309	305	3
14	236	249	-7
16	239	150	14

6 0 1

0	176	180	-4
1	693	680	19
2	643	642	1
3	339	344	-8
4	231	251	-26
5	793	829	-51
6	56	23	7
7	309	325	-24
8	46	0	5
9	81	59	7
10	280	301	-23
11	231	246	-13
12	-41	82	-16
13	164	155	5
14	158	175	-10
15	355	347	9
16	98	65	9
17	59	219	-24
18	-55	23	-2

6 1 1

0	171	184	-16
1	235	264	-43
2	503	516	-23
3	582	579	6
4	449	440	16
5	463	471	-14
6	641	649	-12
7	677	687	-15
8	529	521	12
9	340	325	19
10	101	99	0
11	108	100	3
12	192	173	12
13	289	302	-12
14	180	203	-14
15	174	192	-11
16	266	264	1
17	79	85	0
18	-197	64	-24

6 2 1

0	781	723	80
1	365	371	-9
2	442	459	-31
3	809	787	29
4	686	694	-11
5	287	263	33
6	494	512	-28
7	325	341	-23
8	372	371	1
9	153	158	-3
10	380	398	-23
11	257	263	-5
12	241	233	6
13	60	53	1
14	196	210	-10
15	57	92	-9
16	265	258	5
17	-96	60	-8

6 3 1

0	278	278	0
1	461	453	15
2	288	315	-42
3	299	279	30
4	145	190	-43
5	291	283	12
6	235	232	3
7	235	227	8
8	290	275	18
9	140	123	9
10	179	173	4
11	66	139	-29
12	313	289	24
13	46	85	-9
14	276	270	5
15	174	184	-6
16	141	77	9
17	68	88	-1

6 4 1

0	320	319	1
1	300	322	-35
2	264	262	2
3	570	564	9
4	260	275	-20
5	117	103	8
6	73	115	-21
7	700	721	-30
8	166	153	9
9	103	58	16
10	122	123	0
11	212	218	-4
12	185	200	-10
13	265	261	3
14	129	115	6
15	89	85	1
16	46	38	0
17	111	91	2

6 5 1

0	86	22	20
1	514	494	32
2	55	72	-6
3	83	70	5
4	53	24	6
5	653	661	-12
6	42	42	0
7	206	221	-13
8	269	262	6
9	196	190	4
10	206	210	-2
11	341	340	1
12	-70	37	-11
13	57	100	-12
14	77	122	-16
15	154	157	-2
16	-103	71	-10
17	179	64	18

6 6 1

0	62	40	4
2	630	623	7
4	468	464	4
6	369	368	0
8	159	158	0
10	360	369	-7
12	199	200	0
14	141	140	0
16	-37	65	-2

7 0 1

1	339	323	25
2	476	469	12
3	463	450	21
4	261	247	18
5	126	121	3
6	92	82	4
7	-80	1	-16
8	114	108	2
9	-29	56	-8
10	192	187	4
11	38	71	-7
12	62	43	3
13	157	166	-4
14	83	37	10
15	98	37	14
16	-55	21	-2
17	74	1	3

7 1 1

0	168	168	0
1	221	212	10
2	182	188	-6
3	253	253	0
4	147	179	-30
5	259	253	7
6	281	272	12
7	394	389	7
8	216	247	-30
9	122	123	0
10	132	89	19
11	51	25	4
12	116	83	12
13	98	87	3
14	308	296	11
15	94	67	7
16	32	117	-8
17	140	84	7

7 2 1

0	287	316	-44
1	218	187	35
2	447	456	-16
3	233	240	-8
4	603	574	44
5	236	224	13
6	655	664	-13
7	197	219	-20
8	233	211	21
9	248	246	1
10	193	209	-12
11	128	65	24
12	171	174	-1
13	75	94	-5
14	299	296	2
15	127	145	-8
16	251	238	3
17	95	170	-12

7 3 1

0	585	581	6
1	540	550	-16
2	251	266	-20
3	414	445	-51
4	496	498	-2
5	166	149	14
6	466	491	-39
7	346	352	-7
8	289	290	0
9	230	228	2
10	159	163	-2
11	201	164	25
12	207	186	15
13	251	266	-12
14	212	199	8

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15	209	199	6
16	121	129	-1
17	207	146	14

