

AM-80-139

Peretaite, $\text{CaSb}_4\text{O}_4(\text{OH})_2(\text{SO}_4)_2 \cdot 2\text{H}_2\text{O}$: its atomic arrangement and twinning

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Abstract

Peretaite, $\text{CaSb}_4\text{O}_4(\text{OH})_2(\text{SO}_4)_2 \cdot 2\text{H}_2\text{O}$, crystallizes in the monoclinic space group $C2/c$, with $a = 24.665$, $b = 5.6006$, $c = 10.185\text{\AA}$, $\beta = 95.98^\circ$. The structure was determined by Patterson and direct methods and refined by least-squares technique to a final R index of 0.037. The dominant structural feature is the arrangement of the two independent Sb polyhedra into sheets parallel to (100). The Ca ion is coordinated by six O and two H_2O in a square antiprism. These polyhedra are edge- and corner-linked to SO_4 groups into chains which run parallel to the Sb-O sheets. The hydroxyl groups form hydrogen bonds between Sb-O sheets and Ca-S chains; these bonds provide for the three-dimensional cohesion of the structure. An interpretation of twinning with (100) as twin plane is given.

Introduction

Peretaite is a new sulfate of antimony and calcium found at Pereta, Tuscany, Italy. Its chemical formula, $\text{CaSb}_4\text{O}_4(\text{OH})_2(\text{SO}_4)_2 \cdot 2\text{H}_2\text{O}$, and other mineralogical data have been reported in the preceding article (Cipriani *et al.*, 1980). It occurs as aggregates of tabular crystals, associated with quartz, pyrite, calcite, sulfur, gypsum, and other antimony minerals, stibnite, valentinite, kermesite, and klebelsbergite. Klebelsbergite and peretaite are the only two Sb sulfate minerals so far known.

This study was undertaken to solve the crystal structure of peretaite and to investigate its possible crystal-chemical relationships with the structures of klebelsbergite (Menchetti and Sabelli, 1980) and of other synthetic Sb sulfates such as the anhydrous $\text{Sb}_2\text{O}_3 \cdot 2\text{SO}_3$ (Mercier *et al.*, 1975), $\text{Sb}_2\text{O}_3 \cdot 3\text{SO}_3$ (Mercier *et al.*, 1976), $\text{Sb}_6\text{O}_7(\text{SO}_4)_2$ (Bovin, 1976), and the hydrate $\text{Sb}_2(\text{OH})_2(\text{SO}_4)_2 \cdot 2\text{H}_2\text{O}$ (Douglade *et al.*, 1978).

Experimental

For the X-ray structure analysis a small tabular crystal (approx. $0.1 \times 0.4 \times 0.2$ mm) was taken from an original sample of peretaite. Monoclinic symmetry and possible space groups $C2/c$ and Cc were determined by Weissenberg photographs. The centrosymmetric space group $C2/c$ was chosen for the structure determination and was subsequently found to be correct. The unit-cell dimensions, determined

from 25 high-angle reflections measured on a four-circle automatic diffractometer, are $a = 24.665(4)$, $b = 5.6006(9)$, $c = 10.185(1)\text{\AA}$, $\beta = 95.98(1)^\circ$.

The sample used for intensity data collection and all other crystals tested for X-ray work were found to be twinned. Figure 1 reports the reflection population due to the whole twinned crystal and referred to reciprocal lattice levels with $k = 2n$ (levels with $k = 2n+1$ can be represented by a similar scheme with h -odd lattice points occupied instead of h -even ones). One can readily see that overlapping of points from the two individuals takes place only in the lattice rows with $l = 4n$. From the intensities of 363 pairs of well-separated reflections (with $l = 4n + 2$) the relative volumes of the two members of the twin were easily computed. The knowledge of the volume ratio so determined ($A/B = 3.55 \pm 0.02$) allowed the composite intensities of the overlapped reflections to be subdivided into the intensities of A and B individuals, by solving the following equations:

$$I_{hkl} = I_{hkl}^A + I_{hkl}^B$$

$$I_{h'k'l} = I_{h'k'l}^A + I_{h'k'l}^B$$

where I is the observed intensity of the twinned crystal and I^A and I^B are the intensities of the two superimposed reflections; h, k, l are the Miller indices of reflections belonging to the A individual and $h' = -(h + \frac{1}{2})$, $k' = k$, $l' = l$ those of overlapped reflections of the B individual of the twin. In conclusion, according to Friedel's (1926) notation, the crystals of peretaite

PERETAITE SECONDA

	H	K	L	FO	FC	A	B
	4	0	0	216.0	215.8	215.7	5.9
	6	0	0	106.6	100.6	100.1	10.0
	8	0	0	575.8	580.3	-580.0	-18.1
	10	0	0	278.8	275.8	275.2	18.8
	12	0	0	73.7	72.4	-72.0	-7.3
	14	0	0	140.3	127.6	127.6	1.6
	16	0	0	241.5	229.4	229.3	7.2
	18	0	0	108.1	107.7	-107.5	-5.8
	20	0	0	77.4	74.9	74.9	3.1
	22	0	0	26.3	23.5	23.5	1.0
	24	0	0	63.7	65.6	65.6	2.8
	26	0	0*	24.0	25.2	-25.0	-3.5
	28	0	0	136.9	138.3	138.0	9.7
	30	0	0	96.6	101.4	-101.1	-7.6
	32	0	0*	1.4	7.5	-7.3	1.8
	34	0	0	119.2	121.1	120.8	8.1
	1	1	0	208.9	202.1	-202.1	-2.8
	3	1	0	45.6	44.8	44.8	1.6
	5	1	0	134.8	130.4	130.4	1.9
	7	1	0	152.5	149.0	-148.8	-8.1
	9	1	0	311.7	312.1	311.8	13.8
	11	1	0	360.5	360.2	-359.9	-14.6
	13	1	0*	13.7	6.0	-4.6	3.8
	15	1	0	104.8	101.9	101.7	6.7
	17	1	0	365.2	349.0	-348.5	-18.2
	19	1	0	533.3	520.1	519.7	21.8
	21	1	0	289.1	285.2	-284.9	-14.5
	23	1	0*	11.8	4.0	-4.0	.5
	25	1	0	130.6	133.3	132.9	10.3
	27	1	0	321.8	325.8	-325.3	-18.8
	29	1	0	199.1	204.5	203.9	15.7
	31	1	0	59.5	59.0	-58.6	-7.1
	33	1	0*	4.5	3.8	-3.5	-1.6
	0	2	0	621.2	651.4	651.0	21.8
	2	2	0	381.6	377.8	-377.5	-17.1
	4	2	0	48.3	41.5	-41.3	3.8
	6	2	0	142.9	133.8	133.7	6.1
	8	2	0	502.9	502.1	-501.8	-17.1
	10	2	0	357.7	354.0	353.7	15.3
	12	2	0	217.8	211.9	-211.6	-9.6
	14	2	0	106.2	103.7	103.7	1.6
	16	2	0	39.3	36.8	36.6	2.9
	18	2	0	180.9	175.6	-175.5	-6.6
	20	2	0*	18.0	2.2	.9	2.1
	22	2	0	41.7	44.2	-44.1	-2.7
	24	2	0	70.7	62.3	62.2	2.9
	26	2	0	77.5	79.7	-79.5	-5.6
	28	2	0	110.2	111.8	111.6	6.9
	30	2	0	127.3	131.8	-131.6	-7.1
	32	2	0	50.9	41.6	-41.6	-1.0
	1	3	0*	3.4	2.9	-2.8	.7
	3	3	0	48.3	41.6	41.6	-1.0
	5	3	0	263.9	253.2	253.1	7.1
	7	3	0	186.0	178.3	-178.2	-7.4
	9	3	0	316.4	310.7	310.5	12.2
	11	3	0	241.4	237.0	-236.9	-8.2
	13	3	0*	1.4	3.4	2.9	1.8
	15	3	0	108.7	107.6	107.3	8.1
	17	3	0	148.9	142.5	-141.9	-12.9
	19	3	0	353.5	344.2	343.7	17.7
	21	3	0	86.2	87.2	-86.7	-9.5
	23	3	0*	23.9	11.1	10.9	2.0

25	3	0	131.2	129.4	129.1	8.1
27	3	0	232.9	229.9	-229.5	-13.0
29	3	0	216.6	211.5	211.1	14.0
31	3	0	85.1	86.9	-86.7	-6.6
0	4	0	361.7	352.0	351.7	14.7
2	4	0	178.4	171.9	-171.5	-11.0
4	4	0	64.3	62.6	62.4	4.7
6	4	0	33.1	29.7	-29.6	1.7
8	4	0	233.8	224.9	-224.7	-9.3
10	4	0	232.0	225.8	225.5	11.5
12	4	0	161.7	161.3	-161.0	-9.5
14	4	0	183.2	183.3	183.2	6.9
16	4	0*	16.5	2.5	-1.8	-1.8
18	4	0	88.3	88.5	-88.4	-3.1
20	4	0	41.1	45.0	44.8	4.5
22	4	0	100.1	97.2	-97.0	-6.6
24	4	0	105.9	106.0	105.7	7.5
26	4	0	85.5	86.0	-85.8	-5.9
28	4	0	79.1	79.7	79.6	4.4
1	5	0*	13.5	6.0	-5.8	1.5
3	5	0	131.4	128.8	-128.5	-8.8
5	5	0	185.6	178.3	178.6	10.1
7	5	0	190.0	182.9	-182.6	-10.0
9	5	0	70.0	69.2	69.0	5.5
11	5	0	70.0	65.5	-65.4	-2.7
13	5	0	156.5	154.4	-154.4	-5.1
15	5	0	112.0	112.6	112.4	6.2
17	5	0	136.6	134.1	-133.8	-9.2
19	5	0	160.3	160.8	160.6	8.1
21	5	0	95.0	98.2	-98.0	-6.2
23	5	0*	19.2	9.1	9.1	.7
25	5	0	31.4	34.5	-34.5	1.3
0	6	0	172.9	166.2	166.1	6.8
2	6	0	74.3	72.7	-72.5	-4.5
4	6	0	111.5	106.6	106.5	5.4
6	6	0	81.8	78.8	-78.8	-2.8
8	6	0*	12.3	6.4	6.4	-.7
10	6	0	94.8	96.8	96.6	6.9
12	6	0	106.9	108.0	-107.6	-8.9
14	6	0	181.9	181.6	181.3	11.8
16	6	0	84.8	86.2	-85.9	-6.7
18	6	0*	15.0	11.5	-11.5	.6
20	6	0	94.8	95.3	95.0	6.8
22	6	0	110.7	113.4	-112.9	-10.4
1	7	0	50.6	47.5	47.2	4.6
3	7	0	169.2	171.5	-171.1	-11.9
5	7	0	224.6	223.0	222.5	14.4
7	7	0	107.5	106.1	-105.7	-8.9
9	7	0	41.2	41.9	41.9	2.5
11	7	0	58.8	59.1	59.0	4.3
13	7	0	108.1	112.6	-112.4	-7.7
15	7	0	81.9	83.4	83.2	6.7
1	1	1	111.8	115.8	115.7	2.7
1	1	-1	126.9	130.3	-130.3	-2.8
3	1	1	128.8	136.1	-136.0	-2.7
3	1	-1	91.5	93.3	93.3	2.7
5	1	1	146.0	145.6	145.6	4.3
5	1	-1	204.6	206.8	-206.8	-5.0
7	1	1	35.0	32.2	32.2	.3
7	1	-1*	1.4	6.0	-6.0	.3
9	1	1	43.1	43.5	43.5	-.8
9	1	-1*	14.1	10.1	10.0	1.0
11	1	1	145.1	139.3	139.2	4.6
11	1	-1	117.0	116.5	-116.4	-5.0
13	1	1	71.4	67.1	67.1	-1.3
13	1	-1	27.8	17.1	-16.9	2.5

15	1	1*	1.4	8.8	-8.7	.7
15	1	-1	37.7	35.6	-35.5	-2.1
17	1	1	120.5	96.7	96.6	3.6
17	1	-1	127.5	117.5	-117.5	-3.2
19	1	1	79.9	74.3	-74.3	-2.4
19	1	-1	52.8	46.2	46.2	2.7
21	1	1	74.5	59.4	59.3	2.8
21	1	-1	93.9	88.8	-88.7	-3.9
23	1	1*	4.7	6.4	6.1	1.8
23	1	-1*	13.6	16.2	16.2	-.2
25	1	1*	6.8	11.0	10.8	-2.0
25	1	-1*	16.2	9.5	-9.4	1.1
27	1	1	67.5	62.1	62.0	4.0
27	1	-1	57.5	49.5	-49.3	-4.0
29	1	1	27.5	21.7	21.7	-.6
29	1	-1*	14.8	1.8	1.3	1.2
31	1	1*	17.4	6.4	6.4	-.4
31	1	-1	22.9	16.6	-16.6	-.7
33	1	1	58.1	69.1	69.0	3.8
33	1	-1	60.2	54.6	-54.5	-2.9
0	2	1	225.1	234.2	-234.1	-8.0
2	2	1	62.9	65.5	65.5	3.2
2	2	-1	162.8	163.2	-163.1	-4.9
4	2	1	98.5	95.1	-95.1	1.3
4	2	-1	77.6	79.6	79.6	1.8
6	2	1	157.9	162.2	-162.1	-7.6
6	2	-1	16.9	21.7	21.1	5.2
8	2	1	87.1	89.7	89.5	6.5
8	2	-1	109.1	113.9	-113.8	-5.9
10	2	1	123.5	122.4	-122.4	-4.5
10	2	-1	141.3	140.9	140.8	4.9
12	2	1	78.2	77.5	-77.4	-3.4
12	2	-1	86.5	85.7	85.7	1.7
14	2	1	150.3	150.3	150.1	6.3
14	2	-1	53.2	47.9	-47.7	-4.3
16	2	1	202.3	182.8	-182.6	-7.7
16	2	-1	204.2	206.5	206.4	7.2
18	2	1	61.7	59.6	59.6	2.3
18	2	-1	56.3	55.6	-55.5	-2.1
20	2	1	41.7	32.2	32.2	1.9
20	2	-1	46.9	42.2	-42.2	-1.8
22	2	1	163.9	148.1	-147.9	-7.1
22	2	-1	131.2	115.7	115.5	6.7
24	2	1	95.6	81.2	81.1	4.9
24	2	-1	111.5	104.6	-104.5	-5.3
26	2	1	51.9	43.1	-43.0	-2.4
26	2	-1	53.5	50.6	50.5	2.8
28	2	1	75.6	61.1	-61.0	-3.4
28	2	-1	83.5	81.2	81.1	3.9
30	2	1	59.4	49.4	49.1	4.6
30	2	-1	65.9	66.2	-65.9	-5.5
32	2	1	61.2	56.0	-55.8	-4.6
32	2	-1	78.7	77.1	76.9	6.0
1	3	1	85.2	90.2	90.1	3.4
1	3	-1	60.3	60.7	-60.6	-3.8
3	3	1	229.6	230.5	-230.3	-9.6
3	3	-1	312.1	312.6	312.4	10.0
5	3	1	196.6	196.8	196.7	7.6
5	3	-1	167.2	169.3	-169.0	-9.2
7	3	1*	10.0	8.0	-7.6	-2.3
7	3	-1	85.3	86.2	86.1	3.8
9	3	1	119.2	122.7	-122.5	-5.1
9	3	-1	132.6	134.2	134.1	5.6
11	3	1	164.4	165.7	165.5	8.2
11	3	-1	246.6	249.5	-249.3	-9.7
13	3	1	136.6	139.3	-139.1	-6.4

