

KG
11366
v. 702

*I N. Places for 1855.0 and 1875.0
from 22^h 24^m 51^s to 0^h 00^m
Sone Observations.
Final Reduction
22^h 23^m to 0^h 0^m No 5.*

15

	α 1855.0	δ 1855.0	DM Mag.	Parall " "	Page	Source	Mag.	RA	+3.072	α 1875.0	δ	$\Delta\alpha$	$\Delta\delta$	$\Delta\alpha$	$\Delta\delta$
41.22 55.6	24 51.4	52 47.1	7.8	39 56		9.1 77	26 48.1	-703	-483	25 57.4	41	50.89	+18.38	-0.3676	41 14.1
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 47.1			25 57.4	41	50.89			14.2
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	25 57.38	-707	-1892	25 57.4	55	43.84	+18.38	-2.2704	55 16.8
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	25 57.86	-707	-1892	25 57.4	55	43.84			18.9
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 16.90	-656	-1909	25 57.4	55	43.84	+18.39	-2.2712	55 39.3
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	25 49.54	-725	-2.35	25 47.17	38	45.97	18.38	-0.1838	38 27.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	49.59			47.24		45.07			26.7
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	25 51.53	-742	-233	25 49.00	15	42.80	18.38	-0.1838	15 24.4
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	51.46			49.13		42.80			24.4
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	25 51.94	-656	+483	25 59.77	52	41.34	18.39	+0.3678	52 18.1
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	54.79			57.62		40.61			17.4
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 7.12	-640	+2.43	26 9.55	13	20.75	18.40	+0.1840	13 49.25
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	7.02			9.45		32.11			50.5
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 9.36	-639	-487	9.41	13	26.75			51.5
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 14.33			9.41	14	26.75	-0.3680		50.0
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 14.33			9.41	14	26.75			50.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 14.33			9.41	14	26.75			51.4
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 15.30			15.30	35	29.57	18.40		35 29.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 15.44			15.44	35	29.57			29.3
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 15.54			15.54	35	29.57			29.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 23.81	-633	-488	26 19.06	57	48.56	18.40	-0.3680	57 11.8
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 23.81			18.93	57	48.46			11.7
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 22.16	-644	-2.43	26 19.93	29	14.11	18.40	-0.1840	29 55.7
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	22.10			19.67		14.04			55.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 36.90	-684	-4.78	26 32.12	14	3.48	18.41	-0.3682	14 26.7
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 36.69			31.91	14	2.81			26.0
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 29.14	-645	+4.85	26 33.99	35	21.82	18.41	+0.3682	35 58.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	29.00			33.85		20.87			57.7
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 48.25	-0744	-4.66	26 43.59	36	31.26	18.42	-0.3684	36 54.2
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	48.09			43.42	30	30.81			54.8
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 2.29	-744	-18.62	26 43.67	38	21.48	18.42	-2.2736	38 54.1
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 2.11			43.49	38	21.40			54.0
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	26 50.27			26 50.27	58	15.93	18.42		58 15.9
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	32.05			32.05	57	45.26			45.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 9.73	-675	-19.18	26 50.55	0	43.37	18.42	-2.2736	58 16.2
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 9.59			50.39	0	43.69			16.3
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 8.26	-684	-4.78	27 3.48	23	55.92	18.43	-0.3686	23 17.1
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 8.26			3.48	23	56.37			17.5
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 48.0	-748	-232	27 1.88	48	51.00	18.43	-0.1843	48 32.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	42.1			1.89		50.54			32.1
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 15.70			27 15.70	1	34.31	18.43		1 34.3
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 15.62			15.62	1	34.64			34.6
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 15.50			15.80	1	34.48			34.5
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	27 14.55	-656	+2.42	27 16.97	16	44.42	18.43	+0.1843	16 2.4
41.22 57.4	25 38.6	52 53.2			4476	9.3 83	14.56			16.98		45.91			3.3

	α 1855.0	δ 1855.0	DM Mag.	Book Page	Locality	Mag. 1890	RA	$\Delta\alpha$ $\Delta\delta$	α 1875.0	δ	$\Delta\delta$ 205	δ 1875.0	δ 1875.0	δ 1875.0	2
17.48 10.55 22	26 34.3	53 16.8	6.5	36.12	68 76	27 2381	-706 -2.37	27 2144	23	5393	+18.44	-0.18.44	23 35.5		
15.28 11.87	0 47.2	+6.1			66	2393		21.56		56.18				37.7	
	27 21.5	53 22.9													
		53 29.10													
13.76 31.57	26 35.2	52 28.7	8.7	39.62	87 95.77	27 2806	-687 -4.77	27 2416	35	24.41	33.21	18.44	-0.36.88	34.5	
14.63 26.74	27 27.6	52 34.8			85 91	28.19	28.91	23.42	24.14	35	16.28	32.22		47.5 56.5	
16.70 32.09	27 28.8	52 32.37									24.28			34.4 55.3	
17.42 37.94														48.4	
11.86 58.07	26 37.5	54 27.1	8.2	36.20	88 76	27 26.13	-738 -2.33	27 2380	38	44.51	18.44	-0.18.44	33 23.1		
11.32 58.76	46.4	54 33.2			87 43	26.18		23.85		42.12				23.7	
31.94 23.64	5 54 27.96			10.42	92 89.77	27 28.43	-738 -4.67	23.76	34	1.35		-0.36.88		24.5	
39.84 22.80	27 24.0				92 90	27 28.40		23.3	33	59.73				22.8	
13.12 2 1.19	27 41.7	50 28.1	9.0	19.46	90 73	27 49.23	-636 +4.87	27 54.10	34	44.50	18.45	+0.36.90	34 21.4		
12.96 2 0.15	27 48.6	50 34.2			91	49.21		54.08		43.17				20.1	
	27 53.3	50 37.48													
9.72 2 55.34	27 11.6	50 26.8	9.3	26.16	94 74	27 58.02	-635 +2.44	28 0.46	32	39.07	18.46	+0.18.46	32 57.5		
6.78 56.89	28 48.7	50 32.9			95	57.89		0.33		39.75				58.2	
	28 0.3	50 37.49													
11.68 5 23.53	27 16.1	53 24.3	9.0	33.34	87 90.75	28 43.36	-706 -2.37	28 43.36	30	5.11	30.20	18.46		30 8.1	
34.84 26.55	27 47.2	53 30.4				27 44.44		4.51	30	19.65		-0.18.46		12.44	
4.538 35.09	28 3.3	53 29.14		35.98	90 76	28 6.91		4.59		21.20				27 21.2	
4.12 35.09					88	6.96									
3.66 36.17															
9.78 2 20.37	27 18.9	49 50.4	9.3	40.86	90 77	28 13.87	-620 -4.90	28 8.99	56	55.70	18.46	-0.36.92	56 18.8		
16.04 21.32	28 48.9	49 56.5			92	28 14.02		9.12	56	58.41				18.5	
	28 7.8	49 38.90													
4.22 51.19	27 25.1	54 20.9	8.4	34.18	85 76	28 13.84	-729 -2.34	28 11.50	27	35.24	18.47	-0.18.47	27 16.8		
3.68 51.41	27 46.7	54 27.0			86	13.76		11.42		34.99				16.8	
19.64 15.67	28 11.8	54 27.98		40.42	88 77	28 16.12	-730 -4.68	11.44	27	53.57		-0.36.94		16.6	
27.56 15.98					82	28 16.11		11.43	27	52.58				16.6	
7.80 45.24	27 32.4	54 1.1	8.8	36.30	89 76	28 22.05	-719 -2.35	28 19.70	7	35.17	18.47	-0.18.47	7 43.16.7		
7.24 52.55	27 47.0	54 7.2			90	22.08		19.73		35.29				16.8	
10.20 0.38	28 19.4	54 28.10		39.62	87 77	28 24.38	-719 -4.71	19.67	7	37.74		-0.36.94		17.8	
13.12 59.63					82	24.49		19.78		53.35				16.9	
2.38 2 51.21	27 33.2	54 12.0	9.2	39.56	91 77	28 25.42	-724 -4.70	28 20.72	18	47.80	18.47	-0.36.94	18 10.9		
9.94 53.96	28 46.9	54 18.1			91	25.32		20.62		49.01				12.1	
	28 20.1	54 28.22													
21.52 4 48.28	27 34.1	52 30.7	9.3	26.28	91 74	28 10.72	-681 +2.39	28 23.11	36	31.54	18.47	+0.18.47	36 50.0		
17.68 48.88	27 47.7	52 36.8			91	20.66		23.05		31.57				50.0	
19.70 33.67	28 21.8	52 32.41		36.14	91 76	28 25.50	-681 -2.39	23.11	37	6.83		-0.18.47		46.84	
16.88 23.47					93	25.45		23.06		6.63				46.2	
31.54 5 59.42	27 39.7	53 24.6	9.1	33.18	87 75	28 27.66		28 27.66	30	42.04	18.48		30 42.0		
9.18 21.67	27 47.3	53 34.7			85 68	28 44.9	27.59	4.19	27.59	30	3.89	41.56		46.39	
32.28 59.27	28 27.0	53 29.15			87 69	28 46.7	27.64	4.67	27.64	30	2.74	42.18		42.2	
12.64 20.64															
35.02 0.05															
7.04 2 18.98	28 9.4	51 54.3	9.0	26.16	85 74	28 53.34	-662 +2.41	28 57.75	0	3.87	18.49	+0.18.49	0 22.9		
4.02 19.48	28 48.1	52 0.4			90	53.12		57.53		3.66				22.1	
	28 57.5	51 34.15													
12.09 23.85	28 24.2	53 19.9	7.3	11.84	80 74	29 14.8	-696 +9.50	29 11.48	25	11.23	18.50	+1.14.00	26 25.42		
18.76 44.46	27 47.4	53 26.0		33.34	75 75	29 14.42		11.42	26	25.38				25.4	
12.63 44.57	29 11.6	53 29.18				11.37		11.37		26.11				26.1	
4.32 0.28				36.20	75 76	29 13.92	-695 -2.38	11.54	26	43.13		-0.18.50		24.6	
3.72 0.12					83	13.79		11.41		43.44				24.9	
42.60 22.62	28 32.9	52 2.4	9.0	44.46	80 83	29 40.33	-662 -19.28	29 21.05	11	0.37	18.51	-2.28.08	8 32.3		
45.98 22.88	29 48.1	52 8.5			92	40.04		20.76	11	1.89				33.8	
	29 21.0	52 32.43													
45.78 35.21	28 54.1	53 43.3	9.0	33.20	90 75	29 41.59		41.89	49	35.41	18.52		49 30.4		
46.24 53.88	27 47.3	53 49.4			85	41.54		41.54	49	36.26				36.3	
48.92 52.27	29 41.4	53 29.20			84	41.54		41.54	49	34.52				34.5	

2242.19	28 56.9	50 14.7	8.6	19.08	8.8 73	29 41.67	-619	+491	29 46.58	19 26.33	+18.52	+037.04	20 3.9	49.6
241.22	0 48.4	+6.1			8.7	41.56			46.97	26.07			3.1	46.5
	29 45.9	50 37.55												
27.64	29 8.0	52 14.1	8.7	26.30	8.8 74	29 53.94	-663	+2.41	29 56.35	20 20.73	18.53	+0 18.53	20 29.3	41
38.47	48.1	52 20.2			8.8	53.95			56.36	21.31			39.8	41
	29 56.1	52 32.45												
11.74 32.25	29 22.4	49 55.2	9.0	40.36	8.7 77	30 15.78	-609	-4.93	30 10.85	2 9.38	18.53	-0 37.06	1 32.3	41
17.80 34.17	49.1	50 1.3			8.7	30 15.74			10.81	9.18			32.1	41
	30 11.5	49 39.00												
20.20 2.55	29 22.5	51 10.5	8.8	26.16	8.7 74	30 8.49	-637	+2.44	30 10.93	16 20.99	18.53	+0 18.53	16 39.5	41
17.36 26.64	48.6	51 16.6			8.8	8.45			10.89	16.2			38.6	41
21.50 42.05	30 11.1	51 34.19	45.12		8.5 83	30 30.30	-636	-19.27	30 11.01	19 10.15	18.54	-2 28.32	16 41.8	41
24.02 41.17					8.8	30 30.30			11.01	9.10			40.8	41
22.98 33.40	29 27.4	52 55.3	9.0	33.52	8.7 75	30 15.60			30 15.60	1 14.05	18.54		1 14.1	41
12.34 47.76	47.8	53 1.4		36.14	8.9	30 18.13	-677	-2.40	15.73	1 31.06	-0 18.54		12.5	41
9.66 46.70	30 15.2	52 32.46				18.26			15.86	29.98			11.4	41
6.45 50.55	29 32.1	53 35.9	8.9	36.30	8.8 76	30 21.22	-694	-2.38	30 18.84	42 16.58	18.54	-0 18.54	41 58.0	41
6.40 34.48	47.5	53 42.0			8.0	21.22			18.84	16.22			57.7	41
42.26 21.44	4	53 29.22	39.57		9.5 77	30 5.34	-696	-4.75	0.59	45 18.00	-0 37.08	44 34.9 40.9	43 53.8 54.4	41
36.80 36.86	30 19.5				9.0	30 52.20	-683	-4.98	30 47.22	44 31.46				41
35.82 48.04	29 48.9	51 52.5	8.7	26.30	8.7 74	30 34.24	-653	+2.42	30 36.66	5 30.91	18.55	+0 18.55	5 49.45	41
31.44 48.37	48.3	52 5.6			8.8	34.37			.79	30.57			49.1	41
	30 37.2	51 34.20												
41.98 46.83	29 44.7	53 47.2	9.0	33.20	9.0 75	30 38.05			30 38.07	53 29.61	18.55		53 29.6	41
42.58 46.77	47.4	53 53.3			8.7	30 37.87			37.87	53 29.13			29.1	41
45.42 47.19	30 37.1	53 29.23			9.0	30 38.02			38.02	53 29.36			29.4	41
24.80 2.608	29 37.3	52 27.2	8.3	39.62	8.0 77	30 14.09	-663	-4.82	30 39.27	33 58.58	18.55	-0 37.10	33 21.5	41
32.60 6.25	46.8	52 33.3			8.5	30 44.08			39.26	33 58.14			21.0	41
	30 39.3	52 32.47												
18.16 29.01	29 52.2	53 27.4	8.4	40.42	8.2 77	30 44.74	-688	-4.77	30 39.97	35 7.05	18.55	-0 37.10	34 29.8	41
56.12 29.46	47.6	53 33.5			8.0	30 44.66			39.89	35 5.20			28.1	41
	30 39.8	53 29.24												
18.92 50.91	30 1.4	49 52.8	8.8	44.45	8.5 83	31 11.63	-602	-19.76	30 51.87	59 23.10	18.56	-2 28.48	56 53.6	41
19.42 49.85	49.3	49 56.9			9.2	31 11.46			57.70	59 20.12			56 51.6	41
	30 50.7	49 39.05												
20.81 2.56	30 19.9	54 17.8	9.2	11.84	9.0 71	30 57.03	-707	+9.46	31 6.49	22 52.61	18.57	+1 14.28	24 6.8	41
22.88 14.74	47.2	54 23.9	44.57		9.0 83	31 23.88	-718	-18.83	7 5.05	55 17.07	18.57	-2 28.46	52 48.5	41
20.84 27.46	31 7.1	54 28.15	[54 28.14]		8.5 91	31 27.78	-706	-18.73	31 10.30	22 34.55	18.57	-2 28.46	27 36.4	41
20.84 27.46						58			65	22 27			60.5	41
12.52 8.18	30 21.9	54 18.3	9.0	40.107	9.8 83	31 11.05	13.09	-0706	-4.73	31 6.32	31 8.36	42.02	25 43.99	41
14.56 7.78	47.2	54 24.4			8.7 84	11.19	13.33	-0906	-	6.46	8.60	44.29	45.26	41
14.56 10.65	31 9.1	54 28.16												41
5.48 40.44	30 24.2	54 19.2	9.2	31.30	8.9 76	31 8.87	-707	-2.36	31 6.51	24 23.88	18.57	-0 18.57	24 5.2	41
54.16 39.98	47.2	54 25.3			8.7	8.95			6.59	23.30			4.7	41
	31 11.4	54 28.17												
2.02 20.47	30 27.1	54 21.3	8.9	36.20	9.0 76	31 12.59	-707	-2.36	31 10.23	26 4.02	18.57	-0 18.57	25 45.4	41
2.46 20.57	47.1	54 27.4			9.1	12.49			10.13	4.54			46.0	41
2.46 20.57	31 14.2	54 28.18	44.77		8.7 83	31 25.71	31 27.78	-706	-706	31 6.78	8.94	33.60	23.76	41
2.46 20.57					8.7 83	31 25.29	31 27.42			6.86	8.94	33.79	23.76	41
2.46 20.57					8.7 83	31 29.30				10.34	28	15.72	25.42	41
2.46 20.57	30 41.3	53 2.2	8.5	39.57	8.0 77	31 37.46	-671	-4.80	31 32.66	9 15.4	18.58	-0 37.16	8 24.7	41
22.02 8.37	47.9	53 8.3			8.2	31 37.46			32.66	9 2.28			25.1	41
	31 32.2	53 29.31												

49.48	2.51	22	✓	30	51.0	51	439	9.4	26.16	9.6	74	31	37.75	-640	+2.43	31	40.18	49	47.23	+18.58	18.58	50	65.58
46.58	2.18		✓	0	48.6		+6.2			9.7			37.64				40.07		46.09				4.7
				81	49.6	51	50.1																
					51	3424																	
4.76	11.96		✓	30	53.9	50	10.4	9.1	19.48	9.1	73	31	40.83	-605	+4.93	31	45.76	15	54.83	18.58	+0.37	16	32.0
4.66	11.60		✓		49.3	50	16.6			9.1			40.86				45.79		54.16				31.3
				81	45.1	50	3766																
45.80	47.60		✓	30	58.0	50	21.9	8.0	26.30	8.3	74	31	44.92	-608	+2.46	31	47.38	27	28.85	18.59	+0.18	27	47.4
42.12	48.78		✓		49.2	50	28.1			8.5			45.02				47.48		29.46				48.0
54.94	11.60		✓	81	47.2	50	3767		3334	7.8	75	31	47.47				47.47	27	49.11				27
32.84	46.83		✓							9.0		31	51.43				51.43	27	25.82				41
10.18	50.14		✓						40	50		31	52.95				52.95	28	22.28				27
11.98	52.40		✓							7.7		31	52.42				52.42	28	24.23				27
51.68	50.00		✓	30	59.8	53	40.1	7.3	33.20	7.5	75	31	47.53.77	-608	-4.93	31	47.53	28	32.23	18.59			46
52.26	50.16		✓		47.4	53	46.3			7.7		31	47.53.83				47.53	46	31.87				46
55.22	49.93		✓			53	2932			7.5		31	47.53				47.53	46	31.66				31.9
				81	47.4								47.50				47.50	46	31.66				31.9
0.16	13.77		✓	31	11.7	51	8.9	8.4	12.30	8.2	71	31	50.09	-625	+9.79	31	59.88	13	56.12	18.59	+1.43	15	10.5
0.82	10.59		✓		48.9	51	15.1			8.5			49.89				59.88		53.23				14
				82	0.6	51	3426																14.8
23.74	31.23		✓	31	16.6	50	32.1	8.5	42.88	8.0	78	32	13.04	-609	-7.39	32	56.5	39	11.01	18.60	-0.33	38	85.2
38.04	33.67		✓		49.1	50	38.3			8.3		32	12.80				54.1	39	11.02				15.2
				82	5.7	50	3768																
29.00	6.45		✓	31	16.8	50	15.9	8.5	42.91	8.3	78	31	52.71	-606	-7.40	31	47.21	28	42.50	18.60	-0.55	27	49.0
29.18	7.98		✓		49.3	50	22.1			8.1		31	52.80				47.40	28	44.03				48.2
31.50	3.08		✓	32	9.1	50	3769		45.13	9.1	8.7	32	9.46	-19.76	-1	32	47.40	28	44.03				48.2
17.56	16.63		✓							8.6		32	15.97	-602	-6.01	32	47.40	28	44.03				48.2
19.56	3.26		✓							8.7	83	32	26.12	-603	-19.75	32	6.22	21	29.12	18.60	-2.28	20	14.7
16.60	4.16		✓							8.7	83	32	26.12	-603	-19.75	32	6.22	21	29.12	18.60	-2.28	20	14.7
2.36	54.04		✓	31	18.6	53	29.8	9.4	36.30	9.3	76	32	17.56	-677	+2.34	32	15.19	32	36.93	18.60	-0.18	32	18.3
2.80	53.57		✓		47.8	53	36.0		40.107	9.5		32	17.58				15.21	32	36.41				17.8
13.24	4.52		✓	82	6.4	53	2933		44.58	9.3	83	32	11.74	-678	-4.79	32	6.95	36	37.64				36
28.70	0.16		✓							9.3	83	32	26.48	-676	-19.17	32	7.31	38	31.84	18.60	-2.28	30	3.0
29.24	56.82		✓									32	26.59	-678	-19.15	32	7.44	38	29.42				36
			✓	31	25.8	52	9.6	9.5	39.62	9.3	77	32	19.02	-645	-4.85	32	14.17	16	23.81	18.60	-0.37	20	46.1
0.00	4.39		✓		48.4	52	15.8		42.92	9.2	78	32	21.53	-644	-7.28	32	14.25	16	42.28				46.1
28.06	7.10		✓	82	14.2	52	3257			9.5		32	21.49				14.21	16	42.34				46.1
32.90	41.32		✓	31	27.0	50	48.2	5.5	19.58	5.8	73	32	9.59	-615	+4.91	32	14.50	53	24.40	18.60	+0.37	20	16
32.64	41.96		✓		49.1	50	54.4			5.6			9.67				14.53		24.59				2.1
				82	16.1	50	3780																
43.60	52.29		✓	31	27.5	53	34.1	9.3	42.94	9.4	78	32	28.76	-678	-7.18	32	21.58	40	25.76	18.60	-0.55	30	36.0
47.50	48.98		✓		47.8	53	40.3		42.96	9.5	78	32	28.68				21.50	40	24.37				26.6
49.58	48.77		✓	32	18.3	53	2984		44.78	9.6		32	29.08	-678	-19.15	32	21.90	40	24.06	18.60	-2.28	30	26.3
27.52	0.13		✓							9.0	83	32	26.38				21.90	40	24.06				26.3
26.32	1.64		✓							9.6		32	25.52				21.90	40	24.06				26.3
52.08	42.82		✓	31	32.7	53	10.2	9.4	42.98	9.1		32	27.84	-668	-7.21	32	20.63	17	20.74	18.60	-0.33	30	26.3
56.84	46.11		✓		48.0	53	16.4			9.1		32	27.86				20.65	17	21.88				26.3
				82	20.7	53	2935																
58.88	57.89		✓	31	34.3	53	12.3	9.1	42.98	8.7	78	32	28.63	-669	-7.21	32	21.42	19	32.78	18.61	-0.53	33	37.0
57.74	59.77		✓		48.0	53	18.5			8.9		32	28.76				21.55	19	34.12				38.3
				82	22.3	53	2937																
6.02	52.35		✓	31	35.2	49	50.1	8.7	39.87	8.7	77	32	29.35	-592	-4.96	32	24.29	56	44.72	18.61	-0.37	22	7.3
13.58	54.36		✓		49.5	49	56.3			8.5		32	29.24				24.28	56	44.90				7.7
				82	24.7	49	3908																
23.62	32.53		✓	31	35.8	54	22.8	9.1	11.84	8.9	71	32	13.56	-699	+9.49	32	23.05	17	21.57	18.61	+1.14	44	36.0
15.90	9.45		✓		47.4	54	29.0		36.20	8.9	76	32	25.45	-699	-2.37	32	23.08	28	53.74				35.7
15.36	8.89		✓	82	23.2	54	2822			9.0			25.88				23.01		53.11				34.5
2.12	44.61		✓	31	45.9	53	11.5	9.0	42.91	9.0	78	32	27.69	-669	-7.21	32	20.48	17	20.68	18.61	-0.68	33	24.4
2.09	42.35		✓		48.0	53	17.7			9.1		32	27.69	-19.23	-19.25	32	20.48	17	21.20				24.4
46.35	13.98		✓	82	33.9	53	2939		48.36	9.3	88	32	37.79	-668	-6.06	32	20.48	17	21.20	18.61	-0.68	33	24.4
40.40	11.08		✓									32	33.53	-666	-7.25	32	20.48	17	21.20	18.62	-2.28	30	17.0
																							17.0

1855phae.proj.17065

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42.22 ¹⁵²	31	57.6	51	55.9	9.0	26.16	8.9	74	32	37.78	-637	+244	32	40.22	2	0.25	+18.58+0.18.38	2	18.6	26.46	
46.04	14.56	0	48.6	+6.2			9.3		32	37.78				40.10	1	58.75			23.96		
	82	40.2	52	2.1						57.66									6.90		
			51	3428															6.54		
52.22 ¹⁸²⁶	32	1.7	51	17.9	9.0	12.30	9.0	71	32	40.34	-622	+950	32	50.14	23	1.22	18.62+114.48	24	15.7	27.7	
52.22 ¹⁸²⁶	49.9		51	24.1			9.2		32	40.34				50.27	22	58.24			1.3		
	32	50.6	51	3430						44.47									4.3		
36.25 ²⁰¹⁸	32	8.6	52	3.2	8.9	40.76	8.8	77	33	1.88	-637	-4.87	32	57.01	9	52.39	18.62-0.3724	9	17.15.2	1.7	
23.92 ¹¹⁵⁸		48.6	52	9.4		44.45	9.0	88	33	16.60	-638	-19.47	32	57.13	11	44.35	18.63-229.04	9	15.5	2.0	
22.48 ¹²³³	32	57.2	52	32.52			9.1		33	16.48				57.01	11	44.70			15.7		
52.22 ²⁹⁶⁸	32	23.5	52	46.6	9.3	39.57	9.0	77	33	17.35	-650	-4.84	33	12.51	47	25.35	18.63-0.3726	46	48.1	26	
17.60 ^{29.96}		46.3	52	46.8			8.8		33	17.3323				12.39	47	23.87			45.5		
	33	11.8	52	3254															4.5		
17.64 ⁵⁴⁹⁸	32	25.5	53	57.41	9.4	33.20	9.1	75	33	13.70			33	13.70	3	37.73	18.63	3	37.7	4.9	
18.22 ^{56.13}		47.7	52	3.6		33.22	9.3			13.46				13.46	3	37.48			37.5	4.9	
20.96 ^{53.78}	33	13.2	53	29.42			9.1			13.53				13.53	3	36.09			36.1		
12.68 ^{35.74}	32	25.4	51	37.4	9.0	26.30	9.0	74	33	11.80	-626	+2.45	33	14.25	43	17.14	18.63+0.18.63	43	35.8	3.1	
8.96 ^{35.86}		48.8	51	43.6			9.0			11.85				14.30		17.43			36.5	2.8	
	33	14.5	51	3433																	
21.82 ^{54.19}	32	26.2	51	36.9	9.5	33.52	9.0	95.75	33	14.37 ^{33.529}			33	14.37 ^{33.529}	43	35.69 ^{43.512}	18.63	43	35.1	4.3	
22.22 ^{58.25}		48.8	51	43.1		40.50	8.8	94.77	33	19.45 ^{33.2030}	-625	-4.89	14.59	15.41	44	11.75 ^{33.4414}	-0.3726	44	34.5	4.5	
38.08 ^{11.63}	33	15.0	51	3434			8.8		33	19.11 ^{33.2011}			14.22	15.22	44	12.95 ^{33.4420}			35.7	4.0	
39.72 ^{16.36}																					
5.86 ^{38.47}	32	27.9	54	49.0	9.0	36.13	8.8	77	33	19.96	-703	-4.74	33	15.82	55	34.11	18.63-0.3726	54	56.9	3.2	
3.44 ^{31.04}		47.8	54	55.2		36.32	8.8	76	33	17.63	-703	-2.37		15.26	55	44.96	-0.18.63		56.3		
14.62 ^{57.68}		2	54	2824			9.6			29.39	-702	-2.37		27.02		44.74			23.1		
21.17 ^{58.18}	33	15.1				40.107	8.8	77	32	19.55	-703	-4.74		14.81	55	32.36	-0.3726	54	55.1		
20.56 ^{57.87}							8.5			19.68				14.94	25	32.76			55.5		
26.68 ^{32.00}	32	26.0	50	19.6	8.8	19.48	8.5	73	33	12.73	-598	+4.95	33	17.68	26	15.08	18.63+0.3726	25	52.3	5.4	
56.46 ^{29.86}		47.4	50	25.8			8.8			12.65				17.60		12.52			49.8	5.4	
	33	17.4	50	3772																	
18.14 ^{28.91}	32	29.5	54	14.4	9.4	11.84	9.5	71	33	8.08	-689	+9.53	33	17.61	19	17.71	18.63+114.52	19	32.2	5.4	
10.28 ^{6.46}		47.6	54	20.6		36.28	-76		33	19.80	-688	-2.38		17.42	20	51.35	-0.18.63		32.7	5.4	
	33	47.1	54	2825																	
17.18 ^{12.86}	32	38.7	52	32.9	8.9	45.24	8.9	83	33	46.81	-653	-19.35	33	27.46	1	42.58	18.64-0.3726	59	13.4	12.1	
36.68 ^{11.91}		48.3	52	59.1			8.8			33.46.72				27.37	1	41.72			59	12.5	12.1
	33	27.0	52	3255																12.1	
3.16 ^{52.41}	32	40.3	52	29.8	9.1	42.88	9.4	78	33	49.32	-650	-7.29	33	42.03 ³⁵	34.25 ³⁵	34.25 ³⁵	18.64-0.3726	34	38.3	5.4	
1.14 ^{44.17}		48.4	52	36.0			8.5	9.1	33	35.78 ^{49.34}	-684	-7.28	33	42.06 ³⁶	36.33 ^{32.74}	36.33 ^{32.74}			38.5	5.4	
19.71 ^{52.93}			52	3256		49.58	9.3	85	33	53.56	-643	-24.29	33	29.27 ³⁸	14.33	18.65-8.650	35	7.8	33.1	5.4	
46.32 ^{39.31}	33	28.7				49.63	9.0	85	33	52.85				28.56 ³⁸	13.20				35	6.7	33.1
47.22 ^{45.54}	32	45.0	52	6.7	8.1	42.92	8.4	78	33	41.23	-634	-7.31	33	33.92	14	23.58	18.64-0.3726	14	27.7	1.1	
47.68 ^{48.20}		48.6	52	12.9			8.4		33	41.09				33.78	14	23.03			27.1	7.1	
	33	33.6	52	3257																	
41.44 ^{26.54}	32	51.9	51	4.1	9.0	12.30	8.9	71	33	31.35	-612	+9.84	33	41.19	9	8.93	18.65+114.60	10	23.5	4.1	
42.38 ^{22.34}		49.1	51	10.3			9.0			31.45				41.29		5.17			19.8	33.1	
	33	41.0	51	3436																33.1	
1.92 ^{22.09}	33	8.5	54	9.2	8.2	40.108	8.4	77	34	0.40	-681	-4.78	33	55.62	15	55.49	18.66-0.3732	15	18.2	1.6	
6.72 ^{46.69}		47.7	54	15.4		49.51	8.4	85	34	19.79	-680	-2.92	33	55.87	18	24.39	18.66-36.60	15	17.8	4.3	
	33	56.2	54	2827																	
16.42 ^{21.86}	33	8.9	50	24.7	8.8	19.58	9.1	73	33	53.09	-595	+4.95	32	58.04	30	39.1	18.66+0.3732	30	41.2	5.5	
16.20 ^{22.06}		44.5	50	30.9			9.0			53.07				58.02		5.01			42.3	5.5	
16.02 ^{22.09}	33	53.4	50	3775			9.2			53.03				57.98		4.68			42.0		
57.03 ^{4.61}						49.55	8.9	85	34	9.50	-594	-24.78	33	44.72	28	36.60	18.66-36.60	28	36.0		
														33	44.72				36.0		
														33	44.72				36.0		

36.46	27.642	33	10.8	54	30.41	8.2	40.76	8.477	34	1.89	-6.90	-2.38	33	57.13	37	40.49	+18.66	-0.37	32	27	32	
23.96	55.77	0	47.6		+6.2		44.46	8.083	34	16.61	-6.90	-19.06	33	57.55	39	31.34	18.66	-2.29	28	37	21	
6.70	59.36	33	58.4	54	36.6		45.24	8.683	34	16.50				57.44	39	30.65				37	14	
6.54	0.13			54	28.28			8.3	34	16.66				57.60	39	31.28				37	2.0	
																				30	41.5	
7.24	24.44	33	31.0	50	24.0	7.5	26.18	8.6	55.74	33	55.48	18.07	33	57.94	34	20.50	18.67	+0	18.67	31	24.5	
5.978	26.83		44.5	50	30.2																	
1.370	12.67	34	15.5	50	37.80		44.59	7.0	83	34	40.44		-592	-19.84	34	20.60	18.67	-2.29	36	30	12.7	
4.324	11.63							7.3	83	34	40.53				34	20.71	32	4.104		30	11.8	
17.40	9.35	33	36.7	49	51.1	9.0	19.63	9.0	77	34	31.82	-580	-4.98	34	26.84	37	58.92	18.67	-0.37	34	57	
20.04	9.21		49.8	49	57.3			8.8			31.66				26.68	37	58.64				21.3	
		34	26.5	49	39.15																	
26.10	49.59	33	37.4	54	17.5	8.0	11.86	8.571	34	16.03	-6.82	+9.56	34	25.59	22	38.75	18.67	+1	14.68	22	53.4	
45.84	51.09		47.7	54	23.7		47.77	8.083	34	44.75	-6.81	-19.13	34	25.62	26	22.79	18.68	-2.29	44	23	53.4	
45.60	51.39	34	25.4	54	28.80			8.3		34	44.78				25.65	26	21.78			23	52.3	
49.66	38.49	33	40.6	50	31.7	9.41	19.48	9.573	34	25.70	-595	+4.95	34	30.65	37	21.57	18.67	+0.37	34	37	58.9	
49.34	37.48		49.4	50	37.9			9.3		25.51				30.46		20.33					57.7	
		34	30.0	50	37.84																	
31.86	9.44	33	44.7	51	19.7	8.8	26.30	8.774	34	30.97	-6.11	+2.46	34	33.43	25	57.46	18.67	+0.37	34	26	10.1	
28.06	11.01		49.1	57	25.9			8.7		30.92				33.38		52.45					11.1	
		34	33.8	51	34.37																	
44.84	7.70	33	52.6	53	55.6	8.9	33.22	8.775	34	40.88			34	40.88	1	50.21	18.68	-		1	50.2	
45.62	8.87		49.0	54	1.8			8.4		34	40.84			40.84	1	50.61					50.5	
48.34	8.56	34	40.6	53	29.45			8.5		34	40.89			40.89	1	50.44					50.4	
33.38	43.22	33	53.9	54	13.6	9.1	36.20	8.976	34	42.91	-1.77	-2.40	34	40.51	20	27.72	18.68	-0	18.68	20	9.0	
32.86	43.26		47.8	54	19.8			9.0		42.85				40.45		27.97					9.3	
		34	41.7	54	28.31																	
51.06	0.81	33	55.6	53	43.6	9.5	42.88	9.39278	34	40.14	-6.66	-7.22	34	32.92	34	44.38	18.68	-0.56	04	49	48.0	
5.92	0.82		49.1	53	49.8			9.091		34	40.48	57.12		33.26	43.70	50	43.04	18.68	-0.56	04	49	47.8
5.92	0.82		8.0	53	29.46	(5329.44)	36.32	9.476		34	46.72	-6.65	-2.41		44.31	50	5.55	-0.16	68	49	46.9	
52.54	22.98	34	43.6					9.4		34	46.70				44.27	50	5.43	-0.37	36	49	46.8	
31.74	22.88							9.577		34	49.26	-6.64	-4.82		44.44	50	2.294	-0.37	36	49	46.6	
50.10	49.69	33	56.3	50	19.7	9.2	33.94	9.075	34	46.37	-5.88	-4.97	34	46.37	25	55.07	18.68	-		2.5	55.2	
53.88	17.39		49.8	50	25.9			9.3		33	57.96			38	57.96	30	41.25	-0.37	36	30	41.7	
59.42	2.78		4	50	37.87		39.57	9.277		34	57.29	-5.88	-4.97	34	46.32	26	31.27			25	53.9	
27.98	38.54	34	45.7					8.8		34	57.32				46.35	26	32.69				55.5	
55.68	41.69																					
12.62	41.68	34	5.1	50	50.8	8.5	19.58	8.473	34	49.28	-5.98	+4.95	34	54.23	56	24.56	18.69	+0.37	38	57	19	
12.40	40.91		49.2	50	57.0			8.8		49.26				54.21		23.91					1.3	
12.26	41.47	34	54.5	50	37.88			8.5		49.26				54.21		24.28					1.7	
54.90	30.07	34	5.1	51	58.2	9.1	12.30	9.471	34	44.51	-6.23	+9.50	34	54.61	3	13.72	18.69	+1	14.76	4	28.5	
55.54	26.62		49.0	52	4.4			9.4		44.59				54.39		10.66					25.4	
		34	54.0																			
1.10	57.63	34	14.2	54	48.8	9.4	40.36	9.177	35	4.92	-6.90	-4.76	35	0.16	55	37.38	18.69	-0.37	38	55	0.0	
7.36	58.28		47.5	54	55.0			9.3		35	5.06			0.30	55	37.06				54	59.7	
		35	1.7	54	28.32																	
46.08	51.04	34	17.6	50	47.8	7.8	40.76	2.278	35	11.56	-5.95	-7.43	35	4.23	54	21.69	18.69	-0.56	07	53	28.6	
38.80	40.28		49.4	50	54.0		44.46	7.0	83		-5.95	-19.82	35	6.67	56	12.11	18.70	-2.29	60	53	42.5	
38.18	40.58	35	7.0	50	37.89			8.0		35	27.14				7.32	56	12.05				53	42.4
1.62	20.33	34	21.6	51	31.2	8.8	39.63	8.877	35	15.24	-6.10	-4.92	35	11.02	38	21.93	18.69	-0.37	38	37	44.5	
4.86	32.20		49.1	51	37.4			8.8		35	15.87			10.95	38	22.96					45.6	
		35	10.7	51	34.42																	
55.12	59.64	34	25.5	53	55.5	6.0	42.91	5.978	35	24.61	-6.85	-7.28	35	13.36	12	38.25	18.70	-0.56	10	11	42.1	
55.12	59.79		48.0	53	71.7			6.0		35	20.66			13.38	12	38.09					42.0	
		35	13.5	53	29.50																	
			9	53	29.50																	

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41.04	253.02	34	29.8	52	19.5	9.1	40.57	90	77	35	22.68	-675-479	35	17.89	26	30.14	+18.70-0.37	40	52.7		
41.08	54.86	0	47.8		+6.2			90		35	22.67			17.88	26	31.09			53.9		
41.52	24.88	35	17.6	54	25.7		40.59	89	77	35	22.52			17.73	23	59.36		23	40.7		
50.08	57.00			54	28.33			91		35	22.76			17.97	26	32.02		25	54.6		
42.22	19.80	34	30.0	54	52.1	8.0	11.86	80	71	35	8.12	-689+9.53	35	17.65	57	40.6	18.70+14.80	58	23.9		
42.78	19.92		47.6	54	58.3		44.59	84	83	35	36.68	-689-19.06	35	17.62	0	53.31	18.70	22.960	58	23.7	
49.66	19.07	35	17.6	54	28.34			85		35	36.95			17.89	0	52.44		58	22.8		
47.44	56.10	34	38.9	52	18.3	9.3	33.36	94	75	35	30.85		35	30.88	23	36.17	18.71		25	36.2	
50.90	35.71		48.8	52	24.5		44.77	92	83	35	42.64	-625-19.58	35	30.11	26	53.30	18.71	-22.968	23	35.6	
50.34	52.84	35	27.7	52	32.63		78	93		35	47.79	35	49.46	28.21			26.7.57			37.9	
40.22	27.98	34	41.1	50	18.3	9.0	26.18	87	74	35	28.44	-583+2.49	35	30.93	24	11.26	18.71+0.18	71	24	30.0	
49.22	31.88		47.7	50	24.5		26.32	92	74	35	28.31			30.80	24	13.09				31.8	
45.33	31.08	35	30.8	50	37.90			88			28.35			30.84		11.67				30.4	
57.14	38.20	34	48.3	50	37.8	9.1	19.48	90	73	35	33.17	-589+4.97	35	38.14	43	21.62	18.71+0.37	42	59.0		
57.12	36.90		49.6	50	44.0			90			33.28			38.25		19.98				57.4	
		35	37.9	50	37.92																
43.10	17.45	34	50.0	53	10.0	9.0	33.22	86	75	35	38.30		35	38.30	15	58.68	18.71		15	58.7	
45.82	18.11		48.4	53	16.2			83		35	38.33			38.33	15	59.04				59.0	
		35	38.4	53	29.52																
38.22	32.82	34	57.9	54	15.3	8.7	36.20	89	76	35	47.72	-670-2.40	35	45.32	22	16.20	18.71-0.18	71	24	57.4	
37.60	33.84		47.9	54	21.5			88			47.57			45.17		17.76				59.0	
		35	45.8	54	28.36																
51.92	24.84	35	2.9	51	0.2	7.1	12.30	60	71	35	41.81	-595+14.91	35	51.72	5	7.11	18.72+14.88	6	22.0		
52.60	21.60		49.4	51	6.4			70			41.63			51.54		4.27				19.2	
		35	5.23	51	34.44																
31.68	15.60	35	24.0	50	10.3	8.3	19.58	83	73	36	8.32	-575+4.99	36	13.31	15	57.80	18.73+37.46	16	35.3		
31.34	15.04		49.8	50	16.5			83			8.37			13.36		57.41				34.9	
31.34	16.49	36	13.8	50	87.94			83			8.32			13.31		58.31				35.8	
0.00	15.03	35	29.8	53	19.5	8.8	39.57	87	77	36	23.09	-643-4.86	36	18.23	26	11.07	18.73-0.37	46	25	33.6	
7.54	16.19		48.8	53	25.7			83		36	22.65			18.09	26	10.59				33.1	
22.90	54.06			53	29.57		33.32	85	75	36	18.09			18.09	25	31.48				32.0	
6.36	8.67	36	18.2				36.32	87	76	36	20.50	-643-2.43		18.07	25	50.86	-0.18	73		32.2	
5.88								88			20.60			18.17							
25.26	59.10	35	36.6	54	38.4	9.0	11.86	90	71	36	15.27	-675+9.59	36	24.86	43	48.28	18.73+14.92	45	3.2		
51.34	57.21		47.4	54	44.6		44.46	82	83	36	43.96	-674-19.18	36	24.78	47	33.44	18.74	-22.992	45	3.5	
50.08	57.93			54	28.37		47	92		36	44.01			24.83	47	33.56				3.6	
47.42	57.92	36	24.4				44.60	88	83	36	44.09			24.91	47	31.30				1.4	
46.78	58.37							90		36	44.05			24.87	47	31.81				1.9	
53.08	20.71	35	41.1	53	37.6	8.0	33.36	90	75	36	29.65			36	29.65	44	2.08	18.74		44	2.1
31.12	26.94		48.4	53	43.8			91			29.76			29.76	44	2.22				2.2	
50.44	57.09	3	53	29.58		44.98		80	83	36	42.20	-647-19.40	36	28.80	46	32.57	18.74	-22.992	44	2.6	
50.04	57.09	36	29.7					77		36	42.14			29.74	46	31.55				1.4	
44.40	11.80	36	5.1	52	5.0	8.9	26.18	85	74	36	52.63	-611+2.46	36	53.09	10	66.78	18.75+0.18	75	11	15.6	
45.76	0.24		49.1	52	11.2		39.63	87	77	37	0.03	-610-4.92		53.11	11	52.53	-0.37	50	112	15.3	
46.52	1.53	36	54.2	52	32.69			88		36	59.98			53.06	11	53.89				15.9	
56.92	37.10	36	8.8	52	48.4	9.4	26.82	94	74	36	56.01	-627+2.44	36	58.45	54	20.74	18.75+0.18	75	54	39.5	
57.24	38.42		48.8	52	54.6			94			56.11			58.55		21.82				40.1	
		36	57.6	52	32.70																
57.00	31.88	36	9.2	51	48.5	8.5	12.18	85	71	36	48.54	-605+9.97	36	58.41	53	15.73	18.75+15.00	54	30.7		
57.38	35.75		49.3	51	54.7			85			48.42			58.29		14.60	14.40			34.6	
57.60	37.65	36	88.5	51	34.47			85			48.48			58.35		24.17	15.20			36.4	
																				30.2	
16.33	58.85	36	19.9	52	2.7	8.0	40.36	78	77	37	14.77	-608-4.95	37	9.84	9	35.60	18.76-0.37	52	8	58.1	
17.14	0.08		49.2	52	8.9			82		37	14.91			9.98	9	35.86				58.3	
		37	9.1	52	32.71																

33.68 223.23	36 25.6	51 26.0	8.3	19.50	84.73	37 9.70	-595+495	37 14.65	31 47.28	+18.76+0.37.52	32 24.8
33.60 3.98	0 49.5	+6.2			7.8	9.76		14.71	47.67		25.2
	87 15.0	51 3449									
7.28 53.78	36 25.9	53 8.8	6.0	36.22	6.0 76	37 16.76	-632-2.44	37 14.32	15 37.02	18.76-0 18.76	15 18.3
6.68 53.38	48.7	53 15.9			5.5	16.66		14.22	36.77		15.0
	87 14.6	53 2960									
0.06 22.38	36 29.4	53 29.4	7.3	39.58	7.3 77	37 23.12	-640-4.86	37 18.26	36 18.80	18.76-0.37.52	35 18.3
7.74 25.28	48.5	53 35.6			7.8	37 23.12		18.26	36 19.92		42.4
6.62 16.50	37 17.9	53 2961	36.32		7.5 76	37 24.75	-640-2.43	18.32	35 58.51	-0 18.76	40.0
6.10 16.98					7.3	20.81		18.38	37.53		40.8
34.40 23.81	36 40.0	52 23.9	9.4	33.22	9.2 75	37 29.57		37 29.57	30 4.59	18.77 -	30 4.6
37.14 23.60	49.1	52 30.1			9.2	29.62		29.62	30 4.14		4.1
	87 29.1	52 3272									
52.02 2.06	36 41.6	50 17.4	8.8	19.58	8.8 73	37 26.64	-569+5.01	37 31.65	22 44.38	18.77+0.37.54	23 20.9
49.92 2.148	50.0	50 23.6			8.8	26.75		31.76	44.95		22.5
49.74 1.144	87 31.6	50 3797			8.8	26.71		31.72	43.54		22.1
0.80 19.18	36 46.5	50 1.0	8.5	40.51	8.3 77	37 41.17	-562-5.02	37 36.15	7 50.23	18.77-0.37.54	7 12.7
2.00 17.94	50.1	50 7.2		40.60	8.7 77	37 41.05		36.03	7 49.39		11.8
12.38 20.10	87 86.6	50 8798			8.1	41.31		36.29	7 49.79		11.2 12.2
22.78 6.18	36 47.2	53 15.0	9.4	42.89	9.4 75	37 57.29	-630-7.33	37 49.96	21 46.40	18.77-0.36.31	20 50.1
32.26 5.04	48.7	53 21.2		44.47	9.4 83	37 58.86	-632-19.52	37 36.34	23 40.27	18.78-2.30.24	21 10.0
52.26 9.41	87 35.9	53 2962		44.60	9.3 83	37 58.93		36.41	23 41.76		21 11.5
58.72 9.41					9.6	37 58.94		36.42	23 41.65		21 11.4
37.94 52.58	36 59.3	53 59.7	7.4	39.63	7.8 77	37 52.08	-648-4.84	37 47.23	6 47.39	18.78-0.37.56	6 9.8
40.78 53.38	48.8	54 5.9			7.0	37 52.09		47.24	6 47.59		10.0
	37 47.6	3 63 2963									
56.46 19.23	36 59.4	50 55.7	9.2	33.36	9.1 75	37 48.82		37 48.92	1 57.59	18.78 -	1 57.6
50.56 19.90	49.7	51 7.9			9.2	48.08		47.08	58.30		58.3
26.34 51.08	87 49.1	50 3799	40.76		9.0 77	37 53.79	-580-4.96	48.81	2 35.19	-0.37.56	2 57.6
6.04 50.71	37 6.9	51 49.6	9.5	26.18	9.5 74	37 54.25	-598+2.47	37 56.72	55 35.48	18.78+0 18.78	55 52.3
55.22 52.72	49.4	51 55.8		26.44	9.8 74	37 54.30		56.77	55 35.25		54.0
5.18 57.09	87 86.3	51 3451	40.42		9.5 77	38 1.61	-598+4.95	56.66	56 32.71	-0.37.56	55.2
13.18 56.98					9.4	38 1.65		56.70	56 31.16		53.9
46.90 51.65	37 14.6	50 42.9	8.5	42.91	8.6 78	38 12.51/2.51	-573-7.50	38 5.01	50 28.26	18.79-0.36.37	49 31.9
35.80 5.18	49.9	50 49.1			9.1 62	38 1.33 12.51	-575-7.49	38 5.01	49 41.39		48 45.0 81.0
46.98 50.70	38 4.5	50 3802									
10.10 11.69	37 20.4	51 27.7	8.7	12.18	9.2 71	37 59.63	-590+9.93	38 9.56	32 55.10	18.79+0 18.16	34 10.3
10.52 11.62	49.6	51 33.9			8.8	59.50		9.93	54.97		10.4
9.64 12.58	38 10.0	51 3452			9.1	59.50		9.43	55.73		10.9
31.06 54.28	37 36.8	52 53.1	9.2	32.24	8.5 75	38 26.20		38 26.20	39 35.59	18.80 -	39 35.6
33.74 54.59	49.0	52 59.3			8.7	26.18		26.18	39 35.59		35.6
	88 28.8	52 3274									
37.02 7.92	37 48.5	54 35.1	8.7	11.76	9.1 71	38 26.88	-657+9.66	38 36.54	39 57.37	18.80+0 18.20	41 12.6
37.06 7.21	48.2	54 41.3			9.2	26.93		36.59	39 56.40		41 11.6
	38 36.7	54 2843									
18.20 15.47	37 59.0	50 3.1	8.2	44.47	8.8 83	39 9.81	-555-20.14	38 49.67	11 46.77	18.81-2.30.48	9 16.3
16.08 15.10	50.2	50 9.3		44.59	8.8	39 10.01		49.87	11 45.73		9 15.2
13.24 17.57	38 49.2	50 3807			- 83	39 9.89		49.75	11 46.41		9 15.9
12.66 16.85					8.2	39 9.87		49.73	11 45.80		9 15.3
12.96 14.53	38 3.5	50 21.3	9.5	19.50	9.5 73	38 46.95	-561+5.02	38 53.97	26 57.49	18.81+0.37.62	27 34.1
12.88 13.95	50.1	50 27.5			9.7	49.00		54.02	26 56.48		34.1
	88 53.6	50 3808									

