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The crystal structure of harkerite

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Abstract

The lattice parameters of harkerite from Skye (Scotland) are: a = 18.131 A, α = 33.46°, space group $R\bar{3}m$, twin plane (211). The crystal structure has been solved by Patterson, Fourier, and difference syntheses, then refined by least-squares procedures to a conventional R = 0.067 for the 1175 reflections with $F_0^2 > 3\ \sigma(F_0^2)$; R = 0.147 for all 2695 measured reflections.

The crystal structure of harkerite is comparable with that of sakhaite. The idealized cell contents derived from the structural studies are:

harkerite $Ca_{24}Mg_8[AlSi_4(O,OH)_{16}]_2\ (BO_3)_8(CO_3)_8(H_2O,Cl)$

sakhaite $2\{Ca_{24}Mg_8[(BO_3)_8\ \langle BO_3\rangle_8](CO_3)_8(H_2O)\}$,

the main difference between the structures being the replacement of the aluminosilicate group in harkerite (similar to the tetrahedral pentamer found in zunyite) by $4(BO_3)$ in sakhaite. Both minerals show a very marked pseudo-symmetry in the cubic space group $Fd3m$ (a = 14.7 A).

The crystal structure is based on an arrangement of oxygen and calcium atoms in an incomplete cubic closest packing, with Mg in octahedral sites, Si and Al in tetrahedral sites, and B or C in triangular holes. The Ca-coordination ranges from 8 to 10. Two carbonate groups are statistically placed on one of two inversion-related orientations. Some structural disorder follows from the mutual replacement among aluminosilicate, borate, or possibly other atomic groups (CO_3, OH, H_2O). Such substitutions would be also responsible for some discrepancies between the idealized and actual chemical composition of harkerite. The different ordering of the replacing groups accounts for possible harkerite polymorphs in the cubic pseudo-cell.

Introduction

Harkerite from skarn deposit in Skye (Scotland) was discovered and described by Tilley (1951); it is associated very intimately with calcite, which is a product of its alteration. Among various data, Tilley reports the density (2.959 at 20°C), the Laue symmetry ($m3m$), the lattice parameter (a = 29.53 A, with a marked pseudo-repeat distance $a/2$ = 14.76 A), and the chemical analysis, from which the following atomic content of the cubic pseudo-cell (a = 14.76 A) was derived: $20\ CaCO_3 \cdot Ca_{28}(Mg_{15.5},Al_3,Fe^3_{0.5},Fe^2_{0.5})(B_{11},Si_{13})(O,OH,Cl)_{96}$. The complex crystal chemistry was considered tentative by Tilley, who wrote: "a further chemical analysis of selected material is much to be desired."

Pertsev (1961) found at Tas-Haiatah (Polar Yakutia-Siberia) a mineral which was first regarded as harkerite, and later assigned to the new species sakhaite: $Ca_{48}Mg_{16}(BO_3)_{28}(CO_3)_{16}(OH)_8Cl_4 \cdot 4H_2O$ (Ostrovskaya *et al.*, 1966). According to the latter authors, harkerite and sakhaite are very similar in their structural properties; *i.e.*, they have the same Laue symmetry, and the lattice parameter of sakhaite is equal to the pseudo-repeat distance of harkerite. Some differences are shown in the optical properties, sakhaite being isotropic and harkerite often anisotropic and zoned. They made a new chemical analysis on harkerite from Skye and obtained the pseudo-cell content:

$Ca_{48}Mg_{16}Al_3(SiO_4)_{12}(BO_3)_{15}(CO_3)_{18}(OH)_6Cl_2 \cdot 3H_2O$.

Further crystal-chemical studies on harkerite and its relations with sakhaite were carried out by Ostrovskaya (1969) and Davies and Machin (1970).

H	K	L	/FO/	/FC/
2	0	0	32.2	32.7
3	0	0	23.0	20.4
4	0	0	43.2	33.5
5	0	0*	7.6	-8.1
6	0	0*	1.6	-0.1
7	0	0*	5.8	0.8
8	0	0	134.7	-135.1
9	0	0	11.4	10.6
10	0	0*	7.6	6.0
11	0	0	17.0	-16.4
12	0	0*	4.4	-0.9
13	0	0*	5.8	2.1
14	0	0*	11.4	17.2
2	1	0	8.2	-11.2
3	1	0*	6.4	6.3
4	1	0	13.2	-18.0
5	1	0	52.5	-50.8
6	1	0	10.0	12.3
7	1	0	28.2	24.0
8	1	0*	6.4	1.7
9	1	0	16.7	-18.6
10	1	0*	8.1	-5.0
11	1	0*	9.4	-10.1
12	1	0*	4.2	-0.5
13	1	0*	13.2	12.1
14	1	0*	3.8	-5.7
3	2	0	57.6	-64.7
4	2	0	16.7	-13.9
5	2	0	18.0	-20.8
6	2	0	110.7	-106.6
7	2	0	17.8	16.9
8	2	0	17.6	-19.9
9	2	0*	6.9	-6.4
10	2	0	36.4	40.1
11	2	0*	6.6	-1.4
12	2	0	23.7	21.1
13	2	0	38.1	37.4
14	2	0	82.3	88.8
15	2	0*	10.8	-8.5
3	3	0	64.6	58.5
4	3	0	30.9	34.1
5	3	0	91.9	86.5
6	3	0	10.6	-10.1
7	3	0	48.0	-48.9
8	3	0	16.4	-18.0
9	3	0*	8.9	-6.6
10	3	0*	8.1	6.9
11	3	0	21.2	-19.8
12	3	0*	2.8	-3.9
13	3	0*	10.9	-12.9
14	3	0*	10.8	0.8
15	3	0	18.4	-20.2
4	4	0	422.7	-406.1
5	4	0*	6.3	6.9
6	4	0	11.5	7.0
7	4	0	27.8	-31.7
8	4	0*	4.4	-9.3
9	4	0*	4.0	-3.2
10	4	0	39.3	39.7
11	4	0	32.2	35.9
12	4	0	148.6	151.8
13	4	0	14.1	-11.1
14	4	0	13.2	6.6
15	4	0*	12.0	-7.1
5	5	0	89.3	-87.8
6	5	0*	5.2	-3.7
7	5	0*	2.8	-4.1
8	5	0*	9.2	-7.9
9	5	0	32.7	33.3
10	5	0*	2.7	2.0
11	5	0	22.7	-23.1
12	5	0*	5.5	5.5
13	5	0*	11.2	-12.8
14	5	0*	6.8	4.3
15	5	0*	6.3	0.6
6	6	0	48.7	43.9
7	6	0*	4.6	6.8
8	6	0	36.1	37.8
9	6	0	41.9	44.1
10	6	0	188.8	185.0
11	6	0*	12.0	-12.7
12	6	0	24.6	21.1
13	6	0*	6.0	-8.5
14	6	0*	11.1	-8.8
15	6	0*	6.4	-4.5
16	6	0	19.0	14.6
7	7	0	27.4	-25.4
8	7	0	19.0	19.6
9	7	0	53.2	-52.0
10	7	0*	7.2	11.0
11	7	0	36.5	-38.9
12	7	0*	11.1	-5.4
13	7	0*	7.6	9.9
14	7	0*	10.4	-5.1
15	7	0*	6.2	1.9
16	7	0*	4.2	-3.0
8	8	0	271.0	269.8
9	8	0	11.5	-10.5
10	8	0	24.9	25.4
11	8	0*	4.5	-3.4
12	8	0	15.0	17.6
13	8	0*	7.4	2.6
14	8	0*	9.5	9.4
15	8	0*	0.	-6.8
16	8	0	26.4	-30.2
9	9	0*	4.2	-5.2
10	9	0*	4.6	-1.1
11	9	0*	8.0	5.2
12	9	0*	7.1	-1.2
13	9	0*	13.3	-10.3
14	9	0*	6.7	-2.0
15	9	0*	2.5	4.9
16	9	0*	2.9	5.7
10	10	0*	7.5	-8.1
11	10	0*	5.4	-6.2
12	10	0*	11.9	9.9
13	10	0*	10.3	-9.1
14	10	0	30.0	-32.0
15	10	0*	7.2	4.8
11	11	0	17.9	17.5
12	11	0*	7.5	-6.1
13	11	0	18.1	15.8
14	11	0*	7.0	4.4
15	11	0*	9.9	-6.1
12	12	0	55.9	-57.2
13	12	0*	9.3	8.6
14	12	0*	11.1	7.0
15	12	0*	9.3	-9.4
13	13	0	30.5	-26.3
14	13	0*	9.8	-7.3
1	0	-1	109.0	-105.7
2	0	-1	51.9	60.3
3	0	-1	19.9	17.6
4	0	-1	11.4	-12.5
5	0	-1	18.9	-16.4
6	0	-1	21.4	-24.2
7	0	-1	14.4	17.6
8	0	-1	11.9	11.0
9	0	-1	25.2	27.6
10	0	-1*	5.5	0.4
11	0	-1	24.4	-24.3
12	0	-1*	0.9	-4.8
13	0	-1*	7.2	0.7
1	1	-1*	3.2	-5.9
2	1	-1	76.9	71.7
3	1	1	9.5	14.0
3	1	-1	9.5	13.3
4	1	1	78.8	-71.5
4	1	-1*	3.9	-2.5
5	1	1*	6.8	-8.6

H	K	L	/FO/	/FC/
5	1	-1*	4.4	-0.9
6	1	1	117.4	115.9
6	1	-1	47.5	-51.5
7	1	1	12.9	-13.2
7	1	-1	22.7	-21.6
8	1	1	41.3	43.2
8	1	-1	72.6	68.3
9	1	1	19.3	18.3
9	1	-1*	4.4	5.0
10	1	1*	6.2	-0.5
10	1	-1	26.1	-25.3
11	1	1	17.6	14.7
11	1	-1*	7.3	0.9
12	1	1	18.0	-14.2
12	1	-1*	9.9	6.7
13	1	1*	9.6	-9.0
13	1	-1*	4.9	1.1
14	1	1	44.6	-44.5
14	1	-1	15.6	-17.8
15	1	1*	6.9	4.9
2	2	-1	40.9	-51.1
3	2	1	28.7	-27.1
3	2	-1	53.7	-55.4
4	2	1*	4.4	-1.0
4	2	-1*	3.7	2.0
5	2	1	86.4	85.2
5	2	-1	81.5	-82.6
6	2	1	9.2	-5.7
6	2	-1	14.8	13.9
7	2	1	32.4	-35.3
7	2	-1	76.1	71.2
8	2	1*	7.5	-2.8
8	2	-1*	5.8	-7.0
9	2	1*	10.5	4.6
9	2	-1	42.6	-45.7
10	2	1	11.9	-12.9
10	2	-1*	8.2	-4.6
11	2	1*	5.4	0.6
11	2	-1*	6.8	-11.0
12	2	1	13.8	-5.2
12	2	-1*	12.2	-10.2
13	2	1*	4.9	-1.3
13	2	-1*	7.8	3.9
14	2	1	17.1	17.6
14	2	-1*	6.5	-5.6
15	2	1	22.4	-22.9
3	3	1	42.7	-49.4
3	3	-1	8.8	-11.0
4	3	1	74.7	74.8
4	3	-1	20.7	-26.0
5	3	1*	5.7	-5.9
5	3	-1	30.6	-32.8
6	3	1	58.3	-59.0
6	3	-1	42.8	37.2
7	3	1	11.8	18.8
7	3	-1	10.5	-11.2
8	3	1*	6.1	6.4
8	3	-1	25.0	-25.5
9	3	1	24.0	26.6
9	3	-1*	6.6	-1.6
10	3	1	36.8	-37.7
10	3	-1*	5.2	4.4
11	3	1*	6.7	-7.8
11	3	-1*	6.1	3.7
12	3	1	50.3	-48.7
12	3	-1*	12.2	-7.7
13	3	1*	5.7	3.6
13	3	-1*	7.4	-1.8
14	3	1	14.6	11.4
14	3	-1	32.4	-34.0
15	3	1*	11.1	-1.6
16	3	1*	3.8	-0.8
4	4	1	20.0	24.1
4	4	-1*	0.	-2.7
5	4	1	53.7	50.7
5	4	-1	94.0	89.4
6	4	1	23.4	-28.0
6	4	-1*	7.4	5.6
7	4	1	20.5	-20.5
7	4	-1	65.8	-65.9
8	4	1*	9.9	-17.9
8	4	-1*	7.6	-6.4
9	4	1	19.0	21.7
9	4	-1*	6.5	1.3
10	4	1*	8.7	-15.1
10	4	-1	23.8	-24.5
11	4	1*	9.0	0.8
11	4	-1	24.9	-26.3
12	4	1	37.9	38.5
12	4	-1	15.1	-15.8
13	4	1	27.8	-26.5
13	4	-1	14.8	10.4
14	4	1*	7.5	-2.3
14	4	-1	20.0	15.9
15	4	1*	10.9	6.6
15	4	-1*	10.7	-14.5
16	4	1*	7.5	-4.6
5	5	1	48.2	53.5
5	5	-1	10.2	8.3
6	5	1*	5.4	-1.1
6	5	-1	48.8	-47.1
7	5	1	20.5	19.5
7	5	-1	12.1	12.9
8	5	1*	5.0	-5.3
8	5	-1*	8.9	9.2
9	5	1*	5.6	1.8
9	5	-1	12.6	12.6
10	5	1	79.1	-77.0
10	5	-1*	7.3	-12.6
11	5	1*	6.6	-6.8
11	5	-1*	10.1	7.8
12	5	1	17.6	-20.1
12	5	-1	45.9	-46.0
13	5	1*	5.7	-8.6
13	5	-1*	6.3	-2.5
14	5	1*	7.2	-1.3
14	5	-1*	14.8	13.2
15	5	1*	5.9	-5.6
15	5	-1*	3.8	-3.0
16	5	1*	14.0	-16.8
6	6	1	12.4	10.9
6	6	-1	27.3	-30.9
7	6	1	38.0	-38.0
7	6	-1*	7.0	-1.9
8	6	1	20.6	-23.8
8	6	-1	20.4	-25.1
9	6	1	17.9	-15.7
9	6	-1*	6.1	2.4
10	6	1	50.0	51.6
10	6	-1	21.1	-21.9
11	6	1	25.1	-24.9
11	6	-1*	4.4	-7.1
12	6	1*	5.1	-0.9
12	6	-1	35.1	33.0
13	6	1*	5.0	-9.6
13	6	-1*	8.3	-7.2
14	6	1*	0.	-4.5
14	6	-1*	0.	1.9
15	6	1*	11.2	-7.5
15	6	-1*	8.4	7.6
16	6	1*	6.1	8.3
7	7	1*	7.6	-6.6
7	7	-1	15.4	15.4
8	7	1	48.1	-43.9
8	7	-1	27.0	-25.5
9	7	1*	5.4	-5.6
9	7	-1*	10.5	6.5
10	7	1*	10.5	14.5
10	7	-1	30.8	-32.7
11	7	1*	3.7	-5.2