7 4 1

0	384	399	-23
1	846	850	-5
2	260	270	-12
3	78	67	4
4	123	142	-13
5	968	981	-15
6	7	72	-12
7	211	209	1
8	79	69	3
9	297	328	-33
10	72	90	-6
11	427	435	-9
12	100	134	-14
13	158	163	-2
14	129	145	-7
15	281	278	0
16	67	34	2

7 5 1

0	294	304	-13
1	528	513	22
2	306	284	28
3	679	705	-37
4	272	297	-31
5	202	175	23
6	164	176	-8
7	353	330	27
8	147	123	13
9	159	199	-28
10	285	280	4
11	183	196	-8
12	142	174	-17
13	478	492	-16
14	82	84	0
15	145	58	11
16	130	97	4

7 6 1

0	433	447	-21
1	246	248	-2
2	301	290	14
3	310	335	-33
4	585	564	29
5	107	81	11
6	425	432	-9
7	169	185	-10
8	358	364	-7
9	159	157	1
10	416	391	29
11	372	377	-5
12	477	480	-3
13	86	119	-11
14	102	151	-7
15	85	136	-6

7 7 1

0	150	140	4
2	324	316	7
4	367	384	-16
6	243	260	-11
8	-71	43	-9
10	318	311	4
12	417	438	-18
14	173	244	-11

8 0 1

0	610	609	1
1	-59	18	-11
2	184	191	-6
3	205	159	43
4	1243	1249	-5
5	168	159	7
6	721	728	-9
7	115	125	-5
8	101	105	-1
9	221	244	-21
10	369	357	14
11	180	202	-15
12	81	42	9
13	93	81	3
14	338	296	40
15	211	194	4
16	308	266	13

8 1 1

0	501	489	19
1	178	203	-25
2	558	556	3
3	330	321	13
4	341	349	-11
5	361	350	15
6	234	220	13
7	216	239	-21
8	307	288	21
9	283	289	-6
10	199	178	14
11	236	228	6
12	407	399	8
13	248	239	7
14	140	149	-4
15	-87	33	-5
16	192	150	9

8 2 1

0	99	42	24
1	823	801	28
2	334	326	11
3	290	280	13
4	67	88	-8
5	540	527	19
6	229	212	17
7	277	264	13
8	113	105	3
9	233	235	-1
10	118	88	12
11	219	209	7
12	166	182	-9
13	119	108	4
14	182	207	-16
15	215	245	-8
16	-99	33	-6

8 3 1

0	238	218	23
1	596	595	1
2	224	224	0
3	742	761	-26
4	179	184	-4
5	68	56	3
6	200	204	-3
7	350	356	-7
8	225	235	-8
9	314	332	-19
10	-53	42	-8
11	133	132	0
12	105	111	-2
13	303	306	-2
14	132	110	9
15	105	138	-5
16	86	16	4

8 4 1

0	488	492	-4
2	204	178	13
0	263	278	-19
1	460	457	4
2	377	373	5
3	296	256	46
4	-30	39	-6
5	159	145	9
6	158	158	0
7	186	202	-12
8	122	115	3
9	101	109	-3
10	206	224	-14
11	290	287	3
12	105	135	-12
13	187	199	-7
14	87	115	-9
15	91	74	1
16	-48	42	-2

8 5 1

0	271	251	22
1	112	148	-22
2	420	411	12
3	423	413	13
4	81	119	-17
5	323	320	3
6	145	123	12
7	50	82	-8
8	163	155	4
9	221	213	5
10	155	115	20
11	309	311	-2
12	154	167	-7
13	137	117	8
14	144	164	-3
15	168	89	13

8 6 1

0	177	144	23
1	448	435	18
2	216	225	-8
3	114	98	7
4	365	377	-14
5	330	344	-17
6	238	241	-3
7	137	150	-7
8	154	132	12
9	401	392	11
10	138	133	2
11	276	281	-5
12	68	108	-12
13	136	100	5
14	-167	34	-18
15	191	115	13

8 7 1

0	28	43	-2
1	34	68	-7
2	89	85	1
3	200	198	1
4	220	211	7
5	141	170	-17
6	281	274	7
7	254	246	7
8	203	207	-2
9	212	231	-15
10	191	175	10
11	147	122	12
12	168	183	-8
13	-129	63	-13
14	208	220	-3