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22.46	38	12.6	50	41.2	75	19.66	75.73	38 58.05	-567+5.01	39	3.26	46	51.32	+18.82+0.37.64	17	29.0	30.7		
7.50	0	58.0		+6.3			7.2	58.189			3.20		50.250			27.8	32.2		
7.55	89	2.6	50	3809			7.8	58.14			3.15		50.205			27.9	32.2		
112.4	38	16.3	51	25.9	9.3	12.18	9.4	71	38 56.53	-582+9976	39	6.49	30	51.43	18.82+115.28	32	9.7	2.2	
10.33							9.0		56.53			6.49		53.71			9.0	1.8	
6.72	39	49.7	51	32.2			9.3		56.57			6.53		53.76			9.0		
570.8.56.8	38	17.5	54	49.6	8.5	36.22	8.7	76	39 6.52	-659-2.41	39	4.11	56	19.44	18.82-0.18.82	56	0.6	3.2	
56.80 34.42		18.8	54	55.9			8.9		6.71			4.30		18.69			59.8	33.3	
	39	5.6		54	2846														
25.98 21.96	38	32.3	52	59.9	7.5	33.24	7.0	78	39 21.12		39	21.12	6	2.79	18.82		2.8	37.7	
28.88 22.29		49.8	53	61.2			7.4		21.32			21.32	6	2.78			2.8	31.6	
	39	2.13	52	3280														26.7	
32.24 23.44	38	33.4	51	59.3	9.0	26.18	8.9	74	39 20.42	-592+2.48	39	22.90	5	8.26	18.83+0.18.83	5	27.1	36.3	
21.34 25.72		49.5	52	5.6		26.44	9.0	74	39 20.40			22.88	5	8.29			27.1	34.6	
31.40 29.42	39	22.9	51	3457		40.42	8.8	77	39 27.81	-591-4.96		22.85	6	5.71	-0.37.66		27.4	35.5	
39.34 27.52							8.6		39 27.79			22.83	6	3.98			26.3		
14.16 25.98	38	37.5	51	51.7	8.8	33.36	8.8	75	39 26.63		39	26.63	58	5.09	18.83		5.1	1.0	
28.10 26.80		49.5	51	58.0			8.7		26.62			26.62		5.74			5.7	10.1	
23.20 27.44	39	27.0	51	3458			9.0		26.57			26.57		7.23			7.2	5.1	
																		2.1	
8.74 18.40	38	37.9	53	30.3	9.0	39.58	8.9	77	39 31.79	-624-4.70	39	26.87	37	14.92	18.83-0.37.66	36	37.3	32.9	
16.40 22.04		48.9	53	36.6			8.7		39 31.77			26.87	37	16.74			39.1	39.1	
9.92 2.80	39	26.8	53	2969		412.89	9.3	78	39 8.93	-627-7.34	39	1.59	25	45.47	-0.56.49	24	49.0	16.1	
34.40 9.85						36.32	9.4		39 8.95			1.61	25	45.62			49.2	27.2	
15.12 9.86							9.0	76	39 27.22	-624-2.45	39	26.77	36	56.62	-0.18.83	36	36.3	47.1	
15.12 10.84							8.9		39 27.22			26.77	36	56.62			36.3	47.1	
11.60 8.08	38	43.4	53	5.8	8.3	40.76	8.3	77	39 37.11	-661-4.82	39	32.29	12	42.50	18.83-0.37.66	12	42.8	29.3	
53.00 3.29		47.9	53	12.1		44.79	8.2		39 37.11	-660-19.30	39	32.41	14	35.75	18.84-2.30.72	12	5.0	29.3	
2.74 3.60	39	31.3	55	2800			8.2		39 37.80			32.50	14	35.73			5.0	19.3	
1.32 44.81	38	48.3	51	45.1	7.0	40.51	6.7	77	39 41.61	-585-4.97	39	36.64	52	16.98	18.83-0.37.66	51	39.2	58.6	
2.74 41.91		49.7	51	51.4		40.60	7.9	77	39 40.78			36.76	52	16.70			39.0	58.6	
12.42 44.84	39	37.9	51	3460			6.0		39 41.78			36.81	52	16.04			37.4	38.4	
18.70 18.68	38	48.5	52	32.5	7.5	40.36	8.0	77	39 42.55	-601-49.4	39	37.61	39	25.72	18.83-0.37.66	38	48.1	17.2	
4.490 48.96		49.3	52	38.8			8.0		39 42.62			37.68	39	25.01			47.4	14.1	
	39	37.8	52	3281														14.1	
6.24 27.19	38	50.8	53	14.9	9.0	44.48	9.2	88	39 59.31	-619-19.62	39	39.69	29	2.82	18.83-2.20.72	26	32.1	14.1	
1.70 29.09		49.0	53	26.2			9.0		39 59.59			39.77	29	1.81			31.1	14.1	
1.98 30.27		48.9	53	2971		44.59	8.0	83	39 59.62			40.00	29	3.08			32.4		
2.36 30.90	39	39.7					8.4		39 59.46			39.84	29	3.58			32.9		
2.56 40.40	39	11.4	54	12.4	9.0	11.76	8.8	71	39 52.42	-637+9.74	40	2.16	19	29.95	18.84+115.36	18	46.3	46.6	
2.58 39.39		48.6	54	18.7			8.9		52.45			2.19		28.46			43.8	50.1	
	40	3.0	54	2819														33.7	
																		33.2	
25.72 33.85	39	17.1	50	43.5	8.0	19.50	8.4	73	40 1.70	-561+5.22	40	6.72	49	17.26	18.85+0.37.90	49	55.2	40.0	
25.66 34.50		50.1	50	49.8			8.0		1.77			6.79		17.39			55.3	37.5	
	40	7.2	50	3817															
7.50 19.1	39	23.4	53	57.4	8.4	42.93	8.2	88.78	40 18.51	-629-6.27	40 11.98	26.01	41	41.32	246.09	18.85-0.56.55	3	44.8	26.4
10.09 8.09		48.8	54	3.7			7.4	88	210 18.84	33.54		11.51	26.20	41	35.74	45.58	42.2	47.0	
10.34 8.28	40	12.2	53	2973		40.108	8.0	77	40 16.27	-629-4.89	40 11.38	26.20	41	21.92			44.0	47.0	
17.90 9.27							7.8		16.29		40 11.40	26.20	41	22.72			44.8		
17.18 49.38																			
7.06 17.78	39	28.4	50	33.3	7.8	19.60	8.0	73	40 13.65	-556+5.81	40 18.68	20	20.39	18.85+0.37.90	39	58.3	25.1		
26.94 37.65		50.2	50	39.6			7.9		13.44			18.77	20	20.40			58.3	32.7	
6.72 37.64	40	18.6	50	3818			7.8		13.65			18.68	20	20.23			58.1		
11.04 44.81	39	32.3	54	10.7	8.9	36.22	8.5	76	40 22.47	-633-2.44	40 20.03	17	45.07	18.85-0.18.85	17	29.2	50.0		
2.50 4.52		48.7	54	17.0			8.8		22.41			19.97		45.25			29.4	44.4	
	40	21.0	54	2851														38.8	

(40)

244082	244082	40	52.2	57	26.0	9.1	12 18	9.2	71	41	34.47	-564+10.03	41	44.50	31	4.65	+1890	+115.60	32	30.2		
44.58	44.58	0	50.1		+6.3			9.1			34.161			44.47		4.07				19.7		
44.58	44.58	0	57	32.3				9.2			34.40			44.43		4.06				19.7		
41	44.2	51	3446																			
238	5572	40	52.5	53	11.3	8.6	42 89	8.5	78	41	51.37	-600-7.44	41	43.95	18	34.27?	1890	-05670	17	40.1		
1674	54.13		49.3	53	17.6			8.0		41	57.21			43.99	18	34.27?				37.6		
41	43.8	53	2985																			
5708	54.38	1148	40	52.5	52	59.3	8.2	42 91	8.3	78	41	55.91	-595-7.43	41	4848	6	50.26	1890	-03670	5	53.6	
56.80	530.50	12.42	49.8	53	5.6			8.1		41	55.94			48.51	6	50.98				44.5543		
41	47.8	52	3293																			
2598	1202	5114	41	3.0	57	21.9	8.9	19 60	8.7	73	41	118.61	-561+5.02	41	53.63	27	34.48	1890	+037.80	28	12.3	
28.85	1194	5187		50.1	57	28.2			9.0		46.73			53.75		34.55				12.4		
1190	5182	41	53.1	51	3467			9.0			46.82			53.84		34.60				12.4		
32.24	2740	3785	41	13.4	53	59.3	7.6	40 51	8.0	77	42	7.58	-616-4.91	42	2.67	6	1299	1890	-037.80	5	35.2	
21.34	895	4085		49.0	54	5.6		40 108	7.8	77	42	7.30			2.39	6	1306			35.3		
31.40	846	3898	42	2.4	53	2987			6.6		7.52			2.61		12.64	90			34.9		
39.34	30.14	28140						4448	8.4	83	42	22.65	-615-19.66	42	2.99	8	4.03	1891	-23128	5	32.8	
	2844	3536							7.5		42	22.29			2.63	8	10.72			39.4		
44.16	52.80	4424	41	17.3	52	37.3	7.0	42 93	6.8	78	42	14.16	-585-7.46	42	6.70	44	22.12	1891	-05673	43	26.4	
28.10	20.84	4740		49.6	52	43.6			6.5		42	14.09			6.63	44	22.50			26.87		
23-20	57.26	2992	42	6.9	52	3295		40 92	7.5	77	42	11.49	-585-4.97		6.52	44	5.01			23.2		
8.74	26.50	6.58	41	28.6	57	10.4	8.8	83 38	8.3	75	42	18.91		42	18.91	16	44.95	1891		16	45.0	
16.40	20.54	6.68		50.2	57	16.7			8.8		19.00				19.00		44.93			44.9		
19.92	1572	5.33	42	18.8	57	3469			8.5		19.22				19.22		44.09			44.1		
34.60																						
11.80	34.94	54.03	41	35.0	52	53.3	9.0	26 18	8.8	74	42	23.10	-589+2.48	42	25.58	59	42.22	1892	+18.92	10	1.1	
53.00	32.26	5745		49.5	52	59.6			9.0		23.20				25.68		42.32			1.2		
52.74			42	24.5	52	3296																
1.32	24.52	35.84	41	35.9	52	3.1	9.0	26 22	9.0	74	42	23.58	-572+2.50	42	26.05	9	18.12	1892	+18.92	9	37.0	
2.74	20.72	57.84		49.9	52	9.4			9.0		23.51				26.01		19.27			38.3		
11.92			42	25.8	52	3297																
3870	47.58	4344	41	37.2	50	21.8	9.2	19 50	9.0	73	42	23.53	-537+5.07	42	28.60	31	26.62	1892	+18.92	31	44	
4490	47.40	4325		50.6	50	31.1			9.0		23.48				28.55		26.05			3.9		
			42	27.8	50	3828																
6.74	38.16	50.67	41	43.2	57	57.8	9.0	33 24	8.5	75	42	33.25		42	33.25	4	31.74	1892		4	31.7	
5.70	41.02	51.83		50.0	52	4.1			8.5		42	33.38			33.38	4	31.25			31.2		
2.98			42	33.2	57	3470																
2.36																						
2.56	12.52	27.18	41	47.1	57	12.3	7.8	12 20	8.5	71	42	8.99	-538+10.06	42	19.05	15	27.42	1892	+115.68	16	43.1	
2.58	38.02	2.46		50.3	57	18.6			6.5		27.75	-553+10.08		37.83	17	55.66	17		19	11.3		
			42	37.4	57	3471			8.0		27.82			37.70	15	45.06	54.82			19	11.3	
53.30	13.93							4514	-83		42	38.05	552-20.16	42	37.89	21	41.56	1893	-231.44	19	10.1	
51.86	15.38							13	82		42	58.10		42	37.94	21	43.39			19	11.9	
25.72	57.02	13.44	42	15.3	53	15.9	9.0	36 22	9.1	76	43	7.42	-592-2.48	43	4.94	22	66.06	1893	-018.93	22	37.1	
25.66	57.48	12.34		49.5	53	22.2			8.9		7.35				4.87		63.18			36.2		
			43	4.8	53	2991																
57.50	22.48	58.93	42	25.1	53	23.3	8.6	33 38	8.0	75	43	15.93		43	15.93	29	39.65	1894		29	39.6	
52.00	7.28	58.93		49.5	53	29.6			8.8	94		16.02			16.02		39.44			39.4		
50.24	50.60	58.87	43	14.6	53	2992			8.7			15.98			15.98		39.90			39.1		
17.90																						
17.18																						
27.08	57.60	20.98	42	25.2	54	11.3	9.0	11 76	9.0	71	43	5.43	-612+9.84	43	15.27	17	10.50	1894	+115.76	18	26.3	
26.90	15.70	19.08		49.0	54	17.6			9.0		5.54				15.38		8.16			23.9		
14.72			43	14.2	54	2864																
14.04	42.74	3191	42	30.0	55	2.1	8.7	40 51	8.9	77	43	22.88	-630-4.88	43	18.00	9	7.91	1894	-037.88	8	30.0	
2.50	57.58	34.06		48.7	55	8.4			40	77		43	22.84		17.96	9	8.46			30.6		
14.16	25.67		43	18.7	55	2874			8.5	83		43	37.72	-630-19.54	43	18.18	10	8.17	1895	-231.60	8	27.6
1.58	25.50								8.6			43	37.72		18.18	10	8.17			27.5		

20.2	29.2	29.3805	42	42.4	57	6.2	8.9	26.34	9.0	74	43	29.33	-545+2.53	43	32.46	12	19.71	+18.95	+0.18.95	12	38.7
19.7	27.32	40.04	0	50.4		+6.3			9.0			30.08			32.61		21.16			40.1	
197			43	32.8	57	12.5															
					51	3474															
40.1	52.16	58.72	42	42.6	50	8.9	9.2	19.60	9.2	73	43	28.71	-577+5.09	43	33.80	14	40.93	18.95	+0.37.90	15	18.5
37.6	52.12	0.08		50.8	50	15.2			9.1			28.88			33.97		42.20			20.1	
	52.00	58.86	43	33.4	50	38.23			9.2			28.89			33.98		40.53			18.4	
					3																
53.6	0.32	0.42	42	44.7	57	21.7	8.5	40.60	9.2	77	43	39.18	-612+4.92	43	34.26	28	35.27	18.95	-0.37.90	27	57.4
44.5	10.52	1.82		49.0	57	28.0			8.6			39.26			34.34	28	35.75			57.5	
			43	33.7	54	28.65															
12.3	25.06	53.35	42	47.4	53	39.2	6.0	36.34	6.0	76	43	39.11	-596-2.48	43	36.63	45	35.66	18.95	-0.18.95	45	16.4
12.4	24.48			49.4	53	45.5			6.4			39.10			36.62						
12.4	18.78	59.58	43	36.8	53	29.93	39.58		6.0	77	43	41.79	-596-4.95		36.84	45	35.76	-0.37.90		18.1	
	26.16	1.88							5.5			41.67			36.56		36.53			18.4	
	3.94	11.45					44.47		6.0	83	43	56.43	-596-19.81	43	36.62	47	47.00	18.95	-2.31.60	45	15.4
35.2	44.52	43.08	42	54.3	51	11.4	8.6	12.20	6.5	71	43	34.37	-546+10.10	43	41.17	17	26.13	18.95	+1.15.80	18	41.38
35.3	45.38	42.15		50.4	51	17.7			8.3			34.32			44.42		25.28			41.1	
34.9			43	44.7	51	3476															
32.8																					
39.4																					
26.4	16.82	56.68	43	7.7	50	12.9	7.0	19.52	7.0	73	43	52.75	-525+5.08	43	57.84	15	32.47	18.96	+0.37.92	19	17.4
28.87	16.66	55.84		50.8	50	19.2			6.5			52.72			57.81		35.39			16.3	
23.5			43	58.5	50	38.26															
					3																
45.0	4.00	42.48	43	8.0	50	43.1	9.4	33.26	9.5	75	43	59.06		43	59.06	49	21.08	18.96		49	21.1
44.9	6.92	42.80		50.6	50	49.4			9.5			59.25			59.25	49	20.84			20.8	
44.1			43	58.6	50	38.27															
					3																
1.1	21.75	47.78	43	32.3	51	49.5	9.2	26.34		74	44	20.75	-554+2.57	44	23.27	55	30.01	18.97	+0.18.97	55	49.0
1.2	17.72	48.78		50.3	51	55.8			9.2			20.47			22.99		30.35			49.3	
			44	22.6	51	34.81															
37.0	33.78	22.63	43	35.7	53	5.8	9.3	33.38	9.3	75	44	26.29		44	26.20	12	2.73	18.97		12	2.7
38.3	27.56	23.76		49.8	53	12.1		33.40	9.1			26.26			26.06		3.58			2.6	
	22.86	22.78		7	53	29.98			9.2			26.21			26.21		3.44			3.4	
			44	25.4																	
44	25.52	38.35	43	42.4	53	54.4	8.4	36.21	8.6	76	44	37.19	-595-2.46	44	37.71	7	21.36	18.98	-0.18.98	7	2.54
3.9	25.50	37.39		49.8	54	0.7			8.6			35.34			32.86		20.64			1.7	
	54.10	14.95		4	53	29.99	44.80		8.6	83	44	32.72	-595-19.82	44	32.90	3	36.92	18.98	-2.31.84	1	5.1
	53.62	4.66	44	31.8					8.6			32.59			32.77	3	36.50			4.7	
31.7	24.57	19.28	43	46.8	53	16.4	8.1	36.34	8.0	76	44	38.52	-581-2.49	44	36.03	23	0.57	18.98	-0.18.98	22	4.5
31.2	24.00	19.74		49.7	53	22.7			8.0			38.60			36.11		1.02			41.5	
	18.08	1.14	44	36.5	53	30.00	42.91		8.2	78	44	43.43	-581-7.47		35.96	23	40.34	-0.56.94		43.4	
	18.00	1.65							8.3			43.40			35.93	23	40.08			43.1	
43.1	46.98	9.05					40.92		8.3	77	45	11.4	-578-4.99		35.93	23	40.08	-0.37.96	16	3.5	
25.6	19.2	26.77	43	48.4	53	7.9	5.9	40.52	8.5	77	44	42.03	-622-4.99	44	37.13	15	32.5	18.98	-0.37.96	14	2.5
11.3	16.74	28.39		48.9	53	14.2		40.77	8.5	77	44	42.98			37.08	15	3.06			2.5	
0.1	4.22	18.90	44	37.3	55	28.20	44.47		6.4	83	44	36.68	-622-19.60	44	37.08	16	3.612	18.98	-2.31.54	14	24.3
10.1	2.46	21.86							5.8			36.47			37.07	16	3.804			26.2	
11.9																					
37.1	37.02	5.83	43	48.9	57	3.5	8.0	11.76	6.8	71	44	26.83	-599+9.89	44	36.72	9	55.00	18.98	+1.15.92	11	1.09
36.2	37.06	5.58		49.4	57	9.8			7.6			26.88			36.77		52.25			10.2	
			44	38.3	54	28.67															
39.6	3.02	26.41	43	53.2	50	54.7	8.6	19.60	8.5	73	44	39.57	-533+5.08	44	44.65	0	9.25	18.98	+0.37.96	0	47.2
39.4	2.96	26.83		50.7	51	11.0			8.4			39.71			44.79		9.72			47.7	
39.1	2.68	24.85	44	43.9	50	38.41	1		8.5			39.66			44.74		7.73			45.7	
26.3	57.40	0.28	43	57.3	49	54.9	6.8	40.42	6.7	77	44	53.81	-513-5.12	44	48.69	1	34.90	18.98	-0.37.96	0	56.9
23.9	5.24	0.96		51.1	50	1.2			7.0			53.68			48.56	1	34.23			56.3	
			44	48.4	49	39.54															
30.0	12.76	45.13	44	2.0	50	30.4	8.9	19.62	9.2	73	44	48.68	-524+5.10	44	63.78	34	25.22	18.99	+0.37.96	34	6x2
30.6	12.68	45.24		50.9	50	36.7			9.0			48.74			53.84		26.01			37	6.0
27.6			44	52.9	50	38.44															
27.5																					

1859nae,proj.1.1	22.23.08	44 6.1	53 9.4	8.0	3326	8.3 75	44 53.13	552 12 11 ¹⁵ 24	44 53.13	16	3.28	+18.99	16	4.0
	22.30	0 49.8	+6.3			8.2	56.41		56.41		2.86			2.9
16.34	58.70	44 53.9	53 16.0		43 13	7.8 83	43 16.11	-576-19.97	44 56.14	18	29.77	18.79	-2.31.92	16 57.8
7.14	6.95		53 3001		43 24	7.7 83	43 16.10		56.13	18	37.20			16 5.3
1.18	7.12					8.0	43 15.95		55.98	18	37.28			16 5.4
1.84	56.24	44 29.0	50 20.9	8.3	1978	8.5 73	45 14.57	-518+5.11	45 19.68	26	38.14	+19.00	+0.38.00	27 161
58.83		57.0	50 27.2			8.8	14.77		19.88		40.36			18.4
	45 20.0	50 38.46												
46.08	24.96	44 34.4	51 16.7	7.2	12 20	8.1 71	45 35.52	-534+10.15	45 45.68	35	7.96	19.01	+116.04	36 24.0
45.92	25.16	50.6	51 23.0			6.5	35.62		45 8.25		7.22.86			23.9
12.52	40.47	45 25.0	51 34.85		14 80	7.0 83	45 46.12	-535-20.30	45 25.82	26	10.08	19.01	-2.22.05	23 38.0
47.22	41.74					7.5	45 46.03		25.73	26	10.94			23 38.9
31.56	41.07				45 46	7.0 83	45 46.05		25.75	26	9.67			23 37.6
35.16	12.06	11.1	37.5	53 0.1	8.8	33 40	45 27.56		45 27.56	6	52.43	19.01		6 52.4
4.10	12.39		50.0	53 6.4		8.7	27.59		27.59		57.98			52.0
42.6	12.94	45 27.5	53 3006			8.7	27.59		27.59		53.11			53.1
30.77	62.91	44 43.6	50 50.8	7.6	12 44	7.8 71	524.01	-526+10.18	45 34.19	55	47.90	19.01	+116.04	57 3.9
29.96	6.83	50.8	50 57.1			7.5	24.04		34.22		46.05			4.1
	45 34.4	50 38.47												
33.50	52.58	11.1	48.7	52 16.6	8.6	26 44	8.6 74	45 36.55	-553+2.52	45 39.07	22	34.53	19.01	+0.19.11
38.4	57.62	50.3	52 22.9		40 52	8.9 77	45 44.02	-552-5.04	45 38.98	23	30.88	-0.38.02	22 53.8	
30.66	6.38	45 39.0	52 3308		40 92	8.3 77	45 44.53		39.49	23	31.29			53.7
45.68	1.29				40 109	8.6 77	45 43.97		38.93	23	32.06			54.0
45.04	0.22					8.7	44.05		39.01	35	31.23			53.2
4.78	2.33	11.1	35.5	51 30.1	7.3	19 52	7.8 73	45 40.41	-537+5.07	45 45.78	26	46.42	19.01	+0.38.02
4.58	1.88	50.6	51 36.4			7.8	40.64		45.71		45.55			36 24.4
	45 46.1	51 34.86												23.56
52.72	19.83	44 58.3	53 22.5	8.9	3326	8.6 75	45 47.79		45 47.79	29	0.84	19.01		29 0.8
55.56	18.91	49.8	53 28.8			8.3	47.92		47.92	28	59.95			29 0.0
	45 48.1	53 3008												
48.74	2.13	45 6.2	53 8.8	8.5	36 24	8.2 76	45 58.10	-568-2.50	45 55.60	15	45.09	19.02	-0.19.02	15 26.1
48.25	2.14	50.0	53 15.1			8.4	58.09		55.59		45.51			26.5
	45 56.2	53 3009												
50.50	3.178	45 13.3	53 32.5	4.0	36 44	9.0 76	46 5.81	-576-2.50	46 3.31	38	13.59	19.02	-0.19.02	38 54.6
42.94	0.34	49.8	53 38.8		40 77	9.0 77	46 8.21	-576-4.99	3.22	39	33.42	-0.38.04	38 54.4	55.4
26.84	54.88	46 3.1	53 30.0		44 61	9.1 83	46 28.36	-575-19.98	46 3.38	41	27.46	19.03	-2.32.16	38 54.9
26.24	54.98					8.9	46 28.33		3.35	41	27.38		38 53.2	
46.04	34.83	45 37.3	52 15.6	7.0	19 62	6.9 73	46 22.80	-547+5.05	46 27.85	21	18.45	19.03	+0.38.06	21 57.0
45.94	33.58	50.4	52 21.9			6.8	22.77		27.82		17.68			55.7
	46 27.7	52 33.11												
24.94	25.05	45 37.5	53 0.7	8.4	33 40	8.6 75	46 27.33		46 27.33	7	4.67	19.03		7 4.9
28.80	24.19	50.1	53 7.0			8.9	27.27		27.27		3.71			8.7
44.14	24.54	46 27.6	53 30.11			8.6	27.35		27.35		4.68			4.7
55.08	46.44	45 39.7	52 25.3	7.9	40 52	8.3 77	46 35.25	-550-5.04	46 30.21	32	17.57	19.03	-0.38.06	31 39.5
24.42	42.85	50.3	52 31.6		40 92	7.8 77	46 35.57		30.53	32	14.61			37.6
22.44	44.62	46 30.0	52 33.12			8.3	35.33		30.29		15.69			37.6
26.84	35.02				44 48	-83	46 50.62	-549-20.18	46 30.44	34	8.88	19.04	-2.22.32	31 36.6
28.00	39.52				14.79	7.3 83	46 50.58		30.41	34	10.02			37.7
22.34	56.78	45 48.5	52 18.1	9.2	26 34	7.8 74	46 25.10	-548+2.52	46 27.62	21	38.66	19.04	+0.19.04	21 57.7
22.34	56.78	50.4	52 24.4		45 24	9.4 95	46 57.74	-546-20.21	37.53	39.34	26	58.52	-2.32.32	24 26.2
22.34	56.78	46 38.9	52 33.14		117	9.1 91	46 57.77		37.56	39.45	27	1.69	26.53.65	24 29.4
2.34	11.17	45 51.9	50 20.0	9.0	19 52	9.1 73	46 38.25	-572+5.12	46 43.37	34	59.10	19.04	+0.38.08	35 33.2
2.16	10.92	51.1	50 35.3			9.0	38.20		43.32		53.68			31.8
	46 43.0	50 38.54												
47.44	7.83	45 52.4	52 57.0	8.3	3326	8.5 75	46 42.47		46 42.47	2	48.65	19.04		2 48.6
28.18	6.34	50.7	53 3.3			8.2	46 42.51		42.51		48.71			48.7
	46 42.5	52 33.15												

43.62	22.31	45	53	10.1	8.7	36.24	9.0	76	116	52.98	-572	-2.50	46	50.48	47	13.88	+19.04	-0.19	0.4	54.8	
43.08	31.26	0	49.8	+6.3			9.0			52.91			50.41		14.33					55.3	
		46	49.2	53	46.4																
		49.2	53	30.13																	
53.04	16.78	46	0.4	54	43.6	8.6	11.78	9.0	71	46	42.82	-595	+9.91	46	52.73	119	6.68	19.04	+116.16	50	22.8
53.06	15.50		49.4	52	49.9			8.9			42.84				52.75		4.92				21.1
		46	49.8	54	28.73																
9.54	11.95	46	0.6	50	55.3	9.4	19.78	9.0	73	46	46.91	-519	+5.11	46	52.02	0	54.28	19.01	+138.08	1	32.4
56.94	11.78		57.0	51	1.6			9.1			46.90				52.01		53.68				31.8
		46	51.6	50	38.56																
52.64	42.25	46	1.0	57	15.4	9.4	12.20	9.8	71	46	42.07	-525	+10.19	46	52.26	20	25.26	19.04	+116.16	21	41.4
52.44	44.98		50.8	57	21.7			9.7			40.20				52.39		27.71				43.9
		46	51.8	51	34.93																
59.88	32.90	46	23.0	52	54.7	8.4	36.44	8.7	76	47	48	13.88	-559	-2.48	47	11.35	1	24.05	19.05	-0.19	0.5
59.28	7.22		49.4	53	1.0		40.60	8.6	77	47	16.31				11.36	1	13.89				5.3
57.74	10.52	47	12.4	54	28.74			8.1		47	16.52				11.57	1	4.68				24.3
47.74	9.45							8.5		47	16.40				11.45	1	4.44				8.4
43.50	29.20	46	23.7	49	56.7	7.4	44.48	-8.3		47	35.98	-497	-20.60	47	15.34	5	0.64	19.05	-2.32	48.2	28.2
41.66	28.47		51.4	50	3.0			7.8			47	35.46			14.86	4	59.20				26.7
		47	15.1	49	39.59										9.2						
6.74	57.47	46	16.8	52	38.8	8.9	40.92	8.8	77	47	20.80	-556	-4.97	47	15.84	44	31.44	19.05	-0.38	10	55.3
7.82	59.83		49.5	54	5.5			8.7			20.66				15.06		31.95				53.8
32.18	9.52	47	16.3		45.1			45.13		47	37.92	-585	-19.90	47	18.02	34	40.20	19.06	-2.32	48.32	7.7
22.84	36.61			54	28.75			45.36		47	35.35	-589	-19.86	47	15.69	46	29.92				55.4
22.64	57.91							8.9		47	35.33				15.67	46	29.31				56.8
12.30	51.93	46	33.8	49	52.41	9.4	44.61	9.483		47	46.38	-495	-20.60	47	25.76	1	20.80	19.05	-2.32	48.58	48.3
12.56	27.34		57.4	49	4.7			49.55	9.593	47	44.82	-25.75			19.07	25.81		15.15	-3	10.60	-48.6
12.38	27.34	47	25.2		58.7																
				49	39.61																
55.92	23.30	46	41.0	54	51.0	9.2	40.52	8.8	77	47	35.98	-557	-4.96	47	31.02	57	59.27	19.06	-0.38	12	21.2
0.96	30.50		49.5	54	4.3		42.98	9.2	78	47	38.37	-557	-7.45		30.24	58	6.66				9.5
7.76	42.84	47	30.5		57.3			9.0		47	36.65			9.4	7.43		31.02	58			20.8
				54	28.77																
28.48	55.09	46	54.3	52	2.0	9.3	40.77	9.6	77	46	49.51	-587	-5.07	46	44.44	8	26.25	19.06	-0.38	12	48.1
20.16	32.77		50.7	51	5.8		45.35	9.1	83	48	32.67	-526	-19.57	48	12.30	1	1.32	19.08	-2.32	48.58	28.7
19.64	32.75	47	45.0		52	8.3		8.6		48	32.43				12.06	1	1.97				58.29.3
58.22	55.31			52	33.19			49.50	9.085	48	10.92	-532	-25.40	47	45.52	11	29.58	19.07	-3.10	70	8
4.81	51.46							49.62	9.285	48	11.09				45.69	11	25.20	28.50			18.9
1.32	0.20	47	11.1	51	57.2	8.7	12.20	8.8	71	47	50.73	-530	+10.17	48	0.90	2	10.17	19.07	+116.28	4	7.4
1.08	59.95		50.7	52	3.5			8.4			50.62				0.99		43.64				0.4
		48	1.8	51	34.97										0.72						59.9
10.96	48.94	47	14.9	53	11.2	9.3	33.26	9.2	75	48	5.98			48	5.98	17	28.80	19.07		17	29.8
13.76	48.50		50.2	53	17.5			9.2		48	6.08				6.08	17	28.92				28.9
		48	5.1	53	30.17																
7.14	2.71	47	18.8	50	45.3	8.0	12.54	8.2	71	48	0.34	-507	+10.26	48	10.60	50	44.28	19.08	+116.32	52	0.6
29.50	39.17		51.2	50	51.6		19.52	8.3	73	48	5.39	-507	+5.13		10.52	51	22.37				0.5
29.36	39.71	48	10.0	50	38.61			8.2			5.39				10.52		22.60				0.8
3.58	48.29	47	19.8	53	14.0	9.5	36.24	9.5	76	48	12.91	-553	-2.52	48	10.39	20	21.23	19.08	-0.19	0.8	12.2
3.00	46.98		50.3	53	20.3			9.5			12.80				10.28		28.50				10.4
		48	10.1	53	30.18																
30.64	0.76	47	22.0	51	51.7	9.2	19.62	9.3	73	48	7.16	-527	+5.09	48	12.25	57	47.41	19.08	+0.88	16	25.6
30.48	4.81		50.8	51	58.0			9.3			7.21				12.30		46.62				26.5
30.32	4.44	48	12.8	51	34.98			9.2			7.16				12.25		48.20				26.4
13.36	26.36	47	22.0	52	51.2	9.2	11.78	8.5	71	48	3.12	-588	+9.94	48	13.06	56	16.51	19.08	+116.32	57	22.8
13.32	26.16		49.5	52	57.5			8.8			3.08				13.02		15.75				32.3
		48	12.4	54	28.78																

72.143	47	23.8	57	55.1	8.5	26.34	8.674	48	12.18	-525+2.54	48	11.70	1	43.11	+19.08	+0.17.08	2	2.2			
174	0	50.8	+6.3	44.48	8.083	44.48	8.083	48	35.57	-527-2.036	48	15.21	4	34.38	19.08	-2.32.64	2	1.7			
27.50	48	14.6	52	14	44.61	8.783	8.783	48	32.44	-526-2.637	12.07	0	58.49	58	25.8						
136			51	3499	62	8.0	8.0	48	35.36		48	14.99	4	32.19	1	59.6					
36.24					49.43	8.78585	8.78585	48	26.16	4.015	-528-5.26	0.72	14.69	-	17.0	5.12.44	19.09	-3.10.90	40	17	2.15
37.28	47	35.9	52	33.9	9.0	33.40	8.775	48	25.67	-26.4-25.46	48	25.67	40	17.27	19.08				40	17.0	
37.95		50.6	52	46.2			8.9		25.58			25.78		17.27						17.3	
35.16	48	26.5	52	3321			9.0		25.67			25.67		15.15						15.2	
54.52	41.06	47	45.8	50	7.7	9.5	19.78	9.573	48	31.86	-493+5.16	48	37.02	13	24.63	19.09	+0.38.18	14	38.28		
42.20	44.09		51.5	50	14.0			9.6	32.09			37.25		25.53						3.7	
48	37.3	50	3863																		
40.6	27.99	45	12.1	57	37.7	8.5	11.78	8.571	48	53.82	-577+9.98	49	3.80	43	18.35	19.10	+1.16.40	44	34.8		
3.92	26.58		49.8	54	44.0			8.3	53.68			3.66		16.51						32.9	
3.58	27.95	49	1.9	54	28.79		12.14	8.571	53.55			3.53	43	18.33						34.7	
56.70	8.48						36.24	8.276	49	6.01	-576-2.50	3.51	44	52.87		-0.19.10				33.8	
56.24	7.42							8.3	6.03			3.53		52.31						33.2	
33.82	4.44	48	13.7	49	57.6	9.4	40.60	9.477	49	10.99	-486+5.17	49	5.82	4	35.09	19.10	-0.38.20	3	56.9		
42.54	6.82		31.6	50	3.9			9.6	11.29			6.12	4	36.46						56.3	
30.85	5.48	49	5.3	49	39.78		40.52	9.677	49	11.08		5.91	4	36.63						58.4	
23.58																					
42.68	33.89	48	32.4	50	11.1	8.6	19.54	8.873	49	18.50	-488+5.17	49	23.67	19	16.52	19.11	+0.38.22	17	54.7		
42.50	32.86		31.6	50	17.4			8.8	18.51			23.68		15.14						58.4	
50.94	57.59	49	24.0	50	38.68		44.49	8.883	49	44.71	-487-2.068	49	24.03	20	28.41	19.11	-2.32.22	17	55.5		
50.62	21.48	48	29.6	50	12.9	8.8	19.62	8.873	49	27.409	-488+5.17	49	32.26	19	3.31	19.11	+0.38.22	19	41.5		
50.44	21.47		51.6	50	19.2			8.6	27.15			32.32		3.74						42.0	
50.36	24.89	49	31.2	50	38.7			8.8	24.05	27.17		32.34		3.76						42.0	
49.74	22.20					19.78		8.6	27.15			32.24	19	48.2						43.1	
37.30	24.09								27.15			32.35		51.7						43.4	
30.85	5.43	48	43.7	50	45.2	9.0	50.52	9.677	49	11.08	-500+5.17	49	5.94	4	36.63	19.11	-0.38.22	3	58.4		
40.86	57.62		51.4	50	51.5		33.26	8.775	49	35.84		49	35.84	51	35.85			50	57.6		
43.52	57.38	49	35.1	50	38.72			8.8	35.78			35.78		35.42				51	57.2		
55.34	45.63	49	1.3	51	6.4	9.3	12.22	9.871	49	42.82	-504+0.28	49	53.10	11	28.45	19.12	+1.16.48	12	44.9		
53.16	46.27		57.3	51	12.7			9.4	42.86			53.14		28.75						45.2	
49	52.6	51	38.02																		
2.22	43.60	49	11.2	50	46.2	8.9	12.44	9.171	49	53.40	-495+10.31	50	3.71	52	25.04	19.13	+1.16.52	55	41.6		
59.34	43.48		51.4	50	55.5			9.0	53.37			3.68		24.44						41.0	
50	2.6	50	38.75																		
0.46	28.03	49	14.2	51	51.5	8.0	26.44	8.074	50	5.13	-514	50	5.69	57	5.57	19.13	+0.19.13	57	24.6		
13.36	45.64		57.1	51	57.8		33.42	7.575	50	5.68		5.68	57	24.32						43.4	
7.30	46.08	50	5.3	51	36.03			8.0	5.67			5.67		24.39						43.5	
2.50	45.86							7.8	5.71			5.71		24.69						24.4	
58.98	54.71																				
58.77	10.61	49	24.0	49	54.3	8.8	44.80	-83	50	37.53	39.32	47.6-20.77	50	16.76	18.55	23.2	0.38.25	19.13	2.38.12	57	50.1
58.56	24.02		51.8	49	57.6			8.792	50	37.43	39.40		50	16.66	18.63	0	22.03			57	48.9
58.54																					
33.65	27.48	50	16.7	49	39.85	49.3986	49.44	8.985	50	42.55	-25.96	50	16.59	1	1.27		-3.11.40	57	49.9		
30.25	30.34						49.50	9.285	50	42.98			17.02	1	2.55			57	51.2		
28.82	44.53	49	45.8	53	28.7	8.0	36.26	8.376	50	38.12	-540-2.53	50	35.59	35	27.76	19.14	-0.19.14	35	8.6		
28.36	43.76		50.5	53	35.0			8.1	38.13			35.60		27.17						8.0	
50	86.3	53	30.82																		
6.88	1.12	49	47.8	49	54.3	9.0	44.49	9.083	51	0.64	-474-2.078	50	39.86	3	32.31	19.15	-2.33.20	0	59.1		
51.42	4.89		57.8	50	0.06		45.25	9.183	51	0.62		50	39.84	3	32.33			0	59.1		
50.44	3.85	50	39.6	49	39.89			8.8	51	0.13		50	39.35	3	31.35			0	58.2		
59.26	1.22	49	48.6	51	40.7	9.0	19.62	9.073	50	35.74	-506+5.13	50	40.87	46	43.73	19.14	+0.38.28	47	22.0		
59.14	0.48		57.2	51	47.0			9.0	35.83			40.96		43.96						22.2	
58.96	58.51	50	39.8	51	35.04			9.1	35.78			40.91		42.10						20.4	
58.44	0.61					19.78		9.0	35.78			40.91	46	43.91						22.0	
45.92	2.47								35.78			40.98		43.91						23.7	
7.62	40.18	49	53.0	49	57.2	8.7	44.81	-83	51	6.16	-474-2.078	50	45.38	6	8.93	19.15	-2.33.20	3	35.7		
7.28	39.04		51.8	50	3.5				51	6.12		45.34	6	24.8				3	34.3		
50	44.8	49	39.90																		

1382 4922.22	✓	49	58.2	53 27.4	9.1	40 52	91 77	52 53.88	-538-50.7	50 48.81	34 23.75	+19.15	-0.3830	33 45.6
28.80 31.58		0	50.6	+6.4		40 78	90.7277	50 5404	50.5676	48.97	51.69	43.42	2.26	51 43.5
31.58 49.48		50	48.8	53 33.8										51 43.5
				53 30.3										
1350 35.73	✓	50	22.5	51 19.4	9.0	12 22	9.2 71	51 2.88	-496+1030	51 13.18	24 18.61	19.16	+1.16.64	25 35.2
1310 35.65	✓		51.4	51 25.8			9.0	2.79		13.09	18.28			34.9
		51	13.9	51 35.06										
15.32 4.01	✓	50	28.1	51 39.8	9.1	26 44	9.1 74	51 17.99	-502+257	51 20.56	45 45.19	19.16	+0.19.16	46 4.4
25.64 24.97	✓		57.3	51 46.2		33 28	9.0 75	51 20.60		20.60	46 4.02			4.0
28.32 25.41	✓	51	19.4	51 35.07			9.1	20.57		20.57	46 4.00			4.0
15.40 6.18	✓	50	31.8	50 46.1	9.1	19 54	9.3 73	51 18.40	-485+5.17	51 23.57	51 49.10	19.16	+0.38.32	52 27.7
42.56 5.39	✓		57.6	50 52.5			9.3	18.56		23.73	48.31			26.6
31.40 50.26	✓	51	23.4	50 38.83		33 42	9.3 75	51 23.67		23.67	52 27.84			27.8
25.28 48.55	✓						9.5	23.59		23.59	25.83			25.8
34.28 10.57	✓	50	42.9	52 26.3	9.0	11 78	9.0 71	51 24.02	-553+10.08	51 34.10	30 55.26	19.16	+1.16.64	32 11.9
34.14 6.19	✓		52.3	54 32.7			9.0	23.88		33.76	30 55.26			11.9
			2	54 28.03							30 55.26			11.9
		51	33.1								30 55.26			11.9
9.32 16.29	✓	50	50.0	52 10.8	8.9	40 61	8.7 77	51 46.36	-507-5.13	51 41.23	17 49.94	19.17	-0.38.34	17 11.6
7.70 16.64	✓		57.2	52 17.2			9.5	51 46.47		41.34	17 49.10			10.8
17.88 16.97	✓	51	41.2	52 33.31			8.6	51 46.53		41.40	17 48.35			11.0
52.82 22.48	✓	50	52.6	52 37.1	9.1	40 109	9.0 77	51 52.70	-515-5.11	51 47.59	44 3.01	19.17	-0.38.34	43 24.7
28.56	✓		50.0	52 43.5			8.8	52.98		47.87	43 57.80			21.5
			0.9	52 33.33										
		51	47.5											
48.64 2.24	✓	50	58.6	54 54.7	8.5	12 2	8.9 71	51 35.57	-564+10.04	51 48.61	49 50.86	19.17	+1.16.68	7.5
50.20 2.91	✓		50.1	55 1.1			8.8	35.625		48.67	50.13			6.5
3.14 10.29	✓	51	48.7	54 28.84		45 7	8.7 83	52 8.79	-559-20.10	51 48.69	3 41.77	19.18	-2.33.44	1 8.3
59.48 10.29						45 25	9.1 83	52 8.76		51 48.66	3 42.63			9.2
58.86 9.56							8.5	52 8.64		51 48.54	3 41.80			8.4
18.00 36.44	✓	50	58.0	49 57.0	8.5	44 49	8.5 83	52 11.73	-467-20.84	51 50.89	6 7.13	19.18	-2.33.44	3 33.7
13.12 38.32	✓		57.9	50 34		44 81	8.8 83	52 11.64		50.80	6 6.99			3 33.6
12.64 38.14	✓	51	50.8	49 39.95			8.9	52 11.47		50.63	6 6.46			3 33.0
0.94 48.55	✓	51	12.4	50 53.3	8.7	12 44	8.7 71	51 54.09	-483+10.36	52 44.5	58 29.94	19.18	+1.16.72	59 46.5
0.00 49.57	✓		57.8	50 59.7			8.8	53.99		41.35	30.56			47.3
21.92 26.52	✓	52	4.1	50 38.6		19 80	8.6 73	51 59.23	-482+5.18	4.41	59 5.77		+0.38.36	47.1
9.36 27.76	✓						8.5	59.24		4.42	9.73			47.5
0.90 3.98	✓	57	16.6	53 17.1	8.5	36 26	8.4 76	52 10.17	-525-2.55	52 7.62	23 46.58	19.18	-0.19.18	23 27.4
0.40 4.85	✓		50.8	53 23.5			9.0	10.14		7.59	47.53			28.4
		52	7.4	53 30.88										
35.60 26.42	✓	51	24.6	50 41.2	8.6	19 51	8.5 73	52 11.45	-4783-5.28	52 16.64	47 9.65	19.18	+0.38.36	47 45.0
35.54 26.58	✓		57.7	50 47.6			8.5	11.53		16.72	9.43			47.5
		52	16.3	50 38.91										
28.52 31.16	✓	51	29.1	51 42.8	9.5	33 42	9.6 75	52 20.81		52 20.81	49 9.78	19.19		49 9.8
17.60 29.50	✓		51.4	51 49.2			9.8	20.76		20.76	6.35			8.4
		52	20.5	51 35.11										
51.00 12.37	✓	51	35.4	55 4.0	8.6	40 53	8.8 77	52 30.98	-558-5.03	52 25.95	10 48.65	19.19	-0.38.38	10 10.3
54.14 12.41	✓		50.7	55 10.4		40 61	8.7 77	52 31.78		26.74	10 48.47			10.1
52.46 13.29	✓	52	25.8	55 28.59			9.1	52 31.14		26.11	10 48.89			10.5
2.80 13.65	✓						8.6	52 31.36		26.33	10 48.60			10.2
32.52 41.22	✓	57	35.9	51 36.6	8.8	33 28	8.8 75	52 27.47		52 27.47	2 20.65	19.19		2 20.6
35.04 42.33	✓		51.5	51 43.0			8.7	27.28		27.28	2 21.42			21.4
18.16 28.66	✓	52	27.4	52 3.0		40 92	9.0 77	52 32.22	-498-5.15	27.07	2 58.72		-0.38.38	20.3
19.66 29.98	✓			51 35.12			8.8	32.46		27.31	58.70			21.3
22.88 37.06	✓	51	44.1	53 52.1	8.3	36 34	8.5 76	52 36.78	-533-2.54	52 34.24	58 19.03	19.19	-0.19.19	58 59.8
22.32 36.22	✓		50.7	53 58.5			8.5	36.81		34.27	18.08			59.4
41.96 0.25	✓	52	84.8	53 30.39		40 87	9.2 77	52 37.42	-533-5.08	34.34	59 37.57		-0.38.38	59.2
14.18 5.65	✓					40 78	8.5 77	52 38.31		34.23	59 38.92			59 0.6

