

AM-81-151

**Dixenite, $\text{Cu}^{1+}\text{Mn}_{14}^{2+}\text{Fe}^{3+}(\text{OH})_6(\text{As}^{3+}\text{O}_3)_5(\text{Si}^{4+}\text{O}_4)_2(\text{As}^{5+}\text{O}_4)$:
metallic $[\text{As}_4^3+\text{Cu}^{1+}]$ clusters in an oxide matrix**

TAKAHARU ARAKI AND PAUL B. MOORE

*Department of the Geophysical Sciences
The University of Chicago, Chicago, Illinois 60637*

Abstract

The crystal structure of dixenite was analyzed using a crystal from the type and sole locality at Långban, Sweden. The end-member formula $\text{Cu}^{1+}\text{Mn}_{14}^{2+}\text{Fe}^{3+}(\text{OH})_6(\text{As}^{3+}\text{O}_3)_5(\text{Si}^{4+}\text{O}_4)_2(\text{As}^{5+}\text{O}_4)$ is proposed. Dixenite is rhombohedral, $a = 8.233(4)$, $c = 37.499(1)\text{\AA}$, space group $R\bar{3}$, $Z = 3$. Twenty eight atoms occur in the asymmetric unit including two disordered Cu^{1+} cations. $R = 0.064$ for 2507 independent reflections.

The structure is related to but distinct from that of hematolite, $(\text{Mn}^{2+}, \text{Mg}, \text{Al})_{15}(\text{OH})_{23}(\text{AsO}_3)(\text{AsO}_4)_2$. Three kinds of anionic radicals occur: $(\text{As}^{3+}\text{O}_3)$ trigonal pyramids; and $(\text{Si}^{4+}\text{O}_4)$ and $(\text{As}^{5+}\text{O}_4)$ tetrahedra. Three of the five nonequivalent layers along $[001]$ are similar in hematolite and dixenite. One layer in dixenite, however, contains a disordered cluster, idealized as $(\text{Cu}^{1+}\text{As}_4^3+)$ where a tetrahedron of As^{3+} ions surrounds a Cu^{1+} ion. All lone pair electrons from As^{3+} point into the central cavity which houses $\text{Cu}^{1+}(d^{10})$ and this cluster is believed to be stabilized by the 18-electron rule where $\text{Cu}^{1+}\text{As}_4^3+$ forms a closed argon core.

Introduction

Dixenite is a rare mineral, originally described by Flink (1920) from the mineralogically complex Fe-Mn oxide ore deposit in Långban, Sweden. The mineral was long problematical: Wickman (1951) proposed the formula $(\text{Mn}, \text{Fe}, \text{Cu}, \text{As}^{3+})_{20}(\text{Si}, \text{As}^{5+})_3(\text{O}, \text{OH})_{32}$, Wuensch (1960) presented a relationship to the complex arsenosilicate mcgovernite, and Moore and Araki (1978) proposed $\text{Mn}_{11}^{2+}\text{Mn}_3^{3+}(\text{OH})_8(\text{AsO}_3)_6(\text{SiO}_4)_2$ and a model for the structure derived from hematolite, $(\text{Mn}^{2+}, \text{Mg}, \text{Al})_{15}(\text{OH})_{23}(\text{AsO}_3)(\text{AsO}_4)_2$ to which it shares similarities in cell parameters and space group.

We studied dixenite's structure in hopes of gathering more clues about the structure of mcgovernite, and discovered several unusual features, including incorrectness of the proposed structure of Moore and Araki (1978), the presence of $[\text{As}_4^3+\text{Cu}^{1+}]$ metal clusters, the occurrence of As^{3+}O_3 trigonal pyramids, and solid solution between As^{4+} and Si^{4+} in tetrahedral oxygen coordination.

Experimental details

On the basis of a relationship to hematolite, kraisslite and mcgovernite (Moore and Ito, 1978) we

suspected that platy deep red-brown crystals of dixenite from the only recorded locality at Långban, Sweden may in fact consist of more than one structure or polytype. Our dixenite sample selected for this structure study was NMNH No. C-6440. We also examined Nos. B-20579, 94920, 94935 and R-5755 (all in the U.S. National Museum of Natural History) by X-ray study and found all of them to be identical. We thank Mr. John S. White, Jr. for permission to select fragments of these specimens. The crystal selected was a deep red plate measuring $0.18\text{ mm} \parallel a_1 \times 0.25\text{ mm} \parallel a_2 \times 0.06\text{ mm} \parallel c$. With $\mu = 132.1\text{ cm}^{-1}$ ($\text{MoK}\alpha$), seven divisions by the Gaussian integral method (Burnham, 1966) led to significant absorption corrections, ranging from 0.148 for low angle $(00l)$ reflections to 0.458.

Cell data were obtained from calibrated precession photographs ($\text{MoK}\alpha$ radiation) and yielded $a = 8.233(4)$, $c = 37.499(1)\text{\AA}$, Laue symmetry $\bar{3}$. Intensities were collected on a PAILED semi-automated diffractometer with the a_2 -axis \parallel rotation and with graphite monochromatized $\text{MoK}\alpha$ radiation. Background counting time on each side of the peak was 20 sec, scan speed 1° min^{-1} , scan width 4.0° to 4.8° . Angular coverage maximum was $\sin\theta/\lambda = 0.80$, the

H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH
0	0	-60	114.2	122.7	57.2	0	3	-57	28.1	32.6	9.8	0	6	-30	226.4	224.7	257.7
0	0	-57	165.7	164.9	18.1	0	3	-54	114.6	110.9	17.7	0	6	-27	256.6	256.8	-13.1
0	0	-54	171.9	165.4	-14.8	0	3	-51	52.5	50.6	110.4	0	6	-24	62.4	58.8	-84.1
0	0	-51	43.3	38.7	94.8	0	3	-48	137.4	133.0	-54.7	0	6	-21	56.2	55.1	244.8
0	0	-48	292.5	292.8	-64.9	0	3	-45	126.5	115.8	-67.1	0	6	-18	114.2	117.3	258.9
0	0	-45	146.1	140.9	-35.4	0	3	-42	120.8	119.0	-5.4	0	6	-15	186.3	187.6	200.4
0	0	-42	175.7	174.7	-14.4	0	3	-39	59.3	51.5	-79.6	0	6	-12	187.0	193.4	-31.2
0	0	-39	107.2	104.7	233.0	0	3	-36	49.9	56.9	-62.9	0	6	-9	92.7	95.3	179.0
0	0	-36	257.3	256.6	229.4	0	3	-33	191.5	180.0	263.2	0	6	-6	257.5	263.5	116.8
0	0	-33	519.9	503.3	230.3	0	3	-30	104.6	97.4	231.8	0	6	-3	103.1	105.6	192.6
0	0	-30	284.0	286.0	61.1	0	3	-27	159.8	152.5	3.4	0	6	0	190.7	185.0	27.1
0	0	-27	161.4	153.8	20.9	0	3	-24	89.4	88.9	156.7	0	6	3	114.5	112.1	18.5
0	0	-24	272.6	271.9	174.6	0	3	-21	184.5	184.5	198.3	0	6	6	189.9	189.6	94.9
0	0	-21	303.0	281.5	180.9	0	3	-18	186.2	182.8	191.8	0	6	9	312.7	313.1	49.9
0	0	-18	290.1	272.9	191.2	0	3	-15	319.7	326.1	46.2	0	6	12	148.2	155.2	-12.0
0	0	-15	570.5	557.4	55.9	0	3	-12	224.4	238.2	20.0	0	6	15	109.3	107.7	-9.3
0	0	-12	316.2	311.8	31.8	0	3	-9	94.1	104.1	26.2	0	6	18	185.8	187.8	-32.6
0	0	-9	178.6	171.5	69.9	0	3	-6	246.3	259.0	69.3	0	6	21	265.5	269.5	67.7
0	0	-6	261.1	250.8	99.3	0	3	-3	103.9	99.5	-29.8	0	6	24	173.7	170.1	-9.3
0	0	-3	126.4	124.7	50.8	0	3	0	642.0	648.0	5.8	0	6	27	152.2	152.3	-49.5
0	0	3	109.3	111.3	-39.7	0	3	3	155.2	149.5	-18.7	0	6	30	47.7	55.7	-80.9
0	0	6	243.3	244.7	267.8	0	3	6	45.1	43.7	-79.8	0	6	33	76.0	67.0	-76.3
0	0	9	159.9	167.4	-61.5	0	3	9	233.4	233.1	37.6	0	6	36	131.3	129.9	54.1
0	0	12	319.5	328.4	-23.9	0	3	12	196.3	205.4	-30.0	0	6	39	119.9	122.5	260.2
0	0	15	558.9	553.1	-46.1	0	3	15	520.8	546.5	-33.4	0	6	42	119.3	123.3	228.7
0	0	18	246.9	257.1	176.9	0	3	18	85.2	82.9	206.5	0	6	45	67.6	66.1	150.9
0	0	21	278.8	281.2	189.0	0	3	21	128.5	133.1	108.6	0	6	48	40.0	38.2	145.1
0	0	24	237.8	253.6	194.2	0	3	24	131.9	130.1	243.9	0	6	51	40.8	48.8	43.9
0	0	27	157.3	165.0	-16.8	0	3	27	119.1	114.2	-34.7	0	6	54	104.2	98.5	82.9
0	0	30	288.4	303.3	-61.3	0	3	30	103.2	105.6	179.1	0	6	57	123.9	111.6	-63.7
0	0	33	475.6	506.6	137.8	0	3	33	139.1	143.1	126.9	0	6	60	36.2	30.7	10.4
0	0	36	255.2	264.1	140.1	0	3	36	130.8	129.3	96.3	0	6	63	68.5	62.5	183.9
0	0	39	99.2	106.4	141.1	0	3	39	29.5	24.3	48.3	0	6	66	94.6	93.4	27.7
0	0	42	156.4	166.2	23.9	0	3	42	28.9	22.8	-48.6	0	6	69	60.9	70.0	29.7
0	0	45	121.4	136.1	51.3	0	3	45	67.9	62.4	44.5	0	6	72	131.9	125.1	256.2
0	0	48	270.4	285.0	77.9	0	3	48	157.0	162.5	86.6	0	6	75	102.7	100.4	201.7
0	0	51	32.6	35.9	-89.9	0	3	51	34.8	26.6	12.7	0	6	78	80.1	81.7	65.0
0	0	54	161.2	173.8	27.0	0	3	54	35.2	36.0	0.0	0	6	81	70.5	72.5	30.5
0	0	57	149.6	157.6	-4.8	0	3	57	46.9	49.0	51.0	0	6	84	108.1	112.2	-85.6
0	0	60	112.1	108.0	-38.8	0	4	-55	120.0	118.5	56.7	0	6	87	150.2	155.4	211.4
0	1	-58	70.6	76.8	79.6	0	4	-52	178.7	182.5	219.6	0	6	90	62.0	54.6	90.4
0	1	-55	75.2	70.2	43.8	0	4	-49	76.7	85.1	62.9	0	6	93	77.8	80.9	14.0