8 8 1

4	374	348	21
6	170	155	6
8	351	358	-5
10	458	470	-10
12	211	214	0

9 0 1

1	196	213	-16
2	884	913	-35
3	45	114	-26
4	402	401	1
5	-33	59	-10
6	243	252	-9
7	31	51	-3
8	642	645	-4
9	164	192	-19
10	148	184	-21
11	22	9	0
12	515	522	-9
13	-18	1	0
14	290	296	-4
15	-36	3	0
16	-39	39	-1

9 1 1

0	330	341	-15
1	225	188	36
2	185	205	-17
3	95	132	-20
4	415	399	23
5	243	235	8
6	325	333	-9
7	213	200	11
8	94	56	11
9	138	148	-5
10	432	439	-7
11	-87	67	-22
12	159	154	2
13	233	225	6
14	126	136	-1
15	153	151	0
16	149	126	4

9 2 1

0	124	115	5
1	264	259	5
2	133	138	-3
3	645	658	-19
4	134	144	-5
5	281	266	16
6	150	145	3
7	354	358	-4
8	211	231	-17
9	291	298	-7
10	149	161	-6
11	333	350	-18
12	86	88	0
13	254	253	1
14	-130	66	-13
15	142	139	0

9 3 1

0	121	133	-7
1	521	520	1
2	234	245	-10
3	322	318	5
4	94	148	-29
5	518	507	15
6	115	114	0
7	267	274	-7
8	99	125	-11
9	381	386	-5
10	150	152	-1
11	361	366	-5

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12	69	92	-6
13	74	64	2
14	132	146	-2
15	266	208	16

9 4 1

0	141	122	11
1	590	583	9
2	268	273	-6
3	200	186	12
4	292	301	-9
5	112	117	-2
6	231	202	24
7	307	317	-10
8	95	94	0
9	102	99	1
10	-58	45	-10
11	160	179	-11
12	191	174	10
13	42	98	-12
14	104	79	2
15	114	162	-9

9 5 1

0	88	32	15
1	207	208	0
2	77	110	-13
3	219	235	-14
4	258	259	-1
5	186	165	14
6	239	233	6
7	353	341	13
8	82	56	7
9	193	138	34
10	285	286	-1
11	174	167	3
12	66	99	-9
13	194	208	-3
14	155	99	8

9 6 1

0	59	51	1
1	287	280	6
2	151	169	-12
3	405	398	9
4	84	123	-16
5	268	279	-11
6	154	186	-20
7	223	226	-2
8	-79	26	-13
9	256	258	-1
10	143	164	-11
11	255	244	9
12	260	252	2
13	176	190	-3
14	162	71	14

9 7 1

0	16	6	0
1	200	204	-3
2	192	179	9
3	74	86	-4
4	60	86	-7
5	148	120	14
6	32	74	-8
7	79	47	7
8	75	84	-2
9	133	139	-3
10	195	155	25
11	81	157	-29
12	-122	64	-12
13	252	234	5

9 8 1

0	-31	5	-2
1	123	108	6
2	469	449	24
3	136	169	-19
4	227	242	-12
5	193	206	-9
6	239	225	11
7	82	83	0
8	329	320	9
9	90	66	7
10	36	82	-4
11	110	133	-3
12	254	263	-2

9 9 1

0	504	482	19
2	131	139	-2
4	427	424	2
6	317	290	14
8	214	227	-6
10	293	237	12

10 0 1

0	153	100	30
1	394	389	7
2	128	148	-12
3	330	325	4
4	35	31	0
5	225	225	0
6	247	237	9
7	59	46	2
8	173	175	-1
9	454	458	-5
10	343	357	-15
11	386	398	-12
12	97	76	6
13	169	11	18
14	115	46	7
15	66	124	-6

10 1 1

0	93	104	-4
1	286	299	-14
2	40	22	2
3	-44	62	-12
4	303	309	-7
5	155	139	10
6	165	167	-1
7	168	153	9
8	163	169	-3
9	158	171	-8
10	232	225	5
11	164	135	15
12	39	48	-1
13	207	156	13
14	-27	118	-10
15	44	48	0

