

The crystal structure of klebelsbergite,  $\text{Sb}_4\text{O}_4(\text{OH})_2\text{SO}_4$ 

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## Abstract

Klebelsbergite is an antimony sulfate found at Felsöbánya, Hungary, and recently at Pereta, Tuscany, Italy. Crystal data are:  $a = 5.766(2)$ ,  $b = 11.274(2)$ ,  $c = 14.887(2)\text{\AA}$ ; space group  $Pca2_1$ ;  $Z = 4$ . The atomic positions were determined by direct methods and refined by least-squares calculations to an  $R$  index of 0.045 for 1111 observed reflections.

The basic structural units are the  $\text{Sb}^{\text{III}}\text{-O}$  polyhedra and the  $\text{SO}_4$  tetrahedron. Antimony polyhedra show, as usual, intermediate features between the  $\text{SbO}_3E$  tetrahedron and the  $\text{SbO}_4E$  trigonal bipyramid, where  $E$  indicates the unshared lone pair of electrons. These polyhedra are connected to each other by edge sharing to form  $\text{Sb-O}$  sheets parallel to (001). Adjacent sheets are linked together by  $\text{SO}_4$  tetrahedra and, indirectly, by H-bonds. Taking into account anions and lone pairs, the volume occupied by each anion is similar to that found in close-packed structures. A marked pseudosymmetry (towards the centric group  $Pcan$ ) is present in the  $\text{Sb-O}$  sheet.

## Introduction

Klebelsbergite from Felsöbánya, Hungary, was first described by Zsivny (1929); however, the first complete description of the mineral is by Nakai and Appleman (1980). A second occurrence of klebelsbergite, at Pereta mine (Tuscany, Italy), is reported by Cipriani *et al.* (1980a). A synthetic compound equivalent to klebelsbergite was prepared by Nakai and Appleman by boiling  $\text{Sb}_2\text{O}_3$  with sulfuric acid. The same compound was also obtained by researchers of the Laboratoire de Chimie-Physique, Besançon, France (Douglade, personal communication).

In recent years several  $\text{Sb}^{3+}\text{-O}$  compounds have been structurally studied and much attention has been directed towards the stereochemistry of elements with one unshared electron pair. Our work was undertaken in order to contribute to the crystal-chemistry knowledge of these compounds. Another question was the full knowledge of the chemical composition of klebelsbergite and if the true crystal-chemical formula was  $\text{Sb}_4\text{O}_4(\text{OH})_2\text{SO}_4$  or  $\text{Sb}_4\text{O}_5\text{SO}_4 \cdot \text{H}_2\text{O}$ .

## Experimental

For our study a small (approx.  $0.1 \times 0.1 \times 0.5$  mm) colorless crystal was chosen from a sample we collected at Pereta. Crystal data are:  $a = 5.766(2)$ ,  $b =$

$11.274(2)$ ,  $c = 14.887(2)\text{\AA}$ ,  $V = 967.7\text{\AA}^3$ ;  $Z = 4$ ,  $D_x = 4.67$  g  $\text{cm}^{-3}$ , formula weight 681.1. The space group, determined from the extinctions, is  $Pcam$  or  $Pca2_1$ . The latter is the correct one on the basis of the structure determination.

Intensities were collected with a Philips *PW 1100* four-circle computer-controlled diffractometer (Centro di Cristallografia Strutturale del C.N.R., Pavia, Italy), with  $\text{MoK}\alpha$  radiation and the  $\omega$ - $2\theta$  scan technique. A total of 1469 independent reflections, in the range  $2 < \theta < 30^\circ$  were measured; only 1111 were considered to be actually observed according to the criterion  $F_o > 5\sigma(F_o)$ . Intensities were corrected for Lorentz-polarization effects; an absorption correction was carried out on the basis of the semiempirical method proposed by North *et al.* (1968).

## Structure determination and refinement

As statistical tests did not give a clear indication on the absence of the symmetry center, the first attempts to solve the crystal structure of klebelsbergite were performed in the centric space group  $Pcam$ , which was later found to be incorrect. Other difficulties were presented by the incomplete knowledge of the chemical composition. The structure was solved by direct methods, using MULTAN (Main *et al.*, 1974). However, many successive three-dimensional Fou-

