

0 min

Schalttafel

1 min

0 min	Zuwachs Grt			Unt	Vb	1 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	0 00.0	0 00.0	0 00.0	0.0	0.0	0	0 15.0	0 15.0	0 14.3	0.0	0.0
1	0 00.2	0 00.3	0 00.2	0.3	0.0	1	0 15.2	0 15.3	0 14.6	0.3	0.0
2	0 00.5	0 00.5	0 00.5	0.6	0.0	2	0 15.5	0 15.5	0 14.8	0.6	0.0
3	0 00.8	0 00.8	0 00.7	0.9	0.0	3	0 15.8	0 15.8	0 15.0	0.9	0.0
4	0 01.0	0 01.0	0 01.0	1.2	0.0	4	0 16.0	0 16.0	0 15.3	1.2	0.0
5	0 01.2	0 01.3	0 01.2	1.5	0.0	5	0 16.2	0 16.3	0 15.5	1.5	0.0
6	0 01.5	0 01.5	0 01.4	1.8	0.0	6	0 16.5	0 16.5	0 15.7	1.8	0.0
7	0 01.8	0 01.8	0 01.7	2.1	0.0	7	0 16.8	0 16.8	0 16.0	2.1	0.1
8	0 02.0	0 02.0	0 01.9	2.4	0.0	8	0 17.0	0 17.0	0 16.2	2.4	0.1
9	0 02.2	0 02.3	0 02.1	2.7	0.0	9	0 17.2	0 17.3	0 16.5	2.7	0.1
10	0 02.5	0 02.5	0 02.4	3.0	0.0	10	0 17.5	0 17.5	0 16.7	3.0	0.1
11	0 02.8	0 02.8	0 02.6	3.3	0.0	11	0 17.8	0 17.8	0 16.9	3.3	0.1
12	0 03.0	0 03.0	0 02.9	3.6	0.0	12	0 18.0	0 18.0	0 17.2	3.6	0.1
13	0 03.2	0 03.3	0 03.1	3.9	0.0	13	0 18.2	0 18.3	0 17.4	3.9	0.1
14	0 03.5	0 03.5	0 03.3	4.2	0.0	14	0 18.5	0 18.6	0 17.7	4.2	0.1
15	0 03.8	0 03.8	0 03.6	4.5	0.0	15	0 18.8	0 18.8	0 17.9	4.5	0.1
16	0 04.0	0 04.0	0 03.8	4.8	0.0	16	0 19.0	0 19.1	0 18.1	4.8	0.1
17	0 04.2	0 04.3	0 04.1	5.1	0.0	17	0 19.2	0 19.3	0 18.4	5.1	0.1
18	0 04.5	0 04.5	0 04.3	5.4	0.0	18	0 19.5	0 19.6	0 18.6	5.4	0.1
19	0 04.8	0 04.8	0 04.5	5.7	0.0	19	0 19.8	0 19.8	0 18.9	5.7	0.1
20	0 05.0	0 05.0	0 04.8	6.0	0.1	20	0 20.0	0 20.1	0 19.1	6.0	0.2
21	0 05.2	0 05.3	0 05.0	6.3	0.1	21	0 20.2	0 20.3	0 19.3	6.3	0.2
22	0 05.5	0 05.5	0 05.2	6.6	0.1	22	0 20.5	0 20.6	0 19.6	6.6	0.2
23	0 05.8	0 05.8	0 05.5	6.9	0.1	23	0 20.8	0 20.8	0 19.8	6.9	0.2
24	0 06.0	0 06.0	0 05.7	7.2	0.1	24	0 21.0	0 21.1	0 20.0	7.2	0.2
25	0 06.2	0 06.3	0 06.0	7.5	0.1	25	0 21.2	0 21.3	0 20.3	7.5	0.2
26	0 06.5	0 06.5	0 06.2	7.8	0.1	26	0 21.5	0 21.6	0 20.5	7.8	0.2
27	0 06.8	0 06.8	0 06.4	8.1	0.1	27	0 21.8	0 21.8	0 20.8	8.1	0.2
28	0 07.0	0 07.0	0 06.7	8.4	0.1	28	0 22.0	0 22.1	0 21.0	8.4	0.2
29	0 07.2	0 07.3	0 06.9	8.7	0.1	29	0 22.2	0 22.3	0 21.2	8.7	0.2
30	0 07.5	0 07.5	0 07.2	9.0	0.1	30	0 22.5	0 22.6	0 21.5	9.0	0.2
31	0 07.8	0 07.8	0 07.4	9.3	0.1	31	0 22.8	0 22.8	0 21.7	9.3	0.2
32	0 08.0	0 08.0	0 07.6	9.6	0.1	32	0 23.0	0 23.1	0 22.0	9.6	0.2
33	0 08.2	0 08.3	0 07.9	9.9	0.1	33	0 23.2	0 23.3	0 22.2	9.9	0.2
34	0 08.5	0 08.5	0 08.1	10.2	0.1	34	0 23.5	0 23.6	0 22.4	10.2	0.3
35	0 08.8	0 08.8	0 08.4	10.5	0.1	35	0 23.8	0 23.8	0 22.7	10.5	0.3
36	0 09.0	0 09.0	0 08.6	10.8	0.1	36	0 24.0	0 24.1	0 22.9	10.8	0.3
37	0 09.2	0 09.3	0 08.8	11.1	0.1	37	0 24.2	0 24.3	0 23.1	11.1	0.3
38	0 09.5	0 09.5	0 09.1	11.4	0.1	38	0 24.5	0 24.6	0 23.4	11.4	0.3
39	0 09.8	0 09.8	0 09.3	11.7	0.1	39	0 24.8	0 24.8	0 23.6	11.7	0.3
40	0 10.0	0 10.0	0 09.5	12.0	0.1	40	0 25.0	0 25.1	0 23.9	12.0	0.3
41	0 10.2	0 10.3	0 09.8	12.3	0.1	41	0 25.2	0 25.3	0 24.1	12.3	0.3
42	0 10.5	0 10.5	0 10.0	12.6	0.1	42	0 25.5	0 25.6	0 24.3	12.6	0.3
43	0 10.8	0 10.8	0 10.3	12.9	0.1	43	0 25.8	0 25.8	0 24.6	12.9	0.3
44	0 11.0	0 11.0	0 10.5	13.2	0.1	44	0 26.0	0 26.1	0 24.8	13.2	0.3
45	0 11.2	0 11.3	0 10.7	13.5	0.1	45	0 26.2	0 26.3	0 25.1	13.5	0.3
46	0 11.5	0 11.5	0 11.0	13.8	0.1	46	0 26.5	0 26.6	0 25.3	13.8	0.3
47	0 11.8	0 11.8	0 11.2	14.1	0.1	47	0 26.8	0 26.8	0 25.5	14.1	0.4
48	0 12.0	0 12.0	0 11.5	14.4	0.1	48	0 27.0	0 27.1	0 25.8	14.4	0.4
49	0 12.2	0 12.3	0 11.7	14.7	0.1	49	0 27.2	0 27.3	0 26.0	14.7	0.4
50	0 12.5	0 12.5	0 11.9	15.0	0.1	50	0 27.5	0 27.6	0 26.2	15.0	0.4
51	0 12.8	0 12.8	0 12.2	15.3	0.1	51	0 27.8	0 27.8	0 26.5	15.3	0.4
52	0 13.0	0 13.0	0 12.4	15.6	0.1	52	0 28.0	0 28.1	0 26.7	15.6	0.4
53	0 13.2	0 13.3	0 12.6	15.9	0.1	53	0 28.2	0 28.3	0 27.0	15.9	0.4
54	0 13.5	0 13.5	0 12.9	16.2	0.1	54	0 28.5	0 28.6	0 27.2	16.2	0.4
55	0 13.8	0 13.8	0 13.1	16.5	0.1	55	0 28.7	0 28.8	0 27.4	16.5	0.4
56	0 14.0	0 14.0	0 13.4	16.8	0.1	56	0 29.0	0 29.1	0 27.7	16.8	0.4
57	0 14.2	0 14.3	0 13.6	17.1	0.1	57	0 29.3	0 29.3	0 27.9	17.1	0.4
58	0 14.5	0 14.5	0 13.8	17.4	0.1	58	0 29.5	0 29.6	0 28.2	17.4	0.4
59	0 14.7	0 14.8	0 14.1	17.7	0.1	59	0 29.7	0 29.8	0 28.4	17.7	0.4

2 min

Schalttafel

3 min

2 min	Zuwachs Grt			Unt	Vb	3 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	0 30.0	0 30.1	0 28.6	0.0	0.0	0	0 45.0	0 45.1	0 43.0	0.0	0.0
1	0 30.2	0 30.3	0 28.9	0.3	0.0	1	0 45.2	0 45.4	0 43.2	0.3	0.0
2	0 30.5	0 30.6	0 29.1	0.6	0.0	2	0 45.5	0 45.6	0 43.4	0.6	0.0
3	0 30.7	0 30.8	0 29.4	0.9	0.0	3	0 45.8	0 45.9	0 43.7	0.9	0.1
4	0 31.0	0 31.1	0 29.6	1.2	0.1	4	0 46.0	0 46.1	0 43.9	1.2	0.1
5	0 31.3	0 31.3	0 29.8	1.5	0.1	5	0 46.2	0 46.4	0 44.1	1.5	0.1
6	0 31.5	0 31.6	0 30.1	1.8	0.1	6	0 46.5	0 46.6	0 44.4	1.8	0.1
7	0 31.8	0 31.8	0 30.3	2.1	0.1	7	0 46.8	0 46.9	0 44.6	2.1	0.1
8	0 32.0	0 32.1	0 30.5	2.4	0.1	8	0 47.0	0 47.1	0 44.9	2.4	0.1
9	0 32.2	0 32.3	0 30.8	2.7	0.1	9	0 47.2	0 47.4	0 45.1	2.7	0.2
10	0 32.5	0 32.6	0 31.0	3.0	0.1	10	0 47.5	0 47.6	0 45.3	3.0	0.2
11	0 32.8	0 32.8	0 31.3	3.3	0.1	11	0 47.8	0 47.9	0 45.6	3.3	0.2
12	0 33.0	0 33.1	0 31.5	3.6	0.2	12	0 48.0	0 48.1	0 45.8	3.6	0.2
13	0 33.2	0 33.3	0 31.7	3.9	0.2	13	0 48.2	0 48.4	0 46.1	3.9	0.2
14	0 33.5	0 33.6	0 32.0	4.2	0.2	14	0 48.5	0 48.6	0 46.3	4.2	0.2
15	0 33.8	0 33.8	0 32.2	4.5	0.2	15	0 48.8	0 48.9	0 46.5	4.5	0.3
16	0 34.0	0 34.1	0 32.5	4.8	0.2	16	0 49.0	0 49.1	0 46.8	4.8	0.3
17	0 34.2	0 34.3	0 32.7	5.1	0.2	17	0 49.2	0 49.4	0 47.0	5.1	0.3
18	0 34.5	0 34.6	0 32.9	5.4	0.2	18	0 49.5	0 49.6	0 47.2	5.4	0.3
19	0 34.8	0 34.8	0 33.2	5.7	0.2	19	0 49.8	0 49.9	0 47.5	5.7	0.3
20	0 35.0	0 35.1	0 33.4	6.0	0.3	20	0 50.0	0 50.1	0 47.7	6.0	0.4
21	0 35.2	0 35.3	0 33.6	6.3	0.3	21	0 50.2	0 50.4	0 48.0	6.3	0.4
22	0 35.5	0 35.6	0 33.9	6.6	0.3	22	0 50.5	0 50.6	0 48.2	6.6	0.4
23	0 35.8	0 35.8	0 34.1	6.9	0.3	23	0 50.8	0 50.9	0 48.4	6.9	0.4
24	0 36.0	0 36.1	0 34.4	7.2	0.3	24	0 51.0	0 51.1	0 48.7	7.2	0.4
25	0 36.2	0 36.3	0 34.6	7.5	0.3	25	0 51.2	0 51.4	0 48.9	7.5	0.4
26	0 36.5	0 36.6	0 34.8	7.8	0.3	26	0 51.5	0 51.6	0 49.2	7.8	0.5
27	0 36.8	0 36.9	0 35.1	8.1	0.3	27	0 51.8	0 51.9	0 49.4	8.1	0.5
28	0 37.0	0 37.1	0 35.3	8.4	0.4	28	0 52.0	0 52.1	0 49.6	8.4	0.5
29	0 37.2	0 37.4	0 35.6	8.7	0.4	29	0 52.2	0 52.4	0 49.9	8.7	0.5
30	0 37.5	0 37.6	0 35.8	9.0	0.4	30	0 52.5	0 52.6	0 50.1	9.0	0.5
31	0 37.8	0 37.9	0 36.0	9.3	0.4	31	0 52.8	0 52.9	0 50.3	9.3	0.5
32	0 38.0	0 38.1	0 36.3	9.6	0.4	32	0 53.0	0 53.1	0 50.6	9.6	0.6
33	0 38.2	0 38.4	0 36.5	9.9	0.4	33	0 53.2	0 53.4	0 50.8	9.9	0.6
34	0 38.5	0 38.6	0 36.7	10.2	0.4	34	0 53.5	0 53.6	0 51.1	10.2	0.6
35	0 38.8	0 38.9	0 37.0	10.5	0.4	35	0 53.8	0 53.9	0 51.3	10.5	0.6
36	0 39.0	0 39.1	0 37.2	10.8	0.5	36	0 54.0	0 54.1	0 51.5	10.8	0.6
37	0 39.2	0 39.4	0 37.5	11.1	0.5	37	0 54.2	0 54.4	0 51.8	11.1	0.6
38	0 39.5	0 39.6	0 37.7	11.4	0.5	38	0 54.5	0 54.6	0 52.0	11.4	0.7
39	0 39.8	0 39.9	0 37.9	11.7	0.5	39	0 54.8	0 54.9	0 52.3	11.7	0.7
40	0 40.0	0 40.1	0 38.2	12.0	0.5	40	0 55.0	0 55.1	0 52.5	12.0	0.7
41	0 40.2	0 40.4	0 38.4	12.3	0.5	41	0 55.2	0 55.4	0 52.7	12.3	0.7
42	0 40.5	0 40.6	0 38.7	12.6	0.5	42	0 55.5	0 55.7	0 53.0	12.6	0.7
43	0 40.8	0 40.9	0 38.9	12.9	0.5	43	0 55.8	0 55.9	0 53.2	12.9	0.8
44	0 41.0	0 41.1	0 39.1	13.2	0.6	44	0 56.0	0 56.2	0 53.5	13.2	0.8
45	0 41.2	0 41.4	0 39.4	13.5	0.6	45	0 56.2	0 56.4	0 53.7	13.5	0.8
46	0 41.5	0 41.6	0 39.6	13.8	0.6	46	0 56.5	0 56.7	0 53.9	13.8	0.8
47	0 41.8	0 41.9	0 39.8	14.1	0.6	47	0 56.8	0 56.9	0 54.2	14.1	0.8
48	0 42.0	0 42.1	0 40.1	14.4	0.6	48	0 57.0	0 57.2	0 54.4	14.4	0.8
49	0 42.2	0 42.4	0 40.3	14.7	0.6	49	0 57.2	0 57.4	0 54.6	14.7	0.9
50	0 42.5	0 42.6	0 40.6	15.0	0.6	50	0 57.5	0 57.7	0 54.9	15.0	0.9
51	0 42.8	0 42.9	0 40.8	15.3	0.6	51	0 57.7	0 57.9	0 55.1	15.3	0.9
52	0 43.0	0 43.1	0 41.0	15.6	0.7	52	0 58.0	0 58.2	0 55.4	15.6	0.9
53	0 43.2	0 43.4	0 41.3	15.9	0.7	53	0 58.2	0 58.4	0 55.6	15.9	0.9
54	0 43.5	0 43.6	0 41.5	16.2	0.7	54	0 58.5	0 58.7	0 55.8	16.2	0.9
55	0 43.8	0 43.9	0 41.8	16.5	0.7	55	0 58.8	0 58.9	0 56.1	16.5	1.0
56	0 44.0	0 44.1	0 42.0	16.8	0.7	56	0 59.0	0 59.2	0 56.3	16.8	1.0
57	0 44.2	0 44.4	0 42.2	17.1	0.7	57	0 59.3	0 59.4	0 56.6	17.1	1.0
58	0 44.5	0 44.6	0 42.5	17.4	0.7	58	0 59.5	0 59.7	0 56.8	17.4	1.0
59	0 44.8	0 44.9	0 42.7	17.7	0.7	59	0 59.8	0 59.9	0 57.0	17.7	1.0

4 min

Schalttafel

5 min

4 min	Zuwachs Grt			Unt	Vb	5 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	1 00.0	1 00.2	0 57.3	0.0	0.0	0	1 15.0	1 15.2	1 11.6	0.0	0.0
1	1 00.2	1 00.4	0 57.5	0.3	0.0	1	1 15.2	1 15.5	1 11.8	0.3	0.0
2	1 00.5	1 00.7	0 57.7	0.6	0.0	2	1 15.5	1 15.7	1 12.1	0.6	0.1
3	1 00.7	1 00.9	0 58.0	0.9	0.1	3	1 15.7	1 16.0	1 12.3	0.9	0.1
4	1 01.0	1 01.2	0 58.2	1.2	0.1	4	1 16.0	1 16.2	1 12.5	1.2	0.1
5	1 01.2	1 01.4	0 58.5	1.5	0.1	5	1 16.2	1 16.5	1 12.8	1.5	0.1
6	1 01.5	1 01.7	0 58.7	1.8	0.1	6	1 16.5	1 16.7	1 13.0	1.8	0.2
7	1 01.7	1 01.9	0 58.9	2.1	0.2	7	1 16.7	1 17.0	1 13.3	2.1	0.2
8	1 02.0	1 02.2	0 59.2	2.4	0.2	8	1 17.0	1 17.2	1 13.5	2.4	0.2
9	1 02.3	1 02.4	0 59.4	2.7	0.2	9	1 17.3	1 17.5	1 13.7	2.7	0.2
10	1 02.5	1 02.7	0 59.7	3.0	0.2	10	1 17.5	1 17.7	1 14.0	3.0	0.3
11	1 02.8	1 02.9	0 59.9	3.3	0.2	11	1 17.8	1 18.0	1 14.2	3.3	0.3
12	1 03.0	1 03.2	1 00.1	3.6	0.3	12	1 18.0	1 18.2	1 14.5	3.6	0.3
13	1 03.3	1 03.4	1 00.4	3.9	0.3	13	1 18.2	1 18.5	1 14.7	3.9	0.4
14	1 03.5	1 03.7	1 00.6	4.2	0.3	14	1 18.5	1 18.7	1 14.9	4.2	0.4
15	1 03.8	1 03.9	1 00.8	4.5	0.3	15	1 18.8	1 19.0	1 15.2	4.5	0.4
16	1 04.0	1 04.2	1 01.1	4.8	0.4	16	1 19.0	1 19.2	1 15.4	4.8	0.4
17	1 04.2	1 04.4	1 01.3	5.1	0.4	17	1 19.2	1 19.5	1 15.6	5.1	0.5
18	1 04.5	1 04.7	1 01.6	5.4	0.4	18	1 19.5	1 19.7	1 15.9	5.4	0.5
19	1 04.7	1 04.9	1 01.8	5.7	0.4	19	1 19.7	1 20.0	1 16.1	5.7	0.5
20	1 05.0	1 05.2	1 02.0	6.0	0.5	20	1 20.0	1 20.2	1 16.4	6.0	0.6
21	1 05.2	1 05.4	1 02.3	6.3	0.5	21	1 20.2	1 20.5	1 16.6	6.3	0.6
22	1 05.5	1 05.7	1 02.5	6.6	0.5	22	1 20.5	1 20.7	1 16.8	6.6	0.6
23	1 05.8	1 05.9	1 02.8	6.9	0.5	23	1 20.8	1 21.0	1 17.1	6.9	0.6
24	1 06.0	1 06.2	1 03.0	7.2	0.5	24	1 21.0	1 21.2	1 17.3	7.2	0.7
25	1 06.3	1 06.4	1 03.2	7.5	0.6	25	1 21.3	1 21.5	1 17.6	7.5	0.7
26	1 06.5	1 06.7	1 03.5	7.8	0.6	26	1 21.5	1 21.7	1 17.8	7.8	0.7
27	1 06.8	1 06.9	1 03.7	8.1	0.6	27	1 21.8	1 22.0	1 18.0	8.1	0.7
28	1 07.0	1 07.2	1 04.0	8.4	0.6	28	1 22.0	1 22.2	1 18.3	8.4	0.8
29	1 07.3	1 07.4	1 04.2	8.7	0.7	29	1 22.2	1 22.5	1 18.5	8.7	0.8
30	1 07.5	1 07.7	1 04.4	9.0	0.7	30	1 22.5	1 22.7	1 18.7	9.0	0.8
31	1 07.7	1 07.9	1 04.7	9.3	0.7	31	1 22.8	1 23.0	1 19.0	9.3	0.9
32	1 08.0	1 08.2	1 04.9	9.6	0.7	32	1 23.0	1 23.2	1 19.2	9.6	0.9
33	1 08.2	1 08.4	1 05.1	9.9	0.7	33	1 23.2	1 23.5	1 19.5	9.9	0.9
34	1 08.5	1 08.7	1 05.4	10.2	0.8	34	1 23.5	1 23.7	1 19.7	10.2	0.9
35	1 08.7	1 08.9	1 05.6	10.5	0.8	35	1 23.7	1 24.0	1 19.9	10.5	1.0
36	1 09.0	1 09.2	1 05.9	10.8	0.8	36	1 24.0	1 24.2	1 20.2	10.8	1.0
37	1 09.3	1 09.4	1 06.1	11.1	0.8	37	1 24.3	1 24.5	1 20.4	11.1	1.0
38	1 09.5	1 09.7	1 06.3	11.4	0.9	38	1 24.5	1 24.7	1 20.7	11.4	1.0
39	1 09.8	1 09.9	1 06.6	11.7	0.9	39	1 24.8	1 25.0	1 20.9	11.7	1.1
40	1 10.0	1 10.2	1 06.8	12.0	0.9	40	1 25.0	1 25.2	1 21.1	12.0	1.1
41	1 10.3	1 10.4	1 07.1	12.3	0.9	41	1 25.3	1 25.5	1 21.4	12.3	1.1
42	1 10.5	1 10.7	1 07.3	12.6	0.9	42	1 25.5	1 25.7	1 21.6	12.6	1.2
43	1 10.8	1 10.9	1 07.5	12.9	1.0	43	1 25.8	1 26.0	1 21.8	12.9	1.2
44	1 11.0	1 11.2	1 07.8	13.2	1.0	44	1 26.0	1 26.2	1 22.1	13.2	1.2
45	1 11.2	1 11.4	1 08.0	13.5	1.0	45	1 26.2	1 26.5	1 22.3	13.5	1.2
46	1 11.5	1 11.7	1 08.2	13.8	1.0	46	1 26.5	1 26.7	1 22.6	13.8	1.3
47	1 11.7	1 11.9	1 08.5	14.1	1.1	47	1 26.8	1 27.0	1 22.8	14.1	1.3
48	1 12.0	1 12.2	1 08.7	14.4	1.1	48	1 27.0	1 27.2	1 23.0	14.4	1.3
49	1 12.2	1 12.4	1 09.0	14.7	1.1	49	1 27.2	1 27.5	1 23.3	14.7	1.3
50	1 12.5	1 12.7	1 09.2	15.0	1.1	50	1 27.5	1 27.7	1 23.5	15.0	1.4
51	1 12.7	1 12.9	1 09.4	15.3	1.1	51	1 27.7	1 28.0	1 23.8	15.3	1.4
52	1 13.0	1 13.2	1 09.7	15.6	1.2	52	1 28.0	1 28.2	1 24.0	15.6	1.4
53	1 13.2	1 13.4	1 09.9	15.9	1.2	53	1 28.2	1 28.5	1 24.2	15.9	1.5
54	1 13.5	1 13.7	1 10.2	16.2	1.2	54	1 28.5	1 28.7	1 24.5	16.2	1.5
55	1 13.8	1 14.0	1 10.4	16.5	1.2	55	1 28.8	1 29.0	1 24.7	16.5	1.5
56	1 14.0	1 14.2	1 10.6	16.8	1.3	56	1 29.0	1 29.2	1 24.9	16.8	1.5
57	1 14.3	1 14.5	1 10.9	17.1	1.3	57	1 29.3	1 29.5	1 25.2	17.1	1.6
58	1 14.5	1 14.7	1 11.1	17.4	1.3	58	1 29.5	1 29.7	1 25.4	17.4	1.6
59	1 14.8	1 15.0	1 11.3	17.7	1.3	59	1 29.8	1 30.0	1 25.7	17.7	1.6

6 min

Schalttafel

7 min

6 min	Zuwachs Grt			Unt	Vb	7 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	1 30.0	1 30.2	1 25.9	0.0	0.0	0	1 45.0	1 45.3	1 40.2	0.0	0.0
1	1 30.2	1 30.5	1 26.1	0.3	0.0	1	1 45.2	1 45.5	1 40.5	0.3	0.0
2	1 30.5	1 30.7	1 26.4	0.6	0.1	2	1 45.5	1 45.8	1 40.7	0.6	0.1
3	1 30.7	1 31.0	1 26.6	0.9	0.1	3	1 45.8	1 46.0	1 40.9	0.9	0.1
4	1 31.0	1 31.2	1 26.9	1.2	0.1	4	1 46.0	1 46.3	1 41.2	1.2	0.2
5	1 31.2	1 31.5	1 27.1	1.5	0.2	5	1 46.2	1 46.5	1 41.4	1.5	0.2
6	1 31.5	1 31.7	1 27.3	1.8	0.2	6	1 46.5	1 46.8	1 41.7	1.8	0.2
7	1 31.7	1 32.0	1 27.6	2.1	0.2	7	1 46.7	1 47.0	1 41.9	2.1	0.3
8	1 32.0	1 32.3	1 27.8	2.4	0.3	8	1 47.0	1 47.3	1 42.1	2.4	0.3
9	1 32.3	1 32.5	1 28.1	2.7	0.3	9	1 47.3	1 47.5	1 42.4	2.7	0.3
10	1 32.5	1 32.8	1 28.3	3.0	0.3	10	1 47.5	1 47.8	1 42.6	3.0	0.4
11	1 32.8	1 33.0	1 28.5	3.3	0.4	11	1 47.8	1 48.0	1 42.8	3.3	0.4
12	1 33.0	1 33.3	1 28.8	3.6	0.4	12	1 48.0	1 48.3	1 43.1	3.6	0.5
13	1 33.2	1 33.5	1 29.0	3.9	0.4	13	1 48.2	1 48.5	1 43.3	3.9	0.5
14	1 33.5	1 33.8	1 29.2	4.2	0.5	14	1 48.5	1 48.8	1 43.6	4.2	0.5
15	1 33.8	1 34.0	1 29.5	4.5	0.5	15	1 48.8	1 49.0	1 43.8	4.5	0.6
16	1 34.0	1 34.3	1 29.7	4.8	0.5	16	1 49.0	1 49.3	1 44.0	4.8	0.6
17	1 34.2	1 34.5	1 30.0	5.1	0.6	17	1 49.2	1 49.5	1 44.3	5.1	0.6
18	1 34.5	1 34.8	1 30.2	5.4	0.6	18	1 49.5	1 49.8	1 44.5	5.4	0.7
19	1 34.8	1 35.0	1 30.4	5.7	0.6	19	1 49.8	1 50.0	1 44.8	5.7	0.7
20	1 35.0	1 35.3	1 30.7	6.0	0.7	20	1 50.0	1 50.3	1 45.0	6.0	0.8
21	1 35.2	1 35.5	1 30.9	6.3	0.7	21	1 50.2	1 50.6	1 45.2	6.3	0.8
22	1 35.5	1 35.8	1 31.2	6.6	0.7	22	1 50.5	1 50.8	1 45.5	6.6	0.8
23	1 35.8	1 36.0	1 31.4	6.9	0.7	23	1 50.8	1 51.1	1 45.7	6.9	0.9
24	1 36.0	1 36.3	1 31.6	7.2	0.8	24	1 51.0	1 51.3	1 45.9	7.2	0.9
25	1 36.3	1 36.5	1 31.9	7.5	0.8	25	1 51.3	1 51.6	1 46.2	7.5	0.9
26	1 36.5	1 36.8	1 32.1	7.8	0.8	26	1 51.5	1 51.8	1 46.4	7.8	1.0
27	1 36.8	1 37.0	1 32.3	8.1	0.9	27	1 51.8	1 52.1	1 46.7	8.1	1.0
28	1 37.0	1 37.3	1 32.6	8.4	0.9	28	1 52.0	1 52.3	1 46.9	8.4	1.1
29	1 37.2	1 37.5	1 32.8	8.7	0.9	29	1 52.2	1 52.6	1 47.1	8.7	1.1
30	1 37.5	1 37.8	1 33.1	9.0	1.0	30	1 52.5	1 52.8	1 47.4	9.0	1.1
31	1 37.8	1 38.0	1 33.3	9.3	1.0	31	1 52.7	1 53.1	1 47.6	9.3	1.2
32	1 38.0	1 38.3	1 33.5	9.6	1.0	32	1 53.0	1 53.3	1 47.9	9.6	1.2
33	1 38.2	1 38.5	1 33.8	9.9	1.1	33	1 53.2	1 53.6	1 48.1	9.9	1.2
34	1 38.5	1 38.8	1 34.0	10.2	1.1	34	1 53.5	1 53.8	1 48.3	10.2	1.3
35	1 38.7	1 39.0	1 34.3	10.5	1.1	35	1 53.7	1 54.1	1 48.6	10.5	1.3
36	1 39.0	1 39.3	1 34.5	10.8	1.2	36	1 54.0	1 54.3	1 48.8	10.8	1.4
37	1 39.3	1 39.5	1 34.7	11.1	1.2	37	1 54.2	1 54.6	1 49.1	11.1	1.4
38	1 39.5	1 39.8	1 35.0	11.4	1.2	38	1 54.5	1 54.8	1 49.3	11.4	1.4
39	1 39.8	1 40.0	1 35.2	11.7	1.3	39	1 54.8	1 55.1	1 49.5	11.7	1.5
40	1 40.0	1 40.3	1 35.4	12.0	1.3	40	1 55.0	1 55.3	1 49.8	12.0	1.5
41	1 40.2	1 40.5	1 35.7	12.3	1.3	41	1 55.2	1 55.6	1 50.0	12.3	1.5
42	1 40.5	1 40.8	1 35.9	12.6	1.4	42	1 55.5	1 55.8	1 50.2	12.6	1.6
43	1 40.8	1 41.0	1 36.2	12.9	1.4	43	1 55.8	1 56.1	1 50.5	12.9	1.6
44	1 41.0	1 41.3	1 36.4	13.2	1.4	44	1 56.0	1 56.3	1 50.7	13.2	1.7
45	1 41.2	1 41.5	1 36.6	13.5	1.5	45	1 56.3	1 56.6	1 51.0	13.5	1.7
46	1 41.5	1 41.8	1 36.9	13.8	1.5	46	1 56.5	1 56.8	1 51.2	13.8	1.7
47	1 41.8	1 42.0	1 37.1	14.1	1.5	47	1 56.7	1 57.1	1 51.4	14.1	1.8
48	1 42.0	1 42.3	1 37.4	14.4	1.6	48	1 57.0	1 57.3	1 51.7	14.4	1.8
49	1 42.2	1 42.5	1 37.6	14.7	1.6	49	1 57.2	1 57.6	1 51.9	14.7	1.8
50	1 42.5	1 42.8	1 37.8	15.0	1.6	50	1 57.5	1 57.8	1 52.2	15.0	1.9
51	1 42.7	1 43.0	1 38.1	15.3	1.7	51	1 57.7	1 58.1	1 52.4	15.3	1.9
52	1 43.0	1 43.3	1 38.3	15.6	1.7	52	1 58.0	1 58.3	1 52.6	15.6	2.0
53	1 43.2	1 43.5	1 38.6	15.9	1.7	53	1 58.2	1 58.6	1 52.9	15.9	2.0
54	1 43.5	1 43.8	1 38.8	16.2	1.8	54	1 58.5	1 58.8	1 53.1	16.2	2.0
55	1 43.8	1 44.0	1 39.0	16.5	1.8	55	1 58.8	1 59.1	1 53.3	16.5	2.1
56	1 44.0	1 44.3	1 39.3	16.8	1.8	56	1 59.0	1 59.3	1 53.6	16.8	2.1
57	1 44.2	1 44.5	1 39.5	17.1	1.9	57	1 59.2	1 59.6	1 53.8	17.1	2.1
58	1 44.5	1 44.8	1 39.7	17.4	1.9	58	1 59.5	1 59.8	1 54.1	17.4	2.2
59	1 44.8	1 45.0	1 40.0	17.7	1.9	59	1 59.8	2 00.1	1 54.3	17.7	2.2