10 2 1

0	361	344	21
1	86	93	-2
2	168	181	-9
3	179	164	10
4	246	276	-29
5	169	186	-12
6	174	146	18
7	187	199	-9
8	188	174	9
9	382	380	2
10	234	213	16
11	113	136	-10
12	193	165	16
13	209	132	17
14	214	189	6
15	139	78	8

10 3 1

0	322	313	10
1	248	247	0
2	248	271	-23
3	188	166	16
4	251	254	-3
5	259	250	8
6	-12	19	-1
7	267	265	1
8	171	162	5
9	239	249	-7
10	149	91	26
11	167	194	-17
12	243	247	-3
13	274	211	18
14	75	129	-6

10 4 1

0	77	76	0
1	248	273	-25
2	275	281	-6
3	357	360	-3
4	324	311	14
5	46	74	-6
6	215	206	6
7	271	286	-14
8	153	145	4
9	161	193	-20
10	127	63	23
11	60	50	2
12	200	86	22
13	226	214	3
14	-105	31	-8

10 5 1

0	296	283	14
1	278	266	12
2	255	209	41
3	68	96	-9
4	305	284	21
5	392	391	2
6	264	275	-10
7	133	114	8
8	218	220	-1
9	258	238	17
10	144	124	9
11	209	208	0
12	-185	152	-34
13	-48	114	-9

10 6 1

0	336	340	-4
1	112	74	14
2	51	10	5
3	254	266	-11
4	286	272	14
5	239	251	-9
6	200	208	-6
7	341	354	-13
8	109	150	-19
9	172	139	19
10	169	146	12
11	111	136	-4
12	210	178	7
13	165	126	7

10 7 1

0	-32	2	-2
1	98	7	19
2	141	112	14
3	39	69	-6
4	71	72	0
5	247	257	-9
6	334	333	0
7	-60	19	-7
8	115	81	12
9	-89	41	-17
10	187	152	7
11	117	140	-3
12	-85	81	-9

10 8 1

0	162	188	-17
1	272	267	4
2	152	144	4
3	282	292	-9
4	309	297	11
5	426	414	14
6	219	230	-9
7	132	142	-5
8	136	139	-1
9	118	115	0
10	34	64	-2
11	221	184	10

10 9 1

0	96	115	-7
1	296	299	-2
2	71	119	-16
3	336	351	-16
4	67	85	-5
5	134	117	7
6	-70	57	-14
7	215	215	0
8	16	75	-3
9	98	103	0
10	-130	16	-10

10 10 1

0	287	276	7
2	239	251	-6
4	-102	170	-17
6	280	198	18
8	-130	105	-11

11 0 1

1	137	73	28
2	73	59	3
3	229	228	1
4	141	148	-4
5	55	59	0
6	166	167	0
7	512	500	15
8	209	225	-12
9	394	393	1
10	35	56	-3
11	228	246	-14
12	-45	49	-3
13	172	178	-1
14	-125	48	-10

11 1 1

0	117	129	-6
1	358	337	24
2	269	239	28
3	159	166	-4
4	181	185	-3
5	229	199	24
6	226	215	8
7	248	254	-5
8	132	169	-20
9	277	289	-10
10	229	232	-2

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11	290	284	5
12	67	178	-16
13	234	138	24
14	191	153	8

11 2 1

0	88	105	-6
1	114	107	3
2	238	241	-3
3	79	105	-10
4	326	317	9
5	144	134	5
6	184	193	-6
7	-33	63	-10
8	356	341	15
9	120	124	-1
10	178	163	9
11	121	153	-15
12	181	188	-1
13	-144	93	-18

11 3 1

0	245	227	16
1	122	102	8
2	160	135	15
3	126	108	8
4	229	227	1
5	110	89	8
6	511	541	-38
7	147	154	-3
8	150	151	0
9	177	147	18
10	264	270	-4
11	197	208	-8
12	184	123	15
13	-110	110	-15

11 4 1

0	68	39	6
1	82	97	-5
2	-66	70	-18
3	179	201	-16
4	139	144	-2
5	78	123	-17
6	79	130	-19
7	-29	50	-6
8	61	75	-3
9	138	177	-22
10	-43	30	-5
11	189	95	17
12	111	109	0
13	-93	16	-5