0	1	-52	143.1	142.7	220.9	0	4	-46	156.8	158.2	80.0	0	7	-4	74.5	78.0	91.1
0	1	-49	37.0	57.5	57.3	0	4	-43	144.2	132.8	18.2	0	7	-1	65.7	62.3	193.7
0	1	-46	144.2	141.7	86.1	0	4	-40	172.7	168.9	17.1	0	7	2	70.2	69.1	160.4
0	1	-43	94.8	90.5	23.2	0	4	-37	229.3	222.9	205.8	0	7	5	84.5	85.5	38.9
0	1	-40	63.5	48.0	35.0	0	4	-34	238.1	237.7	-6.7	0	7	8	85.4	80.9	10.8
0	1	-37	152.9	146.6	190.0	0	4	-31	201.4	194.5	25.1	0	7	11	104.8	97.4	-21.1
0	1	-34	196.4	198.2	21.0	0	4	-28	177.6	174.2	-21.6	0	7	14	35.2	21.1	-30.8
0	1	-31	226.3	217.5	15.3	0	4	-25	178.8	173.2	-78.2	0	7	17	111.9	112.1	226.4
0	1	-28	121.9	118.8	-42.8	0	4	-22	247.2	248.7	192.0	0	7	20	264.4	263.0	-23.3
0	1	-25	128.9	119.9	-66.3	0	4	-19	210.1	210.9	-52.9	0	7	23	83.0	87.6	96.3
0	1	-22	125.4	114.9	178.7	0	4	-16	54.5	58.7	223.3	0	7	26	77.3	68.0	-62.8
0	1	-19	182.9	171.9	-39.8	0	4	-13	125.5	127.6	186.3	0	7	29	62.5	56.0	-76.1
0	1	-16	124.5	122.1	249.5	0	4	-10	251.0	258.8	204.1	0	7	32	48.8	57.8	214.4
0	1	-13	112.1	109.0	141.6	0	4	-7	360.6	366.8	174.1	0	7	35	57.0	58.0	-41.3
0	1	-10	303.5	369.2	195.6	0	4	-4	93.1	96.0	255.1	0	7	38	66.4	65.3	35.6
0	1	-7	93.6	91.8	258.8	0	4	-1	283.1	290.1	90.3	0	7	41	29.4	25.1	-47.2
0	1	-4	32.9	90.1	-72.9	0	4	2	143.5	143.3	33.7	0	7	44	99.3	104.2	191.8
0	1	-1	84.7	92.3	143.5	0	4	5	97.2	96.0	184.8	0	7	47	29.4	43.9	40.7
0	1	2	53.3	58.3	92.2	0	4	8	199.4	205.8	112.4	0	8	-41	44.4	52.1	3.8
0	1	5	32.5	9.0	132.4	0	4	11	252.5	255.6	-36.7	0	8	-38	97.8	96.3	-70.4
0	1	8	112.3	114.9	128.9	0	4	14	487.7	491.5	40.3	0	8	-35	79.2	82.9	58.9
0	1	11	135.8	127.3	-12.7	0	4	17	130.0	137.3	-75.9	0	8	-32	96.7	97.2	160.9
0	1	14	349.6	336.1	41.5	0	4	20	250.1	254.7	-33.4	0	8	-29	102.8	108.4	-0.2
0	1	17	98.3	104.7	-81.4	0	4	23	161.7	157.4	85.9	0	8	-26	83.6	79.2	52.2
0	1	20	255.4	258.7	-35.5	0	4	26	252.6	253.5	-47.7	0	8	-23	120.7	121.3	260.3
0	1	23	119.8	120.2	64.1	0	4	29	327.1	331.4	0.2	0	8	-20	116.2	117.9	66.3
0	1	26	207.1	214.3	-40.0	0	4	32	197.5	195.5	247.1	0	8	-17	50.5	58.5	137.6
0	1	29	194.2	206.7	5.2	0	4	35	150.1	153.0	223.2	0	8	-14	156.3	159.3	-41.2
0	1	32	85.2	99.4	252.9	0	4	38	29.4	19.7	50.0	0	8	-11	46.5	50.4	33.8
0	1	35	84.3	85.0	246.2	0	4	41	96.4	97.5	264.6	0	8	-8	87.8	90.6	195.6
0	1	38	52.1	65.6	6.3	0	4	44	37.1	45.0	205.3	0	8	-5	117.7	116.8	36.8
0	1	41	52.6	47.8	-29.5	0	4	47	101.7	107.4	191.1	0	8	-2	99.5	98.4	134.3
0	1	44	88.0	89.3	236.9	0	4	50	72.2	77.1	132.6	0	8	1	24.1	29.0	-80.3
0	1	47	41.1	42.5	215.9	0	4	53	37.8	41.1	46.3	0	8	4	24.0	21.5	41.2
0	1	50	50.1	44.5	93.4	0	4	56	34.3	15.1	34.6	0	8	7	65.2	53.5	145.9
0	1	53	33.9	43.7	-7.2	0	5	-53	88.6	84.7	10.0	0	8	10	53.8	50.4	135.8
0	1	56	43.2	23.1	19.0	0	5	-50	101.5	91.0	-42.8	0	8	13	25.1	14.4	208.3
0	1	59	27.2	44.0	122.3	0	5	-47	52.6	55.7	263.6	0	8	16	45.9	42.2	-14.2
0	2	-59	70.3	71.0	239.5	0	5	-44	43.6	44.4	214.0	0	8	19	74.1	74.1	31.5
0	2	-56	102.9	107.1	-32.1	0	5	-41	110.9	100.8	-60.5	0	8	22	38.9	28.4	184.1
0	2	-53	103.8	98.1	49.0	0	5	-38	37.2	39.7	-83.2	0	8	25	28.3	23.3	16.7
0	2	-50	103.8	95.9	-0.2	0	5	-35	113.7	114.5	176.8	0	8	28	68.3	68.1	86.7
0	2	-47	108.3	102.5	-36.2	0	5	-32	173.5	174.7	171.8	0	8	31	113.0	118.7	-51.0
0	2	-44	124.5	122.4	198.5	0	5	-29	121.2	116.9	-3.6	0	8	34	87.3	89.1	-23.9
0	2	-41	236.1	234.8	-54.7	0	5	-26	50.0	40.1	56.3	0	8	37	152.6	144.3	179.6
0	2	-38	65.9	61.9	28.7	0	5	-23	62.6	70.9	147.4	0	8	40	77.4	77.5	-21.0
0	2	-35	72.2	68.4	57.8	0	5	-20	175.2	183.6	83.9	0	8	43	47.5	50.5	45.7
0	2	-32	182.4	183.6	185.6	0	5	-17	227.2	238.7	123.4	0	9	-36	72.8	69.3	-46.2
0	2	-29	57.7	34.3	207.3	0	5	-14	206.5	211.1	-10.7	0	9	-33	43.0	42.6	-39.2
0	2	-26	55.7	60.5	224.7	0	5	-11	167.4	170.6	57.3	0	9	-30	52.3	63.0	-44.7
0	2	-23	238.9	232.5	79.3	0	5	-8	163.3	166.8	55.8	0	9	-27	140.4	139.5	-8.9

0	2	-20	226.9	229.8	60.2	0	5	-5	143.4	141.8	61.4	0	9	-24	74.0	75.2	-75.9
0	2	-17	230.4	231.7	156.1	0	5	-2	171.3	173.1	13.9	0	9	-21	154.7	156.2	247.5
0	2	-14	87.8	85.7	-56.6	0	5	1	241.0	248.1	-43.8	0	9	-18	99.3	95.0	232.3
0	2	-11	72.9	62.9	-30.5	0	5	4	92.3	96.8	-17.5	0	9	-15	52.9	46.0	57.0
0	2	-8	558.8	555.9	53.1	0	5	7	137.5	143.3	21.7	0	9	-12	53.1	50.7	-51.8
0	2	-5	173.9	176.3	32.0	0	5	10	217.8	213.7	196.3	0	9	-9	119.7	119.4	240.0
0	2	-2	23.2	10.7	208.6	0	5	13	148.9	148.0	260.6	0	9	-6	155.4	160.2	141.4
0	2	1	100.8	103.3	-83.5	0	5	16	120.4	121.6	262.1	0	9	-3	82.0	85.4	95.2
0	2	4	110.6	117.4	-33.6	0	5	19	36.8	31.7	-27.1	0	9	0	212.3	208.0	22.5
0	2	7	636.0	639.2	17.6	0	5	22	134.0	135.7	222.6	0	9	3	30.6	37.2	70.6
0	2	10	302.1	298.9	208.2	0	5	25	132.3	133.9	158.8	0	9	6	35.3	35.9	171.8
0	2	13	184.3	183.0	232.7	0	5	28	28.2	14.9	168.0	0	9	9	152.1	153.9	76.5
0	2	16	67.9	57.5	244.7	0	5	31	91.7	90.1	-71.1	0	9	12	130.9	130.6	30.5
0	2	19	80.7	84.0	8.7	0	5	34	91.3	90.7	40.9	0	9	15	176.3	180.3	0.2
0	2	22	245.5	250.2	-15.3	0	5	37	170.5	172.7	159.0	0	9	18	34.1	25.2	11.9
0	2	25	306.2	310.1	174.7	0	5	40	85.9	84.6	103.0	0	9	21	52.5	56.1	97.8
0	2	28	148.9	154.2	190.3	0	5	43	70.0	70.5	35.2	0	9	24	92.8	89.7	14.8
0	2	31	86.4	83.0	255.3	0	5	46	79.5	70.2	-65.0	0	9	27	186.5	189.9	-14.8
0	2	34	121.9	131.3	10.4	0	5	49	80.2	83.9	25.9	0	9	30	43.4	52.3	262.3
0	2	37	68.8	84.1	192.6	0	5	52	124.4	130.9	121.6	0	9	33	45.0	57.3	254.4
0	2	40	125.0	130.1	137.7	0	6	-51	123.5	124.6	104.9	0	9	36	28.7	14.6	204.6
0	2	43	55.7	45.8	67.2	0	6	-48	107.9	97.9	53.8	0	10	-28	43.8	53.8	257.3
0	2	46	74.1	79.6	-61.6	0	6	-45	128.6	125.7	-82.6	0	10	-25	27.3	15.8	157.6
0	2	49	100.7	110.9	12.5	0	6	-42	153.7	152.8	25.6	0	10	-22	113.7	116.3	26.4
0	2	52	61.7	60.8	98.0	0	6	-39	117.7	116.6	9.7	0	10	-19	93.3	90.7	74.2
0	2	55	65.7	68.7	96.4	0	6	-36	80.4	82.4	-4.3	0	10	-16	131.8	137.4	-64.3
0	2	58	78.0	82.7	-57.7	0	6	-33	144.5	140.3	-27.1	0	10	-13	51.4	58.4	219.8

H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH
0	10	-10	47.1	44.4	128.3	1	2	-10	196.7	201.5	-88.4	1	5	14	48.5	41.9	181.9
0	10	-7	119.0	117.9	-10.2	1	2	-7	465.0	475.7	-59.0	1	5	17	225.3	224.6	145.2
0	10	-4	62.8	65.3	72.8	1	2	-4	58.8	58.0	33.2	1	5	20	87.5	85.4	-18.4
0	10	-1	137.8	135.1	255.0	1	2	-1	355.9	350.9	257.6	1	5	23	155.9	157.5	27.0
0	10	2	62.8	59.7	219.8	1	2	2	371.7	374.8	166.6	1	5	26	89.2	92.0	-38.1
0	10	5	55.8	57.5	-26.6	1	2	5	220.5	219.9	198.4	1	5	29	82.2	81.9	-17.4
0	10	8	36.2	30.1	-86.9	1	2	8	393.4	380.1	-4.6	1	5	32	93.4	98.2	101.6
0	10	11	37.9	40.4	86.5	1	2	11	141.3	140.2	-8.3	1	5	35	89.3	86.9	-54.3
0	10	14	101.7	103.2	215.4	1	2	14	148.1	156.5	231.3	1	5	38	125.0	128.5	7.7
0	10	17	80.0	72.7	184.0	1	2	17	583.5	584.1	142.6	1	5	41	121.2	125.2	18.7
0	10	20	97.9	99.3	0.8	1	2	20	198.9	192.2	-51.7	1	5	44	147.0	140.3	225.6
0	10	23	70.1	64.8	82.8	1	2	23	150.6	150.4	95.3	1	5	47	92.1	96.7	14.8
0	10	26	47.3	47.8	11.7	1	2	26	239.3	241.0	35.8	1	5	50	56.0	50.5	-47.4
0	10	29	47.3	47.5	234.3	1	2	29	29.7	14.8	236.6	1	6	-47	80.5	78.8	78.8
0	11	-14	126.7	127.3	-89.7	1	2	32	162.9	164.7	95.3	1	6	-44	75.8	69.3	225.1
0	11	-11	57.9	49.6	206.9	1	2	35	132.6	131.6	-42.2	1	6	-41	131.5	127.2	-58.0
0	11	-8	86.4	85.7	79.8	1	2	38	321.6	337.4	-1.8	1	6	-38	65.7	61.0	86.9
0	11	-5	41.1	40.3	127.5	1	2	41	152.5	153.1	-12.7	1	6	-35	101.6	91.2	25.5
0	11	-2	62.8	65.2	188.0	1	2	44	163.9	171.6	203.5	1	6	-32	56.5	36.1	133.5
0	11	1	69.1	69.0	213.2	1	2	47	131.1	138.6	27.7	1	6	-29	90.4	90.7	-60.2
0	11	4	70.8	74.3	108.2	1	2	50	74.0	69.4	-72.4	1	6	-26	71.8	77.1	-84.0
0	11	7	172.0	168.8	63.8	1	2	53	140.0	153.4	-30.8	1	6	-23	165.8	161.7	120.0
0	11	10	44.1	42.7	61.8	1	2	56	47.8	50.8	-41.5	1	6	-20	191.7	194.3	29.3
0	11	13	38.6	45.1	162.6	1	3	-56	53.3	48.7	97.5	1	6	-17	88.3	84.1	126.4
0	11	16	44.5	21.6	39.7	1	3	-53	78.7	72.2	66.7	1	6	-14	159.2	158.2	268.3
0	11	19	44.5	54.5	260.1	1	3	-50	28.4	29.1	87.3	1	6	-11	79.1	78.7	179.4
0	11	22	44.1	28.3	-10.9	1	3	-47	82.5	81.7	-5.3	1	6	-8	267.6	272.9	66.7
0	11	25	41.8	41.4	23.9	1	3	-44	57.4	54.6	106.6	1	6	-5	55.8	60.3	-55.5
0	11	28	47.0	50.2	-78.1	1	3	-41	143.2	138.1	12.0	1	6	-2	42.6	51.1	28.4
0	11	31	51.8	42.5	161.0	1	3	-38	36.9	5.9	-62.8	1	6	1	208.0	210.7	217.6
0	11	34	85.0	84.2	136.9	1	3	-35	85.2	76.4	43.5	1	6	4	41.6	39.8	118.1
0	11	37	62.5	51.0	40.0	1	3	-32	77.2	82.6	243.7	1	6	7	361.9	355.5	50.1
0	11	40	75.4	65.9	8.8	1	3	-29	225.5	227.6	0.2	1	6	10	97.6	90.0	246.2
0	11	43	98.8	87.9	127.4	1	3	-26	97.7	93.4	44.7	1	6	13	114.6	112.6	-72.9
0	11	46	100.9	96.7	121.4	1	3	-23	106.3	104.8	-84.8	1	6	16	91.8	90.6	175.6
0	11	49	204.9	202.3	2.9	1	3	-20	148.4	151.8	14.4	1	6	19	98.8	90.6	38.7
0	11	52	227.6	220.6	45.8	1	3	-17	106.4	102.3	233.4	1	6	22	184.0	187.3	0.7
0	11	55	125.5	119.6	-56.2	1	3	-14	220.9	219.8	-52.5	1	6	25	150.0	143.3	194.8
0	11	58	254.2	251.9	42.6	1	3	-11	94.5	94.2	98.2	1	6	28	27.1	16.6	-24.2
0	11	61	102.9	104.9	86.8	1	3	-8	289.4	295.6	144.0	1	6	31	90.4	86.1	207.8
0	11	64	361.3	351.2	-34.3	1	3	-5	30.6	15.3	-18.6	1	6	34	141.3	139.5	15.6
0	11	67	142.4	135.3	18.8	1	3	-2	120.5	121.5	205.6	1	6	37	29.0	4.0	-7.2