KLEBELSBERGITE

| H | K  | L  | F0    | FC    | A      | B     |
|---|----|----|-------|-------|--------|-------|
| 0 | 3  | 0* | 2.5   | 5.1   | -5.1   | .6    |
| 0 | 4  | 0* | 333.9 | 364.7 | -364.2 | -17.9 |
| 0 | 5  | 0  | 31.6  | 37.1  | 37.1   | .3    |
| 0 | 6  | 0  | 122.0 | 121.8 | -121.7 | -5.2  |
| 0 | 7  | 0  | 36.0  | 31.3  | -31.3  | -.6   |
| 0 | 8  | 0  | 127.3 | 127.6 | 127.5  | 5.5   |
| 0 | 9  | 0  | 45.3  | 44.3  | -44.3  | -1.8  |
| 0 | 10 | 0* | 2.5   | 7.8   | 7.8    | -.1   |
| 0 | 11 | 0* | 2.5   | 6.6   | 6.6    | -.0   |
| 0 | 12 | 0  | 81.1  | 82.8  | 82.6   | 5.2   |
| 0 | 13 | 0* | 22.2  | 31.7  | 31.7   | 1.7   |
| 0 | 14 | 0  | 90.2  | 82.0  | 81.8   | 6.5   |
| 0 | 15 | 0* | 2.5   | 39.4  | 39.3   | 1.7   |
| 2 | 0  | 0  | 174.4 | 163.7 | 163.4  | 9.6   |
| 2 | 1  | 0  | 56.0  | 55.0  | 54.9   | 2.2   |
| 2 | 2  | 0* | 28.2  | 21.5  | -21.4  | -2.1  |
| 2 | 3  | 0* | 8.2   | 4.8   | -4.8   | .2    |
| 2 | 4  | 0  | 251.0 | 250.3 | -250.1 | -9.2  |
| 2 | 5  | 0  | 53.5  | 58.8  | -58.7  | -2.6  |
| 2 | 6  | 0  | 164.6 | 156.9 | 156.8  | 6.3   |
| 2 | 7  | 0  | 48.4  | 57.5  | -57.4  | -2.8  |
| 2 | 8  | 0  | 134.2 | 135.4 | 135.2  | 6.2   |
| 2 | 9  | 0* | 24.2  | 23.1  | 23.1   | 1.1   |
| 2 | 10 | 0  | 115.5 | 116.2 | -116.0 | -7.3  |
| 2 | 11 | 0  | 51.4  | 46.1  | 46.0   | 3.0   |
| 2 | 12 | 0* | 32.3  | 40.8  | -40.6  | -3.3  |
| 2 | 13 | 0* | 9.6   | 14.6  | 14.6   | 1.1   |
| 2 | 14 | 0  | 111.3 | 102.1 | 101.9  | 6.6   |
| 2 | 15 | 0  | 46.0  | 30.4  | -30.4  | -1.7  |
| 4 | 0  | 0  | 61.1  | 62.9  | -62.8  | -2.8  |
| 4 | 1  | 0  | 49.1  | 50.9  | -50.9  | -2.6  |
| 4 | 2  | 0  | 112.4 | 115.0 | -114.8 | -5.2  |
| 4 | 3  | 0* | 14.3  | 18.7  | 18.6   | 2.1   |
| 4 | 4  | 0* | 24.7  | 19.3  | -19.3  | -.4   |
| 4 | 5  | 0* | 2.5   | 19.1  | 19.1   | 1.2   |
| 4 | 6  | 0  | 219.8 | 220.0 | 219.7  | 11.8  |
| 4 | 7  | 0  | 44.9  | 33.9  | -33.9  | -1.3  |
| 4 | 8  | 0  | 66.8  | 63.1  | 62.8   | 5.7   |
| 4 | 9  | 0* | 20.2  | 22.2  | 22.2   | 1.3   |
| 4 | 10 | 0  | 163.1 | 163.6 | -163.3 | -10.2 |
| 4 | 11 | 0* | 8.4   | 15.8  | 15.7   | 1.3   |
| 4 | 12 | 0  | 140.4 | 133.4 | -133.1 | -8.3  |
| 4 | 13 | 0* | 24.2  | 35.6  | -35.5  | -2.5  |
| 6 | 0  | 0  | 76.2  | 77.5  | 77.4   | 4.1   |
| 6 | 1  | 0  | 145.9 | 147.3 | -147.0 | -9.1  |
| 6 | 2  | 0* | 36.8  | 33.2  | -33.2  | -.2   |
| 6 | 3  | 0  | 86.1  | 88.8  | 88.6   | 5.1   |
| 6 | 4  | 0* | 37.1  | 41.2  | -41.1  | -2.9  |
| 6 | 5  | 0  | 120.2 | 119.9 | 119.7  | 7.7   |
| 6 | 6  | 0* | 37.4  | 25.9  | -25.9  | -.7   |
| 6 | 7  | 0* | 2.5   | 13.8  | 13.8   | .5    |
| 6 | 8  | 0  | 41.7  | 37.5  | 37.4   | 2.2   |
| 6 | 9  | 0* | 26.6  | 31.3  | -31.2  | -2.0  |
| 6 | 10 | 0* | 24.4  | 6.7   | -6.7   | -.0   |
| 8 | 0  | 0* | 21.3  | 19.1  | 19.0   | 2.4   |
| 8 | 1  | 0* | 28.2  | 7.7   | -7.6   | -1.4  |
| 8 | 2  | 0* | 36.9  | 44.8  | 44.8   | 2.2   |
| 0 | 0  | 2  | 117.5 | 112.3 | -111.9 | -9.5  |
| 0 | 1  | 2* | 239.1 | 261.0 | -56.1  | 254.9 |
| 0 | 2  | 2  | 48.3  | 49.3  | 38.4   | 30.9  |
| 0 | 3  | 2* | 12.8  | 24.0  | 3.9    | -23.6 |
| 0 | 4  | 2  | 181.8 | 189.0 | 186.4  | 31.0  |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 0 | 5  | 2  | 155.3 | 159.0 | 65.3   | -145.0 |
| 0 | 6  | 2  | 335.4 | 343.4 | -340.8 | -41.5  |
| 0 | 7  | 2  | 158.9 | 156.6 | 20.7   | -155.2 |
| 0 | 8  | 2  | 121.1 | 127.0 | -119.0 | -44.3  |
| 0 | 9  | 2  | 95.2  | 96.6  | -49.2  | 83.1   |
| 0 | 10 | 2  | 201.7 | 202.6 | 199.3  | 36.0   |
| 0 | 11 | 2  | 175.5 | 177.0 | -18.7  | 176.0  |
| 0 | 12 | 2  | 138.5 | 133.4 | 130.1  | 29.5   |
| 0 | 13 | 2  | 52.4  | 57.0  | -15.6  | 54.8   |
| 0 | 14 | 2  | 122.6 | 118.9 | -118.8 | 3.8    |
| 0 | 15 | 2* | 37.7  | 48.4  | 27.8   | -39.7  |
| 2 | 0  | 2  | 292.2 | 289.0 | -289.0 | 3.2    |
| 2 | 1  | 2  | 59.3  | 61.4  | 60.6   | 10.2   |
| 2 | 2  | 2  | 76.2  | 74.7  | 62.5   | 40.9   |
| 2 | 3  | 2  | 100.2 | 98.1  | -43.1  | 88.1   |
| 2 | 4  | 2  | 231.6 | 229.3 | 227.8  | -26.0  |
| 2 | 5  | 2  | 37.2  | 42.1  | -41.8  | -5.0   |
| 2 | 6  | 2  | 102.1 | 105.9 | -71.9  | -77.8  |
| 2 | 7  | 2* | 5.1   | 18.7  | -18.7  | -1.2   |
| 2 | 8  | 2  | 152.6 | 155.4 | -151.8 | -32.9  |
| 2 | 9  | 2* | 24.9  | 27.2  | 24.9   | -10.9  |
| 2 | 10 | 2  | 123.6 | 121.2 | 113.3  | 42.9   |
| 2 | 11 | 2* | 21.8  | 7.4   | 6.7    | -3.2   |
| 2 | 12 | 2  | 42.3  | 40.9  | 16.1   | 37.3   |
| 2 | 13 | 2* | 29.8  | 18.5  | 18.5   | -5     |
| 2 | 14 | 2  | 79.1  | 79.9  | -78.1  | -16.6  |
| 2 | 15 | 2* | 37.2  | 11.9  | -8.1   | -8.7   |
| 4 | 0  | 2  | 259.0 | 257.3 | -252.4 | -49.9  |
| 4 | 1  | 2  | 176.1 | 177.7 | 75.2   | -161.0 |
| 4 | 2  | 2  | 37.9  | 35.7  | -9.6   | -34.4  |
| 4 | 3  | 2  | 65.8  | 67.8  | -67.1  | -10.0  |
| 4 | 4  | 2  | 173.6 | 176.2 | 174.2  | 26.8   |
| 4 | 5  | 2  | 132.2 | 130.9 | -27.2  | 128.1  |
| 4 | 6  | 2  | 51.3  | 47.3  | 42.6   | 20.4   |
| 4 | 7  | 2  | 83.6  | 83.5  | 37.5   | 74.6   |
| 4 | 8  | 2  | 65.8  | 65.8  | -65.2  | 9.5    |
| 4 | 9  | 2  | 40.2  | 39.4  | 18.9   | -34.6  |
| 4 | 10 | 2* | 34.1  | 21.3  | 20.7   | -5.2   |
| 4 | 11 | 2  | 88.7  | 89.0  | -11.6  | -88.2  |
| 4 | 12 | 2* | 25.7  | 24.6  | -10.6  | -22.2  |
| 4 | 13 | 2  | 45.0  | 44.7  | 6.2    | -44.3  |
| 6 | 0  | 2  | 90.0  | 89.2  | 16.5   | -87.7  |
| 6 | 1  | 2* | 13.2  | 11.8  | -10.9  | 4.6    |
| 6 | 2  | 2  | 39.1  | 33.6  | 3.7    | -33.4  |
| 6 | 3  | 2  | 48.5  | 52.9  | -49.3  | -19.1  |
| 6 | 4  | 2  | 65.7  | 68.3  | 30.4   | 61.2   |
| 6 | 5  | 2* | 32.6  | 38.5  | 35.0   | -16.0  |
| 6 | 6  | 2  | 100.1 | 99.5  | -56.7  | 81.7   |
| 6 | 7  | 2  | 103.9 | 103.1 | 103.1  | 1.2    |
| 6 | 8  | 2* | 6.1   | 19.7  | -8.7   | 17.7   |
| 6 | 9  | 2* | 31.1  | 36.3  | -36.1  | -3.5   |
| 6 | 10 | 2  | 54.8  | 57.7  | 24.3   | -52.4  |
| 8 | 0  | 2  | 51.0  | 48.3  | 21.1   | 43.5   |
| 8 | 1  | 2  | 57.7  | 61.6  | 42.2   | 44.3   |
| 8 | 2  | 2* | 32.5  | 24.9  | 12.2   | 21.7   |
| 0 | 0  | 4  | 185.5 | 188.5 | 186.7  | 26.0   |
| 0 | 1  | 4* | 280.8 | 306.8 | -115.1 | 284.4  |
| 0 | 2  | 4  | 209.0 | 216.7 | -213.4 | -37.7  |
| 0 | 3  | 4  | 60.4  | 62.3  | 34.0   | -52.1  |
| 0 | 4  | 4  | 206.8 | 213.1 | -198.6 | -77.3  |
| 0 | 5  | 4  | 280.1 | 288.2 | 98.1   | -271.0 |
| 0 | 6  | 4  | 182.5 | 190.2 | 180.5  | 60.0   |
| 0 | 7  | 4  | 110.4 | 111.1 | 63.1   | -91.4  |
| 0 | 8  | 4  | 176.1 | 179.6 | 179.4  | 8.3    |
| 0 | 9  | 4  | 39.9  | 39.4  | -29.5  | 26.2   |
| 0 | 10 | 4  | 199.4 | 207.7 | -196.4 | -67.5  |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 0 | 11 | 4  | 90.5  | 89.9  | -28.5  | 85.3   |
| 0 | 12 | 4  | 86.7  | 91.6  | -88.9  | -22.3  |
| 0 | 13 | 4  | 72.6  | 70.8  | -35.0  | 61.5   |
| 0 | 14 | 4  | 94.9  | 83.6  | 71.3   | 43.6   |
| 0 | 15 | 4* | 30.2  | 52.4  | 16.7   | -49.7  |
| 2 | 0  | 4  | 277.5 | 274.4 | 248.4  | 116.6  |
| 2 | 1  | 4* | 26.4  | 24.7  | -13.9  | -20.4  |
| 2 | 2  | 4  | 65.1  | 69.1  | -57.3  | 38.7   |
| 2 | 3  | 4  | 73.8  | 70.0  | 20.4   | -67.0  |
| 2 | 4  | 4  | 221.6 | 226.7 | -209.1 | -87.5  |
| 2 | 5  | 4  | 60.9  | 55.4  | 53.3   | 15.2   |
| 2 | 6  | 4  | 133.3 | 134.7 | 131.2  | -30.6  |
| 2 | 7  | 4  | 52.1  | 47.0  | -21.5  | 41.8   |
| 2 | 8  | 4  | 86.6  | 89.3  | 84.4   | 29.4   |
| 2 | 9  | 4* | 21.1  | 3.9   | 2.9    | -2.6   |
| 2 | 10 | 4  | 110.0 | 105.8 | -105.7 | 2.4    |
| 2 | 11 | 4* | 24.0  | 27.3  | -6.4   | -26.5  |
| 2 | 12 | 4  | 56.6  | 61.3  | -60.1  | 12.2   |
| 2 | 13 | 4* | 2.5   | 7.4   | -3.8   | 6.4    |
| 2 | 14 | 4  | 83.8  | 84.0  | 81.8   | 19.1   |
| 2 | 15 | 4* | 27.1  | 25.7  | -6.6   | 24.8   |
| 4 | 0  | 4  | 216.8 | 206.2 | 200.1  | 49.6   |
| 4 | 1  | 4  | 105.8 | 102.7 | 21.0   | -100.6 |
| 4 | 2  | 4* | 28.4  | 24.3  | 23.5   | -6.2   |
| 4 | 3  | 4  | 49.6  | 48.8  | 42.4   | 24.3   |
| 4 | 4  | 4  | 150.6 | 148.4 | -147.0 | -19.9  |
| 4 | 5  | 4  | 141.0 | 138.3 | -36.5  | 133.4  |
| 4 | 6  | 4* | 2.5   | 10.4  | 7.7    | 6.9    |
| 4 | 7  | 4  | 123.4 | 125.8 | -81.8  | 95.6   |
| 4 | 8  | 4  | 63.1  | 59.4  | 52.3   | 28.2   |
| 4 | 9  | 4* | 32.0  | 42.4  | 20.7   | -37.0  |
| 4 | 10 | 4* | 27.5  | 20.7  | -17.5  | 11.1   |
| 4 | 11 | 4  | 119.5 | 115.2 | 67.4   | -93.3  |
| 4 | 12 | 4* | 20.3  | 18.1  | 18.1   | -1.0   |
| 4 | 13 | 4  | 42.3  | 35.7  | 12.3   | -33.5  |
| 6 | 0  | 4  | 142.6 | 147.7 | 98.7   | -110.0 |
| 6 | 1  | 4* | 2.5   | 24.2  | -16.7  | 17.5   |
| 6 | 2  | 4  | 35.8  | 37.6  | -3.3   | -37.5  |
| 6 | 3  | 4  | 55.0  | 54.9  | 51.8   | 18.1   |
| 6 | 4  | 4  | 69.4  | 73.0  | -29.9  | 66.6   |
| 6 | 5  | 4  | 41.5  | 40.2  | -22.0  | -33.6  |
| 6 | 6  | 4  | 76.9  | 77.4  | -17.1  | 75.5   |
| 6 | 7  | 4  | 77.9  | 78.1  | -75.8  | -18.9  |
| 6 | 8  | 4  | 35.8  | 34.4  | 30.8   | 15.3   |
| 6 | 9  | 4* | 12.7  | 22.9  | 2.3    | 22.8   |
| 6 | 10 | 4  | 56.3  | 57.0  | -6.6   | -56.7  |
| 0 | 0  | 6* | 405.8 | 458.1 | -410.7 | -203.0 |
| 0 | 1  | 6  | 60.3  | 61.5  | 5.6    | -61.2  |
| 0 | 2  | 6  | 35.4  | 48.6  | -48.5  | 2.2    |
| 0 | 3  | 6  | 37.7  | 44.8  | -9.0   | 43.9   |
| 0 | 4  | 6* | 424.6 | 451.0 | 418.0  | 169.1  |
| 0 | 5  | 6* | 17.5  | 15.2  | -1.6   | -15.1  |
| 0 | 6  | 6  | 112.0 | 111.5 | 92.2   | 62.8   |
| 0 | 7  | 6  | 104.9 | 103.5 | 58.2   | -85.6  |
| 0 | 8  | 6  | 71.3  | 76.1  | -73.9  | -18.2  |
| 0 | 9  | 6* | 2.5   | 11.8  | 9.6    | 6.7    |
| 0 | 10 | 6* | 22.4  | 18.6  | -1.4   | -18.6  |
| 0 | 11 | 6  | 64.5  | 64.7  | -12.8  | 63.4   |
| 0 | 12 | 6  | 79.7  | 80.2  | -66.9  | -44.2  |
| 0 | 13 | 6* | 36.3  | 30.0  | -19.4  | -22.9  |
| 0 | 14 | 6  | 91.8  | 93.0  | -86.2  | -34.9  |
| 0 | 15 | 6* | 2.5   | 29.7  | 10.1   | -27.9  |
| 2 | 0  | 6  | 259.6 | 253.3 | -242.5 | -73.2  |
| 2 | 1  | 6  | 88.1  | 83.4  | -16.4  | -81.8  |
| 2 | 2  | 6  | 48.1  | 51.1  | 42.4   | 28.5   |
| 2 | 3  | 6  | 81    | 81.9  | -53.3  | 62.1   |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 2 | 4  | 6  | 155.8 | 158.3 | 150.1  | 50.4   |
| 2 | 5  | 6  | 70.7  | 70.5  | 63.2   | 31.2   |
| 2 | 6  | 6  | 89.6  | 89.2  | -82.6  | -33.8  |
| 2 | 7  | 6  | 54.1  | 60.0  | 54.1   | -26.0  |
| 2 | 8  | 6  | 100.3 | 100.2 | -93.8  | -35.2  |
| 2 | 9  | 6* | 15.9  | 9.2   | -8.0   | -4.5   |
| 2 | 10 | 6  | 123.6 | 125.1 | 114.4  | 50.5   |
| 2 | 11 | 6  | 55.2  | 54.9  | -54.9  | 2.6    |
| 2 | 12 | 6  | 41.7  | 50.7  | 42.9   | 27.0   |
| 2 | 13 | 6* | 17.2  | 20.6  | -9.1   | -18.5  |
| 2 | 14 | 6  | 72.6  | 70.3  | -54.7  | -27.5  |
| 4 | 0  | 6  | 53.8  | 60.3  | 34.0   | 49.8   |
| 4 | 1  | 6  | 51.9  | 55.6  | 53.7   | -14.5  |
| 4 | 2  | 6  | 98.8  | 91.6  | 81.1   | 42.6   |
| 4 | 3  | 6  | 57.1  | 57.1  | -52.7  | 21.9   |
| 4 | 4  | 6* | 7.3   | 21.4  | 4.4    | -21.0  |
| 4 | 5  | 6  | 50.1  | 47.0  | -43.5  | 15.1   |
| 4 | 6  | 6  | 198.4 | 200.2 | -184.2 | -78.4  |
| 4 | 7  | 6* | 9.3   | 13.4  | 12.9   | -3.8   |
| 4 | 8  | 6  | 102.3 | 104.4 | -99.8  | -30.9  |
| 4 | 9  | 6* | 6.5   | 16.5  | -15.3  | -6.2   |
| 4 | 10 | 6  | 121.8 | 128.7 | 119.9  | 46.9   |
| 4 | 11 | 6* | 2.5   | 22.1  | -22.1  | .8     |
| 4 | 12 | 6  | 92.4  | 98.2  | 86.4   | 46.7   |
| 4 | 13 | 6  | 49.8  | 33.3  | 33.0   | 4.4    |
| 6 | 0  | 6  | 37.4  | 39.0  | -35.6  | -15.9  |
| 6 | 1  | 6  | 126.9 | 134.0 | 118.5  | 62.7   |
| 6 | 2  | 6  | 36.9  | 34.1  | -22.4  | -25.8  |
| 6 | 3  | 6  | 69.8  | 69.9  | -66.8  | -20.6  |
| 6 | 4  | 6  | 46.8  | 52.7  | 52.2   | 7.7    |
| 6 | 5  | 6  | 101.9 | 105.6 | -95.7  | -44.6  |
| 6 | 6  | 6  | 36.7  | 21.5  | -14.4  | 16.0   |
| 6 | 7  | 6* | 8.0   | 11.8  | 1.5    | -11.7  |
| 6 | 8  | 6* | 24.6  | 26.0  | -25.6  | 4.4    |
| 6 | 9  | 6* | 8.5   | 18.7  | 12.9   | 13.5   |
| 0 | 0  | 8  | 52.2  | 58.2  | 57.7   | 7.7    |
| 0 | 1  | 8  | 110.3 | 108.9 | 60.7   | -90.4  |
| 0 | 2  | 8  | 112.3 | 120.4 | -101.7 | -64.5  |
| 0 | 3  | 8  | 41.4  | 43.2  | 10.1   | -42.0  |
| 0 | 4  | 8  | 79.2  | 87.9  | -78.8  | -38.9  |
| 0 | 5  | 8  | 157.8 | 162.1 | -101.0 | 126.8  |
| 0 | 6  | 8  | 217.1 | 217.8 | 180.5  | 121.9  |
| 0 | 7  | 8  | 208.2 | 207.0 | -91.4  | 185.8  |
| 0 | 8  | 8  | 181.0 | 178.1 | 136.0  | 115.0  |
| 0 | 9  | 8* | 37.1  | 35.3  | 13.8   | -32.5  |
| 0 | 10 | 8  | 204.6 | 201.4 | -178.7 | -92.8  |
| 0 | 11 | 8  | 152.6 | 144.8 | 92.7   | -111.3 |
| 0 | 12 | 8  | 92.0  | 92.4  | -67.5  | -63.0  |
| 0 | 13 | 8* | 2.5   | 15.6  | -5.1   | -14.8  |
| 0 | 14 | 8  | 91.6  | 85.2  | 82.2   | 22.3   |
| 2 | 0  | 8  | 260.2 | 253.7 | 248.8  | 49.7   |
| 2 | 1  | 8  | 102.9 | 97.9  | -83.2  | 51.6   |
| 2 | 2  | 8  | 30.1  | 24.1  | -9.8   | -22.0  |
| 2 | 3  | 8  | 50.4  | 53.1  | 24.7   | -47.0  |
| 2 | 4  | 8  | 175.0 | 176.8 | -167.7 | -55.9  |
| 2 | 5  | 8  | 55.5  | 52.4  | 52.2   | -4.0   |
| 2 | 6  | 8  | 101.7 | 101.2 | 73.2   | 69.8   |
| 2 | 7  | 8  | 67.0  | 67.3  | -30.0  | 60.3   |
| 2 | 8  | 8  | 64.5  | 63.9  | 55.0   | 32.5   |
| 2 | 9  | 8* | 30.5  | 10.8  | -2.7   | -10.5  |
| 2 | 10 | 8  | 65.1  | 71.5  | -46.5  | -54.2  |
| 2 | 11 | 8  | 55.1  | 50.3  | -2.5   | -50.2  |
| 2 | 12 | 8  | 50.7  | 45.3  | -25.5  | -37.4  |
| 2 | 13 | 8* | 22.4  | 13.4  | -6.9   | 11.5   |
| 2 | 14 | 8  | 75.4  | 66.7  | 57.4   | 34.0   |
| 4 | 0  | 8  | 192.8 | 193.1 | 179.8  | 70.5   |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 4 | 1  | 8   | 110.0 | 116.7 | -81.2  | 83.8   |
| 4 | 2  | 8*  | 31.0  | 32.8  | 9.9    | 31.3   |
| 4 | 3  | 8   | 77.6  | 75.8  | 66.7   | -35.9  |
| 4 | 4  | 8   | 155.0 | 155.9 | -138.2 | -72.1  |
| 4 | 5  | 8   | 132.7 | 135.4 | 83.3   | -106.8 |
| 4 | 6  | 8   | 56.1  | 54.7  | -16.2  | -52.2  |
| 4 | 7  | 8   | 48.5  | 50.8  | -11.0  | -49.6  |
| 4 | 8  | 8   | 46.5  | 52.3  | 51.8   | -6.8   |
| 4 | 9  | 8*  | 17.5  | 29.4  | -20.4  | 21.2   |
| 4 | 10 | 8*  | 11.0  | 12.9  | -2.9   | 12.6   |
| 4 | 11 | 8   | 45.4  | 48.0  | -12.0  | 46.5   |
| 4 | 12 | 8*  | 33.8  | 34.5  | 15.2   | 31.0   |
| 6 | 0  | 8   | 51.2  | 62.0  | -11.4  | 61.0   |
| 6 | 1  | 8*  | 8.4   | 24.2  | 22.6   | 8.8    |
| 6 | 2  | 8   | 48.9  | 46.8  | -42.8  | 19.1   |
| 6 | 3  | 8   | 51.9  | 46.6  | 44.4   | 14.0   |
| 6 | 4  | 8*  | 18.3  | 16.0  | 5.5    | -15.1  |
| 6 | 5  | 8   | 50.5  | 46.2  | -39.3  | -24.3  |
| 6 | 6  | 8   | 77.0  | 78.7  | 50.2   | -60.6  |
| 6 | 7  | 8   | 77.0  | 73.8  | -62.4  | -39.3  |
| 6 | 8  | 8*  | 37.2  | 38.6  | 38.0   | -6.5   |
| 0 | 0  | 10  | 114.4 | 110.7 | -89.8  | -64.7  |
| 0 | 1  | 10  | 255.5 | 265.5 | 170.0  | -203.9 |
| 0 | 2  | 10* | 12.5  | 2.7   | -2.7   | -.1    |
| 0 | 3  | 10  | 176.5 | 178.9 | -90.7  | 154.2  |
| 0 | 4  | 10  | 135.2 | 134.1 | 126.4  | 44.6   |
| 0 | 5  | 10  | 197.4 | 199.7 | -148.4 | 133.6  |
| 0 | 6  | 10  | 175.0 | 179.0 | -130.8 | -122.3 |
| 0 | 7  | 10  | 59.7  | 49.0  | -42.8  | 24.0   |
| 0 | 8  | 10  | 100.0 | 101.6 | -94.9  | -36.4  |
| 0 | 9  | 10  | 72.4  | 66.2  | 37.7   | -54.4  |
| 0 | 10 | 10  | 105.5 | 105.6 | 80.7   | 69.6   |
| 0 | 11 | 10  | 92.9  | 83.9  | 68.2   | -48.9  |
| 0 | 12 | 10  | 77.8  | 68.8  | 55.1   | 41.2   |
| 0 | 13 | 10  | 61.6  | 68.5  | 44.9   | -51.8  |
| 2 | 0  | 10  | 195.0 | 192.0 | -124.1 | -146.5 |
| 2 | 1  | 10  | 72.9  | 64.4  | 58.9   | -26.0  |
| 2 | 2  | 10  | 66.9  | 63.8  | 63.6   | 5.6    |
| 2 | 3  | 10  | 58.0  | 56.0  | -41.8  | 37.3   |
| 2 | 4  | 10  | 113.3 | 113.1 | 74.0   | 85.5   |
| 2 | 5  | 10* | 21.4  | 21.5  | -17.2  | 13.0   |
| 2 | 6  | 10  | 85.7  | 86.4  | -86.3  | 4.1    |
| 2 | 7  | 10  | 80.2  | 81.2  | 42.6   | -69.2  |
| 2 | 8  | 10  | 100.4 | 97.1  | -84.4  | -48.0  |
| 2 | 9  | 10* | 28.7  | 24.9  | -5.3   | 24.4   |
| 2 | 10 | 10  | 91.7  | 87.0  | 85.1   | 18.0   |
| 2 | 11 | 10  | 66.7  | 67.1  | -35.6  | 56.8   |
| 2 | 12 | 10* | 2.5   | 37.0  | 35.8   | -9.4   |
| 2 | 13 | 10* | 22.8  | 18.6  | 13.1   | -13.2  |
| 4 | 0  | 10  | 133.5 | 133.4 | -116.0 | -65.8  |
| 4 | 1  | 10  | 96.3  | 95.9  | -55.7  | 78.0   |
| 4 | 2  | 10* | 30.8  | 17.0  | .4     | 17.0   |
| 4 | 3  | 10  | 40.4  | 45.3  | -42.4  | 15.9   |
| 4 | 4  | 10  | 106.0 | 106.3 | 95.6   | 46.5   |
| 4 | 5  | 10  | 121.1 | 117.5 | 82.5   | -83.6  |
| 4 | 6  | 10* | 27.1  | 17.6  | 4.4    | 17.1   |
| 4 | 7  | 10  | 118.3 | 122.8 | 106.9  | -60.4  |
| 4 | 8  | 10  | 41.2  | 34.8  | -24.5  | -24.9  |
| 4 | 9  | 10* | 30.8  | 36.2  | -20.1  | 30.1   |
| 4 | 10 | 10* | 36.2  | 39.2  | 39.1   | 2.9    |
| 4 | 11 | 10  | 100.8 | 109.9 | -88.9  | 64.6   |
| 6 | 0  | 10  | 125.2 | 129.4 | -82.3  | 99.9   |
| 6 | 1  | 10* | 32.2  | 29.6  | 21.6   | -20.3  |
| 6 | 2  | 10* | 35.6  | 34.8  | -28.3  | 20.3   |
| 6 | 3  | 10  | 39.0  | 39.7  | -38.3  | -10.4  |
| 6 | 4  | 10  | 93.9  | 95.3  | 88.7   | -34.9  |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 6 | 5  | 10* | 22.3  | 24.6  | -13.5  | 20.6   |
| 6 | 6  | 10  | 58.2  | 61.7  | 30.1   | -53.9  |
| 6 | 7  | 10  | 60.4  | 56.4  | 42.7   | 36.9   |
| 0 | 0  | 12* | 402.6 | 433.3 | 295.6  | 316.8  |
| 0 | 1  | 12* | 24.9  | 26.5  | 21.2   | 15.8   |
| 0 | 2  | 12  | 51.3  | 40.7  | -5.3   | 40.4   |
| 0 | 3  | 12  | 110.8 | 111.0 | 73.5   | -83.2  |
| 0 | 4  | 12  | 204.2 | 199.7 | 129.1  | -152.4 |
| 0 | 5  | 12* | 2.5   | 14.1  | -2.7   | 13.9   |
| 0 | 6  | 12  | 117.1 | 119.2 | -52.5  | -107.1 |
| 0 | 7  | 12  | 103.4 | 102.4 | -77.0  | 67.5   |
| 0 | 8  | 12  | 56.5  | 60.4  | 35.1   | 49.2   |
| 0 | 9  | 12* | 33.4  | 46.7  | 5.8    | -46.4  |
| 0 | 10 | 12* | 25.3  | 23.9  | -9.1   | 22.1   |
| 0 | 11 | 12  | 109.1 | 96.2  | 76.8   | -58.0  |
| 0 | 12 | 12  | 74.3  | 67.5  | 41.1   | 53.6   |
| 0 | 13 | 12* | 23.0  | 21.8  | 8.1    | 20.2   |
| 2 | 0  | 12  | 73.7  | 73.1  | 67.2   | 28.9   |
| 2 | 1  | 12  | 76.4  | 76.1  | -18.1  | 73.9   |
| 2 | 2  | 12* | 8.4   | 8.7   | -3.8   | -7.9   |
| 2 | 3  | 12  | 75.9  | 76.8  | 57.2   | -51.2  |
| 2 | 4  | 12  | 135.3 | 131.8 | -110.9 | -71.3  |
| 2 | 5  | 12  | 67.3  | 66.9  | 1.0    | -66.9  |
| 2 | 6  | 12  | 88.6  | 83.0  | 53.1   | 63.9   |
| 2 | 7  | 12  | 76.5  | 74.0  | -64.2  | 36.7   |
| 2 | 8  | 12  | 62.1  | 63.7  | 48.3   | 41.4   |
| 2 | 9  | 12* | 4.5   | 16.2  | 15.1   | 5.8    |
| 2 | 10 | 12  | 64.8  | 62.0  | -45.2  | -42.5  |
| 2 | 11 | 12  | 58.4  | 55.2  | 52.5   | -16.9  |
| 2 | 12 | 12* | 30.5  | 21.6  | -12.7  | -17.5  |
| 4 | 0  | 12  | 72.6  | 80.7  | 2.3    | -80.7  |
| 4 | 1  | 12  | 85.1  | 78.7  | -73.1  | 29.0   |
| 4 | 2  | 12  | 62.2  | 61.3  | -50.7  | -34.4  |
| 4 | 3  | 12  | 37.5  | 40.8  | 34.8   | -21.2  |
| 4 | 4  | 12* | 53.2  | 43.7  | -28.5  | 33.2   |
| 4 | 5  | 12  | 54.5  | 46.5  | 43.1   | -17.5  |
| 4 | 6  | 12  | 144.3 | 141.1 | 98.0   | 101.6  |
| 4 | 7  | 12* | 20.7  | 28.5  | -24.5  | 14.6   |
| 4 | 8  | 12  | 42.9  | 45.6  | 38.9   | 23.8   |
| 4 | 9  | 12  | 42.0  | 23.2  | -8.3   | 21.7   |
| 4 | 10 | 12  | 100.9 | 104.7 | -73.9  | -74.2  |
| 6 | 0  | 12  | 58.9  | 49.6  | 43.4   | 24.1   |
| 6 | 1  | 12  | 98.3  | 100.5 | -69.7  | -72.3  |
| 6 | 2  | 12* | 31.2  | 21.8  | -21.3  | -4.8   |
| 6 | 3  | 12  | 54.6  | 45.1  | 34.9   | 28.5   |
| 6 | 4  | 12* | 15.6  | 19.9  | -19.0  | -5.9   |
| 6 | 5  | 12  | 82.6  | 81.5  | 40.7   | 70.6   |
| 0 | 0  | 14  | 51.9  | 59.9  | -13.8  | 58.3   |
| 0 | 1  | 14  | 48.9  | 34.6  | -33.2  | -9.6   |
| 0 | 2  | 14  | 62.0  | 63.8  | 25.0   | 58.7   |
| 0 | 3  | 14  | 96.8  | 93.5  | -59.4  | 72.2   |
| 0 | 4  | 14  | 53.6  | 53.7  | 46.9   | 26.2   |
| 0 | 5  | 14  | 74.3  | 62.0  | 56.5   | -25.6  |
| 0 | 6  | 14  | 176.7 | 178.1 | -104.3 | -144.4 |
| 0 | 7  | 14  | 157.2 | 148.1 | 120.1  | -86.6  |
| 0 | 8  | 14  | 57.3  | 47.3  | -14.3  | -45.1  |
| 0 | 9  | 14* | 44.3  | 51.6  | -50.6  | 10.3   |
| 0 | 10 | 14  | 121.8 | 124.7 | 60.4   | 109.1  |
| 0 | 11 | 14  | 131.6 | 135.1 | -106.2 | 83.5   |
| 2 | 0  | 14  | 121.3 | 121.9 | -99.8  | -69.9  |
| 2 | 1  | 14  | 63.3  | 57.4  | 55.3   | -15.3  |
| 2 | 2  | 14* | 31.5  | 44.0  | 10.1   | 42.8   |
| 2 | 3  | 14  | 89.2  | 90.6  | -74.3  | 51.9   |
| 2 | 4  | 14  | 92.5  | 94.4  | 77.9   | 53.4   |
| 2 | 5  | 14  | 40.2  | 45.7  | -41.4  | -19.4  |
| 2 | 6  | 14  | 37.1  | 32.5  | 7.0    | -31.7  |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 2 | 7  | 14  | 73.4  | 75.1  | 38.5   | -64.4  |
| 2 | 8  | 14  | 57.6  | 64.9  | -48.1  | -43.6  |
| 2 | 9  | 14* | 22.9  | 17.0  | 13.0   | 11.0   |
| 2 | 10 | 14  | 52.2  | 50.3  | 32.6   | 38.3   |
| 2 | 11 | 14  | 53.5  | 52.3  | -29.6  | 43.1   |
| 4 | 0  | 14  | 159.6 | 163.2 | -100.2 | -128.9 |
| 4 | 1  | 14  | 104.3 | 109.4 | 96.6   | -51.3  |
| 4 | 2  | 14* | 30.1  | 40.2  | 7.0    | -39.6  |
| 4 | 3  | 14  | 48.1  | 47.0  | -46.8  | 4.0    |
| 4 | 4  | 14  | 90.5  | 88.3  | 62.6   | 62.3   |
| 4 | 5  | 14  | 69.1  | 76.6  | -66.0  | 38.9   |
| 4 | 6  | 14  | 72.1  | 61.9  | 4.3    | 61.7   |
| 4 | 7  | 14* | 36.0  | 11.0  | 6.4    | 9.0    |
| 4 | 8  | 14  | 42.2  | 36.2  | -35.4  | -7.8   |
| 6 | 0  | 14* | 12.5  | 17.2  | 17.1   | -2.2   |
| 6 | 1  | 14* | 29.1  | 32.6  | -9.9   | -31.1  |
| 0 | 0  | 16  | 72.5  | 81.2  | 63.1   | 51.1   |
| 0 | 1  | 16  | 201.8 | 213.5 | -196.8 | 82.9   |
| 0 | 2  | 16  | 60.7  | 58.6  | -39.3  | -43.4  |
| 0 | 3  | 16  | 87.5  | 89.1  | 75.2   | -47.9  |
| 0 | 4  | 16  | 57.6  | 57.6  | -25.4  | -51.7  |
| 0 | 5  | 16  | 150.5 | 147.0 | 130.1  | -68.3  |
| 0 | 6  | 16* | 35.6  | 46.9  | 27.8   | 37.7   |
| 0 | 7  | 16* | 45.2  | 44.4  | 20.9   | 39.2   |
| 0 | 8  | 16  | 57.6  | 57.4  | 44.5   | 36.1   |
| 0 | 9  | 16* | 18.1  | 35.3  | -34.7  | -6.6   |
| 0 | 10 | 16  | 64.8  | 70.0  | -30.6  | -62.9  |
| 2 | 0  | 16  | 58.7  | 56.7  | 7.5    | 56.2   |
| 2 | 1  | 16  | 47.1  | 40.2  | -32.8  | 23.2   |
| 2 | 2  | 16* | 24.0  | 13.3  | -12.5  | 4.6    |
| 2 | 3  | 16  | 76.1  | 72.2  | 57.9   | -43.2  |
| 2 | 4  | 16  | 75.5  | 73.4  | -28.7  | -67.6  |
| 2 | 5  | 16* | 13.6  | 19.3  | 19.1   | 2.7    |
| 2 | 6  | 16  | 61.1  | 63.4  | 61.9   | 13.5   |
| 2 | 7  | 16  | 77.5  | 79.1  | -67.6  | 41.1   |
| 2 | 8  | 16  | 45.8  | 37.1  | 25.1   | 27.3   |
| 2 | 9  | 16* | 30.6  | 1.0   | .5     | -.8    |
| 4 | 0  | 16  | 68.3  | 67.3  | 55.0   | 38.9   |
| 4 | 1  | 16  | 55.3  | 52.6  | 50.7   | -13.9  |
| 4 | 2  | 16* | 2.5   | 11.6  | 9.8    | 6.2    |
| 4 | 3  | 16* | 35.9  | 33.3  | 32.9   | -5.2   |
| 4 | 4  | 16  | 53.5  | 55.6  | -47.7  | -28.5  |
| 4 | 5  | 16  | 72.7  | 73.4  | -70.0  | 21.9   |
| 4 | 6  | 16* | 7.6   | 18.4  | 16.1   | 9.0    |
| 0 | 0  | 18  | 172.2 | 182.3 | -47.4  | -176.0 |
| 0 | 1  | 18* | 9.5   | 30.8  | 21.3   | -22.2  |
| 0 | 2  | 18  | 44.7  | 41.9  | -10.2  | -40.6  |
| 0 | 3  | 18  | 67.8  | 58.2  | -46.5  | 35.0   |
| 0 | 4  | 18  | 147.3 | 137.5 | 47.9   | 128.9  |
| 0 | 5  | 18* | 17.6  | 21.8  | 21.7   | -1.8   |
| 0 | 6  | 18  | 67.4  | 64.1  | -6.5   | 63.8   |
| 0 | 7  | 18  | 128.0 | 122.4 | 117.2  | -35.4  |
| 0 | 8  | 18* | 29.5  | 11.4  | -2.6   | -11.1  |
| 2 | 0  | 18  | 74.8  | 74.2  | -52.1  | -52.8  |
| 2 | 1  | 18  | 65.8  | 68.1  | 45.3   | -50.3  |
| 2 | 2  | 18* | 5.4   | 11.1  | 3.2    | 10.6   |
| 2 | 3  | 18  | 72.4  | 78.9  | -64.3  | 45.6   |
| 2 | 4  | 18* | 10.4  | 34.7  | 25.2   | 23.9   |
| 2 | 5  | 18  | 45.9  | 35.7  | -8.5   | 34.7   |
| 2 | 6  | 18* | 35.0  | 25.3  | 1.8    | -25.2  |
| 2 | 7  | 18  | 54.6  | 59.0  | 58.3   | -9.1   |
| 4 | 0  | 18  | 73.4  | 70.5  | -22.2  | 66.9   |
| 4 | 1  | 18  | 51.1  | 54.8  | 54.6   | -4.2   |
| 4 | 2  | 18  | 40.9  | 50.0  | 14.8   | 47.8   |
| 0 | 0  | 20  | 51.7  | 54.5  | 4.5    | -54.3  |
| 0 | 1  | 20* | 2.5   | 19.2  | 11.6   | 15.3   |