22444	52	0.9	571	15.5	8.7	11.78	6.671	52	10.69	-539+10.13	52	50.82	20	31.46	+18.20+16.80	21	48.3	25.62
0 50.5			+6.4				8.3		10.77		50.90		31.70			48.58	3.22	
52 57.4			54 21.9														18.88	
			54 28.86														17.74	
52 51.57	52	13.7	49 55.5	7.9	14.62	27.83	53 27.96	-459-20.70	53 7.06	4	21.37	19.21	-2 33.68	1	47.7		10.50	
52 50.90			50 1.9			7.3	53 28.07		7.17	4	20.53				46.8			
			49 4003															
53 5.9																		
26.92 52	52	17.0	50 50.5	8.0	19.62	8.2 73	53 3.37	-475+5.19	53 8.56	55	41.80	19.21	+0.98.42	56	20.2			
26.74 52			50 56.9			8.2	3.40		8.59		41.98				20.4			
26.64 52			50 3894			8.0	3.42		8.61		41.66				20.0			
36.54 48.96	52	21.3	49 56.1	9.2	44.82	9.1 83	53 35.04	-458-20.91	53 14.13	5	12.18	19.21	-2 33.68	2	38.5			
36.06 44.53			50 2.5			9.3	53 34.87		13.96	5	12.18				38.7			
			49 4006								42							
53 13.5																		
37.74 37.0	52	26.0	50 14.4	8.5	19.54	8.5 73	53 13.57	-463+5.22	53 18.79	20	20.60	19.21	+0.98.42	20	59.0			
37.64 37.0			50 20.8			8.6	13.61		18.83		20.41				58.8			
53 18.1			50 3895															
25.07 52	52	29.1	52 50.2	8.8	33.28	9.0 75	53 19.26		53 19.96	56	30.33	19.21		56	30.3			
27.82 50.89			52 56.6			9.0	53 20.06		20.06	56	30.18				30.2			
53 2.03			52 3336															
48.84 43.81	52	39.1	50 36.5	8.0	19.80	8.2 73	53 26.13	-468+5.21	53 31.34	44	25.87	19.22	+0.98.44	45	4.3			
36.50 40.10			50 44.9			8.2	26.34		31.55		24.20				3.6 2.6			
53 31.3			50 3897															
1.34 6.72	52	40.0	50 31.3	9.0	40.61	9.0 77	53 37.42	-466-5.21	53 32.21	38	37.32	19.22	-0.98.44	37	58.9			
8.94 6.92			50 37.7			8.7	53 37.60		32.39	38	36.69				58.2			
24.70 9.70	52	32.0	50 3898			40.93	53 37.49		32.28	38	38.15				59.7			
39.29 8.40						40.109	53 37.41		32.20	38	36.97				58.5			
38.70 7.35						8.8 77	37.58		32.37		36.31				58.9 57.9			
46.4 2.88	52	53.8	51 57.8	6.0	12.72	6.2 71	53 35.18	-485+0.34	53 45.82	57	46.36	19.22	+1.16.88	57	3.2			
45.84 2.28			51 58.2			6.5	35.51		45.85		45.83				2.7			
53 45.4			51 3514															
45.28 5.02	52	52.3	53 44.7	8.4	12.2	8.2 71	53 35.21	-522+10.20	53 45.11	49	52.55	19.22	+1.16.88	51	9.4			
46.74 6.58			53 51.1			8.9	53 35.18		45.38	49	52.71				9.6			
77.66 36.07			53 3042			44.62	54 24.03	-520-20.42	54 3.61	52	9.98	19.23	-2.23.84	56	36.1			
9.06 8.60	53	45.1				61	54 6.05	-508-20.51	53 45.54	53	41.65				7.8			
45.84 0.88	52	53.0	51 32.6	7.0	26.34	7.7 74	53 44.43	-482+2.57	53 47.02	37	42.44	19.22	+0.19.22	38	1.7			
41.90 1.92			51 39.0			7.0	44.55		47.14		42.80				2.0			
53 46.7			51 3515															
44.2 56.1	53	4.6	52 56.0	8.6	33.12	8.4 75	53 53.70		53 55.70	2	35.54	19.23		2	35.6			
57.44 55.09			53 2.4			8.5	55.78		55.78		34.45				34.4			
52.52 55.26	53	55.8	52 3339			8.4	55.71		55.71		34.79				34.8			
									See p. 18									
52.44 37.91	53	7.2	52 15.6	9.2	36.26	8.8 76	54 1.73	-492-2.58	53 59.15	25	10.71	19.23	-0.19.23	25	0.5			
52.08 36.99			52 22.0			8.8	1.83		59.25	2	10.06				59.8			
12.68 37.86	53	58.7	52 3340			9.3 85	54 25.28	-494-25.78	53 59.50	35	12.26	19.23	-3.12.00.82	36	0.0			
15.20 35.65						9.4 85	54 26.11	-490-25.82	54 0.49	20	10.11				57.8			
18.87 34.93						9.6 82	54 25.05	-493-25.79	53 59.26	298	9.09				56.8			
59.62 20.57	53	7.2	53 3.0	9.3	40.37	9.2 77	54 3.16	-545.05	53 58.11	70	0.35	19.23	-0.38.46	9	21.9			
5.80 20.56			55 9.4			9.4	54 3.19		58.14	7	59.44				20.6 21.0			
53 87.6			55 2865															
24.0 24.57	53	11.7	50 30.2	9.4	42.99	9.1 78	53 39.95	-465-7.52	53 32.13	36	52.39	19.23	-0.57.69	37	48.7 58.7			
41.16 24.88			50 36.6				54 42.11.91	-475-7.77	54 4.12	37	24.46 33.39				36 27.5 35.7			
26.14 38.82	54	3.8	50 3899			44.82	54 24.85	-467-20.89	54 4.06	39	7.47	19.23	-2.33.84	36	33.6			
10.40 28.53						45.46	98.83		38.82	39	54.23				32 23.4			
44.38 59.58	53	14.0	50 14.4	8.2	12.54	8.3 71	53 8.34	-463+10.44	53 18.81	19	40.22	19.23	+1.16.88	20	57.1			
31.66 19.24			50 50.8			8.3 78	55.55 54.4 8.94	-450+5.24	55 14.18	22	0.92 0.92	19.26	+0.98.46	20	39.2			
19.16 20.25			50 3900			8.3 78	53 26.48		14.21		32.08				39.4			
7.82 2.27	54	6.0				8.3 78	53 26.48	-463-7.83	53 18.65	22	32.08	19.21	-0.57.69	20	39.4			
33.20 26.87						8.3 78	53 26.48		18.71	21	52.08				39.4			
25.08 25.92						8.3 78	53 26.48		18.71	21	52.08				39.4			

25.62	22.18	53	17.8	51	35.3	8.7	40.93	84.77	54	32.65	-453-51.8	54	34.47	43	48.87	+19.23	-0.38.46	43	10.4	
2.22	53.39	0	51.6		+6.4			88	54	14.98	-488-51.7	54	9.81	45	23.18			44	44.7	
18.08	14.77	54	9.4	52	44.7	45	35	84.83	54	30.58	-478-20.78	54	9.83	47	18.69	1924	-2.33.92	44	44.8	
17.24	51.12					36		80.78	54	30.81	-478-47.6	9.66	84.38	47	20.03	1924	19.25	44	46.1	
10.50	17.66			51	35.17						-20.75-20.77								12.3	
32.58	11.93	53	23.5	52	53.3	9.0	32.28	9.1	75	54	27.51	54	34.01	43	52.23	+19.23		3	52.4	
3.56	58.24		57.3	53	1.7			6.57	53	53.79	15.54	53	53.79	15.54	33.85	27.73		2	33.8	
23.32	47.75	54	14.8	52	33.42	45	59	88	91	83	54	35.96	54	51.56	3.30	456.05	1924	-2.33.92	1	29.4
17.48	23.03							47.44	87	85	54	41.11	54	15.40	4	56.66	1924	-3.12.40	1	24.3
22.00	1.75							49.59	80	85	54	21.66	54	55.97	45	44.60	1923	-3.12.30	2	32.3
15.00	9.85	53	43.3	51	36.6	8.8	12.22	9.0	71	54	24.00	54	34.38	41	56.11	1924	+1.16.96	43	13.1	
34.66	12.88							9.0	71	54	24.07	54	34.45	41	56.26				13.2	
34.42	12.90		57.8	51	43.0			9.1	74	54	31.49	54	34.09	42	57.29	+0.19.24			13.5	
32.60	12.33		57	51	35.19		26.36	8.7	74	54	31.49	54	34.39	42	53.10				12.3	
29.16	11.96	54	35.0																	
44.56	20.27	53	53.5	54	43.1	8.9	11.80	8.8	71	54	34.26	54	44.41	48	10.71	1925	+1.17.00	49	27.7	
44.64	22.05		50.7	54	49.5			8.8			34.34	54	44.49	49	12.18				29.2	
33.14	3.08	54	44.2	54	28.92		36.34	8.9	76	54	47.01	54	44.47	49	45.74	-0.19.25			26.5	
32.54	1.43							9.0			46.99	54	44.45	49	44.22				25.0	
54.74	20.76	54	3.1	55	0.2	9.0	40.37	8.9	77	54	58.27	54	53.20	7	0.79	1925	-0.38.50	6	22.3	
0.78	22.78		50.6	53	6.6			9.1		54	58.16	54	53.07	7	1.82				23.3	
		54	53.7	55	28.68															
9.88	9.66	54	13.6	52	6.0	8.9	33.30	8.8	75	55	4.80	55	4.80	12	46.34	1925		12	49.3	
12.78	7.67		57.7	52	12.4			9.0		55	4.99	55	4.99	12	46.97				47.0	
		55	5.3	52	33.46															
32.62	17.48	54	21.4	51	6.7	8.9	19.64	8.8	73	55	9.06	55	14.28	12	0.09	1926	+0.38.52	12	88.6	
32.34	18.04		57.0	51	13.1			8.8			9.06	55	14.28	12	1.02				39.5	
32.34	16.78	55	12.4	51	35.20			8.8			9.10	55	14.32	11	59.66				38.2	
33.08	18.86	54	22.4	50	14.2	8.2	19.54	8.0	73	55	8.89	55	14.13	20	1.31	1926	+0.38.52	20	39.8	
33.02	17.86		52.3	50	20.6			7.7		55	8.97	55	14.13	20	0.30				38.8	
		55	14.7	50	37.04		47.80	8.0	75	55	8.94	55	14.18	20	0.72				39.2	
								8.2		55	8.94	55	14.18	20	0.87				39.4	
20.14	18.96	54	29.3	52	25.9	8.3	12.2	8.6	71	55	10.03	55	20.23	31	7.41	1926	+1.17.04	32	24.4	
26.66	19.68		50.8	54	32.3			8.6		55	10.07	55	20.27	31	6.50				23.5	
		55	20.1	54	28.95															
20.28	47.88	54	35.1	53	13.4	9.0	36.26	9.1	76	55	20.50	55	26.93	20	30.62	1926	-0.19.26	20	11.4	
19.76	47.85		57.3	53	19.8			9.3		55	20.46	55	26.89	20	30.58				11.3	
		55	26.4	53	30.81															
16.78	30.74	54	36.7	53	32.5	7.7	36.36	7.2	76	55	30.56	55	27.99	39	12.19	1926	-0.19.26	38	52.4	
16.10	31.01		54.2	53	38.9			7.7		55	30.55	55	27.98	39	12.45				53.2	
33.08	58.82	55	27.9	53	30.52		40.53	7.9	77	55	33.05	55	27.92	39	33.40	-0.38.52			54.9	
7.88	59.90						40.78	8.0	77	55	32.97	55	27.84	39	32.44				53.7	
2.24	4.89	54	52.9	52	44.1	8.8	19.80	9.0	73	55	39.54	55	44.71	49	49.23	1927	+0.38.54	50	27.8	
49.58	6.23		57.6	52	50.5			8.8		55	39.48	55	44.65	49	49.24				27.8	
		55	44.5	52	33.49															
45.98	23.56	54	55.3	54	11.5	8.8	11.80	8.7	71	55	35.69	55	45.92	17	13.61	1927	+1.17.08	18	30.7	
45.94	21.90		57.0	54	17.9			8.5		55	35.64	55	45.87	17	11.49				28.56	
		55	46.3	54	28.97															
26.94	8.01	55	17.3	57	40.8	9.0	44.61	8.0	83	56	31.28	56	14.43	49	38.79	1928	-2.34.24	47	46.47	
34.28	10.55	9.25	51.8	57	47.2			8.0	92	83	56	31.89	56	14.54	49	38.08	1929	-3.12.90	47	38.24.2
35.30	27.57		9	51	35.25		49.50	8.2	85	56	36.66	56	10.60	50	20.45				47.75	
26.07	16.32						49.62	8.0	85	56	36.44	56	10.38	50	19.69				47.68	
30.31	46.14	56	9.2																	
50.98	58.46	55	20.0	53	51.7	8.5	40.78	8.2	77	56	16.03	56	10.90	59	32.69	1928	-0.38.56	58	54.1	
18.79	26.09		57.2	53	58.1		49.44	8.2	85	56	16.43	56	10.75	2	4.44	1929	-3.12.90	58	54.5	
25.47	29.43	56	11.2	53	30.55		49.56	8.4	85	56	16.50	56	10.82	2	5.83				54.2	
37.82	30.10						49.72	8.5	85	56	16.49	56	10.81	2	6.10				53.2	
18.48	51.66	55	23.8	52	39.4	9.5	26.36	9.5	74	56	17.35	56	19.94	45	34.39	1928	+0.19.28	45	53.87	
14.62	51.45		57.7	52	45.8			9.6		56	17.25	56	19.84	45	33.57				52.8	
12.32	57.03	56	16.5	52	33.53		44.82	9.7	83	56	10.74	56	20.02	48	28.52	1929	-2.34.24	45	54.2	
41.74	45.37						81	9.8		56	10.72	56	20.00	48	26.62				45.52.3	

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12.24 9.42	55	25.5	50	4.4	7.5	12.44	7.871	56	7.69 ⁹	-440+0.53	56	18.42	9	26.09	+1928+17.12	10	43.2	25
12.24 45.50	0	52.5	50	+6.4			7.5	56	7.65		18.38	25.69					43.428	30.1
56	180	50	108	50	3911													
10.44 9.02	55	26.5	50	14.4	9.4	19.56	9.473	55	50.22	-447+5.25	55	55.47	28	54.33	19.28+0.38	36	28	32.9
33.24 57.08	4	50	25.8				9.6	56	50.30		55.64	51.61						30.2
29.51 57.69	56	129	50	3912	3908	457	9.483	56	38.73	-443-2.103	56	17.70	28	24.86	19.29-2.34	32.25	25	50.5
28.86 58.10						4526	10.083	56	38.63		56	17.60	28	25.90		25	51.6	
18.88 29.94	55	27.1	55	3.2	8.9	40.37	8.877	56	38.48	-527-5.09	56	17.45	28	25.96		25	51.6	
24.98 31.91	50.8	55	9.6				9.0	56	22.57		56	17.28	10	9.47	19.28-0.38	36	9	30.9
56	179	55	28.16					56	22.33		17.24	10	9.82				31.3	
25.20 34.57	55	26.4	52	3.8	8.1	33.30	7.875	56	20.10		56	20.10	10	14.41	19.29	10	14.4	33.0
27.92 34.12	57.9	52	102				7.5	56	20.10		20.10	10	13.50				13.5	33.0
56	20.3	52	3354															
17.60 47.88	55	30.9	53	58.4	9.0	36.26	9.076	56	26.79	-505-2.57	56	24.22	5	31.53	19.29-0.19	29	5	12.2
17.00 46.54	57.2	54	5.1				9.1	56	26.66		24.09		30.39				11.1	35
56	22.1	53	3056															
41.94 52.59	55	31.9	50	34.5	9.0	19.64	8.973	56	18.37	-447+5.25	56	23.62	40	35.08	19.29+0.38	36	41	13.87
41.50 54.00	52.4	50	40.9				8.8	56	18.42		23.67		36.51				15.2	36
41.82 51.91	56	24.3	50	3914			8.8	56	18.56		23.81		34.16				12.7	58.1
49.16 52.77	55	14.4	53	18.5	9.0	40.53	8.783	56	30.96	47.16-493-5.18	56	30.96	27	37.29	19.29-0.38	36	26	58.7
51.38 52.68	57.5	53	24.9				9.087	56	31.01	47.17-491-5.16	56	31.01	27	38.91	19.29-0.38	36	27	58.7
7.22 29.53	56	40.7	53	3058													27	58.7
13.56 24.60	55	50.7	55	8.1	8.8	11.60	6.871	56	33.26	-507-2.6	56	43.54	13	14.79	19.29+1.17	16	14	32.0
43.64 26.20	50.8	54	11.5				8.9	56	33.34		43.52		16.21				33.4	39.1
56	41.5	54	2899															
3.48 4.12	55	52.6	50	52.0	9.0	19.60	9.173	56	40.74	-450+5.24	56	45.98	57	42.38	19.29+0.38	36	56	26.0
50.94 3.08	52.3	50	58.4				9.1	56	40.76		46.00		44.43				23.0	39.3
56	44.9	50	3916															
15.8 22.71	55	54.0	50	48.2	8.7	42.117	8.578	56	52.83	-448-7.87	56	52.83	55	53.10	19.29-0.38	36	55	57.2
5.36 39.93	52.4	50	54.6				8.585	56	53.81	54.83-448	56	53.81	55	53.10	19.29-0.38	36	55	57.2
5.18 31.73	3	50	3917				8.6	56	54.85		46.98		50.71				54	52.8
8.76 20.00	56	46.3																
3.82 37.45	56	1.5	53	1.7	7.4	42.113	7.578	57	2.36	-483-7.77	56	54.59	9	10.30	19.30-0.38	36	9	12.4
9.08 14.19	57.6	53	8.1				7.583	57	15.42	-484-20.70	56	54.72	10	46.77	19.30-2.34	4.0	8	12.4
9.58 14.53	56	53.1	53	3059			7.5	57	15.49		56	54.79	10	46.98			8	12.6
14.14 33.70	56	18.0	53	23.9	8.9	40.78	8.877	57	14.21	-488-5.77	57	9.04	31	6.62	19.31-0.38	62	30	28.0
23.99 4.89	57.5	53	3.3				8.685	57	35.01	-488-25.84	57	9.17	33	4.661	19.31-3.13	10	30	27.5
28.10 2.88	57	9.5	53	3061			8.085	57	34.70		57	8.86	33	37.89			30	24.8
12.44 23.88	56	27.4	52	27.8	8.0	26.36	8.074	57	16.31	-472+2.60	57	18.91	34	6.521	19.31+0.19	31	34	25.9
13.76 25.92	57.9	52	34.2				8.5	57	16.37		18.97		7.98				27.3	57.3
57	19.3	52	3357								18.92							
24.38 5.28	56	27.6	53	41.3	8.3	33.30	8.375	57	19.26		57	19.26	47	46.48	19.31	47	46.5	57.3
27.06 5.08	57.4	53	47.7				8.5	57	19.25		19.25	47	45.81				45.8	57.3
57	19.0	53	3062															
20.82 45.05	56	30.6	54	27.8	6.5	12.2	9.871	57	10.69	-508+10.26	57	20.95	32	33.43	19.31+1.17	24	33	56.0
22.36 46.12	57.7	54	34.2				7.2	57	10.75		21.01		33.24				56.5	6.1
57	21.7	54	2900															
16.26 33.81	56	33.3	51	25.1	9.2	12.22	9.271	57	15.56	-454+10.47	57	26.03	30	16.60	19.31+1.17	24	30	33.8
7.36 11.71	52.3	51	31.5				9.0	56	56.15	-456+10.46	57	26.22	30	15.32			31	32.6
16.12 37.75	57	25.6	51	3527			9.2	57	15.76		56	56.15	30	20.16			31	32.6
10.46 31.46	57	25.6	51	3527				56	56.15	-463+10.44								

25422.245 ⁰⁸	56	33.5	55	3.3	8.2	40	37	81	77	57	28.91	-	578.511	57	23.80	10	24.93	+19.31	-0.38.62	9	46.3	
3162 46.59	0	50.9	+6.1					8.5	77	57	28.96			57	23.85	10	25.24				46.36	
57 2144		55	9.4																			
55 2879																						
4944 9.56	56	38.2	50	50.8	8.7	19.56		8.7	73	57	25.23	-	446.52.5	57	30.48	65	53.12	19.31	+0.38.62	6	31.7	
4928 9.69		52.4	51	6.2				8.8		57	25.21			57	30.46		52.64				31.3	
57 305		50	39.22																			
4896 6.68	56	39.1	50	30.5	9.0	19.44		9.0	73	57	25.37	-	439.52.7	57	30.64	35	48.78	19.31	+0.38.62	36	27.4	
4894 7.28		52.6	50	36.9				8.8		57	25.55			57	30.82		49.54				38.2	
4868 5.94	57	31.7	50	39.23				8.8			25.41			57	30.68		48.17				26.8	
33.04 48.43	56	41.3	54	44.2	8.7	11.80		8.8	71	57	22.72	-	571.40.24	57	32.96	49	38.80	19.31	+17.24	50	56.0	
33.06 47.48		52.4	54	50.6				8.5		57	22.73			57	32.97		37.19				54.7	
57 324		1.1	54	2908																		
11.90 52.48	57	1.9	51	1.9	9.3	19.82		9.1	73	57	49.14	-	444.52.6	57	54.40	7	41.84	19.32	+0.38.64	8	20.5	
55.48 12.47		52.41	51	8.3				8.3			25.29	-	446+5.25	57	54.51	5	52.02	19.31	+0.38.62	6	32.46	
17.12 24.17	57	54.3	51	35.30		44.81		9.1	83	58	15.54	-	443-21.03	57	54.51	10	53.68	19.33	-2.34.64	8	19.0	
16.78 24.97								9.3		58	15.54			57	54.51	10	53.68				19.6	
17.58						48.8		-	83	57	7.08			57	54.51	10	53.68					
47.15 34.32	57	8.5	52	31.3	7.5	40.61		7.6	77	57	24.12	-	472-5.20	57	18.92	35	4.55	19.32	-0.38.64	34	25.9	
36.28 53.40		52.0	52	3.74				8.1		58	4.83	-	468-5.21	57	59.65	38	25.12				37	46.5
58.102 52.52	58	0.5	52	33.60		40.93		8.0	77	58	4.97	-	5.20	57	59.65	38	25.12				44.6	
52.16 56.63								8.4			4.85			57	59.65	38	25.12				47.5	
4306 36.23	57	24.2	52	47.6	8.8	44.62		9.0	83	58	39.39	-	469-20.82	58	18.50	56	6.94	19.32	-2.34.72	53	32.2	
42.44 36.74		51.9	52	54.0				9.1		58	39.32			58	18.50	56	8.84				34.1	
58 19.1		52	33.62																			
36.82 49.32	57	32.7	53	25.1	8.2	33.30		8.7	75	58	31.65			58	31.68	38	50.00	19.34	-	38	30.8	
39.44 49.86		51.7	53	31.5				8.7			31.61			58	31.61	38	50.00				30.1	
58 31.4		53	30.66																			
39.38 26.43	57	49.3	54	29.8	9.0	11.80		8.7	71	58	29.05	-	498.40.29	58	39.85	34	16.58	19.34	+17.36	35	33.9	
39.28 25.87		57.4	54	36.2				9.0			28.94			58	39.85	34	15.55				33.9	
58 40.6		3	54	29.05																		
44.46 32.36	57	54.2	50	44.1	9.0	12.44		9.4	71	58	37.43	-	434.40.55	58	47.98	49	18.82	19.34	+17.36	50	36.2	
43.54 36.18		52.7	50	50.5				9.3			37.45			58	47.98	49	17.06				34.4	
58 46.8		60	39.81																			
47.52 54.66	57	52.3	51	20.6	8.9	12.24		8.9	71	58	36.81	-	443.40.52	58	47.98	49	18.82	19.34	+17.36	50	36.2	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8			36.81	-	443.40.52	58	47.98	49	18.82				34.4	
47.52 54.66		52.4	51	27.0				8.8														

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1855phae proj.	2240.94	58	23.6	50	55.5	8.6	1964	8.8	73	59	11.10	-433+5.28	59	16.17	1	23.55	+19.35+0.38.70	2	2.2	26.60
	3.58	3.52	0	52.4	+6.4			8.8			11.09		16.37			22.19		0.9	28.08	
	3.58	41.88	59	16.3	51	1.9	1982	8.8	73	59	11.11		16.39	1		24.11		1.5	2.8	
	2.68	43.27			50	39.33		8.8			11.26		16.54			24.65		3.4		
	6.90	9.87	58	28.8	54	54.7	8.0	11.53	78	77	59	24.50	-500-5.14	59	19.36	1	46.08	19.36-0.38.72	1	7.4
	4.74	11.83		51.3	53	1.1		8.0		59	24.59		19.45	1		47.76		9.0	2.9	
		59	20.1		54	29.09													2.2	
	57.24	25.44	59	5.4	54	38.1	9.0	11.82	8.9	71	59	16.90	-494+0.32	59	57.22	43	16.29	19.37+1.17.48	44	33.5
	57.26	25.65		51.5	54	44.5			8.8		16.91		57.23			15.36		32.5	37.0	
	57.12	26.80	59	56.9	54	29.11		12.41	9.2	71	59	16.96		57.28	43	15.56		33.3	59.2	
	58.66	27.48							9.0		17.01		57.33			14.57		32.0	4.6	
	77.8	43.27	59	11.2	52	27.3	8.8	33.32	8.7	75	0	2.63		0	2.63	33	22.23	19.37	33	12.2
	10.42	42.23		52.3	52	33.7			8.4		0	2.56				33	21.78		21.8	14.9
		2.30		3.5	52	33.68													51.8	
																			50.8	
	19.16	24.56	59	29.0	53	13.9	8.9	26.36	9.0	74	0	17.97	-462+2.61	0	20.58	20	7.82	19.38+0.19.38	20	27.2
	3.5	2.69		52.1	53	20.3			9.0		18.17		20.78			8.10		27.5	21.0	
		0	2.11		53	30.71			9.0		17.97		20.58			9.80		29.2		
	31.16	14.33	59	110.9	50	23.7	9.1	12.46	9.4	71	0	24.21	-416+0.62	0	34.83	28	56.34	19.38+1.17.52	30	13.9
	30.24	14.32		53.0	50	30.1			9.6		24.12		34.74			52.99		12.5	3.4	
		0	33.9		50	39.40													27	
	5.8	3.5	59	43.1	50	59.5	9.0	19.56	8.8	73	0	20.64	-425+5.39	0	34.93	65	20.04	19.38+0.38.76	5	58.5
	5.2	3.4		52.8	51	5.9			8.7		29.54		34.83			20.36		59.1	4.0	
		0	35.9		50	39.42													4.2	
	48.66	46.65	59	53.5	57	22.0	8.0	12.24	8.6	71	0	37.93	-429+0.57	0	48.50	27	25.93	19.39+1.17.56	28	43.5
	49.06	42.80		52.7	57	28.4			8.4		37.80		48.357			25.741		43.3	54.6	
	48.28	42.53	0	48.2	57	35.39			8.5		37.87		48.44			25.69		43.2		
	16.66	23.46	59	5.7	50	17.8	7.9	19.64	7.0	73	0	52.43	-412+5.32	0	57.75	23	28.97	19.39+0.38.78	24	7.8
	15.76	4.57		53.1	50	24.2			8.0		52.44		57.726			28.06		6.8	50.3	
		0	58.8		50	39.46														
	17.74	15.86	0	7.4	50	39.2	8.5	19.82	8.6	73	0	54.98	-417+5.31	1	0.29	154	57.63	19.39+0.38.78	46	36.4
	5.58	18.19		53.0	50	45.6			8.6		55.13					58.85		37.7	19.5	
		1	0.4		50	39.47													19.3	
	25.5	35.04	0	9.7	49	52.1	9.0	44.63	9.4	8.9	83	1	21.88	1.08	1.54		35.23	24.00	19.39	2.35+2.0
	25.5	35.04		53.2	49	58.5		44.63	9.7	9.0	83	1	21.21	1.08	1.54		35.23	24.00	19.39	2.35+2.0
	25.5	35.04		2.9	49	40.43		44.63	9.7	9.0	83	1	21.21	1.08	1.54		35.23	24.00	19.39	2.35+2.0
	29.54	15.38	0	39.5	53	57.6	9.0	26.38	9.0	74	1	28.34	-466+2.61	1	30.95	3	57.51	19.40+0.19.40	4	16.9
	32.80	13.34		58.0	54	4.0			8.8		28.57		31.18			57.64		17.0	57.4	
	25.83	14.62		2	53	30.76			9.2		28.144		31.05			57.57		17.3		
				31.5																
	4.88	46.78	0	45.5	52	2.0	5.5	15.52	6.0	72	1	30.24	-434+7.91	1	38.15	7	26.63	19.41+0.69.23	8	25.4
	4.14	46.62		52.7	52	8.4			5.8		30.30		38.21			29.68		27.9	4.5	
	32.68	25.94	1	38.2	52	33.71		26.46	5.5	74	1	35.49	-433+2.64		38.15	8	7.34	+0.19.41		26.7
	32.38	46.17						33.32	5.3	75		36.19		38.19			25.56		45.0256	50.1
	46.68	46.96							6.3		38.18		38.18			25.82		45.2258		
	44.44	11.13	0	56.0	50	50.1	8.9	1.12		70	1	35.88	-415+3.28	1	49.16	24	52.57	19.41+1.37.05	26	30.5
	5.12	8.51		57.0	50	56.5		19.56		73	1	43.56	-414+5.32		49.18	56	51.70	+0.38.82	56	30.5
	5.06	8.92		3	50	39.51			5.6		43.94		49.26	55		51.74		30.6	6.4	
				49.0																
	56.84	24.84	1	4.7	54	4.2	8.6	11.82	9.0	71	1	46.46	-465+0.53	1	56.91	7	14.48	19.41+1.17.64	10	32.1
	56.78	26.53		52.0	54	10.6			8.7		46.42		56.85			15.77		33.4	59.1	
				56.7	54	29.15													4.6	
	58.16	26.97	1	5.2	57	48.0	9.4	12.24	9.5	71	1	47.61	-428+10.58	1	58.19	53	11.04	19.41+1.17.64	54	28.7
	58.70	26.28		52.8	51	54.4			9.5		47.44		58.02			10.46		28.1	10.1	
	57.95	25.98	1	58.0	51	35.40			9.6		47.51		58.09			9.85		48.7	27.5	
	16.36	5.18					19.66	9.5	73	1	57.73	-428+5.29		58.02	53	48.75	+0.38.82	54	27.6	
	15.90	4.06							9.3		52.58		57.87			47.64		26.5		

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26.68	23.28	4.1	34.3	52	14.1	9.4	12.4	9.5	71	2	16.43	-464+10.43	2	26.86	19	16.69	+19.42	+17.68	20	34.4	
28.08	30.79	0	52.0		+6.5			9.4			16.11		26.84		17.36					35.0	
		2	26.3	54	20.6																
				54	29.18																
26.68	59.74	1	36.3	53	32.5	9.0	26.38	8.8	74	2	25.47	-452+2.62	2	28.09	38	43.42	19.42	+0.19.42	39	28.7	
29.90	0.34		52.3	53	39.0			8.8			25.65		28.27		44.44					3.9	
22.98	0.42	2	28.6	53	30.78			9.0			25.52		28.14		43.28					2.87	
37.88	13.49	1	48.6	50	25.0	8.1	12.46	8.2	71	2	30.90	-402+10.68	2	41.58	29	52.44	19.43	+17.72	31	12.2	
37.04	13.34		53.3	50	31.5			8.5			30.89		41.57		53.92					11.96	
59.00	52.01	2	41.9	50	39.55			8.0	73	2	36.18	-402+5.34	41.52		33.61		+0.38.86			12.5	
46.52	54.18							8.8			36.24		41.58		35.02		+0.19.43			13.9	
33.98	12.68							8.6	74	2	38.75	-402+2.67	41.42		32.20					11.6	
14.99	33.00	2	26.0	50	16.5	9.0	1.2	-	70	3	6.41	-396+13.38	3	19.79	21	15.04	19.44	+13.720	22	52.2	
7.07	24.65		53.4	50	23.0		1.28	9.2	70	3	6.50		19.88		15.73		+13.720			52.9	
51.84	13.39	3	19.4	50	39.58		15.52	9.1	72	3	12.16	-396+8.03	20.19		54.69		+0.58.32	23	53.0		
50.84	16.76							9.3			11.96		19.99		57.99					56.3	
46.52	12.68	2	28.2	50	36.1	9.5	19.66	9.6	72	3	16.87	-400+5.34	3	22.21	41	54.85	19.45	+0.38.90	42	33.8	
20.24	11.96		53.3	50	42.6			9.5			16.90		22.24		52.24					33.1	
		3	21.5	50	39.59																
31.46	57.92	2	39.4	50	10.4	9.0	26.38	9.0	74	3	30.25	-393+2.68	3	32.93	16	37.17	19.45	+0.19.45	16	56.6	
31.54	57.96		53.5	50	16.9			9.2			30.28		32.96		38.49					57.9	
27.56	58.87	3	33.2	50	39.61			9.0			30.10		32.98		37.34					56.5	
40.12	24.78	2	41.6	50	45.3	8.8	33.32	9.0	75	3	34.91		3	34.91	52	2.59	19.45		52	2.6	
42.78	23.04		53.3	50	51.8			9.0			34.54		34.84		52	0.59				0.6	
		3	34.9	50	39.62																
49.6	54.68	2	56.0	50	56.6	8.5	19.82	8.8	73	3	44.13	-402+5.34	3	49.47	2	36.66	19.45	+0.38.90	3	15.6	
54.44	58.05		53.3	51	3.1			8.8			44.17		49.51		39.17					15.1	
		3	49.3	50	39.64																
50.58	46.70	2	57.6	53	43.4	9.2	11.82	9.0	71	3	40.21	-444+10.51	3	50.72	48	35.87	19.45	+17.80	49	53.8	
50.58	47.14		52.4	53	49.9			9.1			40.21		50.72		36.08					53.9	
		3	50.0	53	30.83																
49.14	10.67	3	0.7	50	20.0	9.0	26.46	9.0	74	3	51.90	-392+2.68	3	54.58	52	50.20	19.46	+0.19.46	53	49.7	
19.94	15.03		53.5	50	26.6		44.64	9.0	83	4	16.21	-391-21.45	3	54.76	28	45.80		-2.85-68.26	26	10.1	
19.52	15.05	3	54.2	50	39.66			8.0			16.34		54.89		28	45.63			26	10.0	
11.68	14.15	3	1.0	50	14.4	9.0	40.43	9.0	77	3	59.85	-391-5.16	3	54.49	21	41.67	19.46	-0.38.92	21	7.6	
17.96	15.64		53.5	50	20.9		40.53	8.8	77	3	59.76		54.40		21	47.32				5.4	
19.90	16.88	3	54.5	50	39.67			8.8			59.88		54.52		21	48.17				9.2	
55.62	46.98	3	2.8	53	38.4	8.5	12.4	8.8	71	3	45.45	-442+10.52	3	55.97	113	34.51	19.46	+17.80	44	52.4	
57.16	46.75		52.5	53	44.9			9.1			45.48		56.00		32.64					50.5	
		3	55.3	53	30.84																
46.04	2.66	3	5.1	53	49.1	8.1	36.36	8.4	76	3	59.76	-444-2.63	3	57.13	55	44.47	19.46	-0.19.46	55	25.0	
45.56	2.61		52.4	53	55.5			8.5			59.86		57.23		44.49					25.0	
47.40	57.80	3	57.5	53	30.85		40.98	8.6	77	4	1.20	-444-5.26	[55.94]	55	30.85		-0.38.92	54	51.1		
50.00	53.40							8.5			2.55		57.29		56	5.08				55	26.2
48.8	27.78	3	12.2	51	19.8	9.0	12.24	9.0	71	3	56.07	-405+10.67	4	6.44	25	11.02	19.46	+17.80	26	28.9	
7.28	27.41		53.2	51	26.3			8.8			56.00		6.67		10.73					28.6	
6.46	28.39	4	5.4	51	35.47			9.0			56.00		6.67		11.24					29.1	
0.00	0.82	3	30.1	51	10.9	8.7	15.52	9.0	72	4	20.32	-401+8.01	4	28.33	17	42.98	19.47	+0.58.41	18	41.4	
59.10	0.29		53.3	51	17.4			9.2			20.21		28.22		42.60					41.0	
16.56	39.10	4	23.4	51	35.50		26.38	8.8	74	4	25.35	-400+2.67	28.02		19.23		+0.19.47	17	38.7		
29.64	38.85							8.6			25.57		28.24		20.51					40.0	
22.96	41.47							9.0			25.47		28.14		19.92					39.4	
10.28	19.58	4	1.2	52	52.3	8.8	19.46	9.0	73	4	46.61	-423+5.80	4	57.91	59	4.20	19.48	+0.38.94	59	43.1	
10.02	17.14		52.9	52	58.8			8.8			46.66		57.96		1.82					40.5	
		4	54.1	52	33.79																

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7.40 3.50	4	16.5	50	418	8.7	1 28	8.5	70	4 36.87	-389+10.42	5 102.9	46	32.03	+19.48+137.40	46	9.4	38	
7.00 52.43	0	53.5		+6.5		1 46	8.8	70	4 57.09		10.51	46	33.34			10.7	33	
6.60 11.65	5	10.0	50	48.3		12 46	8.6	71	4 59.67	-389+10.73	10.40	46	53.34	+17.92		11.3		
5.80 12.20			50	3973			8.5		59.63		10.36		53.27			11.2		
4.00 2.02	4	25.4	51	8.5	9.0	12 24	8.9	71	5 8.89	-394+10.71	5 19.60	13	44.79	19.49+117.96	15	2.8	27	
2.00 1.98		53.4	51	15.0			8.9		8.89		19.60		45.02			3.0	26	
19.42 3.47	5	18.8	51	3553			9.2		8.93		19.64		46.04			4.0	23	
18.12 2.98						26 28	8.6	74	5 16.90	-394+2.68	19.58	14	42.95	+0 19.49		2.4	39	
21.25 1.05							8.8		16.92		19.58	46	42.95			2.3	40	
14.42 3.68	4	31.3	52	416	8.8	26 46	8.8	74	5 20.20	-416+2.66	5 22.85	46	58.72	19.49+0 19.49	47	18.2	41	
17.44 16.77		53.0	52	48.1		44 64	8.8	83	5 44.11	-415-21.26	5 22.85	49	58.29	19.49 2.35 92	47	16.4	46	
47.90 20.22	5	24.3	52	3381			8.8		5 44.23		22.97	49	51.92		47	16.0		
42.66 19.81																		
36.16 39.33	4	37.0	52	10.9	9.2	33 32	9.2	75	5 30.86	30.92	5 30.86	30.92	17	18.56	17 12.74	19.49	17	
35.70 38.88		53.2	52	17.4		40 78	9.3	77	5 48.09	-405-5.33	42.76	19	55.15	-0 38.98	19	16.2	19	
23.11 23.05	5	30.2	52	3382	(52 3384)		9.2		5 36.22	-407-5.33	30.89	17	59.09		17	20.1		
12.62 28.03																		
30.89 25.81	4	40.4	50	472	8.3	1 10	8.0	70	5 20.99	-388+18.42	5 34.41	42	7.30	19.49+137.45	53	44.8	34	
31.46 23.70		53.6	50	53.7		19 84	8.3	73	5 28.61	-387+5.37	33.98	53	5.58	+0 38.98	53	44.6	2	
39.04 26.89	5	34.0	50	3974	5		8.3		28.74		34.11		6.72			45.7	1	
40.84 27.05	4	41.2	52	16.5	7.2	46 36	7.8	76	5 34.55	-408-2.66	5 31.89	23	6.81	19.49-0 19.49	22	45.3 47.3	74	
20.36 27.62		53.2	52	23.0		40 93	7.4		34.65		31.99		7.04			48.6 49.6	464	
23.26 57.23		1	52	3383			7.0	77	5 37.07	-408-5.33	31.74	23	27.55	-0 38.98		48.6	8.4	
24.72 58.47	5	34.3					7.8		37.28		31.95		27.84			48.9	43.1	
7.14 41.25	4	49.5	49	59.0	6.6	44 81	2.0	83	6 5.45	-374-21.58	5 43.87	8	10.47	19.50 2.36 00	5	34.5	45	
6.80 39.88		53.8	50	5.5		82	7.0		6 5.43		43.85	8	8.74		5	32.7	47	
	5	43.2		49 4065													46	
57.00 28.00	4	53.7	52	10.7	9.3	40 62	9.4	77	5 35.54	-407-5.33	5 30.51	18	0.83	19.50-0 39.00	17	21.8	45	
29.06 22.04		53.2	52	17.2		40 79	9.2	77	5 5.267	-405-5.33	47.34	17	53.16			14.2	23.5	
30.10 28.49	5	46.9	52	3385		40 109	9.1	77	5 28.05	-408-5.33	22.72	10	54.38		10	15.4	25	
13.00 36.55							8.8		5 59.88	-404-5.33	5 54.55	13	6.22		12	26.5	27.2	
56.32 19.60						45 36	9.4	90 83	6 3.78	8.63	40.5 40.4	42.44	47.29	19 49.00	19.50 2.36 00	19	16.6 17 13.0	51
13.36 35.98	5	18.2	51	35.1	9.1	12 26	9.0	71	6 2.56	-394+10.71	6 13.24	40	19.43	19.50+1 18.00	41	87.4	39	
12.84 34.50		53.4	51	41.6			8.8		2.53		13.24		18.30			36.3	39	
13.12 35.96	6	12.6	51	3555			9.0		2.62		13.33		19.22			37.2		
14.78 1.58	5	21.0	54	30.7	8.9	11 82	9.2	71	6 4.37	-438+10.54	6 14.91	35	52.02	19.51+1 18.04	37	10.1	26	
14.76 2.14		52.5	54	37.2			9.0		4.35		14.89		52.20			10.2	46	
	6	13.5	54	2927													7	
14.46 38.44	5	22.1	54	56.3	8.8	12 41	9.0	71	6 4.24	-445+10.51	6 14.75	1	27.84	19.51+1 18.04	2	45.9	28	
15.80 39.84		52.4	55	2.8			9.0		4.08		14.59		27.61			45.6	20	
	6	14.5	54	2928													56.6	
14.14 15.15	5	23.5	50	55.0	9.0	1 2	-	70	6 5.53	-384+13.44	6 18.97	59	57.37	19.51+1 37.55	1	32.9 34.9	57	
37.52 15.75		53.6	51	1.5		19 66	9.1	73	6 13.84	-384+53.8	19.22	0	55.20	+0 39.02	1	37.2	28	
37.08 14.91	6	17.1	50	3980			9.1		13.71		19.09		57.48			36.5	25	
20.74 44.81	5	32.9	52	33.9	8.5	26 48	8.5	74	6 23.40	-406+2.67	6 26.07	39	26.25	19.51+0 19.51	39	45.8	50	
31.38 46.69		53.2	52	40.4		44 63	8.0	83	6 47.57	-406-21.33	6 26.24	42	19.42	19.51 2.36 08	39	43.3	53	
50.76 46.68	6	26.1	52	3388			8.5		6 47.53		26.20	42	19.82			43.2		
48.12 47.56						44 82	8.8	83	6 47.39		26.06	42	19.61			43.5		
48.66 48.92							8.7		6 47.28		25.95	42	20.56			44.5		
35.12 8.33	5	36.2	52	24.0	8.6	33 32	7.9	75	6 29.87		6 29.87	30	45.32	19.51	30	48.3	51	
10.14 56.16		53.4	52	30.5		40 79	8.7	77	6 35.06	-403-5.34	29.72	31	27.98	-0 39.02		49.0	34	
11.64 54.96		52	52	3389			8.8		6 35.24		29.90	31	26.84			47.8	5	
	6	29.4																
29.10 28.63	5	38.2	53	83.1	8.9	26 40	8.9	74	6 27.85	-426+2.65	6 30.50	59	12.62	19.51+0 19.51	59	32.1	57	
32.22 28.04		57.8	53	59.6			8.9		27.92		30.57		12.93			32.4	32	
25.34 29.60		2	53	3092			9.0		27.84		30.49		12.90			32.4		
	6	31.0																
4.30 57.29	5	40.4	51	9.6	8.5	15 52	8.6	72	6 26.59	-385+8.06	6 34.65	15	39.61	19.51+0 58.63	16	38.2	18	
3.28 56.08		53.6	51	16.1			9.0		26.57		34.63		38.20			36.7	24	
5.46 57.45	6	34.0	51	3556			8.7		6 26.54		34.60		39.90			38.4		
											34.54							

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3824	23.95	5	43.8	52.2.2	8.2	33.41	8.0	75	6	36.26	6	36.56	8	7.60	+14.51	8	7.6		
3338	29.04	0	53.3	+6.5			8.5			36.35		36.35		7.04			7.0		
		6	37.1	52.8.4															
				52.3390															
27.50	25.42	5	44.3	53.450	8.4	36.36	9.3	76	6	41.09	-422-2.65	6	38.54	52	6.24	19.57	-0.1957	51	46.7
26.52	26.82		53.9	53.575			8.4			41.09			38.44		7.05				46.5
33.10	15.27		2.8	53.3093		42.105	8.3	78	6	46.15	-422-7.95		38.23	52	47.10		-0.06.33		48.6
39.40	15.64	6	37.1			42.100	8.2	78	6	46.02			38.07	52	47.06				48.5
40.50	16.60						8.3		6	46.16			38.21	52	47.91				49.4
0.60	42.97	5	52.3	51.26.3	7.5	19.84	7.0	73	6	37.75	-388+5.37	6	43.12	32	25.61	19.52	+0.39.04	33	44.6
48.28	45.54		53.8	51.32.8			7.0			37.98			43.85		27.09				6.1
		6	43.8	51.3558															
18.04	26.74	6	3.0	55.0.9	8.8	40.53	8.8	77	6	59.61	-440-5.24	6	54.35	8	2.67	19.52	-0.39.04	7	23.6
19.86	28.37		52.5	55.7.4			9.0		6	59.59			54.83	8	4.03				25.0
		6	55.5	55.2916															
34.60	37.06	6	7.6	57.5.4	8.0	12.26	8.3	71	6	23.79	-384+10.75	6	34.547	15	20.15	19.52	+1.18.06	16	8.2
2.74	21.49		53.7	57.12.2			7.9			51.43	-381.10.76	7	21.89	11	4.97	19.52	+1.18.08	12	23.0
1.92	21.70	7	1.3	57.3559			8.0			51.41	-384+10.76		21.7	11	4.52				22.0
7.48	45.00	6	44.2	52.19.9	8.3	15.52	8.3	79	7	29.77	-394+8.03	7	27.80	25	28.53	19.53	+0.58.59	26	7.1
4.69	44.48		53.4	52.26.4			8.3			27.98			36.01		27.75				26.3
8.46	46.55	7	37.6	52.3391		19.84	8.4		7	20.55	-394+5.36		37.88	25	30.40		1039.06		27.0
44.63	45.52					33.32	8.5	73	7	32.23			37.63	25	30.40				27.2
43.08	45.52						8.0		7	32.51			37.69	26	26.01				26.8
45.08	51.31	6	55.8	52.44.1	9.3	1.2	-7.0		7	36.45	-371+13.80	7	49.95	26	33.74	19.54	+1.37.70	51	1.4
47.27	54.55		53.9	50.50.6		1.28	9.5	70	7	36.66			50.16	49	32.77				1.05
46.62	54.33	7	49.7	50.39.9		1.46	9.2	70	7	36.68			50.88	49	34.57		+1.18.16		12.2
46.24	12.51					12.48	9.3	71	7	39.20	-371+5.48		50.00	49	54.05				11.3
45.44	12.06						9.2			39.23			50.03	49	53.11				28.8
22.48	35.99	7	37.3	53.0.0	8.1	26.40	8.0	74	8	28.15	-397+2.68	8	30.83	6	9.21	19.56	+0.19.55	6	28.8
25.70	27.07	8	53.4	53.6.5			7.8			28.15			30.83		9.29				
		8	30.7	53.30.3															
51.78	43.35	7	42.8	52.38.5	9.0	19.84	8.9	73	8	28.91	-392+5.36	8	34.27	44	27.22	19.55	+0.39.10	45	6.3
39.20	48.38		53.5	52.48.0			8.7			28.92			34.28		30.66				9.8
		8	36.3	52.3397															
46.68	43.00	7	53.2	50.43.2	8.7	1.28	8.7	70	8	36.05	-371+13.80	8	49.55	48	24.37	19.56	+1.37.80	50	8.2
46.08	46.34		54.0	50.49.7		1.46	8.7		8	36.03			49.63	48	26.41		+0.39.12		4.5
7.94	41.48	8	49.2	50.39.92		19.66	9.0	73	8	44.23	-371+5.20		49.63	49	23.91				5.0
7.48	41.99						8.8			44.05			49.98		24.45				5.6
39.84	10.93	7	54.0	53.47.2	9.3	33.44	9.2	75	8	28.02	-405-21.34	8	50.61	56	21.29	19.56	-2.36.48	53	44.8
30.08	35.90		53.2	53.53.7		33.32	9.2		8	52.73			50.65	56	20.43				43.9
56.02	3.13	8	50.2	53.31.05		45.8	9.5	83	9	11.95			50.65	56	20.43				15.0
6.64	50.27					45.37	9.2	83	8	48.50	-387+2.68	8	56.56	35	16.29	19.56	+0.58.68	36	15.0
59.70	49.53						9.1			48.42			56.48		15.41				14.1
28.22	32.46	8	0.5	52.32.0	8.9	15.54	9.0			48.26			56.32		15.85		+0.19.56		16.5
25.14	31.99		53.6	52.38.5			9.1		8	53.69	-417+10.61	8	55.73	163	30.69	19.56	+1.18.24	44	48.9
27.18	32.16	8	54.1	52.34.00		26.48	9.0	74		53.64			55.65		31.74				50.0
55.16	15.23						9.0												
50.92	13.95																		
55.56	40.25	8	3.9	54.39.7	8.9	11.82	8.8	71	8	45.12	-417+10.61	8	55.73	163	30.69	19.56	+1.18.24	44	48.9
55.48	41.03		53.0	54.41.2			8.9			45.04			55.65		31.74				50.0
		8	56.9	54.29.86															
55.58	55.90	8	5.1	51.19.5	8.8	12.26	-7.1		8	47.76	-371+10.61	8	58.56	24	38.86	19.56	+1.18.24	25	57.2
34.78	43.70		53.9	51.26.0			9.0		9	23.44	-367+10.82	9	34.26	24	27.29				45.5
58.30	55.51	8	59.0	51.38.64			8.9		8	47.78	-371+10.61	8	58.58	24	35.41				56.6
57.20	47.06	8	15.3	53.8.7	8.5	36.44	9.0	76	9	11.57	-394-2.68	9	8.87	15	27.83	19.56	-0.19.56	15	8.3
32.42	13.95		53.4	53.15.2		40.54	8.3	77	9	14.05	-393-5.36		8.69	15	48.38		-0.39.12		9.3
		9	8.7	53.31.07															
18.32	40.66	8	23.2	55.2.2	9.4	40.37	9.0	77	9	21.63	-421-5.30	9	16.33	9	20.32	19.56	-0.39.12	8	41.2
24.36	42.34		52.9	55.8.7			9.5			21.44			16.14	9	20.96				41.8
		9	16.1	55.29.24															