1	0	-8	118.5	116.8	233.7	1	3	1	128.3	111.1	59.7	1	6	40	62.9	62.3	222.6
1	0	-5	21.2	7.9	232.1	1	3	4	208.6	208.3	103.5	1	6	43	39.1	49.3	266.3
1	0	-2	59.3	63.7	-76.3	1	3	7	181.4	186.2	82.7	1	6	46	68.0	52.3	205.6
1	0	1	89.1	94.5	232.8	1	3	10	148.2	148.8	201.5	1	6	49	78.5	70.0	-7.5
1	0	4	82.9	87.1	71.7	1	3	13	39.8	8.8	137.0	1	7	-45	40.3	53.1	-54.1
1	0	7	95.9	97.8	109.9	1	3	16	156.9	155.1	43.3	1	7	-42	70.6	59.1	124.2
1	0	10	392.5	371.4	169.4	1	3	19	206.9	207.3	53.0	1	7	-39	111.7	105.3	108.5
1	0	13	121.8	113.3	227.9	1	3	22	84.5	86.3	-6.6	1	7	-36	59.2	48.9	197.7
1	0	16	131.3	130.1	119.9	1	3	25	110.5	104.0	258.0	1	7	-33	33.1	17.3	90.0
1	0	19	174.9	171.9	47.6	1	3	28	85.1	84.4	-19.1	1	7	-30	52.2	61.3	32.9
1	0	22	122.4	120.9	180.9	1	3	31	196.6	198.4	-25.6	1	7	-27	178.0	172.4	58.4
1	0	25	98.0	107.4	73.0	1	3	34	164.0	158.5	-1.8	1	7	-24	160.4	154.4	59.4
1	0	28	107.2	111.5	46.7	1	3	37	192.6	193.4	196.4	1	7	-21	56.5	53.1	-49.8
1	0	31	205.1	220.4	-6.5	1	3	40	93.7	99.1	269.6	1	7	-18	159.6	156.9	-35.2
1	0	34	187.2	191.7	-9.9	1	3	43	41.2	41.9	5.4	1	7	-15	261.3	265.4	-4.4
1	0	37	143.7	145.9	179.5	1	3	46	98.5	109.6	-83.5	1	7	-12	144.9	148.0	5.8
1	0	40	47.0	49.6	-21.0	1	3	49	48.6	20.2	146.7	1	7	-9	172.0	171.3	-48.3
1	0	43	77.1	88.7	-11.6	1	3	52	123.1	124.2	159.0	1	7	-6	107.2	103.5	227.1
1	0	46	130.2	136.9	-71.1	1	3	55	51.5	47.7	214.9	1	7	-3	166.5	166.4	-62.7
1	0	49	69.4	64.2	-42.7	1	4	-54	42.6	52.6	63.9	1	7	0	275.5	276.1	-26.1
1	0	52	142.6	145.1	151.4	1	4	-51	45.4	30.2	176.3	1	7	3	97.2	97.5	154.5
1	0	55	65.5	76.4	-39.5	1	4	-48	103.7	106.6	260.3	1	7	6	155.0	154.0	225.9
1	0	58	71.9	79.7	-61.5	1	4	-45	47.5	46.9	-37.8	1	7	9	95.0	96.6	149.5
1	0	57	87.3	91.9	143.6	1	4	-42	112.8	115.6	71.6	1	7	12	102.6	99.6	-83.4
1	0	54	47.6	15.2	91.4	1	4	-39	131.7	128.8	84.8	1	7	15	51.2	49.2	-55.2
1	0	51	122.5	128.2	92.5	1	4	-36	89.7	86.3	243.8	1	7	18	209.4	212.2	113.2
1	0	48	155.7	150.3	32.2	1	4	-33	105.1	101.7	264.3	1	7	21	204.4	202.7	128.8
1	0	45	136.3	130.3	-31.2	1	4	-30	129.6	125.4	4.6	1	7	24	83.6	82.4	110.1
1	0	42	185.0	177.1	58.1	1	4	-27	238.4	236.7	44.6	1	7	27	166.1	159.8	3.3
1	0	39	89.2	81.6	-83.8	1	4	-24	114.2	107.9	52.4	1	7	30	116.3	110.8	95.1
1	0	36	206.7	206.6	-14.7	1	4	-21	216.1	224.2	260.1	1	7	33	196.6	189.6	66.3
1	0	33	179.5	182.4	-17.8	1	4	-18	54.2	57.0	245.5	1	7	36	96.2	97.5	44.9
1	0	30	268.4	254.0	-88.4	1	4	-15	271.9	277.0	12.5	1	7	39	127.6	127.6	-45.1
1	0	27	221.7	211.3	-2.9	1	4	-12	198.7	206.6	12.4	1	7	42	132.9	127.6	24.6
1	0	24	298.3	297.6	240.4	1	4	-9	214.9	219.0	-56.0	1	7	45	85.2	90.3	47.6
1	0	21	279.4	281.8	-59.0	1	4	-6	251.5	251.3	197.0	1	7	48	28.9	7.2	47.6
1	0	18	169.5	169.2	-38.4	1	4	-3	211.6	213.0	-61.0	1	7	51	96.4	93.1	181.6
1	0	15	93.8	87.4	205.7	1	4	0	626.9	612.8	-5.5	1	7	54	125.6	119.0	-46.1
1	0	12	147.0	128.9	21.2	1	4	3	226.1	224.8	82.6	1	7	57	46.4	55.1	56.6
1	0	9	449.9	431.6	201.0	1	4	6	210.7	212.0	222.6	1	7	60	67.3	57.7	-10.4
1	0	6	255.3	252.7	60.8	1	4	9	128.0	128.0	153.2	1	7	63	138.3	134.9	176.6
1	0	3	194.2	196.1	84.5	1	4	12	157.9	157.6	-13.7	1	7	66	46.5	56.4	75.1
1	0	0	349.1	339.9	34.8	1	4	15	149.7	150.7	15.0	1	7	69	104.9	104.0	-89.6
1	0	0	217.9	224.2	95.4	1	4	18	159.4	165.7	107.0	1	7	72	56.3	63.7	119.4
1	0	3	331.0	335.2	149.0	1	4	21	185.0	184.9	138.4	1	7	75	48.7	55.7	98.9
1	0	6	642.2	632.0	17.8	1	4	24	94.3	86.0	129.1	1	7	78	125.1	125.3	130.9
1	0	9	445.4	447.6	19.5	1	4	27	270.4	271.2	-12.1	1	7	81	95.3	97.9	-19.6
1	0	12	107.2	112.9	-9.8	1	4	30	103.0	100.4	48.0	1	7	84	106.3	100.3	235.3
1	0	15	85.8	82.8	-26.0	1	4	33	197.7	196.9	66.3	1	7	87	97.8	94.1	48.0
1	0	18	226.5	229.8	92.5	1	4	36	65.0	64.3	146.9	1	7	90	37.8	40.4	6.5
1	0	21	458.4	453.5	-35.7	1	4	39	61.0	69.0	-45.2	1	7	93	90.3	88.8	88.3

1	1	27	338.6	329.8	-13.2	1	4	42	157.5	161.3	-34.0	1	8	166.9	168.0	-62.0
1	1	30	109.5	106.6	189.2	1	4	45	95.9	95.2	46.8	1	8	80.4	77.9	258.3
1	1	33	51.3	40.1	-89.7	1	4	48	65.0	63.5	43.3	1	14	196.6	190.9	26.5
1	1	36	101.0	100.3	58.5	1	4	51	59.2	77.8	236.0	1	17	81.0	77.4	236.0
1	1	39	250.5	270.1	-63.7	1	4	54	73.4	81.4	-31.2	1	20	152.1	151.3	-25.4
1	1	42	39.2	27.7	-83.4	1	5	52	66.6	67.3	203.6	1	23	99.8	94.8	223.4
1	1	45	159.5	170.6	146.8	1	5	49	29.4	31.0	175.5	1	26	62.6	63.3	210.6
1	1	48	98.8	98.7	150.1	1	5	46	156.2	148.7	70.4	1	25	96.7	99.4	-0.9
1	1	51	27.9	11.7	182.7	1	5	43	55.2	42.3	198.0	1	32	82.2	79.7	162.4
1	1	54	68.1	72.1	-81.1	1	5	40	81.4	82.7	197.3	1	35	28.4	28.4	80.6
1	1	57	98.2	108.4	108.3	1	5	37	141.8	135.7	133.1	1	38	59.5	56.2	232.8
1	1	58	27.5	19.4	-56.0	1	5	34	146.2	140.9	54.6	1	32	36.9	52.2	141.3
1	1	55	157.8	155.8	239.2	1	5	31	194.7	191.0	34.1	1	29	27.7	21.1	-83.7
1	1	52	144.1	138.0	214.6	1	5	28	34.9	30.0	167.7	1	26	106.1	104.9	29.0
1	1	49	32.7	52.3	118.8	1	5	25	26.9	11.1	246.7	1	23	78.4	77.2	76.1
1	1	46	216.6	212.7	61.0	1	5	22	227.6	234.9	32.3	1	20	115.1	115.4	44.7
1	1	43	96.8	101.8	216.3	1	5	19	89.3	89.9	-10.5	1	17	32.6	25.1	82.4
1	1	40	117.5	115.3	157.5	1	5	16	266.1	272.4	-40.4	1	14	78.2	77.4	-62.7
1	1	37	133.5	129.8	130.8	1	5	13	155.1	161.2	186.6	1	11	101.1	101.9	-7.1
1	1	34	180.1	173.2	64.1	1	5	10	224.7	229.0	207.6	1	8	107.9	110.0	51.0
1	1	31	354.4	338.8	40.3	1	5	7	300.8	312.7	-24.5	1	5	73.8	72.8	-75.0
1	1	28	141.1	137.0	185.7	1	5	4	33.9	35.6	265.8	1	2	55.1	59.3	-82.3
1	1	25	253.0	250.1	182.0	1	5	1	198.8	197.2	-87.4	1	1	92.0	90.8	220.5
1	1	22	361.0	362.5	34.0	1	5	2	180.2	182.6	165.2	1	4	66.1	67.6	-51.3
1	1	19	347.9	346.9	17.1	1	5	5	104.4	102.1	268.2	1	7	113.6	114.7	63.2
1	1	16	631.9	630.5	-33.7	1	5	8	65.6	62.4	-69.4	1	10	153.2	153.0	198.9
1	1	13	412.9	422.7	183.8	1	5	11	101.4	99.9	132.7	1	13	92.3	87.7	222.0

2	0	2	25.6	17.8	142.2	2	3	11	151.5	154.7	253.7	2	7	-26	68.8	71.3	52.4
2	0	5	178.7	179.4	-24.5	2	3	14	113.7	112.7	8.9	2	7	-23	66.6	59.7	-58.5
2	0	8	573.1	562.3	-47.4	2	3	17	253.4	264.1	265.4	2	7	-20	66.6	63.5	40.0
2	0	11	78.2	72.8	33.7	2	3	20	247.3	251.7	-35.2	2	7	-17	127.2	128.1	242.4
2	0	14	89.5	84.5	66.0	2	3	23	353.5	357.8	242.6	2	7	-14	74.7	66.8	19.1
2	0	17	216.9	221.3	212.4	2	3	26	121.5	116.4	179.4	2	7	-11	54.1	37.8	66.3
2	0	20	240.6	244.2	-51.2	2	3	29	43.8	45.7	152.2	2	7	-8	64.6	61.4	89.2
2	0	23	240.2	240.4	-75.1	2	3	32	140.0	138.5	194.8	2	7	-5	80.1	73.5	208.9
2	0	26	62.4	65.3	147.1	2	3	35	77.1	74.6	65.8	2	7	-2	167.5	164.5	221.5
2	0	29	44.9	36.2	167.9	2	3	38	115.1	111.7	190.1	2	7	1	197.5	193.0	80.2
2	0	32	178.0	184.6	185.0	2	3	41	196.5	198.0	86.2	2	7	4	79.5	77.7	82.2
2	0	35	74.6	77.4	-56.8	2	3	44	86.8	87.7	137.9	2	7	7	117.5	118.5	32.3
2	0	38	65.9	52.7	-18.3	2	3	47	104.4	108.3	43.5	2	7	10	90.7	86.0	196.8
2	0	41	219.3	228.9	64.9	2	3	50	124.1	132.9	33.5	2	7	13	77.5	75.3	241.7
2	0	44	111.6	125.8	172.9	2	3	53	28.5	16.1	222.2	2	7	16	194.9	190.6	55.5
2	0	47	90.1	98.2	44.3	2	4	56	42.4	40.0	29.7	2	7	19	66.9	62.1	29.9
2	0	50	87.6	88.4	14.4	2	4	59	29.0	29.7	-0.4	2	7	22	81.3	84.9	-36.7
2	0	53	92.6	69.4	-32.5	2	4	62	71.8	63.0	0.4	2	7	25	105.4	103.2	206.1
2	0	56	108.2	112.0	47.8	2	4	65	194.6	185.2	172.9	2	7	28	44.4	47.9	176.6
2	0	59	60.4	65.7	134.7	2	4	68	79.2	76.9	59.7	2	7	31	230.0	224.1	0.3
2	1	-56	69.5	77.5	-79.8	2	4	71	130.1	124.5	29.0	2	7	34	59.1	62.0	-20.5
2	1	-53	27.8	36.3	235.4	2	4	74	85.9	84.8	29.1	2	7	37	116.0	121.5	225.3
2	1	-50	125.1	130.2	-27.1	2	4	77	28.0	26.5	11.2	2	7	40	65.5	65.2	224.8
2	1	-47	98.7	93.3	205.4	2	4	80	72.8	61.5	102.2	2	8	-36	141.1	139.3	-68.9
2	1	-44	139.8	142.4	205.4	2	4	83	154.8	156.0	6.6	2	8	-33	128.2	120.2	236.0
2	1	-41	163.1	159.2	-69.4	2	4	86	54.3	58.0	-54.4	2	8	-30	92.9	82.8	213.4
2	1	-38	82.5	80.1	158.7	2	4	89	236.4	242.0	25.4	2	8	-27	93.0	91.2	78.0
2	1	-35	100.2	100.9	5.3	2	4	92	115.2	115.9	217.6	2	8	-24	88.7	81.3	106.7
2	1	-32	163.5	161.2	105.9	2	4	95	63.4	61.6	129.5	2	8	-21	105.5	103.1	254.1
2	1	-29	77.2	70.1	108.4	2	4	98	96.0	96.9	-12.0	2	8	-18	59.2	52.8	159.2
2	1	-26	123.2	119.8	194.0	2	4	101	135.8	137.9	-17.2	2	8	-15	124.1	118.9	97.7
2	1	-23	96.7	93.8	94.7	2	4	104	153.6	155.0	-84.5	2	8	-12	196.3	198.2	58.0
2	1	-20	481.1	488.1	21.7	2	4	107	106.9	106.0	219.6	2	8	-9	111.9	103.8	23.6
2	1	-17	407.4	405.8	75.0	2	4	110	250.7	239.9	144.6	2	8	-6	46.4	49.8	-56.4
2	1	-14	164.3	162.8	237.0	2	4	113	120.8	118.1	264.7	2	8	-3	66.6	66.7	23.9
2	1	-11	54.3	51.6	268.9	2	4	116	214.9	214.9	64.4	2	8	0	290.5	287.4	10.6
2	1	-8	432.2	422.6	63.7	2	4	119	112.2	117.4	189.5	2	8	3	111.2	110.5	23.4
2	1	-5	225.1	227.1	-66.8	2	4	122	196.5	199.2	176.0	2	8	6	118.5	115.6	-51.5
2	1	-2	187.6	182.6	-7.4	2	4	125	311.2	311.3	76.4	2	8	9	104.5	96.7	-79.5
2	1	1	328.0	320.7	205.1	2	4	128	103.5	101.6	-13.1	2	8	12	112.2	108.3	-19.1
2	1	4	263.4	256.0	223.6	2	4	131	168.3	168.8	-27.3	2	8	15	39.2	47.0	-68.3
2	1	7	410.7	405.7	0.9	2	4	134	113.6	108.9	181.8	2	8	18	52.8	54.5	-2.6
2	1	10	266.6	258.3	-63.4	2	4	137	132.9	128.7	83.9	2	8	21	68.4	67.7	212.9
2	1	13	136.7	111.1	28.2	2	4	140	142.9	140.8	14.9	2	8	24	139.9	139.5	232.2
2	1	16	422.0	416.6	168.6	2	4	143	134.7	131.6	-42.8	2	8	27	67.9	66.0	-15.0
2	1	19	80.3	51.9	246.6	2	4	146	46.8	43.3	266.6	2	8	30	105.4	100.0	135.1
2	1	22	244.1	239.4	1.0	2	4	149	62.0	50.4	242.0	2	8	33	52.3	66.3	121.3
2	1	25	243.1	238.1	171.1	2	4	152	45.1	46.6	68.8	2	8	36	60.5	71.3	125.2
2	1	28	77.5	79.9	86.4	2	4	155	132.7	138.5	-46.0	2	9	-25	145.1	143.6	269.6
2	1	31	139.0	135.3	146.8	2	4	158	90.4	93.3	268.5	2	9	-22	26.5	14.9	54.6
2	1	34	127.9	133.6	13.9	2	4	161	62.3	68.7	192.1	2	9	-19	64.0	69.7	-53.3