8 min

Schalttafel

9 min

8 min	Zuwachs Grt			Unt	Vb	9 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	2 00.0	2 00.3	1 54.5	0.0	0.0	0	2 15.0	2 15.4	2 08.9	0.0	0.0
1	2 00.3	2 00.6	1 54.8	0.3	0.0	1	2 15.3	2 15.6	2 09.1	0.3	0.0
2	2 00.5	2 00.8	1 55.0	0.6	0.1	2	2 15.5	2 15.9	2 09.3	0.6	0.1
3	2 00.8	2 01.1	1 55.3	0.9	0.1	3	2 15.8	2 16.1	2 09.6	0.9	0.1
4	2 01.0	2 01.3	1 55.5	1.2	0.2	4	2 16.0	2 16.4	2 09.8	1.2	0.2
5	2 01.3	2 01.6	1 55.7	1.5	0.2	5	2 16.3	2 16.6	2 10.0	1.5	0.2
6	2 01.5	2 01.8	1 56.0	1.8	0.3	6	2 16.5	2 16.9	2 10.3	1.8	0.3
7	2 01.8	2 02.1	1 56.2	2.1	0.3	7	2 16.8	2 17.1	2 10.5	2.1	0.3
8	2 02.0	2 02.3	1 56.4	2.4	0.3	8	2 17.0	2 17.4	2 10.8	2.4	0.4
9	2 02.3	2 02.6	1 56.7	2.7	0.4	9	2 17.3	2 17.6	2 11.0	2.7	0.4
10	2 02.5	2 02.8	1 56.9	3.0	0.4	10	2 17.5	2 17.9	2 11.2	3.0	0.5
11	2 02.8	2 03.1	1 57.2	3.3	0.5	11	2 17.8	2 18.1	2 11.5	3.3	0.5
12	2 03.0	2 03.3	1 57.4	3.6	0.5	12	2 18.0	2 18.4	2 11.7	3.6	0.6
13	2 03.3	2 03.6	1 57.6	3.9	0.6	13	2 18.2	2 18.6	2 12.0	3.9	0.6
14	2 03.5	2 03.8	1 57.9	4.2	0.6	14	2 18.5	2 18.9	2 12.2	4.2	0.7
15	2 03.8	2 04.1	1 58.1	4.5	0.6	15	2 18.8	2 19.1	2 12.4	4.5	0.7
16	2 04.0	2 04.3	1 58.4	4.8	0.7	16	2 19.0	2 19.4	2 12.7	4.8	0.8
17	2 04.2	2 04.6	1 58.6	5.1	0.7	17	2 19.2	2 19.6	2 12.9	5.1	0.8
18	2 04.5	2 04.8	1 58.8	5.4	0.8	18	2 19.5	2 19.9	2 13.2	5.4	0.9
19	2 04.7	2 05.1	1 59.1	5.7	0.8	19	2 19.7	2 20.1	2 13.4	5.7	0.9
20	2 05.0	2 05.3	1 59.3	6.0	0.9	20	2 20.0	2 20.4	2 13.6	6.0	1.0
21	2 05.2	2 05.6	1 59.5	6.3	0.9	21	2 20.2	2 20.6	2 13.9	6.3	1.0
22	2 05.5	2 05.8	1 59.8	6.6	0.9	22	2 20.5	2 20.9	2 14.1	6.6	1.0
23	2 05.7	2 06.1	2 00.0	6.9	1.0	23	2 20.7	2 21.1	2 14.3	6.9	1.1
24	2 06.0	2 06.3	2 00.3	7.2	1.0	24	2 21.0	2 21.4	2 14.6	7.2	1.1
25	2 06.2	2 06.6	2 00.5	7.5	1.1	25	2 21.2	2 21.6	2 14.8	7.5	1.2
26	2 06.5	2 06.8	2 00.7	7.8	1.1	26	2 21.5	2 21.9	2 15.1	7.8	1.2
27	2 06.7	2 07.1	2 01.0	8.1	1.1	27	2 21.7	2 22.1	2 15.3	8.1	1.3
28	2 07.0	2 07.3	2 01.2	8.4	1.2	28	2 22.0	2 22.4	2 15.5	8.4	1.3
29	2 07.2	2 07.6	2 01.5	8.7	1.2	29	2 22.2	2 22.6	2 15.8	8.7	1.4
30	2 07.5	2 07.8	2 01.7	9.0	1.3	30	2 22.5	2 22.9	2 16.0	9.0	1.4
31	2 07.8	2 08.1	2 01.9	9.3	1.3	31	2 22.8	2 23.1	2 16.3	9.3	1.5
32	2 08.0	2 08.3	2 02.2	9.6	1.4	32	2 23.0	2 23.4	2 16.5	9.6	1.5
33	2 08.3	2 08.6	2 02.4	9.9	1.4	33	2 23.3	2 23.6	2 16.7	9.9	1.6
34	2 08.5	2 08.8	2 02.7	10.2	1.4	34	2 23.5	2 23.9	2 17.0	10.2	1.6
35	2 08.8	2 09.1	2 02.9	10.5	1.5	35	2 23.8	2 24.1	2 17.2	10.5	1.7
36	2 09.0	2 09.4	2 03.1	10.8	1.5	36	2 24.0	2 24.4	2 17.4	10.8	1.7
37	2 09.3	2 09.6	2 03.4	11.1	1.6	37	2 24.3	2 24.6	2 17.7	11.1	1.8
38	2 09.5	2 09.9	2 03.6	11.4	1.6	38	2 24.5	2 24.9	2 17.9	11.4	1.8
39	2 09.8	2 10.1	2 03.8	11.7	1.7	39	2 24.8	2 25.1	2 18.2	11.7	1.9
40	2 10.0	2 10.4	2 04.1	12.0	1.7	40	2 25.0	2 25.4	2 18.4	12.0	1.9
41	2 10.3	2 10.6	2 04.3	12.3	1.7	41	2 25.3	2 25.6	2 18.6	12.3	1.9
42	2 10.5	2 10.9	2 04.6	12.6	1.8	42	2 25.5	2 25.9	2 18.9	12.6	2.0
43	2 10.8	2 11.1	2 04.8	12.9	1.8	43	2 25.8	2 26.1	2 19.1	12.9	2.0
44	2 11.0	2 11.4	2 05.0	13.2	1.9	44	2 26.0	2 26.4	2 19.4	13.2	2.1
45	2 11.2	2 11.6	2 05.3	13.5	1.9	45	2 26.2	2 26.6	2 19.6	13.5	2.1
46	2 11.5	2 11.9	2 05.5	13.8	2.0	46	2 26.5	2 26.9	2 19.8	13.8	2.2
47	2 11.7	2 12.1	2 05.8	14.1	2.0	47	2 26.8	2 27.1	2 20.1	14.1	2.2
48	2 12.0	2 12.4	2 06.0	14.4	2.0	48	2 27.0	2 27.4	2 20.3	14.4	2.3
49	2 12.2	2 12.6	2 06.2	14.7	2.1	49	2 27.2	2 27.7	2 20.5	14.7	2.3
50	2 12.5	2 12.9	2 06.5	15.0	2.1	50	2 27.5	2 27.9	2 20.8	15.0	2.4
51	2 12.7	2 13.1	2 06.7	15.3	2.2	51	2 27.7	2 28.2	2 21.0	15.3	2.4
52	2 13.0	2 13.4	2 06.9	15.6	2.2	52	2 28.0	2 28.4	2 21.3	15.6	2.5
53	2 13.2	2 13.6	2 07.2	15.9	2.3	53	2 28.2	2 28.7	2 21.5	15.9	2.5
54	2 13.5	2 13.9	2 07.4	16.2	2.3	54	2 28.5	2 28.9	2 21.7	16.2	2.6
55	2 13.7	2 14.1	2 07.7	16.5	2.3	55	2 28.7	2 29.2	2 22.0	16.5	2.6
56	2 14.0	2 14.4	2 07.9	16.8	2.4	56	2 29.0	2 29.4	2 22.2	16.8	2.7
57	2 14.2	2 14.6	2 08.1	17.1	2.4	57	2 29.2	2 29.7	2 22.5	17.1	2.7
58	2 14.5	2 14.9	2 08.4	17.4	2.5	58	2 29.5	2 29.9	2 22.7	17.4	2.8
59	2 14.7	2 15.1	2 08.6	17.7	2.5	59	2 29.7	2 30.2	2 22.9	17.7	2.8

10 min

Schalttafel

11 min

10 min	Zuwachs Grt			Unt	Vb	11 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	2 30.0	2 30.4	2 23.2	0.0	0.0	0	2 45.0	2 45.4	2 37.5	0.0	0.0
1	2 30.3	2 30.7	2 23.4	0.3	0.1	1	2 45.3	2 45.7	2 37.7	0.3	0.1
2	2 30.5	2 30.9	2 23.7	0.6	0.1	2	2 45.5	2 46.0	2 38.0	0.6	0.1
3	2 30.8	2 31.2	2 23.9	0.9	0.2	3	2 45.8	2 46.2	2 38.2	0.9	0.2
4	2 31.0	2 31.4	2 24.1	1.2	0.2	4	2 46.0	2 46.5	2 38.4	1.2	0.2
5	2 31.3	2 31.7	2 24.4	1.5	0.3	5	2 46.3	2 46.7	2 38.7	1.5	0.3
6	2 31.5	2 31.9	2 24.6	1.8	0.3	6	2 46.5	2 47.0	2 38.9	1.8	0.3
7	2 31.8	2 32.2	2 24.8	2.1	0.4	7	2 46.8	2 47.2	2 39.2	2.1	0.4
8	2 32.0	2 32.4	2 25.1	2.4	0.4	8	2 47.0	2 47.5	2 39.4	2.4	0.5
9	2 32.3	2 32.7	2 25.3	2.7	0.5	9	2 47.3	2 47.7	2 39.6	2.7	0.5
10	2 32.5	2 32.9	2 25.6	3.0	0.5	10	2 47.5	2 48.0	2 39.9	3.0	0.6
11	2 32.8	2 33.2	2 25.8	3.3	0.6	11	2 47.8	2 48.2	2 40.1	3.3	0.6
12	2 33.0	2 33.4	2 26.0	3.6	0.6	12	2 48.0	2 48.5	2 40.4	3.6	0.7
13	2 33.2	2 33.7	2 26.3	3.9	0.7	13	2 48.2	2 48.7	2 40.6	3.9	0.7
14	2 33.5	2 33.9	2 26.5	4.2	0.7	14	2 48.5	2 49.0	2 40.8	4.2	0.8
15	2 33.8	2 34.2	2 26.8	4.5	0.8	15	2 48.8	2 49.2	2 41.1	4.5	0.9
16	2 34.0	2 34.4	2 27.0	4.8	0.8	16	2 49.0	2 49.5	2 41.3	4.8	0.9
17	2 34.2	2 34.7	2 27.2	5.1	0.9	17	2 49.2	2 49.7	2 41.5	5.1	1.0
18	2 34.5	2 34.9	2 27.5	5.4	0.9	18	2 49.5	2 50.0	2 41.8	5.4	1.0
19	2 34.8	2 35.2	2 27.7	5.7	1.0	19	2 49.8	2 50.2	2 42.0	5.7	1.1
20	2 35.0	2 35.4	2 27.9	6.0	1.1	20	2 50.0	2 50.5	2 42.3	6.0	1.2
21	2 35.2	2 35.7	2 28.2	6.3	1.1	21	2 50.2	2 50.7	2 42.5	6.3	1.2
22	2 35.5	2 35.9	2 28.4	6.6	1.2	22	2 50.5	2 51.0	2 42.7	6.6	1.3
23	2 35.7	2 36.2	2 28.7	6.9	1.2	23	2 50.7	2 51.2	2 43.0	6.9	1.3
24	2 36.0	2 36.4	2 28.9	7.2	1.3	24	2 51.0	2 51.5	2 43.2	7.2	1.4
25	2 36.2	2 36.7	2 29.1	7.5	1.3	25	2 51.2	2 51.7	2 43.5	7.5	1.4
26	2 36.5	2 36.9	2 29.4	7.8	1.4	26	2 51.5	2 52.0	2 43.7	7.8	1.5
27	2 36.7	2 37.2	2 29.6	8.1	1.4	27	2 51.7	2 52.2	2 43.9	8.1	1.6
28	2 37.0	2 37.4	2 29.9	8.4	1.5	28	2 52.0	2 52.5	2 44.2	8.4	1.6
29	2 37.2	2 37.7	2 30.1	8.7	1.5	29	2 52.2	2 52.7	2 44.4	8.7	1.7
30	2 37.5	2 37.9	2 30.3	9.0	1.6	30	2 52.5	2 53.0	2 44.6	9.0	1.7
31	2 37.8	2 38.2	2 30.6	9.3	1.6	31	2 52.8	2 53.2	2 44.9	9.3	1.8
32	2 38.0	2 38.4	2 30.8	9.6	1.7	32	2 53.0	2 53.5	2 45.1	9.6	1.8
33	2 38.3	2 38.7	2 31.0	9.9	1.7	33	2 53.3	2 53.7	2 45.4	9.9	1.9
34	2 38.5	2 38.9	2 31.3	10.2	1.8	34	2 53.5	2 54.0	2 45.6	10.2	2.0
35	2 38.8	2 39.2	2 31.5	10.5	1.8	35	2 53.8	2 54.2	2 45.8	10.5	2.0
36	2 39.0	2 39.4	2 31.8	10.8	1.9	36	2 54.0	2 54.5	2 46.1	10.8	2.1
37	2 39.3	2 39.7	2 32.0	11.1	1.9	37	2 54.3	2 54.7	2 46.3	11.1	2.1
38	2 39.5	2 39.9	2 32.2	11.4	2.0	38	2 54.5	2 55.0	2 46.6	11.4	2.2
39	2 39.8	2 40.2	2 32.5	11.7	2.0	39	2 54.8	2 55.2	2 46.8	11.7	2.2
40	2 40.0	2 40.4	2 32.7	12.0	2.1	40	2 55.0	2 55.5	2 47.0	12.0	2.3
41	2 40.2	2 40.7	2 33.0	12.3	2.2	41	2 55.2	2 55.7	2 47.3	12.3	2.4
42	2 40.5	2 40.9	2 33.2	12.6	2.2	42	2 55.5	2 56.0	2 47.5	12.6	2.4
43	2 40.8	2 41.2	2 33.4	12.9	2.3	43	2 55.8	2 56.2	2 47.8	12.9	2.5
44	2 41.0	2 41.4	2 33.7	13.2	2.3	44	2 56.0	2 56.5	2 48.0	13.2	2.5
45	2 41.2	2 41.7	2 33.9	13.5	2.4	45	2 56.2	2 56.7	2 48.2	13.5	2.6
46	2 41.5	2 41.9	2 34.1	13.8	2.4	46	2 56.5	2 57.0	2 48.5	13.8	2.6
47	2 41.8	2 42.2	2 34.4	14.1	2.5	47	2 56.8	2 57.2	2 48.7	14.1	2.7
48	2 42.0	2 42.4	2 34.6	14.4	2.5	48	2 57.0	2 57.5	2 48.9	14.4	2.8
49	2 42.2	2 42.7	2 34.9	14.7	2.6	49	2 57.2	2 57.7	2 49.2	14.7	2.8
50	2 42.5	2 42.9	2 35.1	15.0	2.6	50	2 57.5	2 58.0	2 49.4	15.0	2.9
51	2 42.7	2 43.2	2 35.3	15.3	2.7	51	2 57.7	2 58.2	2 49.7	15.3	2.9
52	2 43.0	2 43.4	2 35.6	15.6	2.7	52	2 58.0	2 58.5	2 49.9	15.6	3.0
53	2 43.2	2 43.7	2 35.8	15.9	2.8	53	2 58.2	2 58.7	2 50.1	15.9	3.0
54	2 43.5	2 43.9	2 36.1	16.2	2.8	54	2 58.5	2 59.0	2 50.4	16.2	3.1
55	2 43.7	2 44.2	2 36.3	16.5	2.9	55	2 58.7	2 59.2	2 50.6	16.5	3.2
56	2 44.0	2 44.4	2 36.5	16.8	2.9	56	2 59.0	2 59.5	2 50.9	16.8	3.2
57	2 44.2	2 44.7	2 36.8	17.1	3.0	57	2 59.2	2 59.7	2 51.1	17.1	3.3
58	2 44.5	2 44.9	2 37.0	17.4	3.0	58	2 59.5	2 60.0	2 51.3	17.4	3.3
59	2 44.7	2 45.2	2 37.3	17.7	3.1	59	2 59.7	3 00.2	2 51.6	17.7	3.4

12 min

Schalttafel

13 min

12 min	Zuwachs Grt			Unt	Vb	13 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	3 00.0	3 00.5	2 51.8	0.0	0.0	0	3 15.0	3 15.5	3 06.1	0.0	0.0
1	3 00.3	3 00.7	2 52.0	0.3	0.1	1	3 15.3	3 15.8	3 06.4	0.3	0.1
2	3 00.5	3 01.0	2 52.3	0.6	0.1	2	3 15.5	3 16.0	3 06.6	0.6	0.1
3	3 00.8	3 01.2	2 52.5	0.9	0.2	3	3 15.8	3 16.3	3 06.8	0.9	0.2
4	3 01.0	3 01.5	2 52.8	1.2	0.3	4	3 16.0	3 16.5	3 07.1	1.2	0.3
5	3 01.3	3 01.7	2 53.0	1.5	0.3	5	3 16.3	3 16.8	3 07.3	1.5	0.3
6	3 01.5	3 02.0	2 53.2	1.8	0.4	6	3 16.5	3 17.0	3 07.6	1.8	0.4
7	3 01.8	3 02.2	2 53.5	2.1	0.4	7	3 16.8	3 17.3	3 07.8	2.1	0.5
8	3 02.0	3 02.5	2 53.7	2.4	0.5	8	3 17.0	3 17.5	3 08.0	2.4	0.5
9	3 02.3	3 02.7	2 54.0	2.7	0.6	9	3 17.3	3 17.8	3 08.3	2.7	0.6
10	3 02.5	3 03.0	2 54.2	3.0	0.6	10	3 17.5	3 18.0	3 08.5	3.0	0.7
11	3 02.8	3 03.2	2 54.4	3.3	0.7	11	3 17.8	3 18.3	3 08.7	3.3	0.7
12	3 03.0	3 03.5	2 54.7	3.6	0.8	12	3 18.0	3 18.5	3 09.0	3.6	0.8
13	3 03.3	3 03.7	2 54.9	3.9	0.8	13	3 18.2	3 18.8	3 09.2	3.9	0.9
14	3 03.5	3 04.0	2 55.1	4.2	0.9	14	3 18.5	3 19.0	3 09.5	4.2	0.9
15	3 03.8	3 04.3	2 55.4	4.5	0.9	15	3 18.8	3 19.3	3 09.7	4.5	1.0
16	3 04.0	3 04.5	2 55.6	4.8	1.0	16	3 19.0	3 19.5	3 09.9	4.8	1.1
17	3 04.2	3 04.8	2 55.9	5.1	1.1	17	3 19.2	3 19.8	3 10.2	5.1	1.1
18	3 04.5	3 05.0	2 56.1	5.4	1.1	18	3 19.5	3 20.0	3 10.4	5.4	1.2
19	3 04.7	3 05.3	2 56.3	5.7	1.2	19	3 19.7	3 20.3	3 10.7	5.7	1.3
20	3 05.0	3 05.5	2 56.6	6.0	1.3	20	3 20.0	3 20.5	3 10.9	6.0	1.4
21	3 05.2	3 05.8	2 56.8	6.3	1.3	21	3 20.2	3 20.8	3 11.1	6.3	1.4
22	3 05.5	3 06.0	2 57.1	6.6	1.4	22	3 20.5	3 21.0	3 11.4	6.6	1.5
23	3 05.7	3 06.3	2 57.3	6.9	1.4	23	3 20.7	3 21.3	3 11.6	6.9	1.6
24	3 06.0	3 06.5	2 57.5	7.2	1.5	24	3 21.0	3 21.5	3 11.9	7.2	1.6
25	3 06.2	3 06.8	2 57.8	7.5	1.6	25	3 21.2	3 21.8	3 12.1	7.5	1.7
26	3 06.5	3 07.0	2 58.0	7.8	1.6	26	3 21.5	3 22.0	3 12.3	7.8	1.8
27	3 06.7	3 07.3	2 58.3	8.1	1.7	27	3 21.7	3 22.3	3 12.6	8.1	1.8
28	3 07.0	3 07.5	2 58.5	8.4	1.8	28	3 22.0	3 22.6	3 12.8	8.4	1.9
29	3 07.2	3 07.8	2 58.7	8.7	1.8	29	3 22.2	3 22.8	3 13.0	8.7	2.0
30	3 07.5	3 08.0	2 59.0	9.0	1.9	30	3 22.5	3 23.1	3 13.3	9.0	2.0
31	3 07.8	3 08.3	2 59.2	9.3	1.9	31	3 22.8	3 23.3	3 13.5	9.3	2.1
32	3 08.0	3 08.5	2 59.4	9.6	2.0	32	3 23.0	3 23.6	3 13.8	9.6	2.2
33	3 08.3	3 08.8	2 59.7	9.9	2.1	33	3 23.3	3 23.8	3 14.0	9.9	2.2
34	3 08.5	3 09.0	2 59.9	10.2	2.1	34	3 23.5	3 24.1	3 14.2	10.2	2.3
35	3 08.8	3 09.3	3 00.2	10.5	2.2	35	3 23.8	3 24.3	3 14.5	10.5	2.4
36	3 09.0	3 09.5	3 00.4	10.8	2.3	36	3 24.0	3 24.6	3 14.7	10.8	2.4
37	3 09.3	3 09.8	3 00.6	11.1	2.3	37	3 24.3	3 24.8	3 15.0	11.1	2.5
38	3 09.5	3 10.0	3 00.9	11.4	2.4	38	3 24.5	3 25.1	3 15.2	11.4	2.6
39	3 09.8	3 10.3	3 01.1	11.7	2.4	39	3 24.8	3 25.3	3 15.4	11.7	2.6
40	3 10.0	3 10.5	3 01.4	12.0	2.5	40	3 25.0	3 25.6	3 15.7	12.0	2.7
41	3 10.3	3 10.8	3 01.6	12.3	2.6	41	3 25.3	3 25.8	3 15.9	12.3	2.8
42	3 10.5	3 11.0	3 01.8	12.6	2.6	42	3 25.5	3 26.1	3 16.1	12.6	2.8
43	3 10.8	3 11.3	3 02.1	12.9	2.7	43	3 25.8	3 26.3	3 16.4	12.9	2.9
44	3 11.0	3 11.5	3 02.3	13.2	2.8	44	3 26.0	3 26.6	3 16.6	13.2	3.0
45	3 11.2	3 11.8	3 02.5	13.5	2.8	45	3 26.2	3 26.8	3 16.9	13.5	3.0
46	3 11.5	3 12.0	3 02.8	13.8	2.9	46	3 26.5	3 27.1	3 17.1	13.8	3.1
47	3 11.7	3 12.3	3 03.0	14.1	2.9	47	3 26.8	3 27.3	3 17.3	14.1	3.2
48	3 12.0	3 12.5	3 03.3	14.4	3.0	48	3 27.0	3 27.6	3 17.6	14.4	3.2
49	3 12.2	3 12.8	3 03.5	14.7	3.1	49	3 27.2	3 27.8	3 17.8	14.7	3.3
50	3 12.5	3 13.0	3 03.7	15.0	3.1	50	3 27.5	3 28.1	3 18.1	15.0	3.4
51	3 12.7	3 13.3	3 04.0	15.3	3.2	51	3 27.7	3 28.3	3 18.3	15.3	3.4
52	3 13.0	3 13.5	3 04.2	15.6	3.3	52	3 28.0	3 28.6	3 18.5	15.6	3.5
53	3 13.2	3 13.8	3 04.5	15.9	3.3	53	3 28.2	3 28.8	3 18.8	15.9	3.6
54	3 13.5	3 14.0	3 04.7	16.2	3.4	54	3 28.5	3 29.1	3 19.0	16.2	3.6
55	3 13.7	3 14.3	3 04.9	16.5	3.4	55	3 28.7	3 29.3	3 19.2	16.5	3.7
56	3 14.0	3 14.5	3 05.2	16.8	3.5	56	3 29.0	3 29.6	3 19.5	16.8	3.8
57	3 14.2	3 14.8	3 05.4	17.1	3.6	57	3 29.2	3 29.8	3 19.7	17.1	3.8
58	3 14.5	3 15.0	3 05.6	17.4	3.6	58	3 29.5	3 30.1	3 20.0	17.4	3.9
59	3 14.7	3 15.3	3 05.9	17.7	3.7	59	3 29.7	3 30.3	3 20.2	17.7	4.0