11 5 1

0	237	227	9
1	280	293	-12
2	230	252	-19
3	140	146	-3
4	90	67	7
5	126	144	-9
6	332	311	21
7	264	265	-1
8	110	106	1
9	132	126	2
10	162	190	-6
11	45	121	-8
12	146	101	7

11 6 1

0	184	195	-7
1	202	210	-6
2	355	356	0
3	-27	75	-12
4	185	216	-22
5	97	106	-3
6	169	148	12
7	-63	22	-8
8	319	313	6
9	150	116	6
10	-77	119	-13
11	82	22	4
12	148	174	-5

11 7 1

0	157	151	3
1	-83	68	-22
2	177	184	-4
3	102	117	-6
4	214	225	-9
5	229	214	11
6	199	174	16
7	182	192	-6
8	181	224	-11
9	-36	117	-9
10	133	112	3
11	160	134	4

11 8 1

0	120	116	2
1	261	261	0
2	-56	56	-12
3	341	332	9
4	-95	16	-17
5	32	52	-3
6	129	90	15
7	233	218	4
8	-29	114	-9
9	219	163	13
10	188	43	22

11 9 1

0	188	178	6
1	301	299	1
2	121	104	7
3	156	167	-6
4	202	175	6
5	394	373	8
6	197	132	13
7	88	148	-8
8	47	81	-2

11 10 1

0	253	231	6
1	69	166	-13
2	258	295	-11
3	219	172	12
4	194	246	-14
5	-79	77	-8
6	162	147	2

11 11 1

0	392	348	11
2	211	112	14

12 0 1

0	164	216	-37
1	238	237	0
2	157	135	12
3	66	11	8
4	121	171	-27
5	147	97	23
6	23	2	1
7	205	204	0
8	28	9	1
9	182	170	7
10	50	6	3
11	180	115	12
12	91	48	3

12 1 1

0	-53	20	-6
1	232	219	10
2	111	83	10
3	147	131	8
4	134	118	7
5	123	110	5
6	120	123	-1
7	62	129	-23
8	96	102	-1
9	336	347	-11
10	-79	72	-7
11	156	176	-4
12	-71	80	-7

12 2 1

0	325	295	31
1	80	105	-8
2	181	155	16
3	261	245	14
4	117	83	12
5	198	212	-10
6	218	220	-1
7	298	298	0
8	-73	74	-20
9	170	164	3
10	213	216	0
11	67	82	-1
12	153	90	10

12 3 1

0	237	248	-9
1	306	295	11
2	357	361	-4
3	176	200	-17
4	289	274	13
5	170	165	3
6	178	175	2
7	80	23	11
8	213	238	-18
9	127	108	8
10	-53	133	-12
11	102	50	5
12	157	94	10

12 4 1

0	28	17	1
1	172	157	9
2	537	541	-5
3	-47	62	-11
4	321	335	-14
5	63	105	-13
6	294	301	-7
7	45	79	-8
8	303	282	19
9	-114	5	-9
10	185	69	20
11	-33	57	-3

12 5 1

0	194	159	23
1	24	57	-5
2	101	67	10
3	40	76	-7
4	474	454	24
5	197	211	-10
6	398	414	-18
7	49	57	-1
8	178	191	-2
9	-127	89	-15
10	170	210	-8
11	-90	42	-6

12 6 1

0	229	228	0
1	136	128	4
2	-51	84	-18
3	283	271	10
4	234	225	6
5	-100	11	-18
6	131	143	-5
7	171	183	-2
8	-100	65	-9
9	-38	56	-3
10	184	174	2

12 7 1

0	122	111	4
1	74	53	4
2	185	174	7
3	133	76	22
4	78	91	-3
5	416	414	1
6	83	128	-6
7	178	219	-10
8	125	111	2
9	103	159	-9

12 8 1

0	-58	52	-11
1	162	155	4
2	108	98	1
3	203	203	0
4	-79	145	-16
5	236	240	-1
6	112	30	7
7	99	124	-3
8	-93	28	-6

12 9 1

0	248	138	25
1	40	162	-15
2	193	157	7
3	303	236	21
4	-107	55	-9
5	145	88	9
6	134	153	-3

12 10 1

0	54	131	-8
1	132	191	-11
2	-114	82	-11
3	226	147	18

13 0 1

1	154	124	15
2	114	100	5
3	56	71	-3
4	117	76	15
5	-9	16	0
6	73	74	0
7	99	110	-3
8	340	340	0
9	131	10	13
10	-6	21	0
11	111	33	7