|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 0 | 2  | 20* | 30.1  | 48.2  | -4.6   | -48.0  |
| 0 | 3  | 20  | 70.0  | 66.2  | 61.9   | -23.5  |
| 0 | 4  | 20* | 40.9  | 35.1  | -8.1   | 34.2   |
| 2 | 0  | 20  | 62.1  | 58.9  | 36.7   | 46.1   |
| 2 | 1  | 20  | 43.9  | 50.6  | -50.5  | -3.4   |
| 2 | 2  | 20* | 2.5   | 6.7   | 2.2    | 6.3    |
| 2 | 0  | 1   | 302.1 | 293.1 | 9.0    | -293.0 |
| 2 | 1  | 1   | 28.3  | 28.7  | 9.3    | 27.2   |
| 2 | 2  | 1   | 83.0  | 82.8  | 25.3   | -78.9  |
| 2 | 3  | 1   | 47.6  | 47.7  | 43.9   | -18.6  |
| 2 | 4  | 1   | 187.2 | 185.0 | 34.3   | 181.8  |
| 2 | 5  | 1   | 92.7  | 95.7  | -95.4  | -7.7   |
| 2 | 6  | 1   | 225.2 | 226.0 | -63.2  | 217.0  |
| 2 | 7  | 1   | 190.8 | 189.2 | -108.8 | -12.3  |
| 2 | 8  | 1   | 41.5  | 40.3  | -34.4  | 21.0   |
| 2 | 9  | 1   | 50.2  | 50.8  | 26.2   | 43.5   |
| 2 | 10 | 1   | 100.2 | 103.5 | 23.9   | -100.7 |
| 2 | 11 | 1   | 127.7 | 122.3 | 122.0  | 8.0    |
| 2 | 12 | 1   | 98.0  | 99.9  | 19.9   | -97.9  |
| 2 | 13 | 1*  | 20.0  | 18.0  | -4.1   | -17.5  |
| 2 | 14 | 1*  | 14.0  | 17.3  | -9.5   | 14.5   |
| 2 | 15 | 1   | 46.2  | 56.5  | -47.1  | -31.2  |
| 4 | 0  | 1   | 65.5  | 68.7  | 1.6    | 68.7   |
| 4 | 1  | 1   | 172.1 | 167.7 | -116.9 | -120.3 |
| 4 | 2  | 1   | 38.1  | 31.9  | 30.4   | -9.6   |
| 4 | 3  | 1   | 151.8 | 150.3 | 148.2  | 25.1   |
| 4 | 4  | 1*  | 27.8  | 22.7  | 2.2    | 22.6   |
| 4 | 5  | 1   | 88.5  | 87.8  | 18.8   | 85.8   |
| 4 | 6  | 1   | 70.7  | 71.7  | -59.0  | -40.8  |
| 4 | 7  | 1   | 128.8 | 129.2 | -121.7 | 43.4   |
| 4 | 8  | 1*  | 29.9  | 31.2  | -29.4  | 10.5   |
| 4 | 9  | 1   | 34.1  | 37.6  | 10.6   | -36.1  |
| 4 | 10 | 1   | 64.3  | 62.8  | 58.3   | 23.5   |
| 4 | 11 | 1   | 83.7  | 81.8  | 70.5   | -41.4  |
| 4 | 12 | 1*  | 32.4  | 43.3  | 37.9   | 20.8   |
| 4 | 13 | 1   | 51.2  | 44.8  | -30.6  | -32.7  |
| 6 | 0  | 1   | 83.1  | 79.5  | -29.4  | 73.8   |
| 6 | 1  | 1   | 117.1 | 122.5 | -122.5 | 1.5    |
| 6 | 2  | 1   | 51.6  | 45.6  | 6.3    | 45.2   |
| 6 | 3  | 1   | 112.5 | 113.8 | 113.5  | 8.3    |
| 6 | 4  | 1   | 67.0  | 69.9  | 36.6   | -59.6  |
| 6 | 5  | 1   | 81.8  | 87.7  | 87.7   | 3.6    |
| 6 | 6  | 1   | 77.2  | 79.4  | 20.1   | -76.8  |
| 6 | 7  | 1   | 84.6  | 84.1  | -73.3  | -41.2  |
| 6 | 8  | 1*  | 26.9  | 27.4  | 5.0    | -26.9  |
| 6 | 9  | 1*  | 2.5   | 10.1  | 5.0    | -8.8   |
| 6 | 10 | 1   | 57.6  | 58.4  | -0.1   | 58.4   |
| 8 | 0  | 1*  | 30.4  | 40.7  | -28.5  | -29.0  |
| 8 | 1  | 1   | 81.4  | 85.3  | -52.4  | 67.3   |
| 8 | 2  | 1   | 42.0  | 30.1  | -29.6  | -5.4   |
| 2 | 0  | 3   | 95.9  | 96.0  | 90.6   | -31.8  |
| 2 | 1  | 3   | 314.4 | 307.4 | 297.3  | 77.9   |
| 2 | 2  | 3   | 44.8  | 44.4  | -6.9   | -43.9  |
| 2 | 3  | 3   | 145.4 | 145.0 | -127.5 | -69.1  |
| 2 | 4  | 3   | 39.5  | 40.6  | -13.5  | -33.2  |
| 2 | 5  | 3   | 272.8 | 269.2 | -258.0 | -76.8  |
| 2 | 6  | 3   | 38.8  | 39.3  | -6.1   | 38.8   |
| 2 | 7  | 3   | 65.5  | 64.0  | -56.4  | -30.2  |
| 2 | 8  | 3   | 37.7  | 37.4  | 9.6    | -36.1  |
| 2 | 9  | 3   | 46.9  | 51.1  | 38.5   | 33.6   |
| 2 | 10 | 3   | 39.6  | 37.5  | -31.6  | -20.2  |
| 2 | 11 | 3   | 86.0  | 86.4  | 65.2   | 14.3   |
| 2 | 12 | 3   | 42.4  | 31.2  | 17.4   | -25.9  |
| 2 | 13 | 3   | 92.4  | 85.7  | 81.5   | 26.5   |
| 2 | 14 | 3   | 38.2  | 37.0  | 31.4   | 19.6   |
| 2 | 15 | 3*  | 32.6  | 33.0  | -28.9  | -15.9  |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 4 | 0  | 3  | 177.5 | 178.4 | 162.5  | 73.6   |
| 4 | 1  | 3  | 86.3  | 80.2  | 73.8   | 31.5   |
| 4 | 2  | 3  | 56.6  | 55.0  | 48.8   | -25.4  |
| 4 | 3  | 3  | 142.1 | 142.7 | -141.7 | -16.6  |
| 4 | 4  | 3  | 101.8 | 104.3 | -95.4  | -42.0  |
| 4 | 5  | 3* | 7.0   | 14.1  | -8.2   | 11.5   |
| 4 | 6  | 3  | 76.8  | 79.3  | -62.4  | -48.9  |
| 4 | 7  | 3  | 123.9 | 120.0 | 111.3  | 47.2   |
| 4 | 8  | 3  | 53.1  | 35.3  | 1.0    | 35.3   |
| 4 | 9  | 3  | 35.4  | 32.4  | -23.6  | -22.2  |
| 4 | 10 | 3  | 55.7  | 50.3  | 43.7   | -25.0  |
| 4 | 11 | 3  | 93.8  | 92.4  | -89.7  | -22.4  |
| 4 | 12 | 3  | 52.9  | 45.6  | 40.6   | 20.8   |
| 4 | 13 | 3  | 39.8  | 35.2  | 34.9   | -4.2   |
| 6 | 0  | 3  | 42.6  | 45.8  | -18.8  | 41.7   |
| 6 | 1  | 3* | 19.8  | 7.1   | -6.4   | -2.9   |
| 6 | 2  | 3* | 9.7   | 11.6  | -11.6  | .8     |
| 6 | 3  | 3  | 92.2  | 94.1  | -91.7  | -21.1  |
| 6 | 4  | 3* | 21.5  | 22.9  | -3.4   | -22.7  |
| 6 | 5  | 3  | 49.9  | 57.5  | 49.7   | 28.9   |
| 6 | 6  | 3  | 41.4  | 43.4  | 31.9   | 29.5   |
| 6 | 7  | 3  | 157.3 | 164.9 | 159.7  | 41.1   |
| 6 | 8  | 3* | 20.5  | 25.6  | 23.9   | 9.2    |
| 6 | 9  | 3* | 33.1  | 35.9  | -35.8  | 3.0    |
| 6 | 10 | 3* | 2.5   | 14.3  | -12.0  | 7.7    |
| 8 | 0  | 3  | 103.6 | 106.1 | -103.4 | -23.6  |
| 8 | 1  | 3  | 70.7  | 65.7  | 61.3   | 23.6   |
| 2 | 0  | 5  | 127.5 | 121.7 | -83.1  | 88.9   |
| 2 | 1  | 5  | 108.5 | 100.2 | 76.9   | 64.3   |
| 2 | 2  | 5  | 153.1 | 151.0 | -51.2  | 142.1  |
| 2 | 3  | 5  | 121.4 | 120.7 | 110.1  | 49.4   |
| 2 | 4  | 5  | 133.9 | 134.6 | 87.0   | -102.7 |
| 2 | 5  | 5  | 84.3  | 84.3  | -79.0  | -29.6  |
| 2 | 6  | 5  | 157.9 | 158.1 | 34.6   | -154.3 |
| 2 | 7  | 5  | 137.8 | 142.6 | -119.6 | -77.6  |
| 2 | 8  | 5  | 65.4  | 67.5  | 6.6    | -67.1  |
| 2 | 9  | 5  | 60.0  | 55.8  | 53.6   | 15.5   |
| 2 | 10 | 5  | 112.3 | 118.6 | -31.8  | 114.3  |
| 2 | 11 | 5  | 138.8 | 139.2 | 128.2  | 54.3   |
| 2 | 12 | 5  | 92.6  | 89.5  | -20.1  | 87.2   |
| 2 | 13 | 5* | 30.9  | 27.0  | 11.6   | 24.4   |
| 2 | 14 | 5* | 2.5   | 1.2   | -.0    | -1.2   |
| 4 | 0  | 5  | 40.7  | 38.2  | 35.2   | 14.9   |
| 4 | 1  | 5  | 117.2 | 114.0 | -110.7 | 27.3   |
| 4 | 2  | 5  | 53.2  | 54.0  | 40.0   | -36.3  |
| 4 | 3  | 5  | 126.7 | 123.4 | 117.5  | 37.6   |
| 4 | 4  | 5  | 79.0  | 80.2  | -26.8  | 75.6   |
| 4 | 5  | 5  | 98.6  | 103.5 | 93.6   | -44.2  |
| 4 | 6  | 5  | 85.3  | 85.4  | -67.6  | -52.3  |
| 4 | 7  | 5  | 120.6 | 116.9 | -82.2  | -83.1  |
| 4 | 8  | 5  | 42.0  | 39.1  | -30.7  | -24.2  |
| 4 | 9  | 5* | 31.2  | 26.5  | 7.1    | 25.6   |
| 4 | 10 | 5  | 62.7  | 58.3  | 51.6   | 27.0   |
| 4 | 11 | 5  | 93.5  | 91.9  | 38.6   | 83.5   |
| 4 | 12 | 5  | 40.5  | 31.4  | 26.0   | 17.6   |
| 4 | 13 | 5  | 53.0  | 40.1  | -39.9  | 3.7    |
| 6 | 0  | 5  | 138.0 | 137.7 | 4.1    | -137.7 |
| 6 | 1  | 5  | 134.5 | 131.1 | -116.5 | -60.1  |
| 6 | 2  | 5  | 36.0  | 20.2  | -4.3   | -19.7  |
| 6 | 3  | 5  | 107.1 | 108.7 | 102.7  | 35.5   |
| 6 | 4  | 5  | 66.1  | 64.4  | -20.3  | 61.1   |
| 6 | 5  | 5  | 75.2  | 75.4  | 57.1   | 49.2   |
| 6 | 6  | 5  | 53.9  | 53.5  | -23.6  | 48.0   |
| 6 | 7  | 5  | 62.6  | 65.4  | -65.1  | -6.5   |
| 6 | 8  | 5* | 27.4  | 8.9   | -6.0   | -6.5   |
| 6 | 9  | 5* | 4.6   | 9.9   | -9.0   | -4.0   |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 6 | 10 | 5* | 35.8  | 27.3  | 17.9   | -20.6  |
| 2 | 0  | 7  | 255.9 | 253.7 | -85.9  | 238.7  |
| 2 | 1  | 7  | 34.8  | 27.6  | -27.5  | 2.2    |
| 2 | 2  | 7  | 153.6 | 151.5 | -85.1  | 125.4  |
| 2 | 3  | 7  | 94.5  | 94.0  | -84.5  | -41.2  |
| 2 | 4  | 7  | 179.0 | 177.9 | 55.2   | -169.1 |
| 2 | 5  | 7  | 56.4  | 65.7  | 57.5   | 31.8   |
| 2 | 6  | 7  | 117.9 | 118.8 | 83.3   | -84.8  |
| 2 | 7  | 7  | 103.5 | 99.3  | 90.6   | 40.6   |
| 2 | 8  | 7  | 33.0  | 36.3  | 34.1   | -12.3  |
| 2 | 9  | 7  | 36.7  | 35.7  | -28.9  | -20.9  |
| 2 | 10 | 7  | 114.0 | 115.0 | -73.0  | 88.8   |
| 2 | 11 | 7  | 101.1 | 93.2  | -72.9  | -58.1  |
| 2 | 12 | 7  | 96.4  | 97.3  | -69.9  | 67.7   |
| 2 | 13 | 7* | 13.1  | 26.9  | -14.1  | 22.9   |
| 2 | 14 | 7* | 35.3  | 23.6  | -6.7   | 22.6   |
| 4 | 0  | 7  | 80.3  | 79.4  | -35.9  | 70.8   |
| 4 | 1  | 7  | 114.3 | 111.8 | 31.6   | 107.3  |
| 4 | 2  | 7  | 61.0  | 56.7  | -15.9  | -54.5  |
| 4 | 3  | 7  | 107.2 | 106.7 | -74.0  | -76.6  |
| 4 | 4  | 7* | 20.5  | 17.7  | -17.5  | 2.6    |
| 4 | 5  | 7  | 100.0 | 97.3  | 3.6    | -97.2  |
| 4 | 6  | 7  | 53.4  | 54.2  | 29.0   | 45.8   |
| 4 | 7  | 7  | 119.4 | 119.0 | 118.8  | 7.0    |
| 4 | 8  | 7  | 53.6  | 55.1  | 1.6    | 55.1   |
| 4 | 9  | 7* | 26.5  | 19.9  | -18.0  | 8.4    |
| 4 | 10 | 7  | 62.3  | 65.2  | -11.4  | -64.2  |
| 4 | 11 | 7  | 91.3  | 95.0  | -92.5  | 21.7   |
| 4 | 12 | 7* | 11.1  | 18.4  | -8.5   | -16.3  |
| 6 | 0  | 7  | 65.0  | 73.4  | 67.3   | -29.2  |
| 6 | 1  | 7  | 103.5 | 108.6 | 104.9  | 28.1   |
| 6 | 2  | 7  | 44.2  | 45.0  | 28.8   | -34.6  |
| 6 | 3  | 7  | 102.9 | 106.3 | -91.5  | -54.2  |
| 6 | 4  | 7* | 11.1  | 13.9  | -13.0  | -4.9   |
| 6 | 5  | 7  | 42.9  | 43.6  | -39.4  | -18.6  |
| 6 | 6  | 7  | 92.4  | 97.5  | -50.7  | 83.3   |
| 6 | 7  | 7  | 53.5  | 59.1  | 44.9   | 38.4   |
| 6 | 8  | 7* | 34.1  | 30.0  | -13.6  | 26.8   |
| 6 | 9  | 7* | 25.4  | 6.9   | 2.6    | 6.4    |
| 2 | 0  | 9  | 40.2  | 49.7  | -13.1  | -48.0  |
| 2 | 1  | 9  | 267.2 | 265.1 | -199.0 | -175.1 |
| 2 | 2  | 9  | 37.4  | 34.3  | -19.6  | 28.1   |
| 2 | 3  | 9  | 87.1  | 85.5  | 74.9   | 41.3   |
| 2 | 4  | 9* | 18.8  | 17.7  | 15.3   | -8.9   |
| 2 | 5  | 9  | 183.2 | 189.6 | 139.6  | 128.2  |
| 2 | 6  | 9  | 41.1  | 42.1  | 26.0   | -33.1  |
| 2 | 7  | 9  | 32.8  | 45.2  | 42.7   | 14.7   |
| 2 | 8  | 9  | 65.2  | 54.5  | 31.1   | -44.8  |
| 2 | 9  | 9  | 58.7  | 50.1  | -42.3  | -26.8  |
| 2 | 10 | 9  | 63.0  | 66.0  | -1.6   | 66.0   |
| 2 | 11 | 9  | 91.6  | 92.4  | -66.3  | -64.4  |
| 2 | 12 | 9  | 37.7  | 20.9  | -20.8  | -1.0   |
| 2 | 13 | 9  | 72.7  | 66.9  | -54.3  | -39.0  |
| 4 | 0  | 9  | 133.3 | 135.9 | -60.7  | -121.6 |
| 4 | 1  | 9  | 55.3  | 59.5  | -56.2  | -19.6  |
| 4 | 2  | 9* | 32.1  | 29.2  | -11.7  | -26.8  |
| 4 | 3  | 9  | 77.7  | 76.3  | 48.8   | 58.7   |
| 4 | 4  | 9  | 125.0 | 125.5 | 45.2   | 117.1  |
| 4 | 5  | 9* | 21.0  | 21.5  | 17.9   | -11.9  |
| 4 | 6  | 9  | 66.4  | 68.1  | 68.0   | -2.6   |
| 4 | 7  | 9  | 108.5 | 104.2 | -79.6  | -67.3  |
| 4 | 8  | 9* | 5.9   | 14.0  | 11.1   | -8.5   |
| 4 | 9  | 9* | 6.6   | 18.3  | 18.2   | 2.3    |
| 4 | 10 | 9  | 46.3  | 35.3  | -31.8  | -15.5  |
| 4 | 11 | 9  | 79.9  | 75.6  | 43.5   | 61.8   |
| 4 | 12 | 9  | 45.1  | 40.8  | -39.6  | -9.7   |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 6 | 0  | 9   | 63.8  | 64.7  | 50.6   | -40.3  |
| 6 | 1  | 9*  | 18.9  | 18.9  | 10.9   | 15.4   |
| 6 | 2  | 9*  | 8.0   | 14.8  | 2.9    | 14.5   |
| 6 | 3  | 9   | 71.5  | 72.8  | 62.8   | 36.7   |
| 6 | 4  | 9   | 40.9  | 58.4  | -18.1  | 55.6   |
| 6 | 5  | 9   | 42.7  | 47.8  | -39.6  | -26.8  |
| 6 | 6  | 9*  | 18.0  | 21.9  | -18.7  | -11.4  |
| 6 | 7  | 9   | 129.5 | 126.3 | -101.8 | -74.8  |
| 6 | 8  | 9   | 37.1  | 40.3  | -4.9   | -40.0  |
| 2 | 0  | 11  | 145.3 | 136.9 | 119.1  | -67.6  |
| 2 | 1  | 11  | 63.9  | 62.4  | -47.4  | -40.6  |
| 2 | 2  | 11  | 59.9  | 59.8  | 46.7   | -37.3  |
| 2 | 3  | 11  | 40.9  | 28.8  | -10.0  | -27.1  |
| 2 | 4  | 11  | 53.2  | 53.7  | -49.9  | -19.9  |
| 2 | 5  | 11  | 127.8 | 125.4 | 78.3   | 98.0   |
| 2 | 6  | 11  | 136.6 | 136.3 | -85.7  | 106.0  |
| 2 | 7  | 11  | 127.5 | 132.4 | 79.6   | 105.8  |
| 2 | 8  | 11  | 41.7  | 41.6  | -.4    | 41.6   |
| 2 | 9  | 11  | 45.4  | 41.7  | -38.3  | -16.4  |
| 2 | 10 | 11  | 95.0  | 97.5  | 72.5   | -65.3  |
| 2 | 11 | 11  | 107.3 | 111.2 | -60.8  | -93.2  |
| 2 | 12 | 11  | 79.4  | 79.5  | 51.9   | -60.2  |
| 4 | 0  | 11  | 90.7  | 93.7  | -72.0  | 60.0   |
| 4 | 1  | 11  | 98.9  | 93.9  | 92.1   | 18.7   |
| 4 | 2  | 11  | 53.3  | 60.5  | -7.3   | -60.1  |
| 4 | 3  | 11  | 80.4  | 81.1  | -64.2  | -49.6  |
| 4 | 4  | 11  | 46.6  | 52.9  | 46.7   | -24.8  |
| 4 | 5  | 11* | 57.5  | 57.2  | -56.5  | 9.1    |
| 4 | 6  | 11  | 73.7  | 69.8  | 40.3   | 57.0   |
| 4 | 7  | 11  | 85.8  | 85.5  | 10.1   | 84.9   |
| 4 | 8  | 11  | 54.9  | 43.9  | -12.6  | 42.1   |
| 4 | 9  | 11* | 7.3   | 20.4  | 17.4   | -10.6  |
| 4 | 10 | 11  | 60.6  | 64.2  | -19.8  | -61.1  |
| 4 | 11 | 11  | 47.8  | 48.0  | -1.1   | -48.0  |
| 6 | 0  | 11  | 100.3 | 103.5 | -62.0  | 82.8   |
| 6 | 1  | 11  | 100.9 | 102.5 | 51.9   | 88.4   |
| 6 | 2  | 11* | 34.6  | 28.1  | -24.0  | 14.5   |
| 6 | 3  | 11  | 77.9  | 84.7  | -66.2  | -52.8  |
| 6 | 4  | 11  | 39.1  | 92.9  | 48.1   | -79.5  |
| 6 | 5  | 11  | 71.0  | 72.8  | -45.8  | -56.6  |
| 6 | 6  | 11* | 24.6  | 20.0  | 13.5   | -14.8  |
| 2 | 0  | 13  | 208.7 | 209.0 | 168.3  | -124.0 |
| 2 | 1  | 13* | 8.6   | 5.8   | 5.4    | -2.3   |
| 2 | 2  | 13  | 38.1  | 45.6  | 42.9   | -15.4  |
| 2 | 3  | 13  | 48.1  | 41.1  | 23.0   | 34.1   |
| 2 | 4  | 13  | 160.0 | 140.9 | -106.9 | 91.8   |
| 2 | 5  | 13* | 2.5   | 5.2   | -4.4   | -2.8   |
| 2 | 6  | 13  | 143.4 | 144.5 | -131.0 | 61.1   |
| 2 | 7  | 13  | 69.0  | 69.2  | -42.7  | -54.5  |
| 2 | 8  | 13* | 31.1  | 24.0  | -15.1  | -18.7  |
| 2 | 9  | 13* | 23.1  | 30.4  | -10.6  | 28.5   |
| 2 | 10 | 13  | 58.5  | 55.7  | 55.2   | -7.2   |
| 2 | 11 | 13  | 53.7  | 50.2  | 28.5   | 41.4   |
| 4 | 0  | 13* | 29.7  | 40.7  | 5.4    | -40.3  |
| 4 | 1  | 13  | 87.2  | 83.8  | 33.7   | -76.8  |
| 4 | 2  | 13* | 5.9   | 19.4  | -15.0  | 12.3   |
| 4 | 3  | 13  | 70.2  | 73.3  | 32.5   | 65.7   |
| 4 | 4  | 13  | 53.6  | 58.8  | -36.4  | 46.2   |
| 4 | 5  | 13  | 60.2  | 66.6  | -44.1  | 50.0   |
| 4 | 6  | 13  | 69.9  | 69.1  | 20.7   | -66.0  |
| 4 | 7  | 13  | 69.9  | 67.1  | -64.2  | -19.5  |
| 4 | 8  | 13* | 23.3  | 20.1  | 2.0    | -20.0  |
| 4 | 9  | 13  | 42.4  | 37.0  | 33.7   | -15.2  |
| 6 | 0  | 13* | 25.8  | 32.7  | -25.0  | -21.1  |
| 6 | 1  | 13  | 63.4  | 53.0  | -38.2  | -36.7  |
| 6 | 2  | 13  | 42.9  | 41.7  | -33.5  | 24.9   |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 6 | 3  | 13  | 52.1  | 52.4  | 34.9   | 39.1   |
| 6 | 4  | 13* | 10.9  | 25.8  | 20.7   | 15.4   |
| 2 | 0  | 15* | 34.6  | 40.5  | 35.4   | 19.8   |
| 2 | 1  | 15  | 128.4 | 127.9 | 49.5   | 117.9  |
| 2 | 2  | 15* | 12.3  | 15.2  | 11.8   | -9.5   |
| 2 | 3  | 15  | 59.4  | 62.9  | -5.7   | -62.7  |
| 2 | 4  | 15  | 40.6  | 28.6  | 2.8    | -28.5  |
| 2 | 5  | 15  | 136.9 | 140.7 | -57.0  | -128.6 |
| 2 | 6  | 15  | 68.6  | 75.4  | -66.0  | 36.4   |
| 2 | 7  | 15  | 57.2  | 54.4  | -20.1  | -50.5  |
| 2 | 8  | 15  | 36.2  | 19.3  | -18.0  | 7.0    |
| 2 | 9  | 15* | 11.0  | 23.9  | 1.3    | 23.8   |
| 2 | 10 | 15  | 46.8  | 46.9  | 30.8   | -35.4  |
| 4 | 0  | 15  | 138.9 | 139.5 | -22.0  | 137.8  |
| 4 | 1  | 15  | 44.6  | 32.6  | 29.9   | 12.9   |
| 4 | 2  | 15* | 12.1  | 29.8  | 27.6   | 11.4   |
| 4 | 3  | 15  | 70.6  | 61.2  | -36.5  | -49.2  |
| 4 | 4  | 15  | 69.8  | 74.2  | 17.3   | -72.1  |
| 4 | 5  | 15* | 11.0  | 3.9   | -3.4   | 1.9    |
| 4 | 6  | 15  | 54.4  | 39.4  | -25.9  | -29.6  |
| 4 | 7  | 15  | 53.3  | 50.1  | -6.6   | 49.6   |
| 2 | 0  | 17  | 43.1  | 27.9  | -17.2  | -21.9  |
| 2 | 1  | 17  | 79.8  | 72.8  | 17.1   | 70.7   |
| 2 | 2  | 17  | 61.4  | 56.3  | -47.4  | 30.4   |
| 2 | 3  | 17* | 11.4  | 24.5  | -9.6   | 22.5   |
| 2 | 4  | 17  | 47.3  | 50.4  | 49.8   | 8.2    |
| 2 | 5  | 17  | 76.1  | 78.3  | -20.4  | -75.6  |
| 2 | 6  | 17  | 90.2  | 82.7  | 74.2   | -36.4  |
| 2 | 7  | 17  | 82.5  | 85.7  | -7.5   | -85.4  |
| 2 | 8  | 17  | 44.6  | 51.6  | 44.1   | -26.9  |
| 4 | 0  | 17  | 48.1  | 59.9  | 56.7   | 19.2   |
| 4 | 1  | 17  | 51.6  | 48.4  | -38.3  | -29.7  |
| 4 | 2  | 17* | 25.3  | 24.5  | 20.8   | 13.0   |
| 4 | 3  | 17* | 31.9  | 39.8  | 11.1   | 38.2   |
| 4 | 4  | 17  | 61.0  | 65.3  | -60.5  | 24.5   |
| 4 | 5  | 17* | 28.8  | 35.6  | 33.2   | 12.8   |
| 2 | 0  | 19  | 135.5 | 138.0 | -132.9 | 37.5   |
| 2 | 1  | 19* | 23.5  | 14.0  | -5.6   | 12.9   |
| 2 | 2  | 19  | 59.9  | 63.0  | -62.9  | 3.4    |
| 2 | 3  | 19* | 27.1  | 11.3  | -2.7   | -11.0  |
| 2 | 4  | 19  | 116.2 | 112.6 | 107.1  | -35.0  |
| 2 | 5  | 19* | 23.2  | 12.3  | -.2    | 12.3   |
| 1 | 1  | 0   | 176.8 | 166.8 | -166.7 | -6.4   |
| 1 | 2  | 0*  | 17.2  | 13.2  | -13.2  | .1     |
| 1 | 3  | 0   | 336.9 | 340.6 | -340.5 | -10.3  |
| 1 | 4  | 0*  | 9.0   | 7.6   | 7.5    | 1.0    |
| 1 | 5  | 0*  | 10.1  | 1.1   | -1.1   | .1     |
| 1 | 6  | 0*  | 22.6  | .9    | .8     | -.4    |
| 1 | 7  | 0   | 35.5  | 47.5  | 47.2   | 5.5    |
| 1 | 8  | 0*  | 29.5  | 14.8  | -14.7  | -1.7   |
| 1 | 9  | 0   | 118.2 | 118.7 | 118.6  | 5.2    |
| 1 | 10 | 0*  | 22.9  | 17.7  | -17.7  | -.2    |
| 1 | 11 | 0*  | 2.5   | 5.2   | -5.2   | .9     |
| 1 | 12 | 0   | 40.3  | 49.0  | 48.9   | 2.4    |
| 1 | 13 | 0   | 53.9  | 45.9  | -45.8  | -3.9   |
| 1 | 14 | 0*  | 2.5   | 3.3   | 3.2    | .6     |
| 1 | 15 | 0   | 84.5  | 81.9  | -81.7  | -5.7   |
| 3 | 1  | 0   | 214.8 | 209.5 | -209.3 | -9.0   |
| 3 | 2  | 0   | 158.0 | 144.7 | -144.6 | -5.5   |
| 3 | 3  | 0   | 197.2 | 192.5 | -192.3 | -9.5   |
| 3 | 4  | 0*  | 20.2  | 29.1  | -29.0  | -2.1   |
| 3 | 5  | 0   | 84.9  | 91.5  | 91.4   | 4.0    |
| 3 | 6  | 0   | 36.5  | 32.8  | 32.7   | 1.9    |
| 3 | 7  | 0   | 100.0 | 96.0  | 95.9   | 4.6    |
| 3 | 8  | 0*  | 20.2  | 28.8  | 28.8   | 1.5    |
| 3 | 9  | 0*  | 25.1  | 5.1   | -5.1   | -.1    |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 3 | 10 | 0* | 32.2  | 25.5  | 25.5   | 1.7    |
| 3 | 11 | 0* | 32.1  | 41.6  | 41.5   | 2.5    |
| 3 | 12 | 0* | 16.3  | 7.5   | 7.5    | 1.1    |
| 3 | 13 | 0* | 2.5   | 13.8  | -13.8  | -0.4   |
| 3 | 14 | 0* | 2.5   | 30.7  | -30.6  | -2.4   |
| 5 | 1  | 0  | 74.5  | 82.2  | -82.1  | -3.2   |
| 5 | 2  | 0  | 90.5  | 91.0  | -90.9  | -5.5   |
| 5 | 3  | 0  | 59.2  | 62.1  | 62.0   | 3.0    |
| 5 | 4  | 0* | 28.9  | 36.0  | -35.9  | -2.0   |
| 5 | 5  | 0  | 130.0 | 133.0 | 132.7  | 9.2    |
| 5 | 6  | 0  | 53.0  | 55.9  | 55.8   | 3.1    |
| 5 | 7  | 0  | 47.2  | 48.4  | -48.2  | -3.9   |
| 5 | 8  | 0  | 47.9  | 35.3  | 35.2   | 2.3    |
| 5 | 9  | 0  | 190.2 | 194.4 | -194.0 | -12.1  |
| 5 | 10 | 0* | 2.5   | 15.2  | 15.2   | .4     |
| 5 | 11 | 0* | 26.6  | 35.1  | 35.0   | 2.2    |
| 5 | 12 | 0* | 16.6  | 11.8  | -11.8  | -1.2   |
| 7 | 1  | 0  | 53.3  | 56.9  | -56.8  | -4.0   |
| 7 | 2  | 0  | 78.6  | 79.6  | 79.4   | 5.8    |
| 7 | 3  | 0* | 2.5   | 22.4  | -22.4  | -1.1   |
| 7 | 4  | 0  | 78.6  | 84.0  | 83.9   | 5.1    |
| 7 | 5  | 0  | 123.1 | 128.1 | 127.8  | 8.1    |
| 7 | 6  | 0* | 25.6  | 21.7  | -21.7  | -1.1   |
| 7 | 7  | 0* | 24.6  | 31.3  | -31.3  | -1.1   |
| 7 | 8  | 0  | 64.3  | 60.2  | -59.9  | -5.3   |
| 1 | 1  | 2  | 110.9 | 107.2 | 100.2  | 38.1   |
| 1 | 2  | 2  | 173.3 | 175.9 | 56.2   | -166.7 |
| 1 | 3  | 2  | 130.1 | 135.3 | -134.0 | 18.5   |
| 1 | 4  | 2  | 101.7 | 105.7 | 22.8   | -103.3 |
| 1 | 5  | 2  | 43.0  | 50.4  | -39.4  | -31.5  |
| 1 | 6  | 2  | 47.2  | 52.5  | -35.1  | 39.0   |
| 1 | 7  | 2  | 53.4  | 57.8  | 57.4   | -6.4   |
| 1 | 8  | 2  | 148.9 | 146.8 | -16.2  | 145.9  |
| 1 | 9  | 2  | 129.9 | 127.8 | 127.8  | 1.7    |
| 1 | 10 | 2  | 65.2  | 68.7  | -18.6  | 66.2   |
| 1 | 11 | 2* | 15.0  | 16.2  | -11.3  | 11.7   |
| 1 | 12 | 2  | 51.5  | 55.7  | 13.1   | -54.1  |
| 1 | 13 | 2  | 56.3  | 57.2  | -57.2  | -0.4   |
| 1 | 14 | 2  | 76.8  | 70.4  | 13.8   | -69.1  |
| 1 | 15 | 2  | 42.9  | 33.4  | -31.0  | -12.4  |
| 3 | 1  | 2  | 61.5  | 66.0  | 54.6   | -37.1  |
| 3 | 2  | 2  | 114.3 | 113.1 | 21.0   | -111.2 |
| 3 | 3  | 2  | 63.7  | 63.6  | 15.7   | -61.6  |
| 3 | 4  | 2  | 133.2 | 134.0 | -26.7  | -131.4 |
| 3 | 5  | 2  | 172.1 | 169.4 | -158.8 | -59.0  |
| 3 | 6  | 2  | 32.5  | 32.7  | -32.0  | -6.7   |
| 3 | 7  | 2  | 36.5  | 39.2  | 20.1   | 33.7   |
| 3 | 8  | 2  | 97.9  | 102.2 | 45.4   | 91.5   |
| 3 | 9  | 2  | 153.1 | 156.1 | 133.4  | 81.1   |
| 3 | 10 | 2  | 64.9  | 59.3  | 26.4   | 53.1   |
| 3 | 11 | 2* | 16.5  | 28.7  | -24.7  | 14.6   |
| 3 | 12 | 2  | 41.4  | 43.0  | -19.6  | -38.3  |
| 3 | 13 | 2  | 83.7  | 81.1  | -71.4  | -38.4  |
| 3 | 14 | 2  | 45.7  | 57.1  | -5.1   | -56.9  |
| 5 | 1  | 2  | 123.0 | 129.5 | 129.3  | 5.5    |
| 5 | 2  | 2  | 114.2 | 116.3 | -20.3  | 114.5  |
| 5 | 3  | 2  | 162.5 | 164.4 | 160.6  | -35.2  |
| 5 | 4  | 2  | 74.2  | 75.1  | -50.6  | 55.5   |
| 5 | 5  | 2  | 116.3 | 123.5 | -121.4 | -22.5  |
| 5 | 6  | 2  | 38.6  | 30.0  | -7.2   | -29.2  |
| 5 | 7  | 2  | 53.0  | 53.1  | -37.1  | 38.0   |
| 5 | 8  | 2  | 86.1  | 79.7  | 56.1   | -56.6  |
| 5 | 9  | 2  | 52.9  | 51.1  | 40.3   | 46.0   |
| 5 | 10 | 2  | 40.2  | 41.3  | 31.5   | -26.6  |
| 5 | 11 | 2* | 6.3   | 26.2  | -23.6  | -11.4  |
| 5 | 12 | 2  | 43.6  | 45.2  | -43.4  | 12.9   |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 7 | 1  | 2  | 114.6 | 115.8 | 100.7  | 57.1   |
| 7 | 2  | 2  | 59.8  | 52.7  | 31.6   | 42.1   |
| 7 | 3  | 2  | 92.0  | 93.9  | 32.3   | 88.1   |
| 7 | 4  | 2  | 51.5  | 53.5  | 41.0   | 34.4   |
| 7 | 5  | 2  | 77.9  | 75.4  | -73.8  | 15.7   |
| 7 | 6  | 2* | 26.6  | 24.5  | -15.7  | -18.8  |
| 7 | 7  | 2  | 45.1  | 53.5  | -20.9  | -49.3  |
| 1 | 1  | 4  | 51.0  | 51.5  | 37.8   | 35.1   |
| 1 | 2  | 4  | 191.0 | 199.0 | 10.5   | -198.8 |
| 1 | 3  | 4  | 71.9  | 71.6  | 51.4   | 49.9   |
| 1 | 4  | 4  | 213.8 | 218.8 | 80.1   | -203.7 |
| 1 | 5  | 4  | 112.5 | 113.4 | 110.7  | 24.4   |
| 1 | 6  | 4  | 68.8  | 69.8  | 1.7    | 69.8   |
| 1 | 7  | 4  | 64.8  | 66.7  | -56.0  | -36.3  |
| 1 | 8  | 4  | 106.5 | 106.0 | -26.3  | 102.7  |
| 1 | 9  | 4  | 68.1  | 70.8  | -61.9  | -34.4  |
| 1 | 10 | 4  | 65.6  | 64.0  | -45.3  | 45.2   |
| 1 | 11 | 4* | 21.6  | 32.7  | -4.4   | 32.6   |
| 1 | 12 | 4  | 31.9  | 31.7  | 19.0   | -25.4  |
| 1 | 13 | 4  | 62.1  | 63.0  | 51.3   | 36.6   |
| 1 | 14 | 4  | 80.9  | 76.2  | 16.2   | -74.4  |
| 1 | 15 | 4* | 32.1  | 7.1   | 1.8    | 6.9    |
| 3 | 1  | 4  | 107.8 | 103.2 | -75.9  | -69.9  |
| 3 | 2  | 4  | 160.3 | 157.0 | 24.1   | -155.1 |
| 3 | 3  | 4  | 66.2  | 63.1  | 28.5   | -56.4  |
| 3 | 4  | 4  | 65.3  | 70.5  | 62.2   | -33.3  |
| 3 | 5  | 4  | 131.8 | 128.6 | 127.9  | 13.1   |
| 3 | 6  | 4  | 54.2  | 58.5  | 13.6   | 56.9   |
| 3 | 7  | 4  | 46.4  | 40.4  | -35.3  | 19.7   |
| 3 | 8  | 4  | 97.5  | 103.6 | -76.3  | 70.0   |
| 3 | 9  | 4  | 129.0 | 134.7 | -134.7 | -.6    |
| 3 | 10 | 4  | 54.6  | 55.9  | -45.0  | 33.2   |
| 3 | 11 | 4* | 32.0  | 32.6  | 22.5   | 23.6   |
| 3 | 12 | 4* | 28.6  | 30.2  | 28.5   | -10.0  |
| 3 | 13 | 4  | 77.7  | 78.7  | 78.4   | 6.8    |
| 3 | 14 | 4  | 57.2  | 53.3  | 36.0   | -39.3  |
| 5 | 1  | 4  | 152.7 | 159.4 | -141.8 | -72.8  |
| 5 | 2  | 4  | 66.7  | 68.6  | -29.3  | 62.0   |
| 5 | 3  | 4  | 118.8 | 118.7 | -63.9  | -100.1 |
| 5 | 4  | 4  | 89.7  | 84.0  | 4.1    | 83.9   |
| 5 | 5  | 4  | 102.6 | 103.8 | 100.4  | 26.4   |
| 5 | 6  | 4* | 8.6   | 10.0  | 9.6    | -2.8   |
| 5 | 7  | 4  | 68.4  | 66.3  | 32.8   | 57.6   |
| 5 | 8  | 4  | 115.0 | 111.6 | -11.9  | -111.0 |
| 5 | 9  | 4  | 79.1  | 78.7  | -77.3  | 14.4   |
| 5 | 10 | 4  | 48.8  | 48.1  | 3.4    | -48.0  |
| 5 | 11 | 4* | 32.0  | 32.8  | 32.4   | -5.5   |
| 5 | 12 | 4  | 60.5  | 54.1  | 5.0    | 53.9   |
| 7 | 1  | 4  | 79.7  | 87.0  | -84.1  | 22.1   |
| 7 | 2  | 4  | 39.6  | 42.4  | -42.4  | -1.6   |
| 7 | 3  | 4  | 115.4 | 114.2 | -101.9 | 51.5   |
| 7 | 4  | 4  | 42.9  | 41.0  | -37.2  | 17.4   |
| 7 | 5  | 4  | 107.6 | 96.6  | 81.6   | 51.8   |
| 7 | 6  | 4* | 35.6  | 19.9  | -5.2   | 19.2   |
| 7 | 7  | 4  | 49.1  | 47.4  | 19.1   | -43.4  |
| 1 | 1  | 6  | 128.2 | 130.7 | 104.1  | 78.9   |
| 1 | 2  | 6  | 36.2  | 40.1  | -23.4  | -32.5  |
| 1 | 3  | 6  | 209.3 | 214.7 | 186.2  | 106.9  |
| 1 | 4  | 6* | 22.7  | 17.9  | 6.5    | -16.7  |
| 1 | 5  | 6* | 2.5   | 14.4  | -2.0   | -14.3  |
| 1 | 6  | 6* | 18.3  | 11.9  | -10.8  | -5.1   |
| 1 | 7  | 6  | 164.5 | 168.8 | -151.4 | -74.7  |
| 1 | 8  | 6  | 66.8  | 67.3  | 35.9   | 57.0   |
| 1 | 9  | 6  | 70.2  | 70.4  | -55.5  | -43.3  |
| 1 | 10 | 6* | 20.9  | 23.8  | -19.9  | 13.0   |
| 1 | 11 | 6  | 42.6  | 37.6  | -36.4  | -9.5   |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 1 | 12 | 6  | 37.6  | 30.7  | -10.4  | -28.8  |
| 1 | 13 | 6  | 70.7  | 71.0  | 61.6   | 35.2   |
| 1 | 14 | 6* | 2.5   | 14.8  | -9.6   | -11.3  |
| 1 | 15 | 6  | 72.7  | 66.0  | 59.1   | 29.5   |
| 3 | 1  | 6  | 201.3 | 190.4 | 169.9  | 85.9   |
| 3 | 2  | 6  | 126.2 | 118.6 | 91.8   | 75.1   |
| 3 | 3  | 6  | 203.8 | 202.2 | 182.7  | 86.8   |
| 3 | 4  | 6  | 49.9  | 48.1  | 45.4   | -15.7  |
| 3 | 5  | 6  | 62.9  | 65.7  | -57.7  | -31.6  |
| 3 | 6  | 6  | 44.9  | 32.3  | -18.3  | -26.6  |
| 3 | 7  | 6  | 63.9  | 61.1  | -50.2  | -34.8  |
| 3 | 8  | 6  | 43.6  | 46.1  | -43.0  | 16.5   |
| 3 | 9  | 6* | 2.6   | 18.7  | -18.5  | 2.4    |
| 3 | 10 | 6* | 26.7  | 34.0  | -33.5  | 5.8    |
| 3 | 11 | 6* | 32.1  | 27.3  | -25.2  | -10.5  |
| 3 | 12 | 6* | 30.1  | 32.0  | -12.2  | -29.5  |
| 3 | 13 | 6* | 29.7  | 4.9   | -1.1   | -4.8   |
| 3 | 14 | 6  | 43.2  | 33.3  | 32.6   | 7.0    |
| 5 | 1  | 6* | 27.1  | 21.9  | 20.7   | 7.2    |
| 5 | 2  | 6  | 109.3 | 115.4 | 55.5   | 101.2  |
| 5 | 3  | 6  | 51.1  | 50.1  | -29.6  | -40.5  |
| 5 | 4  | 6* | 21.2  | 33.2  | 32.1   | 8.3    |
| 5 | 5  | 6  | 154.9 | 152.3 | -135.8 | -68.9  |
| 5 | 6  | 6  | 51.2  | 55.5  | -27.3  | -48.3  |
| 5 | 7  | 6  | 57.1  | 63.5  | 53.8   | 33.7   |
| 5 | 8  | 6  | 34.5  | 35.8  | -34.7  | -9.0   |
| 5 | 9  | 6  | 157.7 | 154.0 | 135.2  | 73.7   |
| 5 | 10 | 6* | 11.5  | 11.6  | 2.3    | 11.4   |
| 5 | 11 | 6  | 36.5  | 22.6  | -19.2  | -12.0  |
| 7 | 1  | 6  | 67.0  | 66.1  | 59.6   | 28.7   |
| 7 | 2  | 6  | 83.6  | 83.5  | -83.2  | -6.4   |
| 7 | 3  | 6* | 6.6   | 5.9   | -4.7   | 3.6    |
| 7 | 4  | 6  | 60.0  | 60.0  | -49.6  | -33.7  |
| 7 | 5  | 6  | 76.8  | 80.8  | -75.7  | -28.2  |
| 7 | 6  | 6* | 10.7  | 22.4  | 14.6   | -17.0  |
| 1 | 1  | 8  | 77.3  | 76.1  | 72.6   | 22.6   |
| 1 | 2  | 8  | 116.0 | 120.2 | -109.9 | 48.7   |
| 1 | 3  | 8  | 87.2  | 86.3  | 71.8   | 47.8   |
| 1 | 4  | 8  | 134.7 | 134.2 | -61.5  | 119.3  |
| 1 | 5  | 8  | 101.0 | 103.6 | 80.8   | 64.9   |
| 1 | 6  | 8  | 29.9  | 18.2  | 17.7   | 4.0    |
| 1 | 7  | 8  | 67.0  | 71.7  | -59.2  | -40.4  |
| 1 | 8  | 8  | 97.8  | 96.1  | 65.8   | -70.1  |
| 1 | 9  | 8  | 95.5  | 94.3  | -79.6  | -50.6  |
| 1 | 10 | 8  | 63.8  | 61.5  | 21.2   | -57.7  |
| 1 | 11 | 8* | 25.0  | 19.8  | 15.1   | -12.8  |
| 1 | 12 | 8  | 44.4  | 35.4  | -25.7  | 24.3   |
| 1 | 13 | 8  | 62.5  | 69.2  | 62.3   | 30.2   |
| 1 | 14 | 8  | 59.0  | 59.0  | -44.0  | 39.3   |
| 3 | 1  | 8  | 72.5  | 76.2  | -75.9  | 6.8    |
| 3 | 2  | 8  | 36.1  | 32.4  | -20.9  | 24.7   |
| 3 | 3  | 8  | 46.1  | 50.0  | 4.8    | 49.8   |
| 3 | 4  | 8  | 72.5  | 75.6  | -2.2   | 75.6   |
| 3 | 5  | 8  | 105.7 | 106.5 | 66.4   | 83.3   |
| 3 | 6  | 8  | 35.1  | 42.1  | 21.3   | 36.3   |
| 3 | 7  | 8  | 51.2  | 53.6  | -23.1  | -48.3  |
| 3 | 8  | 8  | 115.5 | 119.7 | 21.0   | -117.9 |
| 3 | 9  | 8  | 132.8 | 135.7 | -79.3  | -110.1 |
| 3 | 10 | 8  | 64.1  | 65.9  | 7.8    | -65.5  |
| 3 | 11 | 8* | 2.5   | 17.8  | 17.5   | 3.1    |
| 3 | 12 | 8  | 47.0  | 50.1  | -1.2   | 50.1   |
| 3 | 13 | 8  | 73.6  | 76.1  | 46.3   | 60.4   |
| 5 | 1  | 8  | 150.0 | 148.5 | -135.4 | -61.0  |
| 5 | 2  | 8  | 117.9 | 115.4 | 73.0   | -89.4  |
| 5 | 3  | 8  | 112.1 | 114.5 | -111.6 | -25.7  |
| 5 | 4  | 8  | 66.3  | 56.6  | 56.6   | 1.5    |