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1855pnae. pro	46	23.267	8	32.6	54	9.0	8.5	12.14	8.7	71	9	12.82	-408+10.66	9	23.48	14	18.11	+19.57	+18.28	15	26.4	23
	58	37.41	0	53.7		+6.5		40.43	8.0	77	9	28.76	-407+5.33	9	23.43	16	14.87	-0.39.14	17	54.0	31	
	86	38.95		54	15.5				8.3		9	28.78		9	23.45	16	15.20		17.5	34.0	23	
			9	25.7	54	2938													44.3	36.1	16	
	66	15.80	8	37.2	51	34.0	8.2	26.66	8.5	74	9	28.17	-370+2.70	9	30.87	39	56.18	19.57	+0.19.07	40	15.8	32
	72	13.77		53.9	51	40.5			8.4			28.34			31.04		53.58				13.2	32
			9	31.1	51	3566																
	36.84	32.11	8	38.3	52	53.4	9.4	19.96	9.2	73	9	26.55	-388+5.37	9	31.92	59	14.64	19.57	+0.39.14	59	53.8	30
	26.60	1.72		53.6	52	59.9		26.48	9.0	74	9	29.32	-388+2.66	9	31.04	58	43.72	+0.19.57	59	54.5	29	
	52.60	35.72	9	31.9	52	3404		49.59	9.6	85	9	58.99	-386-26.86	9	32.07	3	10.29	19.57	-3.15.70	59	54.6	52
	55.16	38.18						49.67	9.3	85	9	58.91	59.11	9	32.05	3	11.75			59	56.2	48
	57.80	40.73						49.68	9.4	85	9	57.47		9	32.01	3	15.10			59	59.4	
	34.44	45.33	8	39.4	51	21.3	8.7	12.26	9.1	71	9	28.61	-367+10.82	9	34.43	26	28.89	19.57	+1.18.28	27	47.2	30
	7.48	58.88		54.0	51	27.8			9.2			56.94	-363+10.84	10	77.8	35	43.16			27	1.4	33
	53.96	53.03	9	33.4	51	3567		45.8	8.9	83	9	57.22	-365-21.66	9	37.56	30	21.77	19.57	-2.36.56	31	45.2	26
	44.02	53.03						45.37	8.6	83	9	56.26		9	34.60	30	21.88			27	45.3	26
	43.46	54.15						38	8.0		9	55.84		9	34.18	30	22.67			27	46.1	26
	38.58	57.52	8	44.1	53	34.3	8.5	26.40	8.0	74	9	34.58	-397+2.68	9	37.26	40	20.71	19.57	+0.19.3	40	40.3	25
	39.04	57.54		53.4	53	40.8			8.5			34.70			37.38		21.17				40.7	26
	32.14	57.84	9	37.5	53	3109			8.0			34.68			37.36		20.38				40.0	
	24.08	28.47	9	41.0	49	56.9	8.0	44.63	8.4	83	10	20.26	-345-21.82	9	58.44	5	58.39	19.58	-2.36.64	3	21.7	41
	23.58	28.89		54.4	50	34			8.5		10	20.32			58.50	5	58.63			3	22.0	30
			9	58.4	49	4073																49
	44.46	5.86	9	19.9	52	10.2	9.2	15.54	9.0	72	10	14.72	-373+8.10	10	12.82	15	49.15	19.58	+0.56.74	16	47.9	37
	41.30	57.44		53.9	52	16.7			8.8			4.35-56			12.66		48.54				47.3	36
	43.44	5.53	10	13.8	52	3405			9.0			4.50			12.60		48.98				47.7	58
	15.52	45.21	9	24.0	50	3.8	9.0	1.28	9.5	70	10	14.85	-346+13.63	10	18.48	8	25.84	19.58	+1.37.90	10	3.7	52
	25.04	58.09		54.4	50	10.3		1.46	9.5	70	10	14.96			18.59	8	29.75				7.6	52
	14.62	7.56	10	18.4	50	3997		12.48	9.3	71	10	7.54	-345+10.91		18.45	8	48.48		+1.18.32		6.8	33
	13.80	7.69							9.3			7.55			18.46		48.82				7.1	34
	20.28	3.82	9	26.0	53	10.5	8.8	33.44	8.5	75	10	19.37		10	19.37	16	42.25	19.59		16	42.2	53
	16.24	3.57		53.6	53	17.0			8.8		10	19.19			19.19		42.28				42.3	53
			10	19.6	53	3114																
	31.04	23.95	9	20.9	52	11.9	9.0	19.68	9.0	73	10	7.32	-373+5.40	10	12.72	16	7.80	19.59	+0.39.18	16	47.0	16
	30.74	26.48		53.9	52	18.4			9.0			7.33			12.73		10.32				49.5	3
	11.68	32.98	10	23.8	52	3407		45.9	9.1	83	10	16.94	-370-21.62	10	25.32	21	2.63	19.59	-2.36.72	18	25.9	
	31.64	33.71						45.38	9.8	83	10	16.88			25.26	21	3.50			18	26.8	
	14.56	36.33							9.2		10	16.94			25.32	21	5.77			18	29.0	
	33.98	18.51	9	41.7	53	36.9	8.4	26.40	8.7	74	10	32.67	-389+2.68	10	35.35	43	2.19	19.59	+0.19.57	43	21.8	
	36.74	20.08		53.5	53	43.4			9.2			32.36			35.04		3.88				28.5	
	30.18	21.57	10	35.2	53	3115			8.6			32.61			35.29		4.15				23.7	
	29.24	21.24						26.44	8.5	74	10	32.50			35.18	43	4.00				23.6	
	54.74	15.29	9	43.4	52	47.5	9.0	19.84	8.8	73	10	31.84	-378+5.39	10	37.23	52	59.27	19.59	+0.39.18	53	38.5	2
	42.28	16.97		53.8	52	54.0			8.8			31.98			37.37		59.40				38.6	27
			10	37.2	52	3408																23
	7.72	29.16	9	47.7	49	52.5	7.1	44.64	7.0	83	11	3.89	-339-21.86	10	42.03	1	59.70	19.59	-2.36.50	59	22.9	3
	7.38	30.68		54.5	49	59.0			7.3		11	4.10			42.24	2	0.98			59	24.2	0
			10	42.2	49	4078																
	39.98	14.50	9	56.9	52	41.9	8.9	26.66	9.0	74	10	47.49	-375+2.70	10	50.19	47	56.12	19.59	+0.19.59	48	15.7	57
	39.80	12.76		53.7	52	48.4			8.9			47.41			50.11		53.72				13.3	57
			10	50.6	52	3409																
	53.54	21.24	10	0.0	54	24.0	7.9	11.84	8.5	71	10	43.09	-377+10.69	10	53.78	29	12.28	19.59	+1.18.36	30	30.6	49
	53.54	22.37		53.4	54	30.5			8.5			43.09			53.78		12.32				30.7	8
			10	53.4	54	2941																19
	57.76	2.00	10	7.6	52	26.3	5.4	36.74	6.0	76	11	3.40	-370-2.70	11	0.70	32	42.47	19.60	-0.19.60	32	22.9	4
	51.94	2.98		53.9	52	32.8			5.8			3.46			0.75		41.95				22.4	4
	41.30	29.86	11	1.5	52	3410		40.79	5.8	77	11	6.19	-370-5.40		0.79	33	0.84		0.39.20		21.0	4
	62.66	29.84							6.5		11	6.19			0.79	33	0.77				21.6	4

23.70	195.23	✓	10	13.0	53	39.0	9.0	36.44	9.076	10	3792	-390+2.68	10 35.24	43	42.68	+19.60	-0.19.60	43	23.1
31.14	30.51	✓	0	53.6		+6.5		40.54	85.77	11	1269	-386-5.37	11 7.32	46	5.53		-0.39.20	45	26.3
23.78	32.34		11	6.6	53	45.5		45.9	-83	11	29.14	-385-21.50	11 7.64	48	3.72	19.60	-2.36.80	45	26.9
16.80	31.98				53	81/6		45.38	9.283	11	29.05		11 7.55	49	3.34			45	26.7
16.62	34.81							37	8.8	11	29.02		11 7.52	48	6.17			45	29.4
32.71	5.26		10	14.6	50	13.3	9.0	44.82	8.683	11	30.97	-340-21.86	11 9.11	22	35.08	19.60	-2.36.80	49	58.3
32.42	5.39		11	9.1	50	19.8		83	8.883	11	30.98		11 9.12	22	34.83			19	58.0
					50	40.00													
52.94	8.27	✓	10	26.9	52	21.3	9.3	15.54	9.372	11	13.18	-367+8.12	11 21.20	26	51.79	19.60	+0.38.80	27	50.6
29.38	42.49	✓		84.0	52	27.8			6.0	10	18.63	-369+8.11	11 21.20	31	25.74			32	24.5
52.10	8.96	✓	11	20.9	52	34.11			9.6	12	13.16	-367+8.12	11 21.20	26	52.49	19.62	+0.38.86	27	51.3
48.42	8.88	✓								12	6.27	-367+8.13	11 21.20	26	52.41				51.23
30.52	3.33	✓	10	37.2	53	46.8	9.0	26.40	9.074	11	29.21	-385+2.69	11 31.90	52	47.01	19.61	+0.19.61	53	6.6
33.67	1.50	✓		53.6	53	53.3			9.0		29.32		32.01		45.75				5.4
26.76	3.95	✓	11	30.8	53	31.7		26.64	9.1	11	29.18		31.87		46.72				6.3
26.00	2.91	✓							9.074	11	29.17		31.86	532	45.79			54	5.4
25.48	41.67	✓	10	39.5	52	2.0	9.5	40.93	9.577	11	39.21	-360-54.2	11 33.79	9	11.69	19.61	-0.39.22	8	22.4
26.94	40.83	✓	11	33.6	52	8.5			9.5		39.39		33.97		13.25				34.0
					52	34.13													
41.42	30.65	✓	10	40.0	54	41.5	9.5	42.113	9.278	11	38.86	-397-8.02	11 30.84	49	9.68		-0.58.83	48	10.8
30.28	3.30	✓						42.114	9.171	11	38.86	-397+10.69	11 30.89	46	52.57	19.61	+1.18.44	48	11.0
25.64	36.77	✓		53.4	54	48.0		42.105	9.478	11	38.61	-397-8.02	11 30.89	49	9.70		-0.58.83	48	10.9
49.74	33.96	✓	11	33.4	54	29.43		42.117	9.378	12	38.42	-389-8.05	11 30.87	49	9.70				8.4
30.78	36.24	✓						43.1	9.278	11	38.44		30.87	49	9.07				11.2
51.90	35.97	✓							9.2	11	38.74		30.87	49	9.07				9.8
37.50	19.85	✓	10	45.9	50	2.2	8.0	1.28	8.370	11	26.84	-336+13.68	11 40.52	7	2.65	19.61	+1.38.08	8	38.7
36.46	22.56	✓		54.6	50	8.7		1.46	7.870	11	26.77		40.45	7	2.35				40.4
58.70	20.21	✓	11	40.5	50	40.01		19.68	6.673	11	34.95	-336+5.47	40.42	8	1.85	+0.39.22	8	41.2	
58.50	19.81	✓							8.0		35.06		40.55		1.46				40.7
52.68	13.72	✓	10	57.4	51	30.6	9.0	12.26	9.071	11	41.83	-352+10.88	11 52.71	35	57.18	19.61	+1.18.44	37	15.6
52.25	14.38	✓		54.13	51	37.1			9.2		41.70		52.58		57.64				16.1
33.86	24.67	✓	11	52.0	51	35.77		40.79	9.077	11	51.96	-351+5.44	52.52	37	54.79		-0.39.22	37	15.6
34.48	24.36	✓							8.8		58.01		52.57	37	54.66				15.3
53.50	16.81	✓	10	59.8	54	17.9	8.8	11.84	7.871	11	43.04	-390+10.78	11 53.47	23	7.63	19.61	+1.18.44	24	16.1
53.42	16.54	✓		53.5	54	21.4			8.0		42.96		53.69		6.98				25.4
			11	53.3	54	29.44													
16.36	7.75	✓	11	41.3	50	3.2	9.2	19.86	9.173	11	53.43	-334+5.48	11 58.91	8	46.88	19.61	+0.39.22	9	28.2
3.84	10.63	✓		54.6	50	9.7			9.1		53.43		58.91		60.40				29.6
			11	58.9	50	40.83													
0.52	3.44	✓	11	41.6	53	14.8	9.0	33.44	9.075	11	58.59		11 58.59	21	44.56	19.61		21	41.6
55.50	1.42	✓		53.9	53	21.3			9.1		58.43		58.43		40.13				40.1
			11	58.5	53	31.20													
25.12	52.32	✓	11	7.1	53	33.9	9.2	40.54	8.477	12	6.67	-378-5.39	12 1.28	41	27.93	19.62	-0.39.24	40	48.2
27.00	50.54	✓		53.8	53	40.4		44.64	8.883	12	28.09	-377-21.56	12 1.53	43	24.69		-2.36.96	40	47.7
23.20	46.37	✓	12	0.9	53	31.21			9.7	12	19.86	-374-21.58	11 58.28	29	30.54			26	43.6
														24					21
3.16	19.28	✓	11	7.6	54	55.1	9.2	41.12	9.077	12	6.18	-395-53.5	12 0.83	1	52.02	19.62	-0.39.24	1	12.8
0.74	20.23	✓		53.4	53	1.6			9.0	12	6.08		0.73	1	51.80				12.6
			12	1.0	54	29.45													
57.70	54.81	✓	11	10.0	52	44.6	9.1	40.94	8.677	12	11.33	-394-5.36	12 5.97	51	28.21	19.62	-0.39.24	50	48.0
57.00	57.58	✓		53.4	54	51.1			9.0		11.40		6.04		30.25				51.0
			12	3.4	54	29.46													
49.44	26.84	✓	11	18.2	53	38.1	8.5	36.44	9.176	12	4.14	-379-2.69	12 7.45	41	6.67	19.62	-0.19.62	40	47.2
8.76	54.15	✓		53.8	53	44.6		40.109	9.077	12	6.56	-379-5.359	12 1.17	41	25.54		-0.39.24		46.1
14.64	38.12	✓	12	12.0	53	31.22			8.8	12	18.21	-377-5.39	12 8.52	45	9.48			44	80.2
29.50	38.19	✓						45.9	8.883	12	34.75	-376-21.57	12 13.18	47	9.61	19.62	-2.36.96	44	32.6
22.54	40.29	✓						45.37	8.883	12	34.77		13.20	47	11.75			44	34.8
4.48	57.46	✓	11	21.6	52	25.0	9.0	26.66	8.574	12	11.56	-361+2.71	12 14.57	30	28.65	19.62	+0.19.62	30	58.3
4.24	56.89	✓		52.1	52	31.5			8.8		11.93		14.64		37.40				57.0
4.96	58.15	✓	12	15.7	52	34.14			9.1		11.87		14.58		38.76				58.4

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27.7	23.78	11	35.1	53	19.1	8.9	26.42	8.8	74	12	26.12	-372+2.70	12	28.82	25	31.03	+19.62+0.19.62	25	50.6	12.0	
23.78	47.56	0	53.9		+6.6			8.9			26.06			28.76		31.82			51.4	12.0	
27.7	50.80	12	29.0	53	25.7		26.48	9.0	74	12	26.14			28.84	25	33.31			52.9		
23.78	48.87			53	31.24			9.0			26.08			28.78	26	31.02			50.6		
50.80	40.81	11	41.5	55	2.9	9.0	40.84	9.0	77	12	39.67	-394-5.36	12	34.31	10	17.02	19.63-0.39.26	9	37.8	20.8	
50.80	39.28		53.4	55	9.5		40.63	9.2	83	12	33.83	-394-2.44.2	12	34.41	12	13.00	19.63-2.37.04	9	36.0	9.7	
50.80	38.33	12	34.9	55	29.36			9.4		12	55.78			34.36	12	14.00			35.0	29.0	
1.32	44.58	11	58.7	53	22.0	9.2	33.46	9.3	75	12	58.38			58.38	25	23.36	19.63	-	25	29.3	
55.34	44.40		53.9	53	28.6			9.2			58.27			58.27		23.51			23.5	32.0	
2.40	34.78	12	52.6	53	31.27	(53.3129)	45.37	-	83	13	14.80	-268-2.1.63	12	53.17	31	5.77	19.64-2.37.04.28	28	28.7	59.0	
7.62	29.27						38	9.5		13	19.97	-366-2.1.65	12	58.32	28	0.30	19.64		25	23.3	
1.62	6.55						49.44	9.2.85		13	20.05	-367-27.05	12	53.00	31	4.55	-3	16.40	28	29.2	
54.86	54.26	12	8.4	53	36.5	8.8		12.14	8.8	71	12	14.60	-372+10.80	12	55.00	41	42.22	19.63+1.18.32	43	0.9	50.0
41.92	58.94		53.9	53	43.1		36.44	9.3	76	12	58.11	-371-2.70		55.11	43	19.73	-0.19.63		0.1	51.0	
46.94	60.9	12	54.3	53	31.28		40.74	8.8	77	13	0.57	-372-5.40		55.17	43	37.54	-0.39.26	42	58.3	51.0	
48.38	9.30							9.1			0.78			55.88		40.04		43	0.8	52.0	
56.18	5.40	12	54.4	54	25.9	9.0	11.84	-	71	12	15.71	-383+10.76	12	56.47	30	56.10	19.63+1.18.32	32	14.6	47.0	
56.04	5.23		53.7	54	32.5			8.9			15.57			56.33		55.51			14.0	47.0	
			12	56.0			54.29.48													48.0	
9.14	55.84	12	6.7	50	35.3	9.0	1	-	70	11	0.16	-346+13.63	11	14.09	35	37.75	19.63+1.18.32	37	50.9	15.9	
53.54	41.30		54.7	50	41.9		1	9.3	70	12	17.86	-333+13.70	13	1.56	40	13.00		41	51.2	46.0	
58.10	34.67	13	1.4	50	40.08			9.0	70	12	17.89			1.59	40	15.14			53.3	50.0	
1.44	51.55						12.28	9.4	71	12	50.58	-328+10.96		1.54	40	34.28	+1	18.32	52.8	51.0	
1.50	52.58							9.2			50.13			1.39		34.81			53.3		
3.58	53.24	12	21.4	53	45.0	7.7	12.24	9.1	71	12	50.26	-328+10.96		1.43	40	34.28	19.64+0.19.64		54.7	53.4	
3.69	7.14		53.9	53	51.6		26.42	7.8		13	12.24			1.44	57	0.38			18.3	10.0	
9.84	17.60		13	15.3	53	31.30	26.50	7.0	74	13	12.26			14.96	57	2.05			20.0		
18.80	17.12							7.0			12.13			14.83	57	0.20			21.7	56.0	
9.48	17.51																		19.8		
49.52	16.00	12	21.1	52	28.0	8.3	15.54	8.2	72	13	9.74	-354+6.10	13	17.89	31	59.51	19.64+0.58.92	32	58.4	2.0	
46.40	16.23		54.2	52	34.6			8.2		13	9.62	-354		17.77		59.29			58.2	24.0	
48.62	10.02	13	18.3	52	34.17			8.4		13	9.65			17.80	38	53.80			52.7	24.0	
55.68	1.58	13	0.6	50	53.3	9.0	12.30	9.0	71	13	14.80	-330+10.97	13	55.77	58	45.23	19.65+1.18.60		3.8	3.8	
3.50	42.20		54.7	50	59.9		19.68	9.0	73	13	50.03	-330+6.48		55.51	59	24.90	+0.39.30		4.2	4.2	
13.62	43.37	13	53.3	50	40.14			9.0			50.15			55.63		26.02			5.3	4.8	
13.16	43.02						19.76	9.0	73	13	50.11			55.59	59	25.11			4.4	7.0	
0.02	44.67							9.8			50.01			55.49		25.06			4.4	7.0	
7.30	19.32	13	15.0	54	55.3	9.3	12.14	9.0	71	13	57.00	-381+10.76	14	7.76	8	9.07	19.65+1.18.60		2.7	2.7	
4.50	45.79		53.7	55	1.9		26.66	9.2	74	14	11.97	-379+2.69		14.66	0	29.43	+0.19.65	0	49.1	16.0	
4.26	44.55	14	8.7	54	29.52			9.0			11.94			14.63	0	27.46			47.1	19.0	
4.98	44.55							9.3			11.90	-21.54-21.55	14	14.59	0	27.37			47.0	0	
4.04	30.38							9.3			11.90	-379-378	7.71	14.82	5	2.10	3.25.43	19.66-2.37.28	2	24.8	48.2
3.16	52.87							9.5	76	14	17.52	-379-2.69	14	14.83	1	6.24	19.65-0.19.65	0	46.6	4.6	
3.16	52.87	13	22.0	54	54.3	9.3	36.44	9.5	76	14	17.52	-379-2.69	14	14.83	1	6.24	19.65-0.19.65	0	46.6	4.6	
4.76	47.22		53.7	55	0.9		40.38	9.2	77	14	20.01	-379-5.39	14	14.62	1	27.11	-0.39.30		46.8	47.8	
23.04	46.28	14	15.7	54	29.53			9.5	77	14	20.12			14.73	1	25.06			48.8	49.0	
49.26	27.02	13	44.9	55	0.5	8.2	40.43	7.8	77	14	45.01	-377-5.39	14	39.62	8	5.12	19.66-0.39.32	7	25.8	54.0	
57.28	25.65		54.0	53	7.1			8.2		14	45.06			39.67	8	4.82			25.5	54.0	
			3.7	55	29.42															54.0	
			14	38.6																54.0	
1.62	0.66	13	45.6	52	29.0	8.8	15.54	8.6	72	14	31.82	-344+8.18	14	40.00	33	44.50	19.66+0.58.98	34	43.5	12.0	
6.56	58.93		54.4	52	35.6			8.8			31.76			39.94		42.33			41.3	6.0	
10.74	0.68			52	34.22			8.6			31.76			39.94		44.50			43.5	2.0	
46.90	5.17	14	39.9				33.46	8.7	75	14	39.91			38.91	34	42.94			43.0		
37.04	4.62							8.5			39.90			39.90		42.77			42.8		
40.14	40.70	13	53.8	50	41.24	9.0	1	-	70	14	35.73	-322+13.75	14	49.48	47	23.38	19.67+1.36.35	49	47.1	53.0	
46.48	43.85		54.9	50	49.0		1	9.0	70	14	35.78			49.53	47	23.38			47.1		
46.08	45.58	14	48.7	50	40.17			9.0	70	14	35.95			49.70	47	26.03			47.1		
45.34	3.39							9.0	71	14	36.61	-322+11.00		49.61	47	45.31	+1	18.68	4.0	44.0	
7.78	42.48							9.0	71	14	44.10	-322+5.50		49.60	46	25.03	+0.39.34		4.4	24.0	
7.78	42.48							9.0	71	14	44.22			49.60	46	25.03			4.4	24.0	
46.62	22.98	13	51.3	53	17.8	8.8	26.42	8.8	74	14	45.62	-360+2.71	14	49.97	52	16.65	19.67+0.19.67	53	36.3	37.0	
42.82	35.05		54.1	53	54.4			9.0			45.20			49.91		17.95			37.6	3.6	
46.92	35.68	14	48.4	53	31.89		26.50	9.0	74	14	46.36			48.07	53						

13.06 46.33 23	✓	14	18.7	51	416.3	9.0	12.28	9.0	71	15	2.17	-33.4	10.96	15	13.13	57	30.30	+19.68	+18.68	52	49.0
12.82 47.15	✓	0	54.7		+6.6			9.2			2.22				13.18		30.57				49.6
		15	13.4	51	52.9																
				51	3586																
20.86 53.50	✓	14	26.8	54	52.5	9.4	12.16	9.2	71	15	10.55	-37.0	40.81	15	21.36	57	43.25	19.67	+18.68	59	19
9.98 36.45	✓		58.9	54	59.1		36.44	9.3	76	15	24.10	-36.9	-2.70		21.40	58.9	18.34	0	19.67	58	58.87
29.46 0.35	✓		3.9	54	29.56		40.38	9.4	77	15	26.52	-36.9	-2.70		21.11	59	38.85	-0.39	3.4	56	59.5
28.74 5.72	✓	15	20.7				40.109	9.4	77	15	26.46	-36.9	-2.70		21.05	59	37.75				58.4
28.02 3.73	✓							9.4	77	15	26.50				21.09		36.42				56.8
22.40 16.81	✓	14	42.1	54	24.9	8.9	36.82	9.0	76	15	38.04	-36.1	-2.71	15	35.33	31	64.65	19.68	-0.19	68	31
59.44 37.22	✓		54.1	54	31.5		40.54	8.5	77	15	40.89	-36.1	-2.71		35.47	32	13.13	-0.39	3.6		82.8
		15	36.2	54	29.58																
50.92 37.83	✓	14	59.4	57	29.4	8.9	1.48	8.3	76	15	40.87	-31.2	+13.80	15	54.67	34	19.10	+13.80	40	85	57.5
51.70 35.14	✓		55.7	50	36.0		1.18	8.5	70	15	41.28				55.08	34	19.41	19.68	+13.80		54.7
51.92 38.22	✓		0	50	40.23		1.46	8.0	70	15	41.02	-31.1	+13.80		54.82	34	18.82				57.13
51.16 38.82	✓						1.70	8.0	70	15	41.02				54.69	34	18.82	+0.39	3.6		57.13
12.90 34.99	✓	15	54.4					8.6	73	15	49.33				54.85		16.12				55.5
12.82 33.87	✓																				
47.94 23.96	✓	15	1.9	54	54.1	8.0	26.68	8.0	74	15	55.37	-36.5	+2.71	15	58.08	1	7.56	19.68	+0.19	68	1
47.88 23.53	✓		54.0	55	1.7			7.9			55.44				58.15		6.42				26.1
48.54 23.91	✓	15	55.9	54	29.60			7.8			55.44				58.15		6.83				26.5
47.42 30.55	✓	15	5.2	54	1.5	8.0	36.36	-	76	16	0.97	-35.3	-2.72	15	58.25	8	11.48	19.68	-0.19	68	7
44.92 29.56	✓		54.2	54	8.1			8.0			1.05				58.33		10.87				51.2
50.48 58.08	✓	15	59.4	54	29.61		40.94	8.3	77	16	4.05	-35.3	-5.44		58.61	8	29.91	-0.39	3.6		50.6
51.37 1.08	✓							8.7			3.71				58.27		32.18				52.8
16.52 11.49	✓	15	13.9	51	20.2	9.4	33.46	9.3	75	16	8.44			16	8.44	26	48.43	19.69	-	26	48.4
10.44 12.56	✓		54.9	51	26.8			9.1			8.40				8.40		48.99				48.0
56.00 49.13	✓	16	8.8	51	35.92			9.3		15	58.80			15	58.80	25	26.00			25	26.0
24.16	✓	15	30.14	53	32.1	9.0	26.42	9.0	74	16	22.80	-34.4	+2.73	16	25.53			19.69	+0.19	69	
20.34 54.37	✓		54.4	53	38.7			9.1			22.73				25.46	38	37.01			38	56.7
24.54 55.86	✓	16	24.8	53	314.87		26.50	9.0	74	16	22.95				25.68	44	38.65			34.5	58.3
20.14 54.23	✓							8.9			22.75				25.49		36.91				56.6
38.80 56.74	✓	15	47.1	53	18.9	8.5	36.82	9.0	76	16	44.39	-33.8	-3.73	16	41.66	25	37.37	19.70	-0.19	70	25
49.18 26.45	✓		54.5	53	25.5		40.110	8.5	77	16	46.90	-33.8	-3.47		41.43	25	67.16	-0.39	40		17.8
48.48 25.45	✓	16	41.6	53	314.88			8.5			46.74				41.47		66.43				17.0
7.68 21.38	✓						44.66	8.6	83	17	3.70	-33.7	-2.88	16	41.82	27	58.36	19.70	-2.87	60	25
7.20 21.13	✓							8.8			17.3.78				41.90	27	54.76			25	17.4
20.06 51.70	✓	15	51.3	52	36.0	9.0	15.56	9.0	72	16	40.25	-3.29	+8.23	16	48.48	40	35.07	19.70	+0.59	10	41
16.98 52.98	✓		54.7	52	42.6			8.8			40.15				48.38		36.31				65.4
19.22 53.31	✓	16	46.0	52	34.26			9.3			40.21				48.44		36.98				36.4
46.96 53.71	✓	16	3.4	53	26.0	7.9	36.38	-	76	17	0.80	-33.8	-2.73	16	57.77	32	34.03	19.70	-0.19	70	32
46.28 54.11	✓		54.5	53	32.6			8.0			0.40				57.67		34.25				14.6
49.72 22.07	✓	16	57.9	53	314.9		40.94	8.5	77	17	3.29	-33.8	-5.47		57.82	32	53.91	-0.39	40		14.5
50.90 24.31	✓							8.5			3.23				57.76		54.77				15.4
54.97 23.36	✓	16	3.9	50	15.1	7.4	1.10	7.5	70	16	44.91	-30.2	+13.85	16	58.76	20	44.44	19.70	+0.38	50	20
54.90 44.60	✓		55.3	50	21.7		12.48	7.6	71	16	47.74	-30.2	+11.08		58.52	20	25.83	+1.78	80	21	44.6
54.06 45.00	✓	16	59.2	50	40.25			8.0			47.74				58.82		25.53				44.3
3.22 53.09	✓						45.59	7.2	83	17	20.96	-30.0	-2.18	16	58.78	24	20.53	19.70	-2.87	60	21
2.70 53.06	✓							7.2			17.21.16				58.48	24	20.11			21	43.0
12.98 37.88	✓	16	9.7	53	12.8	8.7	33.46	8.5	78	17	2.83				58.72	24	20.11			21	43.0
6.78 38.28	✓		54.8	53	19.4			6.6			4.77				4.77		16.69				16.7
2.06 37.54	✓		0	53	31.50			8.7			4.90				4.90		16.17				16.2
		17	4.3																		
53.51 23.71	✓	16	11.2	50	14.1	9.0	1.2	-	70	16	44.77	-30.2	+13.85	16	58.62	20	5.63	19.70	+1.38	50	21
17.00 22.24	✓		55.2	50	20.7		19.70	7.0	73	16	53.19	-30.1	+5.54		58.73	21	4.63	+0.39	40		43.5
16.78 23.22	✓	17	6.4	50	40.26			7.1			53.27				58.81		5.07				44.5
24.08 54.05	✓						45.10	9.2	83	17	29.11	-29.9	-2.18	17	6.93	23	22.39	19.71	-2.37	68	20
17.18 54.50	✓						45.39	9.3	83	17	29.25				7.07	23	22.94			20	45.3
3.76 47.20	✓	16	18.7	52	08.0	8.8	26.68	8.9	74	17	11.16	-31.9	+2.75	17	13.91	6	22.78	19.71	+1.97	1	6
3.68 46.15	✓		54.8	62	6.6			9.2			11.20				13.95		26.38				46.4
4.46 46.83	✓			52	34.27			8.8			11.29				14.04		26.79				46.5
		17	13.6																		
27.81 33.27	✓	16	35.7	50	5.6	9.1	1.28	9.0	70	17	17.07	-29.6	+13.88	17	30.95	10	14.52	19.71	1.38	55	11
27.57 37.27	✓		55.4	50	12.2			1.46			17.14.40				3.128	10	17.27				55.8
	✓	17	31.1	50	40.30			12.16			17.20.65	-29.6	+5.55			23	20.65				
48.60 33.53	✓						19.56	9.0	70	17	25.60	-29.6	+5.55		31.15	11	14.84	+0.39	42	11	84.2
38.14 36.47	✓							6.4			25.65				31.20		16.36				55.9

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2.00	23.2880	18.176	54.179	7.5	36.38	8.276	19.13.48	-331-2.74	19.10.44	24	17.23	+19.74	-0.19.74	23	57.8
57.40	35.98	0.54.7	+6.6			7.7	13.48		10.74	24	17.23				57.5
7.86	35.00	19.123	54.24.5		36.74	8.076	19.13.43		10.69	24	18.18				58.4
3.02	37.58		54.29.69		40.38	8.1	13.47		10.73	24	18.18				58.4
15.70	58.58					8.077	19.16.11	-331-5.48	10.63	24	18.18				58.4
19.16	56.41	18.26.7	52.38.6	9.0	1.18	9.070	19.15.83		10.39	24	18.18				58.4
20.64	15.44	55.5	50.45.2		26.44	8.874	19.19.25	-289+13.92	19.22.40	43	37.87	19.74	+1.38.70	45	15.6
16.84	15.44	19.22.2	50.40.36			8.8	19.21	-289+2.78	22.03	44	35.94	+0.19.74			15.7
									21.99		35.18				14.9
43.70	11.58	18.51.0	52.38.2	7.5	12.6	6.571	19.33.35	-331+10.96	19.44.31	43	11.7	19.74	+1.18.91	44	20.1
45.22	11.01	54.7	54.44.8			7.0	33.35		44.31	42	58.92				17.9
43.14	16.68	54.7	54.29.70		26.50	7.874	19.41.52	-331+2.74	44.26	44	0.44	+0.19.74			20.2
38.92	15.34	19.45.6				7.3	41.47		44.21	43	59.02				18.8
8.54	26.98	18.53.9	51.53.2	9.2	19.70	9.473	19.44.70	-299+5.55	19.50.25	58	10.56	19.75	+0.39.50	58	50.1
8.30	25.98	55.3	51.59.8			9.4	44.76		50.31		9.54				49.0
		19.49.2	51.36.0												
17.34	35.70	18.52.0	52.12.2	7.0	26.70	7.174	19.44.72	-302+2.77	19.47.49	17	16.69	19.75	+0.19.75	17	36.4
57.94	35.61	55.3	52.18.8			6.4	44.67		47.44		17.25				37.0
2.95	16.53	2	52.34.40		49.51	7.485	20.15.17	-300-2.772	19.47.45	20	52.14	19.75	-3.18.50	17	34.6
9.55	17.31	19.49.2			49.63	20.85	20.15.27		47.55	20	57.84				34.3
14.31	19.66				49.70	20.85	20.15.23		47.51	20	54.26				36.8
29.56	24.47	19.2.1	52.48.0	8.9	15.56	8.872	19.49.71	-307+8.30	19.58.01	52	8.39	19.75	+0.21.25	53	7.6
26.50	23.51	55.1	52.54.6			8.9	49.63		57.93		7.63				6.3
29.74	23.93	19.57.2	52.34.41			8.9	49.67		57.97		7.83				7.1
58.50	52.57	19.3.2	52.34.6	7.9	33.48	7.775	19.56.43		19.56.43	40	10.20	19.75	-	40	30.2
53.54	51.47	55.2	52.41.2			7.5	56.32		56.32		29.26				29.3
		19.58.4	52.34.42												
28.68	55.67	19.16.1	52.23.0	8.3	19.88	8.27073	20.56.7	-302+5.54	20.11.21	28	49.05	19.75	+0.39.50	29	28.6
48.02	25.94	55.3	52.29.6			7.560	5.70	-299+5.55	11.24	31.59	45.74	9.33			28.2
16.14	7.04	20.11.4	52.34.44												28.2
36.48	27.61														28.2
11.76	50.78	19.19.6	54.18.7	8.8	36.82	8.876	20.17.31	-322-2.78	20.14.56	25	32.38	19.75	-0.19.75	25	12.6
16.84	11.44	57.8	54.25.3		40.38	9.077	20.20.03	-322-5.50	14.53	25	50.50		-0.39.50		11.0
22.82	13.05	4	54.29.72			8.7	20.19.85		14.35	25	57.04				11.5
		20.14.4													
35.18	33.46	19.37.0	52.22.1	7.8	40.55	8.07477	20.14.65	-305-5.54	20.11.11	20	31.50	19.76	-0.39.52	29	27.4
55.58	24.81	55.3	52.28.7					-6.58							28.8
57.84	53.75	20.32.3	52.34.46		44.65	7.783	20.33.82	-297-2.220	20.31.62	31	26.76	19.76	-2.38.08	28	48.7
57.12	52.67					21	20.33.66		31.46	31	23.67			28	47.6
20.35	9.89	19.44.3	52.4.6	9.3	26.70	9.274	20.37.58	-294+2.78	20.40.66	10	50.10	19.76	+0.19.76	11	9.9
30.30	10.45	55.4	52.11.2			9.4	37.73		40.51		50.92				10.7
30.98	9.57	20.39.7	52.34.47			9.4	37.76		40.54		49.53				9.3
45.90	16.72	19.50.8	52.38.6	9.0	12.28	9.071	20.36.94	-300+11.09	20.46.03	44	1.22	19.76	+0.19.04	45	20.3
45.68	17.16	55.3	52.45.2			8.8	35.01		46.10		1.57				20.6
4.40	57.13	20.46.1	52.34.48		19.70	8.873	20.40.55	-300+7.94	46.09	44	41.66		+0.39.52		20.2
4.26	55.87					8.8	40.71		46.25	45	40.20				19.7
18.08	41.87				33.48	8.775	20.46.00		16.00	45	20.52				20.7
42.10	41.30	20.41.4	119.56.0	9.0	44.83	8.883	21.13.15	-23.30	20.52.73	45	53.71	19.76	-2.38.16	2	19.9
16.88	35.92	55.9	50.2.6			8.883	21.15.28	-23.03	52.86	0.614	53.23				15.6
32.62		21.0.3	49.41.22		49.41.20										17.1
59.38	17.24	20.5.4	53.45.9	8.5	26.44	8.674	20.57.25	-302+2.776	21.07.71	52	0.78	19.76	+0.19.76	52	20.5
53.70	19.16	55.1	53.52.5			8.7	58.02		0.76		1.92				21.7
59.70	18.98	21.0.5	53.31.58		26.52	8.874	20.58.08	-317+2.76	0.84	52	1.69				21.4
55.58	18.70					8.6	20.58.12	-310	0.88		1.81				21.1
23.08	10.74	20.8.3	53.12.6	9.0	40.62	8.977	21.9.62	-303-5.54	21.4.08	19	44.22	19.76	-0.39.52	19	4.7
41.72	10.94	55.2	53.19.2			9.0	21.9.75		4.21	19	83.34				30.8
		21.3.5	53.38.9												
48.82	4.67	20.9.0	54.11.5	8.7	12.6	8.667	20.38.46	-317+11.02	20.49.48	15	53.69	19.77	+1.19.08	17	12.8
50.35	5.22	55.0	53.18.1			8.5	38.48	-319+11.01	49.50	4.49	53.18	52.46			13.3
50.35	5.22	21.4.0	54.29.75		54.29.74			-315+11.03							12.3

[illegible]

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35.04	23.27.22	21	49.2	52	7.4	9.0	40.110	22	77	22	32.64	-302-5.54	22	27.10	16	58.67	+19.79	-0.39.58	16	19.1
49.24	29.02	0	55.3		+6.6			94		32.60			27.06	14	1.04				21.5	
6.52	57.76	2		54	14.0		44.96	9.0	83	23	5.29	-299-22.18	22	43.11	16	31.82	19.79	-2.38.22	13	55.5
53.20	0.32	22	44.4	54	29.88		45.40	8.0	83	23	5.23			16	32.08				53.8	
52.98	1.57							8.6		23	5.17			16	33.05				54.7	
6.40	36.22	21	57.7	50	11.3	8.9	19.88	9.1	73	22	42.94	-261+5.62	22	48.56	17	17.27	19.79	+0.39.58	17	57.0
53.44	38.35		56.1	50	17.9			9.2		42.89					18.67				57.6	
47.44	57.69	22	47.8	50	40.53		26.52	9.1	74	22	45.50	-261+2.81			17	37.12	+0.19.79		56.9	
43.18	57.56							8.8		45.72					36.47				56.3	
48.68	53.32	22	2.1	52	17.5	8.5	26.72	8.7	74	22	56.01	-279+2.79	22	58.80	23	34.30	19.79	+0.19.79	23	54.1
48.62	53.38		55.1	52	24.1			8.9		56.07					33.62				53.4	
47.18	53.60		0	52	34.53			8.5		55.93					33.86				53.6	
		22	57.1																	
31.90	57.48	22	5.3	52	52.0	6.8	15.56	6.5	72	22	52.01	-286+8.36	23	0.37	57	46.36	19.79	+0.39.37	58	40.7
28.84	57.73		55.6	52	58.6			6.5		52.94				0.30		41.72				40.1
		23	0.9	52	34.54															
16.02	2.00	22	7.5	51	40.3	9.0	40.55	8.8	77	22	57.47	-273+5.60	22	51.87	50	35.50	19.79	-0.39.58	49	55.9
28.40	17.68		55.8	51	46.9		44.84	9.0	83	23	26.43	-271-22.41	23	4.02	49	48.53	19.80	-2.38.40	47	11.1
27.00	15.98	23	3.3	51	36.21		83	9.0		23	25.77			19	46.88				8.5	
26.16	49.76						49.64	8.0	85	23	31.83	-271-28.01		3.82	50	24.10	-3.18.00	47	6.1	
36.89	53.00						49.82	9.1	85	23	31.46			3.45	50	24.67			9.7	
33.00	18.73	22	7.9	51	27.6	9.2	40.62	9.3	77	23	9.57	-271-5.60	23	3.97	34	50.58	19.79	-0.39.58	34	11.0
46.66	19.83		55.9	51	34.2			9.2		23	9.72			4.12	34	47.88			10.3	
		23	3.8	51	36.22															
14.10	42.53	22	18.0	54	56.5	9.5	12.6	9.0	71	23	3.71	-306+11.06	23	14.77	1	32.44	19.80	+1.19.20	2	51.6
15.84	42.63		55.2	55	13.1			9.2		3.90				14.96		30.75				50.0
		23	13.1	54	29.89															
40.98	17.87	22	21.6	52	36.21	8.41	42.94	8.4	78	23	25.29	-250-8.38	23	16.91	43	51.51	19.80	-0.39.40	42	52.1
45.16	17.40		55.7	52	43.0		42.96	8.5	78	23	25.48			17.10	43	50.94				51.5
		23	17.3	52	34.55			8.4		23	25.56			17.18	43	52.02				50.6
12.16	30.87	22	29.3	54	21.4	7.8	36.40	7.2	76	23	25.58	-298-2.77	23	22.81	27	11.79	19.80	-0.19.80	26	52.0
11.79	30.40		55.3	54	28.0		36.74	7.7		25.75				22.98		11.36				51.6
20.10	31.88	23	24.6	54	29.91			8.5	76	23	25.61			22.84	27	12.18				52.4
14.24	33.48						40.43	7.6		25.61				22.84	27	12.18				53.3
32.72	33.28							7.7		25.61				22.84	27	12.18				53.0
40.70	55.18							7.8		25.61				22.84	27	12.18				52.2
2.25	17.00	22	19.4	50	25.3	9.5	19.96	7.3		23	52.46	-255+5.64	23	58.67			19.80	+0.39.60		
18.64			56.1	50	31.9		44.96	8.3		23	48.48	-256-22.53	23	25.95						
22.76	23.22	23	25.5	50	40.54		49.67	8.7	85	24	26.29	-252-28.20	23	58.09	30	55.36	19.81	-3.18.10	27	37.3
52.56	30.87						49.70	8.7	85	23	53.43	-256-28.16	23	58.27	35	8.71	19.80	-3.18.00	31	45.8
34.82	1.59						45.47	8.8	83	23	48.64	-256-22.53	23	26.11	34	30.81		-2.38.40	31	52.4
25.28	13.95	22	36.9	51	52.5	8.5	40.95	8.8	77	23	38.80	-270-5.60	23	33.20	59	53.63	19.80	-0.39.60	59	14.0
26.18	27.07		55.9	51	59.1			9.1		38.90				32.83		56.87				17.3
50.36	22.22	23	32.8	51	36.23		43.9	8.3		23	53.37	-270-22.42	23	32.95	1	52.24	19.80	-2.38.40	59	13.8
43.34	24.67						45.39	8.8	83	23	53.33			32.91	1	54.37				16.2
43.28	26.34							8.2		23	55.43			33.01	1	56.07				17.7
13.02	21.80	22	37.9	52	21.0	8.7	40.80	8.6	77	23	37.71	-270-5.59	23	32.12	27	52.74	19.80	-0.39.60	27	13.1
14.46	21.22		55.8	52	27.6			8.8		37.77				32.18		52.11				12.5
		23	33.7	52	34.56															
25.08	57.18	22	39.7	52	2.3	8.6	26.72	8.6	74	23	32.59	-273+2.80	23	35.39	8	36.02	19.80	+0.19.80	8	57.8
25.28	56.07		55.9	52	8.9			8.6		32.72				35.52		37.03				56.8
25.92	57.64	23	35.6	52	34.57			8.4		32.66				35.46		37.71				57.5
53.12	55.68	22	40.8	50	52.9	8.0	1	70		23	114.30	-251	23	58.50	3	37.69	19.80	+1.39.80	5	46.7
55.90	25.29		56.1	50	59.5		19.72	8.3	73	23	32.02	-261+5.62	23	37.64	59	7.94		+0.39.60	59	47.5
55.68	25.71	23	36.9	50	40.56			8.0		32.10				37.72		8.28				47.9
41.48	39.72	22	47.0	51	47.5	8.7	26.52	8.9	74	23	39.83	-269+2.80	23	42.63	53	20.76	19.80	+0.19.80	53	40.6
37.26	38.02		55.9	51	54.1			8.7		23	39.79			42.59		19.52				39.3
		23	42.9	51	36.25															
23.32	28.81	23	2.5	49	58.4	8.2	44.83	8.2	83	24	21.36	-249-22.58	23	58.78	7	38.86	19.81	-2.38.48	5	21.5
23.88	28.31		56.3	50	5.0			8.3		24	21.25			58.67	7	58.50				20.0
		23	58.8	49	41.37															

23 17.3 23 15.0	54 28.3	8.0	12.6	6.5	71	23 59.09	-294+11.1	24 10.20	33	21.42	+19.81	+119.24	34	40.86	15.8
32.96 0 55.24	+6.6			8.3		59.14		10.25		20.90				40.1	14.8
24 10.4	54 34.9														15.6
	54 29.2														
23 25.4	52 8.7	9.5	15.58	9.1	72	25 18.67	-260+8.44	25 27.11	14	38.54	19.81	+0.54	43	15	38.0
55.9	52 14.3		26.72	9.8	74	24 19.37	-268+2.80	24 22.17	14	52.26		+0.14	81	15	16.1
14.12 24 21.3	52 34.58			9.7		19.38		22.18		54.78					14.6
12.90 14.4				9.6		19.13		21.93		54.30					14.1
51.34 15.38 23 30.5	51 51.5	9.5	40.55	9.5	77	24 32.75	-264+5.62	24 27.13	58	48.02	19.81	-0.39	62	58	8.4
53.88 12.61	51 51.1		41.67	9.6	83	24 19.82	-263-22.47	24 27.35	0	45.43	19.82	-2.88	56	58	6.9
53.24 13.15 24 26.5	51 36.28			9.8		24 48.74		27.27	0	46.11				58	7.6
47.08 58.78															
16.10 52.53 23 40.7	54 37.8	9.4	40 110	8.8	77	24 14.61	-290-55.6	24 39.05	45	10.16		-0.39	62	44	51.5 30.5
49.32 36.00	54 41.11		36.40	9.5	76	24 29.53	-292-2.79	26.74	44	8.64	19.82	-0.19	82	42	48.8
49.28 34.05	4			9.1		28.35		25.56	42	11.44				41	51.6
57.18 34.72 24 36.1	54 29.94		40 44	9.0	77	24 44.91	-290-5.56	39.35	45	12.02		-0.39	64	44	32.4
51.98 57.84			40 95	9.2	77	24 45.38		39.28	45	10.63					21.0
32.40 20.47 23 10.3	50 10.7	9.0	12.48	9.0	71	24 26.15	-248+11.30	24 37.45	16	1.66	19.82	+1.19	28	17	20.9
32.60 19.30	50 17.3			9.6		26.16		37.46	15	59.98					19.3
24 38.6	50 40.61														
36.2 51.81 23 14.1	50 14.4	9.0	19.72	9.2	78	24 12.53	-251+5.64	24 18.17	21	34.90	19.82	+0.39	64	22	14.6
52.22 39.14	50 21.0			9.3		35.62	-248+5.65	41.27	20	16.03				20	55.7
58.78 2.10	3		45.9	9.0	85 88	25 3.78 25 17.59	-246-2.45	41.17 54.97	23	31.02	19.82	-2.38	56	20	52.5
12.60	50 40.62		45.39	-8.8		25 17.51	-245-2.26	54.89	24	20.49				21	41.9
3.36 51.62	24 40.4			9.2		25 3.57	-246-2.26	24 40.96	23	33.02				20 19	54.5
51.46 46.7			40 80	8.7	77	24 45.91	-246-5.59	24 40.32	34	49.71	19.82	-0.39	64	34	10.1
22.68 16.05	55.7			8.6		24 45.91		40.32	34	48.34					8.7
24 39.9	53 31.3														
	53 31.72														
35.36 19.18 23 53.6	50 19.1	9.0	1.18	9.2	70	26 24.52	-235+14.18	26 38.77	34	2.57	19.82	+1.39	10	35	39.7
10.26 13.52	56.4		19.88	9.1	73	24 47.18	-247+5.65	24 52.83	24	54.93		+0.39	64	25	24.6
57.54 16.02	3			9.0		46.97		52.62		55.51					35.2
24 51.9	50 40.63														
24 10 15.43 23 58.1	51 7.5	9.5	40 62	9.6	77	25 0.67	-254+5.64	24 55.03	14	116.87	19.82	-0.39	64	14	7.2
32.64 17.23	51 14.1			9.6		25 0.70		55.06	14	47.45					7.8
24 54.3	51 36.29														
51.16 4.86 23 58.3	54 31.3	8.6	36.84	8.8	76	24 56.65	-288-2.78	24 53.87	36	44.53	19.82	-0.19	82	36	24.7
56.58 31.87	54 37.9		41 12	8.9	77	24 59.37	-287-5.57	53.80	37	3.28		-0.39	64		23.6
54.26 32.03 24 54.8	54 29.95			90.67		24 59.35		53.98	37	2.45					22.8
4.18 5.66 24 10.9	53 5.1	9.0	26.52	9.0	74	25 41.53	-271+2.80	25 7.33	10	47.60	19.82	+0.19	82	11	7.4
2.00 6.28	55.8			9.0		41.53		7.33		48.09					7.9
25 6.7	53 31.73														
16.36 24.05 24 18.5	54 53.8	9.0	12.8	8.9	71	25 5.94	-289+11.13	25 17.07	2	14.25	19.82	+1.19	28	2	33.5
18.40 22.76	55.5			8.5		6.04		17.17		11.11					30.4
25 14.0	54 29.96														
12.76 6.81 24 21.4	53 30.1	8.4	42.18	8.2	78	25 25.52	-273-8.40	25 17.12	37	37.25	19.82	-0.59	46	36	38.5
34.38 51.97	55.8			9.2		24 48.74	-278-8.38	24 40.41	35	8.98				35.4	9.5
27.74 45.71 25 17.2	53 31.75		45.40	8.2	83	25 39.64	-273-22.39	25 17.25	39	16.84	19.83	-2.38	64	36	38.2
27.12 47.17				8.1		25 39.68		17.09	39	18.04				36	39.4
22.64 36.22				8.7	85 77	25 20.75 22.33	-289-55.6	25 14.60 16.76	3	25.67		-0.39	64	2	46.0 34.2
22.44 32.78				8.6	85 78	25 23.32 25.42	-288-8.35	25 14.99 17.07	3	25.62		-0.59	46	2	39.7
25.44 52.70				8.4	78	25 3.11 16	-290-8.35	25 4.76	4	5.14					5.7
27.52 61.00	55.5			8.4		25 5.29 8.37	-290-8.35	25 5.674	36	0.03					30.7 28.6
27.44 52.78	55 2.8			8.4		25 23.01 27	-281-8.34	25 14.63	3	55.03				2	55.60
27.72 55.13	54 29.98			8.5	92	25 25.75 24.7	-279-8.35	25 16.87 21.13	4	26.64 26.28				8	27.4
28.64 22.57				8.5	92	25 25.75 24.7	-279-8.35	25 22.99	8	27.01	19.83	-2.38	64	5	48.4
28.98 52.54	24 26.7	49 59.1	8.5	44.67		25 45.65	-289-22.66	22.99	8	26.29				5	47.6
28.12 55.90	56.4			9.0											
24 54.79	4 49 41.1														
25 23.1															
47.80 26.83 24 24.4	51 36.6	7.3	40 55	6.7	77	25 29.22	-257+5.64	25 23.58	43	58.87	19.83	-0.39	66	43	19.2
46.44 28.30	56.2		44 83	7.7	83	25 46.28 43	-254-22.54	23.89	46	0.19	19.83	-2.38	64	43	21.5
46.12 27.75 25 23.6	51 36.30			7.3		25 46.47		23.93	45	59.60				43	20.4

1855phae.proj.1706.