H	K	L	/FO/	/FC/
11	7	-1*	10.5	-11.1
12	7	1*	7.4	2.9
12	7	-1*	8.7	6.1
13	7	1*	6.5	-5.6
13	7	-1*	9.3	1.1
14	7	1*	7.6	-5.7
14	7	-1*	10.1	-2.1
15	7	1*	6.7	5.0
15	7	-1*	6.8	-0.6
16	7	1	31.6	31.8
8	8	1	64.8	71.4
8	8	-1	14.0	-16.1
9	8	1	46.8	-48.5
9	8	-1	15.6	-15.2
10	8	1*	8.8	-6.6
10	8	-1	38.5	37.0
11	8	1*	5.5	-3.7
11	8	-1*	0.	1.7
12	8	1*	12.7	-15.1
12	8	-1*	2.6	1.0
13	8	1	27.6	-26.8
13	8	-1*	4.0	-6.6
14	8	1*	14.9	13.4
14	8	-1*	7.0	4.1
15	8	1*	7.6	4.3
15	8	-1*	9.4	0.4
16	8	1	16.1	-16.2
9	9	1*	9.4	-9.2
9	9	-1*	5.1	-5.7
10	9	1*	7.9	2.8
10	9	-1*	4.9	-0.5
11	9	1*	5.7	-3.7
11	9	-1*	5.0	-1.7
12	9	1	33.0	-32.4
12	9	-1*	4.2	1.3
13	9	1*	6.7	-3.9
13	9	-1*	6.7	-0.7
14	9	1	33.9	31.2
14	9	-1*	12.2	-7.0
15	9	1*	6.0	-1.4
15	9	-1*	0.	1.5
16	9	1*	5.6	-0.4
10	10	1*	7.9	-8.9
10	10	-1*	5.0	4.2
11	10	1*	2.2	-9.2
11	10	-1*	7.5	1.6
12	10	1	16.3	19.7
12	10	-1*	8.8	1.5
13	10	1	18.0	19.2
13	10	-1	17.1	-17.8
14	10	1*	13.4	-12.7
14	10	-1*	12.3	17.3
15	10	1*	11.7	-12.2
16	10	1*	0.	-5.4
11	11	1*	7.4	-7.1
11	11	-1*	10.2	-1.1
12	11	1	21.6	22.5
12	11	-1*	5.8	-6.1
13	11	1*	6.8	-1.9
13	11	-1*	9.1	-1.5
14	11	1	15.8	-19.7
14	11	-1	15.7	16.2
15	11	1*	3.8	2.5
16	11	1*	2.8	-2.5
12	12	1	23.4	-25.9
12	12	-1*	14.4	16.8
13	12	1*	6.9	-9.9
13	12	-1*	13.7	14.8
14	12	1*	8.1	-10.1
15	12	1*	13.1	-8.5
16	12	1*	8.0	-4.3
13	13	1*	9.1	4.8
14	13	1*	4.9	5.5
15	13	1*	10.7	8.5
14	14	1*	10.5	-8.1
15	14	1*	11.3	-15.8
2	0	-2	405.6	435.2
3	0	-2	12.1	-16.3
4	0	-2	83.2	86.2
5	0	-2	27.7	-29.1
6	0	-2*	7.5	-5.6
7	0	-2	14.9	-13.8
8	0	-2	21.7	22.6
9	0	-2*	4.3	-1.8
10	0	-2	47.1	-48.8
11	0	-2*	13.1	10.6
12	0	-2*	6.0	4.5
13	0	-2*	7.7	-2.3
1	1	-2	69.5	-69.8
2	1	-2*	3.7	-3.2
3	1	-2	71.8	-70.3
4	1	-2*	3.9	-3.1
5	1	-2*	8.5	2.7
6	1	-2*	8.9	-10.2
7	1	-2	19.8	-19.8
8	1	-2*	2.8	3.0
9	1	-2	22.7	23.7
10	1	-2	13.5	-12.5
11	1	-2*	4.9	-6.4
12	1	-2*	6.3	-2.0
13	1	-2*	10.1	-3.9
2	2	-2	45.6	-44.6
3	2	2	14.8	-12.6
3	2	-2	24.1	-28.2
4	2	2	36.2	-25.8
4	2	-2	36.1	26.8
5	2	2	52.5	56.8
5	2	-2	20.8	-20.6
6	2	2	88.1	83.9
6	2	-2	50.9	51.3
7	2	2*	7.1	-13.9
7	2	-2	25.9	-27.9
8	2	2*	7.3	-5.6
8	2	-2	47.9	-46.6
9	2	2	20.8	22.9
9	2	-2	17.0	15.6
10	2	2	22.9	23.4
10	2	-2	19.2	20.3
11	2	2	76.3	75.1
11	2	-2*	5.9	-2.5
12	2	2	138.0	136.0
12	2	-2	14.1	-11.1
13	2	2	15.4	-13.3
13	2	-2*	8.9	5.2
14	2	2*	3.2	5.5
15	2	2	16.4	-17.6
16	2	2	22.6	23.5
3	3	2	111.1	108.1
3	3	-2*	7.8	5.2
4	3	2	9.0	7.6
4	3	-2	25.7	-25.4
5	3	2	84.0	-81.7
5	3	-2	45.4	-46.3
6	3	2*	3.4	-3.6
6	3	-2	11.0	-9.8
7	3	2*	5.1	-7.2
7	3	-2	54.6	53.0
8	3	2	14.9	-18.1
8	3	-2*	5.1	9.1
9	3	2	39.1	41.2
9	3	-2	21.2	-22.7
10	3	2	10.3	4.8
10	3	-2*	9.4	-3.3
11	3	2	34.8	-33.9
11	3	-2*	9.1	-1.5
12	3	2	21.1	19.1
12	3	-2*	3.4	4.3
13	3	2	14.7	-12.3
13	3	-2	14.7	12.0
14	3	2*	0.	2.2

(3)

H	K	L	/FO/	/FC/
14	3	-2*	3.8	0.7
15	3	2*	5.6	3.4
16	3	2*	4.7	-1.6
4	4	2	75.8	-70.7
4	4	-2	39.3	39.6
5	4	2	11.9	9.2
5	4	-2*	3.8	9.7
6	4	2	37.2	23.2
6	4	-2	73.4	-69.0
7	4	2	11.0	11.0
7	4	-2	12.8	10.1
8	4	2	26.3	23.3
8	4	-2*	9.1	5.2
9	4	2	44.7	48.5
9	4	-2*	6.2	-2.4
10	4	2	237.1	235.8
10	4	-2	12.8	9.2
11	4	2	17.6	-17.8
11	4	-2*	5.2	3.7
12	4	2	26.6	26.5
12	4	-2	17.7	19.0
13	4	2	19.5	-16.7
13	4	-2	25.4	24.1
14	4	2*	6.8	-7.9
14	4	-2	66.0	74.0
15	4	2*	4.4	-3.5
16	4	2*	9.0	16.0
5	5	2	57.2	53.0
5	5	-2	50.9	48.7
6	5	2*	5.3	-11.8
6	5	-2*	9.6	11.0
7	5	2	16.8	22.4
7	5	-2	11.8	-11.0
8	5	2	35.7	36.2
8	5	-2*	5.9	-6.4
9	5	2	31.3	-28.1
9	5	-2*	5.0	-1.9
10	5	2	27.9	29.0
10	5	-2*	5.9	2.7
11	5	2	36.9	-39.2
11	5	-2	19.0	20.1
12	5	2*	6.0	-5.6
12	5	-2*	6.4	1.2
13	5	2*	3.0	3.2
13	5	-2	15.0	-17.3
14	5	2*	7.2	3.7
14	5	-2*	7.5	4.4
15	5	2*	7.6	-11.3
16	5	2*	5.4	-1.8
17	5	2*	6.7	7.4
6	6	2	15.7	15.3
6	6	-2	43.4	47.5
7	6	2	66.2	70.9
7	6	-2*	5.1	5.0
8	6	2	281.3	284.0
8	6	-2*	3.4	-0.7
9	6	2*	5.7	-5.5
9	6	-2*	12.3	11.2
10	6	2*	5.0	-8.4
10	6	-2	13.7	11.5
11	6	2	21.7	-20.4
11	6	-2	34.9	34.7
12	6	2	41.6	42.5
12	6	-2	98.0	99.7
13	6	2*	11.6	-11.9
13	6	-2*	6.2	-4.7
14	6	2	24.7	26.6
14	6	-2*	7.1	3.7
15	6	2	19.8	-17.5
16	6	2	30.5	-33.3
17	6	2*	9.2	6.5
7	7	2	94.0	-93.2
7	7	-2	11.3	0.5
8	7	2	10.6	-6.3
8	7	-2*	10.9	7.2
9	7	2	35.0	-34.8
9	7	-2	40.1	39.8
10	7	2	16.1	-15.9
10	7	-2	20.9	16.7
11	7	2*	4.7	1.1
11	7	-2	31.1	-32.6
12	7	2*	8.0	0.7
12	7	-2*	7.3	2.0
13	7	2	23.1	-22.6
13	7	-2	20.9	-21.1
14	7	2*	6.1	-8.4
14	7	-2*	7.8	0.3
15	7	2	15.1	16.5
16	7	2*	7.3	-1.8
17	7	2	17.1	-15.1
8	8	2	53.9	52.3
8	8	-2*	10.5	12.1
9	8	2	12.0	-9.5
9	8	-2	16.4	18.5
10	8	2	24.4	20.7
10	8	-2	113.9	116.0
11	8	2	14.1	-11.4
11	8	-2*	7.8	-5.5
12	8	2	26.6	27.0
12	8	-2*	6.3	9.5
13	8	2*	9.8	-5.9
13	8	-2	15.6	-13.4
14	8	2	47.4	-49.8
14	8	-2*	6.4	8.4
15	8	2*	10.3	4.8
16	8	2*	6.6	-3.6
17	8	2*	10.4	-5.3
9	9	2*	2.4	10.2
9	9	-2	23.8	-24.3
10	9	2*	0.	0.2
10	9	-2*	6.1	-0.5
11	9	2*	8.0	-4.5
11	9	-2	37.0	-38.5
12	9	2*	9.7	-6.9
12	9	-2*	3.8	-2.4
13	9	2*	8.5	9.0
13	9	-2*	7.3	8.4
14	9	2*	5.5	-1.1
15	9	2*	9.3	-9.1
16	9	2*	9.4	-2.7
17	9	2*	8.0	-1.1
10	10	2	31.1	32.6
10	10	-2*	13.2	13.0
11	10	2	16.7	-15.6
11	10	-2*	9.6	-10.8
12	10	2	47.4	-46.8
12	10	-2	14.8	16.9
13	10	2*	7.3	-0.4
13	10	-2*	8.3	0.6
14	10	2*	3.5	8.5
15	10	2*	1.0	-4.3
16	10	2*	7.5	-2.0
17	10	2*	10.5	4.3
11	11	2	18.0	19.3
11	11	-2*	0.2	-2.8
12	11	2*	5.5	5.3
12	11	-2*	6.7	-6.1
13	11	2	25.7	-23.0
14	11	2*	7.8	-5.5
15	11	2*	12.0	10.5
16	11	2*	7.9	4.2
17	11	2*	14.1	11.4
12	12	2*	8.1	6.1
12	12	-2*	10.2	10.2
13	12	2	14.0	-5.8
14	12	2*	8.6	9.4
15	12	2*	9.7	10.5
16	12	2*	7.8	4.8
17	12	2	22.0	18.7
13	13	2*	5.0	-4.2