13 1 1

0	232	179	39
1	187	171	10

2	205	203	1
3	310	317	-6
4	186	196	-6
5	-55	22	-6
6	186	173	8
7	169	156	7
8	76	56	1
9	229	232	0
10	198	167	7
11	76	112	-4

13 2 1

0	48	30	2
1	402	391	12
2	58	66	-2
3	230	218	8
4	105	112	-2
5	295	291	3
6	-66	11	-8
7	170	186	-10
8	-97	54	-7
9	231	183	12
10	-79	22	-4

13 3 1

0	118	92	10
1	167	162	2
2	411	411	0
3	162	147	8
4	161	168	-3
5	203	208	-4
6	64	121	-19
7	265	266	0
8	204	147	12
9	200	136	14
10	-34	47	-2

13 4 1

0	610	612	-2
1	-5	41	-3
2	56	83	-7
3	56	61	0
4	498	494	4
5	73	93	-6
6	326	318	7
7	112	17	8
8	-102	54	-8
9	74	48	2
10	223	209	3

13 5 1

0	51	18	4
1	93	110	-6
2	407	396	12
3	176	187	-7
4	234	221	9
5	-50	129	-12
6	102	153	-8
7	178	83	16
8	274	272	0
9	58	19	1

13 6 1

0	107	83	8
1	214	184	20
2	118	104	5
3	-38	198	-25
4	176	39	21
5	256	244	3
6	213	96	26
7	-178	55	-22
8	161	49	16

13 7 1

0	64	86	-2
1	232	191	12
2	123	83	5
3	272	240	10
4	-32	41	-1
5	-103	110	-14
6	97	82	1
7	315	248	22

13 8 1

0	-49	77	-5
1	38	80	-3
2	142	109	6
3	-127	63	-11
4	-102	18	-6
5	-201	101	-31

13 9 1

0	185	96	16
1	110	20	7

14 0 1

0	402	396	6
1	229	223	4
2	107	130	-10
3	74	17	9
4	212	180	21
5	27	54	-1
6	196	171	5
7	67	6	3
8	-64	38	-3
9	191	167	5

14 1 1

0	265	247	14
1	322	326	-3
2	343	321	22
3	134	160	-13
4	138	116	10
5	208	216	-2
6	-90	127	-15
7	281	247	11
8	199	217	-4
9	173	155	4

14 2 1

0	253	233	16
1	329	316	13
2	251	237	10
3	207	214	-5
4	93	156	-9
5	189	163	5
6	214	182	7
7	204	165	9
8	-91	27	-5

14 3 1

0	-51	16	-5
1	175	195	-12
2	229	227	1
3	164	83	13
4	-79	97	-10
5	78	84	0
6	125	47	9
7	148	123	4
8	13	62	-2

14 4 1

0	49	128	-9
1	109	142	-5
2	230	207	6
3	276	298	-7
4	-106	93	-12
5	122	73	6
6	-104	61	-9
7	160	129	5

14 5 1

0	91	106	-1
1	203	99	21
2	116	39	9
3	92	82	1
4	94	45	4
5	270	212	17
6	147	72	10

14 6 1

0	118	74	5
1	100	102	0
2	-175	73	-23
3	116	44	7
4	-123	41	-10
5	-46	2	-1

14 7 1

0	98	6	6
1	77	84	0
2	39	95	-4
3	-88	86	-9

15 0 1

1	150	109	6
2	-112	72	-11
3	294	294	0
4	-67	80	-6
5	128	82	6
6	100	117	-2

15 1 1

0	133	100	4
1	219	182	9
2	124	109	2
3	123	80	6
4	154	125	5
5	146	188	-8
6	-51	105	-8

15 2 1

0	199	243	-11
1	166	141	4
2	176	162	2
3	103	53	5
4	257	286	-8
5	-41	79	-4

15 3 1

0	171	100	12
1	145	174	-5
2	158	170	-2
3	199	198	0
4	160	144	3
5	-79	35	-4

15 4 1

0	-155	30	-15
1	328	299	10
2	61	65	0
3	134	150	-3
4	-30	32	-1

15 5 1

0	-115	29	-8
1	155	124	5