14 min

Schalttafel

15 min

14 min	Zuwachs Grt			Unt	Vb	15 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' ,	° ' ,	° ' ,	' ,	' ,	s	° ' ,	° ' ,	° ' ,	' ,	' ,
0	3 30.0	3 30.6	3 20.4	0.0	0.0	0	3 45.0	3 45.6	3 34.8	0.0	0.0
1	3 30.3	3 30.8	3 20.7	0.3	0.1	1	3 45.2	3 45.9	3 35.0	0.3	0.1
2	3 30.5	3 31.1	3 20.9	0.6	0.1	2	3 45.5	3 46.1	3 35.2	0.6	0.2
3	3 30.8	3 31.3	3 21.2	0.9	0.2	3	3 45.8	3 46.4	3 35.5	0.9	0.2
4	3 31.0	3 31.6	3 21.4	1.2	0.3	4	3 46.0	3 46.6	3 35.7	1.2	0.3
5	3 31.3	3 31.8	3 21.6	1.5	0.4	5	3 46.2	3 46.9	3 36.0	1.5	0.4
6	3 31.5	3 32.1	3 21.9	1.8	0.4	6	3 46.5	3 47.1	3 36.2	1.8	0.5
7	3 31.8	3 32.3	3 22.1	2.1	0.5	7	3 46.8	3 47.4	3 36.4	2.1	0.5
8	3 32.0	3 32.6	3 22.4	2.4	0.6	8	3 47.0	3 47.6	3 36.7	2.4	0.6
9	3 32.3	3 32.8	3 22.6	2.7	0.7	9	3 47.3	3 47.9	3 36.9	2.7	0.7
10	3 32.5	3 33.1	3 22.8	3.0	0.7	10	3 47.5	3 48.1	3 37.1	3.0	0.8
11	3 32.8	3 33.3	3 23.1	3.3	0.8	11	3 47.7	3 48.4	3 37.4	3.3	0.9
12	3 33.0	3 33.6	3 23.3	3.6	0.9	12	3 48.0	3 48.6	3 37.6	3.6	0.9
13	3 33.2	3 33.8	3 23.5	3.9	0.9	13	3 48.2	3 48.9	3 37.9	3.9	1.0
14	3 33.5	3 34.1	3 23.8	4.2	1.0	14	3 48.5	3 49.1	3 38.1	4.2	1.1
15	3 33.8	3 34.3	3 24.0	4.5	1.1	15	3 48.8	3 49.4	3 38.3	4.5	1.2
16	3 34.0	3 34.6	3 24.3	4.8	1.2	16	3 49.0	3 49.6	3 38.6	4.8	1.2
17	3 34.2	3 34.8	3 24.5	5.1	1.2	17	3 49.3	3 49.9	3 38.8	5.1	1.3
18	3 34.5	3 35.1	3 24.7	5.4	1.3	18	3 49.5	3 50.1	3 39.1	5.4	1.4
19	3 34.8	3 35.3	3 25.0	5.7	1.4	19	3 49.8	3 50.4	3 39.3	5.7	1.5
20	3 35.0	3 35.6	3 25.2	6.0	1.5	20	3 50.0	3 50.6	3 39.5	6.0	1.6
21	3 35.2	3 35.8	3 25.5	6.3	1.5	21	3 50.2	3 50.9	3 39.8	6.3	1.6
22	3 35.5	3 36.1	3 25.7	6.6	1.6	22	3 50.5	3 51.1	3 40.0	6.6	1.7
23	3 35.7	3 36.3	3 25.9	6.9	1.7	23	3 50.7	3 51.4	3 40.2	6.9	1.8
24	3 36.0	3 36.6	3 26.2	7.2	1.7	24	3 51.0	3 51.6	3 40.5	7.2	1.9
25	3 36.2	3 36.8	3 26.4	7.5	1.8	25	3 51.2	3 51.9	3 40.7	7.5	1.9
26	3 36.5	3 37.1	3 26.6	7.8	1.9	26	3 51.5	3 52.1	3 41.0	7.8	2.0
27	3 36.7	3 37.3	3 26.9	8.1	2.0	27	3 51.8	3 52.4	3 41.2	8.1	2.1
28	3 37.0	3 37.6	3 27.1	8.4	2.0	28	3 52.0	3 52.6	3 41.4	8.4	2.2
29	3 37.2	3 37.8	3 27.4	8.7	2.1	29	3 52.2	3 52.9	3 41.7	8.7	2.2
30	3 37.5	3 38.1	3 27.6	9.0	2.2	30	3 52.5	3 53.1	3 41.9	9.0	2.3
31	3 37.8	3 38.3	3 27.8	9.3	2.2	31	3 52.8	3 53.4	3 42.2	9.3	2.4
32	3 38.0	3 38.6	3 28.1	9.6	2.3	32	3 53.0	3 53.6	3 42.4	9.6	2.5
33	3 38.3	3 38.8	3 28.3	9.9	2.4	33	3 53.2	3 53.9	3 42.6	9.9	2.6
34	3 38.5	3 39.1	3 28.6	10.2	2.5	34	3 53.5	3 54.1	3 42.9	10.2	2.6
35	3 38.8	3 39.3	3 28.8	10.5	2.5	35	3 53.8	3 54.4	3 43.1	10.5	2.7
36	3 39.0	3 39.6	3 29.0	10.8	2.6	36	3 54.0	3 54.6	3 43.4	10.8	2.8
37	3 39.3	3 39.8	3 29.3	11.1	2.7	37	3 54.3	3 54.9	3 43.6	11.1	2.9
38	3 39.5	3 40.1	3 29.5	11.4	2.8	38	3 54.5	3 55.1	3 43.8	11.4	2.9
39	3 39.8	3 40.3	3 29.7	11.7	2.8	39	3 54.8	3 55.4	3 44.1	11.7	3.0
40	3 40.0	3 40.6	3 30.0	12.0	2.9	40	3 55.0	3 55.6	3 44.3	12.0	3.1
41	3 40.2	3 40.8	3 30.2	12.3	3.0	41	3 55.2	3 55.9	3 44.5	12.3	3.2
42	3 40.5	3 41.1	3 30.5	12.6	3.0	42	3 55.5	3 56.1	3 44.8	12.6	3.3
43	3 40.8	3 41.4	3 30.7	12.9	3.1	43	3 55.7	3 56.4	3 45.0	12.9	3.3
44	3 41.0	3 41.6	3 30.9	13.2	3.2	44	3 56.0	3 56.6	3 45.3	13.2	3.4
45	3 41.2	3 41.9	3 31.2	13.5	3.3	45	3 56.2	3 56.9	3 45.5	13.5	3.5
46	3 41.5	3 42.1	3 31.4	13.8	3.3	46	3 56.5	3 57.1	3 45.7	13.8	3.6
47	3 41.8	3 42.4	3 31.7	14.1	3.4	47	3 56.8	3 57.4	3 46.0	14.1	3.6
48	3 42.0	3 42.6	3 31.9	14.4	3.5	48	3 57.0	3 57.6	3 46.2	14.4	3.7
49	3 42.2	3 42.9	3 32.1	14.7	3.6	49	3 57.3	3 57.9	3 46.5	14.7	3.8
50	3 42.5	3 43.1	3 32.4	15.0	3.6	50	3 57.5	3 58.1	3 46.7	15.0	3.9
51	3 42.7	3 43.4	3 32.6	15.3	3.7	51	3 57.7	3 58.4	3 46.9	15.3	4.0
52	3 43.0	3 43.6	3 32.9	15.6	3.8	52	3 58.0	3 58.6	3 47.2	15.6	4.0
53	3 43.2	3 43.9	3 33.1	15.9	3.8	53	3 58.2	3 58.9	3 47.4	15.9	4.1
54	3 43.5	3 44.1	3 33.3	16.2	3.9	54	3 58.5	3 59.1	3 47.6	16.2	4.2
55	3 43.7	3 44.4	3 33.6	16.5	4.0	55	3 58.7	3 59.4	3 47.9	16.5	4.3
56	3 44.0	3 44.6	3 33.8	16.8	4.1	56	3 59.0	3 59.7	3 48.1	16.8	4.3
57	3 44.2	3 44.9	3 34.0	17.1	4.1	57	3 59.2	3 59.9	3 48.4	17.1	4.4
58	3 44.5	3 45.1	3 34.3	17.4	4.2	58	3 59.5	4 00.2	3 48.6	17.4	4.5
59	3 44.7	3 45.4	3 34.5	17.7	4.3	59	3 59.8	4 00.4	3 48.8	17.7	4.6

16 min

Schalttafel

17 min

16 min	Zuwachs Grt			Unt	Vb	17 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	4 00.0	4 00.7	3 49.1	0.0	0.0	0	4 15.0	4 15.7	4 03.4	0.0	0.0
1	4 00.2	4 00.9	3 49.3	0.3	0.1	1	4 15.2	4 15.9	4 03.6	0.3	0.1
2	4 00.5	4 01.2	3 49.6	0.6	0.2	2	4 15.5	4 16.2	4 03.9	0.6	0.2
3	4 00.8	4 01.4	3 49.8	0.9	0.2	3	4 15.8	4 16.4	4 04.1	0.9	0.3
4	4 01.0	4 01.7	3 50.0	1.2	0.3	4	4 16.0	4 16.7	4 04.3	1.2	0.4
5	4 01.2	4 01.9	3 50.3	1.5	0.4	5	4 16.2	4 16.9	4 04.6	1.5	0.4
6	4 01.5	4 02.2	3 50.5	1.8	0.5	6	4 16.5	4 17.2	4 04.8	1.8	0.5
7	4 01.8	4 02.4	3 50.7	2.1	0.6	7	4 16.8	4 17.4	4 05.1	2.1	0.6
8	4 02.0	4 02.7	3 51.0	2.4	0.7	8	4 17.0	4 17.7	4 05.3	2.4	0.7
9	4 02.2	4 02.9	3 51.2	2.7	0.7	9	4 17.2	4 18.0	4 05.5	2.7	0.8
10	4 02.5	4 03.2	3 51.5	3.0	0.8	10	4 17.5	4 18.2	4 05.8	3.0	0.9
11	4 02.8	4 03.4	3 51.7	3.3	0.9	11	4 17.8	4 18.5	4 06.0	3.3	1.0
12	4 03.0	4 03.7	3 51.9	3.6	1.0	12	4 18.0	4 18.7	4 06.3	3.6	1.1
13	4 03.2	4 03.9	3 52.2	3.9	1.1	13	4 18.2	4 19.0	4 06.5	3.9	1.1
14	4 03.5	4 04.2	3 52.4	4.2	1.2	14	4 18.5	4 19.2	4 06.7	4.2	1.2
15	4 03.8	4 04.4	3 52.7	4.5	1.2	15	4 18.8	4 19.5	4 07.0	4.5	1.3
16	4 04.0	4 04.7	3 52.9	4.8	1.3	16	4 19.0	4 19.7	4 07.2	4.8	1.4
17	4 04.3	4 04.9	3 53.1	5.1	1.4	17	4 19.3	4 20.0	4 07.5	5.1	1.5
18	4 04.5	4 05.2	3 53.4	5.4	1.5	18	4 19.5	4 20.2	4 07.7	5.4	1.6
19	4 04.7	4 05.4	3 53.6	5.7	1.6	19	4 19.7	4 20.5	4 07.9	5.7	1.7
20	4 05.0	4 05.7	3 53.8	6.0	1.7	20	4 20.0	4 20.7	4 08.2	6.0	1.8
21	4 05.3	4 05.9	3 54.1	6.3	1.7	21	4 20.3	4 21.0	4 08.4	6.3	1.8
22	4 05.5	4 06.2	3 54.3	6.6	1.8	22	4 20.5	4 21.2	4 08.6	6.6	1.9
23	4 05.7	4 06.4	3 54.6	6.9	1.9	23	4 20.7	4 21.5	4 08.9	6.9	2.0
24	4 06.0	4 06.7	3 54.8	7.2	2.0	24	4 21.0	4 21.7	4 09.1	7.2	2.1
25	4 06.3	4 06.9	3 55.0	7.5	2.1	25	4 21.3	4 22.0	4 09.4	7.5	2.2
26	4 06.5	4 07.2	3 55.3	7.8	2.1	26	4 21.5	4 22.2	4 09.6	7.8	2.3
27	4 06.7	4 07.4	3 55.5	8.1	2.2	27	4 21.7	4 22.5	4 09.8	8.1	2.4
28	4 07.0	4 07.7	3 55.8	8.4	2.3	28	4 22.0	4 22.7	4 10.1	8.4	2.5
29	4 07.3	4 07.9	3 56.0	8.7	2.4	29	4 22.3	4 23.0	4 10.3	8.7	2.5
30	4 07.5	4 08.2	3 56.2	9.0	2.5	30	4 22.5	4 23.2	4 10.6	9.0	2.6
31	4 07.7	4 08.4	3 56.5	9.3	2.6	31	4 22.7	4 23.5	4 10.8	9.3	2.7
32	4 08.0	4 08.7	3 56.7	9.6	2.6	32	4 23.0	4 23.7	4 11.0	9.6	2.8
33	4 08.3	4 08.9	3 57.0	9.9	2.7	33	4 23.3	4 24.0	4 11.3	9.9	2.9
34	4 08.5	4 09.2	3 57.2	10.2	2.8	34	4 23.5	4 24.2	4 11.5	10.2	3.0
35	4 08.7	4 09.4	3 57.4	10.5	2.9	35	4 23.7	4 24.5	4 11.7	10.5	3.1
36	4 09.0	4 09.7	3 57.7	10.8	3.0	36	4 24.0	4 24.7	4 12.0	10.8	3.2
37	4 09.3	4 09.9	3 57.9	11.1	3.1	37	4 24.3	4 25.0	4 12.2	11.1	3.2
38	4 09.5	4 10.2	3 58.1	11.4	3.1	38	4 24.5	4 25.2	4 12.5	11.4	3.3
39	4 09.7	4 10.4	3 58.4	11.7	3.2	39	4 24.7	4 25.5	4 12.7	11.7	3.4
40	4 10.0	4 10.7	3 58.6	12.0	3.3	40	4 25.0	4 25.7	4 12.9	12.0	3.5
41	4 10.3	4 10.9	3 58.9	12.3	3.4	41	4 25.3	4 26.0	4 13.2	12.3	3.6
42	4 10.5	4 11.2	3 59.1	12.6	3.5	42	4 25.5	4 26.2	4 13.4	12.6	3.7
43	4 10.7	4 11.4	3 59.3	12.9	3.5	43	4 25.7	4 26.5	4 13.7	12.9	3.8
44	4 11.0	4 11.7	3 59.6	13.2	3.6	44	4 26.0	4 26.7	4 13.9	13.2	3.9
45	4 11.2	4 11.9	3 59.8	13.5	3.7	45	4 26.2	4 27.0	4 14.1	13.5	3.9
46	4 11.5	4 12.2	4 00.1	13.8	3.8	46	4 26.5	4 27.2	4 14.4	13.8	4.0
47	4 11.8	4 12.4	4 00.3	14.1	3.9	47	4 26.8	4 27.5	4 14.6	14.1	4.1
48	4 12.0	4 12.7	4 00.5	14.4	4.0	48	4 27.0	4 27.7	4 14.8	14.4	4.2
49	4 12.2	4 12.9	4 00.8	14.7	4.0	49	4 27.2	4 28.0	4 15.1	14.7	4.3
50	4 12.5	4 13.2	4 01.0	15.0	4.1	50	4 27.5	4 28.2	4 15.3	15.0	4.4
51	4 12.8	4 13.4	4 01.2	15.3	4.2	51	4 27.8	4 28.5	4 15.6	15.3	4.5
52	4 13.0	4 13.7	4 01.5	15.6	4.3	52	4 28.0	4 28.7	4 15.8	15.6	4.6
53	4 13.2	4 13.9	4 01.7	15.9	4.4	53	4 28.2	4 29.0	4 16.0	15.9	4.6
54	4 13.5	4 14.2	4 02.0	16.2	4.5	54	4 28.5	4 29.2	4 16.3	16.2	4.7
55	4 13.8	4 14.4	4 02.2	16.5	4.5	55	4 28.8	4 29.5	4 16.5	16.5	4.8
56	4 14.0	4 14.7	4 02.4	16.8	4.6	56	4 29.0	4 29.7	4 16.8	16.8	4.9
57	4 14.2	4 14.9	4 02.7	17.1	4.7	57	4 29.2	4 30.0	4 17.0	17.1	5.0
58	4 14.5	4 15.2	4 02.9	17.4	4.8	58	4 29.5	4 30.2	4 17.2	17.4	5.1
59	4 14.8	4 15.4	4 03.2	17.7	4.9	59	4 29.8	4 30.5	4 17.5	17.7	5.2

18 min

Schalttafel

19 min

18 min	Zuwachs Grt			Unt	Vb	19 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' ,	° ' ,	° ' ,	' ,	' ,	s	° ' ,	° ' ,	° ' ,	' ,	' ,
0	4 30.0	4 30.7	4 17.7	0.0	0.0	0	4 45.0	4 45.8	4 32.0	0.0	0.0
1	4 30.2	4 31.0	4 18.0	0.3	0.1	1	4 45.2	4 46.0	4 32.3	0.3	0.1
2	4 30.5	4 31.2	4 18.2	0.6	0.2	2	4 45.5	4 46.3	4 32.5	0.6	0.2
3	4 30.8	4 31.5	4 18.4	0.9	0.3	3	4 45.8	4 46.5	4 32.7	0.9	0.3
4	4 31.0	4 31.7	4 18.7	1.2	0.4	4	4 46.0	4 46.8	4 33.0	1.2	0.4
5	4 31.2	4 32.0	4 18.9	1.5	0.5	5	4 46.2	4 47.0	4 33.2	1.5	0.5
6	4 31.5	4 32.2	4 19.1	1.8	0.6	6	4 46.5	4 47.3	4 33.5	1.8	0.6
7	4 31.8	4 32.5	4 19.4	2.1	0.6	7	4 46.8	4 47.5	4 33.7	2.1	0.7
8	4 32.0	4 32.7	4 19.6	2.4	0.7	8	4 47.0	4 47.8	4 33.9	2.4	0.8
9	4 32.2	4 33.0	4 19.9	2.7	0.8	9	4 47.2	4 48.0	4 34.2	2.7	0.9
10	4 32.5	4 33.2	4 20.1	3.0	0.9	10	4 47.5	4 48.3	4 34.4	3.0	1.0
11	4 32.8	4 33.5	4 20.3	3.3	1.0	11	4 47.8	4 48.5	4 34.7	3.3	1.1
12	4 33.0	4 33.7	4 20.6	3.6	1.1	12	4 48.0	4 48.8	4 34.9	3.6	1.2
13	4 33.2	4 34.0	4 20.8	3.9	1.2	13	4 48.2	4 49.0	4 35.1	3.9	1.3
14	4 33.5	4 34.2	4 21.1	4.2	1.3	14	4 48.5	4 49.3	4 35.4	4.2	1.4
15	4 33.8	4 34.5	4 21.3	4.5	1.4	15	4 48.8	4 49.5	4 35.6	4.5	1.5
16	4 34.0	4 34.7	4 21.5	4.8	1.5	16	4 49.0	4 49.8	4 35.8	4.8	1.6
17	4 34.3	4 35.0	4 21.8	5.1	1.6	17	4 49.3	4 50.0	4 36.1	5.1	1.7
18	4 34.5	4 35.2	4 22.0	5.4	1.7	18	4 49.5	4 50.3	4 36.3	5.4	1.8
19	4 34.8	4 35.5	4 22.2	5.7	1.8	19	4 49.8	4 50.5	4 36.6	5.7	1.9
20	4 35.0	4 35.7	4 22.5	6.0	1.9	20	4 50.0	4 50.8	4 36.8	6.0	2.0
21	4 35.3	4 36.0	4 22.7	6.3	1.9	21	4 50.3	4 51.0	4 37.0	6.3	2.0
22	4 35.5	4 36.3	4 23.0	6.6	2.0	22	4 50.5	4 51.3	4 37.3	6.6	2.1
23	4 35.7	4 36.5	4 23.2	6.9	2.1	23	4 50.7	4 51.5	4 37.5	6.9	2.2
24	4 36.0	4 36.8	4 23.4	7.2	2.2	24	4 51.0	4 51.8	4 37.8	7.2	2.3
25	4 36.3	4 37.0	4 23.7	7.5	2.3	25	4 51.3	4 52.0	4 38.0	7.5	2.4
26	4 36.5	4 37.3	4 23.9	7.8	2.4	26	4 51.5	4 52.3	4 38.2	7.8	2.5
27	4 36.7	4 37.5	4 24.2	8.1	2.5	27	4 51.7	4 52.5	4 38.5	8.1	2.6
28	4 37.0	4 37.8	4 24.4	8.4	2.6	28	4 52.0	4 52.8	4 38.7	8.4	2.7
29	4 37.3	4 38.0	4 24.6	8.7	2.7	29	4 52.3	4 53.0	4 38.9	8.7	2.8
30	4 37.5	4 38.3	4 24.9	9.0	2.8	30	4 52.5	4 53.3	4 39.2	9.0	2.9
31	4 37.7	4 38.5	4 25.1	9.3	2.9	31	4 52.7	4 53.5	4 39.4	9.3	3.0
32	4 38.0	4 38.8	4 25.3	9.6	3.0	32	4 53.0	4 53.8	4 39.7	9.6	3.1
33	4 38.3	4 39.0	4 25.6	9.9	3.1	33	4 53.3	4 54.0	4 39.9	9.9	3.2
34	4 38.5	4 39.3	4 25.8	10.2	3.1	34	4 53.5	4 54.3	4 40.1	10.2	3.3
35	4 38.7	4 39.5	4 26.1	10.5	3.2	35	4 53.7	4 54.5	4 40.4	10.5	3.4
36	4 39.0	4 39.8	4 26.3	10.8	3.3	36	4 54.0	4 54.8	4 40.6	10.8	3.5
37	4 39.3	4 40.0	4 26.5	11.1	3.4	37	4 54.3	4 55.1	4 40.9	11.1	3.6
38	4 39.5	4 40.3	4 26.8	11.4	3.5	38	4 54.5	4 55.3	4 41.1	11.4	3.7
39	4 39.7	4 40.5	4 27.0	11.7	3.6	39	4 54.7	4 55.6	4 41.3	11.7	3.8
40	4 40.0	4 40.8	4 27.3	12.0	3.7	40	4 55.0	4 55.8	4 41.6	12.0	3.9
41	4 40.2	4 41.0	4 27.5	12.3	3.8	41	4 55.2	4 56.1	4 41.8	12.3	4.0
42	4 40.5	4 41.3	4 27.7	12.6	3.9	42	4 55.5	4 56.3	4 42.1	12.6	4.1
43	4 40.7	4 41.5	4 28.0	12.9	4.0	43	4 55.7	4 56.6	4 42.3	12.9	4.2
44	4 41.0	4 41.8	4 28.2	13.2	4.1	44	4 56.0	4 56.8	4 42.5	13.2	4.3
45	4 41.2	4 42.0	4 28.4	13.5	4.2	45	4 56.2	4 57.1	4 42.8	13.5	4.4
46	4 41.5	4 42.3	4 28.7	13.8	4.3	46	4 56.5	4 57.3	4 43.0	13.8	4.5
47	4 41.8	4 42.5	4 28.9	14.1	4.3	47	4 56.8	4 57.6	4 43.2	14.1	4.6
48	4 42.0	4 42.8	4 29.2	14.4	4.4	48	4 57.0	4 57.8	4 43.5	14.4	4.7
49	4 42.2	4 43.0	4 29.4	14.7	4.5	49	4 57.2	4 58.1	4 43.7	14.7	4.8
50	4 42.5	4 43.3	4 29.6	15.0	4.6	50	4 57.5	4 58.3	4 44.0	15.0	4.9
51	4 42.8	4 43.5	4 29.9	15.3	4.7	51	4 57.8	4 58.6	4 44.2	15.3	5.0
52	4 43.0	4 43.8	4 30.1	15.6	4.8	52	4 58.0	4 58.8	4 44.4	15.6	5.1
53	4 43.2	4 44.0	4 30.4	15.9	4.9	53	4 58.2	4 59.1	4 44.7	15.9	5.2
54	4 43.5	4 44.3	4 30.6	16.2	5.0	54	4 58.5	4 59.3	4 44.9	16.2	5.3
55	4 43.8	4 44.5	4 30.8	16.5	5.1	55	4 58.8	4 59.6	4 45.2	16.5	5.4
56	4 44.0	4 44.8	4 31.1	16.8	5.2	56	4 59.0	4 59.8	4 45.4	16.8	5.5
57	4 44.2	4 45.0	4 31.3	17.1	5.3	57	4 59.2	5 00.1	4 45.6	17.1	5.6
58	4 44.5	4 45.3	4 31.6	17.4	5.4	58	4 59.5	5 00.3	4 45.9	17.4	5.7
59	4 44.8	4 45.5	4 31.8	17.7	5.5	59	4 59.8	5 00.6	4 46.1	17.7	5.8

20 min

Schalttafel

21 min

20 min	Zuwachs Grt			Unt	Vb	21 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	5 00.0	5 00.8	4 46.3	0.0	0.0	0	5 15.0	5 15.9	5 00.7	0.0	0.0
1	5 00.2	5 01.1	4 46.6	0.3	0.1	1	5 15.2	5 16.1	5 00.9	0.3	0.1
2	5 00.5	5 01.3	4 46.8	0.6	0.2	2	5 15.5	5 16.4	5 01.1	0.6	0.2
3	5 00.8	5 01.6	4 47.1	0.9	0.3	3	5 15.8	5 16.6	5 01.4	0.9	0.3
4	5 01.0	5 01.8	4 47.3	1.2	0.4	4	5 16.0	5 16.9	5 01.6	1.2	0.4
5	5 01.2	5 02.1	4 47.5	1.5	0.5	5	5 16.2	5 17.1	5 01.9	1.5	0.5
6	5 01.5	5 02.3	4 47.8	1.8	0.6	6	5 16.5	5 17.4	5 02.1	1.8	0.6
7	5 01.8	5 02.6	4 48.0	2.1	0.7	7	5 16.8	5 17.6	5 02.3	2.1	0.8
8	5 02.0	5 02.8	4 48.3	2.4	0.8	8	5 17.0	5 17.9	5 02.6	2.4	0.9
9	5 02.2	5 03.1	4 48.5	2.7	0.9	9	5 17.2	5 18.1	5 02.8	2.7	1.0
10	5 02.5	5 03.3	4 48.7	3.0	1.0	10	5 17.5	5 18.4	5 03.0	3.0	1.1
11	5 02.8	5 03.6	4 49.0	3.3	1.1	11	5 17.8	5 18.6	5 03.3	3.3	1.2
12	5 03.0	5 03.8	4 49.2	3.6	1.2	12	5 18.0	5 18.9	5 03.5	3.6	1.3
13	5 03.2	5 04.1	4 49.4	3.9	1.3	13	5 18.2	5 19.1	5 03.8	3.9	1.4
14	5 03.5	5 04.3	4 49.7	4.2	1.4	14	5 18.5	5 19.4	5 04.0	4.2	1.5
15	5 03.8	5 04.6	4 49.9	4.5	1.5	15	5 18.8	5 19.6	5 04.2	4.5	1.6
16	5 04.0	5 04.8	4 50.2	4.8	1.6	16	5 19.0	5 19.9	5 04.5	4.8	1.7
17	5 04.3	5 05.1	4 50.4	5.1	1.7	17	5 19.3	5 20.1	5 04.7	5.1	1.8
18	5 04.5	5 05.3	4 50.6	5.4	1.8	18	5 19.5	5 20.4	5 05.0	5.4	1.9
19	5 04.7	5 05.6	4 50.9	5.7	1.9	19	5 19.7	5 20.6	5 05.2	5.7	2.0
20	5 05.0	5 05.8	4 51.1	6.0	2.1	20	5 20.0	5 20.9	5 05.4	6.0	2.2
21	5 05.3	5 06.1	4 51.4	6.3	2.2	21	5 20.3	5 21.1	5 05.7	6.3	2.3
22	5 05.5	5 06.3	4 51.6	6.6	2.3	22	5 20.5	5 21.4	5 05.9	6.6	2.4
23	5 05.7	5 06.6	4 51.8	6.9	2.4	23	5 20.7	5 21.6	5 06.2	6.9	2.5
24	5 06.0	5 06.8	4 52.1	7.2	2.5	24	5 21.0	5 21.9	5 06.4	7.2	2.6
25	5 06.3	5 07.1	4 52.3	7.5	2.6	25	5 21.3	5 22.1	5 06.6	7.5	2.7
26	5 06.5	5 07.3	4 52.6	7.8	2.7	26	5 21.5	5 22.4	5 06.9	7.8	2.8
27	5 06.7	5 07.6	4 52.8	8.1	2.8	27	5 21.7	5 22.6	5 07.1	8.1	2.9
28	5 07.0	5 07.8	4 53.0	8.4	2.9	28	5 22.0	5 22.9	5 07.3	8.4	3.0
29	5 07.3	5 08.1	4 53.3	8.7	3.0	29	5 22.3	5 23.1	5 07.6	8.7	3.1
30	5 07.5	5 08.3	4 53.5	9.0	3.1	30	5 22.5	5 23.4	5 07.8	9.0	3.2
31	5 07.7	5 08.6	4 53.7	9.3	3.2	31	5 22.7	5 23.6	5 08.1	9.3	3.3
32	5 08.0	5 08.8	4 54.0	9.6	3.3	32	5 23.0	5 23.9	5 08.3	9.6	3.4
33	5 08.3	5 09.1	4 54.2	9.9	3.4	33	5 23.3	5 24.1	5 08.5	9.9	3.5
34	5 08.5	5 09.3	4 54.5	10.2	3.5	34	5 23.5	5 24.4	5 08.8	10.2	3.7
35	5 08.7	5 09.6	4 54.7	10.5	3.6	35	5 23.7	5 24.6	5 09.0	10.5	3.8
36	5 09.0	5 09.8	4 54.9	10.8	3.7	36	5 24.0	5 24.9	5 09.3	10.8	3.9
37	5 09.3	5 10.1	4 55.2	11.1	3.8	37	5 24.3	5 25.1	5 09.5	11.1	4.0
38	5 09.5	5 10.3	4 55.4	11.4	3.9	38	5 24.5	5 25.4	5 09.7	11.4	4.1
39	5 09.7	5 10.6	4 55.7	11.7	4.0	39	5 24.7	5 25.6	5 10.0	11.7	4.2
40	5 10.0	5 10.8	4 55.9	12.0	4.1	40	5 25.0	5 25.9	5 10.2	12.0	4.3
41	5 10.3	5 11.1	4 56.1	12.3	4.2	41	5 25.3	5 26.1	5 10.4	12.3	4.4
42	5 10.5	5 11.3	4 56.4	12.6	4.3	42	5 25.5	5 26.4	5 10.7	12.6	4.5
43	5 10.7	5 11.6	4 56.6	12.9	4.4	43	5 25.7	5 26.6	5 10.9	12.9	4.6
44	5 11.0	5 11.8	4 56.8	13.2	4.5	44	5 26.0	5 26.9	5 11.2	13.2	4.7
45	5 11.2	5 12.1	4 57.1	13.5	4.6	45	5 26.2	5 27.1	5 11.4	13.5	4.8
46	5 11.5	5 12.3	4 57.3	13.8	4.7	46	5 26.5	5 27.4	5 11.6	13.8	4.9
47	5 11.8	5 12.6	4 57.6	14.1	4.8	47	5 26.8	5 27.6	5 11.9	14.1	5.1
48	5 12.0	5 12.8	4 57.8	14.4	4.9	48	5 27.0	5 27.9	5 12.1	14.4	5.2
49	5 12.2	5 13.1	4 58.0	14.7	5.0	49	5 27.2	5 28.1	5 12.4	14.7	5.3
50	5 12.5	5 13.4	4 58.3	15.0	5.1	50	5 27.5	5 28.4	5 12.6	15.0	5.4
51	5 12.8	5 13.6	4 58.5	15.3	5.2	51	5 27.8	5 28.6	5 12.8	15.3	5.5
52	5 13.0	5 13.9	4 58.8	15.6	5.3	52	5 28.0	5 28.9	5 13.1	15.6	5.6
53	5 13.2	5 14.1	4 59.0	15.9	5.4	53	5 28.2	5 29.1	5 13.3	15.9	5.7
54	5 13.5	5 14.4	4 59.2	16.2	5.5	54	5 28.5	5 29.4	5 13.5	16.2	5.8
55	5 13.8	5 14.6	4 59.5	16.5	5.6	55	5 28.8	5 29.6	5 13.8	16.5	5.9
56	5 14.0	5 14.9	4 59.7	16.8	5.7	56	5 29.0	5 29.9	5 14.0	16.8	6.0
57	5 14.2	5 15.1	4 59.9	17.1	5.8	57	5 29.2	5 30.1	5 14.3	17.1	6.1
58	5 14.5	5 15.4	5 00.2	17.4	5.9	58	5 29.5	5 30.4	5 14.5	17.4	6.2
59	5 14.8	5 15.6	5 00.4	17.7	6.0	59	5 29.8	5 30.6	5 14.7	17.7	6.3