|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 5 | 5  | 8   | 69.1  | 76.5  | 56.5   | 45.3   |
| 5 | 6  | 8   | 60.6  | 57.7  | -27.9  | 50.5   |
| 5 | 7  | 8   | 55.7  | 59.3  | 57.8   | 13.5   |
| 5 | 8  | 8   | 64.3  | 65.1  | -64.5  | -8.2   |
| 5 | 9  | 8*  | 33.2  | 43.5  | -14.6  | -41.0  |
| 5 | 10 | 8*  | 6.9   | 18.5  | -18.5  | .8     |
| 7 | 1  | 8   | 59.7  | 60.3  | -27.8  | -53.5  |
| 7 | 2  | 8   | 77.5  | 80.9  | -9.6   | -80.4  |
| 7 | 3  | 8   | 84.8  | 95.7  | -28.5  | -91.4  |
| 7 | 4  | 8*  | 36.2  | 38.1  | -22.0  | -31.1  |
| 7 | 5  | 8   | 84.7  | 83.2  | 81.6   | 16.3   |
| 1 | 1  | 10* | 28.0  | 40.4  | 34.8   | 20.6   |
| 1 | 2  | 10  | 157.5 | 156.0 | -88.8  | 128.2  |
| 1 | 3  | 10  | 43.0  | 50.2  | -23.9  | -44.1  |
| 1 | 4  | 10  | 78.3  | 81.2  | -67.0  | 46.0   |
| 1 | 5  | 10* | 6.4   | 11.6  | -10.3  | -5.3   |
| 1 | 6  | 10  | 50.6  | 52.5  | 27.7   | -44.6  |
| 1 | 7  | 10* | 20.7  | 16.5  | -9.6   | 13.4   |
| 1 | 8  | 10  | 116.9 | 116.0 | 90.4   | -72.8  |
| 1 | 9  | 10  | 80.7  | 80.4  | 43.8   | 67.5   |
| 1 | 10 | 10  | 58.5  | 54.9  | 36.9   | -40.6  |
| 1 | 11 | 10* | 26.1  | 14.7  | -6.5   | -13.2  |
| 1 | 12 | 10* | 33.9  | 30.3  | -16.8  | 25.2   |
| 1 | 13 | 10* | 32.6  | 30.9  | -8.3   | -29.8  |
| 3 | 1  | 10  | 66.7  | 75.2  | .5     | 75.2   |
| 3 | 2  | 10  | 151.9 | 157.1 | -96.2  | 124.2  |
| 3 | 3  | 10  | 47.1  | 54.3  | -27.5  | 46.8   |
| 3 | 4  | 10  | 70.2  | 73.2  | -68.2  | 26.4   |
| 3 | 5  | 10  | 94.4  | 100.8 | -88.2  | -48.7  |
| 3 | 6  | 10  | 48.9  | 53.8  | 9.6    | -52.9  |
| 3 | 7  | 10* | 31.7  | 35.5  | 34.7   | -7.8   |
| 3 | 8  | 10  | 60.1  | 59.2  | 59.1   | -2.8   |
| 3 | 9  | 10  | 90.7  | 92.0  | 87.3   | 28.9   |
| 3 | 10 | 10* | 22.7  | 38.5  | 38.5   | -1.2   |
| 3 | 11 | 10* | 3.7   | 16.7  | 1.3    | -16.7  |
| 3 | 12 | 10* | 29.2  | 28.3  | -17.1  | -22.6  |
| 5 | 1  | 10  | 86.5  | 80.7  | 41.4   | 69.2   |
| 5 | 2  | 10  | 41.5  | 38.1  | 37.7   | -5.8   |
| 5 | 3  | 10  | 94.3  | 97.0  | 21.6   | 94.5   |
| 5 | 4  | 10  | 91.2  | 93.6  | 45.9   | -81.6  |
| 5 | 5  | 10  | 81.1  | 86.2  | -70.3  | -49.8  |
| 5 | 6  | 10* | 32.7  | 29.7  | 5.9    | -29.1  |
| 5 | 7  | 10* | 35.9  | 41.2  | 23.6   | -33.8  |
| 5 | 8  | 10  | 97.1  | 98.9  | -53.3  | 83.2   |
| 5 | 9  | 10  | 55.0  | 54.7  | 54.2   | 6.8    |
| 7 | 1  | 10  | 79.1  | 88.9  | 86.9   | 18.8   |
| 7 | 2  | 10  | 47.1  | 38.2  | 6.2    | 37.7   |
| 1 | 1  | 12  | 73.7  | 72.0  | -39.9  | -59.9  |
| 1 | 2  | 12* | 2.5   | 8.8   | -6.9   | -5.4   |
| 1 | 3  | 12  | 190.2 | 189.6 | -113.9 | -151.6 |
| 1 | 4  | 12  | 59.7  | 57.2  | -30.3  | 48.6   |
| 1 | 5  | 12* | 20.7  | 3.2   | 1.6    | -2.7   |
| 1 | 6  | 12* | 2.5   | 13.4  | -13.1  | -2.8   |
| 1 | 7  | 12  | 59.7  | 50.1  | 21.1   | 45.5   |
| 1 | 8  | 12  | 46.1  | 37.9  | 17.5   | -33.5  |
| 1 | 9  | 12  | 87.7  | 80.9  | 52.7   | 61.4   |
| 1 | 10 | 12* | 28.7  | 17.7  | 11.5   | -13.5  |
| 1 | 11 | 12* | 27.9  | 5.3   | -5.3   | .5     |
| 1 | 12 | 12* | 35.1  | 34.2  | 6.1    | 33.7   |
| 3 | 1  | 12  | 109.9 | 111.8 | -75.1  | -82.9  |
| 3 | 2  | 12  | 84.3  | 88.4  | -31.5  | -82.6  |
| 3 | 3  | 12  | 121.8 | 118.5 | -76.2  | -90.7  |
| 3 | 4  | 12* | 30.3  | 42.6  | -42.4  | -3.2   |
| 3 | 5  | 12  | 37.7  | 47.4  | 19.5   | 43.2   |
| 3 | 6  | 12  | 49.9  | 50.6  | -15.9  | 48.0   |
| 3 | 7  | 12  | 53.0  | 65.1  | 45.6   | 46.5   |