2	1	37	29.9	17.8	-77.2	2	5	-48	76.6	73.0	-38.7	2	9	-16	105.8	115.5	244.0
2	1	40	56.7	59.3	20.5	2	5	-45	107.3	94.8	-43.4	2	9	-13	124.5	126.7	148.5
2	1	43	90.8	90.9	41.1	2	5	-42	29.7	18.2	-19.9	2	9	-10	199.0	202.9	223.9
2	1	46	83.3	86.2	184.7	2	5	-39	132.0	130.4	235.5	2	9	-7	59.7	59.9	5.1
2	1	49	98.5	109.3	-55.9	2	5	-36	131.5	131.1	-55.6	2	9	-4	36.3	34.2	171.9
2	1	52	28.2	38.2	7.8	2	5	-33	103.9	99.5	261.2	2	9	-1	102.7	101.5	153.3
2	1	55	35.6	29.8	34.5	2	5	-30	149.9	152.2	211.1	2	9	2	111.1	115.0	113.9
2	1	58	100.1	98.1	-53.6	2	5	-27	49.9	44.0	71.7	2	9	5	32.5	36.3	151.7
2	2	-57	39.7	40.4	252.0	2	5	-24	215.7	218.8	183.8	2	9	8	145.5	141.4	40.6
2	2	-54	27.9	27.5	92.9	2	5	-21	150.0	157.1	-30.7	2	9	11	65.2	65.0	53.8
2	2	-51	41.3	38.0	144.3	2	5	-18	183.4	184.1	109.2	2	9	14	123.9	117.7	70.3
2	2	-48	84.8	82.6	-29.9	2	5	-15	225.3	226.9	58.8	2	9	17	62.5	61.3	21.8
2	2	-45	99.0	92.3	-84.7	2	5	-12	101.5	100.8	46.7	2	9	20	122.3	123.4	-58.0
2	2	-42	68.7	64.6	57.8	2	5	-9	53.4	52.6	63.6	2	9	23	139.3	143.1	-1.4
2	2	-39	56.7	65.1	154.8	2	5	-6	206.2	203.7	14.2	2	9	26	68.6	65.2	-44.5
2	2	-36	93.4	84.1	-35.5	2	5	-3	202.2	203.2	47.5	2	10	-14	26.3	31.0	-39.8
2	2	-33	29.8	20.3	22.7	2	5	0	362.1	362.3	8.1	2	10	-11	45.8	43.1	96.6
2	2	-30	137.8	130.5	226.2	2	5	3	64.6	63.5	29.8	2	10	-8	41.2	34.4	24.8
2	2	-27	175.2	178.0	16.0	2	5	6	95.8	95.4	268.3	2	10	-5	38.9	48.8	112.6
2	2	-24	115.6	115.0	80.1	2	5	9	310.9	315.7	-27.3	2	10	-2	90.7	86.5	-12.5
2	2	-21	158.9	166.6	-62.7	2	5	12	234.2	235.7	14.7	2	10	1	50.1	46.3	225.5
2	2	-18	151.0	155.2	-10.0	2	5	15	228.3	228.2	-84.4	2	10	4	32.2	37.2	-4.8
2	2	-15	197.8	204.1	32.6	2	5	18	187.3	184.2	220.5	2	10	7	59.9	57.2	23.3
2	2	-12	237.1	244.4	6.7	2	5	21	74.6	74.4	159.8	2	10	10	49.3	54.7	185.1
2	2	-9	83.8	82.7	-42.7	2	5	24	189.4	185.1	-79.3	2	10	13	96.1	87.4	-85.1
2	2	-6	29.9	27.9	-4.9	2	5	27	124.5	118.5	25.2	2	10	13	39.1	50.8	-34.8
2	2	-3	147.8	146.4	-11.6	2	5	30	178.6	178.4	172.0	3	0	-54	44.8	38.2	23.8

H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH
3	0	-51	40.2	21.4	-5.5	3	3	-27	191.2	192.4	12.0	3	6	39	56.4	44.4	176.9
3	0	-48	161.3	161.5	-73.6	3	3	-24	195.8	191.2	35.5	3	6	42	78.5	71.3	-72.9
3	0	-45	80.0	77.3	-25.1	3	3	-21	201.0	205.9	260.2	3	7	-37	49.5	33.2	56.2
3	0	-42	28.8	25.7	48.7	3	3	-18	55.8	56.4	250.5	3	7	-34	69.6	83.5	60.5
3	0	-39	38.0	31.2	-65.0	3	3	-15	133.3	131.3	139.2	3	7	-31	48.5	46.6	27.5
3	0	-36	131.7	130.1	-84.7	3	3	-12	167.8	175.1	9.9	3	7	-28	32.2	16.1	234.8
3	0	-33	155.8	148.2	244.7	3	3	-9	274.0	278.1	-5.4	3	7	-25	46.9	49.2	83.5
3	0	-30	106.6	106.0	190.1	3	3	-6	144.4	141.1	190.1	3	7	-22	128.8	124.5	-20.8
3	0	-27	107.4	105.4	45.9	3	3	-3	58.3	58.6	214.6	3	7	-19	82.5	82.7	4.2
3	0	-24	133.5	136.0	125.2	3	3	0	233.5	232.0	26.4	3	7	-16	37.0	37.0	-85.4
3	0	-21	140.2	146.7	259.1	3	3	3	89.8	86.2	-30.4	3	7	-13	46.9	40.3	87.7
3	0	-18	84.6	85.6	161.8	3	3	6	147.8	152.0	-29.9	3	7	-10	234.1	236.3	146.6
3	0	-15	530.2	536.4	39.0	3	3	9	135.9	130.0	141.7	3	7	-7	31.5	27.7	-46.0
3	0	-12	194.5	201.6	39.3	3	3	12	132.1	138.3	-6.8	3	7	-4	162.9	160.7	207.9
3	0	-9	223.7	224.5	-32.5	3	3	15	90.1	84.7	47.7	3	7	-1	58.0	56.6	163.9
3	0	-6	42.0	43.4	91.0	3	3	18	176.6	182.8	7.5	3	7	2	61.9	50.2	19.2
3	0	-3	161.8	157.8	25.5	3	3	21	154.7	157.2	26.2	3	7	5	127.0	127.9	243.6
3	0	0	666.1	648.8	1.5	3	3	24	52.2	57.2	158.2	3	7	8	59.7	53.3	106.5
3	0	3	113.7	105.8	34.6	3	3	27	137.7	136.7	-18.7	3	7	11	106.8	98.7	126.0
3	0	6	265.7	274.1	-63.7	3	3	30	139.5	135.1	107.9	3	7	14	36.5	40.4	40.4
3	0	9	96.4	108.9	-20.7	3	3	33	50.8	38.6	-32.8	3	7	17	132.7	130.3	-11.6
3	0	12	239.0	247.7	-13.4	3	3	36	85.4	84.9	29.2	3	7	20	39.7	46.1	226.1
3	0	15	334.0	336.2	-39.5	3	3	39	68.0	54.1	163.1	3	7	23	74.2	75.1	28.1
3	0	18	185.9	182.9	175.0	3	3	42	51.5	57.0	-75.2	3	7	26	68.9	58.2	101.4
3	0	21	183.5	184.7	170.7	3	3	45	122.0	115.0	68.5	3	7	29	68.0	63.0	0.1
3	0	24	85.0	84.6	214.9	3	3	48	80.0	77.4	-22.7	3	7	32	97.9	94.7	-28.8
3	0	27	165.4	158.8	3.6	3	3	51	88.3	83.4	-89.1	3	7	35	29.0	31.8	15.5
3	0	30	96.2	96.3	144.1	3	3	-49	111.4	111.1	48.2	3	7	38	48.7	43.5	48.4
3	0	33	175.1	173.4	107.9	3	3	-46	165.0	161.3	83.5	3	8	-29	45.2	34.1	71.6
3	0	36	51.2	50.8	84.3	3	3	-43	86.3	72.5	70.0	3	8	-26	71.7	68.6	-25.3
3	0	39	48.4	50.8	83.4	3	3	-40	105.2	103.2	7.4	3	8	-23	139.2	136.8	22.3
3	0	42	112.2	117.8	14.7	3	3	-37	40.3	47.1	244.6	3	8	-20	86.2	91.6	122.9
3	0	45	118.5	123.2	83.7	3	3	-34	257.9	256.5	3.8	3	8	-17	80.2	69.1	-41.0
3	0	48	124.9	133.1	68.1	3	3	-31	124.6	126.8	26.1	3	8	-14	38.9	39.0	-19.5
3	0	51	42.2	45.5	269.6	3	3	-28	93.7	86.8	250.6	3	8	-11	91.8	88.2	-47.9
3	0	54	101.5	112.3	-5.4	3	3	-25	193.6	195.7	254.4	3	8	-8	87.0	85.3	-56.8
3	0	57	37.0	28.9	14.6	3	3	-22	119.0	114.5	-70.8	3	8	-5	31.0	25.5	144.0
3	1	-55	55.2	63.2	65.2	3	3	-19	155.1	161.9	-50.5	3	8	-2	102.5	100.0	206.9
3	1	-52	94.4	94.3	217.6	3	3	-16	134.0	137.0	200.3	3	8	1	64.5	57.8	200.5
3	1	-49	152.5	156.7	68.8	3	3	-13	172.5	178.7	169.6	3	8	4	65.4	66.8	-11.1
3	1	-46	184.3	183.8	68.3	3	3	-10	239.8	245.9	213.8	3	8	7	109.1	104.5	172.3
3	1	-43	112.3	117.3	27.2	3	4	-7	79.6	80.3	-55.5	3	8	10	104.5	104.5	172.3