22 min

Schalttafel

23 min

22 min	Zuwachs Grt			Unt	Vb	23 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' ,	° ' ,	° ' ,	' ,	' ,	s	° ' ,	° ' ,	° ' ,	' ,	' ,
0	5 30.0	5 30.9	5 15.0	0.0	0.0	0	5 45.0	5 45.9	5 29.3	0.0	0.0
1	5 30.2	5 31.1	5 15.2	0.3	0.1	1	5 45.2	5 46.2	5 29.5	0.3	0.1
2	5 30.5	5 31.4	5 15.5	0.6	0.2	2	5 45.5	5 46.4	5 29.8	0.6	0.2
3	5 30.8	5 31.7	5 15.7	0.9	0.3	3	5 45.8	5 46.7	5 30.0	0.9	0.4
4	5 31.0	5 31.9	5 15.9	1.2	0.5	4	5 46.0	5 46.9	5 30.3	1.2	0.5
5	5 31.2	5 32.2	5 16.2	1.5	0.6	5	5 46.2	5 47.2	5 30.5	1.5	0.6
6	5 31.5	5 32.4	5 16.4	1.8	0.7	6	5 46.5	5 47.4	5 30.7	1.8	0.7
7	5 31.8	5 32.7	5 16.7	2.1	0.8	7	5 46.8	5 47.7	5 31.0	2.1	0.8
8	5 32.0	5 32.9	5 16.9	2.4	0.9	8	5 47.0	5 47.9	5 31.2	2.4	0.9
9	5 32.2	5 33.2	5 17.1	2.7	1.0	9	5 47.2	5 48.2	5 31.4	2.7	1.1
10	5 32.5	5 33.4	5 17.4	3.0	1.1	10	5 47.5	5 48.4	5 31.7	3.0	1.2
11	5 32.8	5 33.7	5 17.6	3.3	1.2	11	5 47.8	5 48.7	5 31.9	3.3	1.3
12	5 33.0	5 33.9	5 17.8	3.6	1.4	12	5 48.0	5 48.9	5 32.2	3.6	1.4
13	5 33.2	5 34.2	5 18.1	3.9	1.5	13	5 48.2	5 49.2	5 32.4	3.9	1.5
14	5 33.5	5 34.4	5 18.3	4.2	1.6	14	5 48.5	5 49.4	5 32.6	4.2	1.6
15	5 33.8	5 34.7	5 18.6	4.5	1.7	15	5 48.8	5 49.7	5 32.9	4.5	1.8
16	5 34.0	5 34.9	5 18.8	4.8	1.8	16	5 49.0	5 50.0	5 33.1	4.8	1.9
17	5 34.3	5 35.2	5 19.0	5.1	1.9	17	5 49.3	5 50.2	5 33.4	5.1	2.0
18	5 34.5	5 35.4	5 19.3	5.4	2.0	18	5 49.5	5 50.5	5 33.6	5.4	2.1
19	5 34.8	5 35.7	5 19.5	5.7	2.1	19	5 49.8	5 50.7	5 33.8	5.7	2.2
20	5 35.0	5 35.9	5 19.8	6.0	2.3	20	5 50.0	5 51.0	5 34.1	6.0	2.4
21	5 35.3	5 36.2	5 20.0	6.3	2.4	21	5 50.3	5 51.2	5 34.3	6.3	2.5
22	5 35.5	5 36.4	5 20.2	6.6	2.5	22	5 50.5	5 51.5	5 34.5	6.6	2.6
23	5 35.7	5 36.7	5 20.5	6.9	2.6	23	5 50.7	5 51.7	5 34.8	6.9	2.7
24	5 36.0	5 36.9	5 20.7	7.2	2.7	24	5 51.0	5 52.0	5 35.0	7.2	2.8
25	5 36.3	5 37.2	5 20.9	7.5	2.8	25	5 51.3	5 52.2	5 35.3	7.5	2.9
26	5 36.5	5 37.4	5 21.2	7.8	2.9	26	5 51.5	5 52.5	5 35.5	7.8	3.1
27	5 36.7	5 37.7	5 21.4	8.1	3.0	27	5 51.7	5 52.7	5 35.7	8.1	3.2
28	5 37.0	5 37.9	5 21.7	8.4	3.2	28	5 52.0	5 53.0	5 36.0	8.4	3.3
29	5 37.3	5 38.2	5 21.9	8.7	3.3	29	5 52.3	5 53.2	5 36.2	8.7	3.4
30	5 37.5	5 38.4	5 22.1	9.0	3.4	30	5 52.5	5 53.5	5 36.5	9.0	3.5
31	5 37.7	5 38.7	5 22.4	9.3	3.5	31	5 52.7	5 53.7	5 36.7	9.3	3.6
32	5 38.0	5 38.9	5 22.6	9.6	3.6	32	5 53.0	5 54.0	5 36.9	9.6	3.8
33	5 38.3	5 39.2	5 22.9	9.9	3.7	33	5 53.3	5 54.2	5 37.2	9.9	3.9
34	5 38.5	5 39.4	5 23.1	10.2	3.8	34	5 53.5	5 54.5	5 37.4	10.2	4.0
35	5 38.7	5 39.7	5 23.3	10.5	3.9	35	5 53.7	5 54.7	5 37.6	10.5	4.1
36	5 39.0	5 39.9	5 23.6	10.8	4.1	36	5 54.0	5 55.0	5 37.9	10.8	4.2
37	5 39.3	5 40.2	5 23.8	11.1	4.2	37	5 54.3	5 55.2	5 38.1	11.1	4.3
38	5 39.5	5 40.4	5 24.0	11.4	4.3	38	5 54.5	5 55.5	5 38.4	11.4	4.5
39	5 39.7	5 40.7	5 24.3	11.7	4.4	39	5 54.7	5 55.7	5 38.6	11.7	4.6
40	5 40.0	5 40.9	5 24.5	12.0	4.5	40	5 55.0	5 56.0	5 38.8	12.0	4.7
41	5 40.2	5 41.2	5 24.8	12.3	4.6	41	5 55.2	5 56.2	5 39.1	12.3	4.8
42	5 40.5	5 41.4	5 25.0	12.6	4.7	42	5 55.5	5 56.5	5 39.3	12.6	4.9
43	5 40.7	5 41.7	5 25.2	12.9	4.8	43	5 55.7	5 56.7	5 39.6	12.9	5.1
44	5 41.0	5 41.9	5 25.5	13.2	5.0	44	5 56.0	5 57.0	5 39.8	13.2	5.2
45	5 41.2	5 42.2	5 25.7	13.5	5.1	45	5 56.2	5 57.2	5 40.0	13.5	5.3
46	5 41.5	5 42.4	5 26.0	13.8	5.2	46	5 56.5	5 57.5	5 40.3	13.8	5.4
47	5 41.8	5 42.7	5 26.2	14.1	5.3	47	5 56.8	5 57.7	5 40.5	14.1	5.5
48	5 42.0	5 42.9	5 26.4	14.4	5.4	48	5 57.0	5 58.0	5 40.8	14.4	5.6
49	5 42.2	5 43.2	5 26.7	14.7	5.5	49	5 57.2	5 58.2	5 41.0	14.7	5.8
50	5 42.5	5 43.4	5 26.9	15.0	5.6	50	5 57.5	5 58.5	5 41.2	15.0	5.9
51	5 42.8	5 43.7	5 27.2	15.3	5.7	51	5 57.8	5 58.7	5 41.5	15.3	6.0
52	5 43.0	5 43.9	5 27.4	15.6	5.9	52	5 58.0	5 59.0	5 41.7	15.6	6.1
53	5 43.2	5 44.2	5 27.6	15.9	6.0	53	5 58.2	5 59.2	5 41.9	15.9	6.2
54	5 43.5	5 44.4	5 27.9	16.2	6.1	54	5 58.5	5 59.5	5 42.2	16.2	6.3
55	5 43.8	5 44.7	5 28.1	16.5	6.2	55	5 58.8	5 59.7	5 42.4	16.5	6.5
56	5 44.0	5 44.9	5 28.3	16.8	6.3	56	5 59.0	5 60.0	5 42.7	16.8	6.6
57	5 44.2	5 45.2	5 28.6	17.1	6.4	57	5 59.2	6 00.2	5 42.9	17.1	6.7
58	5 44.5	5 45.4	5 28.8	17.4	6.5	58	5 59.5	6 00.5	5 43.1	17.4	6.8
59	5 44.8	5 45.7	5 29.1	17.7	6.6	59	5 59.8	6 00.7	5 43.4	17.7	6.9

24 min

Schalttafel

25 min

24 min	Zuwachs Grt			Unt	Vb	25 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	6 00.0	6 01.0	5 43.6	0.0	0.0	0	6 15.0	6 16.0	5 57.9	0.0	0.0
1	6 00.2	6 01.2	5 43.9	0.3	0.1	1	6 15.2	6 16.3	5 58.2	0.3	0.1
2	6 00.5	6 01.5	5 44.1	0.6	0.2	2	6 15.5	6 16.5	5 58.4	0.6	0.3
3	6 00.8	6 01.7	5 44.3	0.9	0.4	3	6 15.8	6 16.8	5 58.6	0.9	0.4
4	6 01.0	6 02.0	5 44.6	1.2	0.5	4	6 16.0	6 17.0	5 58.9	1.2	0.5
5	6 01.2	6 02.2	5 44.8	1.5	0.6	5	6 16.2	6 17.3	5 59.1	1.5	0.6
6	6 01.5	6 02.5	5 45.0	1.8	0.7	6	6 16.5	6 17.5	5 59.4	1.8	0.8
7	6 01.8	6 02.7	5 45.3	2.1	0.9	7	6 16.8	6 17.8	5 59.6	2.1	0.9
8	6 02.0	6 03.0	5 45.5	2.4	1.0	8	6 17.0	6 18.0	5 59.8	2.4	1.0
9	6 02.2	6 03.2	5 45.8	2.7	1.1	9	6 17.2	6 18.3	6 00.1	2.7	1.1
10	6 02.5	6 03.5	5 46.0	3.0	1.2	10	6 17.5	6 18.5	6 00.3	3.0	1.3
11	6 02.8	6 03.7	5 46.2	3.3	1.3	11	6 17.8	6 18.8	6 00.6	3.3	1.4
12	6 03.0	6 04.0	5 46.5	3.6	1.5	12	6 18.0	6 19.0	6 00.8	3.6	1.5
13	6 03.2	6 04.2	5 46.7	3.9	1.6	13	6 18.2	6 19.3	6 01.0	3.9	1.7
14	6 03.5	6 04.5	5 47.0	4.2	1.7	14	6 18.5	6 19.5	6 01.3	4.2	1.8
15	6 03.8	6 04.7	5 47.2	4.5	1.8	15	6 18.8	6 19.8	6 01.5	4.5	1.9
16	6 04.0	6 05.0	5 47.4	4.8	2.0	16	6 19.0	6 20.0	6 01.8	4.8	2.0
17	6 04.3	6 05.2	5 47.7	5.1	2.1	17	6 19.3	6 20.3	6 02.0	5.1	2.2
18	6 04.5	6 05.5	5 47.9	5.4	2.2	18	6 19.5	6 20.5	6 02.2	5.4	2.3
19	6 04.7	6 05.7	5 48.1	5.7	2.3	19	6 19.7	6 20.8	6 02.5	5.7	2.4
20	6 05.0	6 06.0	5 48.4	6.0	2.5	20	6 20.0	6 21.0	6 02.7	6.0	2.6
21	6 05.3	6 06.2	5 48.6	6.3	2.6	21	6 20.3	6 21.3	6 02.9	6.3	2.7
22	6 05.5	6 06.5	5 48.9	6.6	2.7	22	6 20.5	6 21.5	6 03.2	6.6	2.8
23	6 05.7	6 06.7	5 49.1	6.9	2.8	23	6 20.7	6 21.8	6 03.4	6.9	2.9
24	6 06.0	6 07.0	5 49.3	7.2	2.9	24	6 21.0	6 22.0	6 03.7	7.2	3.1
25	6 06.3	6 07.2	5 49.6	7.5	3.1	25	6 21.3	6 22.3	6 03.9	7.5	3.2
26	6 06.5	6 07.5	5 49.8	7.8	3.2	26	6 21.5	6 22.5	6 04.1	7.8	3.3
27	6 06.7	6 07.7	5 50.1	8.1	3.3	27	6 21.7	6 22.8	6 04.4	8.1	3.4
28	6 07.0	6 08.0	5 50.3	8.4	3.4	28	6 22.0	6 23.0	6 04.6	8.4	3.6
29	6 07.3	6 08.3	5 50.5	8.7	3.6	29	6 22.3	6 23.3	6 04.9	8.7	3.7
30	6 07.5	6 08.5	5 50.8	9.0	3.7	30	6 22.5	6 23.5	6 05.1	9.0	3.8
31	6 07.7	6 08.8	5 51.0	9.3	3.8	31	6 22.7	6 23.8	6 05.3	9.3	4.0
32	6 08.0	6 09.0	5 51.3	9.6	3.9	32	6 23.0	6 24.0	6 05.6	9.6	4.1
33	6 08.3	6 09.3	5 51.5	9.9	4.0	33	6 23.3	6 24.3	6 05.8	9.9	4.2
34	6 08.5	6 09.5	5 51.7	10.2	4.2	34	6 23.5	6 24.5	6 06.0	10.2	4.3
35	6 08.7	6 09.8	5 52.0	10.5	4.3	35	6 23.7	6 24.8	6 06.3	10.5	4.5
36	6 09.0	6 10.0	5 52.2	10.8	4.4	36	6 24.0	6 25.0	6 06.5	10.8	4.6
37	6 09.3	6 10.3	5 52.4	11.1	4.5	37	6 24.3	6 25.3	6 06.8	11.1	4.7
38	6 09.5	6 10.5	5 52.7	11.4	4.7	38	6 24.5	6 25.5	6 07.0	11.4	4.8
39	6 09.7	6 10.8	5 52.9	11.7	4.8	39	6 24.7	6 25.8	6 07.2	11.7	5.0
40	6 10.0	6 11.0	5 53.2	12.0	4.9	40	6 25.0	6 26.0	6 07.5	12.0	5.1
41	6 10.3	6 11.3	5 53.4	12.3	5.0	41	6 25.3	6 26.3	6 07.7	12.3	5.2
42	6 10.5	6 11.5	5 53.6	12.6	5.1	42	6 25.5	6 26.5	6 08.0	12.6	5.4
43	6 10.7	6 11.8	5 53.9	12.9	5.3	43	6 25.7	6 26.8	6 08.2	12.9	5.5
44	6 11.0	6 12.0	5 54.1	13.2	5.4	44	6 26.0	6 27.1	6 08.4	13.2	5.6
45	6 11.2	6 12.3	5 54.4	13.5	5.5	45	6 26.2	6 27.3	6 08.7	13.5	5.7
46	6 11.5	6 12.5	5 54.6	13.8	5.6	46	6 26.5	6 27.6	6 08.9	13.8	5.9
47	6 11.8	6 12.8	5 54.8	14.1	5.8	47	6 26.8	6 27.8	6 09.1	14.1	6.0
48	6 12.0	6 13.0	5 55.1	14.4	5.9	48	6 27.0	6 28.1	6 09.4	14.4	6.1
49	6 12.2	6 13.3	5 55.3	14.7	6.0	49	6 27.2	6 28.3	6 09.6	14.7	6.2
50	6 12.5	6 13.5	5 55.5	15.0	6.1	50	6 27.5	6 28.6	6 09.9	15.0	6.4
51	6 12.8	6 13.8	5 55.8	15.3	6.2	51	6 27.8	6 28.8	6 10.1	15.3	6.5
52	6 13.0	6 14.0	5 56.0	15.6	6.4	52	6 28.0	6 29.1	6 10.3	15.6	6.6
53	6 13.2	6 14.3	5 56.3	15.9	6.5	53	6 28.2	6 29.3	6 10.6	15.9	6.8
54	6 13.5	6 14.5	5 56.5	16.2	6.6	54	6 28.5	6 29.6	6 10.8	16.2	6.9
55	6 13.8	6 14.8	5 56.7	16.5	6.7	55	6 28.8	6 29.8	6 11.1	16.5	7.0
56	6 14.0	6 15.0	5 57.0	16.8	6.9	56	6 29.0	6 30.1	6 11.3	16.8	7.1
57	6 14.2	6 15.3	5 57.2	17.1	7.0	57	6 29.2	6 30.3	6 11.5	17.1	7.3
58	6 14.5	6 15.5	5 57.5	17.4	7.1	58	6 29.5	6 30.6	6 11.8	17.4	7.4
59	6 14.8	6 15.8	5 57.7	17.7	7.2	59	6 29.8	6 30.8	6 12.0	17.7	7.5

26 min

Schalttafel

27 min

26 min	Zuwachs Grt			Unt	Vb	27 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' ,	° ' ,	° ' ,	' ,	' ,	s	° ' ,	° ' ,	° ' ,	' ,	' ,
0	6 30.0	6 31.1	6 12.3	0.0	0.0	0	6 45.0	6 46.1	6 26.6	0.0	0.0
1	6 30.2	6 31.3	6 12.5	0.3	0.1	1	6 45.2	6 46.4	6 26.8	0.3	0.1
2	6 30.5	6 31.6	6 12.7	0.6	0.3	2	6 45.5	6 46.6	6 27.0	0.6	0.3
3	6 30.8	6 31.8	6 13.0	0.9	0.4	3	6 45.8	6 46.9	6 27.3	0.9	0.4
4	6 31.0	6 32.1	6 13.2	1.2	0.5	4	6 46.0	6 47.1	6 27.5	1.2	0.6
5	6 31.2	6 32.3	6 13.4	1.5	0.7	5	6 46.2	6 47.4	6 27.8	1.5	0.7
6	6 31.5	6 32.6	6 13.7	1.8	0.8	6	6 46.5	6 47.6	6 28.0	1.8	0.8
7	6 31.8	6 32.8	6 13.9	2.1	0.9	7	6 46.8	6 47.9	6 28.2	2.1	1.0
8	6 32.0	6 33.1	6 14.2	2.4	1.1	8	6 47.0	6 48.1	6 28.5	2.4	1.1
9	6 32.2	6 33.3	6 14.4	2.7	1.2	9	6 47.2	6 48.4	6 28.7	2.7	1.2
10	6 32.5	6 33.6	6 14.6	3.0	1.3	10	6 47.5	6 48.6	6 29.0	3.0	1.4
11	6 32.8	6 33.8	6 14.9	3.3	1.5	11	6 47.8	6 48.9	6 29.2	3.3	1.5
12	6 33.0	6 34.1	6 15.1	3.6	1.6	12	6 48.0	6 49.1	6 29.4	3.6	1.7
13	6 33.2	6 34.3	6 15.4	3.9	1.7	13	6 48.2	6 49.4	6 29.7	3.9	1.8
14	6 33.5	6 34.6	6 15.6	4.2	1.9	14	6 48.5	6 49.6	6 29.9	4.2	1.9
15	6 33.8	6 34.8	6 15.8	4.5	2.0	15	6 48.8	6 49.9	6 30.1	4.5	2.1
16	6 34.0	6 35.1	6 16.1	4.8	2.1	16	6 49.0	6 50.1	6 30.4	4.8	2.2
17	6 34.3	6 35.3	6 16.3	5.1	2.3	17	6 49.3	6 50.4	6 30.6	5.1	2.3
18	6 34.5	6 35.6	6 16.5	5.4	2.4	18	6 49.5	6 50.6	6 30.9	5.4	2.5
19	6 34.8	6 35.8	6 16.8	5.7	2.5	19	6 49.8	6 50.9	6 31.1	5.7	2.6
20	6 35.0	6 36.1	6 17.0	6.0	2.7	20	6 50.0	6 51.1	6 31.3	6.0	2.8
21	6 35.3	6 36.3	6 17.3	6.3	2.8	21	6 50.3	6 51.4	6 31.6	6.3	2.9
22	6 35.5	6 36.6	6 17.5	6.6	2.9	22	6 50.5	6 51.6	6 31.8	6.6	3.0
23	6 35.7	6 36.8	6 17.7	6.9	3.0	23	6 50.7	6 51.9	6 32.1	6.9	3.2
24	6 36.0	6 37.1	6 18.0	7.2	3.2	24	6 51.0	6 52.1	6 32.3	7.2	3.3
25	6 36.3	6 37.3	6 18.2	7.5	3.3	25	6 51.3	6 52.4	6 32.5	7.5	3.4
26	6 36.5	6 37.6	6 18.5	7.8	3.4	26	6 51.5	6 52.6	6 32.8	7.8	3.6
27	6 36.7	6 37.8	6 18.7	8.1	3.6	27	6 51.7	6 52.9	6 33.0	8.1	3.7
28	6 37.0	6 38.1	6 18.9	8.4	3.7	28	6 52.0	6 53.1	6 33.2	8.4	3.9
29	6 37.3	6 38.3	6 19.2	8.7	3.8	29	6 52.3	6 53.4	6 33.5	8.7	4.0
30	6 37.5	6 38.6	6 19.4	9.0	4.0	30	6 52.5	6 53.6	6 33.7	9.0	4.1
31	6 37.7	6 38.8	6 19.6	9.3	4.1	31	6 52.7	6 53.9	6 34.0	9.3	4.3
32	6 38.0	6 39.1	6 19.9	9.6	4.2	32	6 53.0	6 54.1	6 34.2	9.6	4.4
33	6 38.3	6 39.3	6 20.1	9.9	4.4	33	6 53.3	6 54.4	6 34.4	9.9	4.5
34	6 38.5	6 39.6	6 20.4	10.2	4.5	34	6 53.5	6 54.6	6 34.7	10.2	4.7
35	6 38.7	6 39.8	6 20.6	10.5	4.6	35	6 53.7	6 54.9	6 34.9	10.5	4.8
36	6 39.0	6 40.1	6 20.8	10.8	4.8	36	6 54.0	6 55.1	6 35.2	10.8	5.0
37	6 39.3	6 40.3	6 21.1	11.1	4.9	37	6 54.3	6 55.4	6 35.4	11.1	5.1
38	6 39.5	6 40.6	6 21.3	11.4	5.0	38	6 54.5	6 55.6	6 35.6	11.4	5.2
39	6 39.7	6 40.8	6 21.6	11.7	5.2	39	6 54.7	6 55.9	6 35.9	11.7	5.4
40	6 40.0	6 41.1	6 21.8	12.0	5.3	40	6 55.0	6 56.1	6 36.1	12.0	5.5
41	6 40.2	6 41.3	6 22.0	12.3	5.4	41	6 55.2	6 56.4	6 36.4	12.3	5.6
42	6 40.5	6 41.6	6 22.3	12.6	5.6	42	6 55.5	6 56.6	6 36.6	12.6	5.8
43	6 40.7	6 41.8	6 22.5	12.9	5.7	43	6 55.7	6 56.9	6 36.8	12.9	5.9
44	6 41.0	6 42.1	6 22.7	13.2	5.8	44	6 56.0	6 57.1	6 37.1	13.2	6.1
45	6 41.2	6 42.3	6 23.0	13.5	6.0	45	6 56.2	6 57.4	6 37.3	13.5	6.2
46	6 41.5	6 42.6	6 23.2	13.8	6.1	46	6 56.5	6 57.6	6 37.5	13.8	6.3
47	6 41.8	6 42.8	6 23.5	14.1	6.2	47	6 56.8	6 57.9	6 37.8	14.1	6.5
48	6 42.0	6 43.1	6 23.7	14.4	6.4	48	6 57.0	6 58.1	6 38.0	14.4	6.6
49	6 42.2	6 43.3	6 23.9	14.7	6.5	49	6 57.2	6 58.4	6 38.3	14.7	6.7
50	6 42.5	6 43.6	6 24.2	15.0	6.6	50	6 57.5	6 58.6	6 38.5	15.0	6.9
51	6 42.8	6 43.8	6 24.4	15.3	6.8	51	6 57.8	6 58.9	6 38.7	15.3	7.0
52	6 43.0	6 44.1	6 24.7	15.6	6.9	52	6 58.0	6 59.1	6 39.0	15.6	7.2
53	6 43.2	6 44.3	6 24.9	15.9	7.0	53	6 58.2	6 59.4	6 39.2	15.9	7.3
54	6 43.5	6 44.6	6 25.1	16.2	7.2	54	6 58.5	6 59.6	6 39.5	16.2	7.4
55	6 43.8	6 44.8	6 25.4	16.5	7.3	55	6 58.8	6 59.9	6 39.7	16.5	7.6
56	6 44.0	6 45.1	6 25.6	16.8	7.4	56	6 59.0	7 00.1	6 39.9	16.8	7.7
57	6 44.2	6 45.4	6 25.9	17.1	7.6	57	6 59.2	7 00.4	6 40.2	17.1	7.8
58	6 44.5	6 45.6	6 26.1	17.4	7.7	58	6 59.5	7 00.6	6 40.4	17.4	8.0
59	6 44.8	6 45.9	6 26.3	17.7	7.8	59	6 59.8	7 00.9	6 40.6	17.7	8.1

28 min

Schalttafel

29 min

28 min	Zuwachs Grt			Unt	Vb	29 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	7 00.0	7 01.1	6 40.9	0.0	0.0	0	7 15.0	7 16.2	6 55.2	0.0	0.0
1	7 00.2	7 01.4	6 41.1	0.3	0.1	1	7 15.2	7 16.4	6 55.4	0.3	0.1
2	7 00.5	7 01.6	6 41.4	0.6	0.3	2	7 15.5	7 16.7	6 55.7	0.6	0.3
3	7 00.8	7 01.9	6 41.6	0.9	0.4	3	7 15.8	7 16.9	6 55.9	0.9	0.4
4	7 01.0	7 02.1	6 41.8	1.2	0.6	4	7 16.0	7 17.2	6 56.2	1.2	0.6
5	7 01.2	7 02.4	6 42.1	1.5	0.7	5	7 16.2	7 17.4	6 56.4	1.5	0.7
6	7 01.5	7 02.6	6 42.3	1.8	0.9	6	7 16.5	7 17.7	6 56.6	1.8	0.9
7	7 01.8	7 02.9	6 42.6	2.1	1.0	7	7 16.8	7 17.9	6 56.9	2.1	1.0
8	7 02.0	7 03.1	6 42.8	2.4	1.1	8	7 17.0	7 18.2	6 57.1	2.4	1.2
9	7 02.2	7 03.4	6 43.0	2.7	1.3	9	7 17.2	7 18.4	6 57.3	2.7	1.3
10	7 02.5	7 03.7	6 43.3	3.0	1.4	10	7 17.5	7 18.7	6 57.6	3.0	1.5
11	7 02.8	7 03.9	6 43.5	3.3	1.6	11	7 17.8	7 18.9	6 57.8	3.3	1.6
12	7 03.0	7 04.2	6 43.7	3.6	1.7	12	7 18.0	7 19.2	6 58.1	3.6	1.8
13	7 03.2	7 04.4	6 44.0	3.9	1.9	13	7 18.2	7 19.4	6 58.3	3.9	1.9
14	7 03.5	7 04.7	6 44.2	4.2	2.0	14	7 18.5	7 19.7	6 58.5	4.2	2.1
15	7 03.8	7 04.9	6 44.5	4.5	2.1	15	7 18.8	7 19.9	6 58.8	4.5	2.2
16	7 04.0	7 05.2	6 44.7	4.8	2.3	16	7 19.0	7 20.2	6 59.0	4.8	2.4
17	7 04.3	7 05.4	6 44.9	5.1	2.4	17	7 19.3	7 20.4	6 59.3	5.1	2.5
18	7 04.5	7 05.7	6 45.2	5.4	2.6	18	7 19.5	7 20.7	6 59.5	5.4	2.7
19	7 04.7	7 05.9	6 45.4	5.7	2.7	19	7 19.7	7 20.9	6 59.7	5.7	2.8
20	7 05.0	7 06.2	6 45.7	6.0	2.9	20	7 20.0	7 21.2	6 60.0	6.0	3.0
21	7 05.3	7 06.4	6 45.9	6.3	3.0	21	7 20.3	7 21.4	7 00.2	6.3	3.1
22	7 05.5	7 06.7	6 46.1	6.6	3.1	22	7 20.5	7 21.7	7 00.5	6.6	3.2
23	7 05.7	7 06.9	6 46.4	6.9	3.3	23	7 20.7	7 22.0	7 00.7	6.9	3.4
24	7 06.0	7 07.2	6 46.6	7.2	3.4	24	7 21.0	7 22.2	7 00.9	7.2	3.5
25	7 06.3	7 07.4	6 46.9	7.5	3.6	25	7 21.3	7 22.5	7 01.2	7.5	3.7
26	7 06.5	7 07.7	6 47.1	7.8	3.7	26	7 21.5	7 22.7	7 01.4	7.8	3.8
27	7 06.7	7 07.9	6 47.3	8.1	3.8	27	7 21.7	7 23.0	7 01.6	8.1	4.0
28	7 07.0	7 08.2	6 47.6	8.4	4.0	28	7 22.0	7 23.2	7 01.9	8.4	4.1
29	7 07.3	7 08.4	6 47.8	8.7	4.1	29	7 22.3	7 23.5	7 02.1	8.7	4.3
30	7 07.5	7 08.7	6 48.0	9.0	4.3	30	7 22.5	7 23.7	7 02.4	9.0	4.4
31	7 07.7	7 08.9	6 48.3	9.3	4.4	31	7 22.7	7 24.0	7 02.6	9.3	4.6
32	7 08.0	7 09.2	6 48.5	9.6	4.6	32	7 23.0	7 24.2	7 02.8	9.6	4.7
33	7 08.3	7 09.4	6 48.8	9.9	4.7	33	7 23.3	7 24.5	7 03.1	9.9	4.9
34	7 08.5	7 09.7	6 49.0	10.2	4.8	34	7 23.5	7 24.7	7 03.3	10.2	5.0
35	7 08.7	7 09.9	6 49.2	10.5	5.0	35	7 23.7	7 25.0	7 03.6	10.5	5.2
36	7 09.0	7 10.2	6 49.5	10.8	5.1	36	7 24.0	7 25.2	7 03.8	10.8	5.3
37	7 09.3	7 10.4	6 49.7	11.1	5.3	37	7 24.3	7 25.5	7 04.0	11.1	5.5
38	7 09.5	7 10.7	6 50.0	11.4	5.4	38	7 24.5	7 25.7	7 04.3	11.4	5.6
39	7 09.7	7 10.9	6 50.2	11.7	5.6	39	7 24.7	7 26.0	7 04.5	11.7	5.8
40	7 10.0	7 11.2	6 50.4	12.0	5.7	40	7 25.0	7 26.2	7 04.7	12.0	5.9
41	7 10.3	7 11.4	6 50.7	12.3	5.8	41	7 25.3	7 26.5	7 05.0	12.3	6.0
42	7 10.5	7 11.7	6 50.9	12.6	6.0	42	7 25.5	7 26.7	7 05.2	12.6	6.2
43	7 10.7	7 11.9	6 51.1	12.9	6.1	43	7 25.7	7 27.0	7 05.5	12.9	6.3
44	7 11.0	7 12.2	6 51.4	13.2	6.3	44	7 26.0	7 27.2	7 05.7	13.2	6.5
45	7 11.2	7 12.4	6 51.6	13.5	6.4	45	7 26.2	7 27.5	7 05.9	13.5	6.6
46	7 11.5	7 12.7	6 51.9	13.8	6.6	46	7 26.5	7 27.7	7 06.2	13.8	6.8
47	7 11.8	7 12.9	6 52.1	14.1	6.7	47	7 26.8	7 28.0	7 06.4	14.1	6.9
48	7 12.0	7 13.2	6 52.3	14.4	6.8	48	7 27.0	7 28.2	7 06.7	14.4	7.1
49	7 12.2	7 13.4	6 52.6	14.7	7.0	49	7 27.2	7 28.5	7 06.9	14.7	7.2
50	7 12.5	7 13.7	6 52.8	15.0	7.1	50	7 27.5	7 28.7	7 07.1	15.0	7.4
51	7 12.8	7 13.9	6 53.1	15.3	7.3	51	7 27.8	7 29.0	7 07.4	15.3	7.5
52	7 13.0	7 14.2	6 53.3	15.6	7.4	52	7 28.0	7 29.2	7 07.6	15.6	7.7
53	7 13.2	7 14.4	6 53.5	15.9	7.6	53	7 28.2	7 29.5	7 07.8	15.9	7.8
54	7 13.5	7 14.7	6 53.8	16.2	7.7	54	7 28.5	7 29.7	7 08.1	16.2	8.0
55	7 13.8	7 14.9	6 54.0	16.5	7.8	55	7 28.8	7 30.0	7 08.3	16.5	8.1
56	7 14.0	7 15.2	6 54.2	16.8	8.0	56	7 29.0	7 30.2	7 08.6	16.8	8.3
57	7 14.2	7 15.4	6 54.5	17.1	8.1	57	7 29.2	7 30.5	7 08.8	17.1	8.4
58	7 14.5	7 15.7	6 54.7	17.4	8.3	58	7 29.5	7 30.7	7 09.0	17.4	8.6
59	7 14.8	7 15.9	6 55.0	17.7	8.4	59	7 29.8	7 31.0	7 09.3	17.7	8.7