15.00	23 ^{11.11}	24	28.7	52	5.1	9.0	26.74	8.774	25	22.29	-259+2.81	25	25.10	11	11.73	+19.83	+0.19.83	11	31.6		
14.88	31.30	0	56.1		76.6		26.74	9.074	25	22.29		25.10	11.46						31.3		
15.62	31.09	25	24.8	52	11.7			8.7		22.34		25.15	11.10						30.9		
				52	3461																
18.88	18.08	24	30.5	50	46.5	9.1	40.95	9.377	25	32.26	-283-5.57	25	26.69	53	50.53	19.83	-0.39.66	53	10.9		
19.98	20.78		55.6	54	53.1			9.4		32.13		26.56	52.52						12.9		
		25	26.0	54	3000																
50.34	16.79	24	43.8	49	52.3	8.5	49.44	8.885	26	8.29	-286-28.36	25	40.43	1	53.10	19.83	-3.18.20	58	34.8		
58.14	-		56.5	49	58.9		49.56	8.885	26	8.81		40.45	-								
		25	40.3	49	4145																
35.74	49.51	24	44.5	50	17.6	9.0	5.4	70.40	25	26.89	-242+14.15	25	41.04	22	32.10	19.83	+1.39.15	24	11.6		
57.38	57.00		56.5	50	24.2		19.72	4.373	25	35.48	-242+5.66	41.14	28	33.11			+0.39.66		12.8		
57.24	49.82		4	50	4066			9.3		35.64		41.30		31.97					11.6		
		25	40.9																		
24.92	13.27	24	47.7	52	21.6	9.0	38.48	9.075	25	22.76		25	22.76	25	50.67	19.83	-	25	50.6		
20.12	13.94		55.0	52	28.2			9.0		22.80		22.80		50.88					50.9		
59.92	1.41		6.1	52	3464	43.70	8.888	26	4.89	-258-22.51	25	42.38	30	31.37	1983	-2.38.64	27	52.9			
47.54	3.70	25	43.8			45.61	9.283	26	5.17			42.66	30	33.88					55.2		
46.78	1.68						8.7	26	5.12			42.61	30	31.38					52.7		
25.48	14.91	24	46.5	53	20.6	7.5	40.80	8.077	25	57.28	-268-6.61	25	44.47	27	46.69	19.83	-0.39.66	27	7.0		
26.72	15.20		53.9	53	27.2			7.5		49.90		44.34		47.03					7.4		
		25	44.4	53	3178																
18.76	18.58	24	52.7	52	47.1	9.0	36.44	9.376	25	32.17	-285-2.80	25	29.37	52	46.74	19.83	-0.19.83	52	28.9		
55.32	43.66		55.6	52	53.7		40.44	9.277	25	53.93	-283-5.58	25	48.35	54	21.77		-0.39.66	53	42.1		
6.66	44.82	25	48.3	54	3001			9.0		54.29		48.71	54	21.45					41.8		
58.68	47.94					45.40	9.583	26	10.65	-281-22.33	25	48.32	56	20.72	1983	-2.38.64	53	42.1			
43.14	2.93						6.4	26	55.56	-275-22.38	25	53.18	55	0.07	1984	-2.38.72	52	21.32			
57.50	56.20	24	59.4	53	22.8	8.7	41.54	8.08777	26	0.30	-267-5.61	54.69	55.49	33	47.06	1983	-0.39.66	27	45.3		
52.30	52.64		55.9	53	29.4		42.10	8.98778	26	3.23	-267-8.42	54.81	55.43	32	10.39	1983	-0.39.66	27	10.9		
57.56	57.87	25	53.3	53	3180	53.5179		8.5		52.93	-268-8.41	44.52	25	6.57					7.1		
47.60	36.42						45.70	8.08683	26	6.69	-266-22.45	44.24	55.78			22	2.65	1983	-2.38.64	29	15.0
57.20	30.93						45.48	9.08683	26	17.34	-261-2.81	54.87	55.50	31	56.60				50.9		
57.40	37.83	25	1.9	52	47.3	9.3	36.84	9.176	26	1.22	-261-8.43	58.51	58.4	57.94	19.83	-0.19.83	53	52.4			
22.70	18.25		56.0	52	53.9		42.94	9.178	26	6.94		58.50	57.4	57.14		-0.59.49			57.6		
26.70	17.54	25	57.9	52	34.65		42.96	9.178	26	6.93											
4.72	53.27	25	3.2	52	18.6	9.0	41.12	8.79077	26	4.80	-257-5.63	25	58.87	25	22.16	19.83	-0.39.66	24	42.5		
57.30	52.25		56.2	52	25.2			9.087	26	4.87		58.74	25	20.13					40.5		
		25	59.3	52	38.66																
				4																	
18.76	14.89	25	5.8	51	44.1	8.5	19.88	8.773	25	55.67	-252+5.64	26	1.31	49	58.96	19.83	+0.39.86	50	26.8		
6.14	17.32		56.3	51	50.7			8.7		55.59		1.23		58.08					37.9		
		26	2.1	51	3632																
0.76	45.26	25	6.8	53	13.2	8.5	26.54	8.774	26	59.06	-258+2.81	26	1.87	19	27.64	19.83	+0.19.83	19	47.5		
56.54	45.31		56.0	53	19.8			8.4		57.03		1.84		27.24					47.1		
		26	2.8	53	3182																
59.64	58.70	25	8.4	53	52.5	8.9	42.105	8.778	26	12.35	-271-8.40	26	3.95	34	30.81	19.83	-0.59.49	58	31.3		
2.00	57.54		55.9	53	59.1			8.5		12.35		3.95	34	29.51					30.3		
		26	4.3	53	3183																
6.28	45.88	25	12.5	54	7.1	8.8	12.8	8.871	25	55.86	-274+11.19	26	7.05	12	35.34	19.84	+1.19.36	13	54.7		
7.82	46.38		55.8	54	13.7			8.3		55.87		7.06		33.92					53.23		
		26	8.3	54	3002																
44.50	15.70	25	23.8	51	6.7	9.0	40.55	9.077	26	25.93	-243+5.66	26	20.27	15	48.18	19.84	-0.39.68	15	8.5		
47.26	14.04		56.4	51	13.3		44.68	8.883	26	43.17	-242-22.64	26	20.53	15	46.43	19.84	-2.38.72	13	7.7		
46.66	13.44	26	20.2	51	3635			8.8		43.14		20.50	15	48.74	45.72				13	7.0	
45.26	15.31							8.983		43.25		20.61	15	46.73					13	8.0	
44.80	16.70							8.9		43.13		20.49	15	48.40					13	6.090	
20.24	28.20	25	34.1	52	30.4	7.9	26.74	8.074	26	27.52	-255+2.82	26	30.34	36	9.30	19.84	+0.19.84	36	29.1		
20.00	27.84		56.2	52	37.0			8.2		27.39		30.21		8.28					28.1		
20.76	28.37	26	30.3	52	3467			8.3		27.46		30.28		8.65					28.5		

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[illegible]

1.53	19.04	27	4.5	50 470	9.0	1 30	8.2 70	27 51.31	-227-14.250	28 55.4	52 1.41	+19.86	+139.30	53 40.5
59.19	59.80	28	0	56.7	+6.6	1 18	9.4 70	27 48.35	-228-14.272	28 55.4	52 1.41			53 40.5
58.04	17.44	28	1.2	50 53.6		19 74	9.3 73	27 47.69	-230+14.21	28 56.1	51 59.65			53 39.0
23.86	15.46			50 4077			8.9	27 59.93	-230-5.68	28 56.5	52 59.39		+0.3972	53 40.6
23.60	15.89							27 59.97						53 39.1
23.54	45.83							28 24.31	-228-22.75	28 1.56	56 16.67	1986	-2.3888	53 37.8
58.48	35.6	27	5.3	50 26.8	9.3	1 48	9.5 70	27 46.49	-227-44.22	28 24.11	33 43.91	1986	+1.3930	53 23.2
52.30	25.84		56.8	50 35.4		26 74	9.4 74	27 58.55	-217+2.85	28 2.90	34 41.63		+0.19.86	53 24.5
52.12	25.18		7	50 4078			9.4	27 59.49		28 2.34	34 3.61			53 23.5
52.84	25.37	28	2.0				9.2	27 59.50		28 2.35	34 3.28			53 23.1
9.06	31.44							28 25.62	-225-22.78	28 2.84	38 0.20	1986	-2.3888	53 21.3
7.76	3.615	27	8.4	50 470	8.8	33 50	8.9 75	28 5.52		28 5.52	53 39.17	1986		53 39.2
5.00	2.84			50 53.6			8.9	28 5.59		28 5.59	53 38.63			53 38.6
		28	5.1	50 4079										
12.80	3.02	27	17.4	53 15.8	8.3	26 54	8.1 74	28 10.57	-248+2.82	28 13.39	22 21.23	1986	+0.19.86	22 41.1
8.04	35.79		56.3	53 22.4			8.3	28 14.50		28 13.32	22 20.80			40.7
		28	13.7	53 31.93										
14.62	45.97	27	20.0	51 41.3	7.3	12 8	8.0 71	28 11.14	-263+11.24	28 15.38	16 35.93	1986	+119.44	47 55.4
16.10	47.27		56.1	54 47.9			8.5	28 11.12		28 15.36	16 35.26			54.7
		28	16.1	54 300.6										
48.24	16.93	27	23.0	52 6.5	9.0	15 58	9.3 72	28 11.27	-238+8.50	28 19.77	11 58.22	1986	+0.59.58	12 59.3
46.62	3.44		56.4	52 13.1		44.67	8.9 88	28 12.58	-236-22.69	28 19.79	13 56.92	1987	-2.3886	12 58.0
46.06	2.58		5	52 3480			9.1	28 12.49		28 19.80	15 35.78			12 56.8
45.86	39.64	28	19.5			44.84	8.5	28 12.49		28 19.80	15 35.78			12 56.8
45.86	41.58					44.84	8.5	28 12.49		28 19.80	15 35.78			12 56.8
45.86	41.58					44.84	8.5	28 12.49		28 19.80	15 35.78			12 56.8
45.86	41.58					44.84	8.5	28 12.49		28 19.80	15 35.78			12 56.8
39.24	59.66	27	25.4	50 48.8	8.3	19 90	9.5 73	28 16.62	-227+5.49	28 22.31	54 41.65	1986	+0.39.82	54 21.5
10.48	18.48		56.8	50 55.4			9.0	27 59.88	-233+5.68	28 22.31	54 41.65			53 21.5
33.28	30.58		7	50 4081		45.41	8.4 83	28 15.17	-225-22.78	28 22.39	57 58.78	1987	-2.3886	55 20.8
32.84	32.93	28	22.1				7.8	28 14.90		28 22.12	58 2.04			55 23.1
8.16	14.73	27	43.1	51 17.3	8.8	40 63	8.7 77	28 14.66	-228-5.69	28 38.97	24 46.17	1987	-0.39.74	24 6.4
16.66	16.44		56.7	51 23.9			8.9	28 14.65		28 38.96	24 46.15			7.0
		28	39.8	51 36.46										
37.24	3.12	27	44.6	50 34.4	8.2	12 50	8.7 71	28 29.95	-223+11.40	28 41.35	39 44.48	1987	+1.19.88	41 4.0
2.39			56.8	50 41.0				28 30.00		28 41.40	39 43.38			5.8 2.9
		28	41.4	50 4084										
36.18	7.22	27	49.7	52 4.2	8.8	26 74	8.9 74	28 13.43	-234+2.84	28 46.27	10 47.86	1987	+0.19.87	11 7.7
36.12	8.58		56.6	52 10.8		26.76	9.0	28 13.48		28 46.32	10 47.84			8.5
36.78	7.30	28	46.3	52 34.82			8.8	28 13.45		28 46.29	10 47.15			7.0
51.74	22.47	27	52.6	51 48.5	7.9	41 12	9.2 77	28 34.48	-231-5.68	28 48.80	55 50.21	1987	-0.39.74	55 11.0
34.32	24.11		56.7	51 55.1		40 95	9.2 78	28 39.35	-233-5.68	28 48.80	55 50.21			53 11.5
45.24	16.74		5	51 36.47			8.0 77	28 2.68	-230-5.68	28 48.80	55 50.21			59 6.7
42.40	21.23	28	49.2				8.0	28 54.58	-231-5.68	28 48.80	55 50.21			55 10.4
48.58	29.65	27	55.0	51 13.2	8.9	41 54	9.0 77	28 57.35	-226-5.69	28 57.66	55 50.21	1987	-0.39.74	20 17.0
47.80	29.97		56.8	51 19.8			9.0	28 57.49		28 57.80	55 50.21			18.0
		28	51.7	51 36.48										
59.86	29.69	28	0.2	51 52.9	8.5	33 50	9.5 75	28 57.14		28 57.14	59 6.21	1987		59 6.2
54.44	29.03		56.7	51 59.5		41 12	9.5 75	28 57.05	-232-5.68	28 57.05	59 6.21			59 6.2
54.40	2.27		6	51 36.49			9.5 75	28 57.04	-232	28 57.04	59 6.21			59 6.2
49.52	22.70	28	56.8				8.5 78	28 54.53		28 54.53	59 6.21			59 6.2
26.00	54.22	28	3.0	51 5.0	8.5	44.67	8.5 83	29 21.88	-223-22.79	28 59.09	13 59.46	1987	-2.3886	11 48.5
25.38			56.8	51 11.6			8.8	29 21.83		28 59.09	13 59.46			
9.12	3.62	28	59.8	51 36.50		49.44	8.7 85	29 27.47	-223-28.49	28 59.84	41 31		-3.18.70	11 22.6
21.33	7.18					49.60	8.5 85	29 27.48		28 59.84	41 31			22.2
23.82	22.69	28	3.3	51 1.5	8.4	42 35	8.2 78	29 8.11	-223-8.58	28 59.56	9 1.62	1987	-0.39.61	8 2.0
27.90	25.35		56.8	51 8.1		42 97	8.0 78	29 8.15		28 59.63	9 1.62			1.1
40.66	12.11	29	0.1	51 36.51		40 81	8.6 77	29 5.32	-224-5.72	28 59.62	8 1.67		-0.39.74	1.9
42.02	11.13						8.6	29 6.29		28 59.59	8 1.67			1.0
82.04	1.47	28	11.6	51 59.2	9.0	42 102	8.5 78	29 18.08	-230-8.53	29 9.55	6 32.11	1987	-0.59.61	5 32.5 47.5
71.30	6.33		56.7	52 5.8		42 105	8.5 78	29 18.08		29 9.52	6 32.11			46.6
7.62	15.22	29	8.3	51 36.52			8.8	29 18.01		29 9.48	6 32.11			46.0

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29.64 16.85 23	✓	29 33.4	53 52.7	9.2	26 54	9.7 74	30 27.88	-234+2.84	30 30.72	58	59.78	+19.89+0.19.89	59	19.7
29.18 13.05	✓	10 56.6	+6.6			9.6	27.60		30.44	53.91				15.8
		80 30.0	53 59.3											
			53 32.03											
27.00 6.73	✓	29 31.2	50 19.8	8.9	12 50	8.5 71	30 19.67	-208+11.26	30 31.13	24	48.02	19.89+1.19.86	26	7.6
26.30 8.00	✓	57.7	50 26.4				19.80		31.26	48.50				8.85
		80 31.3	50 40.94											
25.80 52.94	✓	29 31.7	51 49.3	9.0	40 96	9.0 77	30 38.69	-218-55.71	30 32.98	56	22.82	19.89-0.39.78	55	43.0
26.46 53.90	✓	56.9	57 55.9			9.0	38.59		32.88	23.19				43.4
		80 31.6	51 36.65											
41.88 4.98	✓	29 42.1	53 9.2	8.4	33 50	8.3 75	30 39.14		30 39.14	15	42.92	19.89	15	42.9
36.58 2.18	✓	56.7	53 15.8			8.5	39.19		39.19	40.24				40.2
		80 38.8	53 32.04											
13.18 14.79	✓	29 58.6	51 29.0	8.1	19 90	7.5 9.2 73	30 50.11 38.42	-214+5.72	30 55.83 31	0.14 34	57.34	19.89+0.39.78	55	37.1 45.14
12.56 24.17	✓	58.0	57 35.6			8.8	30 22.70	-213+5.72	30 22.70	30 22.70	7.92			47.7
12.12 27.20	✓	80 55.6	51 36.66			8.3 83	31 18.87	-219+5.71	30 55.98 38	15.88		19.89-2.39.12 35	36.8	
7.02 46.02						8.0	31 18.70	-211+5.71	30 55.81 38	16.12			35	37.3
6.68 46.47														
56.08 57.13	✓	30 2.9	51 29.1	9.4	40 81	9.5 77	31 20.98	-211+5.72	31 15.26 38	27.19		19.89-0.39.78	37	47.4
38.18 53.53	✓	59.0	57 35.7			8.3 94	31 1.43 37	-213+5.72	30 55.71 0.03	30 55.71	15.14		35	51.4 33.3
42.55 48.65		80 39.9	51 36.67			9.2 83	31 23.02	-212+5.72	31 0.14 38	19.95		19.90-2.39.20 35	40.6	
24.78 47.90						9.2 83	31 23.05	-212+5.72	31 0.17 38	18.85			35	39.6
24.34 46.80														
35.72 57.10	✓	30 10.4	52 39.1	9.5	15 58	7.6 72	30 58.72	-222+8.55	31 7.25 24	40.55		19.89+0.39.67	45	40.2
30.52 25.08		56.9	52 45.7			9.6 4	31 36.06	-219-28.53	31 7.53 49	0.84		19.90-3.19.00 45	41.8	
31.78 22.83		31 7.3	52 34.86			9.6 5	31 35.82		31 7.29 48	58.44			45	39.4
11.20 19.53	✓	30 13.5	54 24.4	9.5	12 8	9.8 71	31 0.73	-235+11.35	31 12.08	26	9.11	19.90+1.19.80	27	27.7 28.7
12.84 19.26	✓	56.6	54 28.0			9.3	0.83		12.18	6.99				26.6
		31 10.1	54 30.12											
23.32 14.49	✓	30 20.7	55 5.0	7.0	40 111	7.3 77	31 20.73	-240.5-6.6	31 15.07	11	48.44	19.90-0.39.80	11	6.7
22.64 14.31	✓	56.5	55 11.6			7.3	20.83		15.17	46.74				6.9
		81 17.2	55 29.90											
18.63 52.51	✓	30 21.9	50 9.7	8.8	1 30	9.0 70	31 7.74	-201+14.36	31 22.10	14	33.70	19.90+1.39.80	16	13.2
18.25 55.23	✓	57.3	50 16.3			8.9 70	31 7.91		22.27	14	35.50			14.8
40.40 54.53	✓	31 22.2	50 40.97			9.0 73	31 16.44	-201+8.61	22.18	15	36.42 42	+0.39.80		16.2
40.16 53.19						9.0 75	31 16.49	+5.74	22.23	14	35.04		14	14.3
40.20 48.41						9.1	31 46.59		22.23	14	23.40		14	23.4
40.28 48.70							46.79		14.93	23.40				23.7
26.10 12.85	✓	30 30.5	54 8.9	8.9	36 42	8.9 76	31 39.39	-229-2.84	31 36.58	15	52.53	19.90-0.19.90	15	33.6
25.64 7.40	✓	56.7	54 15.5			9.2 76	31 38.52		36.68	15	52.97			31.1
34.06 10.15	✓	31 3.6	54 30.14			9.0 76	31 38.93 43		36.59	15	52.51			30.9
25.14 12.32						9.1 77	31 42.20	-229-5.69	36.54	16	12.27	-0.39.80		32.6
33.58 42.76						8.8	31 42.26		36.51	16	10.53			32.5
32.64 40.49	✓	30 40.9	57 49.1	9.5	40 44	9.5 77	31 43.63	-210-5.72	31 37.91	56	6.68	19.90-0.39.80	55	30.7
47.94 31.37	✓	57.1	57 55.4			9.5	31 43.71		37.99	56	6.13			26.3
56.02 32.28		81 38.0	51 36.69											
32.26 27.97	✓	30 43.6	54 2.8	9.2	40 96	8.8 77	31 45.57	-228-5.69	31 39.88	9	59.59	19.90-0.39.80	9	19.8
33.36 28.54	✓	56.7	54 9.4			9.3	45.41		39.72	59.50				19.7
		31 40.3	54 30.15											
40.30 45.17	✓	30 14.6	53 32.1	8.5	26 56	8.8 74	31 38.52	-224+2.85	31 41.37	38	27.76	19.90+0.19.90	38	47.7
36.12 43.80	✓	56.8	53 38.7			8.7	38.53		41.38	26.14				46.0
		31 41.4	53 32.06											
11.04 16.57	✓	30 45.5	57 26.4	8.7	40 63	8.6 77	31 47.49	-207-5.73	31 41.76	33	48.06	19.90-0.39.80	33	8.3
17.56 17.37	✓	57.2	57 33.0			8.8	31 47.49		41.76	33	47.68			7.9
		31 42.7	51 36.70											
40.84 24.08	✓	30 48.5	50 7.6	9.1	51 4	-70	31 36.93	-198+4.37	31 46.32	0	3.04	19.90+1.39.87	1	42.5
36.64 24.56	✓	57.3	50 14.2			26 76	31 43.96	-198+2.87	45.83	14	2.73	10.19.90 14	22.6	
36.64 24.25	✓	31 45.8	50 40.98			24 76	9.2 74		46.72	14	2.95			22.8

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13.23 51.35	30 48.8	49 55.2	8.9	44.69	9.088	32 9.48	-195-28.02	31 46.46	22.83	+19.70	-2.39.20	1	43.6	23.6
31 4.61	0 57.3	+6.6			9.7	32 9.33		46.51	22.41			1	43.2	23.2
49 4175	50 1.8													2.39
37.3 38.30	30 56.1	51 52.5	8.1	42.106	8.678	31 50.28	-210-8.59	31 41.67	34	9.57	19.70	33	8.8	26.1
52.4 9.79	31 57.1	51 59.1			8.268	31 4.38 50.31	-216-8.57	55.81 41.72	36	39.41	34.84	35	3.9	23.8
2.60 28.38	31 52.2	51 36.71		43.41	8.183	32 14.61	-208-22.91	31 51.70	2	0.04	1990-2.39.20	59	30.7	23.8
8.14 0.66				49.51	8.185	32 20.19	-208-28.64	31 51.85	2	36.92	1991-3.19.10	59	17.8	23.8
14.47 8.15				49.61	8.585	32 20.50		31 51.86	2	38.80		59	19.2	
59.32 4.40	31 2.5	50 26.6	8.0	19.90	8.241	31 36.17	-214.04.11.48	31 47.65	32	28.08	1990+1.19.60	33	47.7	56.6
4.46 42.4		57.3		50 33.2	8.4	32 53.83	-217.98+11.50	32 53.33		21.84			41.4	57.2
17.64 12.21	31 8.98	50 40.99		45.11	8.685	32 22.51	-197-28.00	31 59.51	35	40.78	1991-2.39.28	33	1.5	17.9
0.11 43.86				49.44	8.885	32 28.46	-196-25.76	31 59.70	36	20.98	-3.19.10	33	1.9	5.5
29.78 43.83				49.73	8.885	32 28.38		31 59.57	36	17.46		33	58.4	
14.72 26.52	31 2.7	52 1.2	7.9	19.98	8.91 73	31 53.39	210+57.2	31 59.11	32.41 7	80.6	5220.19.90	10 39.80	22	47.9 32.0
18.82 18.30		57.1		49.57	8.96 85	32 27.53	22.11	58.37	0.47 11	8.37	10.54	1991-3.19.10	7	49.37 35.3
27.20 33.25	31 59.8	52 34.87		49.71	8.0 85	32 27.90	-208-28.64	31 59.26	11	8.43		7	49.3	29.1
18.11 38.80	31 2.8	52 56.5	9.0	42.118	8.078	32 7.59	-233-8.52	31 59.07	4	2.81	1990-0.59.70	33	21.0	28.3
20.64 53.59		52.6		43.2	8.278	32 7.86		57.34	4	25.45		3	25.8	36.1
21.06 48.88	31 59.4	54 30.16			8.9	32 8.74 48		58.96	4	20.83			21.1	40.1
1.44 27.64				45.61	8.8	32 22.17	-232-22.72	31 59.45	6	0.41	1991-2.39.28	3	20.2	
3.20 27.10				45.62	8.8	32 22.33		59.31	5	59.15		3	19.8	
8.94 17.80	31 6.0	51 18.9	8.9	43.37	8.8	32 7.78	-203-8.61	32 5.37	26	44.52	1990-0.59.70	23	44.8	38.1
30.78 13.98		57.2		51 25.5		32 13.89		5.28	26	43.63			43.9	38.1
30.60 15.38	32 5.2	51 36.73			8.9	32 13.96		5.35	26	45.34			45.6	18.1
3.88 20.48	31 10.8	55 9.1	8.7	40.111	8.777	32 11.28	-233-5.68	32 5.60	15	52.46	1990-0.39.80	15	12.7	34.2
3.24 18.54		56.5		53 15.4	8.9	11.42		5.74		50.92			11.1	35.6
30.70 16.69	32 7.3	55 29.92		44.86	8.83	32 28.51	-233-22.71	32 5.80	17	52.61	1991-2.39.28	15	13.3	
30.40 15.99					8.9	32 28.58		5.87	17	51.35			12.1	
10.44 14.68	31 12.5	54 25.3	8.5	12.10	8.071	31 59.96	-236+11.38	32 11.34	31	4.41	1990+1.19.60	32	24.0	50.9
11.88 16.22		56.7		54 31.9	8.8	59.86		11.24		4.19			23.8	31.7
	32 9.2	54 30.17												31.2
18.98 20.63	31 13.8	54 16.9	9.1	41.54	8.977	32 17.66	-226-5.67	32 41.97	23	59.59	1990-0.39.80	23	19.8	33.1
8.0 6 29.49		56.7		54 23.5	8.7	32 17.66		11.77	23	58.70			18.9	52.1
	32 10.5	54 30.18												39.6
41.14 17.02	31 35.7	54 0.6	8.5	32.96	8.578	32 32.32		32 52.82	6	57.60	1991-	6	57.6	14.6
21.92 37.69		56.9		54 7.2	8.346	32 35.20	-221-2.85	32.38	7	18.26	-0.19.41		58.4	12.1
21.44 37.03	32 32.6	54 30.19			8.6	35.31		32.46		17.49			57.6	
29.86 37.14				36.76	8.676	32 35.20		32.38	7	18.63			58.7	
24.04 37.32				40.45	8.079	32 35.26	-220-5.70	32.41		18.10			58.2	56.5
42.46 37.14	31 45.8	54 52.5	9.0		8.571	32 35.24		32.31		36.33	1991-0.39.82	7	6.5	39.9
31.46 37.03		56.8		40.64	8.571	32 49.72	-226-5.69	32 42.03	59	31.37		58	52.6 51.6	53.8
34.72 35.34	32 42.6	54 30.20		40.96	8.677	32 47.95	-226	42.26	59	30.97			51.2	52.6
35.60 37.90					8.5	47.60		41.91		31.74			51.9	
44.04 23.47	31 49.7	50 43.0	9.0	1.32	8.070	32 33.53	-195+14.38	32 48.11	48	5.85	+1.39.58	49	45.3	3.1
44.44 24.19		57.4		50 49.6	1.18	8.270		47.91		3.26	+1.39.58		42.8	
44.28 22.88		50 41.00			1.48	8.880		47.82	48	5.08			44.6	5.1
43.82 25.24	32 47.1				12.50	8.880	-195+11.51	47.84	48	6.21	+1.19.64		45.8	5.1
43.60 44.12						8.880		47.85	48	25.44			45.1	5.1
43.72 43.35						36.19		47.86		24.35			44.0	5.1
51.40 38.80	31 56.1	53 38.4	7.2	26.56	7.574	32 49.61	-216+2.86	32 52.47	44	41.26	1991+0.19.91	45	21.2 1.2	44.1
47.06 37.48		57.0		53 45.0	7.9	49.45		52.81		39.83		44	59.7	40.1
	32 53.0	53 32.07												56.1
34.10 31.43	32 3.0	51 27.8	7.8	15.60	7.572	32 50.89	-199+8.62	32 59.51	33	14.25	1992+0.59.76	34	14.0	19.1
27.46 30.50		57.3		51 34.4	6.3	50.89		59.55		12.93			12.7	17.4
17.88 30.48	33 0.3	51 36.76		19.74	6.073	32 53.84	-198+5.75	59.64	33	33.66	+0.39.84	34	13.5	32.1
17.66 49.67				19.92	6.073	32 53.84		59.75	33	33.30			12.7	
16.98 50.78					6.073	32 53.84		59.88	33	34.17			13.1	
14.68 53.70													14.0	
5.98 41.78	32 6.7	53 51.8	8.5	33.82	8.475	33 3.72		33 3.72	58	19.97	1992-	58	20.0	52.1
1.10 42.24		57.0		53 56.4	8.5	3.70		3.70		19.36			19.4	8.1
	33 3.7	53 32.08												9.1
19.70 30.21	32 21.0	54 29.2	9.2	12.10	9.271	33 9.20	-211+11.50	33 20.60	33	57.62	1992+1.19.68	35	17.3	18.1
21.16 8.03		56.9		54 35.8	9.1	9.12		20.623		57.75			15.4	12.1
29.08 33.23	33 17.9	54 30.21		32.96	9.075	33 20.26		20.26	35	14.08			3.0	
42.76 56.55				49.61	9.385	33 48.70	-216-28.56	33 20.14	38	33.22	1992-3.19.20	35	14.5	38.1
42.78 57.04				49.68	9.485	33 49.41		20.85	38	35.65		35	16.4	

23.61 23.67 23	32 32.0 50 32.3 9.0 15 4	- 70	33 11.66	-189+14.42	33 29.08	34 6.04	+19.92+1.39.60	35 45.6
25.26 48.04	0 57.5 +6.6	26 56	9.1 74	33 26.48	29.36	35 27.74	+0 19.92	47.7
23.92 47.95	33 29.5 50 38.9	9.0 74	26.33	-188+2.88	29.21	37 27.10		47.0
	50 41.06							
26.14 6.55	33 2.0 53 58.2 9.4	44.69	92 83	34 21.85	-208-2291	33 58.94	7 42.21	19.93 2 39.44 5 2.8
23.30 9.81	57.1 54 4.8	44.85	93 83	34 21.60		58.69	7 44.46	5 5.0
23.56 9.15	33 59.1 53 32.11		9.4	84 21.72		58.81	7 43.42	5 4.0
56.44 32.69	33 3.2 50 45.9 9.0	1 31.2	58 70	33 14.185	-187+14.44	34 0.60	50 44.75	19.93 +1.39.65 51 54.4
57.22 31.02	34 57.6 50 52.5	1 20	9.2 70	33 46.36		0.65	50 44.75	52.9
17.94 30.61	34 0.8 50 41.09	19.92	9.1 73	33 54.74	-186+5.77	0.78	57 13.44	53.1
5.52 21.95			9.0	34 54.82		0.51	57 12.49	52.4
						0.57	57 11.94	5.8
30.18 19.83	33 8.7 57 12.4 9.0	44.95	90 85 83	34 28.24	-188-23.07	24 5.77	21 51.37	19.93 -2 39.44 19 11.9
22.56 55.23	57.5 57 19.0	49.52	90 85	34 34.60	-186-28.86	5.74	22 31.05	-3 19.30 19 11.5
29.07 38.85	34 6.2 51 36.80	49.64	91 85	34 31.56		5.70	22 13.57	19.93 19 54.2
30.66 55.81		49.65	90 85	34 34.68		5.82	22 30.17	19 10.9
28.93 47.38	33 12.8 49 58.5 9.0	49.57	92 85	34 39.48	-178-28.94	34 10.54	8 21.68	19.93 -3 19.30 5 2.4
36.18 53.48	57.7 50 5.1	49.67	90 85	34 38.55		10.61	8 26.25	5 7.0
42.71 48.00	34 10.5 49 41.84	49.73	89 85	34 39.22		10.28	8 20.88	5 1.1
38.66 3.80	33 22.4 50 45.8 9.0	19.74	9.0 73	34 14.66	-185+5.77	34 20.43	1 46.41	19.93 +0.39.86 2 26.3
38.52 3.04	57.6 51 2.4	26.78	9.1 74	34 14.82		20.57	1 46.74	25.6
18.18 28.01	34 2.0 50 41.11		9.0 74	34 17.35	-185+2.89	20.24	2 7.34	+0 19.93 27.48
18.32 27.33			9.2	34 17.44		20.19	2 6.15	26.1
34.24 55.86	33 39.7 54 25.3 8.8	12.10	8.8 71	34 23.73	-208+11.46	34 35.19	29 45.23	19.93 +19.72 31 5.0
35.60 56.25	34 36.8 54 30.24		8.3	34 23.55		35.01	29 44.13	1 3.8
50.96 43.05	33 44.9 54 20.4 7.9	32.98	8.1 75	34 42.12		34 42.12	27 23.39	19.93 - 27 23.4
31.76 3.76	57.1 54 27.0	36.42	7.2 76	34 45.00	-206-2.87	42.13	27 44.54	-0.19.93 24.6
31.22 1.08	34 42.0 54 30.25		8.1	34 45.05		42.18	27 41.96	22.0
39.50 3.86		36.76	7.4 76	34 44.82	-205-2.87	41.95	27 43.03	23.1
33.74 5.28			7.7	34 44.93	-205-5.93	42.06	27 44.14	24.2
52.48 24.87	33 45.1 51 45.41 7.3	40.45	7.6 77	34 45.74		42.25	27 44.14	22.3
33.22 26.69	57.5 51 52.0	10.96	7.2 77	34 48.74	-187+5.75	34 42.97	52 41.19	19.93 -0.39.86 27 27.3
33.62 12.17	34 42.6 51 36.82	44.70	7.5	34 48.57		42.82	52 43.66	-0.39.86 52 27.3
36.52 15.31			8.3	34 5.84	-186-23.09	34 42.75	54 42.08	19.92 2 39.36 52 2.7
18.06 8.53								
14.40 42.67	33 47.4 52 7.5 8.5	15.60	9.0 72	34 35.17	-191+8.64	34 43.81	13 27.30	19.93 +0.39.79 14 27.1
12.12 45.51	59.5 52 14.1		8.9	34 35.07		43.71	13 28.41	28.2
	34 44.9							
39.94 20.29	33 46.1 51 55.8 8.9	26.64	8.7 74	34 42.32	-188+2.88	34 45.20	2 52.04	19.93 +0.19.93 2 21.0
53.30 34.47	57.8 52 2.4	40.11	8.0 77	34 50.74	-188-5.77	44.97	2 59.53	-0.39.86 2 34.71 19.7
52.64 29.64	34 45.6		8.8	34 50.81		45.04	2 57.93	2 37.8 18.1
3.54 7.81	34 11.7 50 53.0 8.0	15.41	- 70	34 50.57	-180+14.46	35 9.03	57 51.28	19.93 +1.39.70 59 31.0
5.80 8.46	57.7 50 59.6	1 30	8.5 70	34 54.36		9.32	57 52.50	30.5
5.92 37.50	35 9.4 50 41.15	1 20	8.5 70	34 54.84		9.30	58 19.84	59.5
6.20 11.74		1 20	8.3 70	34 54.61		9.27	57 52.65	42.4
5.10 30.84		12.50	8.0 71	34 57.71	-174+11.57	9.28	58 13.08	32.8
41.22 30.83	34 16.0 54 12.5 9.3		7.9	34 57.66		9.23	58 11.94	31.7
43.14 50.73	57.3 54 19.1	40.64	9.1 77	35 19.40	-204-5.74	35 13.66	18 25.33	19.93 -0.39.88 19 54.43
54.52 57.91	35 13.3 54 30.26		7.2	35 19.27		13.53	18 24.94	17 4.8 45.1
19.64 51.95	34 20.0 52 56.6 8.6	41.13	8.5 77	35 22.25	-191-5.76	35 16.49	3 24.24	19.93 -0.39.88 2 40.4
17.42 51.86	57.4 53 3.2		8.45	35 22.32		16.56	3 19.57	39.7
32.22 17.66	35 17.4 52 34.93	19.98	8.8 78	35 10.85	-192+2.88	16.61	2 0.19	+0.19.94 2 40.1
52.44 31.25	34 20.4 57 37.9 8.4	26.78	9.0 74	34 59.60	-185+2.89	35 2.49	41 13.36	19.93 +0.19.94 41 33.3
8.54 30.37	57.6 57 41.5		8.3	35 15.81	-183+2.89	35 18.70	44 10.07	44 30.0
9.20 27.91	35 18.3 51 36.84		7.7			18.66	44 7.41	27.4
18.00 46.94	34 22.5 53 33.5 9.0	36.78	8.9 76	35 23.30	-195-2.88	35 24.42	40 26.56	19.93 -0.19.94 40 7.0
12.02 49.58	57.4 53 40.1		8.8	35 23.18		20.30	40 26.70	8.8
30.72 47.36	35 19.9 53 32.15	40.45	8.5 77	35 26.25	-195-5.75	20.50	40 47.36	7.5
38.48 11.47			8.7	35 26.04		20.29	40 47.07	7.2

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42.2 23.37	34	36.0	52	4.5	9.0	32.90	9.0	75	35	33.14	35	33.14	11	17.29	+19.94	11	17.3	12.68				
41.2 39.67	0	57.6	+6.6				8.8		35	33.06		33.06		17.48			17.5	11.84				
	85	33.6	52	11.1																		
		52	34.94																			
40.2 56.97	34	48.0	50	53.6	9.0	1	4	-	40	35	31.52	-175+14.48	35	46.00	58	40.46	19.94	+139.70	20.2	26.7		
41.7 57.97		57.8	51	0.2		1	12	9.2	70	35	31.64		35	46.12	58	42.39			22.1	4.97		
27.34 27.72	35	45.8	50	41.19		19	76	-20	73	35	33.3	40.31	35	71.2	59	10.53	+0.3988	50.4	50.0	19.6	37.3	
40.2 50.97								8.0		35	3.47	44.90	-175	46.29		40.44			20.7	38		
22.18 58.03													20.410	12.44								
17.66 54.87	34	52.1	52	22.5	9.0	15	60	8.9	72	35	40.59	-184+8.66	35	49.25	28	38.20	19.94	+0.5982	29	38.0	2.2	
16.72 41.60		57.6	52	29.1						36	12.46	-182-23.12	35	49.34	32	16.24			29	36.7	2.3	
14.56 44.87	35	49.7	52	34.95						36	12.57			49.25	32	17.89	-2	39.52	29	38.4	3.1	
14.18 44.74										36	12.33			49.21	32	18.35			29	38.8	2.5	
42.6 56.87	34	53.4	53	53.5	8.6	12	10	9.0	71	35	39.10	-194+16.51	35	50.61	58	56.09	19.94	+119.76	59	15.8	1.92	
51.08 8.04		57.4	52	0.1				8.5			39.03			50.54		55.30				15.1	18.76	
44.2 50.14	35	50.8	53	32.18		26	56	8.2	74	35	47.05	-194+2.88		50.33	59	57.22	+0	19.94	0	17.2		
45.14 13.55								8.0			47.49			50.37		55.99				15.9		
33.27 7.10	34	53.6	51	13.9	8.9	40	81	9.0	77	35	56.96	-175+5.739	35	51.17	21	37.46	19.94	-0.3988	20	57.6	3.3	
15.70 6.06		57.8	51	20.5						36	14.55	-173-23.09	35	51.34	23	38.08	19.94	-2	39.52	20	58.86	3.8
9.72 8.99	35	51.4	51	36.86		45	11	8.3	83	36	14.50			51.31	23	38.94			20	59.4	1.4	
21.36 24.00	35	51.6	50	57.1	9.1	19	92	9.2	73	36	58.14	-166+5.74	36	3.94	3	6.59	19.94	+0.3988	3	46.5	7.1	
8.58 23.65		57.8	51	3.7				9.0			58.18			3.98		7.50				47.24	1.5	
	36	3.4	50	41.21																		
11.02 21.06	35	21.3	51	34.6	8.8	40	76	9.0	77	36	24.32	-174-5.80	36	18.52	41	60.65	19.95	-0.3990	41	10.8	5.7	
12.14 23.84		57.8	51	41.2				8.8			24.19			18.39		52.46				12.86	6.5	
	86	12.1	51	36.89																	38.5	
12.58 6.67	35	26.3	53	48.0	8.3	36	42	8.7	76	36	26.82	-188+2.88	36	23.94	54	47.39	19.95	-0.3990	54	27.0	3.5	
13.12 6.05		57.4	53	54.6				8.5			26.94			24.06		47.51				27.6	3.9	
53.92 32.90	36	23.7	53	32.19		40	64	8.4	77	36	29.68	-5.77		23.91	55	64.7150	-0.3990			27.6	54.0	
1.84 33.39								8.1			29.59			23.82		6.29				26.4	0.2	
31.29 38.84	35	37.8	50	37.5	7.3	1	30	8.0	70	36	20.33	-168+14.52	36	34.85	42	20.97	19.95	+1.3975	44	0.7	24.3	
31.73 42.35		57.9	50	44.1		1	50	7.2	70	36	20.33			34.85	42	23.07				2.8	22.1	
53.04 40.20	36	35.7	50	41.24		19	76	8.0	73	36	29.02	-167+5.81		34.83	43	22.64	+0.3990			2.6	21.9	
33.72 46.2						26	66	7.5	74	36	31.89	-167+2.90		34.79	43	40.36	+0	19.95		4.3		
29.50 3.61								7.2			31.86			34.76		43.22				3.2		
47.52 22.86	35	42.4	51	29.2	9.0	40	111	8.6	77	36	44.76	-171+5.80	36	39.16	36	52.77	19.95	-0.3990	36	14.9	2.5	
47.00 24.84		57.8	51	35.8				8.9			45.17			39.37	35	49.55				9.8	4.0	
7.04 16.24	36	40.2	51	36.90		44	70	9.1	83	37	2.80	-170-23.22	36	39.58	38	52.41	-2	39.60	36	10.8	58.1	
32.00 52.45	36	43.9	52	57.2	9.3	26	78	9.1	74	36	39.15	-181+2.84	36	42.04	3	34.05	19.95	+0.3990	3	54.0	4.76	
31.94 52.81		57.6	53	3.8		80		9.3			39.20			42.09		33.76				53.7	29.4	
57.58 31.26	36	48.15	52	34.98		19	98	9.4	73	36	36.20	-181+5.78		41.98	3	13.72	+0.3990			53.6	43.3	
2.02 44.81	35	53.9	52	18.7	9.2	32	90	9.5	75	36	52.80			36	52.80	25	19.45	19.95	-	25	19.4	22.5
1.48 40.54		57.8	52	28.3				9.1			52.06			52.61		19.00				19.0	26.7	
	36	57.7	52	3501																		
44.41 54.23	36	0.7	51	81.0	6.5	40	81	4.2	77	37	4.56	-167-5.81	36	58.75	15	24.42	19.95	-0.3990	14	44.5	3.2	
23.52 58.53		57.9	51	14.6				7.0	83	37	22.14	-166-23.25	36	58.89	17	25.37	19.95	-2	39.60	14	45.8	20.1
17.42 58.84	36	58.6	51	36.92		45	12	7.0	83	37	22.20			36	58.55	17	26.59			14	47.0	19.7
1.58 4.80	36	1.2	52	32.0	9.0	33	52	8.8	75	36	59.16			36	59.16	38	43.60	19.95	-	38	43.6	5.1
56.71 7.04		57.8	52	38.6				8.9			59.23			59.23		43.83				43.8	21.6	
	36	59.0	52	3502																		
23.22 37.82	36	4.0	52	20.8	6.5	15	66	8.0	72	36	43.98	-176+8.49	36	52.67	24	21.56	19.95	+0.3990	25	21.4	5.52	
29.00 45.90		67.8	52	27.4				6.0			51.92			37	0.61	26	32.93			27	32.8	57.3
6.78 39.77	37	1.8	52	3503		45	62	6.0	83	37	21.30	-173-23.19	37	1.11	30	9.62	19.96	-2	39.68	27	29.9	14.1
5.58 13.30								7.0			37	21.00		0.81	30	12.79				27	33.1	18.8
0.14 24.87	36	9.3	51	26.3	7.6	40	97	7.0	77	37	13.43	-167-5.81	37	7.62	33	53.39	19.95	-0.3990	33	12.5	33.1	
1.14 27.37		57.9	51	32.9				7.2			13.18			7.37		55.71				15.8	26.2	
34.88 18.52	37	7.2	51	36.94		44	70	7.0	83	37	30.73	-166-23.25	37	7.48	35	54.47	19.96	-2	39.68	33	14.8	26.8
																					35.3	

7.3	12.66	23.32	36	19.2	50	6.3	7.6	12.52	8.0	71	37	5.26	-159	+11.65	37	16.91	11	33.61	+19.96	+19.84	12	53.4
1.5	11.54	32.93		58.1	50	12.9			7.8			5.25				16.90		33.70				53.5
			37	17.3	50	4130																
10.2	26.70	56.87	36	34.0	50	24.1	9.0	1.4	-	70	37	17.41	-160	+1456	37	32.27	32	39.09	19.96	+139.80	34	19.8
12.1	49.78	1.40		58.1	50	34.7		19.92	9.0	73	37	26.54	-159	+5803	32.37	33	43.05		+039.92	34	23.0	
19.6	37.58	4.60	37	32.1	50	4133			9.0			26.64			32.47		43.86				23.8	
20.7	38.78	32.84				3		4562	9.0	83	37	56.17	-158	-23.31	37	32.86	37	1.82	19.96	-239.68	34	22.1
	49.82	52.39						20.8	9.0	73	37	28.03	-169	+5.81	37	33.84	16	34.37	+057.92	34	14.3	
8.0	23.82	12.90	36	35.8	52	10.7	9.0	26.80	8.7	74	37	30.95	-169	+2.90	37	33.85	16	53.57	19.96	+019.96	17	13.5
6.7	23.80	12.65		57.9	52	17.3			8.8			31.04			33.94		52.79				12.8	
8.4	31.52	53.67	37	33.7	52	3504		36.78	9.0	76	37	36.75	-167	-2.90	33.85	17	31.17		-019.96		11.2	
8.8	25.80	55.71						40.64	9.0			36.88	-167	-5.81	33.98		32.64				12.7	
	3.50	19.18							9.1	77	37	39.83			33.89	17	51.67		-039.92		11.8	
5.8	16.80	20.80	37	20.4	54	24.3	6.8	12.10	6.5	71	38	6.66	-178	+11.69	38	18.24	29	27.98	19.96	+119.84	30	47.8
5.1	18.76	38.66		57.7	54	30.9			8.2			6.67			18.25		26.56				46.4	
7.2			38	18.1	54	3033																
5.9																						
7.6	33.82	10.78	37	27.9	54	40.6	7.7	32.90	8.3	75	38	24.58			38	24.58	47	52.85	19.97		47	50.8
8.6	33.30	9.38		57.7	54	47.2			8.2			24.40			24.40		62.01				52.0	
9.4	14.14	50.02	38	25.6	54	3035		36.44	7.8	76	38	27.34	-178	-2.89	24.45	48	11.18		-019.97		51.2	
	13.70	28.81						40.82	7.8	77	38	27.48	-178	-5.79	24.59		10.02				50.0	
	7.15	56.43							7.8	77	38	30.14	-178	-5.79	24.35	48	29.56		-039.94		49.6	
6.5	6.92	2.15	37	39.9	54	34.7	8.2	40.64	7.9	77	38	43.11	-175	-5.79	38	27.32	42	36.91	19.97	-039.94	41	57.0
7.34	15.46	2.60		57.7	54	41.3			8.4		38	43.13			37.34	42	36.00				56.1	
			38	37.6	54	3036																
2.8	5.74	32.51	37	41.5	50	6.5	8.4	15.68	8.6	72	38	30.87	-150	+8.77	38	39.14	12	12.81	19.97	+039.91	13	12.7
2.86	6.54	32.29		58.3	50	13.1			8.5			30.80			32.57		12.97				12.9	
	38.50	28.36	38	39.8	50	4139		26.68	8.0	74	38	36.65	-150	+2.92	39.57	12	2.52	14.54	+019.97	12	22.8	
	34.32	4.04							8.3	72		36.67			39.59		52.82				39.0	
7.9	35.80	26.98	37	45.8	54	1.1	6.5	40.97	6.0	77	38	49.02	-178	-5.79	38	43.23	7	0.01	19.97	-039.94	6	20.1
7.6	37.08	29.33		57.7	55	7.7			7.0			48.97			43.18		1.69				21.8	
7.6	54.06	89.08	38	43.5	55	3010		49.44	6.6	85	39	12.04	-176	-28.97	38	43.08	9	41.73	19.97	-319.70	6	22.0
7.4	0.22	2.83						49.52	-	85	39	12.00			43.04	9	42.42				22.7	
2.7	24.36	55.40	37	57.2	49	58.3	8.9	44.69	9.1	83	39	20.13	-145	-23.42	38	56.71	7	22.37	19.97	-239.76	4	47.6
2.8	22.16	58.29		58.4	50	4.9		44.86	8.8	83	39	20.00			38	56.58	7	22.42			4	49.7
2.6	21.90	58.25	38	55.6	49	4210			9.1		39	20.04			38	56.62	7	28.89			4	49.1
3.3																						
2.2																						
10.9	25.54	38.09	38	9.2	50	3.3	8.9	19.94	8.9	73	39	2.28	-146	+5.85	39	8.13	9	19.89	19.97	+039.94	9	53.8
9.6	44.48	54.68		88.4	50	7.9			8.8		38	33.71	-150	+5.84	38	32.50	12	33.91			13	15.8
9.8	58.06	0.65	39	7.6	50	4142		26.80	9.0	74	39	51.7	-146	+2.93	39	8.10	9	39.08	1019.97		9	59.0
	58.14	1.66							8.6			53.6			8.29		39.51				59.5	
	58.76	1.12							8.5			52.7			8.20		36.62				58.6	
4.0	47.02	28.04	38	51.0	53	56.3	8.5	26.58	8.3	74	39	45.54	-162	+2.91	39	48.45	2	11.14	19.98	+019.98	2	21.1
3.7	29.42	37.24		58.0	54	2.9			8.2	72		37.12	-163	+2.91	39	48.53	2	20.72	19.98		2	40.1
3.6	45.32	26.77	39	48.90	53	3228			8.1	72		37.12			37.12		45.62				27.7	
9.4	22.95	0.70	38	54.5	52	18.0	8.9	15.62	8.8	72	39	43.70	-153	+8.76	39	52.46	23	44.48	19.98	+059.94	24	44.4
9.0	20.76	58.08		58.2	52	24.6			9.0			43.64			52.40		42.26				42.2	
			39	52.7	52	3578																
4.5	12.27	15.33	38	56.4	49	51.5	7.0	44.69	7.2	83	40	18.02	-138	-28.47	39	54.55	0	47.36	19.98	-239.84	58	7.5
5.8	20.18	19.18		58.6	49	58.1		44.86	7.8	83	40	18.01			54.54	0	50.13				58	10.3
7.0	19.78	18.17	39	55.0	49	4215			7.2		40	17.92			54.45	0	48.72				58	8.9
4.36	5.76	16.74	38	58.0	54	13.9	8.9	32.98	8.7	75	39	56.82			39	56.82	20	56.49	19.98		20	56.5
4.38	21.68	59.02		58.0	54	20.5		44.96	8.5	83	40	20.17	-162	-28.28	39	56.59	23	34.46	19.98	-239.84	20	54.6
			39	56.0	54	3041																
21.4	55.84	46.93	38	58.9	54	30.8	9.0	12.12	9.2	71	39	45.29	-165	+11.63	39	56.27	19	36.63	19.98	+119.92	20	56.6
32.8	57.50	47.71		58.0	54	37.4			9.3			45.40			57.03		35.41				55.3	
9.9	44.28	29.15	39	56.9	54	3042		36.44	8.9	76	39	58.03	-164	-2.91	55.12	39	10.06		-019.98	36	50.1	
3.1	18.82	12.78						36.84	8.8	76	39	25.83			27.02	36	52.23				34	32.2
3.5	24.68	54.01						40.64	9.1	77	40	0.84	-164	-5.82	55.02	37	28.46		-039.96	36	48.5	
2.5	33.16	56.11	38	59.5	49	52.8	9.4		9.1		40	0.81			54.99	37	29.28		19.98		49.3	
5.8	26.24	19.51		58.5	49	57.4		44.109	9.7	83	40	26.78	-137	-23.48	40	32.73	57	48.81	19.98	-239.84	55	10.0
4.8	26.34	20.52	39	58.0	49	4216	10.6		9.9		40	26.64			40	3.16	57	50.68			55	10.8
	35.30	19.08						49.42	9.57	85	39	45.79	-141	-27.31	39	16.45	56	53.26	19.97	-319.70	53	33.6