(4)

H	K	L	/FO/	/FC/
14	13	2*	9.3	0.5
15	13	2	24.4	19.4
16	13	2*	13.0	10.8
14	14	2*	11.4	2.9
15	14	2	21.2	21.0
16	14	2	57.6	61.9
15	15	2*	8.9	-15.0
3	0	-3	25.7	28.7
4	0	-3	48.2	54.5
5	0	-3	55.9	-56.4
6	0	-3	12.3	11.0
7	0	-3*	6.3	5.3
8	0	-3	14.1	-14.1
9	0	-3	22.3	-22.8
10	0	-3*	7.0	7.1
11	0	-3*	4.3	2.5
12	0	-3*	7.9	-9.2
1	1	-3	16.1	-21.7
2	1	-3	90.1	-88.0
3	1	-3*	7.5	-0.5
4	1	-3	41.1	-38.7
5	1	-3*	3.4	5.8
6	1	-3*	8.4	-0.2
7	1	-3*	5.4	2.2
8	1	-3	20.6	-20.2
9	1	-3*	10.0	-1.8
10	1	-3	45.0	44.5
11	1	-3*	6.2	2.4
12	1	-3*	1.1	1.7
13	1	-3*	5.8	2.2
2	2	-3	73.6	80.4
3	2	-3	9.9	-0.9
4	2	-3*	6.6	0.2
5	2	-3*	4.4	-4.4
6	2	-3	18.3	-18.4
7	2	-3	23.0	-24.0
8	2	-3*	11.5	9.5
9	2	-3	24.6	26.5
10	2	-3*	10.1	-12.7
11	2	-3	14.6	-16.2
12	2	-3*	5.2	-7.0
13	2	-3*	10.1	5.1
3	3	3	9.3	-12.2
3	3	-3	19.6	22.5
4	3	3	32.7	-33.0
4	3	-3*	0.	-2.0
5	3	3*	5.4	12.4
5	3	-3*	7.5	0.2
6	3	3	8.9	-9.1
6	3	-3*	6.3	0.4
7	3	3	18.7	19.7
7	3	-3	11.2	-7.9
8	3	3	51.0	-51.3
8	3	-3	31.3	31.3
9	3	3*	5.6	3.8
9	3	-3*	6.3	-2.2
10	3	3	61.9	-58.6
10	3	-3	19.9	-20.4
11	3	3*	6.2	-3.0
11	3	-3*	3.5	-1.8
12	3	3*	8.9	8.6
12	3	-3*	4.9	3.9
13	3	3*	3.9	6.0
13	3	-3*	10.9	3.2
14	3	3*	6.8	0.1
15	3	3*	0.	-2.1
16	3	3	16.3	-19.4
17	3	3*	10.7	2.1
4	4	3	19.9	-27.5
4	4	-3*	4.5	-7.7
5	4	3*	3.0	-3.3
5	4	-3	36.5	-39.3
6	4	3*	2.5	-4.8
6	4	-3	16.8	19.1
7	4	3	94.4	-94.8
7	4	-3	25.2	28.7
8	4	3	22.7	-20.8
8	4	-3	19.3	-16.7
9	4	3	62.3	-60.9
9	4	-3*	10.4	-8.9
10	4	3	29.1	31.2
10	4	-3*	10.3	-4.8
11	4	3	24.2	-26.7
11	4	-3*	6.6	-9.3
12	4	3*	5.2	0.8
12	4	-3*	8.2	-4.4
13	4	3*	3.1	1.0
13	4	-3*	7.6	0.6
14	4	3*	5.5	-5.1
15	4	3*	9.8	2.2
16	4	3*	9.9	7.7
17	4	3*	7.6	3.2
5	5	3	54.1	56.6
5	5	-3	11.1	-8.4
6	5	3	14.6	8.8
6	5	-3	52.4	53.0
7	5	3*	4.9	3.8
7	5	-3*	5.8	-1.6
8	5	3	114.1	-112.3
8	5	-3*	5.1	3.7
9	5	3	23.8	-26.9
9	5	-3*	10.9	8.0
10	5	3	36.7	39.5
10	5	-3*	6.9	5.5
11	5	3*	4.4	2.7
11	5	-3*	2.1	3.2
12	5	3*	4.8	-2.7
12	5	-3	15.4	-11.6
13	5	3*	8.8	2.9
13	5	-3*	9.7	2.7
14	5	3*	10.9	-11.2
15	5	3*	10.9	-3.3
16	5	3	39.6	41.1
17	5	3*	7.4	5.0
6	6	3	30.2	-32.5
6	6	-3	12.8	-9.7
7	6	3	94.6	-94.4
7	6	-3	21.9	-23.8
8	6	3	47.7	53.5
8	6	-3*	10.0	-9.4
9	6	3*	0.	-3.1
9	6	-3*	5.8	2.9
10	6	3*	8.2	8.9
10	6	-3	14.5	-15.7
11	6	3*	9.5	8.0
11	6	-3	18.8	-19.8
12	6	3*	5.2	-6.3
12	6	-3*	6.2	-12.4
13	6	3	20.2	-19.9
13	6	-3	15.1	10.7
14	6	3	16.6	15.2
15	6	3	19.7	18.7
16	6	3*	10.4	-5.4
17	6	3	25.8	-21.7
18	6	3*	7.5	-4.8
7	7	3	15.8	-18.7
7	7	-3*	5.5	2.7
8	7	3*	7.7	-7.1
8	7	-3*	3.8	-1.5
9	7	3	10.6	16.0
9	7	-3*	9.7	9.2
10	7	3	15.2	12.7
10	7	-3	23.3	-26.0
11	7	3*	5.2	-2.1
11	7	-3*	6.9	3.8
12	7	3	18.2	-22.6
12	7	-3	21.8	-22.7
13	7	3	13.3	-9.4
13	7	-3*	4.8	-2.8
14	7	3	46.0	46.1

H	K	L	/FO/	/FC/
15	7	3*	0.	2.9
16	7	3*	6.9	-12.0
17	7	3*	9.5	-3.7
18	7	3*	7.6	6.1
8	8	3	17.2	-20.2
8	8	-3*	12.7	-14.6
9	8	3*	4.8	-1.1
9	8	-3*	9.1	-10.8
10	8	3*	2.1	3.5
10	8	-3	19.7	-17.4
11	8	3	20.5	21.6
11	8	-3*	9.3	2.8
12	8	3	15.9	20.3
12	8	-3	28.6	30.2
13	8	3	25.7	26.0
13	8	-3*	6.2	-8.6
14	8	3*	5.8	2.1
15	8	3	22.4	-20.5
16	8	3	14.0	-11.3
17	8	3*	8.7	5.3
18	8	3*	5.0	-6.3
9	9	3*	0.	-0.2
9	9	-3*	8.1	3.4
10	9	3	34.0	-35.3
10	9	-3	15.0	-15.5
11	9	3	20.3	-18.4
11	9	-3*	6.5	-9.8
12	9	3	49.2	50.3
12	9	-3*	6.2	-8.0
13	9	3*	5.1	3.0
14	9	3	19.6	-17.3
15	9	3*	4.6	1.3
16	9	3*	7.0	5.8
17	9	3	13.8	8.3
18	9	3	17.6	-15.9
10	10	3	31.3	36.2
10	10	-3	32.6	31.5
11	10	3	54.3	55.1
11	10	-3*	7.3	-5.5
12	10	3*	2.5	-5.3
12	10	-3*	5.5	-2.4
13	10	3	24.6	-24.1
14	10	3*	12.2	-16.9
15	10	3*	8.7	-13.8
16	10	3*	5.1	-14.0
17	10	3*	7.0	-5.1
18	10	3*	11.0	-13.5
11	11	3	14.3	15.5
11	11	-3*	3.9	-0.7
12	11	3	21.5	-21.8
13	11	3*	5.6	-0.0
14	11	3	12.9	11.6
15	11	3	17.5	16.1
16	11	3	14.6	-13.7
17	11	3*	4.9	7.7
18	11	3	28.3	-33.0
12	12	3*	11.9	-14.9
13	12	3*	5.8	2.5
14	12	3	14.9	-16.8
15	12	3	22.9	-24.6
16	12	3	18.6	-18.5
17	12	3*	12.3	3.7
18	12	3	20.9	16.5
13	13	3*	12.4	12.4
14	13	3*	11.4	-11.3
15	13	3	14.2	8.9
16	13	3	35.2	-35.2
17	13	3	14.1	-10.5
18	13	3*	0.	-0.2
14	14	3	21.2	-21.2
15	14	3*	9.2	-13.8
16	14	3	19.2	22.7
17	14	3*	0.	-10.0
15	15	3	19.4	-18.9
16	15	3*	0.	-6.7
17	15	3*	9.2	-1.7
16	16	3*	7.8	-5.7
4	0	-4	380.4	391.8
5	0	-4	13.7	-14.9
6	0	-4	21.3	21.4
7	0	-4*	10.8	-10.8
8	0	-4*	10.3	10.5
9	0	-4*	7.0	-7.8
10	0	-4*	7.3	7.9
11	0	-4*	11.2	-14.2
12	0	-4	27.3	-30.6
1	1	-4	18.8	27.0
2	1	-4	35.1	38.3
3	1	-4	42.5	-37.4
4	1	-4	11.7	11.8
5	1	-4*	4.1	-3.7
6	1	-4	11.0	-7.5
7	1	-4*	4.5	0.7
8	1	-4*	2.3	-1.2
9	1	-4	18.0	-20.0
10	1	-4*	2.8	-0.1
11	1	-4	14.6	17.7
12	1	-4*	4.3	-3.9
2	2	-4	277.7	287.0
3	2	-4*	6.6	-0.7
4	2	-4	62.2	63.1
5	2	-4	23.9	-24.1
6	2	-4	25.9	-32.0
7	2	-4*	3.5	-7.8
8	2	-4*	8.8	9.8
9	2	-4	13.1	-16.1
10	2	-4	38.3	-38.8
11	2	-4*	6.4	8.5
12	2	-4*	4.6	-0.5
3	3	-4	32.9	-35.7
4	3	-4*	0.	-0.2
5	3	-4*	5.9	1.5
6	3	-4	18.7	-16.1
7	3	-4	15.5	16.9
8	3	-4*	8.1	-10.1
9	3	-4	24.5	28.2
10	3	-4*	6.0	0.6
11	3	-4*	13.5	-14.4
12	3	-4*	3.1	-0.2
4	4	4	18.6	-9.6
4	4	-4	22.8	21.0
5	4	4	25.0	-32.7
5	4	-4*	5.2	0.4
6	4	4	73.6	63.4
6	4	-4*	3.6	-5.4
7	4	4	28.3	-26.9
7	4	-4*	6.9	-11.1
8	4	4	554.2	563.3
8	4	-4	68.9	-72.3
9	4	4	20.3	17.7
9	4	-4	13.2	9.5
10	4	4*	6.5	7.2
10	4	-4*	4.7	4.6
11	4	4	14.1	-16.1
11	4	-4*	11.3	-9.4
12	4	4	47.8	45.3
12	4	-4*	10.4	4.9
13	4	4*	3.5	-1.2
14	4	4*	11.4	13.4
15	4	4*	6.9	1.8
16	4	4	44.8	-50.4
17	4	4*	7.9	5.8
5	5	4	75.5	68.5
5	5	-4*	4.9	-7.1
6	5	4	47.9	49.9
6	5	-4*	6.6	-9.9
7	5	4	89.8	-91.4
7	5	-4	32.2	31.1
8	5	4	16.4	16.6
8	5	-4*	8.1	9.3