|   |    |     |       |       |       |        |
|---|----|-----|-------|-------|-------|--------|
| 3 | 8  | 12  | 56.5  | 49.4  | 44.9  | -20.6  |
| 3 | 9  | 12* | 10.0  | 19.0  | 17.3  | 7.8    |
| 3 | 10 | 12* | 33.5  | 35.9  | 35.6  | -4.6   |
| 3 | 11 | 12* | 13.5  | 25.9  | 18.5  | 13.1   |
| 5 | 1  | 12* | 33.5  | 35.4  | -31.2 | -16.7  |
| 5 | 2  | 12  | 103.9 | 105.7 | 17.7  | -104.3 |
| 5 | 3  | 12  | 52.0  | 52.9  | 24.3  | 47.0   |
| 5 | 4  | 12  | 39.4  | 28.6  | -18.7 | -21.6  |
| 5 | 5  | 12  | 78.7  | 76.4  | 45.7  | 61.2   |
| 5 | 6  | 12  | 76.9  | 69.8  | -11.2 | 68.9   |
| 5 | 7  | 12  | 49.9  | 39.8  | -12.5 | -37.8  |
| 5 | 8  | 12* | 8.9   | 19.9  | 19.8  | 2.0    |
| 1 | 1  | 14* | 29.7  | 13.3  | 11.2  | 7.0    |
| 1 | 2  | 14  | 53.5  | 59.8  | 59.6  | 4.7    |
| 1 | 3  | 14  | 112.2 | 109.8 | -74.3 | -80.9  |
| 1 | 4  | 14  | 74.7  | 68.9  | 60.2  | -33.4  |
| 1 | 5  | 14* | 24.8  | 26.7  | 3.7   | -26.4  |
| 1 | 6  | 14* | 2.5   | 26.7  | -24.6 | -10.4  |
| 1 | 7  | 14  | 44.9  | 53.0  | 37.7  | 37.3   |
| 1 | 8  | 14  | 76.3  | 79.2  | -9.5  | 38.1   |
| 1 | 9  | 14  | 85.5  | 87.9  | 44.6  | 75.8   |
| 1 | 10 | 14  | 54.1  | 37.8  | -35.3 | 13.6   |
| 1 | 11 | 14* | 2.0   | 10.7  | -10.7 | .5     |
| 3 | 1  | 14* | 28.3  | 7.2   | 6.4   | -3.2   |
| 3 | 2  | 14* | 4.8   | 8.3   | 8.3   | -.4    |
| 3 | 3  | 14  | 56.3  | 54.0  | 10.7  | -52.9  |
| 3 | 4  | 14  | 80.3  | 80.8  | 42.5  | -68.7  |
| 3 | 5  | 14  | 76.4  | 83.1  | -18.1 | -81.1  |
| 3 | 6  | 14* | 32.9  | 38.6  | 18.7  | -33.8  |
| 3 | 7  | 14  | 46.3  | 31.2  | -.1   | 31.2   |
| 3 | 8  | 14  | 86.0  | 85.3  | -40.6 | 75.0   |
| 3 | 9  | 14  | 86.5  | 91.7  | 17.1  | 90.1   |
| 3 | 10 | 14  | 51.9  | 55.1  | -19.9 | 51.3   |
| 5 | 1  | 14  | 74.3  | 75.9  | 45.1  | 61.1   |
| 5 | 2  | 14  | 109.3 | 110.1 | -96.1 | 53.6   |
| 5 | 3  | 14  | 104.0 | 104.2 | 77.1  | 70.1   |
| 5 | 4  | 14* | 41.2  | 43.9  | -35.0 | -26.5  |
| 5 | 5  | 14  | 52.6  | 51.0  | -28.7 | -42.1  |
| 5 | 6  | 14  | 54.2  | 50.3  | 43.0  | -26.2  |
| 1 | 1  | 16* | 9.9   | 12.2  | -7.3  | 9.8    |
| 1 | 2  | 16  | 120.6 | 122.7 | 111.6 | -51.1  |
| 1 | 3  | 16* | 29.2  | 17.8  | -17.5 | 3.7    |
| 1 | 4  | 16  | 86.6  | 94.0  | 89.7  | -28.1  |
| 1 | 5  | 16  | 47.1  | 38.0  | 23.2  | 30.1   |
| 1 | 6  | 16  | 51.6  | 43.8  | -36.0 | 24.9   |
| 1 | 7  | 16* | 23.4  | 19.8  | -6.4  | -18.8  |
| 1 | 8  | 16  | 64.8  | 58.6  | -55.8 | 18.0   |
| 1 | 9  | 16* | +1.1  | 24.0  | 15.6  | -18.2  |
| 1 | 10 | 16  | 48.1  | 40.1  | -40.1 | -1.1   |
| 3 | 1  | 16  | 40.2  | 43.8  | 18.3  | -39.9  |
| 3 | 2  | 16  | 120.8 | 123.0 | 105.2 | -63.8  |
| 3 | 3  | 16  | 41.5  | 39.4  | 31.8  | -23.3  |
| 3 | 4  | 16  | 49.5  | 38.8  | 36.2  | 14.0   |
| 3 | 5  | 16  | 45.8  | 44.5  | 24.2  | 37.4   |
| 3 | 6  | 16  | 44.0  | 54.6  | -41.8 | 35.1   |
| 3 | 7  | 16* | 16.9  | 19.8  | -19.4 | 4.0    |
| 3 | 8  | 16  | 39.7  | 48.7  | -46.9 | -13.4  |
| 5 | 1  | 16  | 50.0  | 51.8  | .1    | -51.8  |
| 5 | 2  | 16* | 16.8  | 24.4  | -17.2 | -17.3  |
| 5 | 3  | 16  | 57.7  | 54.3  | 37.1  | -39.7  |
| 1 | 1  | 18  | 60.2  | 61.6  | 6.6   | 61.3   |
| 1 | 2  | 18* | 6.3   | 18.2  | 13.6  | -12.1  |
| 1 | 3  | 18  | 81.7  | 82.5  | -2.6  | 82.4   |
| 1 | 4  | 18  | 43.5  | 35.3  | 35.2  | -2.6   |
| 1 | 5  | 18* | 19.9  | 15.8  | 13.5  | 8.2    |
| 1 | 6  | 18* | 20.2  | 14.4  | -4.5  | -13.7  |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 1 | 7  | 18  | 76.0  | 64.8  | -12.7  | -63.6  |
| 3 | 1  | 18  | 64.5  | 64.4  | 15.4   | 52.5   |
| 3 | 2  | 18  | 66.5  | 62.1  | -4.0   | 67.9   |
| 3 | 3  | 18  | 79.6  | 81.0  | 21.8   | 78.1   |
| 3 | 4  | 18  | 44.1  | 39.8  | 39.8   | .7     |
| 3 | 5  | 18* | 19.9  | 11.0  | 9.2    | -6.1   |
| 1 | 1  | 20  | 44.9  | 41.7  | 18.5   | 37.3   |
| 1 | 2  | 20  | 45.6  | 33.6  | -28.3  | -18.1  |
| 1 | 3  | 20  | 45.5  | 58.7  | -1.3   | 58.7   |
| 1 | 4  | 20  | 45.2  | 41.4  | -41.3  | 2.5    |
| 1 | 1  | 1   | 96.8  | 94.7  | 24.9   | -91.4  |
| 1 | 2  | 1   | 217.8 | 219.8 | -214.5 | -47.6  |
| 1 | 3  | 1   | 201.3 | 203.1 | 49.1   | -197.1 |
| 1 | 4  | 1   | 177.3 | 175.6 | 174.2  | -21.8  |
| 1 | 5  | 1   | 31.1  | 36.7  | 17.5   | -32.2  |
| 1 | 6  | 1   | 181.5 | 189.5 | 188.2  | 21.6   |
| 1 | 7  | 1   | 91.5  | 92.9  | -11.0  | 92.2   |
| 1 | 8  | 1   | 223.8 | 226.3 | -226.3 | 1.3    |
| 1 | 9  | 1   | 109.5 | 109.3 | -24.5  | 106.5  |
| 1 | 10 | 1   | 132.3 | 131.7 | -131.7 | -1.3   |
| 1 | 11 | 1*  | 15.0  | 13.3  | -4.5   | 12.5   |
| 1 | 12 | 1   | 141.0 | 138.9 | 136.3  | 26.9   |
| 1 | 13 | 1   | 55.4  | 54.8  | 6.4    | -54.4  |
| 1 | 14 | 1   | 47.2  | 51.1  | 50.7   | -6.5   |
| 1 | 15 | 1   | 60.1  | 58.0  | 14.9   | -56.1  |
| 3 | 1  | 1   | 102.4 | 97.5  | 45.3   | 86.4   |
| 3 | 2  | 1   | 307.3 | 302.4 | -295.6 | -64.0  |
| 3 | 3  | 1   | 161.6 | 154.1 | 24.8   | 157.1  |
| 3 | 4  | 1   | 70.4  | 69.8  | 33.4   | -61.3  |
| 3 | 5  | 1   | 45.9  | 54.2  | -42.6  | 33.5   |
| 3 | 6  | 1   | 153.1 | 146.4 | 139.5  | 44.4   |
| 3 | 7  | 1   | 70.4  | 66.3  | -22.6  | -62.3  |
| 3 | 8  | 1*  | 30.8  | 32.6  | -26.2  | 19.4   |
| 3 | 9  | 1   | 126.0 | 126.7 | 21.5   | -124.8 |
| 3 | 10 | 1   | 47.9  | 35.1  | -30.3  | 17.6   |
| 3 | 11 | 1*  | 15.7  | 10.2  | -1.1   | 10.2   |
| 3 | 12 | 1   | 68.6  | 67.8  | 60.5   | -30.7  |
| 3 | 13 | 1   | 62.0  | 59.6  | 1.4    | 59.6   |
| 3 | 14 | 1*  | 11.9  | 22.6  | -7.9   | -21.2  |
| 5 | 1  | 1   | 53.6  | 58.4  | 30.5   | 49.9   |
| 5 | 2  | 1   | 134.2 | 134.8 | -114.6 | 71.0   |
| 5 | 3  | 1   | 46.9  | 56.6  | -20.8  | 52.7   |
| 5 | 4  | 1   | 71.7  | 77.9  | -30.4  | 71.7   |
| 5 | 5  | 1   | 75.0  | 76.7  | -70.1  | 31.2   |
| 5 | 6  | 1   | 85.4  | 80.2  | 79.3   | -12.2  |
| 5 | 7  | 1   | 61.5  | 62.0  | 33.2   | -52.3  |
| 5 | 8  | 1   | 59.6  | 49.9  | -5.6   | -49.6  |
| 5 | 9  | 1   | 97.4  | 96.0  | 91.4   | -29.4  |
| 5 | 10 | 1   | 52.4  | 51.6  | -10.1  | -50.6  |
| 5 | 11 | 1*  | 25.3  | 24.6  | 2.1    | -24.5  |
| 5 | 12 | 1   | 42.5  | 37.7  | 28.6   | 24.6   |
| 7 | 1  | 1   | 45.5  | 46.5  | 41.2   | -21.7  |
| 7 | 2  | 1   | 38.8  | 54.7  | 10.5   | 53.6   |
| 7 | 3  | 1   | 44.9  | 54.8  | 12.3   | -53.4  |
| 7 | 4  | 1   | 49.6  | 40.2  | 23.8   | 32.4   |
| 7 | 5  | 1   | 78.6  | 79.5  | -74.8  | -26.8  |
| 7 | 6  | 1*  | 18.8  | 18.8  | -1.8   | -18.7  |
| 7 | 7  | 1*  | 35.6  | 43.6  | 7.3    | 43.0   |
| 7 | 8  | 1   | 52.2  | 43.2  | -10.8  | -41.9  |
| 1 | 1  | 3   | 97.5  | 99.0  | -8.5   | 98.6   |
| 1 | 2  | 3*  | 477.8 | 522.6 | 512.1  | 104.1  |
| 1 | 3  | 3   | 34.7  | 35.0  | 32.4   | -13.1  |
| 1 | 4  | 3   | 40.6  | 42.4  | 42.3   | -2.4   |
| 1 | 5  | 3   | 43.5  | 44.4  | 27.5   | -34.9  |
| 1 | 6  | 3   | 233.6 | 238.5 | -234.4 | -43.8  |
| 1 | 7  | 3*  | 22.4  | 13.1  | 10.8   | -7.4   |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 1 | 8  | 3* | 4.4   | 10.6  | -6.5   | -8.4   |
| 1 | 9  | 3  | 44.8  | 46.1  | -38.8  | 24.9   |
| 1 | 10 | 3* | 2.5   | 18.8  | 17.3   | -7.2   |
| 1 | 11 | 3* | 31.7  | 21.9  | -18.5  | -11.8  |
| 1 | 12 | 3  | 80.4  | 72.2  | -71.0  | -13.3  |
| 1 | 13 | 3* | 26.4  | 19.6  | 7.0    | -18.3  |
| 1 | 14 | 3  | 55.3  | 59.4  | 58.0   | 12.8   |
| 1 | 15 | 3* | 23.0  | 23.7  | 23.6   | 2.7    |
| 3 | 1  | 3  | 36.1  | 27.3  | 20.9   | -17.5  |
| 3 | 2  | 3  | 27.7  | 27.4  | 24.2   | 12.9   |
| 3 | 3  | 3  | 72.1  | 73.2  | 27.9   | 67.7   |
| 3 | 4  | 3  | 202.2 | 204.1 | -198.6 | -47.2  |
| 3 | 5  | 3  | 61.4  | 66.2  | 56.3   | -34.8  |
| 3 | 6  | 3  | 91.9  | 90.4  | -90.2  | 5.5    |
| 3 | 7  | 3  | 50.6  | 51.1  | -50.8  | -4.9   |
| 3 | 8  | 3  | 218.4 | 220.6 | 213.7  | 54.4   |
| 3 | 9  | 3  | 42.6  | 49.0  | -47.3  | -12.8  |
| 3 | 10 | 3  | 116.1 | 121.6 | 112.6  | 46.0   |
| 3 | 11 | 3* | 10.2  | 19.4  | 19.4   | .4     |
| 3 | 12 | 3  | 121.8 | 123.2 | -119.9 | -28.4  |
| 3 | 13 | 3  | 52.5  | 49.6  | 49.6   | -1.3   |
| 3 | 14 | 3  | 98.1  | 90.4  | -88.2  | -19.6  |
| 5 | 1  | 3  | 104.8 | 104.9 | -102.3 | 23.5   |
| 5 | 2  | 3* | 8.8   | 13.9  | 5.2    | -12.8  |
| 5 | 3  | 3  | 136.9 | 134.6 | -125.5 | -48.7  |
| 5 | 4  | 3  | 88.5  | 88.0  | -86.2  | -17.3  |
| 5 | 5  | 3* | 15.5  | 24.3  | 20.0   | 13.8   |
| 5 | 6  | 3  | 35.8  | 42.4  | -40.7  | -11.8  |
| 5 | 7  | 3  | 48.3  | 55.7  | 54.4   | 11.9   |
| 5 | 8  | 3  | 92.0  | 95.3  | 94.4   | 12.9   |
| 5 | 9  | 3* | 16.1  | 24.8  | 18.0   | 17.1   |
| 5 | 10 | 3  | 74.5  | 71.8  | 71.5   | 6.4    |
| 5 | 11 | 3* | 30.0  | 30.4  | 28.8   | 9.6    |
| 5 | 12 | 3  | 58.3  | 50.7  | -50.7  | -1.0   |
| 7 | 1  | 3  | 94.4  | 97.1  | -91.6  | -32.3  |
| 7 | 2  | 3  | 59.7  | 65.8  | 64.7   | 12.1   |
| 7 | 3  | 3  | 71.2  | 80.1  | -77.3  | -21.0  |
| 7 | 4  | 3  | 53.4  | 49.6  | 44.6   | 21.5   |
| 7 | 5  | 3  | 50.8  | 47.7  | 47.1   | 7.4    |
| 7 | 6  | 3* | 30.9  | 28.1  | -28.0  | 2.6    |
| 7 | 7  | 3  | 51.8  | 46.5  | 45.0   | 11.7   |
| 1 | 1  | 5  | 68.4  | 69.8  | -21.4  | 66.4   |
| 1 | 2  | 5  | 158.2 | 157.6 | -156.9 | -14.5  |
| 1 | 3  | 5  | 95.7  | 102.2 | -35.1  | 96.0   |
| 1 | 4  | 5  | 184.4 | 187.5 | 169.2  | 80.8   |
| 1 | 5  | 5  | 125.2 | 126.8 | -38.7  | 120.7  |
| 1 | 6  | 5  | 161.4 | 163.4 | 148.4  | 68.4   |
| 1 | 7  | 5  | 100.5 | 105.0 | 38.7   | -97.6  |
| 1 | 8  | 5  | 204.1 | 204.8 | -191.1 | -73.7  |
| 1 | 9  | 5  | 122.9 | 128.1 | 32.3   | -123.9 |
| 1 | 10 | 5  | 116.3 | 114.5 | -93.9  | -65.5  |
| 1 | 11 | 5* | 13.1  | 9.5   | -6.1   | -7.3   |
| 1 | 12 | 5  | 142.1 | 138.3 | 130.4  | 46.0   |
| 1 | 13 | 5  | 78.6  | 88.0  | -34.2  | 81.1   |
| 1 | 14 | 5  | 68.1  | 66.2  | 56.5   | 34.5   |
| 1 | 15 | 5* | 27.9  | 27.4  | -4.4   | 27.0   |
| 3 | 1  | 5  | 172.6 | 160.6 | 118.3  | -108.7 |
| 3 | 2  | 5  | 281.7 | 277.4 | -275.8 | -29.8  |
| 3 | 3  | 5  | 144.2 | 144.1 | 100.3  | -103.4 |
| 3 | 4  | 5  | 40.5  | 32.1  | -32.1  | -1.4   |
| 3 | 5  | 5  | 44.6  | 36.8  | -5.2   | -36.5  |
| 3 | 6  | 5  | 164.1 | 159.3 | 157.8  | 21.9   |
| 3 | 7  | 5  | 133.5 | 130.6 | -76.9  | 105.6  |
| 3 | 8  | 5  | 49.6  | 44.9  | .9     | -44.9  |
| 3 | 9  | 5* | 17.8  | 25.1  | -15.3  | 19.9   |
| 3 | 10 | 5* | 19.7  | 28.7  | -28.7  | .9     |