3	1	-40	187.1	180.9	1.1	39.8	45.3	141.8	3	8	13	77.0	77.6	120.0
3	1	-37	93.3	94.0	206.7	255.2	260.1	126.6	3	8	16	94.8	90.4	128.3
3	1	-34	276.6	272.9	20.0	201.4	204.7	135.0	3	8	19	68.4	59.5	23.2
3	1	-31	158.6	153.7	-2.2	36.7	27.7	87.9	3	8	22	61.2	53.3	-73.1
3	1	-28	145.0	137.3	-65.7	110.9	101.1	10.0	3	8	25	70.5	61.5	100.4
3	1	-25	310.4	313.5	-87.9	176.2	174.9	33.4	3	8	28	101.4	90.7	86.8
3	1	-22	113.3	116.1	232.7	336.2	339.2	70.2	3	9	-18	66.7	62.3	124.5
3	1	-19	203.1	205.4	-47.5	59.4	60.9	-35.3	3	9	-15	137.3	138.0	59.5
3	1	-16	231.5	241.4	231.5	278.5	283.2	-45.2	3	9	-12	61.5	56.3	-54.2
3	1	-13	193.0	197.7	182.4	157.6	158.5	-2.9	3	9	-9	36.1	46.3	-80.0
3	1	-10	396.0	406.1	208.0	123.9	123.4	-32.9	3	9	-6	25.7	18.1	125.9
3	1	-7	171.5	168.0	155.0	125.0	122.6	1.5	3	9	-3	38.1	61.9	98.2
3	1	-4	135.1	136.0	104.6	162.8	157.4	241.3	3	9	0	228.5	230.5	18.4
3	1	-1	384.2	379.6	142.9	177.2	172.6	-84.3	3	9	3	44.3	54.3	207.8
3	1	2	92.3	97.9	94.4	86.0	84.7	-57.9	3	9	6	60.8	70.1	232.8
3	1	5	26.2	11.1	67.2	43.0	38.6	28.6	3	9	9	33.8	49.3	58.4
3	1	8	332.5	333.6	61.7	93.1	82.4	180.0	3	9	12	153.3	156.2	43.3
3	1	11	235.9	238.3	16.8	72.8	64.2	230.2	3	9	15	104.3	112.3	-27.1
3	1	14	385.9	393.5	55.4	43.3	49.9	194.5	3	9	18	88.6	84.9	216.1
3	1	17	158.2	165.1	-36.1	69.4	66.7	139.2	4	0	-56	27.9	24.7	-22.3
3	1	20	252.8	258.7	-36.7	79.7	70.2	175.0	4	0	-53	47.2	41.5	-34.6
3	1	23	194.4	199.4	18.0	29.3	18.7	185.4	4	0	-50	69.9	80.0	246.5
3	1	26	250.6	253.9	-43.1	61.8	64.4	-4.2	4	0	-47	114.7	109.0	184.7
3	1	29	164.7	167.0	-11.9	99.5	96.8	148.8	4	0	-44	34.9	36.4	117.0
3	1	32	295.2	293.5	259.7	212.8	212.6	103.1	4	0	-41	97.7	97.5	103.1
3	1	35	169.2	166.6	268.6	115.8	114.3	30.6	4	0	-38	29.4	14.6	-34.8
3	1	38	107.4	108.9	-12.1	88.6	94.6	65.1	4	0	-35	164.0	162.4	148.4
3	1	41	58.0	50.3	225.2	133.8	139.1	-36.3	4	0	-32	200.4	194.9	125.2
3	1	44	141.3	140.8	209.8	216.0	222.0	44.4	4	0	-29	327.1	324.4	7.9
3	1	47	96.8	107.1	217.4	175.8	179.6	70.1	4	0	-26	255.8	254.6	56.5
3	1	50	87.8	95.8	129.4	194.9	196.9	-48.5	4	0	-23	146.7	148.2	-80.0
3	1	53	33.4	21.2	28.2	102.6	.99.7	-4.7	4	0	-20	239.6	244.9	42.1
3	1	56	54.6	62.9	115.3	163.5	165.4	-58.5	4	0	-17	141.9	146.5	83.7
3	1	-53	143.8	142.5	34.7	66.3	76.3	140.7	4	0	-14	495.7	502.2	-32.2
3	2	-50	34.9	11.4	232.9	119.2	123.4	-24.8	4	0	-11	271.3	272.7	41.5
3	2	-47	29.0	20.5	259.3	224.5	224.3	230.8	4	0	-8	204.0	206.2	254.3
3	2	-44	116.9	110.7	175.7	120.4	120.8	255.0	4	0	-5	90.9	87.5	173.9
3	2	-41	128.6	124.5	-27.3	122.2	118.6	246.7	4	0	-2	164.8	163.6	-28.5
3	2	-38	234.5	230.9	26.5	148.1	148.5	133.5	4	0	1	303.9	307.4	-82.6
3	2	-35	110.9	112.8	114.5	86.1	83.1	171.7	4	0	4	84.6	89.4	104.9
3	2	-32	108.5	104.3	202.0	167.3	167.5	146.2	4	0	7	370.2	371.5	190.0
3	2	-29	39.2	30.8	112.5	42.4	48.3	37.1	4	0	10	249.0	255.3	165.1
3	2	-26	82.5	79.6	11.1	50.1	53.1	166.2	4	0	13	121.2	120.1	183.7
3	2	-23	208.3	208.3	-3.1	222.0	225.5	94.1	4	0	16	62.6	64.7	152.4
3	2	-20	236.6	245.3	92.2	48.8	54.2	52.9	4	0	19	203.3	204.3	61.7
3	2	-17	157.1	158.1	195.8	37.8	51.0	17.6	4	0	22	255.7	261.2	174.2
3	2	-14	171.8	169.5	-59.6	146.6	144.7	-10.2	4	0	25	163.3	166.9	88.3
3	2	-11	195.9	198.1	-26.2	84.5	86.9	162.3	4	0	28	158.0	159.2	27.1
3	2	-8	297.9	289.4	18.9	178.2	175.3	18.4	4	0	31	187.0	187.8	-14.5
3	2	-5	191.6	190.2	137.0	30.2	45.7	16.7	4	0	34	235.6	239.5	18.5
3	2	-2	313.8	311.1	222.6	113.5	108.4	-66.6	4	0	37	221.4	224.0	162.5

3	2	1	81.0	73.5	84.4	3	6	-42	135.2	129.3	20.0	4	0	40	171.0	170.2	-6.9
3	2	4	106.5	113.3	-15.5	3	6	-39	71.0	68.1	33.9	4	0	43	125.5	134.5	-4.2
3	2	7	306.6	309.1	11.2	3	6	-36	107.7	105.3	-37.3	4	0	46	151.8	154.2	-63.3
3	2	10	336.1	342.5	139.2	3	6	-33	74.5	66.9	-67.0	4	0	49	90.9	86.5	-46.7
3	2	13	235.6	232.5	214.1	3	6	-30	58.5	68.8	209.8	4	0	52	170.6	181.9	151.3
3	2	16	98.2	99.0	68.2	3	6	-27	240.8	241.4	-21.5	4	0	55	105.4	127.2	-45.9
3	2	19	162.3	163.0	4.4	3	6	-24	35.8	32.9	2.7	4	1	-54	93.0	95.4	-7.3
3	2	22	125.1	124.5	-2.9	3	6	-21	182.3	184.2	249.7	4	1	-51	71.5	71.2	90.3
3	2	25	262.4	261.9	135.6	3	6	-18	88.6	93.7	246.8	4	1	-48	121.6	111.1	-68.6
3	2	28	182.4	190.7	190.0	3	6	-15	84.9	88.1	95.9	4	1	-45	92.5	73.8	-77.1
3	2	31	265.5	265.8	-17.1	3	6	-12	96.0	97.6	-34.4	4	1	-42	138.6	137.0	-7.0
3	2	34	189.2	180.9	-23.8	3	6	-9	43.5	35.0	124.9	4	1	-39	52.9	58.8	-64.6
3	2	37	94.4	94.2	208.1	3	6	-6	147.0	148.4	167.1	4	1	-36	83.7	86.6	-59.5
3	2	40	69.2	70.9	107.0	3	6	-3	97.6	98.4	139.2	4	1	-33	202.7	199.7	215.2
3	2	43	45.2	37.2	208.3	3	6	0	251.7	247.0	31.3	4	1	-30	54.5	63.1	111.4
3	2	46	161.8	168.2	-52.6	3	6	3	81.8	79.1	-78.3	4	1	-27	247.3	245.6	-17.2
3	2	49	89.4	75.9	137.4	3	6	6	96.5	94.5	48.8	4	1	-24	48.6	47.4	157.1
3	2	52	84.1	82.1	101.0	3	6	9	124.8	122.9	96.2	4	1	-21	103.0	103.2	208.1
3	2	55	71.0	63.6	62.4	3	6	12	171.9	168.7	17.0	4	1	-18	181.7	183.4	183.2
3	3	58	29.2	39.0	4.4	3	6	15	163.6	167.0	4.3	4	1	-15	222.7	227.2	53.7
3	3	61	44.4	43.7	-44.0	3	6	18	57.4	52.3	-36.2	4	1	-12	210.0	214.6	-9.0
3	3	64	114.4	108.3	242.0	3	6	21	132.8	132.7	52.5	4	1	-9	58.1	57.8	33.4
3	3	67	42.4	33.4	25.2	3	6	24	41.3	37.1	239.1	4	1	-6	149.2	148.9	94.2
3	3	70	174.4	175.5	48.7	3	6	27	173.9	171.0	-15.2	4	1	-3	235.1	235.8	112.0
3	3	73	170.6	170.2	-43.6	3	6	30	44.5	41.5	-47.1	4	1	0	846.3	837.6	0.7
3	3	76	78.4	81.5	-62.9	3	6	33	59.3	60.4	235.6	4	1	3	233.9	232.4	-79.9
3	3	79	135.2	137.6	211.3	3	6	36	81.8	79.9	18.3	4	1	6	109.9	105.6	-27.5

H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH
4	1	9	92.3	89.6	72.0	4	5	-34	68.9	72.7	70.0	5	0	41	103.8	99.9	77.5
4	1	12	143.4	148.4	7.9	4	5	-31	107.9	100.4	88.4	5	0	44	39.2	47.5	162.7
4	1	15	332.9	341.8	-46.4	4	5	-28	67.9	61.3	-29.2	5	0	47	56.8	55.0	112.3
4	1	18	51.4	54.9	235.1	4	5	-25	91.3	88.9	-89.3	5	0	50	82.4	84.6	59.3
4	1	21	144.2	117.3	107.7	4	5	-22	83.9	77.2	76.5	5	0	53	81.1	83.5	8.6
4	1	24	69.1	77.1	172.9	4	5	-19	75.4	72.2	47.2	5	1	-50	92.0	100.1	-10.9
4	1	27	169.4	169.4	14.2	4	5	-16	48.3	39.1	-43.7	5	1	-47	66.4	62.8	41.2
4	1	30	156.1	157.8	269.3	4	5	-13	45.3	43.8	-25.6	5	1	-44	82.4	85.4	185.9
4	1	33	168.3	169.6	154.9	4	5	-10	77.7	82.2	242.9	5	1	-41	143.8	138.5	-44.3
4	1	36	121.8	116.1	81.3	4	5	-7	43.7	45.7	-34.4	5	1	-38	39.9	47.3	-34.8
4	1	39	67.0	79.7	125.8	4	5	-4	65.2	65.8	117.8	5	1	-35	78.2	71.5	20.9
4	1	42	55.9	67.2	2.4	4	5	-1	54.0	51.0	145.0	5	1	-32	80.7	76.5	103.2
4	1	45	36.9	28.3	88.0	4	5	2	138.7	139.1	-65.2	5	1	-29	62.5	62.6	251.5
4	1	48	119.8	121.5	68.4	4	5	5	93.9	91.3	-83.0	5	1	-26	78.2	77.0	-31.8
4	1	51	28.9	27.0	-49.5	4	5	8	41.1	35.8	35.5	5	1	-23	83.8	77.0	137.1
4	1	54	82.7	85.7	45.8	4	5	11	28.2	17.0	188.2	5	1	-20	137.2	144.4	25.1
4	2	-52	73.8	65.6	233.7	4	5	14	77.5	71.1	57.9	5	1	-17	142.2	146.1	112.4
4	2	-49	91.2	85.2	146.3	4	5	17	136.1	141.8	246.0	5	1	-14	92.3	92.4	237.0
4	2	-46	144.7	132.8	146.0	4	5	20	81.3	80.9	-40.0	5	1	-11	80.1	79.4	-79.4
4	2	-43	48.3	48.6	225.5	4	5	23	108.2	114.6	114.7	5	1	-8	195.2	197.7	89.6
4	2	-40	85.5	85.4	137.1	4	5	26	63.4	75.0	51.8	5	1	-5	113.6	112.8	23.1
4	2	-37	139.7	140.2	112.1	4	5	29	96.1	98.2	-1.0	5	1	-2	100.3	101.6	62.3
4	2	-34	190.9	190.8	82.2	4	5	32	119.0	120.3	249.1	5	1	1	156.5	150.1	183.2
4	2	-31	181.3	186.4	28.3	4	5	35	39.4	34.7	-31.8	5	1	4	85.3	87.1	-69.5
4	2	-28	46.2	25.3	172.9	4	5	38	119.9	109.0	53.5	5	1	7	323.3	331.6	219.3
4	2	-25	54.8	44.2	40.7	4	5	41	42.0	56.4	67.2	5	1	10	162.6	159.4	38.5
4	2	-22	216.6	221.0	12.9	4	5	44	42.6	45.1	231.2	5	1	13	94.3	95.1	-23.5
4	2	-19	166.2	169.4	33.5	4	6	-38	39.0	45.1	66.4	5	1	16	109.3	111.9	151.3
4	2	-16	211.5	212.2	-77.3	4	6	-35	59.7	60.0	149.1	5	1	19	106.0	107.8	-40.8
4	2	-13	119.4	120.9	-51.3	4	6	-32	127.2	125.7	183.2	5	1	22	131.2	129.2	15.9
4	2	-10	114.6	118.1	-46.6	4	6	-29	27.2	12.1	192.5	5	1	25	52.4	48.8	190.2
4	2	-7	325.1	331.4	-20.3	4	6	-26	57.4	68.5	234.2	5	1	28	27.7	16.1	132.4
4	2	-4	76.8	75.5	209.6	4	6	-23	115.2	112.2	88.2	5	1	31	45.5	36.9	265.3
4	2	-1	357.2	357.8	242.3	4	6	-20	120.4	121.9	80.1	5	1	34	97.1	96.1	-53.4
4	2	2	185.3	189.1	188.9	4	6	-17	181.5	181.0	145.4	5	1	37	33.9	26.9	196.7
4	2	5	81.1	76.2	214.9	4	6	-14	78.5	70.4	-49.0	5	1	40	77.5	82.4	186.7
4	2	8	152.2	159.0	227.7	4	6	-11	81.9	76.9	16.1	5	1	43	35.5	53.8	14.9
4	2	11	151.1	154.5	130.4	4	6	-8	272.8	276.6	74.2	5	1	46	61.7	63.8	217.5
4	2	14	158.3	159.1	164.1	4	6	-5	93.6	91.4	58.3	5	1	49	29.6	37.6	-42.6
4	2	17	80.5	87.1	186.4	4	6	-2	61.1	58.3	-25.1	5	1	52	63.6	77.7	97.3
4	2	20	201.2	206.2	-7.5	4	6	1	140.3	141.0	-44.7	5	2	-48	102.6	103.8	23.1
4	2	23	188.0	195.7	87.1	4	6	4	81.9	74.8	-43.9	5	2	-45	159.2	153.3	-51.7