13	3	-1	142.5	140.7	140.4	9.4
15	3	1	47.5	48.5	-48.5	-1.0
15	3	-1	50.5	53.6	-53.6	-2.6
17	3	1	83.4	85.6	85.4	5.9
17	3	-1	66.2	65.8	-65.6	-4.7
19	3	1	150.1	133.8	-133.6	-8.5
19	3	-1	184.9	187.2	187.0	9.7
21	3	1	65.3	61.4	61.2	4.3
21	3	-1	69.4	69.9	-69.5	-7.0
23	3	1	40.3	36.7	36.6	2.1
23	3	-1	48.5	47.4	47.4	2.1
25	3	1	115.8	113.2	-112.9	-7.8
25	3	-1	82.7	63.3	63.1	5.1
27	3	1	127.2	103.4	103.1	7.6
27	3	-1	136.3	127.7	-127.5	-7.6
29	3	1	77.4	71.7	-71.6	-4.2
29	3	-1	80.0	70.3	70.1	5.4
31	3	1	31.1	31.6	31.4	-3.2
31	3	-1*	19.0	1.9	-1.9	.4
0	4	1	178.0	177.3	-177.0	-9.7
2	4	1	109.0	108.4	108.2	6.9
2	4	-1	152.1	147.0	-146.7	-9.5
4	4	1	144.1	144.8	144.7	4.7
4	4	-1	21.5	13.5	-13.4	.6
6	4	1	170.5	169.2	-168.9	-9.4
6	4	-1	93.5	97.3	97.2	5.4
8	4	1	294.9	296.1	295.9	12.3
8	4	-1	280.3	279.8	-279.6	-11.0
10	4	1	91.3	91.0	-90.9	-4.7
10	4	-1	80.6	81.3	81.1	5.0
12	4	1*	11.8	20.6	-20.4	-2.9
12	4	-1	25.7	26.6	-26.6	.1
14	4	1	204.2	202.1	201.8	11.7
14	4	-1	137.2	135.2	-134.9	-8.5
16	4	1	153.7	155.7	-155.4	-9.5
16	4	-1	137.7	143.5	143.3	8.4
18	4	1	92.3	92.2	92.0	5.7
18	4	-1	95.4	88.8	-88.6	-5.0
20	4	1	84.4	77.3	77.2	4.6
20	4	-1	97.0	96.5	-96.4	-4.8
22	4	1	129.4	128.8	-128.5	-8.6
22	4	-1	109.0	104.2	103.9	8.0
24	4	1	159.8	147.7	147.4	9.4
24	4	-1	160.8	159.2	-158.9	-9.9
26	4	1*	7.3	2.6	-1.6	-1.9
26	4	-1*	21.2	28.6	28.5	2.3
28	4	1	53.2	31.8	-31.7	-3.0
28	4	-1	63.0	67.1	67.0	4.2
1	5	1	50.4	53.1	53.0	3.4
1	5	-1	104.1	102.9	-102.8	-4.7
3	5	1	208.8	208.6	-208.4	-10.6
3	5	-1	165.0	159.5	159.1	11.1
5	5	1	100.2	99.1	98.8	8.2
5	5	-1	196.2	197.0	-196.7	-10.5
7	5	1	79.3	76.2	-76.2	-3.0
7	5	-1	84.7	81.3	81.2	4.3
9	5	1	93.9	94.5	-94.4	-5.2
9	5	-1	138.5	138.5	138.4	6.5
11	5	1	163.8	169.2	169.0	8.8
11	5	-1	169.2	171.4	-171.1	-21.0
13	5	1	120.2	118.8	-118.6	-6.9
13	5	-1	199.4	203.2	202.9	11.0
15	5	1*	14.9	2.1	1.9	-1.1
15	5	-1	62.3	66.6	-66.5	-3.4
17	5	1	84.3	84.5	84.3	6.3
17	5	-1	61.5	67.7	-67.5	-5.1

19	5	1	140.8	138.1	-137.8	-9.3
19	5	-1	165.8	166.5	166.1	10.8
21	5	1	51.9	51.9	51.7	4.6
21	5	-1	99.8	104.1	-103.8	-8.2
23	5	1	45.7	44.3	44.3	2.6
23	5	-1	39.9	34.1	34.0	2.9
25	5	1	134.7	139.8	-139.5	-8.9
25	5	-1	83.7	74.6	74.4	5.3
0	6	1	206.3	205.1	-204.9	-10.0
2	6	1	61.9	63.1	63.0	4.2
2	6	-1	97.9	98.7	-98.4	-7.0
4	6	1	50.0	50.0	49.9	3.2
4	6	-1	56.4	57.0	56.9	2.7
6	6	1	160.6	158.3	-158.0	-10.2
6	6	-1	88.0	86.0	85.9	5.5
8	6	1	143.7	146.0	145.7	9.6
8	6	-1	133.7	134.3	-134.1	-7.7
10	6	1	68.6	70.8	-70.6	-5.7
10	6	-1	55.5	59.1	58.9	5.4
12	6	1	74.1	73.6	-73.5	-4.2
12	6	-1	51.0	46.3	46.3	1.5
14	6	1	136.5	139.4	139.1	9.3
14	6	-1	61.9	64.5	-64.3	-5.6
16	6	1	150.2	148.0	-147.7	-10.2
16	6	-1	130.3	132.0	131.7	8.3
18	6	1	37.4	39.2	38.9	4.3
18	6	-1	27.0	24.1	-24.0	-2.6
20	6	1*	1.4	2.9	2.1	2.1
20	6	-1	46.3	46.3	-46.2	-3.1
22	6	1	123.9	124.8	-124.5	-8.8
22	6	-1	98.4	93.7	93.3	8.2
1	7	1	36.4	33.0	32.9	2.5
1	7	-1	77.3	77.8	-77.7	-5.1
3	7	1	73.4	75.2	-75.0	-5.7
3	7	-1	83.6	82.8	82.6	7.0
5	7	1	104.1	100.4	100.2	6.6
5	7	-1	130.5	130.2	-129.9	-8.5
7	7	1*	17.8	18.9	-18.9	-1.4
7	7	-1	37.7	37.7	37.7	1.9
9	7	1	22.3	17.7	17.6	-1.4
9	7	-1	29.7	33.0	32.8	3.8
11	7	1	94.5	90.1	89.9	6.2
11	7	-1	126.3	126.5	-126.2	-9.1
13	7	1	34.7	37.4	-37.3	-3.1
13	7	-1	72.4	73.2	72.8	7.1
15	7	1*	6.6	10.8	-10.8	-1.1
15	7	-1	71.7	69.5	-69.4	-4.2
0	0	2	56.1	59.1	59.1	-1.2
2	0	2	76.0	79.3	-79.2	-3.4
2	0	-2	64.3	67.9	-67.8	-2.3
4	0	2	104.7	110.6	110.4	5.8
4	0	-2	53.6	52.6	52.4	4.3
6	0	2	396.1	412.2	-412.1	-10.3
6	0	-2	461.5	486.0	-485.9	-11.8
8	0	2	18.9	21.1	21.1	1.1
8	0	-2	113.4	112.9	112.8	6.1
10	0	2	162.8	164.4	164.3	5.8
10	0	-2	50.4	47.2	-47.2	-1.0
12	0	2	377.4	386.2	-386.0	-16.6
12	0	-2	300.3	286.1	-285.9	-12.2
14	0	2	425.4	452.3	451.9	18.9
14	0	-2	507.3	496.8	496.5	19.0
16	0	2	292.0	290.5	-290.2	-13.8
16	0	-2	419.2	411.3	-410.8	-19.9
18	0	2	154.5	156.0	-156.0	-2.4
18	0	-2	73.6	49.9	49.5	6.3

20	0	2	152.1	150.9	150.4	12.1
20	0	-2	100.5	64.9	64.7	4.8
22	0	2	363.6	378.2	-377.6	-22.2
22	0	-2	393.3	332.2	-331.7	-19.0
24	0	2	297.1	311.9	311.4	18.0
24	0	-2	393.3	334.6	333.9	21.1
26	0	2	113.9	111.1	-110.8	-8.1
26	0	-2	271.0	247.8	-247.3	-15.3
28	0	2	45.9	47.4	-47.1	-5.2
28	0	-2	58.0	34.8	34.7	1.8
30	0	2	135.4	148.4	148.0	11.6
30	0	-2*	80.3	76.6	76.3	7.0
32	0	2	246.7	259.5	-259.0	-15.4
32	0	-2	222.0	255.1	-254.6	-15.3
34	0	-2*	173.5	162.7	162.3	11.1
1	1	2	147.2	151.7	151.3	11.6
'	1	-2	38.9	41.0	-40.9	2.9
3	1	2	530.8	564.9	-564.5	-21.3
3	1	-2	340.2	358.5	-358.2	-16.1
5	1	2	611.9	657.5	657.1	21.9
5	1	-2	663.3	730.6	730.2	23.5
7	1	2	249.6	253.1	-252.9	-9.8
7	1	-2	347.6	353.9	-353.5	-16.1
9	1	2	29.8	18.5	18.5	-.8
9	1	-2	284.3	279.7	279.6	6.4
11	1	2	288.0	281.8	281.6	11.0
11	1	-2	161.2	159.2	159.1	5.5
13	1	2	343.2	343.9	-343.6	-13.6
13	1	-2	374.5	370.7	-370.5	-12.3
15	1	2	187.5	190.5	190.2	9.0
15	1	-2	210.1	207.5	207.2	11.2
17	1	2	21.8	15.7	15.6	-2.0
17	1	-2	102.4	96.6	-96.5	-4.7
19	1	2	55.5	52.7	52.7	.4
19	1	-2	58.8	47.5	47.5	2.1
21	1	2	33.0	34.6	34.5	1.5
21	1	-2	29.7	21.3	21.2	.9
23	1	2*	6.4	4.5	4.1	1.9
23	1	-2	35.1	39.5	39.4	1.5
25	1	2	82.7	90.9	-90.9	-3.2
25	1	-2	71.2	64.2	-64.1	-4.0
27	1	2*	9.3	19.7	-19.7	-.3
27	1	-2	53.5	60.0	59.9	2.8
29	1	2	95.6	105.6	105.4	6.4
29	1	-2	77.2	64.9	64.8	3.4
31	1	2	86.7	106.4	-106.0	-10.1
31	1	-2	96.2	99.4	-99.0	-8.3
33	1	2	192.3	208.6	208.3	12.7
33	1	-2	164.6	194.0	193.5	13.9
0	2	2	132.4	135.3	135.2	4.0
2	2	2	104.2	102.7	-102.7	-2.6
2	2	-2	14.0	14.4	-14.3	-2.2
4	2	2	45.0	53.1	52.6	6.8
4	2	-2	192.2	190.0	189.9	6.5
6	2	2	188.6	190.6	-190.5	-5.9
6	2	-2	108.9	116.8	-116.5	-7.8
8	2	2	71.5	68.9	68.9	1.0
8	2	-2	186.7	184.5	184.4	5.6
10	2	2	273.2	273.5	273.4	8.5
10	2	-2	97.8	99.4	99.3	3.6
12	2	2	200.0	198.4	-197.9	-13.2
12	2	-2	206.3	206.3	-206.1	-9.9
14	2	2	441.1	450.5	450.1	18.1
14	2	-2	409.5	411.1	410.6	18.5
16	2	2	197.8	195.3	-195.1	-9.8
16	2	-2	346.1	346.4	-346.0	-15.4

18	2	2	96.7	95.8	-95.7	-.9
18	2	-2	73.9	74.9	74.6	6.6
20	2	2	165.4	163.1	162.7	12.3
20	2	-2	114.0	114.2	114.0	6.1
22	2	2	287.2	290.2	-289.7	-17.9
22	2	-2	216.8	217.7	-217.2	-15.0
24	2	2	314.8	315.2	314.8	17.5
24	2	-2	360.1	366.8	366.2	20.2
26	2	2	50.5	52.3	-52.0	-6.1
26	2	-2	168.5	163.8	-163.3	-12.3
28	2	2*	9.4	3.0	1.9	-2.3
28	2	-2	76.9	77.1	77.0	3.9
30	2	2	146.4	149.4	149.0	10.8
30	2	-2	69.6	70.2	69.9	6.5
32	2	2	170.1	193.9	-193.5	-12.4
32	2	-2	175.6	180.6	-180.2	-11.7
1	3	2	73.9	72.0	71.7	6.9
1	3	-2	76.9	78.0	-78.0	.4
3	3	2	410.4	414.7	-414.3	-17.3
3	3	-2	323.9	331.7	-331.5	-13.1
5	3	2	403.5	409.2	408.9	15.9
5	3	-2	386.8	391.2	390.8	16.5
7	3	2	185.6	185.7	-185.4	-10.5
7	3	-2	309.3	313.1	-312.7	-14.7
9	3	2	17.3	21.5	21.5	.8
9	3	-2	132.8	134.1	134.0	6.0
11	3	2	78.8	78.8	78.7	4.7
11	3	-2	25.6	20.3	-20.3	-.2
13	3	2	259.5	266.3	-266.1	-11.4
13	2	-2	220.0	220.0	-219.9	-9.1
15	3	2	75.7	73.7	73.3	7.4
15	3	-2	95.5	98.2	97.9	7.9
17	3	2	119.3	120.6	-120.4	-6.5
17	3	-2	118.2	117.8	-117.6	-7.7
19	3	2	80.1	76.0	75.9	2.9
19	3	-2	95.7	93.9	93.8	4.5
21	3	2	42.7	40.6	-40.6	-1.9
21	3	-2	75.9	72.8	-72.7	-3.7
23	3	2	35.8	36.0	-36.0	-.5
23	3	-2*	7.0	14.9	-14.9	.7
25	3	2	32.0	25.4	-25.4	-.8
25	3	-2	49.9	41.9	-41.8	-2.6
27	3	2	87.3	82.7	-82.6	-4.7
27	3	-2	64.8	60.7	-60.7	-2.3
29	3	2	82.0	80.4	80.2	6.2
29	3	-2	59.2	61.8	61.6	4.6
31	3	2	92.0	96.9	-96.4	-9.2
31	3	-2	110.1	107.3	-106.9	-3.9
0	4	2	243.4	247.7	247.5	8.6
2	4	2	108.1	110.5	-110.3	-6.0
2	4	-2	140.1	141.6	-141.4	-7.4
4	4	2*	7.2	11.4	10.7	3.9
4	4	-2	93.1	95.9	95.7	6.0
6	4	2	58.9	54.7	-54.7	-1.0
6	4	-2	65.3	63.8	-63.7	-4.1
8	4	2	123.0	124.6	-124.5	-5.1
8	4	-2	35.2	33.0	-33.0	-1.3
10	4	2	153.4	151.2	150.9	8.9
10	4	-2	117.2	119.4	119.2	6.6
12	4	2	138.6	137.7	-137.3	-10.4
12	4	-2	126.2	131.9	-131.6	-9.5
14	4	2	243.2	247.2	247.0	10.7
14	4	-2	233.4	233.3	233.0	12.1
16	4	2	73.2	76.1	-75.9	-5.0
16	4	-2	192.7	194.9	-194.7	-9.2
18	4	2	55.2	57.3	-57.3	-2.4