|   |    |    |       |       |        |        |
|---|----|----|-------|-------|--------|--------|
| 3 | 11 | 5* | 32.9  | 28.9  | -2.5   | 28.8   |
| 3 | 12 | 5  | 48.4  | 45.7  | 39.8   | 22.4   |
| 3 | 13 | 5  | 49.6  | 48.2  | 26.4   | -40.4  |
| 3 | 14 | 5  | 47.5  | 42.4  | -41.0  | 10.8   |
| 5 | 1  | 5  | 45.5  | 44.7  | 36.1   | -26.5  |
| 5 | 2  | 5  | 118.0 | 121.1 | -91.0  | -79.9  |
| 5 | 3  | 5  | 95.7  | 93.3  | 5.1    | -93.2  |
| 5 | 4  | 5  | 66.4  | 68.3  | 17.9   | -65.9  |
| 5 | 5  | 5  | 75.9  | 77.8  | -75.6  | -18.6  |
| 5 | 6  | 5  | 48.3  | 57.2  | 53.9   | 19.0   |
| 5 | 7  | 5* | 5.2   | 25.6  | 7.6    | 24.5   |
| 5 | 8  | 5  | 81.2  | 79.0  | -25.9  | 74.6   |
| 5 | 9  | 5  | 90.5  | 87.9  | 51.1   | 71.5   |
| 5 | 10 | 5  | 39.4  | 39.5  | -25.5  | 30.1   |
| 5 | 11 | 5* | 23.6  | 9.1   | -5.9   | -6.9   |
| 7 | 1  | 5  | 39.6  | 42.3  | 15.4   | 39.4   |
| 7 | 2  | 5  | 39.0  | 40.8  | 38.9   | -12.2  |
| 7 | 3  | 5  | 44.7  | 44.6  | -15.4  | 41.9   |
| 7 | 4  | 5  | 39.2  | 41.4  | 34.0   | -23.6  |
| 7 | 5  | 5  | 53.7  | 63.5  | -62.3  | -12.0  |
| 7 | 6  | 5* | 4.0   | 6.6   | -1.8   | -6.4   |
| 7 | 7  | 5* | 35.8  | 42.8  | 40.2   | -14.6  |
| 1 | 1  | 7  | 217.9 | 213.1 | -94.3  | 191.1  |
| 1 | 2  | 7  | 199.8 | 196.9 | 177.0  | 86.3   |
| 1 | 3  | 7  | 187.1 | 194.8 | -124.6 | 149.7  |
| 1 | 4  | 7  | 148.1 | 152.1 | -144.8 | -46.7  |
| 1 | 5  | 7* | 5.5   | 12.9  | 1.9    | -12.8  |
| 1 | 6  | 7  | 140.3 | 140.9 | -131.6 | -50.1  |
| 1 | 7  | 7  | 110.9 | 112.7 | 68.2   | -89.8  |
| 1 | 8  | 7  | 148.6 | 150.7 | 138.6  | 59.3   |
| 1 | 9  | 7  | 46.7  | 37.4  | 32.1   | -19.2  |
| 1 | 10 | 7  | 100.4 | 99.8  | 97.6   | 20.6   |
| 1 | 11 | 7  | 42.2  | 22.3  | 10.5   | -19.7  |
| 1 | 12 | 7  | 115.0 | 108.0 | -94.2  | -52.9  |
| 1 | 13 | 7  | 42.9  | 42.6  | -28.6  | 31.6   |
| 1 | 14 | 7  | 46.8  | 47.0  | -43.7  | -17.3  |
| 3 | 1  | 7  | 85.4  | 85.1  | 14.5   | -83.8  |
| 3 | 2  | 7  | 194.4 | 197.6 | 147.8  | 131.1  |
| 3 | 3  | 7  | 88.7  | 85.6  | 21.9   | -82.8  |
| 3 | 4  | 7  | 30.5  | 32.1  | -21.0  | 24.2   |
| 3 | 5  | 7  | 117.6 | 119.9 | 63.3   | -101.8 |
| 3 | 6  | 7  | 116.2 | 121.4 | -104.0 | -62.6  |
| 3 | 7  | 7  | 111.4 | 113.7 | -45.8  | 104.0  |
| 3 | 8  | 7  | 81.3  | 85.9  | 75.2   | -41.5  |
| 3 | 9  | 7  | 119.0 | 117.9 | -74.7  | 91.3   |
| 3 | 10 | 7* | 20.2  | 39.1  | 38.3   | 8.2    |
| 3 | 11 | 7* | 10.4  | 5.2   | -2.4   | 4.6    |
| 3 | 12 | 7  | 68.3  | 66.3  | -66.3  | -.3    |
| 3 | 13 | 7  | 102.7 | 99.5  | 51.7   | -85.1  |
| 5 | 1  | 7* | 8.5   | 16.2  | -15.8  | -3.8   |
| 5 | 2  | 7  | 140.7 | 142.5 | 136.2  | -41.9  |
| 5 | 3  | 7  | 70.9  | 76.7  | 50.6   | -57.6  |
| 5 | 4  | 7  | 49.9  | 46.1  | 14.3   | -43.8  |
| 5 | 5  | 7  | 75.3  | 77.1  | 76.9   | 4.8    |
| 5 | 6  | 7  | 49.5  | 48.9  | -48.9  | -.1    |
| 5 | 7  | 7* | 28.6  | 25.6  | -22.0  | 13.0   |
| 5 | 8  | 7  | 58.2  | 50.4  | -22.0  | 45.3   |
| 5 | 9  | 7  | 90.4  | 88.8  | -82.8  | 32.1   |
| 5 | 10 | 7  | 38.9  | 28.4  | -7.9   | 27.3   |
| 5 | 11 | 7* | 17.8  | 9.7   | 9.6    | 1.3    |
| 7 | 1  | 7  | 49.0  | 52.3  | -51.4  | 9.8    |
| 7 | 2  | 7  | 73.7  | 73.7  | 27.2   | -68.5  |
| 7 | 3  | 7  | 58.2  | 59.5  | -43.3  | 40.8   |
| 7 | 4  | 7* | 22.0  | 25.7  | 6.6    | -24.8  |
| 7 | 5  | 7  | 49.4  | 50.7  | 35.1   | 36.6   |
| 7 | 6  | 7* | 34.3  | 38.4  | -24.3  | 29.8   |