H	K	L	/FO/	/FC/
9	5	4	53.8	-52.7
9	5	-4	39.1	-39.4
10	5	4*	4.0	-5.6
10	5	-4*	7.2	-3.3
11	5	4*	5.4	1.1
11	5	-4*	5.8	0.7
12	5	4*	1.6	-3.0
12	5	-4*	9.6	2.1
13	5	4	28.0	-30.8
14	5	4*	1.8	7.3
15	5	4*	2.1	6.6
16	5	4*	10.5	-9.7
17	5	4	17.9	-20.2
18	5	4*	0.	-3.5
6	6	4	420.4	430.6
6	6	-4	46.8	-47.4
7	6	4	15.4	17.4
7	6	-4*	4.5	-0.4
8	6	4	57.7	56.2
8	6	-4*	10.5	-2.4
9	6	4	29.7	-32.5
9	6	-4*	10.3	-9.2
10	6	4	11.0	0.9
10	6	-4	19.9	24.8
11	6	4	13.7	-11.4
11	6	-4*	8.7	5.9
12	6	4	22.2	22.6
12	6	-4*	11.6	12.3
13	6	4*	8.0	-0.3
14	6	4	64.6	-68.1
15	6	4*	5.3	2.7
16	6	4*	5.2	0.0
17	6	4*	13.7	-13.4
18	6	4	21.2	22.5
7	7	4	80.5	-85.1
7	7	-4	24.4	-23.7
8	7	4*	5.0	-8.1
8	7	-4*	9.3	-6.3
9	7	4	21.9	20.1
9	7	-4*	9.8	-7.2
10	7	4	18.0	-19.9
10	7	-4*	5.1	4.2
11	7	4	39.4	40.1
11	7	-4*	8.0	6.4
12	7	4*	6.1	8.8
12	7	-4*	9.4	6.8
13	7	4	40.5	40.1
14	7	4*	4.3	1.1
15	7	4*	7.1	-13.5
16	7	4*	11.8	-1.9
17	7	4*	6.1	-2.2
18	7	4*	7.0	6.9
8	8	4	36.5	31.4
8	8	-4*	9.5	10.2
9	8	4*	4.4	-0.9
9	8	-4*	9.5	-0.1
10	8	4*	3.7	2.0
10	8	-4*	14.1	17.1
11	8	4	15.9	16.6
11	8	-4	17.5	17.0
12	8	4	139.6	-138.1
13	8	4*	6.9	-5.9
14	8	4*	10.1	5.2
15	8	4*	11.0	-13.3
16	8	4*	7.4	-5.9
17	8	4*	6.4	1.7
18	8	4	26.3	25.3
19	8	4	26.4	23.2
9	9	4	40.5	-38.7
9	9	-4	23.6	19.2
10	9	4*	5.1	3.4
10	9	-4*	8.4	10.9
11	9	4	19.4	16.5
11	9	-4*	12.4	-17.5
12	9	4*	6.6	-0.3
13	9	4	47.6	-47.2
14	9	4	24.8	-20.6
15	9	4*	10.5	4.2
16	9	4*	4.8	3.0
17	9	4	17.4	14.2
18	9	4*	4.5	-1.0
19	9	4*	11.0	-4.6
10	10	4	67.6	-62.5
10	10	-4	55.1	59.9
11	10	4*	1.8	-4.5
12	10	4	11.8	-9.7
13	10	4*	10.1	-11.1
14	10	4	40.5	44.0
15	10	4*	10.2	10.8
16	10	4	24.4	22.3
17	10	4	33.1	30.7
18	10	4	85.9	89.9
19	10	4*	11.0	-0.0
11	11	4*	8.3	-3.4
12	11	4	16.3	-13.2
13	11	4*	5.8	0.8
14	11	4	20.8	19.5
15	11	4*	10.7	2.1
16	11	4	16.3	12.1
17	11	4	18.2	-20.8
18	11	4*	10.4	2.4
19	11	4	17.2	-18.3
12	12	4*	2.8	1.9
13	12	4*	4.5	3.1
14	12	4	29.6	30.0
15	12	4	26.8	23.1
16	12	4	127.7	128.7
17	12	4*	6.9	-5.3
18	12	4*	2.8	4.5
19	12	4*	11.0	-3.8
13	13	4	44.6	42.1
14	13	4	21.9	22.1
15	13	4	18.7	-18.7
16	13	4*	4.5	-0.8
17	13	4	14.6	-12.4
18	13	4*	9.1	4.1
19	13	4*	6.0	4.7
14	14	4	120.8	118.1
15	14	4*	5.6	2.5
16	14	4	21.0	21.0
17	14	4*	8.1	-1.8
18	14	4*	4.3	-3.1
15	15	4	41.2	-38.1
16	15	4*	0.	-4.5
17	15	4*	5.5	7.1
18	15	4*	6.5	-4.9
16	16	4*	9.6	15.3
17	16	4*	7.5	5.2
5	0	-5	15.1	11.7
6	0	-5	23.4	26.0
7	0	-5	11.9	-12.3
8	0	-5*	5.7	4.2
9	0	-5*	3.1	-8.0
10	0	-5*	8.7	-2.6
11	0	-5*	3.5	-0.4
1	1	-5*	8.7	12.0
2	1	-5*	4.7	-3.1
3	1	-5*	5.5	-2.9
4	1	-5	52.3	-53.3
5	1	-5*	7.1	-11.2
6	1	-5	15.5	17.3
7	1	-5*	0.	-0.5
8	1	-5*	0.	-3.7
9	1	-5*	6.8	-4.1
10	1	-5	16.5	-14.7
11	1	-5*	4.7	0.7
2	2	-5	32.9	-35.0
3	2	-5	12.4	-9.8
4	2	-5	49.1	54.9
5	2	-5*	4.3	-5.3

H	K	L	/FO/	/FC/
6	2	-5*	10.0	6.1
7	2	-5*	5.8	2.6
8	2	-5*	6.9	-5.6
9	2	-5	21.3	-21.5
10	2	-5*	6.6	11.8
11	2	-5*	13.7	13.4
3	3	-5*	8.8	-12.0
4	3	-5	19.4	20.5
5	3	-5*	6.1	10.0
6	3	-5*	8.0	-8.6
7	3	-5*	7.4	-4.5
8	3	-5	23.0	-22.8
9	3	-5*	0.	2.6
10	3	-5	21.5	25.1
11	3	-5*	11.3	3.8
4	4	-5*	5.9	-5.0
5	4	-5*	5.9	-3.8
6	4	-5*	5.7	-7.1
7	4	-5	12.9	-13.9
8	4	-5	15.6	15.7
9	4	-5*	11.7	8.3
10	4	-5*	4.2	-9.0
11	4	-5	17.6	-14.7
5	5	5	13.3	8.3
5	5	-5*	4.1	-1.6
6	5	5	80.0	-83.3
6	5	-5	28.0	-28.3
7	5	5	11.2	-16.1
7	5	-5*	7.8	-5.9
8	5	5	94.4	-91.3
8	5	-5	31.9	30.8
9	5	5	14.4	-10.6
9	5	-5*	3.0	0.7
10	5	5*	4.8	-0.1
10	5	-5*	11.0	-13.5
11	5	5*	5.6	-1.2
11	5	-5*	7.6	3.3
12	5	5	44.8	-46.6
13	5	5	21.7	-19.7
14	5	5	67.6	65.3
15	5	5*	5.6	2.1
16	5	5*	5.9	-4.7
17	5	5*	6.8	3.5
18	5	5*	7.8	7.9
6	6	5	49.0	52.1
6	6	-5	15.6	20.7
7	6	5	17.3	16.5
7	6	-5	16.0	18.0
8	6	5*	3.4	-6.0
8	6	-5*	8.5	-11.8
9	6	5*	4.6	5.5
9	6	-5*	9.6	-10.6
10	6	5*	6.1	-10.2
10	6	-5*	4.9	-7.3
11	6	5*	1.6	-2.7
11	6	-5*	8.4	-11.9
12	6	5*	0.	5.9
13	6	5	12.0	13.1
14	6	5*	10.1	-6.6
15	6	5	17.7	-19.3
16	6	5	13.0	-9.5
17	6	5*	5.4	4.4
18	6	5*	6.1	-4.1
19	6	5*	9.3	-2.4
7	7	5	11.8	-8.7
7	7	-5*	4.4	1.7
8	7	5*	5.4	-1.5
8	7	-5	14.8	-20.3
9	7	5*	3.4	-1.6
9	7	-5*	6.5	1.0
10	7	5	25.4	-24.8
10	7	-5*	10.9	-4.3
11	7	5	22.9	-22.7
12	7	5	58.9	53.7
13	7	5*	5.2	-3.1
14	7	5	28.2	-30.2
15	7	5*	6.0	6.6
16	7	5*	7.3	10.0
17	7	5*	11.8	9.1
18	7	5	22.4	-21.4
19	7	5*	9.2	-3.2
8	8	5*	3.4	-4.0
8	8	-5*	6.8	-7.4
9	8	5	77.7	-77.7
9	8	-5*	4.1	-6.2
10	8	5*	4.0	2.3
10	8	-5*	13.4	-15.4
11	8	5	28.0	22.4
12	8	5	28.3	-30.6
13	8	5	23.8	-25.5
14	8	5	17.7	-15.9
15	8	5*	6.5	-3.8
16	8	5*	8.5	-9.7
17	8	5*	5.9	3.1
18	8	5*	6.8	-6.1
19	8	5	17.1	5.3
9	9	5	40.8	-45.3
9	9	-5*	7.8	5.6
10	9	5	51.6	51.2
11	9	5	13.1	-12.6
12	9	5	11.1	12.9
13	9	5*	8.4	11.9
14	9	5*	7.0	11.0
15	9	5	21.4	19.3
16	9	5	12.3	-9.6
17	9	5*	6.3	5.3
18	9	5	47.6	-48.9
19	9	5*	5.2	-2.2
10	10	5	10.6	-14.1
11	10	5	60.0	-59.5
12	10	5	20.6	-22.0
13	10	5*	2.3	-1.8
14	10	5*	7.4	-14.8
15	10	5*	8.0	-6.3
16	10	5*	3.9	-10.5
17	10	5*	0.	-2.1
18	10	5	23.2	24.2
19	10	5	19.3	-17.1
11	11	5*	4.0	12.6
12	11	5	11.7	10.7
13	11	5	22.2	22.6
14	11	5	29.0	-31.7
15	11	5*	9.1	7.5
16	11	5	47.0	-46.7
17	11	5*	9.7	-11.7
18	11	5	19.6	13.0
19	11	5*	5.2	-6.9
20	11	5*	0.	-5.2
12	12	5*	7.6	-11.8
13	12	5*	7.4	7.5
14	12	5*	10.5	-9.2
15	12	5*	7.5	-6.8
16	12	5	48.1	48.0
17	12	5*	11.8	-12.3
18	12	5*	0.	-1.5
19	12	5*	7.2	3.1
20	12	5*	3.9	0.6
13	13	5	18.5	13.7
14	13	5	35.1	-33.2
15	13	5*	9.9	-6.4
16	13	5*	9.0	-9.3
17	13	5*	7.4	-7.0
18	13	5*	7.4	-8.3
19	13	5*	7.7	2.7
14	14	5	35.0	33.2
15	14	5*	10.8	1.6
16	14	5*	7.0	-3.3
17	14	5*	12.8	-16.3
18	14	5*	7.0	2.4
19	14	5*	7.3	-6.5

H	K	L	/FO/	/FC/
15	15	5*	9.0	-4.1
16	15	5*	6.7	2.2
17	15	5*	10.1	-1.4
18	15	5*	6.0	-3.0
19	15	5*	7.0	2.7
16	16	5*	4.0	3.7
17	16	5	21.0	-19.8
18	16	5*	11.5	15.0
19	16	5	16.4	17.6
17	17	5*	6.9	-3.7
18	17	5	17.3	17.9
6	0	-6	155.3	153.8
7	0	-6	15.1	-14.6
8	0	-6	21.8	20.9
9	0	-6*	12.5	-12.2
10	0	-6*	1.8	3.3
1	1	-6	15.2	-13.2
2	1	-6*	5.1	-5.4
3	1	-6	33.0	36.9
4	1	-6*	10.2	8.9
5	1	-6	34.0	-36.3
6	1	-6	12.6	6.3
7	1	-6	32.7	-35.3
8	1	-6*	5.3	6.2
9	1	-6*	3.8	4.8
10	1	-6*	0.	1.8
2	2	-6	14.6	-16.3
3	2	-6	40.2	41.5
4	2	-6	186.4	189.9
5	2	-6	18.8	-19.1
6	2	-6*	6.2	9.7
7	2	-6	19.8	-15.9
8	2	-6*	12.2	19.6
9	2	-6*	0.	-4.7
10	2	-6	14.7	14.5
3	3	-6	47.2	-48.9
4	3	-6*	3.9	-4.1
5	3	-6	30.2	-32.3
6	3	-6*	6.3	-5.1
7	3	-6*	5.6	-3.5
8	3	-6*	9.0	-1.8
9	3	-6*	6.6	-5.6
10	3	-6*	7.0	-6.3
4	4	-6	27.5	27.5
5	4	-6*	7.7	-6.7
6	4	-6	17.0	20.6
7	4	-6*	8.2	-3.3
8	4	-6*	13.4	15.5
9	4	-6*	8.2	-4.3
10	4	-6	20.7	-24.6
5	5	-6*	4.2	-1.0
6	5	-6*	6.8	-3.2
7	5	-6	14.3	-11.2
8	5	-6*	8.8	-3.7
9	5	-6	23.6	23.4
10	5	-6*	4.8	2.4
6	6	6	53.5	-46.3
6	6	-6	20.3	22.4
7	6	6*	4.8	-4.1
7	6	-6	14.1	-13.0
8	6	6	50.2	42.8
8	6	-6	29.5	-33.3
9	6	6*	0.	2.0
9	6	-6*	7.3	11.2
10	6	6	55.5	57.5
10	6	-6*	5.7	6.6
11	6	6	37.0	-38.8
12	6	6	62.1	-60.2
13	6	6*	5.7	2.5
14	6	6	27.0	30.4
15	6	6*	9.4	-7.8
16	6	6	23.8	-21.6
17	6	6	15.0	12.5
18	6	6	19.6	18.1
19	6	6	35.9	34.3
7	7	6	60.9	64.2
7	7	-6	30.8	34.3
8	7	6	20.3	-19.7
8	7	-6*	5.0	5.1
9	7	6	46.7	-39.6
9	7	-6*	6.6	-6.2
10	7	6	20.5	23.5
11	7	6	62.1	62.7
12	7	6*	5.2	-0.9
13	7	6	44.4	-45.6
14	7	6	14.8	-15.2
15	7	6*	6.9	1.3
16	7	6*	5.8	-1.4
17	7	6*	7.7	5.2
18	7	6*	8.8	-2.0
19	7	6*	4.5	-6.9
8	8	6	73.8	75.7
8	8	-6*	10.1	8.5
9	8	6	16.9	-14.4
10	8	6	105.6	-96.3
11	8	6	16.2	18.7
12	8	6	34.6	-37.1
13	8	6	21.6	-23.0
14	8	6	47.0	44.2
15	8	6	13.3	11.6
16	8	6	20.4	18.1
17	8	6	40.2	39.8
18	8	6	103.3	107.4
19	8	6*	8.7	-5.5
20	8	6*	9.3	10.6
9	9	6	9.7	-6.9
10	9	6	15.5	-16.0
11	9	6	45.8	-46.2
12	9	6	31.4	-32.9
13	9	6	11.7	-10.3
14	9	6*	6.3	4.2
15	9	6*	8.1	4.2
16	9	6*	◊ 7.8	3.9
17	9	6*	3.5	-4.5
18	9	6*	13.1	9.0
19	9	6	23.4	-26.1
20	9	6*	8.3	1.0
10	10	6	52.9	53.8
11	10	6	12.4	-17.7
12	10	6*	0.	-5.4
13	10	6*	0.	0.9
14	10	6	12.7	10.9
15	10	6	60.1	59.7
16	10	6	135.9	133.9
17	10	6	12.6	-9.8
18	10	6*	3.7	-0.4
19	10	6	21.5	-16.9
20	10	6	21.1	24.2
11	11	6*	3.4	6.5
12	11	6	15.4	16.0
13	11	6	34.9	35.2
14	11	6	25.3	24.2
15	11	6	23.9	-26.4
16	11	6*	6.9	2.8
17	11	6	29.7	-26.7
18	11	6*	8.4	-0.2
19	11	6*	5.2	-5.9
20	11	6*	8.3	1.5
12	12	6*	7.5	-4.0
13	12	6	37.0	35.3
14	12	6	194.9	191.2
15	12	6*	5.9	-10.2
16	12	6	19.6	17.9
17	12	6	13.4	-8.8
18	12	6*	8.9	-0.8
19	12	6*	1.9	-1.4
20	12	6	21.0	19.8
13	13	6	36.2	-35.5
14	13	6*	6.7	5.5
15	13	6	37.3	-39.7