18	4	-2*	10.0	3.3	2.5	2.2
20	4	2	91.4	95.9	95.6	7.7
20	4	-2	45.1	45.7	45.5	4.0
22	4	2	193.6	197.6	-197.2	-12.0
22	4	-2	143.7	152.8	-152.5	-10.0
24	4	2	172.8	174.9	174.5	11.6
24	4	-2	216.2	221.1	220.8	13.0
26	4	2	62.9	68.7	-68.4	-6.0
26	4	-2	102.4	109.3	-108.9	-9.5
28	4	2*	3.7	8.4	8.4	.6
28	4	-2	69.9	69.7	69.5	4.6
1	5	2	59.9	56.2	56.1	4.2
1	5	-2*	13.0	5.3	5.2	1.0
3	5	2	129.0	130.1	-129.9	-7.1
3	5	-2	68.7	69.6	-69.5	-4.2
5	5	2	223.7	225.7	225.4	10.9
5	5	-2	216.3	219.3	219.1	10.1
7	5	2	79.3	82.5	-82.2	-7.3
7	5	-2	109.8	111.0	-110.7	-8.4
9	5	2	123.0	123.0	122.8	6.9
9	5	-2	155.9	158.5	158.2	9.2
11	5	2*	11.1	1.6	1.6	-.3
11	5	-2	64.3	63.8	-63.6	-4.2
13	5	2	73.7	73.7	-73.6	-4.3
13	5	-2	22.1	21.4	-21.4	-.6
15	5	2	121.7	124.1	123.7	9.0
15	5	-2	102.5	102.4	102.1	6.8
17	5	2	117.1	119.4	-119.1	-9.0
17	5	-2	95.3	99.4	-99.1	-8.2
19	5	2	182.1	187.1	186.8	9.9
19	5	-2	204.2	208.6	208.3	11.4
21	5	2	37.1	41.9	-41.8	-3.3
21	5	-2	100.3	106.0	-105.8	-6.6
23	5	2*	9.2	14.2	-14.2	-.3
23	5	-2	36.4	41.1	41.0	3.1
25	5	2	77.5	76.0	75.8	5.6
25	5	-2	35.4	38.2	38.1	2.7
0	6	2	213.9	218.8	218.4	12.9
2	6	2	151.3	154.5	-154.3	-9.3
2	6	-2	208.8	214.2	-213.9	-12.5
4	6	2	20.6	11.1	-11.1	.9
4	6	-2	60.5	64.1	63.9	5.3
6	6	2	41.2	47.7	47.5	4.3
6	6	-2*	18.7	12.0	-12.0	-.1
8	6	2	164.0	169.3	-168.9	-10.8
8	6	-2	120.9	125.0	-124.7	-8.1
10	6	2	139.7	142.1	141.7	9.3
10	6	-2	139.6	143.7	143.4	9.5
12	6	2	88.3	84.0	-83.7	-7.0
12	6	-2	114.5	114.8	-114.5	-8.8
14	6	2	51.2	50.6	50.5	2.6
14	6	-2	67.9	68.5	68.3	5.0
16	6	2*	19.3	14.4	-14.4	.2
16	6	-2	65.4	62.6	-62.6	-2.5
18	6	2	84.6	88.5	-88.4	-4.0
18	6	-2	61.1	62.7	-62.6	-2.3
20	6	2*	17.7	8.7	8.2	2.8
20	6	-2*	12.9	13.9	13.7	1.9
22	6	-2	47.9	49.5	-49.4	-4.3
1	7	2	50.9	51.2	-51.2	-.9
1	7	-2	34.0	37.4	-37.3	-1.2
3	7	2	41.2	37.7	-37.6	-1.1
3	7	-2	26.8	25.1	25.1	.5
5	7	2	47.2	47.0	46.9	3.6
5	7	-2	60.1	55.4	55.4	1.8
7	7	2	88.0	91.8	-91.5	-6.9

7	7	-2	54.2	51.7	-51.4	-5.3
9	7	2	133.2	135.5	135.2	8.8
9	7	-2	125.3	128.4	128.1	8.7
11	7	2	81.3	85.1	-84.8	-6.8
11	7	-2	141.3	147.1	-146.8	-9.6
13	7	2*	16.0	17.1	-17.1	-.7
13	7	-2	23.5	17.7	17.4	3.7
15	7	-2	25.4	24.8	24.7	3.0
1	1	3	145.2	150.8	-150.7	-4.0
1	1	-3*	10.4	15.6	15.5	1.0
3	1	3*	12.1	12.2	11.9	2.7
3	1	-3	90.7	88.3	-88.3	-1.8
5	1	3	155.0	158.5	-158.4	-3.7
5	1	-3	111.9	111.9	111.8	4.6
7	1	3	160.4	158.3	-158.3	-1.7
7	1	-3	61.3	55.2	55.2	-.8
9	1	3	87.1	84.9	84.9	2.4
9	1	-3*	8.0	4.3	-4.3	.3
11	1	3	123.2	125.9	-125.8	-5.0
11	1	-3	179.6	177.8	177.7	4.2
13	1	3	73.5	73.4	73.4	1.4
13	1	-3	72.2	65.2	-65.1	-2.3
15	1	3*	17.2	12.6	-12.6	-.3
15	1	-3	70.2	66.4	66.4	2.1
17	1	3	48.4	53.6	-53.4	-4.2
17	1	-3	20.5	17.7	17.5	2.5
19	1	3*	1.4	15.5	-15.3	2.6
19	1	-3	26.5	11.6	11.4	-2.3
21	1	3	41.1	48.8	-48.7	-2.7
21	1	-3	59.4	53.6	53.4	3.9
23	1	3	67.4	69.9	-69.9	-1.8
23	1	-3	62.9	59.6	59.6	.4
25	1	3	44.5	26.0	25.9	2.0
25	1	-3	31.1	18.6	-18.6	-1.2
27	1	3	77.6	79.9	-79.9	-3.8
27	1	-3	85.7	88.5	88.4	4.3
29	1	3*	25.7	21.4	21.4	.3
29	1	-3	61.5	50.5	-50.4	-2.1
31	1	3*	10.2	13.2	-13.2	.3
31	1	-3	32.1	38.8	38.8	1.2
33	1	-3	35.7	25.9	25.7	2.9
0	2	3	145.0	147.9	147.6	8.0
2	2	3	56.6	51.0	50.9	-2.6
2	2	-3	55.9	57.7	57.4	5.6
4	2	3	37.2	33.9	33.9	-.9
4	2	-3*	4.2	4.0	-3.5	-2.0
6	2	3	226.2	224.9	224.8	7.1
6	2	-3	126.8	130.6	-130.5	-5.5
8	2	3	159.0	153.8	-153.7	-5.4
8	2	-3	187.0	180.6	180.5	6.9
10	2	3	82.9	80.9	80.9	2.7
10	2	-3	221.0	216.7	-216.5	-7.3
12	2	3*	8.5	10.7	10.1	3.7
12	2	-3	53.6	52.8	52.8	.3
14	2	3	129.0	106.3	-106.1	-5.1
14	2	-3	56.3	55.1	55.0	4.1
16	2	3	130.4	127.3	127.2	5.7
16	2	-3	176.4	174.7	-174.5	-8.0
18	2	3	34.8	29.6	29.6	.6
18	2	-3	80.0	75.0	74.8	4.6
20	2	3	68.6	45.5	-45.3	-3.6
20	2	-3	51.6	49.8	-49.8	-1.2
22	2	3	138.2	139.7	139.5	6.7
22	2	-3	124.2	128.3	-128.2	-5.5
24	2	3	39.1	42.0	-41.9	-3.2

26	2	3*	6.1	10.8	-10.8	-2
26	2	-3	52.3	51.1	-50.9	-4.3
28	2	3	104.0	104.8	104.7	5.8
28	2	-3*	15.7	29.4	-29.4	-1.3
30	2	3	84.5	78.4	-78.2	-5.3
30	2	-3	87.1	77.4	77.3	4.0
32	2	-3	92.3	91.3	-91.1	-5.6
1	3	3	179.4	176.6	-176.5	-6.9
1	3	-3*	13.7	14.8	-14.8	-8
3	3	3	235.2	235.2	235.0	10.0
3	3	-3	190.5	194.8	-194.6	-7.2
5	3	3	136.6	136.9	-136.7	-6.0
5	3	-3	196.4	194.1	193.9	8.3
7	3	3	25.5	24.5	-24.5	-1.1
7	3	-3	102.0	102.0	-101.9	-5.3
9	3	3	223.6	219.1	219.0	9.0
9	3	-3	58.4	59.2	-59.2	-2.1
11	3	3	158.1	157.5	-157.2	-9.6
11	3	-3	130.1	128.5	128.3	7.1
13	3	3	99.7	102.4	102.2	6.2
13	3	-3	177.4	175.0	-174.8	-8.4
15	3	3	42.9	43.0	43.0	2.0
15	3	-3*	12.5	2.3	-.4	2.2
17	3	3	157.5	151.8	-151.6	-8.0
17	3	-3	69.3	70.9	70.8	3.6
19	3	3	161.7	149.1	148.8	9.5
19	3	-3	132.6	131.9	-131.6	-8.7
21	3	3	60.6	59.6	-59.5	-4.4
21	3	-3	139.0	136.5	136.3	7.3
23	3	3	29.5	5.4	5.2	-1.5
23	3	-3	26.4	21.1	-21.0	-1.7
25	3	3	120.5	106.6	106.3	7.4
25	3	-3	78.4	78.6	-78.4	-5.6
27	3	3	107.6	93.4	-93.1	-7.0
27	3	-3	92.7	86.9	86.5	8.2
29	3	3	36.0	37.0	36.9	3.0
29	3	-3	124.7	119.9	-119.6	-7.4
31	3	-3*	24.6	5.8	5.7	.7
0	4	3	187.9	189.1	188.8	10.0
2	4	3	169.3	169.9	-169.8	-6.7
2	4	-3	304.4	303.6	303.4	11.1
4	4	3*	15.5	7.8	-7.1	-3.3
4	4	-3	19.8	7.3	-7.2	-.7
6	4	3	142.9	139.3	139.1	8.0
6	4	-3	70.3	72.0	-71.7	-6.1
8	4	3	174.2	172.8	-172.5	-10.1
8	4	-3	190.8	188.7	188.3	12.6
10	4	3*	17.1	18.5	-18.4	1.8
10	4	-3	168.2	163.6	-163.3	-8.9
12	4	3	49.7	34.6	34.5	3.2
12	4	-3	37.5	35.4	35.4	2.6
14	4	3	194.5	195.8	-195.6	-9.6
14	4	-3	188.0	186.5	186.3	8.4
16	4	3	119.1	112.3	112.1	6.2
16	4	-3	155.8	150.4	-150.1	-9.9
18	4	3*	21.8	18.6	-18.6	-1.1
18	4	-3	180.9	184.1	183.9	9.4
20	4	3	113.3	110.9	-110.7	-7.4
20	4	-3*	1.4	1.1	-1.1	-.1
22	4	3	126.5	110.2	109.9	7.9
22	4	-3	99.1	97.7	-97.5	-6.0
24	4	3	118.4	117.7	-117.5	-6.7
24	4	-3	149.9	155.9	155.6	10.0
26	4	3	51.7	40.6	-40.6	-2.2
26	4	-3	67.9	59.9	-59.7	-4.8
28	4	3	94.3	79.5	79.2	7.0

28	4	-3	33.7	28.3	28.3	.2
1	5	3	103.4	98.5	-98.2	-7.8
1	5	-3	77.3	78.1	-78.1	-1.4
3	5	3	195.9	195.2	194.9	11.1
3	5	-3	169.1	172.3	-172.1	-7.7
5	5	3	139.7	141.1	-140.9	-6.7
5	5	-3	156.3	157.8	157.5	9.0
7	5	3	29.4	28.8	-28.8	-1.5
7	5	-3	73.3	68.6	-68.3	-5.7
9	5	3	161.6	157.1	156.8	10.3
9	5	-3	39.5	37.0	36.9	-1.8
11	5	3	158.0	158.3	-157.9	-11.0
11	5	-3	133.6	135.3	135.1	7.7
13	5	3	113.8	115.7	115.5	7.3
13	5	-3	155.9	154.0	-153.7	-9.0
15	5	3	38.1	40.2	40.1	2.1
15	5	-3	29.8	17.2	-17.0	2.1
17	5	3	156.2	154.8	-154.5	-9.2
17	5	-3	36.1	35.9	35.7	4.0
19	5	3	179.1	176.2	175.8	11.0
19	5	-3	173.0	177.7	-177.4	-9.7
21	5	3	72.6	77.2	-77.0	-5.4
21	5	-3	139.9	143.5	143.3	8.2
23	5	3*	1.4	8.3	8.3	-1.1
23	5	-3*	25.8	17.4	-17.3	-1.7
25	5	-3	70.2	71.0	-70.7	-6.5
0	6	3	160.4	160.8	160.5	10.4
2	6	3	48.9	52.6	-52.3	-4.7
2	6	-3	142.6	142.0	141.8	8.2
4	6	3*	19.4	5.6	-5.6	-.8
4	6	-3*	1.5	4.0	-3.6	-1.7
6	6	3	158.7	157.6	157.4	8.1
6	6	-3	144.6	143.8	-143.7	-7.4
8	6	3	118.9	117.7	-117.5	-7.3
8	6	-3	138.6	139.9	139.5	10.1
10	6	3	30.1	29.1	28.9	3.1
10	6	-3	167.9	174.5	-174.2	-9.9
12	6	3	55.5	50.2	50.1	3.7
12	6	-3	20.6	7.4	7.3	1.2
14	6	3	71.9	70.3	-70.0	-6.2
14	6	-3	88.4	90.9	90.8	5.9
16	6	3	96.5	99.1	98.9	6.4
16	6	-3	122.4	125.7	-125.3	-10.2
18	6	3	34.8	35.8	35.8	.7
18	6	-3	93.0	90.2	89.9	7.4
20	6	3	67.6	58.1	-57.9	-5.2
20	6	-3	41.6	40.1	-40.1	-2.2
1	7	3	92.3	93.6	-93.3	-6.9
1	7	-3*	4.2	16.0	-16.0	-.8
3	7	3	65.3	64.2	63.9	6.4
3	7	-3	40.0	36.2	-36.1	-3.4
5	7	3	78.9	80.4	-80.2	-5.4
5	7	-3	92.3	90.6	90.4	6.4
7	7	3	39.4	39.4	-39.3	-2.6
7	7	-3*	4.9	7.9	-7.5	-2.6
9	7	3	102.4	103.2	103.0	6.9
9	7	-3	28.3	26.9	26.9	.3
11	7	3	128.7	135.0	-134.7	-9.1
11	7	-3	93.2	92.2	92.0	5.6
13	7	3	63.3	67.7	67.5	4.6
13	7	-3	92.0	89.1	-89.0	-4.5
0	0	4	646.2	634.0	633.5	23.9
2	0	4	42.6	45.0	-44.1	-8.9
2	0	-4	632.9	612.6	-612.3	-21.7
4	0	4	143.2	133.1	-133.1	-3.2
4	0	-4	138.5	143.0	142.3	13.7