4	2	26	91.9	93.4	73.8	4	6	7	260.4	264.1	16.1	5	2	-42	115.7	116.5	46.8
4	2	29	27.5	19.2	129.5	4	6	10	130.6	131.3	209.9	5	2	-39	29.2	31.6	268.7
4	2	32	121.3	119.2	27.8	4	6	13	89.0	83.2	242.1	5	2	-36	88.0	87.8	-21.3
4	2	35	122.1	127.9	0.1	4	6	16	112.0	110.1	246.0	5	2	-33	115.2	121.2	-29.5
4	2	38	152.9	152.9	15.9	4	6	19	47.7	43.8	-33.2	5	2	-30	195.3	194.2	-82.7
4	2	41	138.4	135.6	15.1	4	6	22	55.4	61.8	-6.3	5	2	-27	151.0	146.9	16.6
4	2	44	111.3	98.1	246.5	4	6	25	189.5	190.7	168.0	5	2	-24	141.6	143.6	199.1
4	2	47	124.2	122.1	-26.6	4	6	28	118.2	114.0	214.0	5	2	-21	48.1	56.8	256.3
4	2	50	59.8	78.7	-13.3	4	6	31	89.3	86.0	265.7	5	2	-18	167.6	168.7	-62.0
4	2	53	44.5	45.8	-40.4	4	6	34	65.5	76.8	46.3	5	2	-15	82.2	80.0	248.7
4	3	-50	84.7	73.0	-6.0	4	6	37	35.4	57.6	157.2	5	2	-12	147.9	151.1	30.5
4	3	-47	95.4	87.1	-75.6	4	7	-30	58.6	40.0	262.3	5	2	-9	218.1	218.8	184.6
4	3	-44	45.6	25.5	155.2	4	7	-27	91.0	81.5	22.1	5	2	-6	165.0	163.4	66.6
4	3	-41	108.2	101.1	-67.0	4	7	-24	26.7	16.7	-5.0	5	2	-3	24.2	29.6	47.8
4	3	-38	36.6	23.7	-20.0	4	7	-21	26.3	20.5	59.1	5	2	0	244.8	239.2	12.5
4	3	-35	51.9	43.6	21.8	4	7	-18	104.4	102.9	-44.5	5	2	3	116.0	113.6	84.3
4	3	-32	152.6	156.3	187.4	4	7	-15	25.8	29.9	64.3	5	2	6	206.0	205.0	130.1
4	3	-29	57.2	51.0	-14.0	4	7	-12	106.2	100.6	-2.6	5	2	9	258.9	263.5	21.6
4	3	-26	79.7	77.4	144.4	4	7	-9	102.6	100.0	269.7	5	2	12	223.0	226.5	-29.1
4	3	-23	132.0	134.4	127.4	4	7	-6	75.4	76.3	73.9	5	2	15	133.5	134.9	-34.7
4	3	-20	148.1	152.8	52.4	4	7	-3	85.8	82.2	255.1	5	2	18	120.6	124.1	29.4
4	3	-17	172.2	174.2	152.8	4	7	0	145.3	137.4	5.7	5	2	21	216.6	228.1	110.9
4	3	-14	215.2	217.9	-14.1	4	7	3	49.8	55.0	196.5	5	2	24	264.7	265.1	-39.2
4	3	-11	117.5	115.4	80.3	4	7	6	52.5	53.7	200.1	5	2	27	175.7	175.3	-30.8
4	3	-8	227.6	227.3	51.1	4	7	9	119.4	119.4	46.7	5	2	30	69.9	71.0	191.0
4	3	-5	134.6	133.4	-17.3	4	7	12	63.9	62.5	-64.1	5	2	33	35.6	40.0	159.0
4	3	-2	71.5	71.2	78.6	4	7	15	38.4	40.7	6.4	5	2	36	128.9	130.6	72.8
4	3	1	129.9	135.6	-62.5	4	7	18	26.1	18.6	80.0	5	2	39	185.6	183.8	-74.3
4	3	4	73.9	75.0	84.6	4	7	21	124.3	123.5	108.5	5	2	42	61.3	63.7	244.9
4	3	7	219.3	227.7	16.4	4	7	24	105.0	100.4	9.4	5	2	45	85.8	76.7	123.5
4	3	10	204.3	203.9	225.6	4	7	27	33.8	42.3	-3.9	5	2	48	101.9	101.9	88.5
4	3	13	97.2	94.2	256.7	4	7	30	27.5	34.2	70.2	5	3	-46	57.0	67.6	42.6
4	3	16	95.3	97.6	-87.2	4	8	-22	68.2	64.3	152.5	5	3	-43	136.2	133.5	-42.7
4	3	19	111.9	116.5	56.4	4	8	-19	47.2	42.2	37.1	5	3	-40	49.1	47.8	148.3
4	3	22	82.2	84.8	-81.1	4	8	-16	102.9	101.3	88.7	5	3	-37	156.5	157.5	199.4
4	3	25	190.6	188.8	188.7	4	8	-13	69.5	67.8	179.6	5	3	-34	79.5	77.9	-43.8
4	3	28	70.4	63.1	142.6	4	8	-10	59.6	59.4	141.6	5	3	-31	111.4	114.2	22.4
4	3	31	62.3	69.4	260.4	4	8	-7	95.4	91.9	15.2	5	3	-28	27.4	38.0	243.3
4	3	34	126.2	124.3	41.2	4	8	-4	79.1	79.1	28.3	5	3	-25	201.1	203.7	159.0
4	3	37	125.8	121.2	191.3	4	8	-1	118.5	115.5	56.1	5	3	-22	96.4	97.3	124.6
4	3	40	55.1	47.8	143.4	4	8	2	25.7	33.7	-87.6	5	3	-19	72.0	66.4	13.9
4	3	43	88.1	93.2	33.3	4	8	5	89.2	81.3	-30.9	5	3	-16	108.6	105.2	-22.0
4	3	46	64.7	49.7	-71.9	4	8	8	89.1	78.9	-53.5	5	3	-13	95.2	96.8	151.8
4	3	49	132.8	130.1	20.8	4	8	11	105.0	104.5	-30.2	5	3	-10	179.6	178.8	112.1
4	4	-45	30.1	40.1	22.3	4	8	14	92.3	96.3	25.3	5	3	-7	34.8	43.7	-37.5
4	4	-42	29.5	34.1	51.1	4	8	17	160.5	156.0	226.7	5	3	-4	72.8	75.7	-34.9
4	4	-39	28.9	16.9	-78.0	4	8	20	132.4	143.8	-54.2	5	3	-1	132.0	135.9	-15.7
4	4	-36	28.5	30.7	174.4	4	8	23	123.2	122.9	252.4	5	3	2	65.7	65.0	71.7
4	4	-33	94.7	91.2	230.6	4	8	26	78.6	83.9	-11.7	5	3	5	77.3	75.9	-72.9
4	4	-30	86.9	81.8	71.6	4	8	29	78.5	76.3	79.1	5	3	8	139.2	143.5	71.9
4	4	-27	148.1	150.2	29.1	4	8	32	75.3	76.7	-18.9	5	3	11	222.2	221.9	-49.7

4	4	-24	26.4	19.4	-85.5	5	0	-40	64.9	84.9	-89.4	5	3	14	132.8	136.3	-19.7
4	4	-21	103.4	110.0	210.3	5	0	-37	174.9	172.3	214.7	5	3	17	120.6	121.4	189.7
4	4	-18	57.6	54.2	214.9	5	0	-34	91.2	93.0	-28.6	5	3	20	149.6	158.0	-34.5
4	4	-15	346.9	352.1	31.8	5	0	-31	91.8	88.6	79.5	5	3	23	117.7	111.5	172.8
4	4	-12	98.2	100.8	3.7	5	0	-28	28.5	27.3	247.7	5	3	26	101.1	104.6	-76.4
4	4	-9	157.8	156.8	-59.2	5	0	-25	142.7	143.3	215.4	5	3	29	56.4	52.1	-29.3
4	4	-6	70.8	73.0	75.2	5	0	-22	132.9	137.0	144.7	5	3	32	116.9	113.9	140.5
4	4	-3	68.8	62.9	-82.2	5	0	-19	26.0	27.2	37.9	5	3	35	53.2	53.0	153.3
4	4	0	472.1	472.2	0.1	5	0	-16	120.6	122.2	106.3	5	3	38	29.0	14.4	98.6
4	4	3	55.3	65.6	257.5	5	0	-13	153.0	150.3	112.7	5	3	41	51.5	54.7	-31.5
4	4	6	193.1	193.1	237.0	5	0	-10	223.5	221.1	169.5	5	3	44	30.0	42.4	166.3
4	4	9	113.2	111.8	102.8	5	0	-7	131.5	137.0	-9.9	5	3	47	109.6	113.0	72.9
4	4	12	79.5	77.5	6.5	5	0	-4	89.7	93.7	31.2	5	4	44	69.6	64.7	131.0
4	4	15	274.6	279.9	-25.4	5	0	-1	236.3	241.0	50.6	5	4	41	147.8	153.3	20.1
4	4	18	177.5	183.4	157.7	5	0	2	165.5	165.5	-6.8	5	4	38	60.8	62.0	-28.0
4	4	21	125.7	129.7	156.8	5	0	5	136.2	135.2	-51.5	5	4	35	78.0	73.2	49.3
4	4	24	35.3	34.3	109.5	5	0	8	169.5	171.9	-45.3	5	4	32	76.1	69.3	267.1
4	4	27	106.4	103.8	21.5	5	0	11	164.9	165.4	-48.6	5	4	29	121.4	129.6	-9.3
4	4	30	45.8	25.6	7.7	5	0	14	203.3	206.0	19.0	5	4	26	133.9	136.3	-5.3
4	4	33	123.0	119.7	119.5	5	0	17	225.6	233.1	246.3	5	4	23	146.3	148.2	-86.1
4	4	36	69.2	66.5	105.0	5	0	20	188.6	194.1	-70.9	5	4	20	46.1	51.7	-0.6
4	4	39	105.3	101.4	31.6	5	0	23	77.1	73.1	225.3	5	4	17	147.5	151.2	221.4
4	4	42	114.1	103.5	-10.3	5	0	26	42.2	48.5	-53.1	5	4	14	86.4	81.4	-89.3
4	4	45	67.1	67.2	-9.5	5	0	29	120.6	117.7	6.8	5	4	11	29.2	21.7	-60.1
4	5	-43	63.1	38.9	-6.3	5	0	32	170.7	175.8	201.9	5	4	8	197.0	203.9	158.5
4	5	-40	53.7	57.7	-16.2	5	0	35	114.7	116.6	195.9	5	4	5	74.0	71.1	118.0
4	5	-37	96.5	103.7	182.8	5	0	38	43.7	44.5	104.6	5	4	2	126.7	127.1	171.1

H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH
5	4	1	132.0	129.6	88.1	6	0	51	120.8	123.8	-86.4	6	5	-32	104.9	103.5	88.6
5	4	4	50.6	61.8	81.9	6	1	-49	106.8	104.4	39.6	6	5	-29	43.8	34.0	72.0
5	4	7	178.7	177.8	89.1	6	1	-46	175.7	176.8	58.2	6	5	-26	120.4	124.4	49.9
5	4	10	85.3	82.6	144.4	6	1	-43	55.1	47.0	7.4	6	5	-23	78.5	72.6	38.3
5	4	13	57.2	57.6	118.0	6	1	-40	57.4	69.8	268.0	6	5	-20	167.0	169.4	25.6
5	4	16	179.4	178.5	36.9	6	1	-37	63.0	59.7	110.8	6	5	-17	101.9	110.2	30.0
5	4	19	124.7	124.0	7.6	6	1	-34	165.3	173.0	2.7	6	5	-14	77.0	77.6	-73.0
5	4	22	97.5	99.2	12.6	6	1	-31	154.2	157.4	16.7	6	5	-11	103.3	100.1	-29.5
5	4	25	84.8	85.0	-66.1	6	1	-28	104.4	107.1	199.8	6	5	-8	80.6	81.2	-25.2
5	4	28	79.0	70.4	-21.0	6	1	-25	225.9	229.3	229.8	6	5	-5	121.0	121.3	-64.8
5	4	31	201.9	201.9	-31.6	6	1	-22	100.8	96.3	7.6	6	5	-2	92.6	90.2	-87.5
5	4	34	105.1	113.9	-52.4	6	1	-19	116.1	115.3	-37.3	6	5	1	177.2	174.2	203.9
5	4	37	129.4	126.5	201.5	6	1	-16	121.3	118.2	-79.0	6	5	4	92.5	96.8	259.8
5	4	40	83.2	81.6	249.3	6	1	-13	234.4	238.7	183.9	6	5	7	41.3	45.4	96.6
5	4	43	29.4	18.8	103.7	6	1	-10	302.1	309.6	195.2	6	5	10	144.3	143.5	200.8
5	5	-39	28.6	8.3	174.7	6	1	-7	223.8	223.9	1.8	6	5	13	72.5	72.6	197.7
5	5	-36	78.1	71.5	-28.1	6	1	-4	38.8	49.1	145.7	6	5	16	183.7	185.0	135.7
5	5	-33	55.2	65.1	168.5	6	1	-1	73.2	67.2	122.8	6	5	19	55.6	46.0	82.0
5	5	-30	90.8	93.0	267.4	6	1	2	224.5	231.0	129.7	6	5	22	63.7	70.0	51.9
5	5	-27	100.0	97.3	19.8	6	1	5	40.2	33.9	153.4	6	5	25	87.9	92.8	120.4
5	5	-24	39.2	29.6	73.7	6	1	8	250.3	253.2	-3.7	6	5	28	103.4	99.5	78.0
5	5	-21	71.7	78.7	-88.8	6	1	11	162.7	165.2	34.6	6	5	31	102.2	97.0	62.6
5	5	-18	88.4	92.8	125.9	6	1	14	133.8	136.9	44.5	6	6	-24	148.3	146.6	148.2
5	5	-15	42.6	36.4	-26.3	6	1	17	126.2	126.3	163.1	6	6	-21	51.7	51.0	261.0
5	5	-12	131.2	131.0	31.8	6	1	20	164.9	166.8	-35.3	6	6	-18	26.1	35.1	207.1
5	5	-9	62.5	60.2	-24.1	6	1	23	199.8	204.4	-15.2	6	6	-15	132.4	135.5	34.9
5	5	-6	44.5	54.2	84.8	6	1	26	58.6	59.3	-36.8	6	6	-12	61.5	50.2	12.3
5	5	-3	81.1	79.0	55.3	6	1	29	85.6	78.6	-61.4	6	6	-9	88.7	95.0	99.0
5	5	0	213.6	211.0	-25.2	6	1	32	85.5	85.6	200.3	6	6	-6	25.4	13.2	53.1
5	5	3	98.7	97.4	6.3	6	1	35	140.6	134.1	267.6	6	6	-3	48.9	61.0	17.4
5	5	6	52.8	51.7	242.7	6	1	38	153.0	154.0	-36.0	6	6	0	25.4	9.0	91.2
5	5	9	59.7	55.0	42.5	6	1	41	50.5	59.7	39.6	6	6	3	50.1	52.5	-49.3
5	5	12	95.1	95.6	18.9	6	1	44	151.9	149.1	201.7	6	6	6	78.2	77.3	-22.9
5	5	15	127.2	125.7	-89.4	6	1	47	66.6	57.4	116.4	6	6	9	117.5	123.0	-48.1
5	5	18	43.2	38.1	6.6	6	2	-44	62.3	69.1	186.6	6	6	12	117.5	123.0	-22.9
5	5	21	84.7	84.9	120.3	6	2	-41	38.7	27.6	237.6	6	6	15	164.4	167.0	-48.1
5	5	24	26.4	1.9	247.1	6	2	-38	95.6	102.2	92.9	6	6	18	74.5	72.9	175.9
5	5	27	118.1	115.6	-4.0	6	2	-35	79.3	78.5	105.1	6	6	21	82.6	79.6	245.9
5	5	30	120.8	113.7	185.9	6	2	-32	74.1	69.3	87.7	6	6	24	100.2	103.2	157.4
5	5	33	77.2	70.0	30.6	6	2	-29	107.3	106.5	18.9	6	7	-10	48.8	53.3	88.3
5	5	36	97.7	100.8	103.0	6	2	-26	55.7	69.6	60.3	6	7	-7	94.5	88.3	-54.0
5	5	39	42.4	31.6	-6.5	6	2	-23	124.9	124.0	59.1	6	7	-4	68.1	63.6	269.6