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54.23	44.21	38	59.7	50	28.2	9.0	12.54	9.4	71	39	47.14	-142	+11.72	39	58.86	32	23.74	+19.98	+19.92	35	43.1	9.8	
16.16	22.78		58.5	50	34.8		19.94	9.3	73	39	53.09	-141	+5.86		58.95	34	4.41	+0.39.96	34	44.4	9.0		
3.58	24.04	39	58.2	50	41.43			9.3			52.91				58.77		3.45			43.4			
13.99	18.88	39	46	49	58.8	7.7	49.45	8.185		40	32.17	-137	-2.935	40	2.82	8	56.28	19.98	-3	19.80	5	37.0	16.8
20.24	17.94		58.6	50	5.4		49.52	8.885		40	32.25				2.90	8	53.29			5	33.5	17.7	
28.95	21.56	40	3.2	49	42.19		49.67	8.085		40	32.23				2.88	8	54.89			5	35.1		
30.40	47.49	39	16.2	52	49.0	8.7	19.98	8.673		40	8.96	-153	+5.84	40	14.80	54	29.91	19.98	+0.39.96	55	9.9	12.2	
30.30	46.88		58.2	52	55.6			8.8			8.87				14.71		28.73				27.8.7	8.1	
		40	14.4	52	35.20																		
21.22	38.04	39	30.0	54	21.4	8.1	40.97	7.677		40	34.34	-159	-5.83	40	28.51	28	7.49	19.98	-0.39.96	27	29.5	19.2	
22.54	40.27		58.1	54	28.0			8.0			34.93				28.60		11.25				31.3	16.1	
		40	28.1	54	30.43																	58.1	
35.86	27.74	39	42.1	53	23.7	8.3	26.58	8.374		40	36.97	-152	+2.92	40	39.89	30	10.04	19.98	+0	19.98	20	30.0	1.4
34.62	27.02		58.3	53	30.3		8.2	8.2			36.98				39.824		9.10				29.1	4.1	
		40	40.4	53	32.80																	4.1	
44.44	32.61	39	47.7	54	3.8	7.3	12.12	7.5	71	40	33.49	-156	+11.66	40	45.15	8	42.19	19.98	+1	19.92	10	2.1	22.2
45.66	53.52		58.2	54	10.4			7.5			33.55				45.21		41.10				1.0	23.1	
42.68	41.89	40	45.9	54	30.44		36.78	7.8	76	40	47.89	-155	-2.92		44.97	10	21.93	-0	19.98	10	2.0		
36.88	43.14							7.7			47.95				45.83		22.55				2.6		
42.35	45.02	39	48.5	50	25.7	7.4	1.50	8.0	70	40	31.89	-137	+14.68	40	46.57	30	25.93	19.98	+1.39.90	32	5.8	2.7	
3.94	44.23		58.6	50	32.3		19.94	7.0	73	40	40.67	-136	+5.87		46.54	31	25.61		+0.39.96		5.6	2.1	
51.44	47.45	40	47.1	50	41.47			7.5			40.66				46.53		26.94				6.9	5.8	
15.30	0.28	39	50.2	51	9.0	9.5	15.68	9.6	72	40	40.41	-140	+8.80	40	49.21	14	42.09	19.98	+0.39.94	15	42.0	1.1	
16.12	58.92		58.6	51	15.6			9.5			40.35				47.15		40.31				40.2	5.2	
		40	48.8	51	37.10																	5.2	
49.16	21.82	39	56.0	50	45.2	8.4	1.4		70	40	40.13	-137	+14.68	40	54.81	50	4.30	19.98	+1.39.96	51	44.2	5.2	
44.78	48.34		58.6	50	51.8		26.80	8.2	74	40	57.86	-137	+2.94		54.79	57	27.41		+0.19.99	51	47.4		
44.90	47.81	40	54.6	50	41.50			8.5			52.10				55.04		26.12				46.1		
45.38	47.86							8.6			51.84				54.78		26.08				46.1		
43.02	57.98	40	4.4	52	28.7	9.1	15.62	8.7	72	42	37.1	-136	+8.81	42	12.52	33	41.81	19.98	+0.39.97	34	41.8	5.0	
14.92	48.47		58.4		6.7			9.0		41	37.70	-135	+8.80		41	46.65	35	28.75			38	28.7	9.6
21.86	2.38	41	2.8	52	35.4		32.90	9.0	75	42	12.56				42	12.56	34	40.52			34	40.5	4.6
55.60	48.81			52	35.22			8.8		41	46.66				41	46.66	36	26.50			36	26.8	3.3
28.34	57.71						44.96	9.1	83	41	27.37	-143	-2.43		41	3.94	37	32.31	19.99	-2.39.92	34	52.4	
1.82	0.67	40	7.8	50	5.7	8.8	1.12	9.0	70	40	51.50	-133	+14.70		41	6.20	10	42.24	19.99	+1.39.98	12	22.2	0.1
14.45	34.15		58.6	50	12.4		40.11	9.0	77	41	11.88	-132	-5.88		6.00	13	0.36		-0.39.98		20.4	4.8	
13.84	32.45	41	6.4	50	41.51			9.0			11.97				6.09	12	58.92				18.9		
36.78	50.07	40	23.0	52	25.5	9.1	19.98	8.9	73	41	15.32	-142	+5.86	41	21.18	31	32.20	19.99	+0.39.98	32	12.2	4.2	
36.62	49.45		58.4	52	32.2			9.1			15.18				21.04		31.49				11.5	4.1	
		41	21.4	52	35.25																		
32.24	10.01	40	43.5	51	5.6	8.8	26.82	8.8	74	41	39.31	-133	+2.94	41	42.25	11	48.53	19.99	+0.19.99	12	9.5	2.8	
32.14	9.81		58.6	51	12.3			8.9			39.33				42.27		48.42				8.4	3.8	
32.86	11.09	41	42.1	51	37.14			8.7			39.34				42.28		49.84				9.8	3.8	
39.22	35.65	40	47.6	52	29.8	8.8	40.97	8.9	77	41	52.40	-138	-5.87	41	46.53	37	6.23	19.99	-0.39.98	36	26.2	5.6	
40.54	38.88		58.5	52	36.5			9.0			52.47				46.60		8.70				28.7	4.0	
		41	46.1	52	35.26																	47.1	
8.36	27.08	40	52.0	51	1.8	8.6	15.68	9.0	72	41	33.16	-133	+8.82	41	42.28	11	10.75	19.99	+0.39.97	12	10.7	5.7	
15.34			58.7	51	8.5			8.7			39.56				47.38							5.7	
5.80	9.69	41	48.7	51	37.16		19.94	8.8	73	41	42.51	-132	+5.88		48.39	7	51.93		+0.39.98	8	31.9		
5.36	13.76							8.8			42.58				48.46		53.56				33.5		
20.80	22.13	41	12.4	52	8.4	9.1	40.112	9.0	77	42	18.12	-134	-5.88	42	12.24	15	30.81	19.99	-0.39.98	14	50.8	1.8	
20.20	0.14		58.6	52	15.1			9.0			18.26				12.38		29.00				49.0	1.9	
		42	11.0	52	35.28																		

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9.82	23.53 ²	41	14.3	52	26.3	6.6	41.75	8.9	77	42	18.34	-135-5.87	42	12.47	35	20.72	+1999	-0.3998	34	40.7	
9.00	54.93		58.6		6.7			8.5		42	18.05		12.58	35	23.04					43.2	
		42	12.9	52	35.0															43.2	
				52	3529																
16.58	35.04	41	15.0	52	23.4	9.2	42.10	9.1	78	42	22.90	-136-8.81	42	14.09	51	5.27	1999	-0.39.97	50	5.5	
17.78	86.70		58.5	52	50.1			9.2		42	22.83		14.02	51	6.59				54.69		
		42	13.5	52	3530																
12.88	13.81	41	15.4	53	53.8	7.8	26.58	7.8	74	42	10.27	-143+2.93	42	13.90	59	56.64	1999	+0.19.99	0	16.6	
8.56	12.70		58.4	54	0.5			7.8			10.82		13.75		55.22				15.2		
		42	13.8	53	3233																
19.20	46.57	41	16.9	55	9.0	9.1	41.13	9.0	89	77	42	21.63	-148-5.85	42	15.78	16	17.20	1999	-0.3998	15	37.7
16.94	45.94		58.2	55	15.7					89	90	42	21.68		15.83	16	16.10			36.1	
58.78	40.92	42	15.1	55	3020		40.82	9.3	77	42	21.63		15.78	16	15.23			-0.39.98		35.2	
1.48	10.84	41	19.4	52	33.1	8.9	42.102	8.7	78	42	26.65	-135-8.81	42	17.84	110	4180	19.99	-0.39.97	39	41.8	
41.52	38.44		58.5	52	39.8			6.5		41	55.57	-138-8.80	41	46.78	44	5.91			30	54.29	
42.76	46.26	42	17.9	52	3537			8.7	83	42	41.27	-134-23.50	42	17.77	42	20.11	2000	-2.40.00	39	40.1	
36.44	49.03							8.7	9.4	83	42	41.11	42	41.32	42	21.33	41.30.49			39	41.3
46.67	39.03											-23.50-23.51	17.61	2.787	42					50.5	
22.14	8.13	41	24.9	54	50.2	7.7	12.12	8.8	71	42	11.56	-147+11.70	42	23.26	55	58.74	2000	+1.20.00	57	18.7	
23.46	8.32		58.3	54	56.9			8.0			11.31		23.01		57.10					17.1	
		42	23.2	54	3050																
27.74	34.50	41	34.4	54	18.9	9.1	36.78	9.0	76	42	32.92	-142-2.93	42	29.99	25	15.02	20.00	-0.20.00	24	55.0	
24.70	36.43		58.4	54	25.6			9.0			32.61		29.88		16.43					56.4	
54.50	8.10	42	27.8	54	3057		40.65	9.0	77	42	35.69	-142-5.86	29.83	25	35.06			-0.40.00	24	55.1	
8.20	1.02							9.3		42	35.89		30.03	25	35.42					55.4	
1.48	34.20	41	34.4	49	56.7	7.8	44.69	-83		42	57.20	-120-23.62	42	33.58	6	6.38	20.00	-2.40.00	3	26.4	
59.36	38.30		58.8	50	3.4		44.87	8.0	83	42	57.15		33.53	6	9.42				3	29.4	
59.06	38.64	42	33.5	49	4237			8.0		42	57.15		33.53	6	9.34				3	29.3	
52.52	41.10	41	38.0	52	18.8	9.0	19.100	8.9	73	42	31.05	-133+5.88	42	36.93	25	22.92	20.00	+0.40.00	26	2.9	
52.50	39.20		58.7	52	25.5			9.0			31.05		36.93		21.13					1.1	
		42	36.7	52	3534																
5.26	12.08	41	42.7	55	2.4	9.2	42.95	9.3	78	42	49.18	-143-8.79	42	40.39	9	48.59	2000	-1.00.00	8	48.6	
9.68	12.89		58.4	55	8.8		42.97	9.3	78	42	53.60	49.50	40.71	9	48.77					48.8	
4.06	52.39	42	41.1	55	3022		44.10	9.8	83	43	4.18	-143-28.43	42	40.56	11	27.99	20.00	-2.40.00	8	48.0	
3.50	54.46							9.7		43	4.15		40.72	11	29.74					8	49.7
6.66	27.94	41	44.5	55	1.3	9.0	19.94	9.0	73	42	37.36	-145+5.85	42	43.28	7	10.11	20.00	+0.40.00	7	50.1	
48.20	31.28		58.4	55	8.0			9.0			37.41		43.26		11.23					51.2	
		42	42.9	51									43.26	30							
				51	3719																
42.44	39.54	41	46.9	53	3.3	8.4	42.106	5.4	78	42	54.89	-1324-8.81	42	46.08	10	50.16	20.00	-1.00.00	9	50.2	
44.84	19.28		58.6	53	10.0			8.8		42	54.92		46.11	10	52.17					50.2	
		42	45.5	53	3234																
38.22	27.52	41	49.9	52	23.9	8.7	26.82	8.6	74	42	45.27	-131+2.94	42	48.21	30	8.25	20.00	+0.20.00	30	26.2	
38.14	27.79		58.7	52	30.6			8.4			45.31		48.25		7.80					27.8	
38.86	28.00	42	48.6	52	3537			8.8			45.33		48.27		7.89					27.9	
26.50	22.78	42	5.3	54	11.3	9.3	42.99	9.2	78	43	12.93	-136-8.81	43	4.12	18	8.63	20.00	-1.00.00	17	57.6	
46.52	25.07		58.5	54	18.0			9.0			12.93		4.12	18	57.70					57.7	
47.20	2.10	43	3.8	54	3052		40.82	9.2	77	43	10.11	-137-5.87	4.24	18	34.98			-0.40.00		55.0	
57.84	45.73	42	5.7	57	12.5	8.8	12.52	9.0	71	42	52.36	-12041.81	43	4.17	17	26.33	20.00	+1.20.00	18	48.3	
57.00	45.19		58.9	50	19.2			9.3			52.33		4.14		26.35					46.4	
		43	4.6	50	4461																
18.04	40.81	42	21.5	54	50.2	8.2	12.12	9.0	71	43	7.45	-139+11.73	43	19.18	54	36.62	20.00	+1.20.00	57	51.6	
19.48	40.66		58.4	54	86.9			7.9			7.32		19.05		29.54					49.5	
		43	19.9	54	3053																

423471	42	22.4	51	50.8	8.8	15.68	89.72	43	12.27	-125+8.84	43	21.11	56	22.01	+20.00+15.00	57	29.0	34.4
4628		58.8		6.7					12.25			21.09	56	28.76			28.8	33.7
43	21.2	51	57.5														43	42
		51	3721															
5483	42	28.9	53	25.8	9.0	26.58	85.74	43	24.27	-133+2.94	43	272.1	1	37.65	20.00+0.2000	1	57.6	1.1
5585		58.5	54	2.5			8.7		24.23			271.7		37.85			57.8	3.2
43	27.4	53	3235															5.2
58.0	56.27	42	29.0	52	30.4	8.8	15.62	43	18.67	-127+8.83	43	275.0	36	11.19	20.00+1.000	37	11.2	11.1
58.86	26.86		58.7	52	37.1		8.9		18.71			27.54		9.61			9.6	12.1
43	27.7	52	3539															
27.56	23.37	42	35.9	51	58.5	9.1	41.13	43	10.03	-123+5.98	43	34.13	5	51.23	20.00-0.4000	5	11.2	57.1
35.42	22.90		58.8	52	5.2		89.42		10.15			34.29	5	49.96			16.0	50.1
43	34.7	51	3723															
5372	6.86	42	46.4	53	26.4	9.8	41.12	43	58.93	-132-5.98	43	45.05	1	36.85	20.00-0.40.00	0	56.8	5.2
35.12	5.05		58.7	54	1.1		8.7		33.09	50.97		42.21	45.09	2	35.26	36.32	51	55.3
53.00	5.15	43	48.1	53	3236		44.69		8.85	-129-23.54	43	45.31	3	35.50	20.00-2.40.00	0	55.5	5.2
13.20	58.80																	
39.82	34.45	42	46.8	51	18.5	8.7	21.39	43	46.83	-119+5.91	43	40.92	26	49.1	20.00-0.40.00	25	20.9	6.1
39.12	55.84		58.9	51	25.2		8.9		46.86			40.95	26	2.31			22.3	2.6
53.14	1.06	43	45.7	51	3724		49.45		8.9	85	44	42.01	28	40.41	20.00-3.20.10	25	20.3	
9.84	5.47						49.68		86.85		44	40.81	28	40.52			20.2	
10.02	10.24						49.71		87.85		44	40.99	28	45.22			25.3	
54.86	5.41	42	50.2	50	0.7	9.5	19.46	43	44.03	-113+5.92	43	49.25	26	45.02	20.00+0.40.00	7	25.0	13.3
46.12	53.80		59.0	50	7.4		42.106		9.4	78	43	58.70	58.70	11	22.02	-0.0.00	7	22.0
48.54	58.46	43	49.2	50	41.63		9.5		58.75			49.87	8	23.49			23.5	13.1
6.20	46.48	42	57.4	57	18.6	9.5	32.96	44	56.85	-120	44	56.85	26	26.22	20.00		24	26.2
57.56	53.06		58.7	57	25.3		36.78		9.5	76	43	59.72		33.79	-0.20.00	25	13.8	25.1
48.80	56.05	43	56.4	54	30521		40.65		9.3			59.82		36.15			16.2	
28.50	18.95						9.4		7.7		44	2.71		53.70	-0.40.00		11.9	
35.26	28.54						9.5		7.8		44	2.87		54.28			14.3	
14.60	1.02	42	59.4	52	4.7	9.3	47.107	43	53.11	-124+5.90	43	59.01	10	42.83	20.00+0.40.02	11	22.8	4.3
17.42	15.80		58.9	52	17.4		8.9		53.94	-120+5.90	44	1.84	11	57.53			37.6	14.1
23.90	11.82	43	58.3	52	3541		44.97		9.0	8.6	83	44	22.75	42.58	11.9-23.62	59.13	44.16	14
23.34	12.26						44.10		83			44	25.78	81		21.29	15	55.1
23.62	18.38						109		88	83	83	44	22.32	42.595		58.70	23.14	55.1
23.26	16.10	43	1.6	53	33.7	9.0	40.82		89.77		114	5.62		22.05	15.18.08	20.04-0.40.02	39	49.0
32.52	56.81		58.7	53	40.4		40.97		9.0	77	44	5.60		28.32			48.3	32.1
53.70	59.13	44	0.3	53	3237		9.0		5.54			59.71	40	29.83			49.8	4.8
51.95	37.99	43	3.41	52	5.8	8.6	26.82	43	59.01	-119	44	1.96	12	16.63	20.00+0.20.01	12	38.5	32.1
51.84	36.69		58.9	52	12.5		8.7		58.97	120+2.95		1.92	12	17.73			36.5	31.1
2.64	56.44	44	2.3	52	3543		8.5		59.09			2.04	12				37.7	37.1
5.82	17.13	43	9.7	50	49.0	6.8	1.12	43	33.43	-0.15+14.78	44	8.21	59	0.04	20.00+14.005	55	40.1	12.1
3.84	18.81		59.0	50	55.7		1.50		6.5	70	43	53.34		59.03			55	39.1
40.20	6.70	44	8.2	50	41.05		42.100		5.9	78	44	16.87		38.62	-1.0.03	55	38.6	14.1
38.20	8.36						6.3		16.99		44	16.99		38.60			55	38.6
27.28	48.87						15.11		6.5	83	44	31.93		19.23	20.00-2.40.08	55	39.2	14.1
18.86	7.74	43	16.2	49	52.3	9.2	44.87		9.3	83	44	39.63		39.10	20.00-2.40.08	58	58.9	14.1
11.56	8.35		59.0	49	59.0		9.1		44	39.63		15.92	1	39.01	20.01		58	58.9
44	15.2	49	42.45															
11.20	18.54	43	24.3	54	18.7	8.9	36.84	44	25.32	-127+2.94	44	22.38	25	41.34	20.00-0.20.01	25	21.3	12.1
23.36	10.32		58.7	54	25.4		12.12		8.7	71	44	14.76		0.50	+1.20.04	30	20.5	20.1
24.46	12.21	44	23.0	54	3055		44.109		8.6		44	11.90		0.25			25	20.3
17.02	23.85						8.9		8.3		44	47.42		58.47	20.01-2.40.08	25	18.4	17.1
16.29	34.29						8.7		7.0	74	44	46.91		23.34	20.01+0.20.01	30	29.1	17.1
25.14	15.78	43	24.0	53	21.0	6.7	26.60	44	23.41	-1.23+2.95	44	26.36	29	58.05			18.1	17.1
21.19	14.98		58.8	53	30.7		7.0		23.34			26.29		58.92			16.9	18.1
44	25.8	53	3238															
30.32	12.16	43	28.4	57	6.0	9.0	41.13	44	32.78	-112-5.92	44	26.86	13	38.76	20.01-0.40.02	12	58.7	2.1
28.08	11.69		59.0	51	12.7		90.87		32.83			26.91	13	37.35			57.3	2.1
44	27.4	51	3726															2.1

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34.43	73.24	43	37.8	53	17.1	9.0	41.55	8.8	77	44	42.90	-120-5.90	44	37.80	24	29.82	+20.01	-0.40.02	23	49.8					
33.70	59.08		58.8		6.7			9.0		44	43.00			37.19	264	27.47			283	47.4					
43.48	54.76	44	36.6	53	23.8		45.63	9.0	83		45 0.78	-119-23.62	44	37.16	26	26.69	2001	-2.40.08	23	46.0					
42.76	56.29			53	32.39			8.8			45 0.73			37.11	26	27.30			23	47.2					
1.90	26.34	43	46.1	50	35.6	7.9	19.96	9.2	79.73	44	38.58	39.95	-109+5.93	44	44.57	44	45.88	42	7.94	41	31.76	01	+0.40.02	42	48.0
3.24	49.86		59.1	50	42.3			9.2	6.8		38.57	39.93		44	44.44	45.86		9.04		31.56					49.1
6.94	29.43	44	45.2	50	41.69																				47.1
50.76	52.23																								47.6
11.20	46.71	43	46.2	51	25.1	8.5	15.68	8.8	72	44	36.26	-112+8.88	44	45.14	30	46.75	20.01	+1.0.02	31	46.8					
12.16	51.72		59.0	51	31.8			8.4			36.34			45.22		47.88									47.4
		44	45.2	51	37.27																				
51.16	47.01	43	56.4	50	31.9	8.0	12.52	8.4	71	44	43.66	-108+11.86	44	55.52	37	29.12	20.01	+1.20.04	38	49.2					
50.24	48.11		59.2	50	38.6			8.2			43.55			55.11		29.59									49.6
		44	55.6	50	41.70																				
54.56	3.65	43	56.5	51	16.9	8.4	41.39	8.5	77	45	1.55	-110-5.92	44	55.63	24	29.45	20.01	-0.40.02	23	49.4					
53.70	5.03		57.1	51	23.6			8.8			45 1.42			63.50	24	30.99									51.0
		44	55.6	51	37.29																				
6.64	32.59	44	7.2	53	12.9	8.9	26.60	8.7	74	45	4.69	-117+2.96	45	7.65	19	14.83	20.01	+0.20.01	19	34.8					
2.40	32.68		59.1	53	19.6			8.8			4.64			7.60		14.26									34.3
		45	6.3	53	32.41																				
13.84	7.98	44	18.9	50	43.1	8.4	1.12	8.7	70	45	3.06	-106+14.83	45	18.29	44	30.92	20.01	+1.40.05	45	31.0					
14.86	7.53		59.1	50	49.8		1.30	8.8	70	45	3.50			18.33	47	50.05									30.1
13.88	9.93	45	18.0	50	41.11		1.50	8.9	70	45	3.36			18.19	47	51.07									31.1
26.66	43.88						40.12	8.0	77	45	2.97	-105+5.93		18.04	50	10.66	-0.40.02								30.6
25.88	41.68							8.6			2.89			17.76		9.18									29.2
23.96	39.18	44	25.4	54	14.4	9.0	12.14	8.4	71	45	13.36	-119+11.81	45	25.17	19	29.22	20.01	+1.20.04	20	49.3					
25.38	41.10		58.9	54	21.1			8.8			13.22			25.03		29.12									49.2
		45	24.3	54	30.57																				
45.02	15.00	44	31.6	52	17.2	8.4	26.98	9.5	74	44	57.45	-115+2.96	44	54.41	32	40.50	20.01	+0.20.01	33	0.5					
14.62	28.18		59.1	52	13.9		20.6	8.7	73	45	53.18	-122+5.90	45	57.03	23	10.18	+0.40.02								50.2
0.02	5.31	45	3.07	52	35.45		44.70	8.2	83	45	55.63	-108-2.71	45	31.92	26	40.24	2002	-2.40.16	24	0.21					
55.38	6.74						44.10	9.0	83	45	55.74.83			32.02	26	39.89									59.7
54.89	9.32							8.7			45.58.54			31.83	26	42.25									2.1
53.44	56.18	44	37.3	55	7.4	8.8	42.112	9.1	78	44	59.82	-126-8.84	44	50.78	6	30.09	20.01	-1.00.03	5	30.1					
52.10	16.85		58.8	55	14.1			8.8			45.45.94	-128-8.83	45	37.11	14	46.25									13
7.68	15.86	45	36.1	55	30.36	55.30.32	42.110	8.9	2.78	45	13.49	45.80	-124-8.84	45	36.76	15	38.32								14
14.00	15.86							9.0	83	45	13.83	46.05		4.99	37.21	15	36.76								36.7
8.92	15.86																								47.1
11.20	14.72																								
32.04	44.44	44	41.5	52	24.5	9.0	26.82	9.0	74	45	39.05	-109+2.96	45	42.01	30	22.09	20.01	+0.20.01	30	44.2					
31.94	41.04		59.1	52	31.2		8.4	9.0			39.07			42.03		22.13									44.2
32.66	41.89	45	43.6	52	35.46			8.8			39.08			42.04		21.90									41.9
57.48	21.49						20.8	9.0	73	45	35.99	-109+5.93		41.92	30	3.58	+0.40.02								43.6
12.62	5.88	44	50.2	52	22.1	8.8	15.62	9.0	72	45	33.26	-109+8.89	45	42.15	29	43.50	20.02	+1.0.06	30	43.6					
10.38	5.92		59.1	52	28.8			9.0			33.20			42.09		42.50									42.7
14.88	47.73	45	49.3	52	35.47		44.97	8.9	83	46	13.33	-106-23.73	45	49.60	31	21.11	2002	-2.40.16	28	41.0					
1.28	51.20						45.17	8.8	83	46	5.86	-107-23.72	45	42.14	33	22.68									42.5
13.45	41.80						49.45	9.0	85	46	1.53	-107-29.65	45	31.88	27	23.48	-3.20.20								2.3
0.36	12.98	44	55.4	52	39.2	8.8	32.96	9.2	75	45	12.03		45	51.00	25	43.35	20.02								48
54.88	40.95		58.9	54	45.9		36.80	8.8	76	45	57.01	-118-2.95	45	61.06	46	19.59	-0.20.02								45
46.02	42.77	45	54.3	54	30.58			8.8			57.02			54.07		21.00									46
23.70	43.97						40.65	8.5	77	45	59.75	-117-5.91		53.84	46	39.78	-0.40.04								45
32.44	6.08							8.7			59.99			54.08	46	40.18									46
25.10	29.54	45	26.8	53	26.3	7.7	26.60	7.0	74	46	23.13	-108+2.96	46	26.09	34	11.89	20.02	+0.20.02	34	31.9					
20.96	28.08		59.1	53	35.0			7.0			23.17			26.13		10.33									30.4
		46	25.9	53	32.44																				
17.50	11.27	45	35.6	53	25.0	8.6	27.16	8.3	74	46	23.06	-107+2.96	46	26.02	33	10.98	20.02	+0.20.02	34	31.8					
18.92	37.74		59.1	53	31.7		40.82	8.1	77	46	41.80	-105-5.93		35.87	32	10.34	-0.40.04								31
29.18	39.14	46	34.7	53	32.45		40.98	8.3	77	46	42.24			36.31	32	10.70									30.7
30.08	39.84							8.3			41.89			35.96		10.70									30.7
25.88	1.26	45	36.5	52	23	9.4	26.89	9.2	74	46	32.88	-101+2.97	46	35.85	8	41.52	20.02	+0.20.02	9	1.8					
25.88	2.21		59.2	52	9.0			9.4			33.00			35.97		42.08									54.21
26.42	1.88	46	35.7	52	35.51			9.8			32.83			35.80		41.67									1.7

24.26	30.88	46	56.3	49	4258				4470	9.3	88	47	20.00		46	56.14	9	3.56		20.02	-2.40	16	23.4					
22.78	34.48								4488	9.2	83	47	19.91		46	56.05	9	6.60				6	26.4					
21.90	34.73									9.0		47	19.92		46	56.04	9	6.43				6	26.3					
30.10	58.08	45	59.4	52	17.0	8.8	15.62		8.8	72	46	50.73		46	59.65	22	42.25		20.02	+1.00	0.06	23	42.3					
27.90	59.65		59.3	52	23.7				9.0			50.70		59.62		40.53							40.6					
15.13	20.67	46	59.0	52	3552		19.100		8.9	73	46	53.85		59.80	23	1.69		+0.40	0.04				41.7					
15.14	21.67								8.8			53.73		59.68		3.72							43.8					
39.60	50.18	46	11.1	52	19.2	8.3	40.65		78	77	47	15.77		47	9.82	26	23.02		20.02	-0.20	0.04	25	43.0					
48.28	52.81		59.3	52	25.9				9.0			15.83		9.78	26	24.46							44.4					
19.40	6.04	47	10.4	52	3554		32.96		49	75	47	10.03		10.03	25	43.38						25	43.4					
12.56	55.15	46	17.2	50	41.7	9.1	12.52		9.07	0.71	47	5.03	6.29	-0.94	11.92	47	16.95	18.21	47	37.45	18.08	20.02	+1.20	0.8	48	57.5	38.2	
12.56	55.15		59.4	50	48.4				9.27	0		5.02	6.27	-0.91	11.92	47	16.94	18.19	47	37.41	18.34				49	57.5	38.1	
12.56	55.15	47	16.6	50	41.79																							
44.06	57.24	46	19.1	51	7.7	8.0	15.70		6.0	72	47	9.09		47	18.03	13	33.59		20.02	+1.00	0.06	14	33.6					
44.06	57.24		59.4	51	14.4				8.3			9.09		18.03		32.74							32.8					
44.06	57.24	47	18.5	51	3734																							
59.78	71.7	46	19.3	50	42.4	9.0	40.83		9.27	0.77	47	22.76	24.10	0.90	-5.96	47	18.80	18.14	49	36.73	50	14.96	20.02	-0.40	0.04	48	56.7	36.4
1.12	47.49		59.4	50	49.4		40.98		7.0	77	47	24.11		18.15	50	17.20							49	37.3				
10.34	48.72	47	18.7	50	41.80				7.4			24.15		18.19		17.54								37.5				
12.2	54.67	47																										
28.22	11.35	46	30.0	54	4.7	9.3	12.14		9.8	71	47	17.60		10.2	11.85	47	29.48	10	1.30		20.02	+1.20	0.8	11	21.4			
29.72	11.53		59.2	54	11.4				9.2			17.54		29.42	9	59.41							11	19.5				
27.18	1.46	47	29.2	54	3061		36.80		9.2	76	47	32.27		29.30	11	58.97		-0.20	0.02				19.0					
21.80	2.45								9.1			32.25		29.28		40.13								20.1				
56.52	20.04	46	48.4	54	38.2	9.0	32.96		8.2	75	47	47.13		47	47.13	44	42.33		20.03	-		44	42.3					
16.82	10.80		59.1	54	44.9		40.65		8.7	77	47	52.85		46.90	45	22.40		-0.40	0.06				42.3					
25.64	47.85	47	47.5	54	3062				8.9			53.16		47.21	45	21.37							41.3					
41.30	27.40	46	57.7	57	58.0	9.1	26.84		9.2	74	47	48.28		47	57.26	4	7.74		20.03	+0.20	0.03	4	27.8					
41.30	27.40		59.4	52	4.7				9.1			48.40		57.38		8.01							28.0					
41.30	27.40	47	51.1	57	3736				9.1			48.30		57.28		9.38							29.4					
27.6	31.15	47	11.3	53	43.9	8.4	26.60		8.6	74	48	7.77		48	10.75	50	15.61		20.03	+0.20	0.03	50	35.6					
5.08	32.86		59.2	53	50.6				8.5			7.66		10.64		15.29							35.3					
48	10.6	53	32.48																									
12.54	18.26	47	20.8	54	19.4	8.2	40.98		8.5	77	48	25.61		48	19.66	26	45.88		20.03	-0.40	0.06	26	58.25					
10.46	10.80		59.3	54	16.1				8.5			25.81		19.36		45.19							5.1					
47.48	6.67	48	20.1	54	3066		44.70		8.0	83	48	42.97		48	19.15	28	44.09		20.03	-2.40	0.24	26	3.8					
3.04	26.24	47	32.4	52	41.3	7.5	15.64		8.0	72	48	23.66		48	32.62	17	10.10		20.03	+1.00	0.09	48	10.2					
0.92	24.94		59.4	52	48.0				7.7			23.70		32.66		8.26							17.48					
29.24	47.29	48	31.8	52	3659		19.100		7.8	73	48	26.68		32.56	17	29.66		+0.40	0.06				9.7					
48.12	46.53								8.3			26.59		32.56		28.72							8.8					
40.24	41.80	47	37.6	53	15.7	7.4	26.100		8.0	74	48	45.83		48	48.91	53	22.31		20.03	+0.20	0.03	53	42.3					
10.35	10.80		59.5	53	52.4				8.0			45.87		48.85		21.38							41.4					
3.84	26.09	48	37.1	53	3257		44.98		7.4	83	49	1.72		48	37.86	55	1.33		20.03	-2.40	0.24	52	2.1					
1.04	2.49						44.10		8.8	88	49	1.60		48	37.74	55	2.44						22.2					
30.66	48.87	47	48.3	53	47.0	7.8	40.83		8.6	77	48	54.88		48	48.91	54	22.24		20.03	-0.40	0.06	53	42.3					
30.10	52.88		59.5	53	53.7				8.2			52.91		48.94		22.94							42.9					
48	47.8	53	3253																									
6.44	5.74	47	56.3	52	31.2	9.0	32.96		8.5	75	48	57.03		48	57.03	37	45.77		20.03	-		37	45.8					
47.2	26.06		59.4	54	37.9		36.80		9.1	76	48	59.79		56.81	38	5.31		-0.20	0.03				45.3					
47.02	28.17	48	55.7	54	3070				8.8			59.94		56.99		6.64							46.6					
26.82	52.69						40.65		8.8	77	49	2.84		56.88	38	25.82		-0.20	0.06				46.5					
35.26	52.11								9.2			2.85		56.89	38	25.48							45.4					

57.20 22.01 23	✓	48	2.1	50	55.4	8.4	1.12	8.4	70	48	11683	-08414.96	49	1.77	0	11.81	+20.03+140.15	1	52.0
57.92 25.30	✓		59.7		6.7		1.32	8.8	70	48	116.80			1.76	0	8.44			48.6
0.54 51.22	✓	49	1.8	51	2.1		26.60	8.8	74	49	88.67	-080+2.99		1.56	1	31.03	+020.03		51.2
66.44 50.01	✓			50	4187			9.0			58.66			1.65	1	29.55		1	49.6
0.36 50.65	✓	48	4.3	50	4.2	8.7	12.52	9.0	71	48	58.80	-077+11.98	49	4.78	9	32.18	20.03+120.12	10	52.3
0.760 51.47	✓		59.7	50	10.9			9.5			52.86			4.84		32.17			52.3
54.74 54.55	✓	49	4.0	50	4188		26.84	9.1	74	49	1.72	-077+3.00		4.72	10	32.41	+020.03		52.8
54.62 54.64	✓						66	9.0			1.72			4.72		32.41			52.4
55.30 55.50	✓							9.0			1.72			4.68		32.03			52.1
41.70 35.26	✓	48	15.3	51	56.0	6.5	15.76	6.3	72	49	58.82	-0848.94	49	4.77	1	20.94	20.03+100.9	21	21.0
7.80 51.58	✓		59.6	52	2.7		40.98	6.8	77	49	20.87	-080-5.98		14.89	3	0.71	-040.06	2	20.6
7.00 53.09	✓	49	14.9	51	3739			7.0			20.82			14.84		1.58			21.5
3.62 50.03	✓	48	55.5	54	22.5	9.0	32.96	8.5	75	49	54.20		49	54.20	29	30.18	20.03		30.2
51.90 7.85	✓		59.5	54	29.2		36.80	8.8	76	49	52.95	-082-2.99		53.96	29	49.59	-020.03		29.6
46.06 11.43	✓	49	55.0	54	3073			8.6			52.99	-082-5.98		54.00		50.44			30.4
24.00 33.18	✓						40.66	8.7	77	50	0.61			54.03	30	8.16	-040.06		28.1
32.62 35.15	✓							8.8		50	0.11			54.13	30	8.83			28.8
28.68 44.55	✓	48	58.0	52	28.1	6.9	19.64	8.9	72	49	49.24	-07748.98	49	58.22	28	28.82	20.03+10.09	29	28.9
26.34 44.48	✓		59.7	52	29.8			8.7			49.10			58.08		27.73			27.8
13.76 6.66	✓	49	57.7	52	3561		19.103	8.5	73	49	52.19	-077+5.99		58.18	28	48.56	+040.06		28.6
13.68 5.80	✓							8.8			52.13			58.12		47.78			27.8
6.32 8.51	✓	49	13.1	52	32.5	7.5	40.98	7.9	77	50	19.32	-075-5.99	50	13.33	1	39.31	20.04-040.06	0	59.2
7.50 11.73	✓		59.7	53	1.2			8.0			19.26			13.27		40.84		1	0.8
	✓	50	12.8	52	3563														
13.32 20.16	✓	49	14.1	53	15.5	9.0	26.62	8.5	74	50	11.31	-077+3.00	50	14.31	22	2.33	20.04+020.04	22	22.4
9.06 17.66	✓		59.7	53	22.2			8.6			11.22			50	14.22	21	59.56		19.8
26.19 30.04	✓	50	13.8	53	32.55		49.46	9.0	85	50	44.14	-074-2.99	50	16.08		14.16	29.12+020.04-320.40	21	19.8
28.12 30.04	✓						49.66	8.8	85	50	44.14	-074-2.99	50	16.08		14.16	29.12+020.04-320.40	21	19.8
31.13 30.76	✓						49.67	8.8	85	50	44.14	-074-2.99	50	16.08		14.16	29.12+020.04-320.40	21	19.8
45.00 36.92	✓									50	45.97	-074-2.99	50	15.99	19	12.76		15	52.4
7.34 52.41	✓	49	15.7	53	9.5	8.2	26.100	8.0	74	50	13.01	-076+3.00	50	16.01	15	32.46	20.04+020.04	15	52.5
7.46 52.25	✓		59.7	53	16.2			8.0			12.93			15.93		32.32			52.4
	✓	50	15.4	53	32.56														
11.65 29.39	✓	49	17.8	50	12.2	9.0	1.50	8.0	70	50	4.07	-070+15.01	50	19.18	46	10.71	20.04+140.20	47	50.9
6.72 32.53	✓		59.9	50	18.9		26.86	8.3	74	50	13.67	-070+3.00		16.67	78	11.08	+020.04	18	31.1
6.52 32.32	✓	50	17.7	60	4192			8.2			13.39			16.59		11.33			31.4
7.32 32.89	✓							8.2			13.39			16.57		10.70			30.7
15.00 23.99	✓	49	18.8	50	44.1	8.7	1.32	9.0	70	50	3.88	-070+15.01	50	18.89	46	6.69	20.04+140.20	47	47.1
9.50 57.95	✓		59.8	50	47.8		40.83	9.0	77	50	24.86	-069-6.01		18.85	48	27.02	-040.08	47	46.9
1.84 58.07	✓	50	18.6	50	4193			9.0			24.77			18.76		27.22		47	47.1
41.72 57.13	✓	49	38.9	55	2.0	7.5	41.14	6.5	77	50	44.00	-078-5.99	50	38.01	9	21.38	20.04-040.08	8	41.3
39.50 51.89	✓		59.8	55	8.7			7.4		50	44.08			38.09	9	21.14			41.1
	✓	50	38.7	55	30.55														
5.66 21.64	✓	49	39.6	51	21.1	8.1	18.70	8.0	72	50	30.64	-069+8.01	50	39.65	27	3.28	20.04+10.02	28	3.6
6.48 21.93	✓		0.0	51	28.1			8.6			30.84	-3.00		39.58		3.97	-020.04		4.1
37.60 40.61	✓	50	39.6	51	3744		36.80	8.5	76	50	42.60	-068-3.00		39.60	28	22.90			3.0
31.78 47.94	✓						40.66	8.4			42.62	-067-3.00		39.62		23.66			3.6
9.40 10.43	✓							8.5	77	50	45.57			39.66	28	42.07	-040.08	28	52.0
18.26 11.98	✓	49	44.0	52	56.9	8.8		8.7		50	45.89			39.88	28	42.27			2.2
4.54 36.97	✓		59.9	53	3.6		19.102	8.4	73	50	42.98	-072+5.80	50	48.98	2	19.50	+040.08	2	59.6
4.38 35.70	✓	50	48.9	52	3564			8.8			42.81			48.81		18.51			58.4
15.38 2.30	✓	49	44.1	51	53.5	9.4	44.88	8.2	83	51	13.03	-065-24.06	50	48.97	14	34.85	20.04-240.00	11	54.5
15.08 4.35	✓		59.9	51	12.0			9.0		51	13.03			48.97	14	36.57		11	56.0
	✓	50	49.0	51	3745														
32.28 42.90	✓	49	52.5	54	52.6	6.0	40.83	6.4	77	50	56.89	-076-5.99	50	50.90	1	16.95	20.04-040.08	0	36.9
34.16 42.54	✓		59.8	55	1.3			5.2			56.89			50.90		16.75			36.7
	✓	50	52.3	54	3076														
53.26 4.22	✓	50	2.3	54	21.5	8.8	26.100	8.7	74	50	38.85	-073+3.00	51	1.88	26	45.43	20.04+020.04	27	5.5
53.54 4.94	✓		59.8	54	28.2			8.5			38.85	-073		1.94	3	45.43			6.5
11.46 26.83	✓	51	2.1	54	3078		32.90	8.7	75	51	2.01			2.01	27	6.53			2.6
11.08 26.71	✓							8.8			1.89			1.89		5.66			5.7
21.50 16.69	✓						45.12	8.8	83	51	24.97	-072-24.00	51	1.97	29	47.89	20.04-240.00	27	9.6
31.77 11.72	✓						45.70	8.7	83	51	24.97			2.10	29	45.69			5.4

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29.58 29.58	50	26.3	55 5.4	8.8	41.14	8.0 77	51 31.82	-074-6.00	51 25.82	12	48.50	+20.04	-0.40.08	12	9.4	7.0
27.00 17.03	51	59.8	6.7			8.0 77	51 31.98		25.98	12	46.09				8.0	7.0
		26.1	55 12.1													
			55 3058													
21.64 19.81	50	30.2	52 46.5	9.0	15.64	9.2 72	51 21.84	-066+9.02	51 30.86	52	5.82	20.04	+1 0.12	53	6.0	5.0
		59.9	52 53.2			9.0	21.74		30.76		3.26				3.4	4.0
	51	30.1	52 3567													
37.38 7.78	50	43.2	52 22.2	8.7	19.102	9.7 73	52 15.78	-058+6.03	52 21.817	40	48.95	20.04	+0.40.08	41	2.9.0	5.0
37.34 7.04		59.9	52 28.9			9.7	15.76		21.79		49.30				2.9.4	5.0
8.84 6.80	51	43.1	52 3569		44.98	8.6 83	52 7.20	-061-24.09	51 43.11	31	40.90	20.04	-2.40.08	28	5.7.6	0.6
7.58 8.80					44.110	9.3 83	52 7.4955		51 43.408	31	42.44			29	2.1	
6.76 9.97					111	8.3 83	52 7.31		51 43.222	31	43.01			29	2.2	
38.74 21.81	50	44.5	50 1.8	8.4	1.6	-70	51 22.61	-059+15.06	51 44.67	6	45.22	20.04	+1 40.20	8	25.4	1.0
40.40 26.32	1	0.0	50 8.5		12.54	8.7 71	51 32.82	-058+12.06	44.88	7	7.93	+1 20.16		8	28.1	1.0
39.66 27.12	51	44.5	50 4199			9.2	32.89		44.85		8.24				28.4	
39.28 25.96					12.56	8.8 71	51 32.65		44.71	7	7.47				27.6	
38.42 26.95						8.6	32.70		44.76	7.61					27.8	
48.92 13.78	50	49.2	50 13.8	8.7	26.62	9.2 74	51 46.94	-058+3.08	51 44.95	19	52.78	20.04	+0.20.04	20	12.8	4.0
44.86 12.05	1	0.1	50 20.5			9.0	47.06		52.07		51.24				11.3	4.0
	51	49.3	50 4199													
0.16 6.88	51	3.6	50 34.9	var.	1.32	7.0 70	51 49.02	-058+15.07	52 4.09	39	49.91	20.04	+1 40.20	41	30.1	5.0
59.52 11.38	1	0.1	50 41.6		1.52	4.5 70	51 48.93		4.00	39	51.70				31.9	7.0
50.04 33.91	52	3.7	50 4208		26.86	9.0 74	52 0.97	-057+3.02	3.97	41	12.30	+0.20.04			32.8	3.0
54.02 33.24						8.4	0.95		3.97		13.11				31.4	3.0
54.62 35.15									3.97						33.2	3.0
6.44 49.74	51	13.5	50 31.0	9.0	40.78	9.0 77	52 19.52	-055-6.03	52 13.49	38	17.63	20.04	-0.40.08	37	37.6	4.0
7.70 51.04	1	0.1	50 37.7			9.0	19.58		13.55		18.11				38.0	5.0
	52	13.6	50 4204													
42.24 16.02	51	15.7	49 53.6	9.0	44.87	9.0 83	52 40.88	-052-24.46	52 16.22	2	18.04	20.04	-2.40.08	0	7.7	2.0
42.28 16.62	1	0.1	50 0.3			8.8	52 40.23		16.07	2	48.28			0	8.0	2.0
	52	15.8	49 4294													
31.28 51.84	51	22.0	52 35.0	7.5	32.92	7.5 75	52 21.83		52 21.83	41	29.60	20.04		41	29.6	8.0
30.82 51.94	1	0.0	52 41.7			7.5	21.72		21.72		28.95				29.0	8.0
	52	22.0	52 3570													
27.34 16.51	51	29.4	52 51.9	8.2	36.82	8.3 76	52 32.33	-058-3.01	52 29.32	58	52.31	20.04	-0.20.04	58	34.3	4.0
21.48 18.40	1	0.1	52 58.6			8.3	32.33		29.32		55.60				35.6	4.0
59.28 42.88	52	29.5	52 3571		40.66	8.5 77	52 35.33	-058-6.02	29.30	59	15.72	-0.40.08			35.6	4.0
7.82 43.34						9.0	35.34		29.31	59	15.23				35.2	4.0
26.44 13.46	51	32.8	54 34.4	8.5	26.100	8.6 74	52 32.08	-061+3.01	52 35.09	39	62.78	20.04	+0.20.04	40	14.8	1.0
26.54 11.86	1	0.1	54 41.1			8.3	31.99		35.00		63.15				13.2	1.0
	52	32.9	54 3081													
69.32 3.58	51	33.4	51 1.2	8.5	15.70	8.8 72	52 24.28	-053+9.06	52 33.84	6	45.11	20.04	+1 0.12	7	45.2	5.0
0.16 4.05	1	0.1	51 7.9			8.5	24.23		33.29		45.84				46.0	5.0
	52	33.8	51 3750													
12.26 41.71	51	41.3	52 26.6	8.2	15.64	8.0 72	52 32.83	-056+9.05	52 41.88	32	25.50	20.04	+1 0.12	33	25.6	7.0
10.20 40.73	1	0.2	52 33.3			8.0	32.93		41.78		23.53				24.0	7.0
	52	41.5	52 3573													
41.08 55.02	51	41.5	53 51.6	8.5	26.62	8.2 74	52 39.04	-059+3.01	52 42.05	0	38.28	20.04	+0.20.04	0	58.3	2.0
38.86 55.80	1	0.1	54 1.3			7.8	38.98		41.79		35.89				55.9	2.0
	52	41.6	53 2265						42.01	6.4	6.50					
22.64 39.44	51	42.3	54 56.9	8.0	40.83	6.0 77	52 46.72	-061-6.02	52 40.70	4	13.25	20.04	-0.40.08	3	33.2	5.0
23.88 39.44	1	0.0	55 3.6			5.0	46.56		40.54		12.91				32.8	1.0
	52	42.3	54 3082													
49.60 56.86	51	45.7	55 8.8	8.5	41.14	8.0 72	52 51.82	-060-6.02	52 45.80	16	17.08	20.04	-0.40.08	15	47.0	1.0
47.44 47.29	1	0.0	55 15.5			8.5 72	52 51.98		45.96	16	17.08				37.0	1.0
1.51 15.88	52	48.7	55 3064		49.52	8.4 85	52 51.06	-058-30.14	52 45.92	18	55.97	20.04	-3.20.08	15	35.6	1.0
50.44 48.33					49.60	8.5 85	51 56.04	-069-30.14	51 26.01	15	27.51	20.04		12	7.1	