6	0	4	572.2	554.6	554.4	16.8
6	0	-4	134.0	128.5	128.5	1.7
8	0	4	435.1	432.3	-431.9	-18.9
8	0	-4	374.3	353.5	-353.3	-12.7
10	0	4	342.4	349.9	349.6	14.5
10	0	-4	565.6	571.1	570.8	19.8
12	0	4	50.1	60.9	-60.8	-1.7
12	0	-4	166.8	149.0	-148.6	-11.5
14	0	4*	1.4	6.0	-5.2	-3.0
14	0	-4	250.8	242.3	242.2	6.3
16	0	4	146.4	149.6	149.3	8.9
16	0	-4	28.4	25.2	25.0	3.4
18	0	4	93.4	96.2	-96.1	-4.8
18	0	-4	127.3	115.5	-115.4	-5.3
20	0	4	28.7	26.3	26.2	1.7
20	0	-4	60.2	58.7	58.5	4.1
22	0	4	24.8	25.7	25.7	.7
22	0	-4*	5.6	16.1	16.1	1.0
24	0	4	105.0	102.8	102.7	3.7
24	0	-4	55.7	52.0	52.0	1.6
26	0	4	56.3	44.4	-44.2	-4.4
26	0	-4	22.0	20.1	-20.0	-1.9
28	0	4	149.7	143.6	143.4	8.8
28	0	-4	142.0	141.2	140.9	8.7
30	0	4	64.7	68.9	-68.8	-3.8
30	0	-4	141.1	152.8	-152.4	-9.8
32	0	4	47.3	36.2	-36.1	-3.0
32	0	-4	98.7	114.1	113.9	6.9
34	0	-4	51.0	47.8	47.7	2.9
1	1	4	60.9	60.9	-60.9	-2.6
1	1	-4	38.5	40.4	-40.3	-2.1
3	1	4*	7.7	8.4	-8.4	-.5
3	1	-4	88.4	85.3	85.2	3.2
5	1	4	192.4	178.8	178.8	4.7
5	1	-4	33.2	27.0	-27.0	-1.2
7	1	4	246.2	244.3	-244.1	-10.4
7	1	-4	195.4	181.6	-181.5	-4.5
9	1	4	255.5	256.7	256.4	13.1
9	1	-4	229.8	219.9	219.6	11.3
11	1	4	255.5	260.1	-260.0	-9.3
11	1	-4	425.5	415.6	-415.3	-16.8
13	1	4	87.9	88.7	-88.7	-3.3
13	1	-4	240.9	225.6	225.4	10.4
15	1	4	176.0	171.3	170.9	12.4
15	1	-4	23.4	18.8	-18.8	-.7
17	1	4	348.9	346.2	-345.6	-20.0
17	1	-4	149.9	148.1	-147.6	-12.0
19	1	4	373.2	365.8	365.3	17.6
19	1	-4	409.8	400.0	399.5	20.9
21	1	4	76.2	72.6	-72.4	-6.3
21	1	-4	391.4	389.7	-389.2	-19.9
23	1	4	140.3	143.9	-143.8	-7.1
23	1	-4	94.3	89.2	88.8	8.4
25	1	4	234.7	229.6	229.2	14.9
25	1	-4	33.1	44.2	44.1	3.1
27	1	4	309.3	298.5	-297.9	-18.2
27	1	-4	252.3	259.3	-258.9	-15.1
29	1	4	138.9	133.9	133.5	10.6
29	1	-4	273.2	285.8	285.3	17.6
31	1	4*	15.0	12.4	-12.3	-1.4
31	1	-4	125.6	134.3	-133.7	-12.0
33	1	-4	54.7	49.8	49.7	3.4
0	2	4	549.3	529.2	528.9	19.3
2	2	4	265.3	251.2	-251.0	-10.0
2	2	-4	560.4	576.5	-576.2	-20.9
4	2	4	91.0	93.1	-93.0	-3.8

4	2	-4	249.1	237.7	237.4	10.8
6	2	4	211.5	205.7	205.4	11.9
6	2	-4	65.2	70.6	-70.6	-1.4
8	2	4	365.9	369.5	-369.1	-18.3
8	2	-4	249.6	247.1	-246.8	-11.9
10	2	4	223.2	211.2	210.8	11.8
10	2	-4	301.6	289.6	289.2	15.3
12	2	4	84.2	82.3	-82.2	-4.7
12	2	-4	235.0	229.2	-228.8	-12.7
14	2	4	48.9	49.0	-49.0	-2.6
14	2	-4	106.1	97.9	97.7	5.4
16	2	4	100.6	96.8	96.6	5.4
16	2	-4	45.5	44.9	-44.9	-.6
18	2	4	164.7	165.5	-165.4	-6.4
18	2	-4	142.9	142.2	-142.1	-5.3
20	2	4*	1.4	8.3	-8.2	1.4
20	2	-4	44.4	49.6	49.6	2.3
22	2	4	43.7	38.9	-38.8	-2.9
24	2	-4	44.1	37.2	37.2	1.9
26	2	4	59.6	59.1	-58.9	-5.5
22	2	-4*	19.2	15.2	-15.0	-2.1
24	2	4	77.4	69.8	69.7	3.2
24	2	-4*	1.4	37.2	37.2	1.9
26	2	4	59.6	59.1	-58.9	-5.5
26	2	-4	71.5	70.8	-70.6	-4.6
28	2	4	90.2	75.3	75.1	5.6
28	2	-4	73.0	71.0	70.7	6.6
30	2	4	49.7	55.0	-54.9	-3.3
30	2	-4	147.8	159.6	-159.3	-9.4
32	2	-4*	1.4	18.0	17.6	3.4
1	3	4	15.1	12.8	-12.7	2.1
1	3	-4	36.3	35.7	-35.7	-.6
3	3	4	37.6	29.8	-29.6	-3.2
3	3	-4	79.9	78.4	78.3	1.4
5	3	4	223.9	219.5	219.3	8.4
5	3	-4	84.3	83.0	82.9	4.4
7	3	4	93.5	93.0	-92.7	-7.6
7	3	-4	99.2	92.9	-92.7	-5.4
9	3	4	221.6	220.1	219.9	10.4
9	3	-4	241.4	235.6	235.4	11.5
11	3	4	20.6	13.0	-12.6	-3.3
11	3	-4	184.1	178.5	-178.1	-10.8
13	3	4	123.9	122.7	-122.7	-3.7
13	3	-4	103.9	102.0	101.7	7.0
15	3	4	217.6	215.1	214.7	11.9
15	3	-4	129.1	131.7	131.7	2.9
17	3	4	271.0	254.8	-254.4	-14.2
17	3	-4	124.1	129.4	-129.1	-9.0
19	3	4	294.9	291.7	291.4	14.4
19	3	-4	328.5	339.2	338.7	17.4
21	3	4	63.6	61.7	-61.6	-3.7
21	3	-4	259.8	269.7	-269.3	-13.9
23	3	4	31.1	25.9	-25.7	-3.6
23	3	-4	114.3	119.0	118.8	7.9
25	3	4	142.3	139.2	138.7	11.7
25	3	-4	21.4	10.8	-10.5	2.3
27	3	4	170.0	159.9	-159.3	-13.0
27	3	-4	102.3	109.1	-108.7	-9.4
29	3	4	134.4	132.9	132.5	10.5
29	3	-4	209.8	215.4	214.9	14.6
31	3	-4	71.1	72.9	-72.3	-9.5
0	4	4	311.6	302.6	302.3	13.1
2	4	4	69.8	65.0	-64.7	-6.7
2	4	-4	267.1	259.6	-259.3	-13.2
4	4	4	54.6	48.1	48.1	.0
4	4	-4	124.9	119.9	119.6	8.6

6	4	4	82.3	81.9	81.7	6.2
6	4	-4	129.3	130.8	-130.8	-3.2
8	4	4	236.4	232.8	-232.5	-11.5
8	4	-4	100.6	98.2	-98.1	-4.9
10	4	4	160.3	155.7	155.3	10.5
10	4	-4	199.2	187.9	187.7	9.9
12	4	4	151.2	151.2	-151.1	-7.2
12	4	-4	155.2	147.3	-146.9	-10.0
14	4	4	51.9	59.7	59.6	3.5
14	4	-4	188.9	186.9	186.6	8.9
16	4	4	57.9	54.2	54.2	1.7
16	4	-4	91.1	88.8	-88.6	-5.2
18	4	4	86.7	90.8	-90.7	-5.1
18	4	-4	43.1	45.9	-45.9	-.2
20	4	4	78.5	74.4	74.2	5.6
20	4	-4	42.8	35.8	35.7	2.6
22	4	4	80.4	70.1	-69.7	-6.8
22	4	-4	47.9	54.7	-54.4	-5.0
24	4	4	108.1	102.6	102.5	6.4
24	4	-4	102.0	103.1	102.8	7.2
26	4	4	54.2	51.2	-51.0	-4.0
26	4	-4	81.3	85.0	-84.7	-6.8
28	4	-4	81.5	84.6	84.4	6.0
1	5	4	36.9	33.2	32.8	4.8
1	5	-4	69.1	69.0	-68.9	-2.3
3	5	4	186.8	184.8	-184.5	-10.8
3	5	-4	87.0	84.1	-83.9	-5.2
5	5	4	197.3	191.1	190.8	9.5
5	5	-4	140.4	139.9	139.6	8.5
7	5	4	131.6	129.3	-129.1	-7.6
7	5	-4	207.2	203.3	-203.0	-10.6
9	5	4	64.2	61.6	61.6	2.4
9	5	-4	142.1	139.5	139.3	7.6
11	5	4*	11.6	11.9	-11.8	1.1
11	5	-4	139.7	138.3	-138.1	-6.2
13	5	4	146.3	150.1	-149.9	-7.6
13	5	-4	33.5	30.7	-30.7	-1.4
15	5	4	56.5	57.3	56.9	6.9
17	5	-4	81.5	79.7	-79.3	-7.8
19	5	4	80.4	78.5	78.3	5.9
15	5	-4	68.5	61.0	60.9	3.9
17	5	4	107.1	110.3	-109.9	-8.8
17	5	-4*	1.4	79.7	-79.3	-7.8
19	5	4	80.4	78.5	78.3	5.9
19	5	-4	104.3	101.2	100.8	8.3
21	5	4*	11.8	10.6	-10.2	-2.9
21	5	-4	121.8	117.9	-117.6	-8.3
23	5	4	45.7	47.1	-47.0	-2.2
23	5	-4*	15.2	4.4	-2.9	3.3
25	5	-4	46.9	38.8	-38.8	-1.7
0	6	4	97.0	92.6	92.4	6.1
2	6	4	23.9	4.7	-3.4	-3.2
2	6	-4	43.5	47.1	-46.9	-4.7
4	6	4	43.0	41.5	41.4	3.7
4	6	-4	50.9	54.0	53.7	5.8
6	6	4*	17.2	7.7	7.7	.0
6	6	-4	71.2	65.4	-65.3	-4.7
8	6	4	76.9	75.4	-75.3	-3.9
8	6	-4	25.3	25.7	25.6	2.4
10	6	4	159.8	156.2	155.9	8.8
10	6	-4	90.8	92.2	92.1	3.9
12	6	4	130.9	125.6	-125.3	-9.2
12	6	-4	85.1	85.6	-85.3	-6.8
14	6	4	167.5	168.4	168.2	9.6
14	6	-4	200.3	202.1	201.8	11.8
16	6	4*	1.4	27.2	-27.1	-2.4

16	6	-4	152.4	146.3	-145.9	-9.8
18	6	4	55.7	62.7	-62.6	-3.6
18	6	-4	60.6	57.4	57.2	5.1
20	6	-4	26.0	35.9	35.8	2.6
1	7	4	114.1	114.3	113.9	9.2
1	7	-4*	11.3	14.1	-14.1	-.9
3	7	4	196.8	196.0	-195.6	-13.7
3	7	-4	85.9	89.0	-88.7	-7.5
5	7	4	181.1	180.2	179.7	12.2
5	7	-4	213.2	213.2	212.8	13.7
7	7	4	41.9	44.6	-44.3	-4.6
7	7	-4	146.8	147.4	-147.0	-11.5
9	7	4*	1.4	14.3	-14.2	-1.6
9	7	-4	78.7	80.0	79.8	6.4
11	7	4	87.0	88.6	88.3	7.0
11	7	-4*	19.7	12.9	-12.9	.4
13	7	-4	86.8	92.6	-92.5	-5.7
1	1	5	154.7	159.1	159.1	4.0
1	1	-5	95.5	96.8	-96.8	-1.1
3	1	5	72.8	68.7	-68.6	-2.8
3	1	-5	19.0	16.0	-15.9	1.7
5	1	5	32.5	34.0	33.9	3.1
5	1	-5	174.8	170.7	-170.6	-5.2
7	1	5	33.8	34.4	34.3	1.6
7	1	-5	24.9	26.3	26.2	1.9
9	1	5	71.9	73.1	-73.0	-1.9
9	1	-5	31.4	31.7	31.7	-.8
11	1	5	107.9	107.6	107.5	4.2
11	1	-5	91.5	91.2	-91.1	-4.0
13	1	5	22.8	21.7	21.7	-.2
13	1	-5	66.3	64.7	64.6	3.0
15	1	5	34.4	36.5	36.5	-.3
15	1	-5	90.1	89.2	-89.1	-3.6
17	1	5	76.5	75.4	75.3	3.8
17	1	-5	44.3	44.3	-44.3	-1.3
19	1	5*	4.6	16.3	16.2	-1.6
19	1	-5*	1.4	6.2	-5.9	1.9
21	1	5*	10.0	15.3	15.2	1.3
21	1	-5	65.3	65.5	-65.4	-4.2
23	1	5	49.9	54.8	54.7	2.9
23	1	-5*	4.7	2.1	-1.9	.9
25	1	5	43.0	39.4	-39.4	-2.3
25	1	-5	26.6	7.5	-7.5	-.1
27	1	5	45.4	52.1	52.0	3.0
27	1	-5	67.1	63.3	-63.2	-3.6
29	1	5*	6.7	3.6	-3.6	.7
29	1	-5	38.4	24.0	23.9	1.8
31	1	-5	45.3	45.3	-45.3	-1.7
33	1	-5*	24.0	23.4	-23.3	-2.0
0	2	5	113.4	113.4	-113.2	-6.3
2	2	5*	12.7	8.8	-8.8	-.0
2	2	-5	35.6	33.3	-32.8	-5.4
4	2	5	102.9	102.5	102.4	4.1
4	2	-5	137.6	134.8	134.7	4.2
6	2	5	155.7	157.1	-156.9	-7.9
6	2	-5	88.2	88.1	88.1	2.8
8	2	5	107.5	107.1	107.1	4.5
8	2	-5	100.6	96.6	-96.5	-5.1
10	2	5	72.5	72.4	-72.4	-1.0
10	2	-5	144.0	144.3	144.1	6.2
12	2	5	116.6	115.2	-115.0	-6.2
12	2	-5	52.8	55.3	-55.3	-.8
14	2	5	119.3	114.5	114.3	6.6
14	2	-5	45.7	37.2	-37.1	-2.6
16	2	5	115.3	113.1	-112.9	-5.6
16	2	-5	147.1	144.0	143.9	7.2