5	6	-31	128.2	125.5	-3.5	6	2	-20	175.8	181.2	40.7	6	7	-1	52.3	51.4	228.7
5	6	-28	66.3	67.7	244.4	6	2	-17	116.6	116.9	-12.1	6	7	2	41.5	43.8	55.8
5	6	-25	77.7	81.2	229.1	6	2	-14	191.8	194.6	-46.6	6	7	5	54.6	56.2	143.6
5	6	-22	61.1	61.9	52.1	6	2	-11	31.2	26.6	2.7	6	7	8	112.8	111.4	266.9
5	6	-19	31.2	41.0	-20.6	6	2	-8	108.5	109.0	20.3	7	0	-47	42.9	46.2	-36.9
5	6	-16	165.7	169.4	-72.1	6	2	-5	105.6	109.4	263.0	7	0	-44	116.3	106.9	182.8
5	6	-13	137.0	134.2	197.8	6	2	-2	163.8	171.2	-79.1	7	0	-41	40.0	28.8	46.0
5	6	-10	127.8	128.4	178.2	6	2	1	177.6	179.5	220.0	7	0	-38	70.4	69.6	-21.2
5	6	-7	105.2	106.7	32.2	6	2	4	122.1	124.7	171.9	7	0	-35	49.4	49.7	53.1
5	6	-4	39.2	27.7	131.9	6	2	7	108.4	115.3	54.4	7	0	-32	58.8	59.0	165.4
5	6	-1	81.4	79.1	240.9	6	2	10	158.6	160.1	182.4	7	0	-29	58.3	55.6	85.6
5	6	2	117.2	120.6	131.1	6	2	13	148.5	148.3	249.4	7	0	-26	71.0	70.9	72.7
5	6	5	46.8	40.0	95.4	6	2	16	157.8	163.0	130.0	7	0	-23	87.6	84.4	-88.5
5	6	8	94.5	93.1	37.0	6	2	19	139.8	138.1	84.1	7	0	-20	250.1	252.4	31.7
5	6	11	59.5	48.1	4.5	6	2	22	66.0	57.4	40.1	7	0	-17	117.0	115.3	142.5
5	6	14	31.0	45.0	-45.6	6	2	25	127.5	125.4	138.4	7	0	-14	33.3	35.2	31.8
5	6	17	64.5	56.3	143.2	6	2	28	27.2	26.3	62.7	7	0	-11	104.3	103.3	29.3
5	6	20	124.2	123.6	0.0	6	2	31	110.7	107.9	43.7	7	0	-8	80.6	77.6	-5.4
5	6	23	116.1	111.5	19.6	6	2	34	181.4	177.8	28.8	7	0	-5	74.8	75.6	-24.9
5	6	26	73.4	74.5	-63.7	6	2	37	33.2	23.0	-59.6	7	0	-2	64.4	65.9	208.4
5	6	29	81.9	85.7	-76.9	6	2	40	82.9	80.8	-57.8	7	0	1	60.9	57.5	179.7
5	6	32	33.2	14.6	117.3	6	2	43	64.9	76.6	-57.0	7	0	4	66.2	73.7	-81.6
5	7	-23	47.0	46.3	196.1	6	2	46	65.5	62.6	-46.1	7	0	7	72.2	74.2	0.2
5	7	-20	73.6	75.8	21.9	6	3	-42	66.0	56.4	49.3	7	0	10	70.3	68.7	-83.4
5	7	-17	91.5	82.7	245.1	6	3	-39	114.4	113.5	94.9	7	0	13	136.1	140.1	156.5
5	7	-14	112.4	105.0	-58.2	6	3	-36	86.8	86.1	-86.0	7	0	16	108.5	108.9	94.2
5	7	-11	61.7	65.4	130.2	6	3	-33	57.9	50.4	-64.6	7	0	19	76.6	71.1	-22.6
5	7	-8	47.8	50.7	127.1	6	3	-30	38.9	19.3	223.7	7	0	22	80.7	78.6	-57.7
5	7	-5	25.3	3.9	-27.8	6	3	-27	131.4	133.0	40.6	7	0	25	100.1	100.4	167.3
5	7	1	67.3	67.9	208.7	6	3	-24	159.6	156.4	69.9	7	0	28	117.9	117.7	117.2
5	7	4	125.5	121.9	118.3	6	3	-15	117.3	120.9	-48.9	7	0	31	61.8	69.0	-13.5
5	7	7	139.4	134.7	81.3	6	3	-12	126.3	128.7	-7.1	7	0	34	86.8	90.7	-12.1
5	7	10	25.3	10.0	244.8	6	3	-9	123.7	125.2	-13.8	7	0	37	29.8	28.7	-12.2
5	7	13	33.8	45.9	-83.7	6	3	-6	160.8	161.3	221.6	7	0	40	118.4	115.8	75.1
5	7	16	77.3	71.4	49.1	6	3	-3	117.3	125.4	-48.4	7	0	46	84.6	95.6	-67.0
5	7	19	114.6	115.1	45.4	6	3	0	204.4	207.2	3.4	7	1	-45	56.2	58.5	-40.9
5	7	22	54.6	48.1	-13.4	6	3	3	63.7	59.2	88.0	7	1	-42	110.4	101.9	-31.3
5	7	25	68.1	43.9	269.1	6	3	6	37.3	36.5	-72.7	7	1	-39	83.3	85.3	-89.4
5	8	-6	61.8	58.0	202.0	6	3	9	82.2	85.5	199.7	7	1	-36	80.4	77.7	268.5
5	8	0	26.1	31.5	3.7	6	3	12	93.0	92.9	-18.1	7	1	-33	149.2	145.7	225.4
5	8	3	142.0	140.6	-20.4	6	3	15	57.4	59.5	38.5	7	1	-30	126.3	127.6	194.4
5	8	6	71.2	77.7	-87.4	6	3	18	82.0	82.0	141.5	7	1	-27	64.5	67.1	-44.7
6	8	-51	49.5	54.2	-46.0	6	3	21	96.4	93.3	94.0	7	1	-24	126.4	128.4	145.3
6	8	-48	35.1	40.8	242.4	6	3	24	93.6	93.9	177.1	7	1	-21	32.9	21.6	162.2
6	8	-45	51.9	63.0	222.5	6	3	27	181.8	183.0	-8.7	7	1	-18	146.4	148.3	149.3
6	8	-42	127.7	124.2	145.5	6	3	30	137.7	137.2	101.2	7	1	-15	286.5	292.4	51.1
6	8	-39	119.7	121.2	116.1	6	3	33	115.8	113.2	61.1	7	1	-12	104.8	107.1	4.3
6	8	-36	123.3	126.3	-45.9	6	3	36	35.8	55.6	25.7	7	1	-9	102.2	106.0	38.4
6	8	-33	72.6	64.9	92.5	6	3	39	44.4	31.8	-89.8	7	1	-6	128.6	133.4	75.1

6	0	-30	60.8	50.6	92.2	6	3	42	103.2	100.6	-38.0	7	1	0	403.7	409.7	3.0
6	0	-27	152.5	153.9	65.9	6	4	-37	28.3	1.2	-38.5	7	1	3	98.4	104.3	-54.0
6	0	-24	157.0	157.7	21.9	6	4	-34	119.8	123.7	-19.3	7	1	6	165.1	170.3	-23.8
6	0	-21	266.4	269.3	-59.3	6	4	-31	44.5	57.2	106.7	7	1	9	118.9	125.2	-8.6
6	0	-18	199.5	198.6	40.2	6	4	-28	32.2	11.1	268.8	7	1	12	114.4	119.4	-17.4
6	0	-15	111.7	111.5	26.3	6	4	-25	131.9	130.6	204.8	7	1	15	292.6	301.4	-55.4
6	0	-12	158.0	164.0	21.9	6	4	-22	145.9	144.9	18.4	7	1	18	183.2	183.2	221.3
6	0	-9	321.9	321.0	-40.8	6	4	-19	76.5	80.3	-88.5	7	1	21	69.1	70.6	158.6
6	0	-6	198.2	197.5	-85.4	6	4	-16	53.9	54.8	157.4	7	1	24	96.8	94.2	202.9
6	0	-3	127.0	122.7	-10.1	6	4	-13	128.2	132.5	135.7	7	1	27	96.8	94.2	202.9
6	0	0	197.3	194.2	-18.4	6	4	-10	107.3	107.6	178.1	7	1	30	41.7	43.5	11.3
6	0	3	94.2	99.1	175.9	6	4	-7	235.7	237.8	-31.8	7	1	33	99.1	98.1	206.6
6	0	6	273.3	275.6	252.7	6	4	-4	36.1	25.6	205.6	7	1	36	86.4	85.5	58.4
6	0	9	95.2	97.3	194.0	6	4	-1	99.8	107.8	113.5	7	1	39	92.9	94.7	109.7
6	0	12	187.9	191.7	35.7	6	4	2	33.1	34.4	78.1	7	1	42	71.4	72.6	52.3
6	0	15	187.7	187.7	166.9	6	4	5	30.5	32.2	-38.0	7	1	45	64.3	60.8	122.3
6	0	18	109.9	112.2	117.1	6	4	8	234.9	234.2	161.4	7	2	40	56.6	55.3	9.8
6	0	21	55.7	57.6	148.0	6	4	11	59.4	65.2	62.2	7	2	43	42.9	49.4	199.2
6	0	24	59.5	61.2	97.3	6	4	14	131.5	124.8	62.2	7	2	46	48.0	49.1	263.1
6	0	27	256.9	256.3	23.7	6	4	17	78.0	60.3	199.1	7	2	49	80.7	81.2	-1.4
6	0	30	225.5	227.8	114.6	6	4	20	159.3	161.5	-38.3	7	2	52	80.7	80.7	-81.7
6	0	33	135.4	136.5	39.7	6	4	23	133.6	140.3	-84.8	7	2	55	92.7	90.2	-0.7
6	0	36	85.8	80.9	23.6	6	4	26	49.4	57.6	80.1	7	2	58	58.5	60.2	-1.3
6	0	39	126.4	124.9	2.6	6	4	29	52.1	50.8	33.3	7	2	61	90.6	94.6	-1.3
6	0	42	161.4	155.3	-11.6	6	4	32	64.9	52.3	184.2	7	2	64	177.2	178.3	241.9
6	0	45	140.8	139.8	93.3	6	4	35	44.0	56.7	-72.5	7	2	67	25.3	10.4	-3.4
6	0	48	99.7	95.6	-39.8	6	4	38	121.5	85.3	-77.0	7	2	70	126.2	130.7	207.8