(8)

H	K	L	/FO/	/FC/
16	13	6	12.6	-11.7
17	13	6*	5.4	7.7
18	13	6*	1.6	3.5
19	13	6	13.6	-13.8
20	13	6*	7.5	-3.8
14	14	6*	6.1	-1.8
15	14	6*	11.8	-9.5
16	14	6*	11.1	17.3
17	14	6*	0.	3.8
18	14	6	17.4	15.0
19	14	6*	13.7	-14.3
20	14	6	22.1	-24.4
15	15	6*	4.3	-5.2
16	15	6*	7.1	-1.5
17	15	6*	12.2	-9.5
18	15	6	12.6	-7.6
19	15	6*	4.7	-0.3
20	15	6*	6.2	4.4
16	16	6	21.8	20.4
17	16	6*	10.2	-6.6
18	16	6	31.6	-33.7
19	16	6*	4.3	0.4
20	16	6*	0.	1.6
17	17	6*	0.	0.7
18	17	6*	10.6	2.4
19	17	6*	10.5	-6.2
18	18	6*	3.8	10.6
7	0	-7	27.1	23.1
8	0	-7	31.2	27.7
9	0	-7	14.4	-14.1
1	1	-7	16.7	15.4
2	1	-7*	2.4	-2.7
3	1	-7*	0.	4.6
4	1	-7*	6.5	-10.1
5	1	-7*	4.1	2.8
6	1	-7	26.7	-29.5
7	1	-7*	3.0	-0.6
8	1	-7*	10.1	3.4
9	1	-7*	0.	-0.4
2	2	-7	16.6	-20.5
3	2	-7	26.2	-28.0
4	2	-7*	11.4	-15.5
5	2	-7*	0.	-5.1
6	2	-7	41.9	40.1
7	2	-7*	7.7	-5.8
8	2	-7*	9.9	3.4
9	2	-7*	8.6	-15.8
3	3	-7*	8.9	7.1
4	3	-7*	5.8	-0.7
5	3	-7*	2.8	-7.1
6	3	-7*	7.3	5.5
7	3	-7*	3.5	4.1
8	3	-7*	4.5	-3.1
9	3	-7*	5.8	-2.8
4	4	-7	46.2	49.9
5	4	-7*	7.6	-8.3
6	4	-7*	6.0	-0.4
7	4	-7*	6.1	-7.0
8	4	-7*	9.1	-7.1
9	4	-7*	9.2	-11.8
5	5	-7*	8.6	-2.8
6	5	-7*	5.7	-14.1
7	5	-7*	9.0	0.0
8	5	-7*	10.8	-8.1
9	5	-7*	1.8	-0.4
6	6	-7*	9.8	-6.7
7	6	-7*	4.4	-3.1
8	6	-7*	7.8	8.9
7	7	7	26.4	30.7
7	7	-7*	4.1	-1.3
8	7	7	49.6	51.2
9	7	7	40.6	-43.8
10	7	7	113.4	115.1
11	7	7*	6.6	-5.3
12	7	7*	8.3	-8.1
13	7	7	12.4	10.1
14	7	7*	11.5	11.1
15	7	7	29.7	29.9
16	7	7*	10.0	-8.2
17	7	7*	2.5	3.0
18	7	7	51.2	-51.4
19	7	7*	3.0	-1.0
20	7	7*	8.6	7.4
8	8	7	51.6	56.1
9	8	7	93.8	93.6
10	8	7*	7.0	-8.4
11	8	7	26.0	-26.1
12	8	7	15.2	-16.0
13	8	7	10.0	2.5
14	8	7*	7.8	2.2
15	8	7	16.4	-18.3
16	8	7*	4.3	-3.2
17	8	7*	12.2	-11.8
18	8	7	15.8	14.3
19	8	7	18.2	-21.5
20	8	7*	6.8	-0.5
9	9	7*	0.	5.2
10	9	7	73.9	-74.2
11	9	7*	7.2	12.8
12	9	7*	8.1	10.1
13	9	7	27.2	26.7
14	9	7	19.7	-19.4
15	9	7*	9.9	6.4
16	9	7	68.4	-65.1
17	9	7	15.4	-11.8
18	9	7*	8.1	2.1
19	9	7*	4.2	-5.5
20	9	7*	6.2	-4.7
10	10	7	14.8	-19.4
11	10	7*	2.5	7.0
12	10	7	10.2	-12.9
13	10	7	20.1	22.3
14	10	7	13.5	-12.6
15	10	7	39.7	-39.6
16	10	7	27.4	28.9
17	10	7	19.3	-18.4
18	10	7*	10.2	-5.4
19	10	7*	7.3	5.4
20	10	7*	6.8	1.6
21	10	7*	14.2	-15.9
11	11	7	54.1	55.7
12	11	7	47.3	-45.4
13	11	7	21.5	20.2
14	11	7	73.2	-71.4
15	11	7	17.0	-18.1
16	11	7*	6.7	-1.4
17	11	7*	5.4	-3.2
18	11	7*	10.3	-6.4
19	11	7*	6.1	-2.6
20	11	7	21.9	-23.0
21	11	7*	12.8	-1.4
12	12	7	15.3	-15.7
13	12	7	56.3	-56.6
14	12	7	29.3	30.7
15	12	7	25.5	-25.9
16	12	7*	2.9	-7.0
17	12	7*	7.4	-13.5
18	12	7*	7.5	-4.0
19	12	7*	1.2	-3.6
20	12	7	16.6	13.6
21	12	7*	6.5	4.1
13	13	7	24.2	-22.5
14	13	7*	6.7	-9.8
15	13	7*	7.1	-7.9
16	13	7*	5.3	-4.2
17	13	7*	5.7	0.4
18	13	7	27.0	-28.0
19	13	7*	7.7	-4.6
20	13	7	40.5	38.9
21	13	7*	0.	1.4

H	K	L	/FO/	/FC/
14	14	7*	6.0	-1.3
15	14	7*	6.0	-4.7
16	14	7*	5.9	2.7
17	14	7	28.3	-26.3
18	14	7	17.1	19.2
19	14	7	19.5	22.9
20	14	7*	5.5	-6.0
21	14	7	18.7	-17.4
15	15	7*	5.0	-12.0
16	15	7	14.1	-16.6
17	15	7	14.4	-10.6
18	15	7	27.9	30.6
19	15	7*	8.5	3.2
20	15	7*	7.0	-3.3
21	15	7*	5.2	0.1
16	16	7	21.3	24.7
17	16	7	32.7	32.0
18	16	7*	9.1	-8.7
19	16	7*	9.8	-12.7
20	16	7*	9.3	-6.2
21	16	7*	0.	-3.6
17	17	7*	4.7	2.6
18	17	7*	7.4	-8.7
19	17	7*	7.0	7.9
20	17	7*	3.8	0.3
18	18	7*	11.0	-12.4
19	18	7*	10.4	-6.4
20	18	7*	11.4	-8.3
19	19	7*	7.2	11.8
8	0	-8	84.0	89.0
1	1	-8	45.4	-46.6
2	1	-8*	1.9	-1.2
3	1	-8*	9.1	-8.2
4	1	-8*	6.5	2.2
5	1	-8	23.7	20.8
6	1	-8*	6.9	0.4
7	1	-8	23.3	-24.4
8	1	-8*	6.2	0.9
2	2	-8	42.1	48.0
3	2	-8*	10.3	9.5
4	2	-8	27.5	24.2
5	2	-8	22.6	24.2
6	2	-8	96.9	99.2
7	2	-8*	7.0	-3.7
8	2	-8*	11.4	17.2
3	3	-8*	5.9	0.1
4	3	-8	17.1	14.6
5	3	-8	29.5	-31.8
6	3	-8*	5.5	-2.0
7	3	-8	20.6	-20.5
8	3	-8*	7.3	3.2
4	4	-8	120.9	127.5
5	4	-8*	9.4	-8.5
6	4	-8*	11.7	12.4
7	4	-8*	8.3	-5.0
8	4	-8*	5.9	6.8
5	5	-8*	11.7	-7.2
6	5	-8*	1.6	-0.5
7	5	-8*	9.8	7.4
6	6	-8*	10.7	-5.3
7	6	-8*	10.8	-6.9
8	8	8	415.4	-409.3
9	8	8	24.0	-22.0
10	8	8	11.3	-13.9
11	8	8	37.3	-40.0
12	8	8*	4.4	-8.3
13	8	8*	4.8	-6.2
14	8	8	42.4	46.4
15	8	8	39.9	41.6
16	8	8	198.6	195.0
17	8	8*	4.8	-6.7
18	8	8	17.3	18.6
19	8	8	15.8	-12.5
20	8	8	15.2	18.8
21	8	8*	11.1	6.8
9	9	8	20.9	-24.4
10	9	8	24.1	-28.6
11	9	8	19.7	17.7
12	9	8	10.0	-13.0
13	9	8	35.9	39.3
14	9	8*	5.8	11.9
15	9	8*	6.9	-6.6
16	9	8	32.0	31.3
17	9	8	22.7	-21.8
18	9	8*	7.2	4.9
19	9	8*	8.3	-0.5
20	9	8*	0.	4.0
21	9	8*	11.3	-11.4
10	10	8	36.2	30.2
11	10	8	26.4	24.7
12	10	8	40.2	40.0
13	10	8	48.1	51.3
14	10	8	236.9	239.8
15	10	8*	4.9	-4.7
16	10	8	36.6	37.1
17	10	8	13.8	-7.4
18	10	8	21.1	-19.2
19	10	8*	8.4	4.6
20	10	8	15.7	20.2
21	10	8*	8.5	-8.0
11	11	8	33.8	-29.2
12	11	8	13.9	15.3
13	11	8	76.7	-73.5
14	11	8	17.8	20.5
15	11	8	39.9	-45.9
16	11	8*	11.2	-14.6
17	11	8*	2.1	-0.6
18	11	8*	6.2	-4.2
19	11	8*	7.7	-2.3
20	11	8*	7.0	-3.7
21	11	8*	7.2	8.0
12	12	8	386.0	394.3
13	12	8	18.9	18.4
14	12	8	23.3	23.0
15	12	8*	0.	-4.2
16	12	8	36.9	38.9
17	12	8	11.5	9.3
18	12	8*	8.0	7.4
19	12	8*	7.5	2.4
20	12	8	47.1	-50.3
21	12	8*	9.1	1.1
22	12	8*	8.3	1.2
13	13	8*	7.1	-9.9
14	13	8*	5.7	-7.9
15	13	8*	8.6	-5.7
16	13	8	21.9	21.5
17	13	8	23.5	-23.5
18	13	8*	8.5	-1.1
19	13	8*	6.9	6.3
20	13	8*	4.3	-1.9
21	13	8	16.9	-18.3
22	13	8*	7.3	-7.1
14	14	8	24.1	-25.9
15	14	8*	4.9	-5.6
16	14	8*	9.2	9.9
17	14	8*	7.1	-7.9
18	14	8	48.1	-47.4
19	14	8*	4.8	-4.8
20	14	8*	11.5	-10.1
21	14	8*	13.5	-13.0
22	14	8	25.2	24.2
15	15	8	19.8	20.3
16	15	8*	5.0	3.4
17	15	8*	12.1	10.7
18	15	8*	10.3	-5.2
19	15	8*	11.4	-10.8
20	15	8*	10.4	-2.0
21	15	8*	4.0	-5.2
22	15	8*	11.1	10.2
16	16	8	69.4	-66.4