18	2	5*	6.6	20.8	-20.8	-.8
18	2	-5	83.0	78.7	-78.5	-4.3
20	2	5	76.3	64.0	63.9	4.3
20	2	-5	26.2	27.3	27.2	.9
22	2	5	146.9	142.6	-142.4	-7.3
22	2	-5	107.1	105.6	105.4	5.2
24	2	5	56.0	30.9	30.7	3.1
24	2	-5	108.4	96.5	-96.3	-6.0
26	2	5*	23.4	9.2	9.2	.1
26	2	-5	93.0	94.4	94.2	5.4
28	2	5	69.4	71.2	-71.0	-4.8
28	2	-5	42.1	36.8	36.8	1.1
30	2	-5	64.2	60.4	-60.2	-4.2
32	2	-5	96.9	93.5	93.2	6.8
1	3	5	122.7	120.1	119.9	6.8
1	3	-5	22.3	13.3	13.2	.4
3	3	5	258.8	261.4	-261.2	-10.0
3	3	-5	140.9	142.5	142.3	7.3
5	3	5	66.8	66.7	66.5	5.0
5	3	-5	252.4	256.4	-256.2	-10.2
7	3	5	34.0	34.6	34.6	1.0
7	3	-5	136.6	136.4	136.2	7.8
9	3	5	119.1	116.2	-115.9	-7.1
9	3	-5	39.5	38.3	38.2	.8
11	3	5	161.8	153.5	153.3	7.5
11	3	-5	118.7	117.7	-117.5	-7.1
13	3	5	53.2	44.9	-44.8	-3.4
13	3	-5	207.3	205.6	205.3	10.3
15	3	5	93.5	92.4	-92.3	-3.7
15	3	-5	82.0	79.6	-79.4	-6.3
17	3	5	84.8	81.1	80.8	6.6
17	3	-5*	13.6	7.9	-7.9	-.4
19	3	5	116.9	108.9	-108.7	-6.6
19	3	-5	117.0	117.1	116.9	7.4
21	3	5*	1.4	17.0	16.9	.8
21	3	-5	118.7	121.1	-120.8	-8.0
23	3	5	73.9	74.4	74.2	4.8
23	3	-5	67.0	73.3	73.1	5.1
25	3	5	92.9	91.7	-91.4	-7.8
25	3	-5	34.1	12.7	12.6	1.9
27	3	5	72.2	60.5	60.2	5.1
27	3	-5	88.9	82.3	-82.0	-6.3
29	3	-5	91.9	95.9	95.7	6.8
0	4	5	134.9	132.7	-132.5	-7.1
2	4	5	75.4	72.3	72.3	2.0
2	4	-5	199.6	199.5	-199.3	-10.3
4	4	5	161.8	160.4	160.2	8.6
4	4	-5	90.3	89.0	88.9	4.2
6	4	5	148.4	145.4	-145.1	-9.8
6	4	-5*	12.5	8.2	-8.1	1.6
8	4	5	136.0	138.8	138.5	8.8
8	4	-5	193.9	193.9	-193.7	-9.7
10	4	5*	8.9	9.2	9.2	.7
10	4	-5	82.3	83.8	83.5	6.9
12	4	5	127.6	127.8	-127.6	-7.4
12	4	-5	58.3	58.3	-58.2	-3.1
14	4	5	226.9	229.8	229.4	12.3
14	4	-5	96.3	96.5	-96.4	-6.0
16	4	5	83.5	78.5	-78.2	-6.5
16	4	-5	161.9	159.9	159.6	8.8
18	4	5	50.0	44.8	44.8	1.0
18	4	-5	128.9	135.0	-134.7	-8.3
20	4	5	126.1	128.8	128.5	8.3
20	4	-5	27.0	22.3	-22.3	-.8
22	4	5	159.4	138.3	-138.0	-9.2
22	4	-5	68.4	63.2	62.9	5.9

24	4	5	91.7	85.0	84.7	6.7
24	4	-5	174.2	180.8	-180.5	-11.1
26	4	-5	76.2	78.1	77.9	6.4
28	4	-5*	13.7	5.3	-5.3	-.2
1	5	5	112.8	113.8	113.5	7.5
1	5	-5*	1.5	13.3	-13.3	.0
3	5	5	208.2	204.7	-204.4	-11.2
3	5	-5	120.6	117.8	117.5	8.5
5	5	5	79.0	73.2	73.0	5.8
5	5	-5	193.7	193.0	-192.6	-11.6
7	5	5*	6.6	8.0	-8.0	.6
7	5	-5	174.7	176.8	176.5	9.2
9	5	5	93.8	95.3	-95.0	-7.4
9	5	-5	38.7	37.4	37.4	.9
11	5	5	143.5	142.1	141.9	8.2
11	5	-5	105.0	99.2	-98.9	-7.9
15	5	5	71.0	75.1	-75.0	-4.0
15	5	-5	136.7	134.6	-134.4	-7.8
17	5	5	93.0	89.2	88.9	7.0
17	5	-5*	16.6	21.0	-21.0	-.1
19	5	5	124.1	125.5	-125.3	-7.2
19	5	-5	118.0	119.3	119.0	8.1
21	5	5*	1.4	12.1	12.1	.7
21	5	-5	114.1	121.7	-121.4	-8.9
23	5	-5	101.6	103.6	103.4	6.1
25	5	-5	33.9	32.7	32.6	1.7
0	6	5	111.8	108.6	-108.4	-7.1
2	6	5*	13.3	2.8	-2.8	-.3
2	6	-5	105.1	106.3	-106.0	-7.2
4	6	5	115.5	115.8	115.6	6.8
4	6	-5	77.7	80.0	79.8	5.2
6	6	5	177.8	176.7	-176.4	-10.4
6	6	-5	45.8	48.7	48.6	2.4
8	6	5	63.5	62.3	61.9	6.3
8	6	-5	108.0	111.3	-111.1	-6.5
10	6	5	41.1	35.9	-35.9	-.7
10	6	-5	98.6	99.9	99.7	6.8
12	6	5	128.5	130.2	-130.0	-8.4
12	6	-5*	10.1	7.7	7.6	-1.0
14	6	5	144.5	143.6	143.2	10.0
14	6	-5	39.0	32.6	-32.3	-3.7
16	6	5	64.7	64.6	-64.2	-7.4
16	6	-5	135.2	133.0	132.8	8.8
18	6	-5	61.2	59.2	-58.9	-5.6
20	6	-5*	9.5	7.3	-7.3	.1
1	7	5	63.4	63.0	62.7	5.7
1	7	-5	38.7	33.7	-33.6	-1.7
3	7	5	107.8	101.9	-101.7	-6.9
3	7	-5	37.2	38.2	37.9	5.3
5	7	5	56.6	61.9	61.7	5.4
5	7	-5	142.8	144.3	-143.9	-9.6
7	7	5*	12.5	12.7	12.7	.5
7	7	-5	70.0	66.4	66.1	5.8
9	7	5*	15.3	10.8	-10.3	-3.0
9	7	-5*	6.9	9.4	-9.4	-.5
11	7	-5	90.5	87.7	-87.4	-6.6
0	0	6	41.6	35.0	-35.0	-.2
2	0	6	31.0	25.6	-25.3	-4.0
2	0	-6	48.9	46.1	46.1	-1.2
4	0	6	111.5	113.1	113.0	5.8
4	0	-6	57.1	55.7	-55.7	1.8
6	0	6	199.0	201.7	-201.6	-6.8
6	0	-6	245.4	249.7	-249.5	-10.6
8	0	6	161.4	162.7	-162.6	-4.1
8	0	-6	216.0	212.3	212.1	9.2
10	0	6	176.2	176.9	176.6	9.8

10	0	-6	54.5	58.5	-58.2	-5.5
12	0	6	367.9	374.9	-374.5	-17.5
12	0	-6	105.4	104.2	-104.1	-5.5
14	0	6	297.6	305.6	305.3	14.6
14	0	-6	289.0	292.9	292.6	14.7
16	0	6	41.3	37.6	-37.2	-5.4
16	0	-6	496.2	503.0	-502.6	-21.8
18	0	6	164.5	169.9	-169.7	-9.5
18	0	-6	137.2	141.5	140.9	13.0
20	0	6	206.6	214.5	213.9	16.0
20	0	-6	76.3	68.9	-68.8	-3.6
22	0	6	325.0	333.8	-333.2	-20.5
22	0	-6	163.9	162.2	-161.7	-11.8
24	0	6	142.5	148.4	148.0	11.1
24	0	-6	332.3	333.8	333.3	19.5
26	0	6	40.8	33.7	-33.7	-.4
26	0	-6	267.5	274.0	-273.3	-19.3
28	0	6	134.4	135.1	-134.7	-10.3
28	0	-6	129.0	129.0	128.7	8.5
30	0	-6	78.4	60.4	-60.4	.4
32	0	-6	187.0	185.2	-184.9	-11.7
1	1	6	311.4	313.3	312.9	17.4
1	1	-6	93.0	91.6	-91.4	-5.8
3	1	6	493.8	495.6	-495.1	-21.5
3	1	-6	56.7	56.7	-56.2	-7.5
5	1	6	354.9	360.0	359.7	15.8
5	1	-6	471.1	476.5	476.1	20.0
7	1	6	40.4	39.0	-38.9	-2.0
7	1	-6	408.5	416.7	-416.3	-18.7
9	1	6	105.0	103.1	-102.9	-6.9
9	1	-6	241.3	242.2	241.9	11.9
11	1	6	287.9	290.9	290.5	13.6
11	1	-6	110.3	108.9	-108.9	-1.2
13	1	6	227.6	232.0	-231.7	-11.6
13	1	-6	208.4	210.7	-210.5	-8.1
15	1	6	51.3	52.8	52.6	5.0
15	1	-6	250.1	250.9	250.6	11.3
17	1	6*	1.4	17.1	17.1	.6
17	1	-6	35.6	31.4	-30.8	-6.2
19	1	6*	1.4	2.7	2.5	-1.1
19	1	-6	100.7	95.3	95.2	3.7
21	1	6	51.6	53.8	53.8	1.6
21	1	-6*	20.9	16.8	16.8	.1
23	1	6	37.3	35.0	34.9	2.1
23	1	-6*	18.5	15.1	-15.0	.8
25	1	6*	24.7	30.9	-30.9	-1.4
25	1	-6	90.2	85.7	-85.6	-4.0
27	1	6	54.8	51.3	-51.3	-2.9
27	1	-6	58.1	61.6	61.4	5.0
29	1	6	103.9	105.9	105.6	7.9
29	1	-6	27.3	17.9	17.9	-.2
31	1	-6	41.9	43.4	-43.2	-4.6
0	2	6	150.0	151.5	151.5	3.5
2	2	6	16.4	2.7	1.4	-2.4
2	2	-6	34.4	31.8	-31.7	-1.5
4	2	6	127.0	126.5	126.4	6.0
4	2	-6	109.0	109.7	109.6	4.9
6	2	6	108.9	112.3	-112.2	-2.6
6	2	-6	166.1	166.3	-166.1	-7.9
8	2	6	97.4	95.6	-95.5	-3.6
8	2	-6	197.7	195.8	195.6	8.7
10	2	6	194.1	196.9	196.5	11.2
10	2	-6	27.7	31.0	-30.9	-1.6
12	2	6	216.9	223.0	-222.6	-13.6
12	2	-6	52.4	51.5	-51.4	-4.4
14	2	6	296.8	304.6	304.3	13.9

14	2	-6	275.2	277.2	276.8	15.0
16	2	6	23.2	14.4	14.2	-2.5
16	2	-6	336.4	344.9	-344.5	-17.3
18	2	6	120.6	122.9	-122.6	-7.2
18	2	-6	189.8	191.8	191.4	12.6
20	2	6	204.8	206.5	206.0	15.4
20	2	-6*	1.4	11.2	11.1	-1.3
22	2	6	260.5	260.4	-259.9	-16.5
22	2	-6	86.7	89.8	-89.3	-8.7
24	2	6	167.4	167.0	166.6	11.5
24	2	-6	304.3	313.8	313.2	18.5
26	2	6	25.9	21.3	21.3	.5
26	2	-6	201.5	209.7	-209.1	-15.7
28	2	6	68.3	71.9	-71.5	-7.0
28	2	-6	110.5	116.3	115.9	9.4
30	2	-6	35.7	25.3	-25.3	.6
1	3	6	156.0	153.1	152.6	11.4
1	3	-6	113.5	113.4	-113.2	-5.8
3	3	6	413.9	418.5	-418.2	-17.8
3	3	-6	62.5	63.2	-62.8	-6.3
5	3	6	174.1	176.9	176.5	11.7
5	3	-6	309.6	313.8	313.5	13.4
7	3	6	81.0	82.1	-81.9	-4.8
7	3	-6	276.8	276.5	-276.0	-15.8
9	3	6	86.7	85.3	-85.2	-4.2
9	3	-6	130.2	133.8	133.5	9.5
11	3	6	155.7	160.4	160.2	8.0
11	3	-6	144.0	142.0	-141.9	-5.1
13	3	6	195.2	193.2	-192.9	-11.1
13	3	-6	162.9	166.9	-166.9	-5.0
15	3	6	73.1	73.6	73.4	5.5
15	3	-6	106.6	109.8	109.6	6.6
17	3	6	88.7	86.4	-86.3	-4.4
17	3	-6	100.0	106.4	-106.2	-7.6
19	3	6	44.6	43.0	43.0	.8
19	3	-6	119.3	118.9	118.7	5.3
21	3	6*	11.7	10.6	-10.6	-.3
21	3	-6	106.7	110.0	-109.8	-5.0
23	3	6	37.8	41.1	-41.1	-1.4
23	3	-6	24.7	19.3	19.2	1.7
25	3	6*	23.9	18.5	-18.4	.9
25	3	-6	83.0	85.7	-85.6	-4.0
27	3	-6*	1.4	2.8	-2.7	.4
29	3	-6	33.8	24.5	24.5	1.9
0	4	6	174.1	173.8	173.7	7.0
2	4	6*	1.4	5.4	-4.1	-3.4
2	4	-6	168.9	171.8	-171.6	-7.5
4	4	6	37.9	36.3	36.2	1.4
4	4	-6	73.2	74.1	73.8	6.6
6	4	6	33.9	35.3	35.3	2.4
6	4	-6	129.9	129.0	-128.8	-6.3
8	4	6	135.9	139.7	-139.5	-7.5
8	4	-6	29.8	27.5	27.4	2.4
10	4	6	110.7	114.3	114.4	9.3
10	4	-6	67.2	64.6	64.5	3.0
12	4	6	148.4	150.3	-150.0	-9.2
12	4	-6	58.1	59.7	-59.3	-6.7
14	4	6	128.5	133.9	133.7	7.1
14	4	-6	176.3	183.3	183.0	11.0
16	4	6	24.2	7.0	7.0	-.2
16	4	-6	203.0	210.4	-210.1	-11.3
18	4	6	91.7	92.5	-92.3	-6.0
18	4	-6	75.4	81.8	81.6	6.4
20	4	6	123.1	125.7	125.3	9.6
20	4	-6*	9.5	8.6	-8.6	-.5
22	4	6	162.4	163.1	-162.7	-11.2