H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH	H	K	L	FO	FC	ALPH
7	2	-7	68.0	66.5	-40.2	8	0	41	53.0	51.2	11.3	9	0	30	54.8	54.9	65.0
7	2	-4	64.9	72.7	105.9	8	1	-38	121.1	121.5	13.6	9	0	33	55.8	41.1	69.4
7	2	-1	218.9	225.1	179.2	8	1	-35	76.0	79.8	139.5	9	0	36	76.4	75.8	67.9
7	2	2	95.4	95.5	1.5	8	1	-32	110.4	107.3	123.3	9	1	-31	28.4	45.6	75.3
7	2	5	30.3	39.1	114.0	8	1	-29	111.2	105.9	-18.1	9	1	-28	55.6	38.0	209.4
7	2	8	28.2	34.6	64.1	8	1	-26	119.0	118.5	-20.2	9	1	-25	147.3	148.6	220.1
7	2	11	30.3	40.5	33.8	8	1	-23	102.6	102.0	-60.1	9	1	-22	99.0	99.7	82.5
7	2	14	138.1	141.9	114.1	8	1	-20	110.2	115.5	79.0	9	1	-19	29.5	35.7	166.4
7	2	17	105.8	111.3	-47.6	8	1	-17	117.5	120.5	155.0	9	1	-16	28.0	23.5	77.1
7	2	20	104.9	104.6	-10.7	8	1	-14	199.9	200.2	-68.7	9	1	-13	54.5	57.8	129.2
7	2	23	59.3	63.7	17.2	8	1	-11	90.4	98.4	-18.4	9	1	-10	86.9	85.4	177.9
7	2	26	54.7	58.6	-19.1	8	1	-8	28.9	24.8	21.6	9	1	-7	189.9	192.9	19.1
7	2	29	45.7	48.5	38.4	8	1	-5	201.4	201.8	144.3	9	1	-4	96.4	92.7	118.6
7	2	32	162.4	162.7	-73.1	8	1	-2	24.7	7.2	163.4	9	1	-1	83.5	88.7	19.0
7	2	35	37.7	45.2	7.3	8	1	1	108.2	111.3	247.1	9	1	2	59.1	51.9	-1.8
7	2	38	45.4	41.1	-8.0	8	1	4	57.5	59.2	-19.4	9	1	5	42.8	46.1	-52.8
7	2	41	40.8	21.9	26.7	8	1	7	91.4	96.0	94.4	9	1	8	155.3	151.9	-21.7
7	3	-38	56.2	71.8	-3.7	8	1	10	187.7	190.1	115.3	9	1	11	47.1	35.4	264.1
7	3	-35	28.4	35.8	-53.7	8	1	13	38.8	47.6	172.6	9	1	14	93.4	86.8	-24.4
7	3	-32	118.1	128.8	215.5	8	1	16	26.0	27.7	21.0	9	1	17	105.9	111.6	242.2
7	3	-29	90.3	92.3	144.4	8	1	19	130.2	133.1	-4.1	9	1	20	98.1	89.2	-65.1
7	3	-26	67.2	61.5	155.5	8	1	22	49.1	46.5	69.3	9	1	23	49.9	37.2	-45.4
7	3	-23	42.8	50.4	20.5	8	1	25	144.2	150.4	111.9	9	1	26	60.2	65.2	144.8
7	3	-20	112.3	115.0	88.4	8	1	28	55.0	59.1	-52.8	9	1	29	98.4	90.1	-64.3
7	3	-17	133.6	135.5	146.8	8	1	31	160.2	159.4	-20.8	9	1	32	92.7	95.1	196.6
7	3	-14	87.6	90.0	82.8	8	1	34	142.8	139.9	-20.8	9	2	-26	49.9	45.1	105.9
7	3	-11	79.1	81.2	76.0	8	1	37	103.4	101.4	162.0	9	2	-23	111.0	112.6	13.0
7	3	-8	185.4	189.4	17.4	8	1	40	39.5	52.3	17.0	9	2	-20	104.2	106.1	-12.8
7	3	-5	80.1	85.7	-6.7	8	2	-36	81.8	79.3	-16.9	9	2	-17	34.0	22.2	-44.0
7	3	-2	25.1	12.5	175.7	8	2	-33	69.7	53.8	-57.1	9	2	-14	119.0	115.6	10.1
7	3	1	98.8	96.1	58.6	8	2	-30	60.4	61.3	252.4	9	2	-11	43.1	40.4	88.2
7	3	4	97.4	97.7	-24.3	8	2	-27	170.0	170.8	-5.3	9	2	-8	101.9	104.3	-42.7
7	3	7	227.4	230.2	-9.9	8	2	-24	31.5	10.8	-55.1	9	2	-5	86.2	90.4	-54.6
7	3	10	90.0	89.2	201.1	8	2	-21	84.7	89.5	-87.0	9	2	-2	92.9	96.0	229.9
7	3	13	101.3	105.2	235.7	8	2	-18	61.6	68.3	209.0	9	2	1	83.3	85.9	183.7
7	3	16	37.8	34.3	61.1	8	2	-15	33.7	23.9	124.8	9	2	4	57.5	50.6	183.7
7	3	19	54.0	54.4	-75.9	8	2	-12	107.9	104.6	-26.9	9	2	7	119.0	118.1	65.0
7	3	22	170.9	170.1	-72.7	8	2	-9	31.3	13.5	182.0	9	2	10	173.7	170.7	223.1
7	3	25	148.8	148.9	185.8	8	2	-6	79.1	85.7	152.5	9	2	13	59.3	55.4	257.8
7	3	28	130.2	131.1	149.2	8	2	-3	63.3	73.8	158.3	9	2	16	64.5	67.8	146.3
7	3	31	36.1	41.8	25.3	8	2	0	167.4	169.1	11.1	9	2	19	97.8	88.4	82.6
7	3	34	46.8	33.0	-44.7	8	2	3	25.3	23.0	-14.1	9	2	22	87.3	81.7	72.4

7	3	37	94.7	93.2	207.2	8	2	6	38.6	39.7	112.3	9	2	25	57.3	60.6	207.6
7	4	-30	27.6	31.3	176.1	8	2	9	95.7	91.9	69.7	9	2	28	27.1	13.4	-3.1
7	4	-27	55.1	46.2	62.0	8	2	12	100.5	101.3	30.3	9	3	-18	91.9	87.9	-45.5
7	4	-24	66.0	75.1	-80.8	8	2	15	104.6	106.6	-21.4	9	3	-15	72.7	73.5	42.0
7	4	-21	100.5	104.6	-62.0	8	2	18	69.5	75.2	-17.1	9	3	-12	99.5	90.1	35.7
7	4	-18	62.5	18.6	217.2	8	2	21	132.9	134.2	70.4	9	3	-9	25.7	12.8	209.7
7	4	-15	120.1	118.6	108.7	8	2	24	26.8	26.8	-26.0	9	3	-6	69.1	71.8	62.2
7	4	-12	56.1	60.8	67.1	8	2	27	108.4	112.1	-5.7	9	3	-3	77.5	80.2	-61.0
7	4	-9	57.9	95.5	-55.3	8	2	30	36.6	39.4	-82.7	9	3	0	222.3	220.1	0.2
7	4	-6	25.1	30.2	71.3	8	2	33	34.8	1.9	81.1	9	3	3	25.6	14.4	130.5
7	4	-3	25.2	18.5	90.4	8	2	36	53.1	55.1	59.2	9	3	6	45.0	36.8	163.8
7	4	0	223.3	225.6	32.0	8	3	-28	68.2	63.9	224.5	9	3	9	57.5	55.0	21.9
7	4	3	33.4	36.6	108.4	8	3	-25	56.8	59.2	96.7	9	3	12	124.8	130.4	-51.1
7	4	6	98.7	104.1	260.0	8	3	-22	53.1	55.5	1.1	9	3	15	70.5	73.8	-27.6
7	4	9	97.2	98.6	8.0	8	3	-19	94.9	97.1	3.3	9	3	18	54.8	51.3	132.7
7	4	12	80.4	86.1	43.0	8	3	-16	100.2	94.4	-23.6	10	0	-29	40.8	44.1	130.4
7	4	15	70.4	59.9	40.3	8	3	-13	58.0	58.4	174.1	10	0	-26	58.8	57.8	0.2
7	4	18	39.6	27.9	-74.9	8	3	-10	25.6	11.8	-24.9	10	0	-23	75.4	72.3	-65.6
7	4	21	51.1	56.3	-65.9	8	3	-7	166.3	165.9	-51.7	10	0	-20	92.3	90.3	8.2
7	4	24	74.4	70.1	-36.1	8	3	-4	50.9	60.0	-42.2	10	0	-17	88.0	92.2	151.0
7	4	27	64.4	74.7	5.9	8	3	-1	94.1	92.3	249.8	10	0	-14	88.0	92.2	-76.0
7	4	30	38.1	39.5	121.8	8	3	2	142.3	150.9	177.9	10	0	-11	38.3	41.1	110.8
7	5	-25	85.9	96.5	248.6	8	3	5	52.7	33.3	-37.3	10	0	-8	38.5	27.1	36.4
7	5	-22	26.7	41.1	-3.0	8	3	8	83.3	85.4	221.1	10	0	-5	58.5	54.7	57.2
7	5	-19	53.6	40.2	205.7	8	3	11	25.6	59.6	107.8	10	0	-2	62.3	62.3	153.0
7	5	-16	37.5	49.3	124.3	8	3	14	68.1	114.6	149.6	10	0	4	60.3	62.9	-65.3
7	5	-13	61.2	48.2	124.3	8	3	17	112.5	114.6	-29.4	10	0	7	102.7	108.4	232.4
7	5	-10	115.5	115.0	224.5	8	3	20	123.2	130.2	117.7	10	0	10	51.3	47.8	47.8
7	5	-7	31.6	12.8	55.6	8	3	23	49.9	57.1	117.7	10	0	13	63.4	54.3	145.8
7	5	-4	33.1	40.8	41.4	8	3	26	59.0	63.4	-1.6	10	0	16	136.7	141.8	75.8
7	5	-1	68.4	69.7	124.9	8	3	29	40.9	40.0	78.8	10	0	19	79.4	82.5	-60.4
7	5	2	25.4	23.2	117.9	8	4	-23	74.6	77.6	254.9	10	0	22	118.3	119.3	-12.5
7	5	5	29.5	5.2	-51.3	8	4	-20	92.6	94.5	29.0	10	0	25	27.5	14.6	241.5
7	5	8	39.0	51.7	30.0	8	4	-17	108.9	110.1	161.4	10	0	28	45.8	46.1	112.7
7	5	11	91.8	93.4	20.0	8	4	-14	106.8	110.7	-46.6	10	0	31	28.6	28.6	137.1
7	5	14	124.2	120.5	67.6	8	4	-11	43.2	30.2	181.1	10	1	-24	86.7	86.7	258.3
7	5	17	82.8	85.2	-66.8	8	4	-8	46.6	18.1	135.1	10	1	-18	41.4	43.8	96.2
7	5	20	107.0	108.7	-64.2	8	4	-5	34.6	18.1	138.4	10	1	-15	54.9	55.4	0.8
7	5	23	45.1	41.9	49.7	8	4	1	35.7	43.5	261.3	10	1	-12	119.7	119.1	66.4
7	6	-8	61.9	74.1	10.4	8	4	4	57.2	59.8	115.0	10	1	-9	49.5	44.0	11.3
7	6	-5	97.1	96.8	131.4	8	4	7	91.1	86.8	55.0	10	1	-6	48.8	44.0	-1.4
7	6	-2	76.2	77.7	-15.8	8	4	10	60.6	48.3	110.8	10	1	-3	85.7	86.9	35.8
7	6	1	25.6	32.9	-23.4	8	4	13	63.4	65.5	78.4	10	1	0	150.6	147.5	-8.3
7	6	4	49.2	41.8	-14.1	8	4	16	41.6	39.1	-40.0	10	1	3	52.6	49.3	72.8
7	6	7	65.4	61.4	-10.9	8	4	19	94.8	92.5	29.2	10	1	6	56.0	52.9	250.6
7	6	10	64.9	53.5	159.7	8	4	22	50.3	53.4	-48.4	10	1	9	26.0	28.2	-12.6
7	6	-43	64.7	51.7	-33.1	8	5	-6	52.6	56.5	162.7	10	1	12	114.6	119.3	-82.3
7	6	-40	70.1	72.2	26.2	8	5	-3	25.8	21.9	157.5	10	1	15	102.4	100.1	-12.3
7	6	-37	149.1	145.2	192.4	8	5	0	165.0	166.0	-18.4	10	1	18	48.8	47.7	67.7
7	6	-34	93.5	94.7	37.8	8	5	3	110.4	107.4	-83.2	10	1	21	59.5	53.8	161.9
7	6	-31	125.5	122.1	65.2	8	5	3	110.4	107.4	-83.2	10	1	21	59.5	53.8	161.9

8	0	-28	78.5	74.3	-79.9	8	5	6	83.8	86.5	249.6	10	1	24	73.1	62.5	267.8
8	0	-25	29.4	24.9	-13.0	9	0	-36	33.2	16.7	165.7	10	2	-13	60.0	68.9	209.8
8	0	-22	31.2	30.4	177.2	9	0	-33	34.5	56.5	119.3	10	2	-10	173.1	175.1	176.9
8	0	-19	78.6	70.0	-18.0	9	0	-30	47.5	56.4	109.2	10	2	-7	26.0	28.8	123.4
8	0	-16	55.2	49.0	23.0	9	0	-27	184.3	181.3	28.5	10	2	-4	32.2	34.7	208.7
8	0	-13	25.1	15.4	186.0	9	0	-24	78.7	76.7	0.3	10	2	-1	61.2	66.1	182.6
8	0	-10	41.7	49.2	234.9	9	0	-21	54.4	52.5	-84.8	10	2	2	125.2	130.1	100.6
8	0	-7	44.5	38.7	221.5	9	0	-18	26.4	27.7	17.8	10	2	5	134.1	130.6	122.1
8	0	-4	24.0	20.6	-28.4	9	0	-15	175.7	178.1	12.6	10	2	8	63.9	70.3	39.4
8	0	-1	33.6	21.6	103.1	9	0	-12	129.1	128.7	-13.9	10	2	11	125.3	121.2	-6.4
8	0	2	102.0	102.4	229.3	9	0	-9	153.1	153.7	-62.1	10	2	14	79.2	75.1	38.1
8	0	5	123.6	121.6	-29.3	9	0	-6	39.6	32.7	214.3	11	0	-16	25.9	23.3	-5.7
8	0	8	85.4	86.0	174.3	9	0	-3	36.9	46.3	-48.8	11	0	-13	57.6	47.0	201.5
8	0	11	51.6	48.7	-25.8	9	0	0	221.4	216.0	-11.0	11	0	-10	48.1	52.7	-47.9
8	0	14	151.0	150.8	52.3	9	0	3	93.9	96.1	-85.4	11	0	-7	164.1	166.8	-46.9
8	0	17	66.3	62.2	240.7	9	0	6	172.1	170.0	232.8	11	0	-4	73.6	73.5	266.6
8	0	20	115.1	118.2	-51.8	9	0	9	111.2	111.8	131.3	11	0	-1	41.1	60.6	154.7
6	0	23	116.5	120.5	112.0	9	0	12	52.9	47.9	56.6	11	0	2	59.5	62.4	192.0
8	0	26	70.3	72.4	-45.6	9	0	15	52.6	47.8	-50.0	11	0	5	26.3	36.8	252.9
8	0	29	103.6	106.2	11.7	9	0	18	94.3	95.3	142.8	11	0	8	100.3	101.9	-67.9
8	0	32	100.5	94.8	210.0	9	0	21	153.7	154.0	128.4	11	0	11	62.6	50.5	172.4
8	0	35	97.3	91.7	-51.2	9	0	24	75.1	75.8	90.7	11	0	14	125.1	123.9	107.2
8	0	38	111.8	106.9	82.3	9	0	27	135.0	138.6	23.3	11	0				