|   |    |     |       |       |        |        |
|---|----|-----|-------|-------|--------|--------|
| 1 | 1  | 9   | 35.6  | 41.7  | 23.0   | -34.7  |
| 1 | 2  | 9   | 330.1 | 337.3 | -277.2 | -192.2 |
| 1 | 3  | 9   | 53.8  | 57.6  | -20.6  | -53.8  |
| 1 | 4  | 9   | 50.8  | 53.0  | -27.5  | -45.3  |
| 1 | 5  | 9   | 105.6 | 105.8 | -64.3  | 84.1   |
| 1 | 6  | 9   | 152.6 | 158.2 | 134.4  | 83.4   |
| 1 | 7  | 9*  | 18.0  | 21.4  | 17.0   | -13.0  |
| 1 | 8  | 9*  | 21.4  | 21.0  | -5.1   | 20.4   |
| 1 | 9  | 9   | 83.7  | 84.1  | 63.2   | -55.4  |
| 1 | 10 | 9*  | 5.4   | 6.1   | 1.2    | -6.0   |
| 1 | 11 | 9*  | 28.1  | 22.5  | 7.0    | 21.4   |
| 1 | 12 | 9   | 51.1  | 48.3  | 43.7   | 20.5   |
| 1 | 13 | 9   | 54.2  | 54.1  | -31.5  | 44.0   |
| 1 | 14 | 9   | 62.0  | 56.2  | -38.8  | -40.7  |
| 3 | 1  | 9   | 115.4 | 116.4 | 55.6   | -102.2 |
| 3 | 2  | 9   | 53.2  | 57.3  | -28.2  | 49.8   |
| 3 | 3  | 9   | 43.6  | 43.1  | 4.1    | -42.9  |
| 3 | 4  | 9   | 131.5 | 131.3 | 97.8   | 87.5   |
| 3 | 5  | 9   | 33.5  | 34.6  | -33.7  | 7.5    |
| 3 | 6  | 9   | 80.3  | 81.4  | 74.3   | 33.3   |
| 3 | 7  | 9   | 56.9  | 61.4  | 6.9    | 61.0   |
| 3 | 8  | 9   | 169.1 | 173.4 | -137.1 | -106.2 |
| 3 | 9  | 9   | 50.5  | 50.3  | 50.0   | -5.3   |
| 3 | 10 | 9   | 100.8 | 103.2 | -50.8  | -49.0  |
| 3 | 11 | 9*  | 28.7  | 12.0  | -9.8   | 6.9    |
| 3 | 12 | 9   | 99.5  | 99.1  | 84.1   | 52.4   |
| 3 | 13 | 9   | 45.0  | 39.5  | -34.9  | -18.5  |
| 5 | 1  | 9   | 85.9  | 85.0  | 69.6   | 48.7   |
| 5 | 2  | 9*  | 10.2  | 22.7  | -14.1  | 17.8   |
| 5 | 3  | 9   | 102.4 | 105.9 | 102.6  | 26.1   |
| 5 | 4  | 9   | 86.8  | 80.9  | 77.0   | 24.8   |
| 5 | 5  | 9   | 40.1  | 39.8  | -34.1  | 20.5   |
| 5 | 6  | 9   | 41.9  | 37.1  | 36.6   | -6.5   |
| 5 | 7  | 9   | 61.0  | 46.3  | -39.9  | -23.5  |
| 5 | 8  | 9   | 82.9  | 74.9  | -71.7  | -21.8  |
| 5 | 9  | 9   | 43.7  | 33.2  | -21.7  | -25.1  |
| 5 | 10 | 9   | 57.6  | 56.7  | -49.8  | -27.0  |
| 7 | 1  | 9   | 63.2  | 68.9  | 51.9   | 45.3   |
| 7 | 2  | 9   | 57.0  | 50.3  | -47.0  | -17.7  |
| 7 | 3  | 9   | 67.2  | 70.3  | 44.2   | 54.6   |
| 7 | 4  | 9   | 43.2  | 47.0  | -24.2  | -40.3  |
| 1 | 1  | 11  | 34.3  | 32.4  | -9.8   | 30.9   |
| 1 | 2  | 11  | 89.9  | 90.2  | 86.9   | 23.9   |
| 1 | 3  | 11  | 54.4  | 52.9  | 25.2   | -46.6  |
| 1 | 4  | 11  | 127.8 | 131.7 | -91.0  | -95.3  |
| 1 | 5  | 11  | 120.4 | 121.8 | 76.0   | -95.3  |
| 1 | 6  | 11  | 87.8  | 89.3  | -69.7  | -55.9  |
| 1 | 7  | 11  | 32.8  | 39.0  | -27.7  | 27.5   |
| 1 | 8  | 11  | 155.8 | 157.2 | 98.7   | 122.3  |
| 1 | 9  | 11  | 139.5 | 143.5 | -86.6  | 114.5  |
| 1 | 10 | 11  | 96.7  | 93.3  | 59.1   | 72.2   |
| 1 | 11 | 11* | 11.2  | 19.5  | 12.5   | -15.0  |
| 1 | 12 | 11  | 91.7  | 92.6  | -76.7  | -52.0  |
| 1 | 13 | 11  | 87.3  | 83.4  | 59.4   | -58.5  |
| 3 | 1  | 11  | 101.1 | 102.7 | -86.9  | 54.7   |
| 3 | 2  | 11  | 196.0 | 199.2 | 172.6  | 99.5   |
| 3 | 3  | 11  | 133.4 | 134.9 | -119.2 | 63.2   |
| 3 | 4  | 11* | 22.4  | 23.4  | 23.0   | 4.2    |
| 3 | 5  | 11  | 61.6  | 54.9  | 33.8   | -43.2  |
| 3 | 6  | 11  | 97.0  | 97.9  | -89.8  | -38.9  |
| 3 | 7  | 11  | 49.4  | 60.3  | 60.2   | 3.1    |
| 3 | 8  | 11* | 12.7  | 24.8  | -9.4   | -22.9  |
| 3 | 9  | 11* | 32.2  | 26.6  | 22.3   | -14.5  |
| 3 | 10 | 11* | 9.8   | 5.6   | -.7    | 5.5    |
| 3 | 11 | 11* | 28.6  | 2.8   | 1.9    | 2.1    |
| 3 | 12 | 11* | 19.5  | 30.8  | -13.3  | -27.8  |