22	4	-6	71.0	70.8	-70.5	-5.9
24	4	6	115.1	115.7	115.4	8.1
24	4	-6	180.5	186.9	186.5	11.5
26	4	-6	130.5	138.2	-137.7	-11.1
1	5	6	93.2	93.6	93.4	6.6
1	5	-6	26.8	26.3	-26.2	-2.0
3	5	6	154.8	155.4	-155.2	-8.2
3	5	-6	23.5	18.7	18.6	-.6
5	5	6	159.5	164.1	63.9	9.5
5	5	-6	165.7	168.8	168.7	7.5
7	5	6	48.4	49.8	-49.5	-4.9
7	5	-6	102.9	101.4	-101.1	-7.6
9	5	6	71.0	69.9	69.9	3.5
9	5	-6	146.0	148.5	148.1	9.7
11	5	6	46.9	49.1	49.0	3.3
11	5	-6	123.6	125.4	-125.3	-6.9
13	5	6	87.3	85.5	-85.3	-6.5
13	5	-6	37.8	38.2	38.1	3.2
15	5	6	110.1	113.9	113.5	9.3
15	5	-6	46.4	43.6	43.5	3.4
17	5	6	87.6	95.6	-95.3	-7.8
17	5	-6	40.9	38.5	-38.1	-5.7
19	5	6	121.3	123.8	123.7	6.6
19	5	-6	164.0	167.7	167.4	10.7
21	5	-6	108.1	112.0	-111.7	-8.4
23	5	-6	72.5	74.3	74.1	6.0
0	6	6	155.1	159.1	158.7	10.1
2	6	6	48.3	49.1	-48.9	-4.5
2	6	-6	176.7	182.9	-182.5	-13.0
4	6	6	83.6	83.7	-83.7	-3.4
4	6	-6	103.3	106.2	105.8	8.4
6	6	6	66.0	73.2	72.8	7.3
6	6	-6	58.3	58.0	-57.8	-4.3
8	6	6	190.1	190.8	-190.5	-11.2
8	6	-6	76.6	77.0	-76.9	-4.1
10	6	6	92.6	92.5	92.2	7.2
10	6	-6	103.5	111.2	110.9	7.7
12	6	6	46.2	44.7	-44.5	-4.2
12	6	-6	125.6	128.5	-128.2	-9.1
14	6	6	33.7	31.2	31.2	-.0
14	6	-6	80.5	80.7	80.4	6.4
16	6	-6	98.2	91.9	-91.8	-4.7
18	6	-6	26.4	15.8	-15.6	-.2
1	7	6*	17.9	21.8	-21.8	-.2
1	7	-6	27.7	17.7	-17.7	-1.2
3	7	6	42.9	41.7	-41.7	-2.5
3	7	-6	31.8	34.7	34.6	1.5
5	7	6	65.0	67.7	67.6	4.8
5	7	-6*	7.2	8.6	8.6	-.1
7	7	-6	40.6	41.3	-41.2	-3.0
1	1	7	89.7	87.1	-87.0	-4.3
1	1	-7	21.7	19.5	-19.5	-.5
3	1	7	78.0	77.8	77.8	2.1
3	1	-7	18.0	13.7	-13.6	-.4
5	1	7	50.1	49.0	-49.0	-1.9
5	1	-7	149.0	146.6	146.5	4.2
7	1	7	78.3	74.5	-74.4	-3.1
7	1	-7*	11.1	7.8	-7.7	-1.6
9	1	7*	1.4	2.7	.3	2.7
9	1	-7	80.0	77.5	77.5	1.6
11	1	7	78.2	77.0	-76.9	-3.9
11	1	-7	61.7	58.0	58.0	3.0
13	1	7	69.8	68.7	-68.7	-.5
13	1	-7*	16.0	10.1	-9.8	-2.3
15	1	7	36.5	35.8	35.8	1.3
15	1	-7	26.0	13.3	13.0	3.0

17	1	7	92.9	93.8	-93.7	-4.6
17	1	-7	55.1	55.6	55.6	1.2
19	1	7	46.1	51.6	51.6	2.0
19	1	-7	45.2	48.0	-48.0	-1.8
21	1	7*	3.5	35.4	-35.4	-1.2
21	1	-7	110.4	102.6	102.5	4.5
23	1	7*	16.7	15.3	-15.1	-2.7
23	1	-7	32.5	28.1	-28.1	-1.2
25	1	7*	1.4	2.4	-1.0	2.2
25	1	-7	44.5	41.6	41.6	.2
27	1	7	45.1	38.4	-38.3	-2.8
27	1	-7	37.4	32.5	32.3	3.6
29	1	-7*	3.6	8.3	-7.9	-2.5
31	1	-7	34.9	31.1	30.9	2.5
0	2	7	145.4	143.7	143.5	6.4
2	2	7	37.9	39.0	-39.0	-.1
2	2	-7	148.2	148.5	148.4	6.7
4	2	7*	12.7	14.9	-14.5	-3.3
4	2	-7	138.7	136.0	-135.9	-5.1
6	2	7	108.7	107.8	107.6	7.2
6	2	-7*	5.3	8.6	-8.3	-2.1
8	2	7	42.2	40.8	-40.6	-3.5
8	2	-7	37.7	35.4	35.0	5.2
10	2	7*	11.2	14.4	14.4	.2
10	2	-7	158.4	157.6	-157.4	-8.2
12	2	7	115.6	116.6	116.5	5.1
12	2	-7	42.1	38.2	38.1	3.3
14	2	7	73.5	74.4	-74.2	-4.6
14	2	-7*	10.2	8.1	8.0	.9
16	2	7	91.9	90.4	90.3	3.4
16	2	-7	137.3	133.5	-133.3	-6.5
18	2	7	38.3	41.6	41.5	2.7
18	2	-7	112.4	114.4	114.2	5.7
20	2	7	73.2	77.1	-77.0	-4.3
20	2	-7	75.7	65.6	-65.5	-3.8
22	2	7	82.5	77.2	77.0	5.2
22	2	-7	50.7	47.8	-47.7	-2.8
24	2	7*	1.4	18.7	-18.7	-.8
24	2	-7	84.4	84.0	83.9	4.7
26	2	7	34.7	29.2	-29.1	-2.4
26	2	-7	89.6	92.4	-92.2	-5.4
28	2	-7*	12.2	1.2	-.9	.8
30	2	-7*	18.6	10.4	10.1	2.2
1	3	7	172.1	170.2	-170.0	-7.9
1	3	-7	75.9	71.7	-71.6	-4.2
3	3	7	140.7	141.8	141.6	7.8
3	3	-7	86.6	83.3	-83.2	-3.7
5	3	7*	8.7	14.3	-14.2	-1.7
5	3	-7	132.2	128.8	128.6	7.2
7	3	7	83.3	81.8	-81.7	-5.0
7	3	-7	136.5	134.0	-133.8	-6.9
9	3	7	199.0	204.4	204.2	9.9
9	3	-7*	15.6	7.8	-7.8	1.0
11	3	7	98.8	103.0	-102.8	-7.1
11	3	-7	92.1	91.2	91.1	4.8
13	3	7*	11.7	18.2	18.1	1.8
13	3	-7	153.5	146.6	-146.3	-8.6
15	3	7	70.8	68.8	68.6	5.8
15	3	-7	84.0	84.3	84.1	5.1
17	3	7	141.6	141.2	-141.0	-9.0
17	3	-7*	11.0	11.3	11.3	.4
19	3	7	89.1	91.6	91.3	7.2
19	3	-7	99.7	99.1	-98.8	-6.9
21	3	7*	4.8	8.8	8.8	-.7
21	3	-7	106.1	106.1	105.8	8.5
23	3	7	45.7	37.4	-37.1	-4.4

23	3	-7	81.6	80.6	-80.4	-5.3
25	3	7	125.4	120.2	120.0	8.0
25	3	-7	38.6	41.8	-41.8	-2.1
27	3	-7	80.1	84.6	84.4	6.8
0	4	7	85.1	85.9	85.6	7.6
2	4	7	27.1	17.5	-17.4	-2.3
2	4	-7	190.1	193.2	192.8	12.3
4	4	7	141.4	140.4	-140.2	-7.0
4	4	-7	46.2	48.0	-47.7	-5.5
6	4	7	162.2	162.9	162.7	8.9
6	4	-7	39.2	35.4	-35.4	-1.3
8	4	7	158.4	155.8	-155.6	-7.6
8	4	-7	193.9	194.8	194.5	10.2
10	4	7	29.3	20.4	-20.3	-1.4
10	4	-7	182.3	185.4	-185.1	-10.5
12	4	7	50.2	49.4	49.1	5.2
12	4	-7	154.8	153.2	153.0	7.5
14	4	7	134.4	127.5	-127.3	-8.6
14	4	-7	45.7	46.6	46.5	3.2
16	4	7	41.3	36.0	35.8	3.1
16	4	-7	91.4	97.3	-97.0	-7.7
18	4	7	27.5	26.8	26.7	2.2
18	4	-7	159.7	158.3	158.0	10.5
20	4	7	142.4	124.6	-124.4	-8.1
20	4	-7	54.5	53.1	-52.9	-4.1
22	4	7	60.9	65.5	65.2	5.8
22	4	-7	26.9	21.8	-21.7	-2.0
24	4	-7	129.9	127.8	127.5	8.5
26	4	-7	65.9	65.5	-65.2	-6.2
1	5	7	129.9	129.6	-129.3	-8.8
1	5	-7	78.3	76.1	-75.9	-5.0
3	5	7	122.8	121.5	121.2	8.4
3	5	-7	48.3	48.0	-47.8	-3.7
5	5	7*	18.0	17.6	-17.5	-1.6
5	5	-7	115.9	112.2	112.0	7.6
7	5	7	81.7	84.9	-84.7	-6.0
7	5	-7	103.2	100.9	-100.6	-7.2
9	5	7	186.7	189.6	189.3	11.4
9	5	-7*	19.0	4.3	4.2	1.2
11	5	7	109.4	117.6	-117.3	-8.2
11	5	-7	64.4	63.5	63.3	5.1
13	5	7	48.0	49.4	49.3	2.2
13	5	-7	166.4	174.7	-174.5	-9.4
15	5	7	70.9	74.3	74.0	6.6
15	5	-7	75.6	80.8	80.6	5.3
17	5	7	136.4	136.4	-136.0	-10.4
17	5	-7*	14.5	3.4	-3.3	.6
19	5	-7	69.7	82.5	-82.1	-7.8
21	5	-7	131.5	135.2	134.9	9.7
0	6	7	146.9	147.0	146.7	8.7
2	6	7*	11.0	3.7	-3.5	-1.3
2	6	-7	161.3	160.6	160.3	10.0
4	6	7	38.5	34.6	-34.3	-4.1
4	6	-7	95.4	92.0	-91.7	-6.3
6	6	7	133.9	135.8	135.6	8.9
6	6	-7	41.2	34.6	-34.5	-2.6
8	6	7	65.2	66.1	-65.9	-5.5
8	6	-7	102.4	104.8	104.5	7.9
10	6	7*	7.1	20.1	-20.1	.4
10	6	-7	151.8	150.5	-150.1	-11.1
12	6	7	69.4	65.9	65.7	5.1
12	6	-7	60.3	61.7	61.4	5.8
14	6	-7*	14.4	19.7	19.6	1.2
16	6	-7	112.7	115.0	-114.8	-7.9
0	0	8	431.0	414.5	414.2	16.6
2	0	8	56.3	59.9	59.9	.3

2	0	-8	508.2	493.5	-493.0	-20.9
4	0	8	138.2	134.9	-134.5	-9.9
4	0	-8	369.4	356.5	356.0	18.4
6	0	8	328.2	316.0	315.5	18.6
6	0	-8	148.9	149.3	-149.2	-6.4
8	0	8	267.9	261.6	-261.2	-15.4
8	0	-8	61.7	61.3	-61.1	-4.9
10	0	8	86.4	83.3	82.9	7.5
10	0	-8	340.3	333.3	332.9	16.2
12	0	8	76.7	84.9	84.8	3.7
12	0	-8	132.7	125.5	-124.8	-12.9
14	0	8	64.7	67.7	-67.5	-5.9
14	0	-8	167.2	161.9	161.6	9.4
16	0	8	174.3	176.8	176.6	8.7
16	0	-8	53.5	45.1	-45.1	-.6
18	0	8	42.5	43.3	-43.2	-2.6
18	0	-8	94.5	94.7	-94.6	-3.5
20	0	8*	1.4	2.6	-2.5	.4
20	0	-8	75.2	67.9	67.8	4.4
22	0	8*	1.4	2.2	-2.2	.2
22	0	-8	34.2	28.5	28.5	.8
24	0	8	74.1	71.6	71.5	3.9
24	0	-8	63.5	52.9	52.9	.5
26	0	8*	1.4	17.4	-16.9	-4.2
26	0	-8	49.0	43.5	43.5	.3
28	0	-8	89.6	84.9	84.6	5.9
30	0	-8	117.9	124.2	-123.9	-9.5
1	1	8	118.7	120.9	-120.9	-2.1
1	1	-8	65.1	69.4	-69.4	-1.2
3	1	8	107.5	108.7	-108.6	-2.7
3	1	-8	73.3	73.4	73.3	3.6
5	1	8	136.6	132.9	132.8	6.3
5	1	-8	47.3	39.1	-38.9	-3.6
7	1	8	109.7	105.8	-105.3	-10.2
7	1	-8	13.9	27.3	27.3	-.3
9	1	8	218.9	212.2	211.9	9.9
9	1	-8	124.6	119.6	119.4	6.6
11	1	8	11.2	24.1	-23.9	-2.7
11	1	-8	282.0	279.4	-279.0	-15.0
13	1	8	178.7	176.3	-176.1	-8.9
13	1	-8	212.1	206.1	205.7	13.7
15	1	8	181.3	183.9	183.3	14.7
15	1	-8	117.5	115.5	-115.3	-7.4
17	1	8	319.5	330.2	-329.7	-17.7
17	1	-8	61.2	46.7	-46.5	-4.2
19	1	8	178.7	185.1	184.8	10.4
19	1	-8	260.8	260.3	259.9	15.6
21	1	8	27.9	39.4	39.4	1.6
21	1	-8	378.3	365.8	-365.2	-20.6
23	1	8	152.2	155.4	-154.9	-11.8
23	1	-8	205.4	201.3	200.8	14.1
25	1	8	194.0	198.5	197.9	15.4
25	1	-8	86.9	88.5	-88.4	-4.6
27	1	-8	118.8	119.2	-118.9	-8.3
29	1	-8	222.9	225.8	225.2	15.4
0	2	8	249.0	242.8	242.5	12.8
2	2	8	24.6	34.2	34.1	-1.7
2	2	-8	393.2	380.4	-379.9	-19.7
4	2	8	205.6	200.2	-200.0	-9.8
4	2	-8	212.2	202.0	201.5	14.5
6	2	8	236.1	228.9	228.5	14.3
6	2	-8	163.1	159.5	-159.3	-7.9
8	2	8	327.7	322.9	-322.5	-15.6
8	2	-8	129.8	126.3	-126.2	-5.0
10	2	8	100.0	99.8	99.6	6.3
10	2	-8	247.6	244.6	244.3	12.0