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7.80 39.5 23	✓	51	51.8	52	40.8	9.0	19	102	88.72	52	46.20	-0.5576.03	52	52.23	46	46.77	+20.04	+0.40.08	47	26.4			
7.60 3.89	✓	1	0.2		6.7				70		46.01			52.04		46.30				26.4			
		52	52.0	52	47.5																		
				52	35.74																		
57.30 17.49	✓	51	52.3	52	45.8	7.3	41	99	77.77	52	55.14	-0.53-6.03	52	52.11	52	43.57	20.04	-0.40.08	52	3.5			
50.54 18.48	✓	1	0.2	52	52.5				7.3	52	58.09			52.06	52	44.89				4.8			
43.14	✓	52	52.5	52	35.75		27	24	75.74	52	49.16	-0.5373.02		52.18				+0.20.00					
55.10 45.01	✓	51	56.4	53	3.9	8.6	41	55	9.0	77	53	3.40	-0.55-6.03	52	57.37	11	12.70	20.04	-0.40.08	10	32.6		
54.22 43.44	✓	1	0.2	53	10.6				9.0		53	3.44			57.41	11	11.84				31.8		
		52	56.6	53	32.06																		
18.30 41.88	✓	52	7.0	51	19.1	8.8	32	92	8.6	75	53	8.82		53	8.82	25	21.91	20.05	-	25	11.9		
18.00 40.45	✓	1	0.1	54	25.8				8.8		8.85			8.85		20.16					20.2		
		53	7.1	54	30.84																		
44.78 59.40	✓	52	11.0	53	52.9	8.0	42	100	8.2	78	53	20.52	-0.54-9.05	53	114.70		34.14	20.05	-1	0.15	59	34.0	
24.60 25.76	✓	1	0.1	53	59.6				8.195	52	57.05	-0.58-9.04		42.01	11.49		56.37	33.10			56.2	33.6	
54.10 0.48	✓	53	11.1	53	32.67																		
5.82 37.98	✓	52	11.4	50	1.6	7.2	1	6	-70	52	58.65	-0.4845.12	53	11.77	6	31.65	20.05	+1	40.26	8	11.9		
7.14 16.51	✓	1	0.3	50	8.3		27	18	8.9	74	52	18.11	-0.4743.02		16.13	59	47.97		+0.20.06	0	8.0		
35.76 32.11	✓	53	11.7	50	42.08				5.8	51	41.76	-0.58+3.01	51	44.78	8	8.85	8.85			40	8		
37.52 19.82									4.98	53	35.94	-0.46-24.21	53	11.73	10	57.52	20.05	-2	40.30	11.1	25.9		
35.90 22.06									44.11	53	36.28		53	12.08	10	62.85				12.4	31.0		
44.06 37.73	✓	52	14.2	53	11.2	8.5	40	66	83	77	53	20.65	-0.53-6.04	53	14.61	18	11.05	20.05	-0	40.10	18	32.3	
53.14 38.23	✓	1	0.2	53	17.9				7.1	53	20.63			14.57	18	10.85					30.2		
		53	14.4	53	32.68																		
2.650 50.75	✓	52	23.1	54	26.1	9.0	42	106	8.49	178	53	33.46	-0.53-9.06	53	24.60	35	49.15	37.36	20.05	-1	0.15	34	470
23.64 59.97	✓	1	0.1	54	34.8				8.2	91	53	33.54	-0.52-9.06	53	24.98	37	55.67	32.10			34	570	
23.74 23.41	✓	53	23.2	54	30.88												37.36				36.5		
31.88 59.27	✓																						
8.58 36.17	✓	52	24.7	54	4.4	9.0	42	102	8.29	378	53	33.43	-0.53-9.06	53	24.37	35	49.15	37.36	20.05	-1	0.15	11	78
12.68 40.6	✓	1	0.1	54	11.1				8.9	78	53	33.32	-0.52-9.06	53	24.26	33	35.31				10	35.2	
27.80 40.6	✓	53	24.8	54	30.89				8.8		53	33.19			24.13	11	33.28					33.1	
28.44 1.55	✓																						
44.34 15.71	✓	52	49.2	50	26.6	8.9	1	6	-70	53	36.18	-0.45+15.14	53	50.37	3	58.98	20.05	+1	40.26	5	39.2		
46.22 50.82	✓	1	0.4	50	35.3		1	32	9.0	70	53	36.06		50.20	33	33.28				35	13.5		
45.42 53.00	✓	53	49.6	50	42.10				1.52	8.4	70	53	34.81		49.95	33	35.94				16.2		
44.42 13.38	✓								12.56	8.9	71	53	37.78	-0.4412.11	49.89	33	55.13	+1	20.20	35	15.3		
43.60 15.07	✓									8.6				49.98	33	55.75					16.0		
19.68 49.22	✓	52	50.2	49	58.7	8.5	41	70	8.4	83	34	55.28	-0.42-24.14	53	50.46	8	22.28	40	20.05	-2	40.30	5	42.30
17.18 50.11	✓	1	0.4	50	5.4				14.87	8.3	54	14.80		50.56	8	22.48				5	42.81		
16.62 51.28	✓	53	50.6	49	43.03				8.3		54	14.55	-0.41-30.31	50.31	54.04	8	23.42	44.98			5	43.02	
10.34 33.23	✓								8.3		54	20.84		50.53	9	2.18					5	44.7	
2.73 23.04	✓								49.67	8.6	54	20.81		50.50	9	4.78					5	44.3	
19.83 32.60	✓	52	50.9	54	52.0	9.0	41	14	9.0	77	53	55.44	-0.57-6.04	53	52.40				20.05	-0	40.10		
56.24	✓	1	0.2	55	0.7				9.0		53	55.60		52.56	0	12.28					0	12.2	
54.08 22.81	✓	53	51.1	54	30.91				49.66	8.09	285	54	22.87	-0.49-0.45	52.64	20.22	33.64		20.05	-3	20.60	0	12.1
46.90 53.71	✓								49.67	8.08	385	54	22.68	-0.49-0.45	52.45	20.58	33.88				0	13.4	
42.82 55.33	✓																						
7.48 59.70	✓	52	56.4	54	38.4	8.8	32	72	8.6	75	53	59.99		53	59.99	45	40.06	20.05	-		45	40.1	
9.12 59.16	✓	1	0.3	54	45.1				8.8		59.98			59.97		39.90						39.9	
		53	56.7	54	30.92																		
28.18 54.80	✓	53	2.5	51	7.5	8.7	15	70	9.0	72	53	53.12	-0.45+9.08	54	2.20	13	36.69	20.05	+1	0.15	14	36.8	
26.00 54.54	✓	1	0.4	51	14.2				8.7		53	53.04		2.12		36.74					37.0	36.9	
54.22 38.96	✓	54	2.9	51	37.56				27.8	9.0	74	53	59.22	-0.36+3.04	2.26	14	16.73	+0.20.05				36.8	
54.22 40.94	✓													2.23		17.67						37.7	
5.60 26.83	✓	53	6.1	53	29.4	8.8	26	62	8.6	74	54	3.54	-0.48+3.02	54	6.56	36	3.72	20.05	+1	20.05	36	23.8	
1.46 20.37	✓	1	0.3	53	36.1				8.8		3.57			6.59		2.63						22.6	
		54	6.4	53	32.70																		
11.56 36.35	✓	53	20.2	53	0.8	9.0	26	100	8.9	74	52	17.17	-0.4443.03	54	20.20	7	16.26	20.05	+1	20.05	7	36.3	
11.66 33.90	✓	1	0.3	53	7.5				9.0		17.07			20.70		13.89						33.9	
		54	20.5	53	32.71																		

16.2345853	20.3	52	53.9	9.0	86.87	9.0	76	54	23.39	-047-3.02	54 20.37	1	54.83	+20.05-020.06	1	34.8
44.02 53.446	1	0.3	6.7			8.8		53	55.57	-0425-8.032	53 52.54	0	33.02		6	13.0
24.02 45.18	54	20.6	55 0.6		41.14	6.6	77	54	24.31	-047-6.05	54 20.26	2	14.05	-040.10	1	37.0
2.02 45.11			54 53.93			6.8		54	26.51		20.46	2	15.12			35.0
2.02 34.87	53	28.1	52 47.9	9.3	15.64	8.9	72	54	20.37	-043+9.09	54 20.46	51	58.55	20.05+1 0.15	53	58.7
1.1 33.03	1	0.5	52 54.6			9.5		53	23.83	-050+9.07	53 32.90	34	16.69		40	35
58.44 58.45	54	28.4			44.98	9.3	83	54	53.76	-041+24.25	54 29.51	56	33.40	20.05-2 40.50	53	58.0
54.22 41.87			52 3579		49.60	8.0	85	54	59.94	-040-30.82	54 29.62	57	19.24	-3 20.50	53	58.7
56.55 11.94					49.82	9.6	85	54	50.58	-042-30.20	54 20.28	57	48.75		54	27.3
23.87 43.79	53	28.5	50 0.3	9.0	1.14	9.2	70	54	18.39	-034+5.16	54 20.55	5	28.54	20.05+1 40.25	7	6.1
18.52 47.70	1	0.5	50 7.0			8.3	92.74	54	25.43	-039+3.03	28.16	5?	42.99	+020.05	6	3.0
18.25 7.42	54	29.0	50 42.15		26.86	70.92		54	25.31		28.41	8?	44.91		9	5.0
14.02 17.05						75.94			25.32		28.35	8?	1.26	45.82	8	21.3
27.19 29.00	53	31.2	50 52.2	8.8	1.32	8.5	70	54	16.01	-036-30.36	54 33.76	3	50.25	20.05-3 20.50	0	29.8
26.67 8.81	1	0.5	50 58.9		1.52	8.7	70	54	16.04	-040+15.16	54 34.17	57	12.40	20.05+1 40.25	58	52.6
10.2 2.21	54	31.7			40.66	8.9	77	54	37.16	-039-6.07	31.20	57	50.25		58	53.3
9.60 40.05			50 42.16			9.3		54	37.18		31.11	59	34.03	-040.10	58	53.9
48.02 44.16	53	32.0	52 28.1	9.0	19.102	8.9	73	54	26.37	-042+6.06	54 32.43	33	26.25	20.05+0 40.10	34	6.4
47.78 43.67	1	0.4	52 34.8			9.0			26.17		82.23		25.69			5.8
54 32.4			52 3580													
2.52 31.93	53	32.8	49 53.9	9.0	44.71	9.0	83	54	58.08	-036-24.29	54 33.79	3	5.75	20.05-2 40.50	0	25.4
0.50 31.63	1	0.5	50 0.6		44.78	8.8	83	54	58.10		33.81	3	4.30		0	23.9
0.14 32.36	54	33.3	49 43.07			9.0		54	58.07		33.78	3	4.78		0	24.4
41.05 58.49	53	37.9	57 27.5	9.0	42.110	9.1	78	54	46.91	-039-9.10	54 37.81	35	25.83	20.05-1 0.15	34	25.8
42.00 55.52	1	0.4	51 34.2			9.3		54	46.85		37.75	35	24.59			24.4
54 38.3			51 37.57													
34.22 35.70	53	38.5	57 16.2	8.8	42.106	8.7	78	54	46.63	-039-9.10	54 37.53	24	5.18	20.05-1 0.15	23	5.0
36.72 51.81	1	0.4	51 22.9			8.4		54	46.66		37.56	24	20.90			20.2 49
54 38.9			51 37.58										5.18			
50.96 47.04	53	43.0	57 48.41	9.0	41.55	9.1	77	54	0.20	-045-6.05	53 54.15	58	12.63	20.05-0 40.10	57	33.5
58.40 12.41	1	0.5	51 55.1		42.100	9.3	78	54	34.99	-041-9.09	54 25.70	55	45.47	-1 0.15	54	45.3
26.54 28.40	54	43.5				9.3		54	44.11 53.41	-040-9.09	54 45.22	58.5	59.15		40	57
8.86 3.93			51 37.60		44.111	9.9	83	53	9.12 19	-038-24.27	54 44.82	57	39.37	20.05-2 40.50	54	59.0
8.20 6.97					112	9.1		53	8.72		54 44.82	57	39.98		54	59.6
43.68 30.60	53	44.3	52 21.3	8.2	41.39	7.8	77	54	50.50	-040-6.06	54 44.45	57	39.98	20.05-0 40.10	28	16.8
42.90 29.34	1	0.5	52 28.0			8.0		54	50.44		54 44.44	28	56.55			15.7
26.30 24.24	54	44.8			40.84	8.4	77	54	50.57		44.38	28	55.83			15.3
			52 3581								44.45	28	55.36			
43.80 34.77	53	52.0	52 24.2	9.0	27.18	9.0	74	54	49.78	-039+3.03	54 52.81	30	13.88	20.05+0 20.05	30	33.4
43.84 35.59	1	0.5	52 30.9			8.6			49.82		52.85		14.12			34.2
54 52.5			52 3582													
46.02 34.48	54	19.7	51 24.5	9.0	18.70	8.8	72	55	10.95	-035+9.11	55 20.06	30	12.48	20.05+1 0.15	31	12.6
46.96 29.87	1	0.5	51 31.2			8.9			10.98		20.07		11.88			12.0
55 20.2			51 37.61													
41.88 34.28	54	22.5	57 58.3	9.0	26.58	8.5	74	55	20.26	-035+3.04	55 23.30	41	14.60	20.05+0 20.05	4	34.6
13.24 8.61	1	0.5	52 5.0			8.6			20.26		23.30		15.97			36.0
13.92 85.69	55	23.0				8.8			20.21		23.25		14.67			34.7
			51 37.62													
40.80 13.44	54	47.8	54 11.1	9.0	26.102	8.6	74	55	46.39	-034+3.04	55 49.43	17	32.89	20.05+0 20.05	18	14.9
41.24 13.10	1	0.4	54 17.8			9.1			46.63		49.67		52.57			14.6
41.98 26.11	55	48.2	54 30.97		32.92	9.5	44.75	55	31.96 19.56		31.96 49.56	17	56.6		17	5.7
52.68 34.82						8.8			49.46		49.46	18	14.32		18	14.5
58.64 34.41																
11.72 6.85	54	56.3	51 46.7	8.6	19.102	8.4	73	55	58.07	-029+6.09	55 56.16	52	48.28	20.05+0 40.10	53	28.4
11.74 5.77	1	0.5	51 53.4			8.7			58.10		56.19		47.19			27.3
55 56.9			51 37.64													
11.4 2.18	55	0.9	53 19.8	9.2	26.62	9.3	74	55	59.06	-031+3.04	56 2.10	26	4.29	20.05+0 20.05	26	24.3
56.78 19.97	1	0.6	53 26.5			8.8			59.07		2.11		2.00			22.0
56 1.5			53 32.75													

58.12	23.28	55	6.9	51	1.3	8.8	27.18	90.74	56	4.05	-0.28+3.04	56	7.09	7	43.89	+20.05	+0.20.05	8	3.6
58.04	5.86	1	0.7	51	6.7			8.7	3.98			7.02	42.95					3.0	
		56	7.6	51	8.0														
				51	3766														
0.68	23.24	55	10.0	53	44.7	8.7	26.88	84.74	56	7.54	-0.31+3.04	56	10.58	51	5.18	20.05+0.20.05	51	2.5.2	
0.66	22.18	1	0.7	53	51.4			8.3	7.64			10.68	3.71					23.8	
1.28	22.07	56	10.7	53	3276			8.3	7.55			10.59	3.37					23.4	
9.74	17.88	55	12.6	54	46.9	8.3	36.82	84.76	56	14.69	-0.31-3.04	56	11.65	52	56.87	20.05-0.20.05	52	36.8	
3.84	19.46	1	0.6	54	52.6			8.3	14.66			11.62	57.59					37.8	
41.84	42.48	56	13.2	54	3104		40.66	80.77	56	17.73	-0.31-5.78	11.65	53	17.63	-0.40.10			37.5	
50.50	42.66							8.8	56	17.87		11.79	53	17.32				37.2	
11.57	46.85	55	15.4	49	53.9	9.0	1.14	90.41	56	1.08	-0.27+12.18	56	13.26	0	28.88	20.05+1.20.20	1	49.1	
42.82	15.84	1	0.8	50	2.6		44.88	80.83	56	14.10	-0.25-24.38	56	16.02	4	47.64	20.05-2.40.05	2	7.2	
42.54	17.75	56	16.2				89	8.3	56	14.44		56	16.06	4	49.27		2	8.9	
				49	4315														
10.05	45.25	55	15.5	50	40.1	7.8	1.6	-70	56	0.84	-0.28+15.22	56	16.06	55	29.16	20.05+1.40.25	57	9.4	
11.92		1	0.7	50	46.5		1.20	9.0	56	0.74		15.96							
12.08	9.49	56	16.2				1.32	5.2	56	0.89		16.11	44	52.73			46	33.0	
11.32	14.67			50	4226			5.0	56	0.68		15.90	44	56.27				36.5	
10.36	31.93						12.52	7.9	56	3.75	-0.28+12.18	15.93	45	13.76	+1.20.20			34.6	
9.52	33.87							7.9	56	3.75		15.93	45	13.76				35.2	
7.86	29.61	55	42.7	51	39.5	8.2	15.72	51	7.2	56	32.78	-0.25+9.14	56	41.92	45	11.97	20.05+1.0.15	48	12.1
8.70	27.26	1	0.7	51	46.2			8.0	32.71			41.85		10.57			46	10.7	
		56	43.4																
				51	3769														
38.44	14.79	55	47.1	53	42.6	9.4	26.102	90.74	56	44.03	-0.25+3.05	56	47.08	48	55.53	20.05+1.20.10	49	35.6	
38.72	13.48	1	0.7	53	49.3			9.2	114.11			47.16	54.41					14.5	
38.00	15.00	56	47.8			27.18		9.3	56	43.95		47.00	48	55.21				15.3	
38.16	13.45			53	3277			9.2	44.11			47.16	48	55.27				13.3	
24.62	54.51	55	54.2	52	44.3	9.0	15.66	8.9	56	45.14	-0.24+10.18	56	54.28	49	38.78	20.05+1.0.15	50	38.9	
22.52	53.21	1	0.8	52	51.0			9.0	45.20			54.34	50	36.94				37.1	
13.05	16.34	56	55.0				49.52	-85	57	24.70	-0.20-30.51	56	54.19	52	55.55	20.05-3.20.50	49	35.1	
19.16	19.70			52	3588		49.60	8.885	57	24.75		54.24	58	57.06			50	36.6	
12.24	38.16	56	1.9	54	44.9	7.9	32.90	6.9	57	2.71		57	2.71	51	18.06	20.05-	51	18.1	
11.88	37.95	1	0.7	54	51.6			7.0	2.69			2.69		18.22				18.2	
		57	2.6																
				54	3103														
19.36	38.25	56	3.3	52	30.5	8.0	19.104	8.6	56	57.70	-0.23+6.10	57	3.80	36	20.42	20.05+0.40.10	37	0.5	
19.32	39.04	1	0.8	52	37.2			8.2	57.68			3.78		21.20				1.3	
		57	4.1																
				52	3590														
35.94	54.57	56	3.8	54	15.6	8.5	40.67	8.2	57	11.85	-0.23-6.10	57	5.75	22	34.46	20.05-0.40.10	21	49.4	
3.64	2.85	1	0.8	54	2.3		40.56	8.3	57	11.85		5.75	22	34.39				50.3	
2.98	0.63	57	4.6					6.5	12.11			6.01	22	29.13				49.0	
				54	3104														
16.30	54.76	56	24.8	52	23.5	9.0	26.88	8.7	57	23.16	-0.20+3.05	57	26.21	29	35.43	20.05+0.20.05	29	55.5	
16.16	55.43	1	0.9	52	30.2			8.8	23.13			26.18		35.50				55.6	
16.90	56.43	57	25.7					8.6	23.16			26.21		35.71				55.8	
				52	3592														
47.22	44.01	56	55.1	53	28.1	7.2	26.102	8.0	57	52.78	-0.17+3.06	57	55.84	34	24.43	20.05+0.20.15	34	44.2	
47.62	42.10	1	0.9	53	34.8			8.2	53.17			56.23		22.60				42.8	
22.18	42.61	57	56.0					10.83	58	20.42	-0.15-24.46	57	55.96	37	23.36	20.05-2.40.50	34	43.0	
20.48	49.15			53	3280			7.6	58	20.64		56.18	37	23.33			40	43.4	
20.10	49.65							7.8	58	20.52		56.06	37	24.30			34	43.9	
30.30	18.88	57	4.7	51	1.4	9.1	15.72	6.5	57	65.19	-0.14+9.17	58	4.36	7	0.49	20.05+1.0.15	8	0.6	
31.12	19.27	1	1.0	51	8.1			9.0	55.10			4.27		1.04				1.2	
		58	5.7																
				51	3773														
41.34	5.04	57	10.0	53	57.6	9.2	40.67	9.2	58	17.25	-0.14-6.12	58	11.13	58	39.26	20.05-0.40.10	57	59.2	
49.96	4.47	1	0.9	53	58.3			9.5	58	17.34		11.22	58	37.39				57.3	
		58	10.9																
				53	3281														
8.38	9.44	57	13.41	50	13.6	8.5	1.6	-70	57	59.14	-0.13+15.30	58	14.14	18	53.19	20.05+1.40.25	20	33.4	
10.20	32.90	1	1.0	50	20.3		1.14	8.8	57	59.68		14.98	18	15.63				55.9	
5.60	57.50	58	14.4				27.20	8.5	58	11.48	-0.13+12.24	14.54	19	33.55	+0.20.05			53.9	
5.58	58.55			50	4231			8.5	11.47			14.53		34.51				54.4	

1855 phase proj. 1.17065

1855phase 2proj	23	57	18.1	50	43.5	8.2	134	8.9	70	58	3.75	-013+15.30	58	19.05	48	34.30	34.30	+20.05+140.20	50	17.5	14.6		
	14.88	56.30	1	1.0	6.7		152	8.7	70	58	3.61		18.91	48	37.65				17.9				
	27.70	30.40	58	19.1	50	50.2	4114	9.0	77	58	24.93	-012-6.12	18.81	50	56.60			-040.0	16.5				
	25.54	30.30			50	42.82		8.5		58	25.06		18.94	50	53.75				15.6				
	25.15	32.28	57	18.7	54	21.5	9.0	32.94	8.7	75	58	19.61		58	19.61	29	12.06	20.05	29	12.1			
	25.74	31.88	1	0.9	54	28.2			8.9		19.52		19.52		12.11				12.1				
		58	19.6		54	3107																	
	19.58	22.42	57	25.4	51	10.3	9.0	40	77	9.0	77	58	32.81	-011-6.12	58	26.69	17	52.61	20.05	-040.10	17	10.5	
	7.58	22.43	1	1.0	51	17.0			9.2	88	58	19.57	3.207	-013-6.12	58	26.97	16	52.89	17	52.31	16	10.8	12.2
	20.90	24.55	58	26.4	51	3776																	
	18.20	12.89	57	28.4	51	26.4	8.9	26	88	8.1	74	58	25.15	-011+3.06	58	28.21	32	52.43	20.05+020.05	33	12.5		
	18.32	12.82	1	1.0	51	33.1	9.0	8.4			25.29		25.29		28.35		51.38		11.4				
	18.76	12.01	58	29.4	51	3778		8.0			25.21		25.21		28.27		51.22		11.3				
	26.26	0.89	57	30.5	50	22.6	8.2	12	56	8.0	71	58	19.55	-014+2.24	58	31.79	27	42.93	20.05+120.20	29	3.1		
	25.38	4.43	1	1.1	50	29.3		8.2			19.58		19.58		31.82		45.89		5.6				
		58	31.6		50	4233																	
	14.00	30.40	57	30.5	53	58.0	9.0	40	84	8.9	77	58	38.05	-012-6.12	58	31.93	5	3.86	20.05-040.10	4	23.8		
	15.30	30.00	1	1.0	54	4.7		9.0			37.95		37.95		31.83		2.94		22.8				
		58	31.5		53	3283																	
	26.54	4.44	57	34.4	53	2.4	8.7	26	102	8.6	74	58	32.09	-011+3.06	58	35.15	8	26.43	20.05+020.05	8	46.5		
	26.74	4.37	1	1.0	53	9.1		9.2			32.28		32.28		35.34		23.89		43.6				
		58	35.7		53	3284.5																	
	24.72	17.00	57	52.4	52	2.4	9.4	15	66	9.3	72	58	15.21	-009+9.19	58	54.40	8	0.36	20.05+10.15	8	0.5		
	33.20	4.40	1	1.1	52	9.1		44	71	8.1	83	59	18.72	39.11	-007-0.04	54.20	14.57	11	40.16	20.05-240.50	8	59.8	
	33.68	5.20	58	53.8	52	3596		44	89	8.2	83	59	18.51	39.01	-24.52-24.54	54.02	14.47	11	39.78	40	59.4		
	21.06																						
	31.52																						
	9.84	38.50	58	2.9	52	2.4	9.5	19	104	9.4	73	58	48.15	-009+6.13	58	54.28	8	20.07	20.05+040.10	9	0.2		
	9.64	27.87	1	1.1	52	9.1		9.5		44.97	9.5	83	59	28.82	-005-24.54	59	4.28	11	18.90	8	59.0		
	30.56	9.11	59	4.0	52	3597		44	102	9.7	83	59	28.82		4.56	11	43.34	20.05-240.50	9	2.9			
	28.92	9.27						44	111		9.5	59	29.106		4.51	11	42.99	40	2.6				
	28.60	11.33										59	29.05		4.51	11	44.60	9	4.2				
	22.54	20.85	58	6.3	54	27.5	8.9	40	67	9.1	77	59	15.39	-007+6.13	59	9.26	35	5.80	20.05-040.10	34	2.57		
	45.28	30.88	1	1.1	54	34.2		9.5			7.5	59	15.60		9.47	35	4.89		54.8	24.8			
		59	7.4		54	3108																	
	7.68	41.00	58	8.1	52	21.6	7.0	41	39	7.6	77	59	14.42	-006-6.13	59	8.29	29	14.32	20.05-040.10	28	34.2		
	7.02	46.90	1	1.1	52	28.3		7.2			7.2	59	14.48		8.35	29	13.22		33.1				
		59	9.2		52	3598																	
	22.62	9.14	58	12.0	54	53.6	7.0	32	94	7.2	75	59	13.03		59	13.03	0	49.74	20.05	0	69.7		
	22.04	9.18	1	1.1	55	0.3		7.3				59	12.80			12.80		50.07		50.1			
		59	13.1		54	3109																	
	6.52	42.65	58	22.5	54	37.4	9.0	40	84	9.0	77	59	32.51	-004-6.14	59	26.37	44	16.03	20.05-040.10	43	35.9		
	9.94	40.40	1	1.1	54	44.1		9.0			32.53		32.53		26.39		14.35		34.2				
	35.74	36.18	59	23.6	54	3110		44	71	8.9	88	59	50.03	-003-24.54	59	26.48	76	14.87	20.05-240.50	48	34.5		
																			40				
	27.78	53.95	58	35.9	52	26.6	8.5	27	20	8.6	74	59	33.68	-003+3.07	59	36.75	34	32.64	20.05+020.05	34	12.6		
	27.72	53.10	1	1.2	52	35.3		8.5			33.63		33.63		36.70		31.21		11.3				
		59	37.1		52	3599																	
	40.68	56.34	58	44.6	50	33.8	8.4	1	14	8.5	70	59	30.14	-003+15.34	59	45.48	38	39.37	20.05+140.20	40	19.6		
	41.46	54.91	1	1.3	50	40.5		1	34	8.8	70	59	30.24		45.58	38	37.71		18.0				
	40.88	58.60	59	45.9	50	42.37		152		9.5	70	59	30.20	-002+3.07	45.54	38	39.63		14.7	20.1			
	35.58	22.61						26	90	9.5	74	59	42.42		45.49	40	39.61		20.2				
	35.48	22.44								9.2		59	42.41		45.50		39.61		20.7				
	36.18	23.80								8.2		59	42.22	-002+9.21	59	51.43	56	19.43	20.05+10.15	57	19.6		
	17.34	37.10	58	50.7	47	50.5	9.0	15	72	8.9	72	59	42.21		51.42		15.57		18.7				
	18.24	35.91	1	1.2	81	67.2		9.0															
		59	51.9		51	3780																	

0.72 26.84 73	✓ 59 5.4	51 27.6	8.8	40 99	83 77	0 12.3	+ 001 - 6.14 ⁵	0 7.48	34 55.82	+20.05 - 0.40 10 ³⁴
1.94 27.35	✓ 1 1.3	51 6.7			85	13.57		7.42	57.74	17.6
	0 7.0	51 34.3								
		51 3784								
40.50 22.05	✓ 59 9.6	52 38.6	9.0	40 67	23 77	0 16.32	+ 002 - 6.14 ⁵	0 10.17	46 17.64	20.05 - 0.40 10 ⁴⁵
48.92 43.84	✓ 1 1.2	54 45.3			90	0 16.25		10.10	46 18.09	38.0
	0 10.8									
		54 3112								
11.44 10.35	✓ 59 18.3	53 41.5	8.0	26 102	82 74	0 16.96	+ 003 + 3.07	0 20.03	47 50.83	20.05 + 0.20 05 ⁴⁸
11.72 8.65	✓ 1 1.3	53 48.2			85	17.04		20.11	49.43	9.5
	0 19.6									
		53 3289								
33.40 34.21	✓ 59 20.4	50 57.5	9.0	42 113	9.0 78	0 30.73	+ 003 + 9.28 ²	0 21.57	5 3.30	20.05 + 0.15 4 3.2
34.32 33.66	✓ 1 1.3	51 4.2			8.9	0 30.79		21.57	5 2.72	2.6
	0 21.7									
		50 4239								
28.04 0.71	✓ 59 22.4	53 55.1	9.1	41 15	9.1 77	0 30.84	+ 004 - 6.14 ⁵	0 23.99	2 29.24	20.05 - 0.40 10 ⁴⁹
26.00 1.92	✓ 1 1.3	54 1.8			71	30.40		24.25	29.53	1.94
50.10 49.77	0 23.7			44 71	9.1 83	0 45.41 48.88	+ 004 - 2.461	0 24.25	4 27.41 30.21	20.05 - 2.40 10 ⁵⁰
51.38 53.81		53 3290		44 89	8.8	0 48.75		24.14	4 30.82	50.4
51.04 55.50						0 48.80		24.29 19	32.05	57.6
48.98 15.63	✓ 59 30.7	53 10.4	8.6	42 118	8.5 78	0 40.93	+ 005 + 6.14 ⁵	0 31.70	17 45.33	20.05 + 0.15 16.45.2
53.38 14.82	✓ 1 1.3	53 17.1			(8.3)	0 41.07	- 7.23	31.84	17 40.56	44.4
51.10 15.20	0 32.0				8.7	0 41.08		31.85	17 40.72	44.6
		53 3291								
22.22 10.77	✓ 59 30.9	51 11.2	9.0	26 90	9.1 74	0 29.04	+ 004 + 3.07 ⁸	0 32.12	17 50.36	20.05 + 0.20 05 ¹⁸
22.02 10.57	✓ 1 1.4	51 17.9			9.1	28.96		32.04	49.64	18 9.7
22.68 11.03	0 32.2				9.0	28.89		31.97	49.62	9.9
29.88 25.31		51 3785		41 56	9.0 77	0 38.07	+ 004 - 6.14 ⁵	31.92	18 50.62	- 0.40 05 ^{18.6}
29.02 24.99					8.8	0 38.14		31.97	18 50.91	10.9
48.46 31.20	59 32.0	52 21.4	9.0	19 104	9.0 73	0 26.78	+ 004 + 6.14 ⁵	32.90	07 13.20	20.05 + 0.40 10 ^{10.9}
48.28 31.81	1 1.3	52 28.1			9.0	26.59		32.74	13.72	
23.88 55.03	0 33.3			27 20	8.7 74	0 29.77 46.25	+ 006 + 3.07 ⁸	32.85 49.33	27 33.79	27.539 ✓ + 0.20 05
40.86 36.88		52 3600			8.5 71	0 29.77 46.7		32.85 49.25	34.22	
40.26 55.92										
37.34 32.18	✓ 59 32.5	54 5.2	9.0	42 111	9.0 93 78	0 42.92 43.46	+ 005 - 9.23	33.69 34.23	13 2.56 32.24	20.05 - 1 0.15
37.88 24.23	✓ 1 1.3	54 11.9			8.8 98	0 42.99 43.38		33.76 34.10	13 0.62 50.91	
38.38 29.92	0 33.8									
38.72 19.83		54 3113								
43.24 70.9	✓ 59 42.5	53 57.2	9.0	41 40	9.0 77	0 49.80	+ 006 - 6.14 ⁵	0 43.74	4 34.67	20.05 - 0.40 10 ^{34.6}
42.30 79.3	✓ 1 1.4	54 3.9			6.8	0 49.68		43.52	4 35.63	55.5
	0 43.9									
		53 3292								
5.10 52.91	✓ 59 55.1	54 50.0	8.8	32 94	8.5 75	0 55.48		0 55.48	57 33.06	20.05 - 57.33
4.64 50.81	✓ 1 1.4	54 56.7			9.0	55.36		55.36	31.19	31.2
	0 56.5	54 3115								

(32)

J for 59 32.0 27.53.3

53.8 27
53.8 35.4
54.3# J for 59 32.5 12 24 52.1
0.5 50.8

Oh List of stars marked in zone Brooks gave
Not seen
+

Stars marked \odot have an error in the induction for 1955.

1855phae.pr	Alt.	Working List	Dates	Observations	Year	Remarks
X 0 27	0 57 57 57	Jan 5	7	78		
X 0 8.3	1 0 52 4	Nov 23	X 25	71	29g?	
X 23 59 204	X 0 10 51 3	Nov 16	X 18 X	74	Ex Min	
X 0 55.3 50	1 54 50 41	Jan 5	X 7	78		
X 1 11.9	2 4 53 6	Dec 7	8	78		
	2 14 51 10	Dec 12	11	78		
X 2 59.2	3 49 51 12	Nov 18	X 19	73		
X 3 51.0	4 43 51 22	Nov 18	19	73		
	4 55 52.5 15	Nov 6		78		
X 5 16.9	6 7 50 46	Dec 15	16	77		
X 6 56.9	7 59 52.3 4	Dec 20	25	77	not des.	
X 11 11	7 59 52.3 4	Jan 5	7	78	"	
X 7 34.3	8 26 52 48 52	Dec 2	X 3 X	74		
X 11 11	8 26 52 42 52	Dec 5	X 19 X	76		
X 11 11	8 26 52 42 52	Dec 1	2	77		
X 6 45.8	9 38 53 14	Nov 20	22	75		
X 18 21.0	11 43 52 43	Nov 20	22	75		
X 14 49.6	15 42 52 22	Nov 20	X 22	75		
	16 16 51 9	Dec 7	8	78		
X 16 2.5	16 57 53 27	Nov 20	22	75		
X 16 2.5	17 20 53 17	Nov 20	X 22	75		
X 17 7.1	17 58 50 61	Nov 10	X 27 X	70		
X 29 48.2	30 44 54 46	Nov 24	X 26 X	71	Fig. 15?	
X 29 49.3	30 45 52.3 4	Nov 6	7	77	many 29.	
X 32 15.4	30 45 52.3 4	Dec 1	2	77	" "	
X 33 59.9	31 53 51 16	Dec 1	X 2 X	71	50 16?	
X 37 40.4	38 36 55 2	Dec 3	9	77		
X 11 11.3	38 46 55 2	Dec 20	25	77		
X 39 47.0	40 44 52 5	Nov 13	14	77		
X 43 0.9	43 57 52.3 3	Dec 1	2	77		
X 11 11	43 57 52.3 3	Dec 9	12	77		
	43 58 50 9	Dec 9	12	71	h 43 58	
X 43 25.6	44 30 50 4	Nov 6	7	77	Fig 15?	
X 43 59.0	44 53 50 45.1	Dec 20	25	77		
X 43 59.0	44 53 50 41	Dec 9	12 X	71		
X 45 14.2	46 12 51 41	Nov 18	Dec 9	73		
	46 12 51 44	Nov 18	X 10 X	73		
	46 12 54 45	Nov 6	7	77		
X 51 35.9	52 35 52 28.3	Nov 13	14	77		
X 11 11	52 35 52 28.3	Dec 12	17	77		
X 56 40.6	57 36 50 41	Dec 20	12 13	77		

X 42 57.9	1	46 58 50 9	Dec 9x 12x	71	
X 42 41.1	2	43 48 50 33	Dec 26x	70	
X 47 12.7	1	48 19 52 41	Nov 3 13	77	
X 47 31.7		48 36 51 53	Jan 2 8x	72	Ren. 2?
X 48 40.5		49 46 53 59	Nov 3 13	77	9x
(Ant- 50 31.7	50 40.5	51 33 50 45	Dec 10x 13x	70	
" " "		51 33 50 45	Dec 20x	71	
" " "		51 33 50 45	Dec 20 27	71	Not in Catalogue
X 52 36.5		53 38 50 40	Dec 26x	70	
X 1 10.5	2 1	13 50 27	Dec 26x	70	
X 4 45.1	2	16 53 49	Dec 3 9	77	3h 2m 16s
X 11 21.8	5	47 49 55	Dec 26	77	For fl.
X 10 49.2	12	22 52 3	Nov 3 13	77	
X 12 1.6	11	52 50 58	Dec 26 27x	71	Setting?
X 18 16.2	13	5 50 47	Dec 26-31x	70	
X 18 50.0	19	20 51 6	Dec 20 25	77	
X 21 23.7	19	34 50 42	Jan 16 19	78	
X 21 23.7	22	34 54 15.20	Dec 7 8	78	
X 21 23.7	22	34 54 15.20	Dec 16	78	
" "	22	34 54 15.20	Dec 31 Jan 1	77	
⊕ ⊕	26	49 50 43	Dec 22x Jan 1x	723	May 2 2
X 31 59.1	33	43 50 33	Dec 29x Jan 20x	73.4	
" ⊕	35	2 50 24	Dec 30 x	72	
X 34 18.8	35	5 50 3	Dec 12x 16x	74	
⊕ 41 52.2	42	58 51 41	Jan 16x 6	73	
⊕ " "	42	58 51 41	Jan 16x 6	72	No. even. 9x
X 47 38.5	49	4 50 27	Dec 10x 13	70	
X 46 25.5	47	27 54 59	Jan 12x 13	76	
X 54 20.0	53	27 50 52	Dec 10x 13	70	
X 54 40.6	55	52 52 8	Dec 1 13	77	
X 55 39.0	56	51 52 34	Dec 1 13	77	
X 1 3.5	3 1	14 54 14	Dec 1 13	77	
X 8 27.2	9	40 52 20	Dec 3x 8x	77	
⊕	11	19 53 23	Jan 10x 12x	72	
X 15 39.0	16	54 53 6	Jan 20x 23x	77	
X 19 49.6	20	5 53 13	Jan 20x 23x	77	
X 21 41.6	22	57 53 58	Jan 4x 13x	77	

X 21 520	3 23	7	52	3	Jan 7 X	18x	74	
X 24 150	25	24	50	57	Jan 7	8	72	
X 26 178	27	33	54	7	Jan 12 X	20 X	76	
⊙ 26 540	28	9	54	45	Jan 12 X	20 X	76	1 obs.
X 33 350	34	48	49	53	Dec 10 X	13	70	
X 31 488	33	59	57	53	Jan 2 X	8x	72	Ext. Minute.
	35	14	53	24	Jan 12	36	76	4 2 3 5 14
X 35 41	36	20	53	30	Jan 20 X	23	77	Clouds.
Y 36 56.8	38	7	50	46	Jan 7	9	73	
X 37 16	38	7	50	25?	Dec 10 X	13 X	70	
X 37 16	38	12	50	34 (5)	Dec 23	26	78	Variable?
X 37 16	38	12	49	58	Jan 6	20	77	
X 37 278	38	38	51	48	Jan 30	262	78	
X 38 322	39	48	52	16	Jan 12 X	20 X	76	
⊙ 46 27.2	47	47	53	42	Jan 12 X	20 X	76	Not in Catalogue
⊙ 47 25.2	48	42	53	42	Jan 14 X		75	27
⊙ " "	"	"	"	42	Jan 17 X	Feb 7	71	
	48	42	53	42	Jan 20 X	23 X	77	
⊙ 47 25.2	48	42	53	42	Feb 5 X	6 X	78	
X 49 23.3	50	40	52	13	Feb 7	11	78	
					Jan 23 X	30 X	77	
	53	59	57	53	Jan 7	8	72	Not in zone.
X 56 390	57	56	53	3	Jan 30 X	262 X	78	
X 56 46.162	57	356	53	3	Jan 23 X	30 X	77	Not in Cat.
X 57 86	58	20	50	13	Dec 31 X	Jan 7 X	70	Not in Cat.
" "	58	20	50	13	Dec 14	Dec 22 X	73	
X 57 54.2	59	06	50	56	Jan 28 X	262 X	73	

⊙ 3 59 188	4	0	30	51	28	Feb 7	8	72	Ex
⊙ 3 59 412		0	53	51	8	Jan 28	Feb 2	73	1 obs.
X 4 5 309		6	48	52	22	Jan 28	Feb 2	73	
		9	37	54	33	Jan 26 X	31 X	76	
X 9 597		11	12	54	58	Feb 3	4	78	
X " "		11	12	49	58	Feb 13	14	78	Seg?
X " "		11	12	54	58	Feb 5	6	78	
X 9 576		11	16	54	59	Jan 30	Feb 2	78	
X 10 5.2		11	17	54	56	Feb 3	4	78	
X " "		11	17	54	56	Feb 7	11	78	Seg?
X 10 53		11	17	49	56	Feb 13	14	78	
		16	12	51	24	Jan 14 X	19	73	14 X-ray

0	17	229	18	36	50	59	Jan 14 X	19	73	14 Aug. 9X
X	20	579	22	17	53	58	Feb 14	20	77	
0	20	452	21	58	51	9	Jan 24 X	31 X	72	4 21 38 24 Mini Wmgy,
0	11	"	21	58	51	9	Feb 7	8		" "
0	26	489	28	8	53	32	Feb 24	26		
0			28	47	52	11	Jan 27 X	30 X	75	Change in new boots
0X	30	319	31	45	54	57	Jan 25 Dec 31 X	26 Jan 7 X	70	Dec 7.?
0	30	319	31	45	54	57	Jan 27 X	30 X	75	"
X	32	580	33	17	53	26	Jan 27 X	30 X	75	
X	33	552	35	14	53	24	Jan 12 X	30 X	76	
0			37	41	53	33	Feb 5	6	78	
X	37	111	38	24	51	20	Jan 24 X	31 X	72	
X	39	145	40	32	53	02	Jan 24 X		72	
0	35	166	40	36	54	49	Feb 6 X	8X 11X	77	vacant in Col. No. Obs.
X	40	480	41	54	50	18	Feb 7	8	72	
0	41	135	42	27	51	6	Jan 30	Feb 2	78	1 obs in Col.
X	44	379	45	51	51	68	Jan 17 X	Feb 7 X	71	
X	44	546	46	8	51	32	Feb	13	75	
			48	42	53	32	Jan 17	Feb 7	71	3h 48m 42s
			48	42	53	32	Feb 5	6	78	
X	47	425	48	56	52	44	Feb 1 X	13	75	
X	49	63	49	20	50	2	Dec 31 X	Jan 7 X	70	sun
X	49	340	50	48	50	57.1	Dec 18	22	70	
			51	30	51	51	Feb 1	4	72	5h 1m 30s
0	51	241	52	38	51	52	Jan 24 X	31 X	72	1 obs. in Col.
X	54	504	56	11	54	10	Jan 14	5. 6	78	
X	55	176	56	31	51	44	Jan 24 X	31 X?	72	
0	55	324	56	46	49	59	Feb 10	17	73	
X	57	220	58	36	51	50	Jan 24 X	31 X?	72	
X	0	159	5	1	30	57	Feb. 1X	4 X	72	
X	1	436	5	3	5	29	Feb 1X	13 X	70	
X	7	312	8	52	54	48	Jan 30	Feb 2	78	
X	11	37	11	18	50	22	Feb 6 X	8 11	76	
X	11	116	12	33	53	44	Feb 10	11 17	73	
0X	12	142	13	31	51	4	Mar 1	5 6	78	
0	12	162	13	31	51	1	Jan 17	Feb 7	71	581 51 10
0	14	465	16	1	50	54	Jan 17	Feb 7 X	71	
0	19	488	21	3	51	12	Feb 10 X	17	73	
0	21	204	22	41	54	9	Jan 24		72	ct
X	23	315	24	18	51	53	Feb 11 X	3	77	ct
			24	18	51	53	Feb 11 X	20 X 21 X	71	sun

X	22	56.8		24	12	49	56		Feb 16 X	17	72	
K	33	43.7?		35	5	52	28		Mar 1 X	2 X		Ex Dsg. 52 28
X	34	50.5		39	9	52	9		Mar 4 -	5	6	78
X	50	37.8		51	52	51	22		Jan 17 X	Feb 7 X		71
X	52	36.8		53	52	51	16		Feb 27 X			71
X	52	NU		53	29	50	20		Mar 10	13		73
X	"	"		53	29	50	20		Mar 10	13		73
①	55	2.1		56	16	49	52		Mar 6 X	7 X		76
②	"	"		56	16	52	52		Feb. 25 X	Mar 4	5	73
	55	2.1		56	16	52	52		Feb 24			72
"	"	"		56	16	52	52		Mar 17 X	18 X		75
③	55	19.1		57	40	52	46		Mar 1 X	2 X		74
X	56	26.2	51 25.5	57	42	51	33		Feb 21 X	28 X		71
"	"	"		57	42	51	23		Mar 2 X	5 X		71

\odot 7
 $\times 8$ 173
 \times " "

~~6 38 52 45~~

$\times 5$ 173

$\times 6$ 265

$\times 10$ 463

$\times 12$ 380

$\times 16$ 442

$\times 18$ 352

$\times 20$ 16.2

$\times 21$ 42

$\times 22$ 49.6

$\times 25$ 462

\odot 31.7

35 316

" " 36 441 51 5

" " 36 441 51 5

" " 36 441 51 5

" " 36 441 51 5

$\times 47$ 150

$\times 48$ 588

$\times 48$ 588

\times " " 50 11 49 51

\times " " 50 11 49 51

$\times 44$ 588

$\times 56$ 163

~~Jan 17 x 6 77~~
~~Jan 17 x 267 x 71~~

~~Apr 5 6 71~~

~~Mar 7 x 18 x 75~~

~~Mar 2 5 x 71~~

~~Feb 18 19 78~~

~~Mar 15 20 77~~

~~Mar 25 75~~

~~Mar 7 x 18 x 75~~

~~Mar 7 29 x 71~~

~~Feb 24 26 78~~

~~Feb 20 x 17 x 76~~

~~Mar 7 x 19 x 71~~

~~Feb 17 x 20 x 76~~

~~Mar 13 x 14 x 76~~

~~Feb 17 x 20 x 76~~

~~Mar 13 x 14 x 76~~

~~Apr 2 6 74~~

~~Mar 24 x 30 x 74~~

~~Mar 6 x 8 x 73~~

~~Mar 21 x 27 x 72~~

~~Mar 21 27 72~~

~~Mar 2 x 5 x 71~~

~~Apr 22 74~~

~~Mar 24 x 30 74~~

~~Mar 23 x 25 x 75~~

~~Mar 21 x 27 x 72~~

~~Feb 18 x 15 x 78~~

~~Feb 27 28 78~~

~~Mar 4 5 6 78~~

~~Mar 24 x 30 x 74~~

~~Mar 24 x 30 x 74~~

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~~Mar 24 x 30 x 74~~

~~Mar 24 x 30 x 74~~

~~Mar 24 x 30 x 74~~

~~Mar 24 x 30 x 74~~

h

8 h 45' 50" 7 h 50' 11"

9 h 13' 43"

21?

50° 3' ?

not in Col.

not in Col.

8 h 30' 6"

not in Col.

9 h 46' 30"

Low ft.

Jan?

Reg?

1 h 19' 125"

Ex Min.