30 min

Schalttafel

31 min

30 min	Zuwachs Grt			Unt	Vb	31 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' ,	° ' ,	° ' ,	' ,	' ,	s	° ' ,	° ' ,	° ' ,	' ,	' ,
0	7 30.0	7 31.2	7 09.5	0.0	0.0	0	7 45.0	7 46.3	7 23.8	0.0	0.0
1	7 30.2	7 31.5	7 09.8	0.3	0.2	1	7 45.2	7 46.5	7 24.1	0.3	0.2
2	7 30.5	7 31.7	7 10.0	0.6	0.3	2	7 45.5	7 46.8	7 24.3	0.6	0.3
3	7 30.8	7 32.0	7 10.2	0.9	0.5	3	7 45.7	7 47.0	7 24.6	0.9	0.5
4	7 31.0	7 32.2	7 10.5	1.2	0.6	4	7 46.0	7 47.3	7 24.8	1.2	0.6
5	7 31.2	7 32.5	7 10.7	1.5	0.8	5	7 46.2	7 47.5	7 25.0	1.5	0.8
6	7 31.5	7 32.7	7 11.0	1.8	0.9	6	7 46.5	7 47.8	7 25.3	1.8	0.9
7	7 31.7	7 33.0	7 11.2	2.1	1.1	7	7 46.8	7 48.0	7 25.5	2.1	1.1
8	7 32.0	7 33.2	7 11.4	2.4	1.2	8	7 47.0	7 48.3	7 25.7	2.4	1.3
9	7 32.2	7 33.5	7 11.7	2.7	1.4	9	7 47.2	7 48.5	7 26.0	2.7	1.4
10	7 32.5	7 33.7	7 11.9	3.0	1.5	10	7 47.5	7 48.8	7 26.2	3.0	1.6
11	7 32.8	7 34.0	7 12.1	3.3	1.7	11	7 47.7	7 49.0	7 26.5	3.3	1.7
12	7 33.0	7 34.2	7 12.4	3.6	1.8	12	7 48.0	7 49.3	7 26.7	3.6	1.9
13	7 33.3	7 34.5	7 12.6	3.9	2.0	13	7 48.2	7 49.5	7 26.9	3.9	2.0
14	7 33.5	7 34.7	7 12.9	4.2	2.1	14	7 48.5	7 49.8	7 27.2	4.2	2.2
15	7 33.8	7 35.0	7 13.1	4.5	2.3	15	7 48.8	7 50.0	7 27.4	4.5	2.4
16	7 34.0	7 35.2	7 13.3	4.8	2.4	16	7 49.0	7 50.3	7 27.7	4.8	2.5
17	7 34.3	7 35.5	7 13.6	5.1	2.6	17	7 49.3	7 50.5	7 27.9	5.1	2.7
18	7 34.5	7 35.7	7 13.8	5.4	2.7	18	7 49.5	7 50.8	7 28.1	5.4	2.8
19	7 34.8	7 36.0	7 14.1	5.7	2.9	19	7 49.8	7 51.0	7 28.4	5.7	3.0
20	7 35.0	7 36.2	7 14.3	6.0	3.1	20	7 50.0	7 51.3	7 28.6	6.0	3.2
21	7 35.3	7 36.5	7 14.5	6.3	3.2	21	7 50.3	7 51.5	7 28.8	6.3	3.3
22	7 35.5	7 36.7	7 14.8	6.6	3.4	22	7 50.5	7 51.8	7 29.1	6.6	3.5
23	7 35.7	7 37.0	7 15.0	6.9	3.5	23	7 50.7	7 52.0	7 29.3	6.9	3.6
24	7 36.0	7 37.2	7 15.2	7.2	3.7	24	7 51.0	7 52.3	7 29.6	7.2	3.8
25	7 36.2	7 37.5	7 15.5	7.5	3.8	25	7 51.3	7 52.5	7 29.8	7.5	3.9
26	7 36.5	7 37.7	7 15.7	7.8	4.0	26	7 51.5	7 52.8	7 30.0	7.8	4.1
27	7 36.7	7 38.0	7 16.0	8.1	4.1	27	7 51.7	7 53.0	7 30.3	8.1	4.3
28	7 37.0	7 38.2	7 16.2	8.4	4.3	28	7 52.0	7 53.3	7 30.5	8.4	4.4
29	7 37.3	7 38.5	7 16.4	8.7	4.4	29	7 52.2	7 53.5	7 30.8	8.7	4.6
30	7 37.5	7 38.7	7 16.7	9.0	4.6	30	7 52.5	7 53.8	7 31.0	9.0	4.7
31	7 37.7	7 39.0	7 16.9	9.3	4.7	31	7 52.7	7 54.0	7 31.2	9.3	4.9
32	7 38.0	7 39.2	7 17.2	9.6	4.9	32	7 53.0	7 54.3	7 31.5	9.6	5.0
33	7 38.3	7 39.5	7 17.4	9.9	5.0	33	7 53.3	7 54.5	7 31.7	9.9	5.2
34	7 38.5	7 39.7	7 17.6	10.2	5.2	34	7 53.5	7 54.8	7 31.9	10.2	5.4
35	7 38.7	7 40.0	7 17.9	10.5	5.3	35	7 53.8	7 55.0	7 32.2	10.5	5.5
36	7 39.0	7 40.2	7 18.1	10.8	5.5	36	7 54.0	7 55.3	7 32.4	10.8	5.7
37	7 39.3	7 40.5	7 18.3	11.1	5.6	37	7 54.3	7 55.5	7 32.7	11.1	5.8
38	7 39.5	7 40.8	7 18.6	11.4	5.8	38	7 54.5	7 55.8	7 32.9	11.4	6.0
39	7 39.8	7 41.0	7 18.8	11.7	5.9	39	7 54.7	7 56.0	7 33.1	11.7	6.1
40	7 40.0	7 41.3	7 19.1	12.0	6.1	40	7 55.0	7 56.3	7 33.4	12.0	6.3
41	7 40.2	7 41.5	7 19.3	12.3	6.3	41	7 55.3	7 56.5	7 33.6	12.3	6.5
42	7 40.5	7 41.8	7 19.5	12.6	6.4	42	7 55.5	7 56.8	7 33.9	12.6	6.6
43	7 40.7	7 42.0	7 19.8	12.9	6.6	43	7 55.7	7 57.0	7 34.1	12.9	6.8
44	7 41.0	7 42.3	7 20.0	13.2	6.7	44	7 56.0	7 57.3	7 34.3	13.2	6.9
45	7 41.2	7 42.5	7 20.3	13.5	6.9	45	7 56.2	7 57.5	7 34.6	13.5	7.1
46	7 41.5	7 42.8	7 20.5	13.8	7.0	46	7 56.5	7 57.8	7 34.8	13.8	7.2
47	7 41.8	7 43.0	7 20.7	14.1	7.2	47	7 56.7	7 58.0	7 35.1	14.1	7.4
48	7 42.0	7 43.3	7 21.0	14.4	7.3	48	7 57.0	7 58.3	7 35.3	14.4	7.6
49	7 42.2	7 43.5	7 21.2	14.7	7.5	49	7 57.2	7 58.5	7 35.5	14.7	7.7
50	7 42.5	7 43.8	7 21.5	15.0	7.6	50	7 57.5	7 58.8	7 35.8	15.0	7.9
51	7 42.8	7 44.0	7 21.7	15.3	7.8	51	7 57.8	7 59.1	7 36.0	15.3	8.0
52	7 43.0	7 44.3	7 21.9	15.6	7.9	52	7 58.0	7 59.3	7 36.2	15.6	8.2
53	7 43.2	7 44.5	7 22.2	15.9	8.1	53	7 58.2	7 59.6	7 36.5	15.9	8.3
54	7 43.5	7 44.8	7 22.4	16.2	8.2	54	7 58.5	7 59.8	7 36.7	16.2	8.5
55	7 43.8	7 45.0	7 22.6	16.5	8.4	55	7 58.8	8 00.1	7 37.0	16.5	8.7
56	7 44.0	7 45.3	7 22.9	16.8	8.5	56	7 59.0	8 00.3	7 37.2	16.8	8.8
57	7 44.3	7 45.5	7 23.1	17.1	8.7	57	7 59.2	8 00.6	7 37.4	17.1	9.0
58	7 44.5	7 45.8	7 23.4	17.4	8.8	58	7 59.5	8 00.8	7 37.7	17.4	9.1
59	7 44.8	7 46.0	7 23.6	17.7	9.0	59	7 59.8	8 01.1	7 37.9	17.7	9.3

32 min

Schalttafel

33 min

32 min	Zuwachs Grt			Unt	Vb	33 min	Zuwachs Grt			Unt	Vb						
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond								
s	°	'	°	'	°	'	s	°	'	°	'	°	'				
0	8	00.0	8	01.3	7	38.2	0.0	0.0	0	8	15.0	8	16.3	7	52.5	0.0	0.0
1	8	00.2	8	01.6	7	38.4	0.3	0.2	1	8	15.2	8	16.6	7	52.7	0.3	0.2
2	8	00.5	8	01.8	7	38.6	0.6	0.3	2	8	15.5	8	16.8	7	52.9	0.6	0.3
3	8	00.7	8	02.1	7	38.9	0.9	0.5	3	8	15.7	8	17.1	7	53.2	0.9	0.5
4	8	01.0	8	02.3	7	39.1	1.2	0.7	4	8	16.0	8	17.4	7	53.4	1.2	0.7
5	8	01.3	8	02.6	7	39.3	1.5	0.8	5	8	16.3	8	17.6	7	53.7	1.5	0.8
6	8	01.5	8	02.8	7	39.6	1.8	1.0	6	8	16.5	8	17.9	7	53.9	1.8	1.0
7	8	01.8	8	03.1	7	39.8	2.1	1.1	7	8	16.8	8	18.1	7	54.1	2.1	1.2
8	8	02.0	8	03.3	7	40.1	2.4	1.3	8	8	17.0	8	18.4	7	54.4	2.4	1.3
9	8	02.2	8	03.6	7	40.3	2.7	1.5	9	8	17.2	8	18.6	7	54.6	2.7	1.5
10	8	02.5	8	03.8	7	40.5	3.0	1.6	10	8	17.5	8	18.9	7	54.9	3.0	1.7
11	8	02.7	8	04.1	7	40.8	3.3	1.8	11	8	17.7	8	19.1	7	55.1	3.3	1.8
12	8	03.0	8	04.3	7	41.0	3.6	2.0	12	8	18.0	8	19.4	7	55.3	3.6	2.0
13	8	03.3	8	04.6	7	41.3	3.9	2.1	13	8	18.3	8	19.6	7	55.6	3.9	2.2
14	8	03.5	8	04.8	7	41.5	4.2	2.3	14	8	18.5	8	19.9	7	55.8	4.2	2.3
15	8	03.8	8	05.1	7	41.7	4.5	2.4	15	8	18.8	8	20.1	7	56.1	4.5	2.5
16	8	04.0	8	05.3	7	42.0	4.8	2.6	16	8	19.0	8	20.4	7	56.3	4.8	2.7
17	8	04.2	8	05.6	7	42.2	5.1	2.8	17	8	19.2	8	20.6	7	56.5	5.1	2.8
18	8	04.5	8	05.8	7	42.4	5.4	2.9	18	8	19.5	8	20.9	7	56.8	5.4	3.0
19	8	04.8	8	06.1	7	42.7	5.7	3.1	19	8	19.8	8	21.1	7	57.0	5.7	3.2
20	8	05.0	8	06.3	7	42.9	6.0	3.3	20	8	20.0	8	21.4	7	57.2	6.0	3.4
21	8	05.3	8	06.6	7	43.2	6.3	3.4	21	8	20.3	8	21.6	7	57.5	6.3	3.5
22	8	05.5	8	06.8	7	43.4	6.6	3.6	22	8	20.5	8	21.9	7	57.7	6.6	3.7
23	8	05.7	8	07.1	7	43.6	6.9	3.7	23	8	20.7	8	22.1	7	58.0	6.9	3.9
24	8	06.0	8	07.3	7	43.9	7.2	3.9	24	8	21.0	8	22.4	7	58.2	7.2	4.0
25	8	06.2	8	07.6	7	44.1	7.5	4.1	25	8	21.2	8	22.6	7	58.4	7.5	4.2
26	8	06.5	8	07.8	7	44.4	7.8	4.2	26	8	21.5	8	22.9	7	58.7	7.8	4.4
27	8	06.8	8	08.1	7	44.6	8.1	4.4	27	8	21.8	8	23.1	7	58.9	8.1	4.5
28	8	07.0	8	08.3	7	44.8	8.4	4.6	28	8	22.0	8	23.4	7	59.2	8.4	4.7
29	8	07.3	8	08.6	7	45.1	8.7	4.7	29	8	22.3	8	23.6	7	59.4	8.7	4.9
30	8	07.5	8	08.8	7	45.3	9.0	4.9	30	8	22.5	8	23.9	7	59.6	9.0	5.0
31	8	07.7	8	09.1	7	45.6	9.3	5.0	31	8	22.7	8	24.1	7	59.9	9.3	5.2
32	8	08.0	8	09.3	7	45.8	9.6	5.2	32	8	23.0	8	24.4	8	00.1	9.6	5.4
33	8	08.2	8	09.6	7	46.0	9.9	5.4	33	8	23.2	8	24.6	8	00.3	9.9	5.5
34	8	08.5	8	09.8	7	46.3	10.2	5.5	34	8	23.5	8	24.9	8	00.6	10.2	5.7
35	8	08.8	8	10.1	7	46.5	10.5	5.7	35	8	23.8	8	25.1	8	00.8	10.5	5.9
36	8	09.0	8	10.3	7	46.7	10.8	5.9	36	8	24.0	8	25.4	8	01.1	10.8	6.0
37	8	09.3	8	10.6	7	47.0	11.1	6.0	37	8	24.3	8	25.6	8	01.3	11.1	6.2
38	8	09.5	8	10.8	7	47.2	11.4	6.2	38	8	24.5	8	25.9	8	01.5	11.4	6.4
39	8	09.7	8	11.1	7	47.5	11.7	6.3	39	8	24.7	8	26.1	8	01.8	11.7	6.5
40	8	10.0	8	11.3	7	47.7	12.0	6.5	40	8	25.0	8	26.4	8	02.0	12.0	6.7
41	8	10.2	8	11.6	7	47.9	12.3	6.7	41	8	25.2	8	26.6	8	02.3	12.3	6.9
42	8	10.5	8	11.8	7	48.2	12.6	6.8	42	8	25.5	8	26.9	8	02.5	12.6	7.0
43	8	10.8	8	12.1	7	48.4	12.9	7.0	43	8	25.8	8	27.1	8	02.7	12.9	7.2
44	8	11.0	8	12.3	7	48.7	13.2	7.2	44	8	26.0	8	27.4	8	03.0	13.2	7.4
45	8	11.2	8	12.6	7	48.9	13.5	7.3	45	8	26.2	8	27.6	8	03.2	13.5	7.5
46	8	11.5	8	12.8	7	49.1	13.8	7.5	46	8	26.5	8	27.9	8	03.4	13.8	7.7
47	8	11.7	8	13.1	7	49.4	14.1	7.6	47	8	26.7	8	28.1	8	03.7	14.1	7.9
48	8	12.0	8	13.3	7	49.6	14.4	7.8	48	8	27.0	8	28.4	8	03.9	14.4	8.0
49	8	12.3	8	13.6	7	49.8	14.7	8.0	49	8	27.3	8	28.6	8	04.2	14.7	8.2
50	8	12.5	8	13.8	7	50.1	15.0	8.1	50	8	27.5	8	28.9	8	04.4	15.0	8.4
51	8	12.8	8	14.1	7	50.3	15.3	8.3	51	8	27.8	8	29.1	8	04.6	15.3	8.5
52	8	13.0	8	14.3	7	50.6	15.6	8.5	52	8	28.0	8	29.4	8	04.9	15.6	8.7
53	8	13.2	8	14.6	7	50.8	15.9	8.6	53	8	28.2	8	29.6	8	05.1	15.9	8.9
54	8	13.5	8	14.8	7	51.0	16.2	8.8	54	8	28.5	8	29.9	8	05.4	16.2	9.0
55	8	13.7	8	15.1	7	51.3	16.5	8.9	55	8	28.7	8	30.1	8	05.6	16.5	9.2
56	8	14.0	8	15.3	7	51.5	16.8	9.1	56	8	29.0	8	30.4	8	05.8	16.8	9.4
57	8	14.3	8	15.6	7	51.8	17.1	9.3	57	8	29.3	8	30.6	8	06.1	17.1	9.5
58	8	14.5	8	15.8	7	52.0	17.4	9.4	58	8	29.5	8	30.9	8	06.3	17.4	9.7
59	8	14.8	8	16.1	7	52.2	17.7	9.6	59	8	29.8	8	31.1	8	06.5	17.7	9.9

34 min

Schalttafel

35 min

34 min	Zuwachs Grt			Unt	Vb	35 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	8 30.0	8 31.4	8 06.8	0.0	0.0	0	8 45.0	8 46.4	8 21.1	0.0	0.0
1	8 30.2	8 31.6	8 07.0	0.3	0.2	1	8 45.2	8 46.7	8 21.3	0.3	0.2
2	8 30.5	8 31.9	8 07.3	0.6	0.3	2	8 45.5	8 46.9	8 21.6	0.6	0.4
3	8 30.7	8 32.1	8 07.5	0.9	0.5	3	8 45.7	8 47.2	8 21.8	0.9	0.5
4	8 31.0	8 32.4	8 07.7	1.2	0.7	4	8 46.0	8 47.4	8 22.1	1.2	0.7
5	8 31.3	8 32.6	8 08.0	1.5	0.9	5	8 46.3	8 47.7	8 22.3	1.5	0.9
6	8 31.5	8 32.9	8 08.2	1.8	1.0	6	8 46.5	8 47.9	8 22.5	1.8	1.1
7	8 31.8	8 33.1	8 08.5	2.1	1.2	7	8 46.8	8 48.2	8 22.8	2.1	1.2
8	8 32.0	8 33.4	8 08.7	2.4	1.4	8	8 47.0	8 48.4	8 23.0	2.4	1.4
9	8 32.2	8 33.6	8 08.9	2.7	1.6	9	8 47.2	8 48.7	8 23.3	2.7	1.6
10	8 32.5	8 33.9	8 09.2	3.0	1.7	10	8 47.5	8 48.9	8 23.5	3.0	1.8
11	8 32.7	8 34.1	8 09.4	3.3	1.9	11	8 47.7	8 49.2	8 23.7	3.3	2.0
12	8 33.0	8 34.4	8 09.7	3.6	2.1	12	8 48.0	8 49.4	8 24.0	3.6	2.1
13	8 33.3	8 34.6	8 09.9	3.9	2.2	13	8 48.3	8 49.7	8 24.2	3.9	2.3
14	8 33.5	8 34.9	8 10.1	4.2	2.4	14	8 48.5	8 49.9	8 24.4	4.2	2.5
15	8 33.8	8 35.1	8 10.4	4.5	2.6	15	8 48.8	8 50.2	8 24.7	4.5	2.7
16	8 34.0	8 35.4	8 10.6	4.8	2.8	16	8 49.0	8 50.4	8 24.9	4.8	2.8
17	8 34.2	8 35.7	8 10.8	5.1	2.9	17	8 49.2	8 50.7	8 25.2	5.1	3.0
18	8 34.5	8 35.9	8 11.1	5.4	3.1	18	8 49.5	8 50.9	8 25.4	5.4	3.2
19	8 34.8	8 36.2	8 11.3	5.7	3.3	19	8 49.8	8 51.2	8 25.6	5.7	3.4
20	8 35.0	8 36.4	8 11.6	6.0	3.5	20	8 50.0	8 51.4	8 25.9	6.0	3.6
21	8 35.3	8 36.7	8 11.8	6.3	3.6	21	8 50.3	8 51.7	8 26.1	6.3	3.7
22	8 35.5	8 36.9	8 12.0	6.6	3.8	22	8 50.5	8 51.9	8 26.4	6.6	3.9
23	8 35.7	8 37.2	8 12.3	6.9	4.0	23	8 50.7	8 52.2	8 26.6	6.9	4.1
24	8 36.0	8 37.4	8 12.5	7.2	4.1	24	8 51.0	8 52.4	8 26.8	7.2	4.3
25	8 36.2	8 37.7	8 12.8	7.5	4.3	25	8 51.2	8 52.7	8 27.1	7.5	4.4
26	8 36.5	8 37.9	8 13.0	7.8	4.5	26	8 51.5	8 52.9	8 27.3	7.8	4.6
27	8 36.8	8 38.2	8 13.2	8.1	4.7	27	8 51.8	8 53.2	8 27.5	8.1	4.8
28	8 37.0	8 38.4	8 13.5	8.4	4.8	28	8 52.0	8 53.4	8 27.8	8.4	5.0
29	8 37.3	8 38.7	8 13.7	8.7	5.0	29	8 52.3	8 53.7	8 28.0	8.7	5.1
30	8 37.5	8 38.9	8 13.9	9.0	5.2	30	8 52.5	8 53.9	8 28.3	9.0	5.3
31	8 37.7	8 39.2	8 14.2	9.3	5.3	31	8 52.7	8 54.2	8 28.5	9.3	5.5
32	8 38.0	8 39.4	8 14.4	9.6	5.5	32	8 53.0	8 54.5	8 28.7	9.6	5.7
33	8 38.2	8 39.7	8 14.7	9.9	5.7	33	8 53.2	8 54.7	8 29.0	9.9	5.9
34	8 38.5	8 39.9	8 14.9	10.2	5.9	34	8 53.5	8 55.0	8 29.2	10.2	6.0
35	8 38.8	8 40.2	8 15.1	10.5	6.0	35	8 53.8	8 55.2	8 29.5	10.5	6.2
36	8 39.0	8 40.4	8 15.4	10.8	6.2	36	8 54.0	8 55.5	8 29.7	10.8	6.4
37	8 39.3	8 40.7	8 15.6	11.1	6.4	37	8 54.3	8 55.7	8 29.9	11.1	6.6
38	8 39.5	8 40.9	8 15.9	11.4	6.6	38	8 54.5	8 56.0	8 30.2	11.4	6.7
39	8 39.7	8 41.2	8 16.1	11.7	6.7	39	8 54.7	8 56.2	8 30.4	11.7	6.9
40	8 40.0	8 41.4	8 16.3	12.0	6.9	40	8 55.0	8 56.5	8 30.7	12.0	7.1
41	8 40.2	8 41.7	8 16.6	12.3	7.1	41	8 55.2	8 56.7	8 30.9	12.3	7.3
42	8 40.5	8 41.9	8 16.8	12.6	7.2	42	8 55.5	8 57.0	8 31.1	12.6	7.5
43	8 40.8	8 42.2	8 17.0	12.9	7.4	43	8 55.8	8 57.2	8 31.4	12.9	7.6
44	8 41.0	8 42.4	8 17.3	13.2	7.6	44	8 56.0	8 57.5	8 31.6	13.2	7.8
45	8 41.2	8 42.7	8 17.5	13.5	7.8	45	8 56.2	8 57.7	8 31.8	13.5	8.0
46	8 41.5	8 42.9	8 17.8	13.8	7.9	46	8 56.5	8 58.0	8 32.1	13.8	8.2
47	8 41.7	8 43.2	8 18.0	14.1	8.1	47	8 56.7	8 58.2	8 32.3	14.1	8.3
48	8 42.0	8 43.4	8 18.2	14.4	8.3	48	8 57.0	8 58.5	8 32.6	14.4	8.5
49	8 42.3	8 43.7	8 18.5	14.7	8.5	49	8 57.3	8 58.7	8 32.8	14.7	8.7
50	8 42.5	8 43.9	8 18.7	15.0	8.6	50	8 57.5	8 59.0	8 33.0	15.0	8.9
51	8 42.8	8 44.2	8 19.0	15.3	8.8	51	8 57.8	8 59.2	8 33.3	15.3	9.1
52	8 43.0	8 44.4	8 19.2	15.6	9.0	52	8 58.0	8 59.5	8 33.5	15.6	9.2
53	8 43.2	8 44.7	8 19.4	15.9	9.1	53	8 58.2	8 59.7	8 33.8	15.9	9.4
54	8 43.5	8 44.9	8 19.7	16.2	9.3	54	8 58.5	8 60.0	8 34.0	16.2	9.6
55	8 43.7	8 45.2	8 19.9	16.5	9.5	55	8 58.7	9 00.2	8 34.2	16.5	9.8
56	8 44.0	8 45.4	8 20.2	16.8	9.7	56	8 59.0	9 00.5	8 34.5	16.8	9.9
57	8 44.3	8 45.7	8 20.4	17.1	9.8	57	8 59.3	9 00.7	8 34.7	17.1	10.1
58	8 44.5	8 45.9	8 20.6	17.4	10.0	58	8 59.5	9 01.0	8 34.9	17.4	10.3
59	8 44.8	8 46.2	8 20.9	17.7	10.2	59	8 59.8	9 01.2	8 35.2	17.7	10.5

36 min

Schalttafel

37 min

36 min	Zuwachs Grt			Unt	Vb	37 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	9 00.0	9 01.5	8 35.4	0.0	0.0	0	9 15.0	9 16.5	8 49.7	0.0	0.0
1	9 00.2	9 01.7	8 35.7	0.3	0.2	1	9 15.2	9 16.8	8 50.0	0.3	0.2
2	9 00.5	9 02.0	8 35.9	0.6	0.4	2	9 15.5	9 17.0	8 50.2	0.6	0.4
3	9 00.7	9 02.2	8 36.1	0.9	0.5	3	9 15.7	9 17.3	8 50.5	0.9	0.6
4	9 01.0	9 02.5	8 36.4	1.2	0.7	4	9 16.0	9 17.5	8 50.7	1.2	0.8
5	9 01.3	9 02.7	8 36.6	1.5	0.9	5	9 16.3	9 17.8	8 50.9	1.5	0.9
6	9 01.5	9 03.0	8 36.9	1.8	1.1	6	9 16.5	9 18.0	8 51.2	1.8	1.1
7	9 01.8	9 03.2	8 37.1	2.1	1.3	7	9 16.8	9 18.3	8 51.4	2.1	1.3
8	9 02.0	9 03.5	8 37.3	2.4	1.5	8	9 17.0	9 18.5	8 51.6	2.4	1.5
9	9 02.2	9 03.7	8 37.6	2.7	1.6	9	9 17.2	9 18.8	8 51.9	2.7	1.7
10	9 02.5	9 04.0	8 37.8	3.0	1.8	10	9 17.5	9 19.0	8 52.1	3.0	1.9
11	9 02.7	9 04.2	8 38.0	3.3	2.0	11	9 17.7	9 19.3	8 52.4	3.3	2.1
12	9 03.0	9 04.5	8 38.3	3.6	2.2	12	9 18.0	9 19.5	8 52.6	3.6	2.3
13	9 03.3	9 04.7	8 38.5	3.9	2.4	13	9 18.3	9 19.8	8 52.8	3.9	2.4
14	9 03.5	9 05.0	8 38.8	4.2	2.6	14	9 18.5	9 20.0	8 53.1	4.2	2.6
15	9 03.8	9 05.2	8 39.0	4.5	2.7	15	9 18.8	9 20.3	8 53.3	4.5	2.8
16	9 04.0	9 05.5	8 39.2	4.8	2.9	16	9 19.0	9 20.5	8 53.6	4.8	3.0
17	9 04.2	9 05.7	8 39.5	5.1	3.1	17	9 19.2	9 20.8	8 53.8	5.1	3.2
18	9 04.5	9 06.0	8 39.7	5.4	3.3	18	9 19.5	9 21.0	8 54.0	5.4	3.4
19	9 04.8	9 06.2	8 40.0	5.7	3.5	19	9 19.8	9 21.3	8 54.3	5.7	3.6
20	9 05.0	9 06.5	8 40.2	6.0	3.7	20	9 20.0	9 21.5	8 54.5	6.0	3.8
21	9 05.3	9 06.7	8 40.4	6.3	3.8	21	9 20.3	9 21.8	8 54.8	6.3	3.9
22	9 05.5	9 07.0	8 40.7	6.6	4.0	22	9 20.5	9 22.0	8 55.0	6.6	4.1
23	9 05.7	9 07.2	8 40.9	6.9	4.2	23	9 20.7	9 22.3	8 55.2	6.9	4.3
24	9 06.0	9 07.5	8 41.2	7.2	4.4	24	9 21.0	9 22.5	8 55.5	7.2	4.5
25	9 06.2	9 07.7	8 41.4	7.5	4.6	25	9 21.2	9 22.8	8 55.7	7.5	4.7
26	9 06.5	9 08.0	8 41.6	7.8	4.7	26	9 21.5	9 23.0	8 55.9	7.8	4.9
27	9 06.8	9 08.2	8 41.9	8.1	4.9	27	9 21.8	9 23.3	8 56.2	8.1	5.1
28	9 07.0	9 08.5	8 42.1	8.4	5.1	28	9 22.0	9 23.5	8 56.4	8.4	5.3
29	9 07.3	9 08.7	8 42.3	8.7	5.3	29	9 22.3	9 23.8	8 56.7	8.7	5.4
30	9 07.5	9 09.0	8 42.6	9.0	5.5	30	9 22.5	9 24.0	8 56.9	9.0	5.6
31	9 07.7	9 09.2	8 42.8	9.3	5.7	31	9 22.7	9 24.3	8 57.1	9.3	5.8
32	9 08.0	9 09.5	8 43.1	9.6	5.8	32	9 23.0	9 24.5	8 57.4	9.6	6.0
33	9 08.2	9 09.7	8 43.3	9.9	6.0	33	9 23.2	9 24.8	8 57.6	9.9	6.2
34	9 08.5	9 10.0	8 43.5	10.2	6.2	34	9 23.5	9 25.0	8 57.9	10.2	6.4
35	9 08.8	9 10.2	8 43.8	10.5	6.4	35	9 23.8	9 25.3	8 58.1	10.5	6.6
36	9 09.0	9 10.5	8 44.0	10.8	6.6	36	9 24.0	9 25.5	8 58.3	10.8	6.8
37	9 09.3	9 10.7	8 44.3	11.1	6.8	37	9 24.3	9 25.8	8 58.6	11.1	6.9
38	9 09.5	9 11.0	8 44.5	11.4	6.9	38	9 24.5	9 26.0	8 58.8	11.4	7.1
39	9 09.7	9 11.2	8 44.7	11.7	7.1	39	9 24.7	9 26.3	8 59.0	11.7	7.3
40	9 10.0	9 11.5	8 45.0	12.0	7.3	40	9 25.0	9 26.5	8 59.3	12.0	7.5
41	9 10.2	9 11.7	8 45.2	12.3	7.5	41	9 25.2	9 26.8	8 59.5	12.3	7.7
42	9 10.5	9 12.0	8 45.4	12.6	7.7	42	9 25.5	9 27.0	8 59.8	12.6	7.9
43	9 10.8	9 12.2	8 45.7	12.9	7.8	43	9 25.8	9 27.3	9 00.0	12.9	8.1
44	9 11.0	9 12.5	8 45.9	13.2	8.0	44	9 26.0	9 27.5	9 00.2	13.2	8.3
45	9 11.2	9 12.8	8 46.2	13.5	8.2	45	9 26.2	9 27.8	9 00.5	13.5	8.4
46	9 11.5	9 13.0	8 46.4	13.8	8.4	46	9 26.5	9 28.0	9 00.7	13.8	8.6
47	9 11.7	9 13.3	8 46.6	14.1	8.6	47	9 26.7	9 28.3	9 01.0	14.1	8.8
48	9 12.0	9 13.5	8 46.9	14.4	8.8	48	9 27.0	9 28.5	9 01.2	14.4	9.0
49	9 12.3	9 13.8	8 47.1	14.7	8.9	49	9 27.3	9 28.8	9 01.4	14.7	9.2
50	9 12.5	9 14.0	8 47.4	15.0	9.1	50	9 27.5	9 29.0	9 01.7	15.0	9.4
51	9 12.8	9 14.3	8 47.6	15.3	9.3	51	9 27.8	9 29.3	9 01.9	15.3	9.6
52	9 13.0	9 14.5	8 47.8	15.6	9.5	52	9 28.0	9 29.5	9 02.1	15.6	9.8
53	9 13.2	9 14.8	8 48.1	15.9	9.7	53	9 28.2	9 29.8	9 02.4	15.9	9.9
54	9 13.5	9 15.0	8 48.3	16.2	9.9	54	9 28.5	9 30.0	9 02.6	16.2	10.1
55	9 13.7	9 15.3	8 48.5	16.5	10.0	55	9 28.7	9 30.3	9 02.9	16.5	10.3
56	9 14.0	9 15.5	8 48.8	16.8	10.2	56	9 29.0	9 30.5	9 03.1	16.8	10.5
57	9 14.3	9 15.8	8 49.0	17.1	10.4	57	9 29.3	9 30.8	9 03.3	17.1	10.7
58	9 14.5	9 16.0	8 49.3	17.4	10.6	58	9 29.5	9 31.1	9 03.6	17.4	10.9
59	9 14.8	9 16.3	8 49.5	17.7	10.8	59	9 29.8	9 31.3	9 03.8	17.7	11.1