H	K	L	/FO/	/FC/
17	16	8*	5.1	1.8
18	16	8*	4.9	-1.3
19	16	8*	12.7	-6.6
20	16	8*	1.9	0.2
21	16	8*	6.7	1.4
17	17	8	40.8	-35.8
18	17	8	19.4	-16.4
19	17	8*	6.8	3.4
20	17	8*	6.9	0.7
21	17	8	18.7	14.1
18	18	8	19.2	24.6
19	18	8*	7.1	10.0
20	18	8*	8.1	7.0
21	18	8*	11.4	15.1
19	19	8*	13.0	9.4
20	19	8*	5.9	10.0
1	1	-9	14.1	-11.0
2	1	-9	18.2	-19.2
3	1	-9*	5.0	-0.3
4	1	-9*	11.2	-7.7
5	1	-9*	3.7	1.3
6	1	-9*	10.9	-13.5
7	1	-9*	0.	3.3
2	2	-9	20.9	-19.5
3	2	-9*	9.3	-10.8
4	2	-9	22.0	-18.9
5	2	-9*	7.4	-11.5
6	2	-9	18.1	-15.7
7	2	-9*	13.3	9.8
3	3	-9*	6.5	3.4
4	3	-9*	14.0	-15.7
5	3	-9*	4.9	3.0
6	3	-9*	6.1	-3.1
7	3	-9*	9.4	-8.9
4	4	-9	19.0	-18.2
5	4	-9*	5.7	2.5
6	4	-9	26.1	25.1
5	5	-9*	4.3	-10.4
6	5	-9*	7.4	0.3
9	9	9*	6.4	-4.4
10	9	9	15.5	10.7
11	9	9	54.3	56.7
12	9	9*	2.6	-1.1
13	9	9	15.1	15.2
14	9	9	71.8	-71.5
15	9	9*	7.4	-10.7
16	9	9	23.6	-27.6
17	9	9*	4.7	-5.5
18	9	9*	5.2	-2.0
19	9	9*	8.5	-0.9
20	9	9	23.1	-22.1
21	9	9*	4.6	1.2
10	10	9	11.9	-16.5
11	10	9	12.5	-4.5
12	10	9	21.6	23.7
13	10	9	38.0	-38.5
14	10	9	29.9	31.0
15	10	9	28.1	-30.8
16	10	9*	8.3	-6.8
17	10	9*	10.6	-3.2
18	10	9*	3.6	1.4
19	10	9*	9.7	-13.1
20	10	9*	7.1	8.1
21	10	9*	3.9	2.7
22	10	9*	12.4	-8.6
11	11	9	17.4	17.4
12	11	9	48.3	-47.1
13	11	9	25.2	-25.4
14	11	9	11.5	9.7
15	11	9*	8.0	-3.2
16	11	9*	4.6	-9.7
17	11	9*	7.4	1.9
18	11	9	21.4	-18.7
19	11	9*	10.1	-4.7
20	11	9	48.7	46.0
21	11	9*	0.	5.7
22	11	9*	11.7	-9.3
12	12	9	62.1	64.8
13	12	9	62.4	-65.2
14	12	9*	9.2	3.5
15	12	9*	4.0	-2.5
16	12	9*	8.7	5.6
17	12	9	22.0	-24.5
18	12	9	16.0	16.2
19	12	9*	0.	8.1
20	12	9*	13.3	-12.6
21	12	9*	14.5	-17.2
22	12	9*	7.1	-7.4
13	13	9	16.8	-15.5
14	13	9*	8.7	-8.9
15	13	9*	4.1	-0.1
16	13	9	43.8	-46.1
17	13	9	18.8	-17.5
18	13	9	50.7	50.1
19	13	9*	6.5	-0.9
20	13	9*	12.3	4.7
21	13	9*	6.2	7.3
22	13	9*	9.1	6.8
14	14	9*	3.2	-4.3
15	14	9	19.6	-18.6
16	14	9	20.2	19.4
17	14	9	23.7	21.8
18	14	9*	8.1	-7.0
19	14	9	23.2	-20.5
20	14	9*	4.3	-10.9
21	14	9*	10.7	4.3
22	14	9*	2.3	-6.0
15	15	9*	2.6	-7.7
16	15	9	38.5	39.4
17	15	9*	0.9	5.9
18	15	9	19.7	-18.0
19	15	9*	3.4	7.9
20	15	9*	10.9	5.5
21	15	9	20.2	18.3
22	15	9	17.7	-19.0
16	16	9	26.7	-30.4
17	16	9*	0.	-3.8
18	16	9*	11.7	-11.4
19	16	9*	11.9	-6.4
20	16	9*	8.3	-9.3
21	16	9*	9.0	-1.1
22	16	9	17.3	-15.8
17	17	9	14.9	12.6
18	17	9*	12.0	12.0
19	17	9	15.2	16.5
20	17	9*	7.4	-5.5
21	17	9*	7.8	5.4
22	17	9	32.2	-35.0
18	18	9*	4.1	-5.2
19	18	9	18.9	-15.6
20	18	9	16.6	-18.8
21	18	9*	6.4	-2.3
22	18	9	21.5	17.6
19	19	9*	5.0	-0.1
20	19	9	24.7	-23.7
21	19	9*	9.8	-13.8
20	20	9	29.9	26.9
21	20	9*	7.2	-10.0
1	1-10		39.8	41.7
2	1-10*		4.9	1.2
3	1-10*		7.9	-6.8
4	1-10*		5.9	-3.0
5	1-10*		9.9	-4.2
6	1-10*		8.3	1.6
2	2-10*		11.1	7.6
3	2-10*		9.4	-1.6
4	2-10*		6.3	-4.1
5	2-10*		0.	-1.6
6	2-10*		4.6	1.9
3	3-10*		6.0	2.6

H	K	L	/FO/	/FC/
4	3	-10*	8.5	1.9
5	3	-10*	14.7	11.7
4	4	-10*	11.5	9.4
5	4	-10*	9.3	6.4
10	10	10	78.8	76.5
11	10	10	49.3	53.2
12	10	10	275.9	281.1
13	10	10	10.5	13.3
14	10	10	39.1	-42.6
15	10	10	30.1	-27.4
16	10	10	42.7	39.3
17	10	10*	6.7	-2.4
18	10	10	18.2	17.0
19	10	10	14.3	-15.2
20	10	10	34.8	-36.6
21	10	10*	5.5	-2.3
22	10	10*	4.8	7.2
11	11	10	87.9	-88.7
12	11	10	12.7	13.7
13	11	10	14.2	-17.8
14	11	10	19.5	-20.7
15	11	10	12.1	-12.5
16	11	10*	5.8	6.5
17	11	10	31.6	-33.3
18	11	10*	4.4	3.3
19	11	10	16.2	20.6
20	11	10*	1.9	0.7
21	11	10	21.7	-20.0
22	11	10*	6.6	-2.9
12	12	10	53.0	53.1
13	12	10	13.8	-15.0
14	12	10*	6.1	-8.6
15	12	10	17.0	-17.4
16	12	10	33.3	32.2
17	12	10*	3.4	4.8
18	12	10	66.8	-68.8
19	12	10*	8.4	-4.6
20	12	10*	0.	2.7
21	12	10	14.6	-13.7
22	12	10	17.4	20.9
23	12	10*	3.2	8.6
13	13	10*	9.8	-10.8
14	13	10*	7.9	9.2
15	13	10	18.9	-19.7
16	13	10	12.4	-1.4
17	13	10*	7.2	5.7
18	13	10*	6.4	-8.0
19	13	10	18.5	-16.3
20	13	10*	5.9	-0.1
21	13	10*	0.	-7.4
22	13	10*	6.4	2.0
23	13	10*	9.4	10.5
14	14	10*	5.9	2.3
15	14	10	14.3	-13.2
16	14	10	46.1	-42.6
17	14	10*	10.2	-8.3
18	14	10	25.0	23.7
19	14	10*	5.4	-1.7
20	14	10*	11.5	-6.6
21	14	10	14.3	9.4
22	14	10	17.6	18.7
23	14	10	31.0	30.2
15	15	10*	8.4	-4.9
16	15	10*	2.1	5.0
17	15	10	18.6	-18.4
18	15	10	16.2	-14.5
19	15	10*	6.7	7.7
20	15	10*	11.8	10.9
21	15	10	19.3	16.8
22	15	10*	2.3	3.2
23	15	10*	0.	-1.9
16	16	10	14.0	-10.5
17	16	10*	11.5	-5.4
18	16	10	12.9	13.8
19	16	10	15.4	14.9
20	16	10*	6.9	8.2
21	16	10	20.5	19.9
22	16	10	93.7	93.9
23	16	10*	0.	1.3
17	17	10*	2.8	-1.0
18	17	10*	6.3	9.7
19	17	10	25.0	25.4
20	17	10	14.3	13.3
21	17	10	12.5	-3.1
22	17	10*	9.8	5.0
23	17	10	19.8	-20.3
18	18	10	20.2	20.1
19	18	10	25.1	23.1
20	18	10	109.0	106.8
21	18	10*	6.4	3.1
22	18	10*	3.6	2.7
23	18	10*	5.0	-2.4
19	19	10*	3.7	-6.5
20	19	10*	0.	1.1
21	19	10	26.1	-24.8
22	19	10*	5.8	0.6
20	20	10	15.4	16.6
21	20	10*	13.0	-6.7
22	20	10*	7.1	9.1
21	21	10*	0.	9.9
1	1	-11*	9.4	2.2
2	1	-11	21.1	22.9
3	1	-11*	5.3	-1.9
4	1	-11*	7.0	-2.1
5	1	-11*	9.2	1.4
2	2	-11	16.7	-16.5
3	2	-11*	5.6	-4.0
4	2	-11*	7.6	-1.9
3	3	-11*	4.1	-5.1
4	3	-11*	7.7	-3.0
11	11	11*	7.6	-9.0
12	11	11	40.0	-45.5
13	11	11	12.2	-15.4
14	11	11	13.1	-14.9
15	11	11*	5.2	-15.7
16	11	11	25.6	-28.8
17	11	11	35.7	-34.5
18	11	11	60.7	60.1
19	11	11*	3.9	5.8
20	11	11	16.5	-16.0
21	11	11*	6.8	4.1
22	11	11*	6.9	10.1
23	11	11	15.6	7.3
12	12	11*	4.1	0.1
13	12	11*	5.7	-6.1
14	12	11	13.4	-13.5
15	12	11	13.0	11.1
16	12	11	24.4	22.5
17	12	11	35.0	35.8
18	12	11*	8.9	-3.1
19	12	11	17.6	-17.7
20	12	11*	11.6	-6.6
21	12	11*	4.9	-0.3
22	12	11*	0.	2.8
23	12	11*	6.1	-9.1
13	13	11	20.8	16.3
14	13	11	58.8	-60.8
15	13	11	33.6	-35.3
16	13	11	70.0	69.2
17	13	11*	6.7	11.3
18	13	11	20.3	-21.2
19	13	11*	11.5	12.6
20	13	11*	9.5	16.4
21	13	11	16.3	17.0
22	13	11	17.9	-15.6
23	13	11*	7.5	-1.0
14	14	11	10.2	9.6
15	14	11	52.4	55.2
16	14	11*	9.0	-0.9
17	14	11	41.9	-42.1