Mar 25

X 12 36.9	9	1	55	50	18	Mar 25		71	
X 14 42.2		13	40	50	58	Mar 25 X		71	
		15	57	54	56	May 31 X	Apr 5 X	76	
① X 16 16.7		17	23	51	54	Mar 1	5	71	far?
① " "		17	23	51	54	Apr 1 X	10 X	73	
		18	25	51	43	Mar 29 X	30 X	75	change in A 17
① 19 5.7		20	12	50	38	Mar 1 X	10 X	73	100% var?
① 34 3.9		30	22	54	22	Apr 10	14	75	100% var?
" 3.4 7.9		30	22	54	22	Mar 25 X		71	var?
" " "		35	22	54	22	Apr 10 X	24 X	75	
" " "		35	22	54	22	Apr 10 X	24 X	75	
X 40 23.5		41	31	52	2	Apr 26	May 3	77	
X 41 17.1		42	35	52	37	Apr 17 X	18 X	71	Seen 18? Clouds 18
X 42 17.7		43	25	52	11	Apr 17 X	18	71	
X 43 59.0		44	30	51	55	Apr 22 X		74	
X 45 55.8		45	7	52	36	Apr 17 X	18	71	
X 49 30.9		50	38	52	35	Apr 17 X	18 X	71	var?
" " "		50	38	52	35	Apr 10 X	14 X?	75	not in Col.
53 2.7		51	38	52	47	Apr 22 X		74	var?
① 49 30.9		50	38	52	39	Apr 21 X	22 X	75	not in Col.
① 55 14.8		56	27	54	24	Apr 22 X		74	
① 56 25.0		56	28	50	50	Mar 22 X	25 X	71	
		58	56	53	54	May 4	5	75	10% 57-56

	10	1	32	51	34	Apr 20 X	22 X	75	
X 17 24.5		18	25	51	1	Mar 29 X	Apr 4 X	71	
① 18 37.1		19	31	52	36	Apr 23	24 X	73	
① X 24 57.1		25	57	51	2.5	Mar 1	Apr 6 17	71	
X " "		25	57	51	2.5	Mar 29 X	Apr 1 X	71	
X 25 39.2		26	39	50	36	Apr 26	May 3	77	
X 43 25.0		44	22	51	54	Mar 29 X	Apr 1 X	71	
X 43 57.0		44	58	52	44	Apr 27 X	May 3	75	
① X 45 19.3		46	17	49	53	Apr 6 X	17	71	
X " "		46	17	49	53	Mar 30	31	78	50° 5'
X 47 30.6		48	28	50	19	Apr 18	May 2	78	50° 5' in A 25
X 51 22.5		52	19	50	56	Apr 30 X		72	
" " "		52	19	50	56	Mar 29 X	Apr 1 X	71	not seen var?
X 57 55.2		58	56	53	54	Apr 26 X	29 X	71	
						May 4 X	5 X	75	

			h	m	s	s	1	1870	
D			11	1	53	51	2		
X	5	216	6	17	51	54		Mar 10 X	71
X	5	216	7	11	53	38		Apr 26 X	29
X	9	226	10	28	50	16		May 18	23
X	11	125	11	26	52	59		May 4	12
X	11	246	12	11	52	59		May 13 X	14 X
			12	24	50	16		May 7	11 X
			17	20	50	16		May 7	11
			23	40	52	42		May 13	14
X	24	584	24	5	56	58	16	May 13	14 X
X	11	"	24	5	56	53	16	May 5 X	13 X
Q	29	40	29	59	50	35			
Q	30	100	31	5	51	58		May 4	6
Q	30	100	31	5	51	5		Apr 26 X	29 X
Q	31	269	32	22	53	28		May 13 X	14
X	81	329	32	27	50	49	54	May 10 X	11 X
X	11	"	32	27	50	4		Apr 30 X	
X	11	"	32	27	50	49	54		
X	33	443	34	40	54	52		May 12	13 X 15 X
X	34	344	35	30	54	20		May 5 X	13
								May 5 X	13 X
X	37	506	38	46	53	29		May 12	14
X	36	0.9	36	55	50	49		May 10	11
Q	37	265	38	21	54	55		May 13	16
X	37	506	38	46	50	29		May 12 X	14 X
X	40	547	41	50	53	56		May 13 X	14 X
Q	40	547	41	50	53	56		May 7 X	11
X	43	490	44	5	55	1		May 14	6
X	44	10	44	56	50	45		May 10 X	11
X	46	228	47	26	50	49	54	May 10 X	11 X
X	11	"	47	26	50	49	54	May 13 X	15 X
X	46	375	47	31	54	5		May 5	6 12
Q	47	143	48	8	54	10		May 12 X	14
X	50	11.9	51	6	50	46		May 7 X	11 X
X	57	7.4	58	0	51	47		May 17	22
X	11	"	58	0	51	47		May 13	11
			59	15	58	57		Apr 18 X	24 X

Dey?

Ex Min 25 56

Var?

1 Jan.

Pro fl.

44^m 45^s?

										1870																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</
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0	42	44	13	43	25	54	59	June 3		71	
"	"	"	43	25	54	59		May 30	June 3 X	71	Var.
"	"	"	43	25	54	59		June 3 X	18	78	
X	43	56	43	47	53	58		June 11 X		72	
X	44	148	44	53	54	59		June 11 X		72	
0	46	480	46	56	51	35		June 3	9X	72	
X	50	249	47	27	52	47		June 2	9 10	74	1.5 obs.
X	52	480	51	8	58	12		May 25 X	29	71	
X	53	365	51	26	53	33		June 18	19	77	
X	54	323	54	14	53	41		May 25 X	29	71	
0	54	290	53	15	53	48		May 30	June 3	77	
X	54	323	55	6	52	48		June 11 X	17	73	no obs.
X	54	456	53	15	53	48		June 8	18	77	
X	54	456	58	23	58	33		May 25 X	74.29	71	
X	54	17	58	40	54	57		May 2	6	78	
X	54	17	58	40	54	57		May 2 X	29 X	71	no obs.
X	54	17	58	40	54	657		May 25	29	71	
X	59	147	14	0	52	57	57	June 6 X	12 X	77	13 59 52?
X	0	526	1	30	51	7		June 11 X		72	
X	4	275	5	5	54	30		June 11 X		72	
X	5	208	5	58	52	37		June 20 X	21 X	75	
X	7	87	87	46	54	50		June 11		72	no obs.
X	15	256	10	49	53	58		June 20 X	21 X	75	
X	18	14	16	2	50	26		June 11 X		72	
X	18	14	18	37	54	24		June 20 X	21 X	75	Many
X	20	482	21	3	52	8		June 6	12	71	15h 21 3
X	20	482	21	23	54	33		June 20 X	21 X	75	
X	20	482	21	23	54	18		June 24 X	25 X	74	Clouds.
X	22	150	21	23	54	18		June 6	9	78	
X	22	485	22	50	54	33		June 15 X	24 X	74	
X	22	281	26	25	51	22		May 25 X		71	Trpt.
X	26	522	22	53	54	30		June 15 X	24 X	74	
X	26	522	27	27	51	24		June 11 X	17	73	
X	30	271	27	27	51	24		June 11 X	17	73	
X	30	271	31	1	52	0		June 24 X	28 X	75	
X	32	275	34	3	58	21		June 11 X	24 X	74	
X	32	275	32	53	50	33		June 24	28 X	75	
X	33	343	26	24	51	22		June 15 X	24 X	74	
X	33	343	34	8	52	21		June 6 X	12	71	
X	36	192	35	31	50	27		June 20 X	21 X	75	
X	38	392	35	49	50	11		June 14	17	71	15h
X	42	536	36	53	52	48		June 12 X	12	71	
X	42	536	39	13	52	28		June 6 X	12	71	
X	42	536	43	26	50	6		June 11	17 X	73	
X	42	536	43	26	50	6		June 8 X	51	71	1 obs.
X	45	547	46	42	54	28		June 25	29	73	
X	48	315	46	28	51	50		June 3	5	71	
X	51	34	49	4	54	3		June 19		72	1 obs.
X	51	34	51	36	53	58		June 24	28 X	75	

53 28.4
58 28.9
53 27.4

14 52.3 59 51 29
54.3 59 51 27
56 55 54 57

June 17 X
June 19 X
June 19 X

1870
4

71 Ex Min.
71
74 Not in Col.

5 28.9

5 28.9

8 28.9

9 50.9

11 29.7

11 29.7

20 33.5

22 41.2

26 52.7

28 52.2

34 28.1

34 47.7

35 12.9

36 31.9

55 27.4

57 50.3

35 19.7

39 47.7

44 57.8

15 52 50 55 3

0.2 50 55 3

9 1 52 30

10 21 52 22

10 21 52 22

12 0 52 44

12 29 51 35

14 20 51 63

21 8 52 8

23 11 51 26

27 23 53 27

28 46 50 3

29 21 52 47

34 57 51 58

35 18 51 58

35 49 50 11

37 1 52 6

56 5 54 57

58 21 50 37

36 18 51 58

45 27 52 8

16 5 21 51 12

11 15 50 52

17 20 51 27

17 33 52 22

27 27 51 41

28 46 51 50

28 46 50 3

31 37 52 46

34 15 54 52

34 57 51 58

35 15 52 5

35 18 51 58

38 46 53 20

43 10 51 0

41 26 51 21

41 26 51 23

45 10 51 0

June 25 X 29 X

June 30 X July 1 X

July 6 9

June 19

July 6 9

June 30 X July 1 X

June 24 X 28 X

June 24 X 28 X

June 6 12 X

July 1 X 3 X

June 30 July 6

June 30 July 6

July 1 X July 3

June 25 X 26

June 24 28

June 14 X 17 X

June 27 X 30 X

June 30 July 1 X

July 1 3

June 25 26

June 27 X 30 X

July 24 Aug 11

June 19 X 21

July 1 3 X

July 24 Aug 11

June 25 X 26 X

July 11 X 14 X

June 30 X July 6 X

July 24 X 27 X

July 30 Aug 5

June 25 X June 26

July 30 Aug 5 X

June 25 26

July 24 X 27

July 22 X 23 X

July 5 X 12

July 4 X 9 X

July 24 Aug 11

73 2 50.2 no obs.

74 15 2 50.2

73

72

73

74

75

75

71

71 Note by 9 "Five 4 times"

72

72 16 h

71 1 obs.

71

74

71

71

71

71

71

77

71

71 Not in Col.

71

77

71

72

72

73

71

73

71

71

72

74

71

72

77

X	447	453	16	45	10	51	0
				45	27	54	3
X	447	453	185	10	51	0	
V	49	402	50	5	51	20	
X	"	"	50	5	51	20	
X	"	"	50	5	51	20	
0			52	52	54	32	

July 11	14	72	
July 27	30	71	15 ^h
July 16	22	78	Set at 48m
July 10	13	78	
July 24	Aug 11	77	EX. bai?
July 30	Aug 5	73	

X	1	567	17	2	20	52	21
	2	958		3	10	53	21
	"	"		3	10	53	21
X	6	389	6	3	55	5	
X	6	118	6	35	53	15	
X	6	407	7	5	50	51	
X	13	70	13	30	49	51	
V	14	353	14	59	50	2	

July 16	X	22	X	72	
July 30	X	Aug 5	X	73	
Aug 1	X	5	X	72	bai?
July 10		13		78	7 ^m 0 ^h ?
Aug 7	X	9		75	Clouds
Aug 2	X	3		71	
Aug 10	X			75	
July 5	X	12		71	Clouds 12
Aug 27				78	18 ^h 50 ^m 23 ^s

X	21	467	2X2	10	51	9	
X	"	"	2X2	10	51	19	
X	23	442	234	7	51	58	
X	25	381	26	1	53	20	

Aug 9	X	11	X	73	Ext min.
July 22	X	26	X	74	Ext min.
Aug 1	X	5	X	72	
Aug 9		11		73	

X	29	574	30	18	52	29	
X	33	395	34	3	55	2	

Aug 9	11	11	73	700 ft.
Aug 10	25	26	75	

X	11	"	34	3	55	2	
0	42	425	42	6	54	57	

July 16		22		78	
Aug 6	X	8	X	76	

X	48	264	48	59	53	2831	
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Aug 9	X	11	X	73	
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X	43	264	43	59	53	2831	
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July 24		31		78	
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X	11	"	43	59	53	2831	
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Aug 14		20		78	
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X	11	"	43	59	53	2831	
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Aug 22		26		78	
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X	43	264	43	59	53	2831	
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Aug 9		11		73	
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X	46	52	47	16	54	13	
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Aug 9		11	X	73	
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X	48	463	49	9	51	30	
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Aug 9	X	10	X	76	
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0			56	44	53	39	
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Sept 28		Oct 2		72	20 ^h 56 ^m 40 ^s
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X	56	366	56	57	50	56	
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Aug 12	X	13	X	76	Q in A21
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		18	7	16	54	59	Aug 16	22	77	
X 7	30.5	7	53	51	38		Aug 28	29 X	75	Too fl.
		8	46	52	25		Aug 23	24 26	74	19 ^h 46 ^m
X 12	31.0	12	54	54	31		Aug 28		77	
X 15	27.2	15	50	49	54		Sept 1 X	4 X	75	
0 15	27.2	15	50	49	54		Sept 5 X	9 X	75	
0 "	"	"	"	"	"		Sept 16	16	75	
X 20	54.2	21	17	53	45		Aug 26 X	28 X	76	
X 22	26.5	22	49	51	3		Aug 23 X	24 26	74	
X 31	10.5	31	33	51	41		Aug 23 X	24 26	74	
	38 20.1	38	46	51	43		Aug 30	31	75	19 38 46 51 43 Not in Cat.
0 37	37.5	38	0	54	12		Sept 12	13	77	
0 "	"	38	0	54	12		Aug 16	22	77	Var?
X 38	22.6	38	46	53	41		Aug 23 X	24 28	74	
		38	46	51	43		Aug 23 X	24	74	19 38 46 51 43
		39	1	55	0		Aug 16	22	77	18 ^h 39 ^m 1 ^s
		39	1	55	0		Aug 27	28	77	
		39	1	55	0		Sept 12	13	77	
38 17.9		39	24	51	17		Sept 7 X	9 X	74	
X 39	5.9	39	32	58	1		Aug 23 X	24 26	74	
X 39	43.4	40	6	54	3		Aug 28		71	
39 52.9		40	16	51	41		Sept 7 X	9 X	74	19 ^h 40 ^m 16 ^s
X 48	3.1	48	56	53	55		Sept 5	7	75	
		51	51	55	8		Aug 30	hpt 11	77	19 11 51
X 53	24.2	53	47	53	52		Aug 28 X	29 X	75	Too fl.
X 0	2.1	19	0	26	52	28	Sept 7 X	9 X	74	
X 11	11	0	26	51	28		Sept 8 X	14 X	75	
0 10	25.0	8	46	52	25		Aug 23	24 - 26	74	100s
		40	57	55	8		Sept 7 X	9	74	
0 11	11	10	51	55	8		Sept 8 X	14 X	75	
X 15	28	15	26	53	20		Aug 27	28	77	
0 28	31.5	23	56	50	8		Sept 6	7	71	100s
X 24	52.4	25	16	51	26		Sept 9 X	14	71	21 30 ^h 12 ^m
X 29	10.0	29	35	50	40		Sept 6	7	70	
X 33	36.0	33	1	50	18		Sept 10 X	14 X	74	ex Mini
X 169	11	34	1	50	18		Sept 18	19	77	Var?
X 35	26.9	40	16	54	7		Aug 25		71	
X 43	9.1	35	5	54	55		Sept 15	16	77	
X 44	29.6	44	32	50	4		Sept 12 X	14 X	74	
X 38	20.1	45	55	51	19		Sept 12	13	77	
X 47	37.2	46	51	51	43		Aug 30	31	75	
X 49	50.1	48	3	50	37		Sept 9 X	14	71	
X 48	18.3	50	23	50	35		Aug 27		78	
54 14.0		48	44	51	30		Sept 12	14	78	
0 54	14.0	54	14	50	40		Oct 10	12 X	76	100s

X 0 19	20	0	28	52	0	Sept 22	23	77	
0 0 58.5		1	26	52	23.6	Aug 30	Sept 11	77	
" "		1	26	52	23.6	Sept 22	23	77	
" "		1	26	52	23.6	Sept 26	27	77	
" "		1	26	52	23.6	Sept 30	Oct 1	77	
X 1 107		1	38	52	51	Oct 6	7	77	
		4	9	52	1	Oct 18	19	75	21 ^h 4 ^m 9 ^s
1 0		8	12	52	17	Oct 13 X	14	17 75	13 May.
0		9	25	52	52	Oct 13	14	75	
0		13	41	52	59	Sept 12	14	78	
		16	50	49	54	Sept 15	16	77	18 ^h 16 ^m 50 ^s
0 17 131		17	40	50	57	Oct 18 X	19 X	76	10 les.
X 21 180		21	46	53	1	Sept 25 X	28 X Oct 5 X	71	
X 22 120		22	38	52	14	Oct 13	17	77	
0		22	46	51	6	Oct 10 X	12 X	76	
0		23	56	50	8	Oct 2 X	3 X	76	
X 29 70		24	27	50	29	Oct 2 X	3 X	76	
		29	34	50	14	Aug 13 X	14	73	
X 29 45		30	13	51	2	Oct 13 X	14	75	11 May
X 30 481		31	16	51	36	Sept 26	27	77	
0 33 540		34	22	50	39	Oct 10 X	12 X	76	10 les.
0		36	5	50	41	Oct 10 X	12 X	76	
X 35 376		36	7.2	52	37	Oct 18 X	19 X	76	
X 43 445		42	12	53	17	Oct 13	17	77	44 ^m 12 ^s ?
X " "		42	12	53	17	Sept 28	30	78	
0 42 345		43	2	54	26	Sept 24	25	77	
0		43	14	52	18	Oct 15 X	16 X	76	
X 44 321		45	0	53	36	Sept 12	13	77	
		50	3	51	54	Oct 18	19	75	21 ^h 50 ^m 3 ^s
X 51 256		51	5.3	53	6	Oct 10 X	12	76	
0 53 544		54	24	54	113	Oct 10 X	12	76	10 May 10 les.
0		54	27	52	55	Oct 15 X	16 X	76	
0		55	0	52	25	Oct 15 X	16 X	76	
X 56 115		56	40	52	27	Sept 28 X	Oct 2 X?	72	
X 56 480		57	9	51	53	Aug 13 X	14 X	73	
X 56 558		57	25	54	36	Oct 20 X	25	75	same

0 0 217	21	0	52	52	16	Sept 23	25	77	
0 0 217	0	52	52	26		Oct 18 X	19	76	ex
3 3 32	4	9	52	45		Oct 6	7	77	
" "	4	9	52	5		Oct 18 X	19 X	75	Too ft.
" "	4	9	52	5		Oct 1	2	78	
" "	4	9	52	5		Sept 23	25	77	
" "	4	9	52	5		Oct 18	19	75	
X 3 577	4	25	52	47		Sept 28 X	Oct 2 X	72	
X 11 0	4	25	52	47		Oct 18 X?	19 X	76	Too ft. Var?
X 10 396	11	11	50	12		Oct 15	16	76	
X 11 249	12	6	50	6		Oct 15 X	19 X	74	
X 13 57	13	36	51	31		Oct 15 X	17	76	
X 34 46	35	20	51	86		Oct 29 X	30 X	76	
X 11 "	35	20	51	86		Sept 16	22	77	
X 11 "	35	20	51	86		Oct 6	7	77	
X 11 "	35	20	51	86		Oct 1	2	78	
84 592	35	33	52	44		Oct 27 X	Nov 6	75	
X 37 105	37	45	50	16		Oct 11 X	12	74	Deq?
X 46 220	46	58	53	31		Oct 22 X	26 X	74	
50 18	50	8	51	54		Oct 18 X	19 X	75	
X 51 841	52	11	50	53		Oct 20 X	21	74	
X 52 336	53	10	50	43		Oct 20 X	21	74	
0	54	13	54	59		Oct 15 X	19 X	76	
X 57 257	54	14	50	40		Oct 18 X	19 X	76	
X 59 58	57	35	52	57		Oct 22 X	26 X	74	
	59	35	51	52		Oct 5 X	9 X	73	
0	22	2	25	54	32	Oct 24 X	25 X	76	0 in of 21
X 2 538	3	33	51	42		Oct 5	9	73	
X 4 120	4	52	50	30		Oct 5 X	9	73	
X 5 327	6	9	55	1		Aug 22	27	77	
X 9 537	10	33	53	39		Oct 9 X	Sept 28 X	71	
X 10 44	10	42	53	10		Aug 22	27	77	
14 505	15	22	52	23		Dec 1	2	77	
0	16	23	53	25		Oct 29 X	30 X	76	
0	20	2	53	4		Oct 27	28	77	Wrong in of 24
0 20 190	20	57	53	7		Oct 27	28	77	1 obs.
29 221	30	12	53	45		Oct 29 X	30 X	76	
0	31	51	51	21		Nov 6	7	77	
X 32 295	33	10	54	20		Nov 4	5 X	76	Too ft.
0 33 377	34	18	54	23		Oct 16 X	17	71	1 obs.
X 47 118	45	1	50	49		Nov 19	22	71	1 obs.

L	m	s	s	1
22	48	59	50	3

[illegible][illegible]

X 412-52.2	73 43 39 52 6	Nov 10 X Dec 7	73
X 43 37.5	44 27 53 33	Dec 1 2	77
44 31.6	44 34 52 23	Nov 17 X 20 X	72
44 31.6	44 34 52 23	Nov 18 X 15 X	73
44 31.6	44 34 52 23	Nov 18 19	73
" "	44 34 52 23	Nov 16 X 18 X	74
44 31.6	44 34 52 23	Nov 6 7	77
" "	44 34 52 23	Nov 13 14	77
44 15.3	49 5 52 2	Nov 23 X 27	72
X 51 33.4	53 23 51 54	Dec 17 18	77
53 20.3	54 10 52 0	Nov 13 14	77
53 20.3	54 10 52 0	Dec 1 2	77

*List of D M Stars not seen in Lorne observations.
For 1855.0*

<i>h</i>	<i>m</i>	<i>s</i>	<i>h</i>	<i>s</i>
0	37	40.4	54	35.7
0	45	14.2	51	33.8
2	41	52.2	51	36.8
3	37	16	49	54.3
4	38	16.6	54	47.5
4	41	13.5	51	4.2
6	56	28.2	51	25.5
7	35	31.6	---	---
7	48	58.8	49	53.7
9	16	16.7	51	58.2
9	34	7.9	54	25.6
9	49	30.9	52	33.9
10	51	22.5	51	0.8
11	30	10.0	51	11.0
11	40	52.7	54	1.6
13	1	39.6	49	53.1
13	20	11.3	51	38.7
13	42	44.4	55	4.2
13	58	1.7	55	2.2
15	9	50.9	54	25.9
15	22	41.2	51	29.3
16	41	0.7	51	22.6
16	47	45.3	51	1.9
16	49	40.2	51	22.3
17	2	45.8	53	22.8
17	33	39.5	55	3.6
18	37	37.5	54	11.0
19	33	36.0	50	15.9
21	0	21.7	52	21.7
21	3	38.2	52	0.5
21	34	57.7	52	43.4
22	51	29.1	51	42.8
22	52	42.0	50	31.3
23				

List of D-M Stars not in ^{this} catalogue.

For 1855.0

1	50	31.7	50	40.5
3	46	27.2		
3	56	39.0		
3	57	8.6		
6	11	10.8	53	
6	14	28.6	52	
7	23	49.6	52	
7	25	31.7	52	
7	35	31.6	51	
9	53	22.7	54	
9	55	11.8	54	
12	13	6.7	50	
12	53	9.8	50	
13	18	54.0	51	
13	20	11.3	51	
13	39	7.6	52	
14	55	27.4	54	
16	10	48.2	50	
22	53	14.0	50	

Examination of observations of stars marked "not seen".

	Examination Working List No. Cases	Examination degree or minute No. cases	Examination longitude No. cases	Examination latitude No. cases	Examination proper motion No. cases	Examination parallax No. cases	Examination distance No. cases	Examination other No. cases
0-1	4	5	0	2	3	26	31	
1-2	3	3	0	0	3	24	35	
2	2	2	0	0	1	15	18	
3	3	2	1	0		19	24	
4	4	4	3	1	3	19	31	
5	3	1	2	0	3	10	19	
6	3	3	1	0	2	13	21	
7	3	0	0	0	4	14	17	
8	3	0	0	0	1	7	10	
9	4	1	1	0	4	8	20	
10	2	2	0	0	1	11	12	
11	3	5	1	0	3	20	28	
12	3	2	0	0	3	9	13	
13	1	7	2	2	4	18	30	
14	2	3	2	0	2	24	30	
15	2	1	1	1	2	13	18	
16	1	1	0	0	4	15	18	
17	1	3	0	0	2	13	17	
18	4	2	0	0	1	10	17	
19	0	2	3	0	1	13	16	
20	10	3	3	0	1	14	29	
21	1	2	0	0	2	11	16	
22	6	0	2	0	2	9	19	
23-24	12	5	2	1	4	13	36	
	80	59	24	7	56	348	528	

Number of Observations made exclusive of those in blue ink

38	39	44	48	37	42
50	40	45	38	44	44
35	37	46	44	42	39
41	32	51	37	35	32
38	39	51	45	38	
38	43	43	42	39	
38	36	57	46	55	
38	37	56	42	50	
44	37	52	48	58	
<u>40</u>	<u>36</u>	<u>50</u>	<u>47</u>	<u>42</u>	

List of stars marked as not seen at the time of attempted observation

1870	Nov 10	0	17	58	50	618	Nov 17 Nov 27
1870	Nov 15	2	3	28	30	50	397
1870	Nov 17	2	3	42	21	50	620 Nov 27
1870	Dec 10-13	0		57	36	50	241
1870	Dec 10-13	1		3	57	50	508
1870	Dec 10-13	1		9	44	50	158
1870	Dec 10-13	1		36	22	50	272
1870	Dec 10-13	1		51	33	50	458
1870	Dec 10-13	2		49	4	50	167
1870	Dec 10-13	2		55	27	50	515
"	Dec 10-13	3		24	48	49	333
"	Dec 10-13	3		38	7	50	25
1871	Jan 1	1		33	19	50	536
1870	Dec 26	1		40	11	50	409
1870	Dec 26	1		53	38	50	397
1870	Dec 26	2		1	13	50	267
1870	Dec 26	2		13	5	50	471
1870	Dec 31 Jan 7	3		58	20	50	134
1870	Dec 31 Jan 7	4		31	45	50	573 Dec, 18 Dec 22 1870
1870	Dec 31 Jan 7	4		49	20	50	21 Dec 18 Dec 22 "
1870	Dec 18-22	4		50	48	50	572? 20' too soon
1870	Dec 18-22	5		25	27	50	110
1871	Jan 7 Feb 7	4		45	51	51	64
"	"	"		5	13	51	13 ?
1871	"	"		6	51	52	51 217
"	Feb 7	6		13	52	51	157
"	"	"		7	4	30	51 13 ?
1871	Feb. 11-20	5		24	18	51	533
"	"	"		5	36	07	51 25
1871	Feb. 21-28	7		2	33	51	333
1871	Mar 1-5	8		58	53	51	149
1871	"	"		9	17	23	51 542 Too far to obs.
1871	Mar 2-5	6		57	42	51	233
"	"	"		7	7	40	51 82
1871	"	"		7	36	44	51 51
1871	Mar 7-19	7		17	58	49	503
"	"	"		7	24	52	50 300

1871	Mar 25	8	13	42	49.179	
"	Mar 25	9	1	55	50.180	
"	Mar 22-25	9	56	28	50.997	
1871	Mar 29 - Apr 5	10	18	25	51.14	
"	"	10	25	57	51.11	
1871	Apr 5-6	7	6	33	52.448	
1871	Apr 6-17	10	44	58	52.444	
"	"	11	11	26		
1871	Apr 17-18	11 12	50			
		9	41	31	52.16	Clouds
"	"	9	42	35	52.073	
"	"	9	43	25	52.113	
"	"	9	45	7	52.359	
"	"	9	50	38	52.370	
1871	Apr 18-24	11	59	15	52	24
1871	Apr 26-29	11	6	17	52.539	
"	"	11	31	05	51.57	
1871	May 10	11	1	50	51.24	
"	May 10-11	11	32	27	50.43	
"	"	11	36	50	50.488	Clouds.
"	"	11	47	26	50.40	
"	"	12	9	25	50.35	
"	May 13-14	12	12	11	52.590	?
"	"	11	17	20	52.425	
"	"	11	24	56	53.158	
"	May 13	11	32	22	53.277	
"	"	11	31	50	53.560	
"	May 14	12	18	44	53.339	
"	May 14-23	12 7	11		53.382	
"	"	12	43	521	52.140	Wrong minute 12 44
1871	"	12	47	45	52.113	
"	"	12	55	00	52.167	
"	May 25-2	13	51	08	53.121	
"	"	13	53	23	53.231	
"	May 25-27	13	58	41	54.57	
"	May 25	14	26	25	57.220	Seen too fl- to observe.
"	June 3-5	13	15	0	51.6	

471	Jun 3	13 43 25	54 59	Seen June 5
"	June 6-12	14 0 52	51 57	
"	June 6	14 34 8	52 21	Seen June 12
"	June 12	14 36 53	52 48	"
"	June 6	14 39 13	52 28	"
"	June 6-12	14 21 3	52 8	
"	June 14-17	14 54 59	51 27	
"	June 14-17	14 35 49	50 11	# seen before.
"	June 19	16 11 15	50 52	Seen June 21
"	June 25-26	16 34 57	51 58	Set 5' 4" 5' 2"
"	June 25	16 35 18	51 58	Seen June 26
"	June 25	16 27 27	51 41	
"	June 27	16 37 1	52 06	Seen June 30
"	June 27-30	16 45 27	54 3	
"	July 1-3	16 28 11	51 26	ft # in field
"	July 1	16 29 21	52 47	Seen July 3
"	July 1-3	15 58 21	50 37	#?
"	" "	16 13 20	51 27	
"	July 5	16 41 26	51 21	
"	July 5	16 14 59	50 2	
"	Aug 2	17 7 5	50 51	
"	Aug 28	18 40 6	54 3	Too ft - to obs.
"	Sept 6-7	19 23 56	50 8	Some trouble
"	" "	19 29 35	50 40	" "
"	Sept 19-14	19 25 16	51 26	
"	Sept 19	19 48 3	50 37	Seen Sept 14?
"	Sept 23-28	20 21 46	53 01	
"	Oct 9 Sept 28	22 10 33	53 39	
"	Oct 16-17	22 34 18	54 28	Seen Oct 17
"	Nov 19-22	22 48 1	50 48	Seen Nov 19?
"	Nov 6-7	22 52 11	51 48	
"	" "	23 19 39	51 48	Degree wrong?
"	Nov 23-25	0 1 00	52 04	" "
"	" "	0 59 26	54 9 55	" "
"	Dec 1-2	0 34 55	51 16	" "
"	Dec 9-12	0 44 53	52 41	
"	" "	0 43 58	50 99	
"	Dec 20-27	1 37 37	51 57	
"	" "	1 51 33	50 45	Seen Dec 27?
"				

1472	Jan 2-8	1 48 36	151 53	
1472	" "	3 25 24	150 57	Degre?
"	" "	3 53 59	51 53	
"	Jan 24-31	4 22 58	51 9	
"	Jan 24	4 38 24	51 20	
"	"	4 32 32	53 2	
"	Jan 24-31	4 32 38	51 52	
"	" "	4 56 31	51 44	
"	" "	4 58 36	51 50	
"	Jan 24	5-21 3	51 12	# General II ³
"	Jan 10-12	3 9 40	52 20	
"	Feb 1-4	4 51 30	51 54	
"	Feb 7-8	4 0 30	51 28	Too ft. to obs.
"	" "	4 22 58	51 9	# comes too soon.
"	" "	4 41 54	50 18	#? 2.2 mag. not seen same.
"	Feb 16-17	6 19 58	50 9	
"	" "	6 24 12	49 56	Seen Feb 17?
"	Feb 24	6 20 1	50 59	
"	"	6 56 16	50 52	
"	Mar 21-27	7 36 44	51 5	
"	" "	7 50 11	49 51	
"	Mar 28-Apr 4	8 13 2	50 21	
X 4	Apr 30	10 48 28	50 19	
"	"	11 29 59	50 35	Too ft. to obs.
"	"	11 32 27	50 4	
"	May 24	13 7 52	51 48	Deg.?
"	June 3-9	13 42 10	50 26	" "
"	" "	13 46 56	51 35	
"	June 3-9	13 27 27	51 16	
"	June 19	13 49 4	54 3	Too ft. to obs.
"	"	14 10 21	54 22	" " "
"	June 11	13 43 47	53 58	
"	"	13 44 53	54 59	
"	"	14 1 30	51 9	
"	"	14 5 5	54 30	
"	"	14 8 46	54 50	ex Deg.
"	"	14 16 2	50 26	
"	June 30 July 6	15 27 23	53 27	Too ft. to obs.
"	" "	15 28 46	50 3	" "

} Navy.

1855phae.pdf.1706.

1872	Aug 11-14	16	28	46	51	5	DEG?
"	" "	16	45	10	51	0	
"	Aug 16-22	17	2	20	52	21	
"	July 24-27	16	31	37	52	46	
"	" "	16	38	46	53	20	
"	Aug 1-5	17	3	10	53	21	
"	" "	17	23	7	51	58	
"	Sept 28-Oct 2	17	56	40	52	24	
"	" "	21	4	28	52	47	
"							
"	Nov 16-17	23	23	6	52	42	
"	" "	23	25	15	52	11	For ft. to Des.
"	Nov 17-20	23	44	34	52	20	
"	Nov 23-27	23	49	5	52	2	
"	Dec 22-Jan 1	2	26	49	50	43	Heavy
"	Dec 30	2	35	2	50	24	
1873	Jan 4-6	2	42	58	51	41	DEG?
"	Jan 7-9	3	38	7	50	46	
"	Jan 14-19	4	16	12	51	24	DEG?
"	" "	4	14	36	50	59	
"	Feb 2-5	4	46	8	50	32	For ft. to Des.
"	Feb 4	8	58	20	50	13	
"	Jan 28-Feb 2	3	59	6	50	56	
"	" "	4	0	53	51	8	
"	" "	4	6	41	52	22	
"	Feb 10-17	4	56	46	49	59	
"	Feb 10-11-17	5	11	14	50	22	
"	" "	5	16	1	50	54	
"	Feb 22-24	6	19	58	50	9	DEG?
"	Feb 25-Mar 4	6	56	16	50	52	
"	Mar 6-8	6	36	44	51	5	For ft. to Des.
"	Mar 10-13	6	53	29	50	20	
"	Apr 1	9	17	23	51	54	
"	Apr 13-27	10	19	31	52	36	See Aug 29?
"	May 4-12	11	10	28	50	16	
"	May 12-13-15	11	32	27	50	4	
"	May 13-15	11	34	26	50	4	
"	June 5-10	13	32	55	50	41	
"	" "	13	39	17	52	11	

1873	June 11-17	14	27	27	5116	
"	" "	14	43	26	506	
"	June 25-29	14	46	42	5428	
"	" "	15	0	52	553	
"	July 6-9	15	9	1	5430	
"	" "	15	10	21	5422	
"	July 30-Aug 5	15	34	15	5452	
"	" "	16	35	15	545	
"	" "	16	52	52	5432	
"	" "	17	3	10	5321	
"	Aug 9-11	17	21	10	519	
"	" "	17	26	1	5320	
"	Aug 11-11	17	30	18	5229	Nov ft. to obs.
"	" "	17	43	59	5328	
"	" "	17	47	16	5413	
"	Aug 13-14	17	29	34	5014	seen Oct-14?
"	" "	20	57	9	5153	
"	Oct 15-9	21	59	35	5152	
"	" "	22	3	33	5142	
"	Nov 4-5	22	52	11	5148	
"	" "	22	53	57	5019	
"	4-6	23	7	40	5044	
"	Nov 10 Dec 7	23	9	23	5259	
"	Nov 10-Dec 7	23	15	59	5226	
"	" "	23	23	15	5030	
"	23-11	23	43	39	506	
"	Nov 18-19	23	32	51	5133	Decy.?
"	" "	23	33	56	5117	
"	" "	23	44	34	5223	
"	Dec 1	0	3	49	5112	seen Nov 19?
"	" "	0	4	43	5122	seen Nov 18?
"	Dec 9-10	0	46	12	5144	
"	Dec 10-15	0	24	36	505	
"	" "	1	27	10	514	
"	" "	1	30	27	5152	
"	" "	1	33	7	5007	
"	Dec 29 Jan 2	2	33	43	5033	

174	Jan. 17-18	2 22 7	+ 50 3	
"	Feb. 11-12	5 42 34	+ 53 52	
"	"	5 47 6	53 58	
"	"	6 0 30	53 31	
"	Feb. 14-17	6 20 8	54 58	
"	Mar 1-2	6 35 5	52 28	
"	"	6 57 40	54 46	
"	Mar 24-30	7 34 44	51 5	
"	"	7 48 27	51 32	Too ft. to obs.
"	"	7 57 34	51 55	
"	Apr 2-6	7 30 6	53 35	
"	Apr 22	7 46 30	51 55	
"	"	9 54 38	54 47	
"	"	9 56 27	54 24	
"	May 7-11	11 12 24	50 16	Seen May 7?
"	"	11 41 52	52 56	Too ft. to obs.
"	"	11 57 6	50 46	
"	May 12-14	11 38 46	53 29	
"	"	11 48 8	54 10	
"	"	12 21 34	51 32	
"	May 27-28	13 19 30	51 7	Prog?
"	"	13 20 34	51 33	"
"	"	13 31 30	52 1	
"	June 2-9-10	13 47 27	52 47	
"	June 24-28	15 35 18	51 58	Too ft. to obs.
"	June 30 Aug 1	15 1 50	55 3	
"	"	15 12 0	52 44	
"	"	15 56 5	54 57	Too faint for obs. Name
"	Aug 23-24-26	18 31 33	51 41	Not seen Aug 23
"	"	18 38 46	53 41	
"	"	18 8 46	52 25	min?
"	Sept 7-9	18 39 24	51 17	
"	"	18 40 16	51 41	
"	"	19 0 26	52 28	
"	"	19 11 51	55 8	
"	Sept 12-14	19 33 1	52 18	
"	Oct 11-12	21 37 45	52 16	
"	Oct 15-19	21 12 6	52 6	

1174 Oct 20-21 21 52 11 + 50 55
 " " 21 53 10 50 43
 Oct 22-26 27 46 58 53 31

" " " 21 57 55 52 51
 Nov 7-16 22 52 11 51 48
 Nov 8-9 23 34 36 52 1
 Nov 16-18 23 44 34 52 33
 Nov 16-18 0 1 10 51 3
 Nov 24-26 0 30 44 54 46
 Dec 2-3 0 8 26 52 42

1174 Dec 12-16 1 34 13 58 3 Deg?
 " " 2 35 35 50 3
 " " 3 4 3 5

1175 Jan 1-11 3 4 8 42 53 32

Jan 25-26 4 31 45 50 57

Jan 27-30 4 28 47 52 11

" " " 4 31 45 50 57

" " " 4 33 17 53 26

Feb 1-13 4 48 56 52 44

Feb 15-18 5 37 56 54 43

Mar 4-17-18 6 19 12 53 52

Mar 17-18 6 56 16 50 52

" " 7 6 37 53 30

" " 7 14 0 53 48

Mar 29-30 8 30 7 56 11

Apr 10-14 9 30 22 54 22

May 4-5-13 9 58 56 53 54

May 17-22 11 58 0 51 47

May 23-26 12 3 57 53 48

" " " 12 55 0 52 37

June 14-15 13 41 0 49 58

June 20-21 14 5 58 52 37

" " 14 10 49 53 55

" " 14 18 37 54 24

" " 14 21 23 54 33

June 24-28 14 31 1 54 0

" " " 14 32 55 50 33

" " " 14 51 36 53 58

" " 15 12 29 51 35

" " 15 14 20 51 53

minutes

1875 Mar 31	Shr	9 15 57	+ 54 16	
Shr 10-14		9 50 38	52 35	
Shr 15-20		9 35 22	54 22	
Shr 20-21		9 50 38	52 39	
" "		10 1 32	51 34	
Shr 27-Aug		10 44 22	51 54	
Aug 5-13		11 29 56	53 16	
" "		11 23 40	54 52	
" "		11 35 30	54 20	
Feb. 18-28		6 11 32	53 33	
" "		6 12 32	53 5	
" "		6 15 49	53 26	
Mar 23-25		4 50 11	49 52	
Mar 27-28		8 12 17	52 59	deg?
Mar 29-30		8 58 32	54 2	
" "		9 18 25	51 43	
1875 Aug 7-9		17 6 35	53 15	
" 10		17 13 30	49 57	
Aug 10-25-26		17 34 3	55 2	
Aug 26-29		18 7 58	51 38	long ft. to Dec.
" "		18 53 47	52 52	
Aug 30-31		18 26 46	51 43	
Sept. 1 4		18 16 50	49 54	
Sept 5 7		18 16 50	49 54	
" "		18 44 56	53 55	
Sept. 8-14		19 6 26	51 28	
" "		19 11 51	55 8	
Oct 13-14		20 8 12	52 17	
" "		20 9 25	52 52	
" "		20 30 13	51 2	
Oct 18-19		20 48	52 1	
" "		20 50 3	51 54	
Oct 20-25		20 57 25	54 36	
Oct 27 Nov 6		21 35 33	52 44	
Nov. 20-22		0 9 38	53 14	
" "		0 14 13	52 43	
" "		0 15 42	52 22	
" "		0 16 57	53 27	

1875- Nov 24 Dec 14 23 21 25 51 52
 " " 23 22 25 50 19
 23 23 46 51 26
 23 24 26 51 50
 Dec 6-14 23 35 2 51 36

1876

Jan 12-30 3 29 33 54 7
 3 28 9 53 45
 3 35 14 53 24
 3 39 48 52 16

Jan 26-31 3 47 47 53 42
 4 9 37 53 33

Feb 17-20 6 21 37 53 56
 6 22 25 53 24
 6 24 7 53 57

Mar 6-7 6 56 16 50 52

Mar 13-14 7 25 11 52 4
 7 26 53 52 34

Apr 2-6 8 20 6 52 37

May 28-29 12 32 32 50 33
 12 55 0 52 17
 13 0 53 51 41
 13 2 14 52 39

May 25-30 13 0 53 57 41
 13 32 57 57 37
 13 39 42 54 55

Aug 6-8 17 42 6 54 07
 17 56 57 50 58

Aug 9-10 17 49 9 51 30

Aug 12-13 17 56 44 53 39

Aug 26-28 18 21 17 53 45

Oct 2-3 20 23 56 50 8

23 24 27 50 29

Oct 10-12 29 54 14 50 40

20 22 46 51 6

25 34 22 50 39

27 36 5 50 41

27 57 07 51 6

27 54 24 54 43

1876 Oct-15-16	30	42	14	52	18				
"	20	54	27	52	58				
	20	55	0	52	25				
	21	11	11	50	12				
Oct-15-17	21	13	36	51	31				
	21	54	13	54	59				
Oct-18-19	20	17	40	50	56				
	20	36	7	52	07				
	20	0	52	52	26	low ft. to obs.			
	21	4	28	52	47	" "			
Oct-24-25	22	2	25	54	32				
Oct-29-30	21	35	20	51	36				
	22	16	23	53	25				
	22	30	12	53	45				
Nov-4-5	22	33	10	54	20				
	23	1	49	54	10				
Nov-12-13	23	20	11	54	10				
	23	25	40	53	53				
Dec-5-19	1	9	32	52	29				
	1	9	11	52	5				
Dec-6-23	1	30	45	54	59				
Dec-24-27	1	38	28	52	35				
	1	38	47	54	31				
1877									
Jan-4-13	1	22	57	53	58				
Jan-20-23	3	11	18	53	23				
	3	16	54	53	6				
	3	20	5	53	13				
	3	36	20	53	30				
	3	48	42	53	32				
Jan-23-30	3	50	40	52	13				
	3	57	56	53	3				
Feb-1-3	5	22	41	54	9				
Feb-6-8-11	5	8	52	54	48				
Feb-14-20	4	22	17	52	58	low ft. to obs.			
	5	28	39	52	17				
	5	38	9	53	44				
	5	42	34	54	49				
	5	45	52	52	24				

1877 Feb 21-27	6 21 0	51 11	
Mar 4-6	6 19 12	52 0	
	7 0 41	53 39	
Mar 15-20	7 10 03	52 31	
Mar 20-May 3	10 26 06	50 36	
	10 35 22	54 22	
May 6-12	11 47 31	54 5	
May 13-16	11 38 21	54 55	
	11 58 0	51 47	
May 28-29	12 47 25	54 45	
	13 2 25	49 49	
May 30 June 2	12 23 8	49 45	
	12 55 0	52 17	
	13 2 25	49 59	Boo faint
	13 16 5	54 23	
	13 43 25	54 59	
	13 55 15	53 48	
June 4-14	13 58 40	54 57	neb.
June 18-19	13 51 26	53 33	
	13 55 15	53 48	
July 24 Aug 11	16 5 21	51 12	Deq?
	16 17 33	54 22	
	16 45 10	51 00	" "
	16 50 5	51 20	" "
Aug 26-22	18 7 16	54 59	
	18 38 0	54 12	
	18 39 1	55 0	
Aug 28	18 12 54	54 31	
Aug 27-28	18 39 1	55 0	
	19 15 26	53 20	
Aug 22-27	22 10 42	53 10	
	22 6 9	55 1	
Aug 30 Sept 11	18 51 51	55 8	
	20 7 26	52 23	
Sept 12-13	28 38 0	54 12	
	18 39 1	55 0	
	19 45 55	51 19	
	20 45 0	53 36	
Sept 12-16	20 16 50	49 54	
	19 35 5	54 50	

1877	Sept 16-22	21 35 20	57 36
	Sept. 18-19	19 34 1	52 18
	Sept 22-23	19 54 40	50 40
		20 0 28	52 0
		20 1 26	52 23
	Sept 23-25	20 0 52	52 26
		21 4 9	52 1
	Sept 24-25	20 48 2	54 26
	Sept 26-27	20 1 26	52 23
		20 31 16	51 36
	Sept 30-Oct 1	20 1 26	52 23
	Oct 6-7	20 1 38	52 57
		21 4 9	52 1
		21 35 20	51 36
	Oct 13-17	20 22 38	52 14
		20 42 12	53 17
		2 2 13 5	51 52
	Oct 18-23	21 4 28	52 47
		21 35 20	51 36
	Oct 24-28	20 42 12	53 17
		22 20 2	53 4
		22 20 57	53 7
	Oct 29-30	22 48 57	50 3
		22 53 23	50 36
	Nov 3-13	21 48 19	52 41
		1 47 46	53 59
		2 12 22	52 3
	Nov 6-7	22 31 51	51 21
		23 32 14	53 15
		23 33 21	52 35
		23 44 34	52 23
		0 30 45	52 4
		0 44 30	50 4
		0 50 12	54 40
	Nov 13-14	22 53 23	50 36
		23 44 34	52 23
		23 54 10	54 0
		0 40 44	52 5
		0 52 35	52 33
		0 57 36	50 41

1477 Dec 1-2	22 15 22	5223
	22 53 57	5019
	23 44 27	5333
	23 54 10	54 0
	0 8 26	5242
	0 30 45	52 4
	0 48 57	52 3
	0 52 35	5233
	1 7 59	5213
	1 9 11	525
	1 13 16	52 2
	1 36 43	5433
Dec 1-13	2 55 52	52 8
	2 56 51	5234
	3 1 14	54 14
Dec 9-12	0 43 57	52 3
	0 57 36	50 41
	1 22 21	5329
	1 36 43	54 43
	1 39 48	53 15
Dec 3-9	2 2 16	53 49
	0 38 36	55 2
	0 52 42	5217
Dec 12-13	0 19 34	54 30
Dec 15-16	0 6 7	50 46
	1 13 16	53 2
	1 16 17	5242
Dec 17-18	23 42 8	5239
	23 53 33	51 54
	1 16 17	5242
Dec 20-25	1 32 4	5033
	2 19 20	51 6
	0 7 59	52 4
	1 12 41	54 9
	0 38 36	55 2
	0 44 53	50 45

1477 Dec 31 Jan, 2 22 34 54 15

Pos. ft. to Pos.
in ft.

1855phae.proj.1706.	Jan 5-9	0 0 57	51 57	
		0 1 54	50 41	
		0 7 59	52 4	
	Jan 16-19	1 15 32	53 34	
		1 19 24	50 22	
		1 19 53	50 42	
	Jan 30 Feb 2	2 19 54	50 42	
		3 28 38	57 48	
		3 57 56	53 3	
		4 11 16	54 59	
		4 42 27	51 6	
	Feb 3-4	5 3 5	53 29	
		4 11 12	50 58	
	Feb 5-16	4 11 17	50 56	DSG?
		4 48 42	58 32	"
		4 11 12	50 58	wrong # DS?
	Feb 7-11	4 07 41	53 33	
		3 48 42	53 32	
	Feb 13-14	4 11 17	50 56	
		4 11 12	49 58	DSG?
		4 11 17	48 56	"
	Feb 14-16	6 12 56	58 58	"
	Feb 17-18	7 7 52	49 51	
	Feb 24-26	4 28 8	53 32	
		7 19 49	50 57	
	Feb 27-28	7 50 11	49 57	
	Mar 4-5-6	8 19 16	54 21	#?
		4 56 11	54 10	
		5 12 33	53 44	
		6 39 9	52 9	
		7 50 11	49 57	
	Mar 30-31	10 46 17	52 1	
	Apr 18 May 2	10 46 17	50 1	DSG?
	May 2-6	12 55 0	52 17	
		13 58 40	54 57	Feb. Not seen in dark f
	May 4-6	11 31 5	51 54	
		11 44 5	55 1	
	May 7-18	13 0 53	61 41	
		16 48 25	54 59	
	June 3-5	12 53 52	49 52	

1778 June 6-9	14 21 23	54 54 14	
	13 0 53	57 41	
June 19-22	14 56 5	54 57	
July 10-13	16 50 5	57 20	
	17 6 3	55 5	
July 16-22	16 48 10	57 0	
	16 50 5	57 20	
	17 34 3	55 2	
July 24-31	17 43 59	53 3 ?	
Aug 14-22	17 43 59	53 0 ?	
Aug 22-26	17 43 59	53 0	
Aug 27	17 19 50	50 33	
Sept 12-14	19 48 44	51 30	
	20 13 9	54 59	
Sept 24-30	20 42 12	53 17	
Oct 1-2	21 4 9	52 1	
	21 35 20	51 36	
Nov 6-10-12	23 25 28	52 2	
	23 28 58	52 4	
Nov 6	0 4 55	51 15	
Nov 24-26	1 2 43	52 13	
Dec 7-8	0 2 4	53 06	Dry?
	0 16 16	51 9	#?
	2 22 34	54 15	
Dec 12-14	0 2 14	51 10	
	28 21 21	54 57	
Dec 16	2 22 34	54 15	
Dec 23-26	3 38 12	50 3	Dry?
Jan 6-20	3 38 12	49 58	"

1855phae.proj.1706.

38	39	44	48	37	42
50	40	45	38	44	44
35	37	46	44	42	39
41	32	57	37	35	32
38	39	37	45	38	
35	43	43	42	49	
38	35	57	46	53	
38	37	55	42	60	
44	37	52	48	38	
40	36	50	47	42	

400	375	480	437	430	157
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400
 375
 480
 437
 430
 157

2279

Number of D.M. Stars

Book I	1869	49° 50'	55° 10'
II	1818	3 34	227
III	1888		
IV	1888		
V	259		
Omitted	4		
	<hr/> 8326		
Less	561		
	<hr/> 7765		

1855pkas-proj-1706.