38 min

Schalttafel

39 min

38 min	Zuwachs Grt			Unt	Vb	39 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	9 30.0	9 31.6	9 04.1	0.0	0.0	0	9 45.0	9 46.6	9 18.4	0.0	0.0
1	9 30.2	9 31.8	9 04.3	0.3	0.2	1	9 45.2	9 46.8	9 18.6	0.3	0.2
2	9 30.5	9 32.1	9 04.5	0.6	0.4	2	9 45.5	9 47.1	9 18.9	0.6	0.4
3	9 30.7	9 32.3	9 04.8	0.9	0.6	3	9 45.7	9 47.3	9 19.1	0.9	0.6
4	9 31.0	9 32.6	9 05.0	1.2	0.8	4	9 46.0	9 47.6	9 19.3	1.2	0.8
5	9 31.3	9 32.8	9 05.3	1.5	1.0	5	9 46.3	9 47.8	9 19.6	1.5	1.0
6	9 31.5	9 33.1	9 05.5	1.8	1.2	6	9 46.5	9 48.1	9 19.8	1.8	1.2
7	9 31.8	9 33.3	9 05.7	2.1	1.3	7	9 46.8	9 48.3	9 20.0	2.1	1.4
8	9 32.0	9 33.6	9 06.0	2.4	1.5	8	9 47.0	9 48.6	9 20.3	2.4	1.6
9	9 32.2	9 33.8	9 06.2	2.7	1.7	9	9 47.2	9 48.8	9 20.5	2.7	1.8
10	9 32.5	9 34.1	9 06.4	3.0	1.9	10	9 47.5	9 49.1	9 20.8	3.0	2.0
11	9 32.7	9 34.3	9 06.7	3.3	2.1	11	9 47.7	9 49.4	9 21.0	3.3	2.2
12	9 33.0	9 34.6	9 06.9	3.6	2.3	12	9 48.0	9 49.6	9 21.2	3.6	2.4
13	9 33.3	9 34.8	9 07.2	3.9	2.5	13	9 48.3	9 49.9	9 21.5	3.9	2.6
14	9 33.5	9 35.1	9 07.4	4.2	2.7	14	9 48.5	9 50.1	9 21.7	4.2	2.8
15	9 33.8	9 35.3	9 07.6	4.5	2.9	15	9 48.8	9 50.4	9 22.0	4.5	3.0
16	9 34.0	9 35.6	9 07.9	4.8	3.1	16	9 49.0	9 50.6	9 22.2	4.8	3.2
17	9 34.2	9 35.8	9 08.1	5.1	3.3	17	9 49.2	9 50.9	9 22.4	5.1	3.4
18	9 34.5	9 36.1	9 08.4	5.4	3.5	18	9 49.5	9 51.1	9 22.7	5.4	3.6
19	9 34.8	9 36.3	9 08.6	5.7	3.7	19	9 49.8	9 51.4	9 22.9	5.7	3.8
20	9 35.0	9 36.6	9 08.8	6.0	3.9	20	9 50.0	9 51.6	9 23.1	6.0	4.0
21	9 35.3	9 36.8	9 09.1	6.3	4.0	21	9 50.3	9 51.9	9 23.4	6.3	4.1
22	9 35.5	9 37.1	9 09.3	6.6	4.2	22	9 50.5	9 52.1	9 23.6	6.6	4.3
23	9 35.7	9 37.3	9 09.5	6.9	4.4	23	9 50.7	9 52.4	9 23.9	6.9	4.5
24	9 36.0	9 37.6	9 09.8	7.2	4.6	24	9 51.0	9 52.6	9 24.1	7.2	4.7
25	9 36.2	9 37.8	9 10.0	7.5	4.8	25	9 51.2	9 52.9	9 24.3	7.5	4.9
26	9 36.5	9 38.1	9 10.3	7.8	5.0	26	9 51.5	9 53.1	9 24.6	7.8	5.1
27	9 36.8	9 38.3	9 10.5	8.1	5.2	27	9 51.8	9 53.4	9 24.8	8.1	5.3
28	9 37.0	9 38.6	9 10.7	8.4	5.4	28	9 52.0	9 53.6	9 25.1	8.4	5.5
29	9 37.3	9 38.8	9 11.0	8.7	5.6	29	9 52.3	9 53.9	9 25.3	8.7	5.7
30	9 37.5	9 39.1	9 11.2	9.0	5.8	30	9 52.5	9 54.1	9 25.5	9.0	5.9
31	9 37.7	9 39.3	9 11.5	9.3	6.0	31	9 52.7	9 54.4	9 25.8	9.3	6.1
32	9 38.0	9 39.6	9 11.7	9.6	6.2	32	9 53.0	9 54.6	9 26.0	9.6	6.3
33	9 38.2	9 39.8	9 11.9	9.9	6.4	33	9 53.2	9 54.9	9 26.2	9.9	6.5
34	9 38.5	9 40.1	9 12.2	10.2	6.5	34	9 53.5	9 55.1	9 26.5	10.2	6.7
35	9 38.8	9 40.3	9 12.4	10.5	6.7	35	9 53.8	9 55.4	9 26.7	10.5	6.9
36	9 39.0	9 40.6	9 12.6	10.8	6.9	36	9 54.0	9 55.6	9 27.0	10.8	7.1
37	9 39.3	9 40.8	9 12.9	11.1	7.1	37	9 54.3	9 55.9	9 27.2	11.1	7.3
38	9 39.5	9 41.1	9 13.1	11.4	7.3	38	9 54.5	9 56.1	9 27.4	11.4	7.5
39	9 39.7	9 41.3	9 13.4	11.7	7.5	39	9 54.7	9 56.4	9 27.7	11.7	7.7
40	9 40.0	9 41.6	9 13.6	12.0	7.7	40	9 55.0	9 56.6	9 27.9	12.0	7.9
41	9 40.2	9 41.8	9 13.8	12.3	7.9	41	9 55.2	9 56.9	9 28.2	12.3	8.1
42	9 40.5	9 42.1	9 14.1	12.6	8.1	42	9 55.5	9 57.1	9 28.4	12.6	8.3
43	9 40.8	9 42.3	9 14.3	12.9	8.3	43	9 55.8	9 57.4	9 28.6	12.9	8.5
44	9 41.0	9 42.6	9 14.6	13.2	8.5	44	9 56.0	9 57.6	9 28.9	13.2	8.7
45	9 41.2	9 42.8	9 14.8	13.5	8.7	45	9 56.2	9 57.9	9 29.1	13.5	8.9
46	9 41.5	9 43.1	9 15.0	13.8	8.9	46	9 56.5	9 58.1	9 29.4	13.8	9.1
47	9 41.7	9 43.3	9 15.3	14.1	9.0	47	9 56.7	9 58.4	9 29.6	14.1	9.3
48	9 42.0	9 43.6	9 15.5	14.4	9.2	48	9 57.0	9 58.6	9 29.8	14.4	9.5
49	9 42.3	9 43.8	9 15.8	14.7	9.4	49	9 57.3	9 58.9	9 30.1	14.7	9.7
50	9 42.5	9 44.1	9 16.0	15.0	9.6	50	9 57.5	9 59.1	9 30.3	15.0	9.9
51	9 42.8	9 44.3	9 16.2	15.3	9.8	51	9 57.8	9 59.4	9 30.5	15.3	10.1
52	9 43.0	9 44.6	9 16.5	15.6	10.0	52	9 58.0	9 59.6	9 30.8	15.6	10.3
53	9 43.2	9 44.8	9 16.7	15.9	10.2	53	9 58.2	9 59.9	9 31.0	15.9	10.5
54	9 43.5	9 45.1	9 16.9	16.2	10.4	54	9 58.5	10 00.1	9 31.3	16.2	10.7
55	9 43.7	9 45.3	9 17.2	16.5	10.6	55	9 58.7	10 00.4	9 31.5	16.5	10.9
56	9 44.0	9 45.6	9 17.4	16.8	10.8	56	9 59.0	10 00.6	9 31.7	16.8	11.1
57	9 44.3	9 45.8	9 17.7	17.1	11.0	57	9 59.3	10 00.9	9 32.0	17.1	11.3
58	9 44.5	9 46.1	9 17.9	17.4	11.2	58	9 59.5	10 01.1	9 32.2	17.4	11.5
59	9 44.8	9 46.3	9 18.1	17.7	11.4	59	9 59.8	10 01.4	9 32.5	17.7	11.7

40 min

Schalttafel

41 min

40 min	Zuwachs Grt			Unt	Vb	41 min	Zuwachs Grt			Unt	Vb						
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond								
s	°	'	°	'	°	'	s	°	'	°	'	°	'				
0	10	00.0	10	01.6	9	32.7	0.0	0.0	0	10	15.0	10	16.7	9	47.0	0.0	0.0
1	10	00.2	10	01.9	9	32.9	0.3	0.2	1	10	15.2	10	16.9	9	47.2	0.3	0.2
2	10	00.5	10	02.1	9	33.2	0.6	0.4	2	10	15.5	10	17.2	9	47.5	0.6	0.4
3	10	00.7	10	02.4	9	33.4	0.9	0.6	3	10	15.7	10	17.4	9	47.7	0.9	0.6
4	10	01.0	10	02.6	9	33.6	1.2	0.8	4	10	16.0	10	17.7	9	48.0	1.2	0.8
5	10	01.3	10	02.9	9	33.9	1.5	1.0	5	10	16.3	10	17.9	9	48.2	1.5	1.0
6	10	01.5	10	03.1	9	34.1	1.8	1.2	6	10	16.5	10	18.2	9	48.4	1.8	1.2
7	10	01.8	10	03.4	9	34.4	2.1	1.4	7	10	16.8	10	18.4	9	48.7	2.1	1.5
8	10	02.0	10	03.6	9	34.6	2.4	1.6	8	10	17.0	10	18.7	9	48.9	2.4	1.7
9	10	02.2	10	03.9	9	34.8	2.7	1.8	9	10	17.2	10	18.9	9	49.2	2.7	1.9
10	10	02.5	10	04.1	9	35.1	3.0	2.0	10	10	17.5	10	19.2	9	49.4	3.0	2.1
11	10	02.7	10	04.4	9	35.3	3.3	2.2	11	10	17.7	10	19.4	9	49.6	3.3	2.3
12	10	03.0	10	04.6	9	35.6	3.6	2.4	12	10	18.0	10	19.7	9	49.9	3.6	2.5
13	10	03.3	10	04.9	9	35.8	3.9	2.6	13	10	18.3	10	19.9	9	50.1	3.9	2.7
14	10	03.5	10	05.1	9	36.0	4.2	2.8	14	10	18.5	10	20.2	9	50.4	4.2	2.9
15	10	03.8	10	05.4	9	36.3	4.5	3.0	15	10	18.8	10	20.4	9	50.6	4.5	3.1
16	10	04.0	10	05.6	9	36.5	4.8	3.2	16	10	19.0	10	20.7	9	50.8	4.8	3.3
17	10	04.2	10	05.9	9	36.7	5.1	3.4	17	10	19.2	10	20.9	9	51.1	5.1	3.5
18	10	04.5	10	06.1	9	37.0	5.4	3.6	18	10	19.5	10	21.2	9	51.3	5.4	3.7
19	10	04.8	10	06.4	9	37.2	5.7	3.8	19	10	19.8	10	21.4	9	51.5	5.7	3.9
20	10	05.0	10	06.6	9	37.5	6.0	4.1	20	10	20.0	10	21.7	9	51.8	6.0	4.2
21	10	05.3	10	06.9	9	37.7	6.3	4.3	21	10	20.3	10	21.9	9	52.0	6.3	4.4
22	10	05.5	10	07.1	9	37.9	6.6	4.5	22	10	20.5	10	22.2	9	52.3	6.6	4.6
23	10	05.7	10	07.4	9	38.2	6.9	4.7	23	10	20.7	10	22.4	9	52.5	6.9	4.8
24	10	06.0	10	07.7	9	38.4	7.2	4.9	24	10	21.0	10	22.7	9	52.7	7.2	5.0
25	10	06.2	10	07.9	9	38.7	7.5	5.1	25	10	21.2	10	22.9	9	53.0	7.5	5.2
26	10	06.5	10	08.2	9	38.9	7.8	5.3	26	10	21.5	10	23.2	9	53.2	7.8	5.4
27	10	06.8	10	08.4	9	39.1	8.1	5.5	27	10	21.8	10	23.4	9	53.5	8.1	5.6
28	10	07.0	10	08.7	9	39.4	8.4	5.7	28	10	22.0	10	23.7	9	53.7	8.4	5.8
29	10	07.3	10	08.9	9	39.6	8.7	5.9	29	10	22.3	10	23.9	9	53.9	8.7	6.0
30	10	07.5	10	09.2	9	39.9	9.0	6.1	30	10	22.5	10	24.2	9	54.2	9.0	6.2
31	10	07.7	10	09.4	9	40.1	9.3	6.3	31	10	22.7	10	24.4	9	54.4	9.3	6.4
32	10	08.0	10	09.7	9	40.3	9.6	6.5	32	10	23.0	10	24.7	9	54.6	9.6	6.6
33	10	08.2	10	09.9	9	40.6	9.9	6.7	33	10	23.2	10	24.9	9	54.9	9.9	6.8
34	10	08.5	10	10.2	9	40.8	10.2	6.9	34	10	23.5	10	25.2	9	55.1	10.2	7.1
35	10	08.8	10	10.4	9	41.0	10.5	7.1	35	10	23.8	10	25.4	9	55.4	10.5	7.3
36	10	09.0	10	10.7	9	41.3	10.8	7.3	36	10	24.0	10	25.7	9	55.6	10.8	7.5
37	10	09.3	10	10.9	9	41.5	11.1	7.5	37	10	24.3	10	25.9	9	55.8	11.1	7.7
38	10	09.5	10	11.2	9	41.8	11.4	7.7	38	10	24.5	10	26.2	9	56.1	11.4	7.9
39	10	09.7	10	11.4	9	42.0	11.7	7.9	39	10	24.7	10	26.5	9	56.3	11.7	8.1
40	10	10.0	10	11.7	9	42.2	12.0	8.1	40	10	25.0	10	26.7	9	56.6	12.0	8.3
41	10	10.2	10	11.9	9	42.5	12.3	8.3	41	10	25.2	10	27.0	9	56.8	12.3	8.5
42	10	10.5	10	12.2	9	42.7	12.6	8.5	42	10	25.5	10	27.2	9	57.0	12.6	8.7
43	10	10.8	10	12.4	9	43.0	12.9	8.7	43	10	25.8	10	27.5	9	57.3	12.9	8.9
44	10	11.0	10	12.7	9	43.2	13.2	8.9	44	10	26.0	10	27.7	9	57.5	13.2	9.1
45	10	11.2	10	12.9	9	43.4	13.5	9.1	45	10	26.2	10	28.0	9	57.7	13.5	9.3
46	10	11.5	10	13.2	9	43.7	13.8	9.3	46	10	26.5	10	28.2	9	58.0	13.8	9.5
47	10	11.7	10	13.4	9	43.9	14.1	9.5	47	10	26.7	10	28.5	9	58.2	14.1	9.8
48	10	12.0	10	13.7	9	44.1	14.4	9.7	48	10	27.0	10	28.7	9	58.5	14.4	10.0
49	10	12.3	10	13.9	9	44.4	14.7	9.9	49	10	27.3	10	29.0	9	58.7	14.7	10.2
50	10	12.5	10	14.2	9	44.6	15.0	10.1	50	10	27.5	10	29.2	9	58.9	15.0	10.4
51	10	12.8	10	14.4	9	44.9	15.3	10.3	51	10	27.8	10	29.5	9	59.2	15.3	10.6
52	10	13.0	10	14.7	9	45.1	15.6	10.5	52	10	28.0	10	29.7	9	59.4	15.6	10.8
53	10	13.2	10	14.9	9	45.3	15.9	10.7	53	10	28.2	10	30.0	9	59.7	15.9	11.0
54	10	13.5	10	15.2	9	45.6	16.2	10.9	54	10	28.5	10	30.2	9	59.9	16.2	11.2
55	10	13.7	10	15.4	9	45.8	16.5	11.1	55	10	28.7	10	30.5	10	00.1	16.5	11.4
56	10	14.0	10	15.7	9	46.1	16.8	11.3	56	10	29.0	10	30.7	10	00.4	16.8	11.6
57	10	14.3	10	15.9	9	46.3	17.1	11.5	57	10	29.3	10	31.0	10	00.6	17.1	11.8
58	10	14.5	10	16.2	9	46.5	17.4	11.7	58	10	29.5	10	31.2	10	00.8	17.4	12.0
59	10	14.8	10	16.4	9	46.8	17.7	11.9	59	10	29.8	10	31.5	10	01.1	17.7	12.2

42 min

Schalttafel

43 min

42 min	Zuwachs Grt			Unt	Vb	43 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	10 30.0	10 31.7	10 01.3	0.0	0.0	0	10 45.0	10 46.8	10 15.6	0.0	0.0
1	10 30.2	10 32.0	10 01.6	0.3	0.2	1	10 45.2	10 47.0	10 15.9	0.3	0.2
2	10 30.5	10 32.2	10 01.8	0.6	0.4	2	10 45.5	10 47.3	10 16.1	0.6	0.4
3	10 30.7	10 32.5	10 02.0	0.9	0.6	3	10 45.7	10 47.5	10 16.4	0.9	0.7
4	10 31.0	10 32.7	10 02.3	1.2	0.9	4	10 46.0	10 47.8	10 16.6	1.2	0.9
5	10 31.3	10 33.0	10 02.5	1.5	1.1	5	10 46.3	10 48.0	10 16.8	1.5	1.1
6	10 31.5	10 33.2	10 02.8	1.8	1.3	6	10 46.5	10 48.3	10 17.1	1.8	1.3
7	10 31.8	10 33.5	10 03.0	2.1	1.5	7	10 46.8	10 48.5	10 17.3	2.1	1.5
8	10 32.0	10 33.7	10 03.2	2.4	1.7	8	10 47.0	10 48.8	10 17.6	2.4	1.7
9	10 32.2	10 34.0	10 03.5	2.7	1.9	9	10 47.2	10 49.0	10 17.8	2.7	2.0
10	10 32.5	10 34.2	10 03.7	3.0	2.1	10	10 47.5	10 49.3	10 18.0	3.0	2.2
11	10 32.7	10 34.5	10 04.0	3.3	2.3	11	10 47.7	10 49.5	10 18.3	3.3	2.4
12	10 33.0	10 34.7	10 04.2	3.6	2.6	12	10 48.0	10 49.8	10 18.5	3.6	2.6
13	10 33.3	10 35.0	10 04.4	3.9	2.8	13	10 48.3	10 50.0	10 18.7	3.9	2.8
14	10 33.5	10 35.2	10 04.7	4.2	3.0	14	10 48.5	10 50.3	10 19.0	4.2	3.0
15	10 33.8	10 35.5	10 04.9	4.5	3.2	15	10 48.8	10 50.5	10 19.2	4.5	3.3
16	10 34.0	10 35.7	10 05.1	4.8	3.4	16	10 49.0	10 50.8	10 19.5	4.8	3.5
17	10 34.2	10 36.0	10 05.4	5.1	3.6	17	10 49.2	10 51.0	10 19.7	5.1	3.7
18	10 34.5	10 36.2	10 05.6	5.4	3.8	18	10 49.5	10 51.3	10 19.9	5.4	3.9
19	10 34.8	10 36.5	10 05.9	5.7	4.0	19	10 49.8	10 51.5	10 20.2	5.7	4.1
20	10 35.0	10 36.7	10 06.1	6.0	4.3	20	10 50.0	10 51.8	10 20.4	6.0	4.4
21	10 35.3	10 37.0	10 06.3	6.3	4.5	21	10 50.3	10 52.0	10 20.7	6.3	4.6
22	10 35.5	10 37.2	10 06.6	6.6	4.7	22	10 50.5	10 52.3	10 20.9	6.6	4.8
23	10 35.7	10 37.5	10 06.8	6.9	4.9	23	10 50.7	10 52.5	10 21.1	6.9	5.0
24	10 36.0	10 37.7	10 07.1	7.2	5.1	24	10 51.0	10 52.8	10 21.4	7.2	5.2
25	10 36.2	10 38.0	10 07.3	7.5	5.3	25	10 51.2	10 53.0	10 21.6	7.5	5.4
26	10 36.5	10 38.2	10 07.5	7.8	5.5	26	10 51.5	10 53.3	10 21.8	7.8	5.7
27	10 36.8	10 38.5	10 07.8	8.1	5.7	27	10 51.8	10 53.5	10 22.1	8.1	5.9
28	10 37.0	10 38.7	10 08.0	8.4	6.0	28	10 52.0	10 53.8	10 22.3	8.4	6.1
29	10 37.3	10 39.0	10 08.2	8.7	6.2	29	10 52.3	10 54.0	10 22.6	8.7	6.3
30	10 37.5	10 39.2	10 08.5	9.0	6.4	30	10 52.5	10 54.3	10 22.8	9.0	6.5
31	10 37.7	10 39.5	10 08.7	9.3	6.6	31	10 52.7	10 54.5	10 23.0	9.3	6.7
32	10 38.0	10 39.7	10 09.0	9.6	6.8	32	10 53.0	10 54.8	10 23.3	9.6	7.0
33	10 38.2	10 40.0	10 09.2	9.9	7.0	33	10 53.2	10 55.0	10 23.5	9.9	7.2
34	10 38.5	10 40.2	10 09.4	10.2	7.2	34	10 53.5	10 55.3	10 23.8	10.2	7.4
35	10 38.8	10 40.5	10 09.7	10.5	7.4	35	10 53.8	10 55.5	10 24.0	10.5	7.6
36	10 39.0	10 40.7	10 09.9	10.8	7.7	36	10 54.0	10 55.8	10 24.2	10.8	7.8
37	10 39.3	10 41.0	10 10.2	11.1	7.9	37	10 54.3	10 56.0	10 24.5	11.1	8.0
38	10 39.5	10 41.2	10 10.4	11.4	8.1	38	10 54.5	10 56.3	10 24.7	11.4	8.3
39	10 39.7	10 41.5	10 10.6	11.7	8.3	39	10 54.7	10 56.5	10 25.0	11.7	8.5
40	10 40.0	10 41.7	10 10.9	12.0	8.5	40	10 55.0	10 56.8	10 25.2	12.0	8.7
41	10 40.2	10 42.0	10 11.1	12.3	8.7	41	10 55.2	10 57.0	10 25.4	12.3	8.9
42	10 40.5	10 42.2	10 11.3	12.6	8.9	42	10 55.5	10 57.3	10 25.7	12.6	9.1
43	10 40.8	10 42.5	10 11.6	12.9	9.1	43	10 55.8	10 57.5	10 25.9	12.9	9.4
44	10 41.0	10 42.7	10 11.8	13.2	9.4	44	10 56.0	10 57.8	10 26.1	13.2	9.6
45	10 41.2	10 43.0	10 12.1	13.5	9.6	45	10 56.2	10 58.0	10 26.4	13.5	9.8
46	10 41.5	10 43.2	10 12.3	13.8	9.8	46	10 56.5	10 58.3	10 26.6	13.8	10.0
47	10 41.7	10 43.5	10 12.5	14.1	10.0	47	10 56.7	10 58.5	10 26.9	14.1	10.2
48	10 42.0	10 43.7	10 12.8	14.4	10.2	48	10 57.0	10 58.8	10 27.1	14.4	10.4
49	10 42.3	10 44.0	10 13.0	14.7	10.4	49	10 57.3	10 59.0	10 27.3	14.7	10.7
50	10 42.5	10 44.2	10 13.3	15.0	10.6	50	10 57.5	10 59.3	10 27.6	15.0	10.9
51	10 42.8	10 44.5	10 13.5	15.3	10.8	51	10 57.8	10 59.5	10 27.8	15.3	11.1
52	10 43.0	10 44.8	10 13.7	15.6	11.1	52	10 58.0	10 59.8	10 28.1	15.6	11.3
53	10 43.2	10 45.0	10 14.0	15.9	11.3	53	10 58.2	11 00.0	10 28.3	15.9	11.5
54	10 43.5	10 45.3	10 14.2	16.2	11.5	54	10 58.5	11 00.3	10 28.5	16.2	11.7
55	10 43.7	10 45.5	10 14.5	16.5	11.7	55	10 58.7	11 00.5	10 28.8	16.5	12.0
56	10 44.0	10 45.8	10 14.7	16.8	11.9	56	10 59.0	11 00.8	10 29.0	16.8	12.2
57	10 44.3	10 46.0	10 14.9	17.1	12.1	57	10 59.3	11 01.0	10 29.2	17.1	12.4
58	10 44.5	10 46.3	10 15.2	17.4	12.3	58	10 59.5	11 01.3	10 29.5	17.4	12.6
59	10 44.8	10 46.5	10 15.4	17.7	12.5	59	10 59.8	11 01.5	10 29.7	17.7	12.8