12	2	8*	1.4	1.6	-1.6	.1
12	2	-8	205.5	195.8	-195.4	-13.1
14	2	8	36.9	42.6	-42.3	-5.4
14	2	-8	158.1	155.7	155.5	8.1
16	2	8	108.9	111.7	111.5	6.1
16	2	-8	113.2	109.1	-109.0	-3.9
18	2	8	89.2	90.6	-90.5	-4.8
18	2	-8	80.4	77.6	-77.6	-3.0
20	2	8	35.9	43.7	-43.7	.5
20	2	-8	26.0	13.7	13.6	1.9
22	2	8	70.7	71.8	-71.7	-2.8
22	2	-8	33.5	22.8	-22.7	-1.5
24	2	8	48.0	38.7	38.6	2.9
24	2	-8*	20.3	15.6	15.6	.7
26	2	-8	43.7	35.7	-35.6	-2.9
28	2	-8	52.6	63.3	63.1	4.9
1	3	8	16.0	12.3	11.9	3.1
1	3	-8*	7.1	11.8	-11.8	-1.3
3	3	8	104.6	104.4	-104.3	-4.5
3	3	-8	102.5	101.8	101.7	3.2
5	3	8	174.6	171.4	171.2	8.1
5	3	-8	74.2	71.6	71.6	1.6
7	3	8	76.3	85.8	-85.5	-6.4
7	3	-8	34.1	28.0	-27.9	-2.5
9	3	8	163.7	161.7	161.6	7.0
9	3	-8	178.9	174.3	174.1	8.7
11	3	8	23.1	25.8	25.8	1.4
11	3	-8	233.9	227.1	-226.9	-10.9
13	3	8	111.7	110.3	-110.0	-7.3
13	3	-8	170.0	164.5	164.2	10.4
15	3	8	143.8	143.7	143.1	12.7
15	3	-8	33.6	35.9	-35.8	-2.6
17	3	8	159.8	154.9	-154.5	-11.9
17	3	-8*	1.4	4.1	2.6	-3.2
19	3	8	135.9	131.2	130.9	8.6
19	3	-8	194.2	194.6	194.1	13.4
21	3	8	81.6	86.5	86.5	2.3
21	3	-8	183.0	188.2	-188.2	-14.4
23	3	8	98.7	97.5	-97.2	-7.5
23	3	-8	138.6	144.0	143.5	11.7
25	3	-8	37.1	31.0	-30.8	-3.2
27	3	-8	52.2	58.7	-58.6	-4.2
0	4	8	127.7	124.9	124.6	8.9
2	4	8*	1.4	1.8	-.7	-1.7
2	4	-8	232.0	229.3	-228.9	-12.3
4	4	8	43.6	42.3	-42.1	-4.1
4	4	-8	117.9	112.9	112.4	10.2
6	4	8	136.3	138.2	138.0	8.8
6	4	-8	131.4	128.9	-128.7	-6.9
8	4	8	175.2	175.5	-175.2	-10.9
8	4	-8	27.1	22.5	22.5	.0
10	4	8	133.4	132.6	132.3	7.8
10	4	-8	153.9	150.7	150.6	6.6
12	4	8	56.3	55.8	-55.7	-3.8
12	4	-8	95.4	94.6	-94.2	-8.5
14	4	8*	20.3	9.1	9.1	.1
14	4	-8	153.7	156.2	155.9	9.0
16	4	8	72.5	69.9	69.7	4.1
16	4	-8	137.3	140.0	-139.8	-7.3
18	4	8	104.2	99.5	-99.3	-5.7
18	4	-8*	10.7	9.3	-9.0	2.5
20	4	8	40.8	33.2	32.7	5.2
20	4	-8*	1.4	6.1	-6.1	.2
22	4	-8	21.8	29.8	-29.7	-2.6
24	4	-8	73.9	78.1	77.9	5.6
1	5	8	50.0	51.5	51.0	6.7

1	5	-8	94.1	92.8	-92.6	-5.2
3	5	8	174.3	171.3	-171.0	-10.5
3	5	-8*	13.3	3.3	-3.1	-1.1
5	5	8	107.1	107.2	107.0	6.9
5	5	-8	71.0	69.7	69.5	5.3
7	5	8	42.0	41.3	-41.1	-4.2
7	5	-8	121.2	126.9	-126.6	-9.1
9	5	8*	4.2	7.1	-7.1	-.9
9	5	-8	100.4	105.6	105.3	7.8
11	5	8	62.4	66.5	66.4	4.0
11	5	-8	128.7	133.6	-133.4	-8.1
13	5	8	165.0	157.6	-157.4	-8.3
13	5	-8*	11.3	2.3	-1.2	2.0
15	5	8	66.4	62.7	62.4	6.3
15	5	-8	35.3	36.3	36.3	1.0
17	5	-8	69.8	81.4	-81.3	-5.3
19	5	-8	91.2	94.4	94.1	7.0
0	6	8	96.9	97.2	97.1	4.7
2	6	8	20.8	16.0	-15.9	-1.7
2	6	-8	66.3	66.2	-66.1	-4.1
4	6	8	53.0	47.2	47.2	1.8
4	6	-8	84.9	86.4	86.2	5.5
6	6	8*	18.9	6.0	5.5	2.4
6	6	-8	90.9	89.5	-89.3	-5.4
8	6	8	78.9	76.8	-76.6	-5.7
8	6	-8	92.2	88.8	88.6	5.0
10	6	-8*	15.9	8.1	8.1	.4
12	6	-8	21.8	23.9	-23.6	-3.5
1	1	9	121.4	116.7	116.7	4.5
1	1	-9*	1.4	6.0	6.0	.7
3	1	9*	10.3	6.7	-6.4	-2.1
3	1	-9	20.8	23.3	23.3	.3
5	1	9	55.1	55.0	55.0	1.7
5	1	-9	71.9	69.4	-69.3	-4.3
7	1	9	70.1	67.4	67.3	2.6
7	1	-9	62.6	65.1	65.1	2.8
9	1	9	34.5	31.3	-31.3	-2.1
9	1	-9	44.1	44.0	-44.0	-2.4
11	1	9	43.8	39.8	39.7	3.1
11	1	-9	73.2	71.9	-71.9	-2.3
13	1	9*	14.7	20.7	20.7	.8
13	1	-9*	14.1	4.7	4.1	2.3
15	1	9*	15.7	20.6	-20.6	-1.2
15	1	-9	87.6	86.9	-86.8	-4.2
17	1	9	56.7	57.3	57.2	3.4
17	1	-9*	9.8	13.9	-13.9	.3
19	1	9*	1.4	3.5	3.4	-.6
19	1	-9*	17.2	8.4	8.4	.7
21	1	9	25.3	20.1	20.1	.1
21	1	-9	46.9	45.7	-45.6	-3.7
23	1	9	39.0	43.3	43.2	3.2
23	1	-9*	18.9	22.0	21.9	1.7
25	1	-9	34.5	29.7	-29.7	-1.3
27	1	-9	39.1	37.6	-37.5	-2.5
0	2	9	68.0	64.9	-64.8	-3.6
2	2	9	56.5	51.1	-51.0	-2.8
2	2	-9	74.3	75.7	-75.5	-4.8
4	2	9	51.2	53.4	53.2	5.1
4	2	-9	80.6	81.8	81.7	5.3
6	2	9	118.0	116.5	-116.3	-6.5
6	2	-9	23.1	19.9	-19.9	.1
8	2	9*	19.8	11.8	11.7	1.5
8	2	-9	40.8	40.9	-40.8	-3.4
10	2	9*	3.5	12.6	12.4	2.1
10	2	-9	120.6	121.2	121.0	6.3
12	2	9	121.4	121.8	-121.6	-7.1

12	2	-9	22.1	26.7	-26.5	-2.6
14	2	9	88.4	91.0	90.8	5.3
14	2	-9	24.9	23.8	23.8	-.3
16	2	9	44.8	43.0	-42.9	-2.6
16	2	-9	109.1	107.5	107.3	6.0
18	2	9	35.7	41.6	-41.5	-3.4
18	2	-9	98.8	94.5	-94.4	-5.4
20	2	9	74.6	78.8	78.6	5.3
20	2	-9	54.8	53.7	53.6	3.4
22	2	9	90.4	90.5	-90.3	-5.8
22	2	-9	39.8	40.2	40.1	2.7
24	2	-9	74.7	71.1	-70.9	-5.2
26	2	-9	108.2	104.3	104.1	6.7
1	3	9	148.1	148.5	148.2	8.5
1	3	-9	72.4	71.1	71.0	4.3
3	3	9	144.8	143.6	-143.4	-8.2
3	3	-9	61.8	61.2	61.1	3.4
5	3	9*	1.4	9.6	9.5	1.6
5	3	-9	139.1	138.5	-138.3	-8.4
7	3	9	57.7	59.1	59.0	3.7
7	3	-9	177.1	172.5	172.2	9.7
9	3	9	116.4	119.3	-119.0	-7.6
9	3	-9	37.0	40.8	-40.6	-3.6
11	3	9	82.3	84.3	84.1	5.4
11	3	-9	60.7	56.6	-56.5	-3.0
13	3	9*	4.3	5.8	5.8	-.4
13	3	-9	128.5	128.6	128.3	8.5
15	3	9	75.8	78.3	-78.2	-5.2
15	3	-9	115.1	116.8	-116.5	-8.1
17	3	9	62.2	64.2	63.9	5.8
17	3	-9	46.9	50.5	50.4	3.5
19	3	9	54.4	57.1	-57.0	-3.8
19	3	-9	61.7	60.7	60.5	3.9
21	3	9	30.9	35.9	-35.9	-2.2
21	3	-9	79.9	82.3	-82.0	-6.8
23	3	-9	82.1	84.5	84.3	6.5
25	3	-9	30.3	22.6	-22.6	-1.2
0	4	9	46.9	41.5	-41.3	-3.2
2	4	9	38.1	36.3	-36.2	-2.5
2	4	-9	136.2	137.1	-136.8	-8.8
4	4	9	161.1	162.3	162.0	9.9
4	4	-9	69.0	69.2	68.9	5.9
6	4	9	99.4	102.3	-102.0	-7.7
6	4	-9	50.0	48.8	-48.7	-1.8
8	4	9	82.1	80.8	80.7	4.1
8	4	-9	121.7	117.1	-116.9	-6.9
10	4	9	74.2	76.0	75.8	5.3
10	4	-9	114.8	113.3	113.1	7.3
12	4	9	120.4	121.9	-121.6	-9.1
12	4	-9	75.7	76.9	-76.7	-5.6
14	4	9	139.4	139.3	138.9	9.9
14	4	-9	25.1	29.3	-29.1	-2.5
16	4	9*	19.2	20.1	-20.0	-2.2
16	4	-9	85.3	86.4	86.1	7.1
18	4	9	36.8	37.9	-37.7	-3.4
18	4	-9	160.1	164.1	-163.8	-9.9
20	4	-9*	12.0	15.7	15.4	3.1
22	4	-9*	15.3	19.7	19.6	2.4
1	5	9	144.6	148.9	148.6	9.6
1	5	-9	49.0	49.6	49.4	4.5
3	5	9	129.1	127.3	-127.0	-9.4
3	5	-9	56.8	52.7	52.6	4.0
5	5	9*	17.6	20.5	20.4	2.2
5	5	-9	118.2	118.2	-117.8	-9.7
7	5	9	29.1	24.9	24.7	3.6
7	5	-9	178.9	182.8	182.4	11.4

9	5	9	131.0	130.9	-130.7	-8.2
9	5	-9	48.6	52.7	-52.5	-4.4
11	5	9	78.1	77.7	77.5	6.1
11	5	-9	43.6	47.5	-47.4	-3.2
13	5	9*	22.3	12.5	-12.5	-.7
13	5	-9	115.5	120.0	119.6	9.5
15	5	-9	135.8	137.2	-136.9	-9.5
17	5	-9	70.1	70.5	70.3	4.5
0	6	9	65.5	63.7	-63.6	-3.5
2	6	9	55.3	56.2	-56.0	-4.0
2	6	-9	68.3	71.0	-70.8	-5.8
4	6	-9	98.0	93.8	93.6	6.2
6	6	-9*	4.5	1.4	-1.3	-.5
8	6	-9	64.9	62.1	-61.9	-4.4
0	0	10	30.9	28.3	28.3	.1
2	0	10	53.9	56.3	-56.2	-4.2
2	0	-10	43.2	44.3	-44.3	-.4
4	0	10	112.4	120.3	120.3	4.7
4	0	-10	30.9	30.8	-30.8	-.6
6	0	10	85.8	84.7	-84.7	-2.6
6	0	-10	184.2	187.0	-186.9	-7.6
8	0	10	146.9	146.5	-146.3	-7.6
8	0	-10	162.4	160.8	160.5	9.4
10	0	10	144.2	146.0	145.6	11.1
10	0	-10	173.9	174.1	-173.9	-9.2
12	0	10	232.8	238.4	-237.9	-14.8
12	0	-10	37.3	32.8	32.8	1.1
14	0	10	98.5	104.2	103.9	7.9
14	0	-10	102.5	111.3	111.0	7.8
16	0	10	46.5	47.3	47.3	2.1
16	0	-10	298.5	305.4	-304.9	-18.5
18	0	10	197.8	203.4	-203.0	-13.4
18	0	-10	211.8	222.2	221.6	16.1
20	0	10	164.2	173.5	172.8	15.5
20	0	-10	128.9	128.9	-128.5	-10.3
22	0	10	192.1	200.9	-200.4	-14.8
22	0	-10*	28.4	36.3	-36.2	-3.2
24	0	-10	172.9	169.9	169.4	13.6
26	0	-10	258.7	258.8	-258.1	-19.0
1	1	10	276.4	277.0	276.4	18.5
1	1	-10	181.9	178.9	-178.5	-11.7
3	1	10	292.2	296.4	-295.9	-16.9
3	1	-10	58.2	54.1	54.1	1.1
5	1	10	136.6	136.9	136.7	7.5
5	1	-10	216.9	219.1	218.7	12.8
7	1	10	99.7	98.6	98.5	4.8
7	1	-10	262.7	268.2	-267.6	-16.9
9	1	10	147.1	152.7	-152.3	-10.2
9	1	-10	229.8	234.8	234.4	14.5
11	1	10	206.4	207.3	206.9	12.7
11	1	-10	131.1	129.1	-129.0	-6.5
13	1	10	132.6	134.9	-134.7	-7.5
13	1	-10	57.2	60.7	-60.7	-2.8
15	1	10*	13.2	1.0	.0	1.0
15	1	-10	174.7	179.9	179.7	9.0
17	1	10	36.9	34.0	33.9	2.4
17	1	-10	82.8	85.2	-85.0	-6.6
19	1	10*	18.5	11.9	11.8	-1.6
19	1	-10	75.1	75.2	75.1	4.5
21	1	10	45.8	40.4	40.4	1.1
21	1	-10	28.4	22.4	-22.4	-.8
23	1	-10*	8.5	.9	.9	.2
25	1	-10	55.0	53.7	-53.6	-2.9
0	2	10	71.6	72.4	72.4	2.6
2	2	10	37.3	36.3	36.3	-1.8
2	2	-10*	9.5	8.6	8.6	-.6