H	K	L	/FO/	/FC/
18	14	11	15.4	-16.1
19	14	11*	9.6	0.8
20	14	11*	11.3	-10.6
21	14	11*	5.9	5.4
22	14	11*	7.0	-7.9
23	14	11*	4.0	-6.0
15	15	11*	7.4	0.3
16	15	11	21.7	-20.6
17	15	11*	4.4	9.1
18	15	11*	5.1	3.9
19	15	11	30.9	32.0
20	15	11	22.2	-19.2
21	15	11*	5.3	5.7
22	15	11	47.0	-47.7
23	15	11*	11.9	-14.0
24	15	11*	8.6	-0.2
16	16	11*	6.9	-5.9
17	16	11	14.7	12.8
18	16	11	12.7	-9.7
19	16	11	18.2	-18.6
20	16	11	19.1	-17.1
21	16	11*	11.5	-14.8
22	16	11	14.8	17.1
23	16	11	15.9	-18.8
24	16	11*	5.8	-1.3
17	17	11	22.6	21.1
18	17	11*	3.7	-5.8
19	17	11	15.1	11.3
20	17	11	45.8	-45.3
21	17	11	21.7	-19.1
22	17	11*	11.0	1.9
23	17	11*	0.	-5.8
24	17	11*	4.9	-8.1
18	18	11	19.3	-17.6
19	18	11	28.4	-31.5
20	18	11	18.2	17.0
21	18	11*	9.6	-11.3
22	18	11*	6.1	0.5
23	18	11*	0.	-1.2
19	19	11	24.7	-20.0
20	19	11*	12.1	-6.5
21	19	11*	7.4	-2.8
22	19	11*	4.1	-3.3
23	19	11*	6.3	-3.1
20	20	11*	5.3	-2.2
21	20	11*	2.3	-7.2
22	20	11*	9.9	6.3
23	20	11*	5.7	-0.1
21	21	11*	0.	-1.6
22	21	11	17.6	-12.3
1	1	-12	14.8	-16.9
2	1	-12*	5.6	-5.6
3	1	-12	28.9	31.8
2	2	-12	22.7	-23.0
3	2	-12*	0.	4.4
12	12	12	53.0	56.9
13	12	12	20.0	20.6
14	12	12	32.8	32.1
15	12	12	40.5	43.5
16	12	12	133.5	-131.1
17	12	12	14.3	-14.2
18	12	12*	1.5	7.6
19	12	12	14.1	-12.2
20	12	12	20.1	-17.0
21	12	12*	4.0	5.8
22	12	12	22.9	23.7
23	12	12	17.0	17.5
13	13	12	43.3	-43.0
14	13	12*	7.8	8.7
15	13	12	21.2	21.4
16	13	12	16.2	-17.2
17	13	12	16.1	-18.3
18	13	12	22.8	-25.4
19	13	12*	0.	3.5
20	13	12*	0.	-3.8
21	13	12	15.9	11.9
22	13	12*	6.7	-6.8
23	13	12*	7.0	0.2
24	13	12*	14.0	9.1
14	14	12	72.1	-69.4
15	14	12*	5.5	-5.0
16	14	12	21.3	-22.1
17	14	12	18.0	-20.9
18	14	12	34.6	36.9
19	14	12*	11.5	9.5
20	14	12*	9.7	11.4
21	14	12	28.5	28.6
22	14	12	109.8	111.4
23	14	12*	8.9	-1.7
24	14	12*	8.3	9.8
15	15	12*	7.1	9.6
16	15	12	20.2	-18.3
17	15	12*	4.7	-4.4
18	15	12	18.9	22.1
19	15	12*	10.9	-11.9
20	15	12*	6.9	-4.4
21	15	12*	13.1	-14.3
22	15	12*	6.5	6.7
23	15	12	24.3	-27.8
24	15	12*	0.	-1.4
16	16	12	21.6	-24.0
17	16	12*	9.6	-9.4
18	16	12	16.7	20.7
19	16	12*	5.4	7.3
20	16	12	157.6	158.3
21	16	12*	5.6	-2.6
22	16	12*	11.7	11.9
23	16	12*	13.1	-6.4
24	16	12	21.2	24.0
17	17	12	27.2	25.7
18	17	12*	9.9	11.7
19	17	12	24.9	-25.7
20	17	12*	5.3	3.1
21	17	12	20.9	-19.5
22	17	12*	9.6	9.9
23	17	12*	12.0	-7.3
24	17	12*	8.3	6.3
18	18	12	161.9	162.1
19	18	12*	5.7	5.3
20	18	12	23.1	19.9
21	18	12*	8.6	8.2
22	18	12*	9.1	-6.2
23	18	12*	0.2	1.3
24	18	12	20.6	18.1
19	19	12	42.1	-40.0
20	19	12*	7.7	-6.6
21	19	12*	10.2	7.3
22	19	12*	5.8	-1.2
23	19	12*	7.1	1.3
24	19	12*	8.2	-5.9
20	20	12*	11.0	19.9
21	20	12*	12.0	11.7
22	20	12*	12.2	11.3
23	20	12*	5.5	-4.2
24	20	12	29.6	-33.5
21	21	12*	7.6	-5.4
22	21	12*	6.4	-6.5
23	21	12*	11.6	-8.8
22	22	12	22.6	-24.8
23	22	12*	7.3	-1.9
1	1	-13*	4.9	0.8
13	13	13	35.7	-43.6
14	13	13	52.6	54.1
15	13	13*	6.0	8.7
16	13	13	19.7	20.2
17	13	13	23.7	26.9
18	13	13*	9.0	9.0
19	13	13	27.9	28.8
20	13	13*	5.1	-2.4
21	13	13*	2.3	1.3

H	K	L	/FO/	/FC/
22	13	13	53.4	-54.3
23	13	13*	7.8	-6.6
24	13	13*	7.5	-9.0
14	14	13*	5.5	-7.6
15	14	13	36.3	-38.1
16	14	13*	9.4	-14.4
17	14	13	13.5	12.8
18	14	13*	0.	-3.7
19	14	13*	9.9	3.8
20	14	13*	4.6	-3.1
21	14	13*	6.2	-2.2
22	14	13	17.3	18.2
23	14	13	19.3	-20.8
24	14	13*	5.4	-1.5
15	15	13	11.8	12.3
16	15	13*	7.8	11.3
17	15	13	33.1	36.0
18	15	13	14.5	-14.6
19	15	13*	6.6	-7.1
20	15	13	50.3	-50.4
21	15	13	14.9	-17.3
22	15	13*	9.8	-1.6
23	15	13*	10.9	-4.4
24	15	13*	6.7	-3.5
25	15	13*	2.0	-4.8
16	16	13	19.7	-18.7
17	16	13*	6.4	6.7
18	16	13	13.9	-13.1
19	16	13	27.0	-26.7
20	16	13	34.8	37.4
21	16	13	27.4	-27.6
22	16	13*	6.7	0.4
23	16	13*	0.	-0.8
24	16	13*	10.4	4.5
25	16	13*	14.2	-15.4
17	17	13	15.9	14.6
18	17	13	35.5	-36.5
19	17	13	21.1	-19.3
20	17	13	22.9	-24.7
21	17	13*	8.8	-10.2
22	17	13*	4.8	-6.5
23	17	13*	0.8	-0.6
24	17	13	29.2	-26.8
25	17	13	15.1	-7.8
18	18	13	30.5	28.6
19	18	13*	8.0	-14.5
20	18	13*	5.3	1.1
21	18	13*	2.8	-2.2
22	18	13*	1.6	1.3
23	18	13*	3.9	-8.4
24	18	13*	7.0	11.1
25	18	13*	13.1	4.7
19	19	13*	7.2	-8.7
20	19	13*	10.9	-3.9
21	19	13*	5.5	-2.9
22	19	13	19.8	-19.1
23	19	13*	10.4	-4.8
24	19	13	32.5	31.3
25	19	13*	4.1	4.7
20	20	13*	7.0	7.1
21	20	13	24.8	-24.2
22	20	13	14.4	13.0
23	20	13	15.8	17.0
24	20	13	16.1	-16.5
21	21	13	14.7	-13.4
22	21	13	20.3	24.0
23	21	13*	5.8	2.2
24	21	13*	7.3	-3.0
22	22	13*	8.4	-10.4
23	22	13	18.5	-17.3
24	22	13*	4.8	-5.2
23	23	13*	4.4	9.3
14	14	14	41.2	43.2
15	14	14*	8.4	-12.6
16	14	14	24.1	21.4
17	14	14*	8.4	-9.8
18	14	14	36.7	36.2
19	14	14	52.5	54.7
20	14	14	142.3	144.1
21	14	14*	5.1	-0.4
22	14	14*	12.7	11.8
23	14	14*	13.4	-10.7
24	14	14	21.4	24.6
25	14	14*	8.0	8.7
15	15	14*	0.	3.0
16	15	14*	7.1	8.7
17	15	14	22.4	21.6
18	15	14*	7.7	6.4
19	15	14	27.6	-28.0
20	15	14*	9.1	5.0
21	15	14*	12.4	-18.6
22	15	14*	7.1	4.3
23	15	14*	5.9	-6.7
24	15	14*	11.0	4.1
25	15	14*	12.0	-7.9
16	16	14*	8.7	8.6
17	16	14	30.2	29.0
18	16	14	195.3	197.5
19	16	14*	5.4	-4.1
20	16	14	33.1	31.9
21	16	14*	8.6	0.3
22	16	14*	7.5	-5.2
23	16	14*	4.9	3.3
24	16	14	21.4	23.1
25	16	14*	7.9	-6.2
17	17	14	28.2	-26.4
18	17	14	14.4	15.3
19	17	14	14.4	-14.7
20	17	14*	9.2	-5.6
21	17	14*	5.6	4.7
22	17	14*	5.1	12.2
23	17	14*	10.1	-7.2
24	17	14*	5.7	-6.3
25	17	14*	8.9	-4.2
18	18	14*	9.9	-11.1
19	18	14*	5.9	-2.4
20	18	14	13.4	14.2
21	18	14	12.7	11.0
22	18	14	17.9	13.7
23	18	14*	12.4	-17.7
24	18	14	31.5	-35.1
25	18	14*	7.9	-4.5
19	19	14*	8.9	-7.2
20	19	14*	5.7	4.3
21	19	14	15.3	-15.4
22	19	14*	5.0	-8.9
23	19	14	14.2	-8.8
24	19	14*	6.8	0.2
25	19	14	19.0	-17.4
20	20	14	34.1	35.0
21	20	14*	2.9	-9.1
22	20	14	42.4	-42.1
23	20	14*	5.2	-0.9
24	20	14	16.4	-12.1
25	20	14*	5.6	-3.4
21	21	14	20.4	-16.7
22	21	14*	4.6	-6.3
23	21	14	17.5	-17.9
24	21	14*	7.5	1.2
25	21	14*	6.6	-4.0
22	22	14*	4.7	2.3
23	22	14*	7.6	-6.4
24	22	14*	0.	6.3
25	22	14*	10.1	0.0
23	23	14*	7.2	13.9
24	23	14*	10.2	9.2
15	15	15	61.0	69.8
16	15	15	31.8	-32.9
17	15	15*	9.4	6.8
18	15	15	52.5	-56.6

H	K	L	/FO/	/FC/
19	15	15	22.3	-22.4
20	15	15	14.1	-12.8
21	15	15*	0.	-0.4
22	15	15*	6.5	2.6
23	15	15*	6.3	-8.1
24	15	15	21.6	-21.9
25	15	15*	11.1	-7.9
16	16	15	24.6	-23.7
17	16	15	52.3	-50.2
18	16	15	14.3	18.6
19	16	15	35.5	-40.7
20	16	15*	6.1	-8.8
21	16	15*	6.6	4.5
22	16	15*	5.9	-3.5
23	16	15*	6.8	1.3
24	16	15*	13.0	7.9
25	16	15*	7.9	6.6
26	16	15*	4.9	-2.6
17	17	15	33.7	-36.2
18	17	15*	2.9	-5.9
19	17	15*	3.9	-3.9
20	17	15*	11.4	-16.5
21	17	15*	11.9	2.7
22	17	15	23.7	-23.2
23	17	15	19.5	-18.3
24	17	15	41.8	40.3
25	17	15*	5.7	10.8
26	17	15	13.8	-9.1
18	18	15*	7.5	4.3
19	18	15*	9.2	5.5
20	18	15*	9.1	2.7
21	18	15	21.5	-23.9
22	18	15*	5.5	10.0
23	18	15*	7.3	12.4
24	18	15*	7.3	2.5
25	18	15	19.8	-19.9
26	18	15*	4.6	-7.4
19	19	15*	8.5	-14.6
20	19	15	13.5	-13.4
21	19	15	27.8	-25.9
22	19	15	44.7	42.9
23	19	15*	8.7	11.8
24	19	15*	7.3	-7.7
25	19	15*	10.3	8.7
26	19	15*	10.5	9.2
20	20	15	13.7	15.3
21	20	15	24.3	25.7
22	20	15*	6.1	0.3
23	20	15	20.8	-15.0
24	20	15*	5.7	-3.5
25	20	15*	9.6	4.8
26	20	15*	6.2	-0.5
21	21	15*	6.4	14.4
22	21	15	18.4	-15.9
23	21	15*	9.3	9.0
24	21	15*	7.9	12.6
25	21	15*	14.4	17.0
26	21	15*	9.3	-9.4
22	22	15*	0.	-5.6
23	22	15*	8.7	6.0
24	22	15*	10.4	-6.3
25	22	15*	6.5	3.9
23	23	15	29.5	26.2
24	23	15*	5.8	-9.3
25	23	15*	12.2	6.3
24	24	15	20.3	-19.7
16	16	16	266.0	273.6
17	16	16	21.9	22.0
18	16	16	16.6	17.8
19	16	16*	6.2	-10.7
20	16	16	36.5	42.0
21	16	16*	2.3	13.1
22	16	16	13.5	9.3
23	16	16	13.7	9.8
24	16	16	48.5	-48.9
25	16	16*	3.6	-5.0
26	16	16*	10.6	-4.7
17	17	16	28.4	-27.8
18	17	16*	6.6	5.4
19	17	16*	0.	-4.7
20	17	16	13.9	19.4
21	17	16	20.3	-21.3
22	17	16*	5.8	2.6
23	17	16*	4.2	2.1
24	17	16	14.2	-9.8
25	17	16	17.5	-20.9
26	17	16*	11.3	-9.3
18	18	16*	6.5	7.6
19	18	16*	7.0	-6.4
20	18	16	27.2	27.2
21	18	16*	10.7	2.5
22	18	16	49.4	-50.9
23	18	16*	7.4	-8.8
24	18	16	15.0	-7.3
25	18	16	15.9	-13.4
26	18	16	20.9	22.6
19	19	16*	7.9	-4.2
20	19	16	16.6	14.9
21	19	16*	6.5	6.9
22	19	16*	4.9	-10.4
23	19	16*	9.6	-10.5
24	19	16*	6.2	4.8
25	19	16*	8.7	-6.0
26	19	16*	8.2	10.8
20	20	16	72.4	-73.2
21	20	16*	5.4	-9.7
22	20	16	19.1	-13.9
23	20	16*	9.8	-1.3
24	20	16*	11.9	-6.6
25	20	16*	5.1	-1.3
26	20	16	16.3	19.0
21	21	16	23.7	-22.3
22	21	16	14.7	-14.7
23	21	16*	8.6	7.0
24	21	16*	9.5	0.9
25	21	16	19.8	18.5
26	21	16*	7.0	0.7
22	22	16	15.6	20.2
23	22	16*	13.6	13.6
24	22	16	16.8	16.6
25	22	16	16.1	12.3
26	22	16	75.9	77.3
23	23	16*	15.0	11.8
24	23	16*	4.8	3.8
25	23	16	15.1	-12.0
26	23	16*	4.8	6.4
24	24	16	91.0	91.9
25	24	16*	6.7	2.7
17	17	17	13.0	-11.2
18	17	17*	11.5	-6.4
19	17	17	13.2	5.4
20	17	17	25.2	-26.9
21	17	17	39.1	-40.1
22	17	17	40.7	38.7
23	17	17*	4.3	9.5
24	17	17*	5.5	-6.9
25	17	17*	9.3	14.6
26	17	17*	13.5	17.9
18	18	17	14.3	15.8
19	18	17	19.2	-23.3
20	18	17*	4.2	-2.0
21	18	17*	9.9	1.2
22	18	17*	9.7	-8.4
23	18	17	26.7	-26.4
24	18	17*	4.3	-5.7
25	18	17*	7.5	0.4
26	18	17*	6.0	-1.5
27	18	17*	0.2	2.0
19	19	17	27.0	-28.2
20	19	17	26.8	26.7