44 min

Schalttafel

45 min

44 min	Zuwachs Grt			Unt	Vb	45 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	11 00.0	11 01.8	10 30.0	0.0	0.0	0	11 15.0	11 16.8	10 44.3	0.0	0.0
1	11 00.2	11 02.0	10 30.2	0.3	0.2	1	11 15.2	11 17.1	10 44.5	0.3	0.2
2	11 00.5	11 02.3	10 30.4	0.6	0.4	2	11 15.5	11 17.3	10 44.8	0.6	0.5
3	11 00.7	11 02.5	10 30.7	0.9	0.7	3	11 15.7	11 17.6	10 45.0	0.9	0.7
4	11 01.0	11 02.8	10 30.9	1.2	0.9	4	11 16.0	11 17.8	10 45.2	1.2	0.9
5	11 01.3	11 03.1	10 31.2	1.5	1.1	5	11 16.3	11 18.1	10 45.5	1.5	1.1
6	11 01.5	11 03.3	10 31.4	1.8	1.3	6	11 16.5	11 18.3	10 45.7	1.8	1.4
7	11 01.8	11 03.6	10 31.6	2.1	1.6	7	11 16.8	11 18.6	10 45.9	2.1	1.6
8	11 02.0	11 03.8	10 31.9	2.4	1.8	8	11 17.0	11 18.8	10 46.2	2.4	1.8
9	11 02.2	11 04.1	10 32.1	2.7	2.0	9	11 17.2	11 19.1	10 46.4	2.7	2.0
10	11 02.5	11 04.3	10 32.3	3.0	2.2	10	11 17.5	11 19.3	10 46.7	3.0	2.3
11	11 02.7	11 04.6	10 32.6	3.3	2.4	11	11 17.7	11 19.6	10 46.9	3.3	2.5
12	11 03.0	11 04.8	10 32.8	3.6	2.7	12	11 18.0	11 19.8	10 47.1	3.6	2.7
13	11 03.3	11 05.1	10 33.1	3.9	2.9	13	11 18.3	11 20.1	10 47.4	3.9	3.0
14	11 03.5	11 05.3	10 33.3	4.2	3.1	14	11 18.5	11 20.3	10 47.6	4.2	3.2
15	11 03.8	11 05.6	10 33.5	4.5	3.3	15	11 18.8	11 20.6	10 47.9	4.5	3.4
16	11 04.0	11 05.8	10 33.8	4.8	3.6	16	11 19.0	11 20.8	10 48.1	4.8	3.6
17	11 04.2	11 06.1	10 34.0	5.1	3.8	17	11 19.2	11 21.1	10 48.3	5.1	3.9
18	11 04.5	11 06.3	10 34.3	5.4	4.0	18	11 19.5	11 21.4	10 48.6	5.4	4.1
19	11 04.8	11 06.6	10 34.5	5.7	4.2	19	11 19.8	11 21.6	10 48.8	5.7	4.3
20	11 05.0	11 06.8	10 34.7	6.0	4.5	20	11 20.0	11 21.9	10 49.1	6.0	4.6
21	11 05.3	11 07.1	10 35.0	6.3	4.7	21	11 20.3	11 22.1	10 49.3	6.3	4.8
22	11 05.5	11 07.3	10 35.2	6.6	4.9	22	11 20.5	11 22.4	10 49.5	6.6	5.0
23	11 05.7	11 07.6	10 35.4	6.9	5.1	23	11 20.7	11 22.6	10 49.8	6.9	5.2
24	11 06.0	11 07.8	10 35.7	7.2	5.3	24	11 21.0	11 22.9	10 50.0	7.2	5.5
25	11 06.2	11 08.1	10 35.9	7.5	5.6	25	11 21.2	11 23.1	10 50.2	7.5	5.7
26	11 06.5	11 08.3	10 36.2	7.8	5.8	26	11 21.5	11 23.4	10 50.5	7.8	5.9
27	11 06.8	11 08.6	10 36.4	8.1	6.0	27	11 21.8	11 23.6	10 50.7	8.1	6.1
28	11 07.0	11 08.8	10 36.6	8.4	6.2	28	11 22.0	11 23.9	10 51.0	8.4	6.4
29	11 07.3	11 09.1	10 36.9	8.7	6.5	29	11 22.3	11 24.1	10 51.2	8.7	6.6
30	11 07.5	11 09.3	10 37.1	9.0	6.7	30	11 22.5	11 24.4	10 51.4	9.0	6.8
31	11 07.7	11 09.6	10 37.4	9.3	6.9	31	11 22.7	11 24.6	10 51.7	9.3	7.1
32	11 08.0	11 09.8	10 37.6	9.6	7.1	32	11 23.0	11 24.9	10 51.9	9.6	7.3
33	11 08.2	11 10.1	10 37.8	9.9	7.3	33	11 23.2	11 25.1	10 52.2	9.9	7.5
34	11 08.5	11 10.3	10 38.1	10.2	7.6	34	11 23.5	11 25.4	10 52.4	10.2	7.7
35	11 08.8	11 10.6	10 38.3	10.5	7.8	35	11 23.8	11 25.6	10 52.6	10.5	8.0
36	11 09.0	11 10.8	10 38.6	10.8	8.0	36	11 24.0	11 25.9	10 52.9	10.8	8.2
37	11 09.3	11 11.1	10 38.8	11.1	8.2	37	11 24.3	11 26.1	10 53.1	11.1	8.4
38	11 09.5	11 11.3	10 39.0	11.4	8.5	38	11 24.5	11 26.4	10 53.3	11.4	8.6
39	11 09.7	11 11.6	10 39.3	11.7	8.7	39	11 24.7	11 26.6	10 53.6	11.7	8.9
40	11 10.0	11 11.8	10 39.5	12.0	8.9	40	11 25.0	11 26.9	10 53.8	12.0	9.1
41	11 10.2	11 12.1	10 39.7	12.3	9.1	41	11 25.2	11 27.1	10 54.1	12.3	9.3
42	11 10.5	11 12.3	10 40.0	12.6	9.3	42	11 25.5	11 27.4	10 54.3	12.6	9.6
43	11 10.8	11 12.6	10 40.2	12.9	9.6	43	11 25.8	11 27.6	10 54.5	12.9	9.8
44	11 11.0	11 12.8	10 40.5	13.2	9.8	44	11 26.0	11 27.9	10 54.8	13.2	10.0
45	11 11.2	11 13.1	10 40.7	13.5	10.0	45	11 26.2	11 28.1	10 55.0	13.5	10.2
46	11 11.5	11 13.3	10 40.9	13.8	10.2	46	11 26.5	11 28.4	10 55.3	13.8	10.5
47	11 11.7	11 13.6	10 41.2	14.1	10.5	47	11 26.7	11 28.6	10 55.5	14.1	10.7
48	11 12.0	11 13.8	10 41.4	14.4	10.7	48	11 27.0	11 28.9	10 55.7	14.4	10.9
49	11 12.3	11 14.1	10 41.7	14.7	10.9	49	11 27.3	11 29.1	10 56.0	14.7	11.1
50	11 12.5	11 14.3	10 41.9	15.0	11.1	50	11 27.5	11 29.4	10 56.2	15.0	11.4
51	11 12.8	11 14.6	10 42.1	15.3	11.3	51	11 27.8	11 29.6	10 56.4	15.3	11.6
52	11 13.0	11 14.8	10 42.4	15.6	11.6	52	11 28.0	11 29.9	10 56.7	15.6	11.8
53	11 13.2	11 15.1	10 42.6	15.9	11.8	53	11 28.2	11 30.1	10 56.9	15.9	12.1
54	11 13.5	11 15.3	10 42.8	16.2	12.0	54	11 28.5	11 30.4	10 57.2	16.2	12.3
55	11 13.7	11 15.6	10 43.1	16.5	12.2	55	11 28.7	11 30.6	10 57.4	16.5	12.5
56	11 14.0	11 15.8	10 43.3	16.8	12.5	56	11 29.0	11 30.9	10 57.6	16.8	12.7
57	11 14.3	11 16.1	10 43.6	17.1	12.7	57	11 29.3	11 31.1	10 57.9	17.1	13.0
58	11 14.5	11 16.3	10 43.8	17.4	12.9	58	11 29.5	11 31.4	10 58.1	17.4	13.2
59	11 14.8	11 16.6	10 44.0	17.7	13.1	59	11 29.8	11 31.6	10 58.4	17.7	13.4

46 min

Schalttafel

47 min

46 min	Zuwachs Grt			Unt	Vb	47 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	11 30.0	11 31.9	10 58.6	0.0	0.0	0	11 45.0	11 46.9	11 12.9	0.0	0.0
1	11 30.2	11 32.1	10 58.8	0.3	0.2	1	11 45.2	11 47.2	11 13.2	0.3	0.2
2	11 30.5	11 32.4	10 59.1	0.6	0.5	2	11 45.5	11 47.4	11 13.4	0.6	0.5
3	11 30.7	11 32.6	10 59.3	0.9	0.7	3	11 45.7	11 47.7	11 13.6	0.9	0.7
4	11 31.0	11 32.9	10 59.6	1.2	0.9	4	11 46.0	11 47.9	11 13.9	1.2	1.0
5	11 31.3	11 33.1	10 59.8	1.5	1.2	5	11 46.3	11 48.2	11 14.1	1.5	1.2
6	11 31.5	11 33.4	11 00.0	1.8	1.4	6	11 46.5	11 48.4	11 14.3	1.8	1.4
7	11 31.8	11 33.6	11 00.3	2.1	1.6	7	11 46.8	11 48.7	11 14.6	2.1	1.7
8	11 32.0	11 33.9	11 00.5	2.4	1.9	8	11 47.0	11 48.9	11 14.8	2.4	1.9
9	11 32.2	11 34.1	11 00.7	2.7	2.1	9	11 47.2	11 49.2	11 15.1	2.7	2.1
10	11 32.5	11 34.4	11 01.0	3.0	2.3	10	11 47.5	11 49.4	11 15.3	3.0	2.4
11	11 32.7	11 34.6	11 01.2	3.3	2.6	11	11 47.7	11 49.7	11 15.5	3.3	2.6
12	11 33.0	11 34.9	11 01.5	3.6	2.8	12	11 48.0	11 49.9	11 15.8	3.6	2.9
13	11 33.3	11 35.1	11 01.7	3.9	3.0	13	11 48.3	11 50.2	11 16.0	3.9	3.1
14	11 33.5	11 35.4	11 01.9	4.2	3.3	14	11 48.5	11 50.4	11 16.3	4.2	3.3
15	11 33.8	11 35.6	11 02.2	4.5	3.5	15	11 48.8	11 50.7	11 16.5	4.5	3.6
16	11 34.0	11 35.9	11 02.4	4.8	3.7	16	11 49.0	11 50.9	11 16.7	4.8	3.8
17	11 34.2	11 36.1	11 02.7	5.1	4.0	17	11 49.2	11 51.2	11 17.0	5.1	4.0
18	11 34.5	11 36.4	11 02.9	5.4	4.2	18	11 49.5	11 51.4	11 17.2	5.4	4.3
19	11 34.8	11 36.6	11 03.1	5.7	4.4	19	11 49.8	11 51.7	11 17.4	5.7	4.5
20	11 35.0	11 36.9	11 03.4	6.0	4.7	20	11 50.0	11 51.9	11 17.7	6.0	4.8
21	11 35.3	11 37.1	11 03.6	6.3	4.9	21	11 50.3	11 52.2	11 17.9	6.3	5.0
22	11 35.5	11 37.4	11 03.8	6.6	5.1	22	11 50.5	11 52.4	11 18.2	6.6	5.2
23	11 35.7	11 37.6	11 04.1	6.9	5.3	23	11 50.7	11 52.7	11 18.4	6.9	5.5
24	11 36.0	11 37.9	11 04.3	7.2	5.6	24	11 51.0	11 52.9	11 18.6	7.2	5.7
25	11 36.2	11 38.1	11 04.6	7.5	5.8	25	11 51.2	11 53.2	11 18.9	7.5	5.9
26	11 36.5	11 38.4	11 04.8	7.8	6.0	26	11 51.5	11 53.4	11 19.1	7.8	6.2
27	11 36.8	11 38.6	11 05.0	8.1	6.3	27	11 51.8	11 53.7	11 19.4	8.1	6.4
28	11 37.0	11 38.9	11 05.3	8.4	6.5	28	11 52.0	11 53.9	11 19.6	8.4	6.7
29	11 37.3	11 39.1	11 05.5	8.7	6.7	29	11 52.3	11 54.2	11 19.8	8.7	6.9
30	11 37.5	11 39.4	11 05.8	9.0	7.0	30	11 52.5	11 54.4	11 20.1	9.0	7.1
31	11 37.7	11 39.6	11 06.0	9.3	7.2	31	11 52.7	11 54.7	11 20.3	9.3	7.4
32	11 38.0	11 39.9	11 06.2	9.6	7.4	32	11 53.0	11 54.9	11 20.5	9.6	7.6
33	11 38.2	11 40.2	11 06.5	9.9	7.7	33	11 53.2	11 55.2	11 20.8	9.9	7.8
34	11 38.5	11 40.4	11 06.7	10.2	7.9	34	11 53.5	11 55.4	11 21.0	10.2	8.1
35	11 38.8	11 40.7	11 06.9	10.5	8.1	35	11 53.8	11 55.7	11 21.3	10.5	8.3
36	11 39.0	11 40.9	11 07.2	10.8	8.4	36	11 54.0	11 55.9	11 21.5	10.8	8.6
37	11 39.3	11 41.2	11 07.4	11.1	8.6	37	11 54.3	11 56.2	11 21.7	11.1	8.8
38	11 39.5	11 41.4	11 07.7	11.4	8.8	38	11 54.5	11 56.4	11 22.0	11.4	9.0
39	11 39.7	11 41.7	11 07.9	11.7	9.1	39	11 54.7	11 56.7	11 22.2	11.7	9.3
40	11 40.0	11 41.9	11 08.1	12.0	9.3	40	11 55.0	11 56.9	11 22.5	12.0	9.5
41	11 40.2	11 42.2	11 08.4	12.3	9.5	41	11 55.2	11 57.2	11 22.7	12.3	9.7
42	11 40.5	11 42.4	11 08.6	12.6	9.8	42	11 55.5	11 57.4	11 22.9	12.6	10.0
43	11 40.8	11 42.7	11 08.9	12.9	10.0	43	11 55.8	11 57.7	11 23.2	12.9	10.2
44	11 41.0	11 42.9	11 09.1	13.2	10.2	44	11 56.0	11 57.9	11 23.4	13.2	10.5
45	11 41.2	11 43.2	11 09.3	13.5	10.5	45	11 56.2	11 58.2	11 23.7	13.5	10.7
46	11 41.5	11 43.4	11 09.6	13.8	10.7	46	11 56.5	11 58.5	11 23.9	13.8	10.9
47	11 41.7	11 43.7	11 09.8	14.1	10.9	47	11 56.7	11 58.7	11 24.1	14.1	11.2
48	11 42.0	11 43.9	11 10.1	14.4	11.2	48	11 57.0	11 59.0	11 24.4	14.4	11.4
49	11 42.3	11 44.2	11 10.3	14.7	11.4	49	11 57.3	11 59.2	11 24.6	14.7	11.6
50	11 42.5	11 44.4	11 10.5	15.0	11.6	50	11 57.5	11 59.5	11 24.8	15.0	11.9
51	11 42.8	11 44.7	11 10.8	15.3	11.9	51	11 57.8	11 59.7	11 25.1	15.3	12.1
52	11 43.0	11 44.9	11 11.0	15.6	12.1	52	11 58.0	11 60.0	11 25.3	15.6	12.4
53	11 43.2	11 45.2	11 11.2	15.9	12.3	53	11 58.2	12 00.2	11 25.6	15.9	12.6
54	11 43.5	11 45.4	11 11.5	16.2	12.6	54	11 58.5	12 00.5	11 25.8	16.2	12.8
55	11 43.7	11 45.7	11 11.7	16.5	12.8	55	11 58.7	12 00.7	11 26.0	16.5	13.1
56	11 44.0	11 45.9	11 12.0	16.8	13.0	56	11 59.0	12 01.0	11 26.3	16.8	13.3
57	11 44.3	11 46.2	11 12.2	17.1	13.3	57	11 59.3	12 01.2	11 26.5	17.1	13.5
58	11 44.5	11 46.4	11 12.4	17.4	13.5	58	11 59.5	12 01.5	11 26.8	17.4	13.8
59	11 44.8	11 46.7	11 12.7	17.7	13.7	59	11 59.8	12 01.7	11 27.0	17.7	14.0

48 min

Schalttafel

49 min

48 min	Zuwachs Grt			Unt	Vb	49 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	12 00.0	12 02.0	11 27.2	0.0	0.0	0	12 15.0	12 17.0	11 41.5	0.0	0.0
1	12 00.2	12 02.2	11 27.5	0.3	0.2	1	12 15.2	12 17.3	11 41.8	0.3	0.2
2	12 00.5	12 02.5	11 27.7	0.6	0.5	2	12 15.5	12 17.5	11 42.0	0.6	0.5
3	12 00.7	12 02.7	11 27.9	0.9	0.7	3	12 15.7	12 17.8	11 42.3	0.9	0.7
4	12 01.0	12 03.0	11 28.2	1.2	1.0	4	12 16.0	12 18.0	11 42.5	1.2	1.0
5	12 01.3	12 03.2	11 28.4	1.5	1.2	5	12 16.3	12 18.3	11 42.7	1.5	1.2
6	12 01.5	12 03.5	11 28.7	1.8	1.5	6	12 16.5	12 18.5	11 43.0	1.8	1.5
7	12 01.8	12 03.7	11 28.9	2.1	1.7	7	12 16.8	12 18.8	11 43.2	2.1	1.7
8	12 02.0	12 04.0	11 29.1	2.4	1.9	8	12 17.0	12 19.0	11 43.5	2.4	2.0
9	12 02.2	12 04.2	11 29.4	2.7	2.2	9	12 17.2	12 19.3	11 43.7	2.7	2.2
10	12 02.5	12 04.5	11 29.6	3.0	2.4	10	12 17.5	12 19.5	11 43.9	3.0	2.5
11	12 02.7	12 04.7	11 29.9	3.3	2.7	11	12 17.7	12 19.8	11 44.2	3.3	2.7
12	12 03.0	12 05.0	11 30.1	3.6	2.9	12	12 18.0	12 20.0	11 44.4	3.6	3.0
13	12 03.3	12 05.2	11 30.3	3.9	3.2	13	12 18.3	12 20.3	11 44.7	3.9	3.2
14	12 03.5	12 05.5	11 30.6	4.2	3.4	14	12 18.5	12 20.5	11 44.9	4.2	3.5
15	12 03.8	12 05.7	11 30.8	4.5	3.6	15	12 18.8	12 20.8	11 45.1	4.5	3.7
16	12 04.0	12 06.0	11 31.0	4.8	3.9	16	12 19.0	12 21.0	11 45.4	4.8	4.0
17	12 04.2	12 06.2	11 31.3	5.1	4.1	17	12 19.2	12 21.3	11 45.6	5.1	4.2
18	12 04.5	12 06.5	11 31.5	5.4	4.4	18	12 19.5	12 21.5	11 45.8	5.4	4.5
19	12 04.8	12 06.7	11 31.8	5.7	4.6	19	12 19.8	12 21.8	11 46.1	5.7	4.7
20	12 05.0	12 07.0	11 32.0	6.0	4.9	20	12 20.0	12 22.0	11 46.3	6.0	5.0
21	12 05.3	12 07.2	11 32.2	6.3	5.1	21	12 20.3	12 22.3	11 46.6	6.3	5.2
22	12 05.5	12 07.5	11 32.5	6.6	5.3	22	12 20.5	12 22.5	11 46.8	6.6	5.4
23	12 05.7	12 07.7	11 32.7	6.9	5.6	23	12 20.7	12 22.8	11 47.0	6.9	5.7
24	12 06.0	12 08.0	11 33.0	7.2	5.8	24	12 21.0	12 23.0	11 47.3	7.2	5.9
25	12 06.2	12 08.2	11 33.2	7.5	6.1	25	12 21.2	12 23.3	11 47.5	7.5	6.2
26	12 06.5	12 08.5	11 33.4	7.8	6.3	26	12 21.5	12 23.5	11 47.8	7.8	6.4
27	12 06.8	12 08.7	11 33.7	8.1	6.5	27	12 21.8	12 23.8	11 48.0	8.1	6.7
28	12 07.0	12 09.0	11 33.9	8.4	6.8	28	12 22.0	12 24.0	11 48.2	8.4	6.9
29	12 07.3	12 09.2	11 34.2	8.7	7.0	29	12 22.3	12 24.3	11 48.5	8.7	7.2
30	12 07.5	12 09.5	11 34.4	9.0	7.3	30	12 22.5	12 24.5	11 48.7	9.0	7.4
31	12 07.7	12 09.7	11 34.6	9.3	7.5	31	12 22.7	12 24.8	11 48.9	9.3	7.7
32	12 08.0	12 10.0	11 34.9	9.6	7.8	32	12 23.0	12 25.0	11 49.2	9.6	7.9
33	12 08.2	12 10.2	11 35.1	9.9	8.0	33	12 23.2	12 25.3	11 49.4	9.9	8.2
34	12 08.5	12 10.5	11 35.3	10.2	8.2	34	12 23.5	12 25.5	11 49.7	10.2	8.4
35	12 08.8	12 10.7	11 35.6	10.5	8.5	35	12 23.8	12 25.8	11 49.9	10.5	8.7
36	12 09.0	12 11.0	11 35.8	10.8	8.7	36	12 24.0	12 26.0	11 50.1	10.8	8.9
37	12 09.3	12 11.2	11 36.1	11.1	9.0	37	12 24.3	12 26.3	11 50.4	11.1	9.2
38	12 09.5	12 11.5	11 36.3	11.4	9.2	38	12 24.5	12 26.5	11 50.6	11.4	9.4
39	12 09.7	12 11.7	11 36.5	11.7	9.5	39	12 24.7	12 26.8	11 50.9	11.7	9.7
40	12 10.0	12 12.0	11 36.8	12.0	9.7	40	12 25.0	12 27.0	11 51.1	12.0	9.9
41	12 10.2	12 12.2	11 37.0	12.3	9.9	41	12 25.2	12 27.3	11 51.3	12.3	10.1
42	12 10.5	12 12.5	11 37.3	12.6	10.2	42	12 25.5	12 27.5	11 51.6	12.6	10.4
43	12 10.8	12 12.7	11 37.5	12.9	10.4	43	12 25.8	12 27.8	11 51.8	12.9	10.6
44	12 11.0	12 13.0	11 37.7	13.2	10.7	44	12 26.0	12 28.0	11 52.0	13.2	10.9
45	12 11.2	12 13.2	11 38.0	13.5	10.9	45	12 26.2	12 28.3	11 52.3	13.5	11.1
46	12 11.5	12 13.5	11 38.2	13.8	11.2	46	12 26.5	12 28.5	11 52.5	13.8	11.4
47	12 11.7	12 13.7	11 38.4	14.1	11.4	47	12 26.7	12 28.8	11 52.8	14.1	11.6
48	12 12.0	12 14.0	11 38.7	14.4	11.6	48	12 27.0	12 29.0	11 53.0	14.4	11.9
49	12 12.3	12 14.2	11 38.9	14.7	11.9	49	12 27.3	12 29.3	11 53.2	14.7	12.1
50	12 12.5	12 14.5	11 39.2	15.0	12.1	50	12 27.5	12 29.5	11 53.5	15.0	12.4
51	12 12.8	12 14.7	11 39.4	15.3	12.4	51	12 27.8	12 29.8	11 53.7	15.3	12.6
52	12 13.0	12 15.0	11 39.6	15.6	12.6	52	12 28.0	12 30.0	11 54.0	15.6	12.9
53	12 13.2	12 15.2	11 39.9	15.9	12.9	53	12 28.2	12 30.3	11 54.2	15.9	13.1
54	12 13.5	12 15.5	11 40.1	16.2	13.1	54	12 28.5	12 30.5	11 54.4	16.2	13.4
55	12 13.7	12 15.7	11 40.4	16.5	13.3	55	12 28.7	12 30.8	11 54.7	16.5	13.6
56	12 14.0	12 16.0	11 40.6	16.8	13.6	56	12 29.0	12 31.0	11 54.9	16.8	13.9
57	12 14.3	12 16.2	11 40.8	17.1	13.8	57	12 29.3	12 31.3	11 55.1	17.1	14.1
58	12 14.5	12 16.5	11 41.1	17.4	14.1	58	12 29.5	12 31.5	11 55.4	17.4	14.4
59	12 14.8	12 16.8	11 41.3	17.7	14.3	59	12 29.8	12 31.8	11 55.6	17.7	14.6

50 min

Schalttafel

51 min

50 min	Zuwachs Grt			Unt	Vb	51 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	12 30.0	12 32.0	11 55.9	0.0	0.0	0	12 45.0	12 47.1	12 10.2	0.0	0.0
1	12 30.2	12 32.3	11 56.1	0.3	0.3	1	12 45.2	12 47.3	12 10.4	0.3	0.3
2	12 30.5	12 32.5	11 56.3	0.6	0.5	2	12 45.5	12 47.6	12 10.7	0.6	0.5
3	12 30.7	12 32.8	11 56.6	0.9	0.8	3	12 45.7	12 47.8	12 10.9	0.9	0.8
4	12 31.0	12 33.0	11 56.8	1.2	1.0	4	12 46.0	12 48.1	12 11.1	1.2	1.0
5	12 31.3	12 33.3	11 57.1	1.5	1.3	5	12 46.3	12 48.3	12 11.4	1.5	1.3
6	12 31.5	12 33.5	11 57.3	1.8	1.5	6	12 46.5	12 48.6	12 11.6	1.8	1.5
7	12 31.8	12 33.8	11 57.5	2.1	1.8	7	12 46.8	12 48.8	12 11.9	2.1	1.8
8	12 32.0	12 34.0	11 57.8	2.4	2.0	8	12 47.0	12 49.1	12 12.1	2.4	2.1
9	12 32.2	12 34.3	11 58.0	2.7	2.3	9	12 47.2	12 49.3	12 12.3	2.7	2.3
10	12 32.5	12 34.5	11 58.3	3.0	2.5	10	12 47.5	12 49.6	12 12.6	3.0	2.6
11	12 32.7	12 34.8	11 58.5	3.3	2.8	11	12 47.7	12 49.8	12 12.8	3.3	2.8
12	12 33.0	12 35.1	11 58.7	3.6	3.0	12	12 48.0	12 50.1	12 13.0	3.6	3.1
13	12 33.3	12 35.3	11 59.0	3.9	3.3	13	12 48.3	12 50.3	12 13.3	3.9	3.3
14	12 33.5	12 35.6	11 59.2	4.2	3.5	14	12 48.5	12 50.6	12 13.5	4.2	3.6
15	12 33.8	12 35.8	11 59.4	4.5	3.8	15	12 48.8	12 50.8	12 13.8	4.5	3.9
16	12 34.0	12 36.1	11 59.7	4.8	4.0	16	12 49.0	12 51.1	12 14.0	4.8	4.1
17	12 34.2	12 36.3	11 59.9	5.1	4.3	17	12 49.2	12 51.3	12 14.2	5.1	4.4
18	12 34.5	12 36.6	12 00.2	5.4	4.5	18	12 49.5	12 51.6	12 14.5	5.4	4.6
19	12 34.8	12 36.8	12 00.4	5.7	4.8	19	12 49.8	12 51.8	12 14.7	5.7	4.9
20	12 35.0	12 37.1	12 00.6	6.0	5.1	20	12 50.0	12 52.1	12 15.0	6.0	5.2
21	12 35.3	12 37.3	12 00.9	6.3	5.3	21	12 50.3	12 52.3	12 15.2	6.3	5.4
22	12 35.5	12 37.6	12 01.1	6.6	5.6	22	12 50.5	12 52.6	12 15.4	6.6	5.7
23	12 35.7	12 37.8	12 01.4	6.9	5.8	23	12 50.7	12 52.8	12 15.7	6.9	5.9
24	12 36.0	12 38.1	12 01.6	7.2	6.1	24	12 51.0	12 53.1	12 15.9	7.2	6.2
25	12 36.2	12 38.3	12 01.8	7.5	6.3	25	12 51.2	12 53.4	12 16.1	7.5	6.4
26	12 36.5	12 38.6	12 02.1	7.8	6.6	26	12 51.5	12 53.6	12 16.4	7.8	6.7
27	12 36.8	12 38.8	12 02.3	8.1	6.8	27	12 51.8	12 53.9	12 16.6	8.1	7.0
28	12 37.0	12 39.1	12 02.5	8.4	7.1	28	12 52.0	12 54.1	12 16.9	8.4	7.2
29	12 37.3	12 39.3	12 02.8	8.7	7.3	29	12 52.3	12 54.4	12 17.1	8.7	7.5
30	12 37.5	12 39.6	12 03.0	9.0	7.6	30	12 52.5	12 54.6	12 17.3	9.0	7.7
31	12 37.7	12 39.8	12 03.3	9.3	7.8	31	12 52.7	12 54.9	12 17.6	9.3	8.0
32	12 38.0	12 40.1	12 03.5	9.6	8.1	32	12 53.0	12 55.1	12 17.8	9.6	8.2
33	12 38.2	12 40.3	12 03.7	9.9	8.3	33	12 53.2	12 55.4	12 18.1	9.9	8.5
34	12 38.5	12 40.6	12 04.0	10.2	8.6	34	12 53.5	12 55.6	12 18.3	10.2	8.8
35	12 38.8	12 40.8	12 04.2	10.5	8.8	35	12 53.8	12 55.9	12 18.5	10.5	9.0
36	12 39.0	12 41.1	12 04.5	10.8	9.1	36	12 54.0	12 56.1	12 18.8	10.8	9.3
37	12 39.3	12 41.3	12 04.7	11.1	9.3	37	12 54.3	12 56.4	12 19.0	11.1	9.5
38	12 39.5	12 41.6	12 04.9	11.4	9.6	38	12 54.5	12 56.6	12 19.3	11.4	9.8
39	12 39.7	12 41.8	12 05.2	11.7	9.8	39	12 54.7	12 56.9	12 19.5	11.7	10.0
40	12 40.0	12 42.1	12 05.4	12.0	10.1	40	12 55.0	12 57.1	12 19.7	12.0	10.3
41	12 40.2	12 42.3	12 05.6	12.3	10.4	41	12 55.2	12 57.4	12 20.0	12.3	10.6
42	12 40.5	12 42.6	12 05.9	12.6	10.6	42	12 55.5	12 57.6	12 20.2	12.6	10.8
43	12 40.8	12 42.8	12 06.1	12.9	10.9	43	12 55.8	12 57.9	12 20.4	12.9	11.1
44	12 41.0	12 43.1	12 06.4	13.2	11.1	44	12 56.0	12 58.1	12 20.7	13.2	11.3
45	12 41.2	12 43.3	12 06.6	13.5	11.4	45	12 56.2	12 58.4	12 20.9	13.5	11.6
46	12 41.5	12 43.6	12 06.8	13.8	11.6	46	12 56.5	12 58.6	12 21.2	13.8	11.8
47	12 41.7	12 43.8	12 07.1	14.1	11.9	47	12 56.7	12 58.9	12 21.4	14.1	12.1
48	12 42.0	12 44.1	12 07.3	14.4	12.1	48	12 57.0	12 59.1	12 21.6	14.4	12.4
49	12 42.3	12 44.3	12 07.6	14.7	12.4	49	12 57.3	12 59.4	12 21.9	14.7	12.6
50	12 42.5	12 44.6	12 07.8	15.0	12.6	50	12 57.5	12 59.6	12 22.1	15.0	12.9
51	12 42.8	12 44.8	12 08.0	15.3	12.9	51	12 57.8	12 59.9	12 22.4	15.3	13.1
52	12 43.0	12 45.1	12 08.3	15.6	13.1	52	12 58.0	13 00.1	12 22.6	15.6	13.4
53	12 43.2	12 45.3	12 08.5	15.9	13.4	53	12 58.2	13 00.4	12 22.8	15.9	13.6
54	12 43.5	12 45.6	12 08.8	16.2	13.6	54	12 58.5	13 00.6	12 23.1	16.2	13.9
55	12 43.7	12 45.8	12 09.0	16.5	13.9	55	12 58.7	13 00.9	12 23.3	16.5	14.2
56	12 44.0	12 46.1	12 09.2	16.8	14.1	56	12 59.0	13 01.1	12 23.5	16.8	14.4
57	12 44.3	12 46.3	12 09.5	17.1	14.4	57	12 59.3	13 01.4	12 23.8	17.1	14.7
58	12 44.5	12 46.6	12 09.7	17.4	14.6	58	12 59.5	13 01.6	12 24.0	17.4	14.9
59	12 44.8	12 46.8	12 09.9	17.7	14.9	59	12 59.8	13 01.9	12 24.3	17.7	15.2