|   |    |     |       |       |       |        |
|---|----|-----|-------|-------|-------|--------|
| 5 | 1  | 11  | 61.4  | 54.4  | -44.0 | 32.1   |
| 5 | 2  | 11  | 80.2  | 83.2  | 45.2  | 69.9   |
| 5 | 3  | 11  | 62.1  | 66.0  | -19.4 | 63.1   |
| 5 | 4  | 11  | 82.5  | 71.1  | -35.3 | 61.7   |
| 5 | 5  | 11  | 47.3  | 46.2  | 31.0  | 34.3   |
| 5 | 6  | 11  | 52.0  | 47.2  | -42.3 | -20.9  |
| 5 | 7  | 11  | 49.8  | 58.2  | 8.5   | -57.6  |
| 5 | 8  | 11  | 53.4  | 53.6  | 35.9  | -39.9  |
| 5 | 9  | 11  | 62.5  | 57.3  | -41.0 | -40.1  |
| 1 | 1  | 13  | 151.7 | 148.8 | 119.6 | -88.6  |
| 1 | 2  | 13  | 81.1  | 88.4  | -55.5 | -68.8  |
| 1 | 3  | 13  | 173.5 | 170.7 | 137.2 | -101.6 |
| 1 | 4  | 13  | 64.7  | 65.8  | 52.0  | 40.4   |
| 1 | 5  | 13  | 57.3  | 63.6  | -32.3 | 54.8   |
| 1 | 6  | 13  | 88.4  | 90.3  | 73.4  | 52.6   |
| 1 | 7  | 13  | 78.2  | 79.7  | -66.6 | 43.7   |
| 1 | 8  | 13  | 90.8  | 93.7  | -75.9 | -54.9  |
| 1 | 9  | 13* | 1.9   | 31.1  | -28.0 | -13.6  |
| 1 | 10 | 13  | 55.5  | 56.4  | -46.5 | -31.9  |
| 1 | 11 | 13* | 22.0  | 23.4  | -18.3 | 14.5   |
| 1 | 12 | 13  | 81.0  | 70.4  | 41.2  | 57.1   |
| 3 | 1  | 13* | 8.6   | 14.6  | 9.5   | -11.1  |
| 3 | 2  | 13  | 108.2 | 109.8 | -63.3 | -89.8  |
| 3 | 3  | 13  | 94.9  | 93.1  | -71.1 | 60.2   |
| 3 | 4  | 13  | 55.3  | 52.7  | 49.8  | -17.5  |
| 3 | 5  | 13  | 90.6  | 86.8  | -78.5 | 37.2   |
| 3 | 6  | 13  | 64.8  | 68.5  | 35.3  | 58.8   |
| 3 | 7  | 13  | 50.1  | 54.9  | 37.5  | -40.1  |
| 3 | 8  | 13  | 42.2  | 47.2  | -46.4 | 8.2    |
| 3 | 9  | 13  | 130.4 | 132.5 | 106.7 | -78.6  |
| 3 | 10 | 13* | 24.0  | 29.7  | -28.7 | -7.6   |
| 5 | 1  | 13* | 25.0  | 27.6  | -.7   | 27.6   |
| 5 | 2  | 13  | 97.1  | 97.8  | -97.1 | 11.4   |
| 5 | 3  | 13* | 8.3   | 27.2  | -26.5 | 6.1    |
| 5 | 4  | 13  | 41.3  | 48.4  | -43.7 | 20.9   |
| 5 | 5  | 13  | 56.1  | 56.9  | -55.4 | 12.9   |
| 5 | 6  | 13  | 60.9  | 59.5  | 59.4  | 1.6    |
| 5 | 7  | 13* | 35.3  | 40.8  | 39.7  | -9.2   |
| 1 | 1  | 15  | 56.3  | 68.8  | -44.7 | 52.4   |
| 1 | 2  | 15  | 191.8 | 191.4 | 104.8 | 160.2  |
| 1 | 3  | 15  | 39.1  | 24.4  | 5.2   | 23.8   |
| 1 | 4  | 15  | 47.6  | 40.6  | 11.7  | 38.8   |
| 1 | 5  | 15  | 97.4  | 89.9  | 74.5  | -50.4  |
| 1 | 6  | 15  | 97.2  | 94.7  | -47.0 | -82.2  |
| 1 | 7  | 15* | 2.5   | 9.7   | -7.3  | 6.4    |
| 1 | 8  | 15* | 32.6  | 34.0  | -.3   | -34.0  |
| 1 | 9  | 15  | 103.0 | 101.6 | -92.6 | 41.9   |
| 1 | 10 | 15* | 35.7  | 15.6  | 4.9   | -14.8  |
| 3 | 1  | 15  | 62.3  | 60.0  | -37.7 | 46.7   |
| 3 | 2  | 15  | 51.5  | 53.9  | 35.9  | -40.2  |
| 3 | 3  | 15  | 93.5  | 97.5  | -60.5 | 76.4   |
| 3 | 4  | 15  | 96.4  | 98.5  | -50.7 | -84.4  |
| 3 | 5  | 15  | 64.7  | 67.6  | 60.3  | -30.4  |
| 3 | 6  | 15* | 34.1  | 32.1  | -32.0 | -2.8   |
| 3 | 7  | 15  | 38.8  | 28.5  | 5.9   | -27.9  |
| 3 | 8  | 15  | 109.1 | 109.5 | 49.2  | 97.9   |
| 3 | 9  | 15* | 13.9  | 18.9  | -18.5 | -3.8   |
| 5 | 1  | 15  | 61.5  | 58.8  | -57.7 | -11.4  |
| 5 | 2  | 15* | 28.3  | 30.0  | 11.5  | -27.8  |
| 5 | 3  | 15  | 73.1  | 78.7  | -51.2 | -59.8  |
| 5 | 4  | 15  | 56.9  | 49.7  | -39.2 | -30.6  |
| 5 | 5  | 15* | 2.5   | 10.8  | 5.7   | -9.2   |
| 1 | 1  | 17* | 24.4  | 41.1  | 27.6  | -30.5  |
| 1 | 2  | 17* | 35.7  | 29.5  | -26.3 | 13.3   |
| 1 | 3  | 17* | 25.2  | 6.2   | -6.2  | .3     |
| 1 | 4  | 17  | 86.7  | 81.4  | 11.7  | 80.6   |

|   |   |     |       |       |        |        |
|---|---|-----|-------|-------|--------|--------|
| 1 | 5 | 17  | 119.7 | 109.1 | -89.7  | 62.2   |
| 1 | 6 | 17* | 30.6  | 37.4  | 24.2   | 28.5   |
| 1 | 7 | 17* | 40.6  | 37.2  | 36.0   | -9.2   |
| 1 | 8 | 17  | 111.1 | 98.2  | -35.4  | -91.6  |
| 1 | 9 | 17  | 113.3 | 103.5 | 89.0   | -52.9  |
| 3 | 1 | 17  | 100.4 | 100.9 | 99.5   | -16.9  |
| 3 | 2 | 17  | 126.9 | 127.1 | -76.7  | -101.4 |
| 3 | 3 | 17  | 62.9  | 71.8  | 71.5   | 6.4    |
| 3 | 4 | 17* | 24.3  | 39.0  | -3.1   | -38.9  |
| 3 | 5 | 17* | 25.9  | 26.0  | -21.2  | 15.1   |
| 3 | 6 | 17  | 54.5  | 56.3  | 39.2   | 40.4   |
| 3 | 7 | 17  | 54.2  | 57.5  | -57.5  | -1.5   |
| 1 | 1 | 19  | 117.9 | 119.8 | -112.6 | 40.7   |
| 1 | 2 | 19  | 43.2  | 46.3  | 13.5   | 44.3   |
| 1 | 3 | 19  | 102.5 | 108.6 | -107.3 | 16.8   |
| 1 | 4 | 19  | 40.1  | 32.5  | -26.3  | -19.2  |
| 1 | 5 | 19  | 46.5  | 47.1  | 34.4   | -32.2  |
| 1 | 6 | 19  | 44.8  | 35.7  | -15.5  | -32.2  |
| 3 | 1 | 19* | 12.4  | 20.1  | 19.7   | -4.1   |
| 3 | 2 | 19* | 33.2  | 36.7  | -.3    | 36.7   |
| 3 | 3 | 19* | 4.1   | 32.5  | 30.2   | 12.0   |

I RIFLESSI ASTERISCATI SONO 365

AGREEMENT FACTORS BASED ON PARAMETERS BEFORE CYC

SUM(W\*(O-C)\*\*2) IS .190E 04

SQRTF(SUM(W\*(O-C)\*\*2)/(NO-NV)) IS 1.1378

R FACTOR INCLUDING ZEROS

R FACTOR OMITTING ZEROS

WEIGHTED R FACTOR INCLUDING ZEROS

WEIGHTED R FACTOR OMITTING ZEROS

NUOVO FATTORE SCALA .280951

STATISTICHE SU WEIGHTED R

R RISCALATI

|      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|
| DDP  | DPD  | DPP  | PDD  | PDQ  | PPD  | PPP  | DDU  |
| .039 | .028 | .045 | .031 | .043 | .037 | .030 | .041 |
| 142  | 133  | 126  | 116  | 146  | 122  | 185  | 134  |

|      |      |      |      |      |
|------|------|------|------|------|
| GR1  | GR2  | GR3  | GR4  | ALL  |
| .035 | .000 | .000 | .000 | .035 |
| 1104 | 0    | 0    | 0    | 1104 |

|                                       |        |      |      |      |      |      |      |
|---------------------------------------|--------|------|------|------|------|------|------|
| R PER INTERVALLI SENTETA/LAMBDA PASSO | .10000 |      |      |      |      |      |      |
| .050                                  | .026   | .026 | .027 | .032 | .051 | .068 | .103 |
| 2                                     | 24     | 80   | 136  | 212  | 295  | 336  | 19   |

R PER INTERVALLI FO PASSO 20