4	2	10	77.7	76.6	76.4	4.2
4	2	-10	27.5	21.3	21.2	2.6
6	2	10*	4.6	5.4	-5.3	.8
6	2	-10	98.1	100.4	-100.3	-5.9
8	2	10	141.1	141.5	-141.3	-6.5
8	2	-10	123.7	127.4	127.0	9.4
10	2	10	161.3	164.2	163.8	11.4
10	2	-10	71.2	68.9	-68.7	-5.3
12	2	10	157.2	161.8	-161.4	-11.1
12	2	-10	40.8	33.5	33.5	1.1
14	2	10	151.7	149.8	149.6	7.8
14	2	-10	153.2	157.9	157.7	9.1
16	2	10	93.8	94.3	94.2	3.8
16	2	-10	225.5	232.9	-232.4	-15.0
18	2	10	125.6	133.2	-132.8	-10.6
18	2	-10	227.2	234.4	233.9	15.2
20	2	10	172.2	179.1	178.5	14.8
20	2	-10	80.7	82.2	-81.8	-7.4
22	2	-10*	22.1	9.5	-9.4	-1.5
24	2	-10	176.2	178.7	178.2	13.1
1	3	10	185.1	189.3	188.9	12.7
1	3	-10	148.6	149.0	-148.7	-10.0
3	3	10	241.1	246.3	-245.9	-14.4
3	3	-10*	20.6	10.7	10.7	.3
5	3	10	92.6	98.3	98.1	6.0
5	3	-10	121.6	122.9	122.6	7.8
7	3	10*	21.8	14.4	14.4	.6
7	3	-10	241.5	244.9	-244.5	-13.8
9	3	10	104.4	102.6	-102.3	-7.3
9	3	-10	131.8	135.2	134.8	10.7
11	3	10	87.4	89.7	89.3	8.5
11	3	-10	172.5	172.8	-172.6	-8.5
13	3	10	131.0	134.7	-134.4	-8.6
13	3	-10*	13.0	6.7	-6.7	-.4
15	3	10*	14.8	10.7	-10.4	2.5
15	3	-10	63.3	61.1	60.9	4.0
17	3	10	37.6	33.1	-33.0	-2.0
17	3	-10	36.2	41.7	-41.2	-6.1
19	3	-10	57.3	52.5	52.3	4.8
21	3	-10	74.5	76.0	-75.8	-5.1
23	3	-10*	21.3	6.4	-6.1	2.0
0	4	10	63.1	65.2	65.1	4.2
2	4	10*	14.5	14.3	14.3	-.9
2	4	-10	106.1	109.6	-109.4	-6.0
4	4	10*	20.7	19.0	-19.0	-1.0
4	4	-10	76.4	75.9	75.7	6.0
6	4	10	51.6	58.0	57.8	4.6
6	4	-10	85.1	85.5	-85.2	-6.7
8	4	10	125.2	122.7	-122.4	-8.0
8	4	-10	71.6	72.4	72.2	5.0
10	4	10	92.7	98.1	97.8	7.9
10	4	-10*	13.8	16.6	16.6	-.5
12	4	10	84.8	85.5	-85.2	-6.4
12	4	-10	26.0	26.1	-25.9	-3.2
14	4	10	62.2	62.1	62.0	2.9
14	4	-10	92.6	92.4	92.1	7.8
16	4	-10	170.9	176.5	-176.1	-10.8
18	4	-10	105.9	112.6	112.2	8.6
20	4	-10	48.7	50.5	-50.3	-4.3
1	5	10	100.6	100.8	100.6	7.4
1	5	-10	49.0	43.7	-43.5	-4.0
3	5	10	103.5	104.8	-104.6	-7.4
3	5	-10	51.8	52.1	52.0	2.5
5	5	10	91.6	94.2	93.9	6.7
5	5	-10	69.4	69.1	69.0	3.9
7	5	10*	8.1	8.1	7.8	-1.9

7	5	-10	71.2	71.0	-70.8	-5.4
9	5	10*	18.3	11.2	11.2	.2
9	5	-10	94.6	95.6	95.3	8.4
11	5	-10	95.7	99.9	-99.6	-7.6
13	5	-10	71.7	74.4	74.2	5.9
1	1	11	72.8	73.9	-73.8	-3.8
1	1	-11*	14.6	8.4	-8.3	-1.4
3	1	11*	17.1	1.4	1.1	.8
3	1	-11	37.5	35.5	35.5	.9
5	1	11*	13.3	7.6	7.6	-.1
5	1	-11	68.1	66.1	66.0	3.0
7	1	11	80.0	77.2	-77.1	-3.7
7	1	-11*	1.4	8.9	-8.7	-1.8
9	1	11	43.8	46.7	46.6	2.4
9	1	-11*	18.4	16.8	16.6	2.3
11	1	11	48.8	49.5	-49.5	-2.3
11	1	-11	32.2	39.3	39.3	1.7
13	1	11	20.8	17.6	-17.5	-1.7
13	1	-11	54.0	55.5	-55.5	-2.0
15	1	11*	5.1	2.1	.4	2.0
15	1	-11	71.6	70.9	70.8	3.6
17	1	11	40.7	39.6	-39.4	-3.8
17	1	-11*	17.9	3.2	-3.2	-.2
19	1	-11	32.2	35.5	35.5	-.5
21	1	-11	51.8	48.7	48.5	3.9
23	1	-11*	23.9	7.6	7.3	-2.0
0	2	11	35.8	33.8	33.6	3.5
2	2	11	62.6	62.2	62.1	2.6
2	2	-11	61.5	57.3	57.0	5.8
4	2	11	63.3	63.6	-63.4	-4.6
4	2	-11	84.1	84.4	-84.2	-6.5
6	2	11	127.0	123.4	123.3	6.2
6	2	-11*	11.6	11.5	-11.5	1.0
8	2	11	29.7	33.2	-33.1	-1.4
8	2	-11	41.1	34.9	34.8	2.6
10	2	11*	5.2	7.8	-7.6	-1.7
10	2	-11	120.9	124.2	-124.0	-7.2
12	2	11	49.7	53.2	52.9	5.1
12	2	-11	100.4	101.2	101.1	5.2
14	2	11	49.5	48.6	-48.5	-3.3
14	2	-11	40.6	43.0	-42.9	-2.0
16	2	11	24.9	20.2	20.2	1.1
16	2	-11	44.4	47.7	-47.6	-3.8
18	2	-11	58.1	60.4	60.1	5.0
20	2	-11	98.5	91.2	-91.1	-5.2
22	2	-11*	8.6	19.1	-19.1	-.2
1	3	11	103.4	103.5	-103.2	-6.8
1	3	-11	112.9	109.3	-109.2	-6.0
3	3	11	56.4	54.6	54.4	4.3
3	3	-11	27.5	25.8	-25.8	-.3
5	3	11*	12.8	12.5	12.3	2.0
5	3	-11	75.8	74.4	74.2	4.9
7	3	11	112.3	113.8	-113.5	-6.9
7	3	-11	101.6	100.6	-100.4	-6.8
9	3	11	113.8	119.7	119.4	8.2
9	3	-11	53.4	51.1	50.9	3.4
11	3	11*	17.4	14.2	-13.9	-3.3
11	3	-11*	21.1	26.5	26.4	1.8
13	3	11*	17.7	11.4	-11.2	-2.0
13	3	-11	112.1	107.4	-107.2	-7.2
15	3	11	116.8	115.2	115.0	7.6
15	3	-11	75.3	72.2	71.9	6.4
17	3	-11	34.9	28.6	-28.5	-2.6
19	3	-11	52.8	52.0	-51.9	-3.9
0	4	11	48.6	45.3	45.2	3.8
2	4	-11*	20.8	18.5	-18.4	1.7

2	4	-11	192.6	195.6	195.3	11.0
4	4	11	102.4	102.8	-102.4	-8.6
4	4	-11	139.8	131.2	-130.9	-8.4
6	4	11	92.1	90.8	90.5	7.5
6	4	-11	54.7	58.8	58.7	3.5
8	4	11	36.5	33.7	-33.4	-3.9
8	4	-11	39.5	45.2	44.8	5.5
10	4	11	68.1	69.5	-69.4	-4.0
10	4	-11	110.4	105.7	-105.3	-9.1
12	4	-11	138.9	137.7	137.4	9.7
14	4	-11*	14.0	12.6	12.5	-1.5
16	4	-11	44.0	42.0	-41.8	-3.8
1	5	-11	106.8	104.6	-104.4	-6.7
3	5	-11*	1.4	8.4	-8.4	-.0
5	5	-11	75.9	75.6	75.4	5.1
0	0	12	79.2	76.3	76.0	7.2
2	0	12	144.8	143.4	143.2	7.4
2	0	-12	255.9	251.7	-251.2	-15.5
4	0	12	199.2	196.1	-195.7	-13.0
4	0	-12	260.3	262.3	261.6	18.2
6	0	12	263.0	262.5	262.0	16.4
6	0	-12	116.8	116.8	-116.3	-11.0
8	0	12	126.4	125.0	-124.7	-9.3
8	0	-12	52.7	51.2	51.2	2.3
10	0	12	40.5	41.0	41.0	1.1
10	0	-12	207.4	206.5	206.2	10.3
12	0	12	92.3	97.9	97.7	6.7
12	0	-12	157.6	153.7	-153.2	-11.5
14	0	12	54.8	53.4	-53.0	-6.3
14	0	-12	129.4	129.0	128.5	10.5
16	0	-12	98.3	91.9	-91.8	-3.8
18	0	-12	31.3	2.5	-2.3	-.9
20	0	-12	69.3	72.6	72.5	4.0
1	1	12	27.9	27.2	-27.2	-1.0
1	1	-12	19.4	15.0	15.0	.0
3	1	12	99.9	97.0	-96.9	-3.9
3	1	-12	66.3	65.5	65.5	2.9
5	1	12	71.0	70.2	70.0	6.3
5	1	-12	44.2	47.1	-46.9	-4.5
7	1	12	122.5	116.3	-116.0	-8.4
7	1	-12	24.9	30.7	30.6	2.7
9	1	12	85.2	85.3	85.2	5.2
9	1	-12*	1.4	3.5	3.1	1.5
11	1	12	28.5	36.7	36.6	2.7
11	1	-12	173.8	176.9	-176.6	-10.5
13	1	12	136.5	140.9	-140.5	-11.2
13	1	-12	183.1	186.6	186.1	13.4
15	1	12	156.7	160.7	160.2	13.5
15	1	-12	143.8	149.6	-149.2	-11.2
17	1	-12	59.4	59.9	59.9	3.0
19	1	-12	91.5	86.6	86.3	7.9
21	1	-12	238.5	240.9	-240.4	-16.8
0	2	12	76.2	77.1	77.0	5.2
2	2	12	72.2	75.2	75.1	4.7
2	2	-12	252.3	252.9	-252.5	-14.9
4	2	12	157.0	157.3	-156.8	-12.2
4	2	-12	209.6	205.1	204.6	14.6
6	2	12	162.0	157.2	156.7	12.9
6	2	-12	178.0	177.2	-176.8	-11.6
8	2	12	155.8	157.2	-156.8	-10.2
8	2	-12	35.3	36.9	36.9	1.6
10	2	12*	1.4	16.0	-16.0	.7
10	2	-12	111.1	103.9	103.7	6.7
12	2	12	48.3	44.4	44.3	3.5
12	2	-12	146.2	144.6	-144.1	-11.0
14	2	-12	87.5	84.1	83.7	8.4

16	2	-12	114.1	113.6	-113.4	-6.0
18	2	-12*	5.9	21.2	-21.2	-.5
1	3	12	30.2	34.5	34.3	3.5
1	3	-12*	15.8	1.6	-.6	-1.4
3	3	12	81.5	78.7	-78.6	-4.5
3	3	-12	83.5	83.5	83.4	3.9
5	3	12	84.0	87.0	86.8	6.5
5	3	-12*	1.4	4.6	-4.6	-.7
7	3	12	17.1	32.4	-32.1	-4.1
7	3	-12	27.8	14.6	14.6	.2
9	3	12	56.8	57.0	56.9	2.9
9	3	-12	51.5	57.2	57.0	4.8
11	3	-12	118.5	116.4	-116.1	-8.3
13	3	-12	152.9	150.5	150.1	10.9
15	3	-12	35.6	36.8	-36.3	-6.0
0	4	12	53.3	47.8	47.6	4.0
2	4	12	30.9	32.5	32.4	2.3
2	4	-12	132.8	132.7	-132.3	-9.1
4	4	12	68.0	70.2	-69.9	-6.3
4	4	-12	126.5	127.4	127.0	9.7
6	4	-12	100.9	103.7	-103.4	-8.3
8	4	-12	80.8	78.5	78.4	3.9
10	4	-12	43.0	44.1	44.1	2.4
1	1	13	64.1	65.3	65.1	4.0
1	1	-13	24.9	23.6	23.5	1.7
3	1	13*	18.7	13.2	-13.1	-1.1
3	1	-13	26.4	22.1	-22.0	-1.1
5	1	13*	20.4	7.8	7.8	.2
5	1	-13	54.6	54.6	-54.6	-2.9
7	1	13	49.9	49.2	49.1	3.0
7	1	-13	30.2	29.4	29.2	2.6
9	1	13*	1.4	11.3	-11.1	-1.7
9	1	-13	57.9	58.8	-58.7	-3.3
11	1	-13*	20.4	20.9	-20.9	-.5
13	1	-13	22.4	6.9	6.8	1.2
15	1	-13	46.0	47.4	-47.2	-3.8
17	1	-13*	17.1	10.0	9.9	1.4
0	2	13	26.3	25.3	-25.3	-1.0
2	2	13	50.4	49.3	-49.1	-4.2
2	2	-13	28.6	19.8	-19.6	-3.0
4	2	13	64.0	66.2	66.1	4.7
4	2	-13	87.6	87.3	87.2	5.2
6	2	13	42.5	42.3	-42.1	-3.9
6	2	-13	24.7	18.3	-18.2	-1.7
8	2	13*	12.2	8.4	-8.3	-1.1
8	2	-13*	5.8	3.8	-3.6	-1.3
10	2	-13	66.6	66.5	66.3	5.2
12	2	-13	50.1	50.3	-50.1	-3.7
14	2	-13	30.2	29.4	29.3	1.7
1	3	13	117.1	113.0	112.7	7.8
1	3	-13	78.7	76.0	75.7	6.5
3	3	13	75.1	75.7	-75.5	-5.0
3	3	-13*	17.9	19.0	-19.0	-.7
5	3	-13	74.5	72.2	-72.0	-5.0
7	3	-13	135.7	134.6	134.3	9.0
9	3	-13	67.8	64.2	-63.9	-6.2
0	0	14	37.1	38.5	-38.5	.2
2	0	14	39.9	35.0	-34.8	-3.8
2	0	-14*	20.6	14.9	-14.9	.0
4	0	14	40.9	37.0	36.9	2.6
4	0	-14	75.5	77.1	-77.1	-2.5
6	0	-14	31.8	34.1	-33.9	-3.5
8	0	-14	101.3	102.5	102.2	7.2
10	0	-14	87.2	95.2	-94.7	-9.7
1	1	14	196.4	202.8	202.2	15.5
1	1	-14	148.1	153.4	-152.8	-13.5

3	1	-14	120.8	116.8	116.6	7.2
5	1	-14	64.1	66.4	66.2	4.9

I RIFLESSI ASTERISCATI SONO 236

AGREEMENT FACTORS BASED ON PARAMETERS BEFORE C

SUM(W*(O-C)**2) IS .118E 05

SQRTF(SUM(W*(O-C)**2)/(NO-NV)) IS 2.4588

R FACTOR INCLUDING ZEROS

R FACTOR OMITTING ZEROS

WEIGHTED R FACTOR INCLUDING ZEROS

WEIGHTED R FACTOR OMITTING ZEROS

NUOVO FATTORE SCALA .556185

STATISTICHE SU WEIGHTED R

R RISCALATI

DDP	DPD	DPP	PDD	PDP	PPD	PPP	DD
.036	.000	.000	.000	.000	.034	.034	.03
466	0	0	0	0	365	556	42

GR1	GR2	GR3	GR4	ALL
.035	.000	.000	.000	.035
1808	0	0	0	1808

R PER	INTERVALLI	SENTETA/LAMBDA	PASSO	.1000
.026	.055	.030	.027	.029
3	38	107	207	329
				470
				630
				780

R PER	INTERVALLI	FO	PASSO	20
.568	.180	.086	.054	.040
14	217	250	261	222
				169
				163
				12

R PER	ZONE
OKL	.028
	44
HOL	.040
	184
HK0	.025
	100

STOP 0
 JOB STEP 02 TERMINATED AT 16*42*17* AFTER 001
 . CORE USED 0060 DISC USED 0010

 TIME TIME*CORE CORE-USE TI
 11.54 715.77 94% 1

DS	DS	SHR	SHR
I/O-BYTES	I/O-CALLS	I/O-BYTES	I/O-CALLS
843360	766	00	00
SMALIJOB TERMINATED PER2.ANIS.2 U021 16*42*1			