H	K	L	/FO/	/FC/
21	19	17*	8.3	10.9
22	19	17	24.8	-25.0
23	19	17*	11.2	12.7
24	19	17	16.3	16.8
25	19	17	20.7	18.8
26	19	17*	8.0	-11.2
27	19	17*	3.5	-2.4
20	20	17*	10.6	-16.0
21	20	17	17.8	-18.7
22	20	17*	7.3	-12.7
23	20	17	14.6	15.6
24	20	17*	7.1	-11.5
25	20	17*	10.9	7.4
26	20	17*	12.0	-8.6
27	20	17*	7.7	-9.7
21	21	17	16.5	18.3
22	21	17*	6.0	8.8
23	21	17	27.0	25.4
24	21	17*	6.5	-2.8
25	21	17*	7.3	5.6
26	21	17	37.8	-37.5
27	21	17*	12.2	-10.5
22	22	17*	6.6	-8.9
23	22	17*	3.2	-2.0
24	22	17	15.6	-12.2
25	22	17	17.6	-20.0
26	22	17*	13.0	15.5
27	22	17	16.4	-13.2
23	23	17*	0.	-0.0
24	23	17	27.3	-30.1
25	23	17*	13.3	-16.4
26	23	17*	8.1	-2.4
24	24	17	27.3	25.8
25	24	17*	11.5	-13.2
26	24	17*	8.2	0.2
25	25	17	19.4	-12.8
18	18	18*	0.	6.3
19	18	18*	5.5	-3.3
20	18	18	49.6	-52.7
21	18	18	14.1	-13.7
22	18	18*	9.8	10.7
23	18	18*	4.8	-9.8
24	18	18*	2.1	-0.6
25	18	18*	2.8	1.8
26	18	18*	14.5	14.7
27	18	18	27.5	25.7
19	19	18	17.5	17.8
20	19	18*	5.2	0.6
21	19	18	27.6	-28.3
22	19	18*	6.4	-8.9
23	19	18*	12.2	12.2
24	19	18*	7.0	4.2
25	19	18	18.1	18.8
26	19	18*	0.	-2.2
27	19	18*	10.3	-4.2
20	20	18	35.1	-30.5
21	20	18	16.0	-14.5
22	20	18	14.8	20.4
23	20	18	14.3	14.3
24	20	18*	9.3	3.4
25	20	18	20.4	16.9
26	20	18	94.9	99.6
27	20	18*	3.7	4.8
21	21	18*	5.6	1.7
22	21	18*	9.5	-2.4
23	21	18*	6.9	10.0
24	21	18*	6.2	4.4
25	21	18*	6.2	-3.6
26	21	18*	7.4	7.1
27	21	18	20.4	-21.0
22	22	18	30.6	32.2
23	22	18	21.3	20.3
24	22	18	106.8	108.2
25	22	18*	3.8	8.0
26	22	18*	6.2	0.9
27	22	18*	9.9	-2.8
23	23	18*	6.7	-5.2
24	23	18*	2.8	0.7
25	23	18	19.1	-19.3
26	23	18*	4.7	4.9
27	23	18*	0.	-3.6
24	24	18*	10.0	14.0
25	24	18*	9.4	-4.8
26	24	18*	7.1	10.0
27	24	18*	5.1	-3.7
25	25	18*	10.2	11.8
26	25	18*	3.5	8.0
19	19	19*	5.7	2.1
20	19	19*	4.9	-10.9
21	19	19	19.2	20.7
22	19	19*	0.	1.5
23	19	19	44.0	43.6
24	19	19*	5.7	2.9
25	19	19*	11.4	4.6
26	19	19	44.7	-46.0
27	19	19*	14.7	-12.4
20	20	19*	5.8	-0.6
21	20	19*	8.1	14.5
22	20	19*	5.9	7.9
23	20	19*	6.7	1.9
24	20	19	13.5	-11.4
25	20	19	21.5	-24.4
26	20	19*	9.5	10.6
27	20	19	22.8	-20.7
28	20	19*	7.9	-9.3
21	21	19	33.2	31.3
22	21	19	14.5	13.0
23	21	19*	9.1	4.1
24	21	19	38.1	-36.1
25	21	19	22.1	-20.5
26	21	19	12.8	-12.1
27	21	19*	9.0	-8.5
28	21	19*	6.9	-3.7
22	22	19*	5.6	-4.0
23	22	19	32.2	-36.0
24	22	19*	2.6	11.1
25	22	19*	7.1	-14.3
26	22	19*	7.0	-3.5
27	22	19*	3.8	1.7
28	22	19*	3.9	4.0
23	23	19	19.0	-20.1
24	23	19	19.5	-20.3
25	23	19*	13.2	-13.5
26	23	19*	9.5	0.9
27	23	19*	4.7	-13.2
24	24	19*	8.4	-8.8
25	24	19*	0.	-2.2
26	24	19*	7.3	-4.4
27	24	19*	8.3	-6.1
25	25	19*	6.8	-2.1
26	25	19	16.6	-20.0
27	25	19	17.1	-13.4
26	26	19*	9.8	7.5
20	20	20*	8.1	-2.5
21	20	20*	7.5	-6.5
22	20	20	21.6	20.1
23	20	20*	8.1	2.0
24	20	20	130.5	132.6
25	20	20*	5.0	4.2
26	20	20	19.4	19.6
27	20	20*	10.5	-8.9
28	20	20	22.6	25.1
21	21	20	12.7	4.5
22	21	20*	8.6	4.5
23	21	20	21.3	-20.2
24	21	20	14.9	14.5
25	21	20	17.9	-20.1
26	21	20*	10.6	7.1
27	21	20*	6.8	-2.8
28	21	20*	7.5	8.2

H	K	L	/FO/	/FC/
22	22	20	124.7	125.9
23	22	20*	7.7	8.4
24	22	20	21.1	19.8
25	22	20*	8.0	-2.0
26	22	20*	0.	5.1
27	22	20*	7.1	0.2
28	22	20	19.9	19.6
23	23	20	28.5	-28.1
24	23	20*	5.1	-10.6
25	23	20*	8.1	4.0
26	23	20*	7.2	-3.6
27	23	20*	7.2	-2.8
28	23	20*	7.5	-1.4
24	24	20	23.7	29.4
25	24	20*	9.8	13.4
26	24	20	22.9	19.2
27	24	20*	7.9	5.8
28	24	20	25.1	-29.1
25	25	20*	6.2	-10.6
26	25	20*	9.0	-2.4
27	25	20*	12.1	-5.0
26	26	20	25.3	-26.2
27	26	20*	1.4	-5.0
21	21	21*	11.6	12.1
22	21	21	26.8	-26.7
23	21	21	24.3	-26.9
24	21	21	27.1	-27.7
25	21	21*	15.3	-16.7
26	21	21*	4.9	-0.8
27	21	21*	7.4	-9.0
28	21	21	19.8	-19.1
22	22	21	15.9	18.2
23	22	21	17.7	-16.7
24	22	21*	0.	-2.1
25	22	21*	8.1	7.3
26	22	21*	8.1	3.8
27	22	21*	3.4	-4.9
28	22	21*	5.6	4.1
23	23	21*	10.2	-7.5
24	23	21*	4.7	-7.4
25	23	21*	4.7	-4.9
26	23	21	17.3	-13.8
27	23	21*	7.2	-13.4
28	23	21	30.7	31.0
24	24	21*	8.4	4.8
25	24	21*	12.0	-9.7
26	24	21*	11.1	10.4
27	24	21*	10.0	4.6
28	24	21*	10.8	-8.0
25	25	21	28.0	-24.2
26	25	21	19.9	19.3
27	25	21*	2.8	12.0
28	25	21*	7.2	-2.1
26	26	21*	0.	-3.0
27	26	21*	11.6	-7.5
27	27	21*	8.1	3.5
22	22	22*	10.6	-5.3
23	22	22	13.6	-7.5
24	22	22*	13.1	17.0
25	22	22*	8.0	17.6
26	22	22*	13.6	8.3
27	22	22*	6.1	-10.1
28	22	22	17.9	-23.8
23	23	22*	4.4	1.7
24	23	22*	6.5	-2.9
25	23	22	18.4	-20.4
26	23	22*	6.2	-3.3
27	23	22*	5.6	-2.3
28	23	22*	0.	0.8
29	23	22*	11.8	-12.2
24	24	22	36.1	35.2
25	24	22*	6.4	1.1
26	24	22	32.1	-36.1
27	24	22*	0.	-5.4
28	24	22*	8.6	-8.6
25	25	22*	7.2	-0.6
26	25	22*	9.6	-7.6
27	25	22*	12.6	-10.9
28	25	22*	0.	0.1
26	26	22*	3.5	2.2
27	26	22*	13.5	-11.9
28	26	22*	3.0	7.3
27	27	22*	8.9	5.4
23	23	23	13.0	-20.4
24	23	23*	10.8	-13.4
25	23	23	27.1	-28.6
26	23	23	28.2	29.6
27	23	23*	10.1	13.4
28	23	23*	9.6	-9.8
29	23	23*	7.2	8.3
24	24	23	18.2	16.2
25	24	23*	12.4	14.9
26	24	23*	6.1	-0.4
27	24	23*	3.9	-3.3
28	24	23*	11.8	0.9
29	24	23*	6.2	5.0
25	25	23*	9.9	17.4
26	25	23	16.3	-15.5
27	25	23*	0.	8.5
28	25	23	17.2	19.3
29	25	23*	15.4	15.8
26	26	23*	8.0	-7.9
27	26	23*	5.3	7.0
28	26	23*	0.	-5.3
27	27	23	31.0	32.3
28	27	23*	7.3	-2.5
24	24	24	46.2	-52.1
25	24	24*	7.4	-5.0
26	24	24*	14.7	-7.2
27	24	24*	0.	-6.6
28	24	24*	5.4	-2.0
29	24	24*	0.	-1.0
25	25	24*	10.4	-7.5
26	25	24*	13.4	-13.0
27	25	24*	4.7	9.0
28	25	24*	9.1	-5.8
29	25	24*	7.8	1.4
26	26	24*	5.9	11.8
27	26	24*	9.6	11.6
28	26	24*	13.0	-0.2
29	26	24*	8.2	7.3
27	27	24*	3.0	1.2
28	27	24*	0.2	-5.8
25	25	25	21.7	22.4
26	25	25*	12.5	7.5
27	25	25	25.2	24.4
28	25	25*	5.5	-5.8
29	25	25*	8.3	6.8
26	26	25*	3.1	-11.0
27	26	25*	7.3	-1.3
28	26	25*	5.4	-0.6
29	26	25	15.6	-14.4
27	27	25*	7.2	-1.7
28	27	25	21.6	-23.1
28	28	25*	13.4	14.5
26	26	26	19.1	15.4
27	26	26*	11.6	11.6
28	26	26	68.9	72.7
29	26	26*	3.7	8.3
27	27	26*	8.4	-14.0
28	27	26*	0.	6.9
28	28	26	20.0	25.2
27	27	27	14.4	-12.7
28	27	27	18.8	-17.0