52 min

Schalttafel

53 min

52 min	Zuwachs Grt			Unt	Vb	53 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	13 00.0	13 02.1	12 24.5	0.0	0.0	0	13 15.0	13 17.2	12 38.8	0.0	0.0
1	13 00.2	13 02.4	12 24.7	0.3	0.3	1	13 15.2	13 17.4	12 39.1	0.3	0.3
2	13 00.5	13 02.6	12 25.0	0.6	0.5	2	13 15.5	13 17.7	12 39.3	0.6	0.5
3	13 00.7	13 02.9	12 25.2	0.9	0.8	3	13 15.7	13 17.9	12 39.5	0.9	0.8
4	13 01.0	13 03.1	12 25.5	1.2	1.1	4	13 16.0	13 18.2	12 39.8	1.2	1.1
5	13 01.3	13 03.4	12 25.7	1.5	1.3	5	13 16.3	13 18.4	12 40.0	1.5	1.3
6	13 01.5	13 03.6	12 25.9	1.8	1.6	6	13 16.5	13 18.7	12 40.2	1.8	1.6
7	13 01.8	13 03.9	12 26.2	2.1	1.8	7	13 16.8	13 18.9	12 40.5	2.1	1.9
8	13 02.0	13 04.1	12 26.4	2.4	2.1	8	13 17.0	13 19.2	12 40.7	2.4	2.1
9	13 02.2	13 04.4	12 26.6	2.7	2.4	9	13 17.2	13 19.4	12 41.0	2.7	2.4
10	13 02.5	13 04.6	12 26.9	3.0	2.6	10	13 17.5	13 19.7	12 41.2	3.0	2.7
11	13 02.7	13 04.9	12 27.1	3.3	2.9	11	13 17.7	13 19.9	12 41.4	3.3	2.9
12	13 03.0	13 05.1	12 27.4	3.6	3.2	12	13 18.0	13 20.2	12 41.7	3.6	3.2
13	13 03.3	13 05.4	12 27.6	3.9	3.4	13	13 18.3	13 20.4	12 41.9	3.9	3.5
14	13 03.5	13 05.6	12 27.8	4.2	3.7	14	13 18.5	13 20.7	12 42.2	4.2	3.7
15	13 03.8	13 05.9	12 28.1	4.5	3.9	15	13 18.8	13 20.9	12 42.4	4.5	4.0
16	13 04.0	13 06.1	12 28.3	4.8	4.2	16	13 19.0	13 21.2	12 42.6	4.8	4.3
17	13 04.2	13 06.4	12 28.6	5.1	4.5	17	13 19.2	13 21.4	12 42.9	5.1	4.5
18	13 04.5	13 06.6	12 28.8	5.4	4.7	18	13 19.5	13 21.7	12 43.1	5.4	4.8
19	13 04.8	13 06.9	12 29.0	5.7	5.0	19	13 19.8	13 21.9	12 43.4	5.7	5.1
20	13 05.0	13 07.1	12 29.3	6.0	5.3	20	13 20.0	13 22.2	12 43.6	6.0	5.4
21	13 05.3	13 07.4	12 29.5	6.3	5.5	21	13 20.3	13 22.4	12 43.8	6.3	5.6
22	13 05.5	13 07.6	12 29.7	6.6	5.8	22	13 20.5	13 22.7	12 44.1	6.6	5.9
23	13 05.7	13 07.9	12 30.0	6.9	6.0	23	13 20.7	13 22.9	12 44.3	6.9	6.2
24	13 06.0	13 08.1	12 30.2	7.2	6.3	24	13 21.0	13 23.2	12 44.5	7.2	6.4
25	13 06.2	13 08.4	12 30.5	7.5	6.6	25	13 21.2	13 23.4	12 44.8	7.5	6.7
26	13 06.5	13 08.6	12 30.7	7.8	6.8	26	13 21.5	13 23.7	12 45.0	7.8	7.0
27	13 06.8	13 08.9	12 30.9	8.1	7.1	27	13 21.8	13 23.9	12 45.3	8.1	7.2
28	13 07.0	13 09.1	12 31.2	8.4	7.4	28	13 22.0	13 24.2	12 45.5	8.4	7.5
29	13 07.3	13 09.4	12 31.4	8.7	7.6	29	13 22.3	13 24.4	12 45.7	8.7	7.8
30	13 07.5	13 09.6	12 31.7	9.0	7.9	30	13 22.5	13 24.7	12 46.0	9.0	8.0
31	13 07.7	13 09.9	12 31.9	9.3	8.1	31	13 22.7	13 24.9	12 46.2	9.3	8.3
32	13 08.0	13 10.1	12 32.1	9.6	8.4	32	13 23.0	13 25.2	12 46.5	9.6	8.6
33	13 08.2	13 10.4	12 32.4	9.9	8.7	33	13 23.2	13 25.4	12 46.7	9.9	8.8
34	13 08.5	13 10.6	12 32.6	10.2	8.9	34	13 23.5	13 25.7	12 46.9	10.2	9.1
35	13 08.8	13 10.9	12 32.9	10.5	9.2	35	13 23.8	13 25.9	12 47.2	10.5	9.4
36	13 09.0	13 11.1	12 33.1	10.8	9.5	36	13 24.0	13 26.2	12 47.4	10.8	9.6
37	13 09.3	13 11.4	12 33.3	11.1	9.7	37	13 24.3	13 26.4	12 47.6	11.1	9.9
38	13 09.5	13 11.6	12 33.6	11.4	10.0	38	13 24.5	13 26.7	12 47.9	11.4	10.2
39	13 09.7	13 11.9	12 33.8	11.7	10.2	39	13 24.7	13 26.9	12 48.1	11.7	10.4
40	13 10.0	13 12.2	12 34.0	12.0	10.5	40	13 25.0	13 27.2	12 48.4	12.0	10.7
41	13 10.2	13 12.4	12 34.3	12.3	10.8	41	13 25.2	13 27.4	12 48.6	12.3	11.0
42	13 10.5	13 12.7	12 34.5	12.6	11.0	42	13 25.5	13 27.7	12 48.8	12.6	11.2
43	13 10.8	13 12.9	12 34.8	12.9	11.3	43	13 25.8	13 27.9	12 49.1	12.9	11.5
44	13 11.0	13 13.2	12 35.0	13.2	11.6	44	13 26.0	13 28.2	12 49.3	13.2	11.8
45	13 11.2	13 13.4	12 35.2	13.5	11.8	45	13 26.2	13 28.4	12 49.6	13.5	12.0
46	13 11.5	13 13.7	12 35.5	13.8	12.1	46	13 26.5	13 28.7	12 49.8	13.8	12.3
47	13 11.7	13 13.9	12 35.7	14.1	12.3	47	13 26.7	13 28.9	12 50.0	14.1	12.6
48	13 12.0	13 14.2	12 36.0	14.4	12.6	48	13 27.0	13 29.2	12 50.3	14.4	12.8
49	13 12.3	13 14.4	12 36.2	14.7	12.9	49	13 27.3	13 29.4	12 50.5	14.7	13.1
50	13 12.5	13 14.7	12 36.4	15.0	13.1	50	13 27.5	13 29.7	12 50.7	15.0	13.4
51	13 12.8	13 14.9	12 36.7	15.3	13.4	51	13 27.8	13 29.9	12 51.0	15.3	13.6
52	13 13.0	13 15.2	12 36.9	15.6	13.7	52	13 28.0	13 30.2	12 51.2	15.6	13.9
53	13 13.2	13 15.4	12 37.1	15.9	13.9	53	13 28.2	13 30.5	12 51.5	15.9	14.2
54	13 13.5	13 15.7	12 37.4	16.2	14.2	54	13 28.5	13 30.7	12 51.7	16.2	14.4
55	13 13.7	13 15.9	12 37.6	16.5	14.4	55	13 28.7	13 31.0	12 51.9	16.5	14.7
56	13 14.0	13 16.2	12 37.9	16.8	14.7	56	13 29.0	13 31.2	12 52.2	16.8	15.0
57	13 14.3	13 16.4	12 38.1	17.1	15.0	57	13 29.3	13 31.5	12 52.4	17.1	15.2
58	13 14.5	13 16.7	12 38.3	17.4	15.2	58	13 29.5	13 31.7	12 52.7	17.4	15.5
59	13 14.8	13 16.9	12 38.6	17.7	15.5	59	13 29.8	13 32.0	12 52.9	17.7	15.8

54 min

Schalttafel

55 min

54 min	Zuwachs Grt			Unt	Vb	55 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	13 30.0	13 32.2	12 53.1	0.0	0.0	0	13 45.0	13 47.2	13 07.5	0.0	0.0
1	13 30.2	13 32.5	12 53.4	0.3	0.3	1	13 45.2	13 47.5	13 07.7	0.3	0.3
2	13 30.5	13 32.7	12 53.6	0.6	0.5	2	13 45.5	13 47.7	13 07.9	0.6	0.6
3	13 30.7	13 33.0	12 53.9	0.9	0.8	3	13 45.7	13 48.0	13 08.2	0.9	0.8
4	13 31.0	13 33.2	12 54.1	1.2	1.1	4	13 46.0	13 48.2	13 08.4	1.2	1.1
5	13 31.3	13 33.5	12 54.3	1.5	1.4	5	13 46.3	13 48.5	13 08.6	1.5	1.4
6	13 31.5	13 33.7	12 54.6	1.8	1.6	6	13 46.5	13 48.8	13 08.9	1.8	1.7
7	13 31.8	13 34.0	12 54.8	2.1	1.9	7	13 46.8	13 49.0	13 09.1	2.1	1.9
8	13 32.0	13 34.2	12 55.0	2.4	2.2	8	13 47.0	13 49.3	13 09.4	2.4	2.2
9	13 32.2	13 34.5	12 55.3	2.7	2.5	9	13 47.2	13 49.5	13 09.6	2.7	2.5
10	13 32.5	13 34.7	12 55.5	3.0	2.7	10	13 47.5	13 49.8	13 09.8	3.0	2.8
11	13 32.7	13 35.0	12 55.8	3.3	3.0	11	13 47.7	13 50.0	13 10.1	3.3	3.1
12	13 33.0	13 35.2	12 56.0	3.6	3.3	12	13 48.0	13 50.3	13 10.3	3.6	3.3
13	13 33.3	13 35.5	12 56.2	3.9	3.5	13	13 48.3	13 50.5	13 10.6	3.9	3.6
14	13 33.5	13 35.7	12 56.5	4.2	3.8	14	13 48.5	13 50.8	13 10.8	4.2	3.9
15	13 33.8	13 36.0	12 56.7	4.5	4.1	15	13 48.8	13 51.0	13 11.0	4.5	4.2
16	13 34.0	13 36.2	12 57.0	4.8	4.4	16	13 49.0	13 51.3	13 11.3	4.8	4.4
17	13 34.2	13 36.5	12 57.2	5.1	4.6	17	13 49.2	13 51.5	13 11.5	5.1	4.7
18	13 34.5	13 36.7	12 57.4	5.4	4.9	18	13 49.5	13 51.8	13 11.7	5.4	5.0
19	13 34.8	13 37.0	12 57.7	5.7	5.2	19	13 49.8	13 52.0	13 12.0	5.7	5.3
20	13 35.0	13 37.2	12 57.9	6.0	5.5	20	13 50.0	13 52.3	13 12.2	6.0	5.6
21	13 35.3	13 37.5	12 58.1	6.3	5.7	21	13 50.3	13 52.5	13 12.5	6.3	5.8
22	13 35.5	13 37.7	12 58.4	6.6	6.0	22	13 50.5	13 52.8	13 12.7	6.6	6.1
23	13 35.7	13 38.0	12 58.6	6.9	6.3	23	13 50.7	13 53.0	13 12.9	6.9	6.4
24	13 36.0	13 38.2	12 58.9	7.2	6.5	24	13 51.0	13 53.3	13 13.2	7.2	6.7
25	13 36.2	13 38.5	12 59.1	7.5	6.8	25	13 51.2	13 53.5	13 13.4	7.5	6.9
26	13 36.5	13 38.7	12 59.3	7.8	7.1	26	13 51.5	13 53.8	13 13.7	7.8	7.2
27	13 36.8	13 39.0	12 59.6	8.1	7.4	27	13 51.8	13 54.0	13 13.9	8.1	7.5
28	13 37.0	13 39.2	12 59.8	8.4	7.6	28	13 52.0	13 54.3	13 14.1	8.4	7.8
29	13 37.3	13 39.5	13 00.1	8.7	7.9	29	13 52.3	13 54.5	13 14.4	8.7	8.0
30	13 37.5	13 39.7	13 00.3	9.0	8.2	30	13 52.5	13 54.8	13 14.6	9.0	8.3
31	13 37.7	13 40.0	13 00.5	9.3	8.4	31	13 52.7	13 55.0	13 14.8	9.3	8.6
32	13 38.0	13 40.2	13 00.8	9.6	8.7	32	13 53.0	13 55.3	13 15.1	9.6	8.9
33	13 38.2	13 40.5	13 01.0	9.9	9.0	33	13 53.2	13 55.5	13 15.3	9.9	9.2
34	13 38.5	13 40.7	13 01.2	10.2	9.3	34	13 53.5	13 55.8	13 15.6	10.2	9.4
35	13 38.8	13 41.0	13 01.5	10.5	9.5	35	13 53.8	13 56.0	13 15.8	10.5	9.7
36	13 39.0	13 41.2	13 01.7	10.8	9.8	36	13 54.0	13 56.3	13 16.0	10.8	10.0
37	13 39.3	13 41.5	13 02.0	11.1	10.1	37	13 54.3	13 56.5	13 16.3	11.1	10.3
38	13 39.5	13 41.7	13 02.2	11.4	10.4	38	13 54.5	13 56.8	13 16.5	11.4	10.5
39	13 39.7	13 42.0	13 02.4	11.7	10.6	39	13 54.7	13 57.0	13 16.8	11.7	10.8
40	13 40.0	13 42.2	13 02.7	12.0	10.9	40	13 55.0	13 57.3	13 17.0	12.0	11.1
41	13 40.2	13 42.5	13 02.9	12.3	11.2	41	13 55.2	13 57.5	13 17.2	12.3	11.4
42	13 40.5	13 42.7	13 03.2	12.6	11.4	42	13 55.5	13 57.8	13 17.5	12.6	11.7
43	13 40.8	13 43.0	13 03.4	12.9	11.7	43	13 55.8	13 58.0	13 17.7	12.9	11.9
44	13 41.0	13 43.2	13 03.6	13.2	12.0	44	13 56.0	13 58.3	13 18.0	13.2	12.2
45	13 41.2	13 43.5	13 03.9	13.5	12.3	45	13 56.2	13 58.5	13 18.2	13.5	12.5
46	13 41.5	13 43.7	13 04.1	13.8	12.5	46	13 56.5	13 58.8	13 18.4	13.8	12.8
47	13 41.7	13 44.0	13 04.3	14.1	12.8	47	13 56.7	13 59.0	13 18.7	14.1	13.0
48	13 42.0	13 44.2	13 04.6	14.4	13.1	48	13 57.0	13 59.3	13 18.9	14.4	13.3
49	13 42.3	13 44.5	13 04.8	14.7	13.4	49	13 57.3	13 59.5	13 19.1	14.7	13.6
50	13 42.5	13 44.7	13 05.1	15.0	13.6	50	13 57.5	13 59.8	13 19.4	15.0	13.9
51	13 42.8	13 45.0	13 05.3	15.3	13.9	51	13 57.8	14 00.0	13 19.6	15.3	14.2
52	13 43.0	13 45.2	13 05.5	15.6	14.2	52	13 58.0	14 00.3	13 19.9	15.6	14.4
53	13 43.2	13 45.5	13 05.8	15.9	14.4	53	13 58.2	14 00.5	13 20.1	15.9	14.7
54	13 43.5	13 45.7	13 06.0	16.2	14.7	54	13 58.5	14 00.8	13 20.3	16.2	15.0
55	13 43.7	13 46.0	13 06.3	16.5	15.0	55	13 58.7	14 01.0	13 20.6	16.5	15.3
56	13 44.0	13 46.2	13 06.5	16.8	15.3	56	13 59.0	14 01.3	13 20.8	16.8	15.5
57	13 44.3	13 46.5	13 06.7	17.1	15.5	57	13 59.3	14 01.5	13 21.1	17.1	15.8
58	13 44.5	13 46.7	13 07.0	17.4	15.8	58	13 59.5	14 01.8	13 21.3	17.4	16.1
59	13 44.8	13 47.0	13 07.2	17.7	16.1	59	13 59.8	14 02.0	13 21.5	17.7	16.4

56 min

Schalttafel

57 min

56 min	Zuwachs Grt			Unt	Vb	57 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	14 00.0	14 02.3	13 21.8	0.0	0.0	0	14 15.0	14 17.3	13 36.1	0.0	0.0
1	14 00.2	14 02.5	13 22.0	0.3	0.3	1	14 15.2	14 17.6	13 36.3	0.3	0.3
2	14 00.5	14 02.8	13 22.2	0.6	0.6	2	14 15.5	14 17.8	13 36.6	0.6	0.6
3	14 00.7	14 03.0	13 22.5	0.9	0.8	3	14 15.7	14 18.1	13 36.8	0.9	0.9
4	14 01.0	14 03.3	13 22.7	1.2	1.1	4	14 16.0	14 18.3	13 37.0	1.2	1.2
5	14 01.3	14 03.5	13 23.0	1.5	1.4	5	14 16.3	14 18.6	13 37.3	1.5	1.4
6	14 01.5	14 03.8	13 23.2	1.8	1.7	6	14 16.5	14 18.8	13 37.5	1.8	1.7
7	14 01.8	14 04.0	13 23.4	2.1	2.0	7	14 16.8	14 19.1	13 37.8	2.1	2.0
8	14 02.0	14 04.3	13 23.7	2.4	2.3	8	14 17.0	14 19.3	13 38.0	2.4	2.3
9	14 02.2	14 04.5	13 23.9	2.7	2.5	9	14 17.2	14 19.6	13 38.2	2.7	2.6
10	14 02.5	14 04.8	13 24.2	3.0	2.8	10	14 17.5	14 19.8	13 38.5	3.0	2.9
11	14 02.7	14 05.0	13 24.4	3.3	3.1	11	14 17.7	14 20.1	13 38.7	3.3	3.2
12	14 03.0	14 05.3	13 24.6	3.6	3.4	12	14 18.0	14 20.3	13 39.0	3.6	3.5
13	14 03.3	14 05.5	13 24.9	3.9	3.7	13	14 18.3	14 20.6	13 39.2	3.9	3.7
14	14 03.5	14 05.8	13 25.1	4.2	4.0	14	14 18.5	14 20.8	13 39.4	4.2	4.0
15	14 03.8	14 06.0	13 25.3	4.5	4.2	15	14 18.8	14 21.1	13 39.7	4.5	4.3
16	14 04.0	14 06.3	13 25.6	4.8	4.5	16	14 19.0	14 21.3	13 39.9	4.8	4.6
17	14 04.2	14 06.5	13 25.8	5.1	4.8	17	14 19.2	14 21.6	13 40.1	5.1	4.9
18	14 04.5	14 06.8	13 26.1	5.4	5.1	18	14 19.5	14 21.8	13 40.4	5.4	5.2
19	14 04.8	14 07.1	13 26.3	5.7	5.4	19	14 19.8	14 22.1	13 40.6	5.7	5.5
20	14 05.0	14 07.3	13 26.5	6.0	5.7	20	14 20.0	14 22.3	13 40.9	6.0	5.8
21	14 05.3	14 07.6	13 26.8	6.3	5.9	21	14 20.3	14 22.6	13 41.1	6.3	6.0
22	14 05.5	14 07.8	13 27.0	6.6	6.2	22	14 20.5	14 22.8	13 41.3	6.6	6.3
23	14 05.7	14 08.1	13 27.3	6.9	6.5	23	14 20.7	14 23.1	13 41.6	6.9	6.6
24	14 06.0	14 08.3	13 27.5	7.2	6.8	24	14 21.0	14 23.3	13 41.8	7.2	6.9
25	14 06.2	14 08.6	13 27.7	7.5	7.1	25	14 21.2	14 23.6	13 42.1	7.5	7.2
26	14 06.5	14 08.8	13 28.0	7.8	7.3	26	14 21.5	14 23.8	13 42.3	7.8	7.5
27	14 06.8	14 09.1	13 28.2	8.1	7.6	27	14 21.8	14 24.1	13 42.5	8.1	7.8
28	14 07.0	14 09.3	13 28.5	8.4	7.9	28	14 22.0	14 24.3	13 42.8	8.4	8.1
29	14 07.3	14 09.6	13 28.7	8.7	8.2	29	14 22.3	14 24.6	13 43.0	8.7	8.3
30	14 07.5	14 09.8	13 28.9	9.0	8.5	30	14 22.5	14 24.8	13 43.2	9.0	8.6
31	14 07.7	14 10.1	13 29.2	9.3	8.8	31	14 22.7	14 25.1	13 43.5	9.3	8.9
32	14 08.0	14 10.3	13 29.4	9.6	9.0	32	14 23.0	14 25.3	13 43.7	9.6	9.2
33	14 08.2	14 10.6	13 29.6	9.9	9.3	33	14 23.2	14 25.6	13 44.0	9.9	9.5
34	14 08.5	14 10.8	13 29.9	10.2	9.6	34	14 23.5	14 25.9	13 44.2	10.2	9.8
35	14 08.8	14 11.1	13 30.1	10.5	9.9	35	14 23.8	14 26.1	13 44.4	10.5	10.1
36	14 09.0	14 11.3	13 30.4	10.8	10.2	36	14 24.0	14 26.4	13 44.7	10.8	10.4
37	14 09.3	14 11.6	13 30.6	11.1	10.5	37	14 24.3	14 26.6	13 44.9	11.1	10.6
38	14 09.5	14 11.8	13 30.8	11.4	10.7	38	14 24.5	14 26.9	13 45.2	11.4	10.9
39	14 09.7	14 12.1	13 31.1	11.7	11.0	39	14 24.7	14 27.1	13 45.4	11.7	11.2
40	14 10.0	14 12.3	13 31.3	12.0	11.3	40	14 25.0	14 27.4	13 45.6	12.0	11.5
41	14 10.2	14 12.6	13 31.6	12.3	11.6	41	14 25.2	14 27.6	13 45.9	12.3	11.8
42	14 10.5	14 12.8	13 31.8	12.6	11.9	42	14 25.5	14 27.9	13 46.1	12.6	12.1
43	14 10.8	14 13.1	13 32.0	12.9	12.1	43	14 25.8	14 28.1	13 46.3	12.9	12.4
44	14 11.0	14 13.3	13 32.3	13.2	12.4	44	14 26.0	14 28.4	13 46.6	13.2	12.7
45	14 11.2	14 13.6	13 32.5	13.5	12.7	45	14 26.2	14 28.6	13 46.8	13.5	12.9
46	14 11.5	14 13.8	13 32.7	13.8	13.0	46	14 26.5	14 28.9	13 47.1	13.8	13.2
47	14 11.7	14 14.1	13 33.0	14.1	13.3	47	14 26.7	14 29.1	13 47.3	14.1	13.5
48	14 12.0	14 14.3	13 33.2	14.4	13.6	48	14 27.0	14 29.4	13 47.5	14.4	13.8
49	14 12.3	14 14.6	13 33.5	14.7	13.8	49	14 27.3	14 29.6	13 47.8	14.7	14.1
50	14 12.5	14 14.8	13 33.7	15.0	14.1	50	14 27.5	14 29.9	13 48.0	15.0	14.4
51	14 12.8	14 15.1	13 33.9	15.3	14.4	51	14 27.8	14 30.1	13 48.3	15.3	14.7
52	14 13.0	14 15.3	13 34.2	15.6	14.7	52	14 28.0	14 30.4	13 48.5	15.6	15.0
53	14 13.2	14 15.6	13 34.4	15.9	15.0	53	14 28.2	14 30.6	13 48.7	15.9	15.2
54	14 13.5	14 15.8	13 34.7	16.2	15.3	54	14 28.5	14 30.9	13 49.0	16.2	15.5
55	14 13.7	14 16.1	13 34.9	16.5	15.5	55	14 28.7	14 31.1	13 49.2	16.5	15.8
56	14 14.0	14 16.3	13 35.1	16.8	15.8	56	14 29.0	14 31.4	13 49.4	16.8	16.1
57	14 14.3	14 16.6	13 35.4	17.1	16.1	57	14 29.3	14 31.6	13 49.7	17.1	16.4
58	14 14.5	14 16.8	13 35.6	17.4	16.4	58	14 29.5	14 31.9	13 49.9	17.4	16.7
59	14 14.8	14 17.1	13 35.8	17.7	16.7	59	14 29.8	14 32.1	13 50.2	17.7	17.0

58 min

Schalttafel

59 min

58 min	Zuwachs Grt			Unt	Vb	59 min	Zuwachs Grt			Unt	Vb
	Sonne Planet	Frühlp.	Mond				Sonne Planet	Frühlp.	Mond		
s	° ' "	° ' "	° ' "	' "	' "	s	° ' "	° ' "	° ' "	' "	' "
0	14 30.0	14 32.4	13 50.4	0.0	0.0	0	14 45.0	14 47.4	14 04.7	0.0	0.0
1	14 30.2	14 32.6	13 50.6	0.3	0.3	1	14 45.2	14 47.7	14 05.0	0.3	0.3
2	14 30.5	14 32.9	13 50.9	0.6	0.6	2	14 45.5	14 47.9	14 05.2	0.6	0.6
3	14 30.7	14 33.1	13 51.1	0.9	0.9	3	14 45.7	14 48.2	14 05.4	0.9	0.9
4	14 31.0	14 33.4	13 51.4	1.2	1.2	4	14 46.0	14 48.4	14 05.7	1.2	1.2
5	14 31.3	14 33.6	13 51.6	1.5	1.5	5	14 46.3	14 48.7	14 05.9	1.5	1.5
6	14 31.5	14 33.9	13 51.8	1.8	1.8	6	14 46.5	14 48.9	14 06.2	1.8	1.8
7	14 31.8	14 34.1	13 52.1	2.1	2.0	7	14 46.8	14 49.2	14 06.4	2.1	2.1
8	14 32.0	14 34.4	13 52.3	2.4	2.3	8	14 47.0	14 49.4	14 06.6	2.4	2.4
9	14 32.2	14 34.6	13 52.6	2.7	2.6	9	14 47.2	14 49.7	14 06.9	2.7	2.7
10	14 32.5	14 34.9	13 52.8	3.0	2.9	10	14 47.5	14 49.9	14 07.1	3.0	3.0
11	14 32.7	14 35.1	13 53.0	3.3	3.2	11	14 47.7	14 50.2	14 07.3	3.3	3.3
12	14 33.0	14 35.4	13 53.3	3.6	3.5	12	14 48.0	14 50.4	14 07.6	3.6	3.6
13	14 33.3	14 35.6	13 53.5	3.9	3.8	13	14 48.3	14 50.7	14 07.8	3.9	3.9
14	14 33.5	14 35.9	13 53.7	4.2	4.1	14	14 48.5	14 50.9	14 08.1	4.2	4.2
15	14 33.8	14 36.1	13 54.0	4.5	4.4	15	14 48.8	14 51.2	14 08.3	4.5	4.5
16	14 34.0	14 36.4	13 54.2	4.8	4.7	16	14 49.0	14 51.4	14 08.5	4.8	4.8
17	14 34.2	14 36.6	13 54.5	5.1	5.0	17	14 49.2	14 51.7	14 08.8	5.1	5.1
18	14 34.5	14 36.9	13 54.7	5.4	5.3	18	14 49.5	14 51.9	14 09.0	5.4	5.4
19	14 34.8	14 37.1	13 54.9	5.7	5.6	19	14 49.8	14 52.2	14 09.3	5.7	5.7
20	14 35.0	14 37.4	13 55.2	6.0	5.9	20	14 50.0	14 52.4	14 09.5	6.0	6.0
21	14 35.3	14 37.6	13 55.4	6.3	6.1	21	14 50.3	14 52.7	14 09.7	6.3	6.2
22	14 35.5	14 37.9	13 55.7	6.6	6.4	22	14 50.5	14 52.9	14 10.0	6.6	6.5
23	14 35.7	14 38.1	13 55.9	6.9	6.7	23	14 50.7	14 53.2	14 10.2	6.9	6.8
24	14 36.0	14 38.4	13 56.1	7.2	7.0	24	14 51.0	14 53.4	14 10.4	7.2	7.1
25	14 36.2	14 38.6	13 56.4	7.5	7.3	25	14 51.2	14 53.7	14 10.7	7.5	7.4
26	14 36.5	14 38.9	13 56.6	7.8	7.6	26	14 51.5	14 53.9	14 10.9	7.8	7.7
27	14 36.8	14 39.1	13 56.8	8.1	7.9	27	14 51.8	14 54.2	14 11.2	8.1	8.0
28	14 37.0	14 39.4	13 57.1	8.4	8.2	28	14 52.0	14 54.4	14 11.4	8.4	8.3
29	14 37.3	14 39.6	13 57.3	8.7	8.5	29	14 52.3	14 54.7	14 11.6	8.7	8.6
30	14 37.5	14 39.9	13 57.6	9.0	8.8	30	14 52.5	14 54.9	14 11.9	9.0	8.9
31	14 37.7	14 40.1	13 57.8	9.3	9.1	31	14 52.7	14 55.2	14 12.1	9.3	9.2
32	14 38.0	14 40.4	13 58.0	9.6	9.4	32	14 53.0	14 55.4	14 12.4	9.6	9.5
33	14 38.2	14 40.6	13 58.3	9.9	9.7	33	14 53.2	14 55.7	14 12.6	9.9	9.8
34	14 38.5	14 40.9	13 58.5	10.2	9.9	34	14 53.5	14 55.9	14 12.8	10.2	10.1
35	14 38.8	14 41.1	13 58.8	10.5	10.2	35	14 53.8	14 56.2	14 13.1	10.5	10.4
36	14 39.0	14 41.4	13 59.0	10.8	10.5	36	14 54.0	14 56.4	14 13.3	10.8	10.7
37	14 39.3	14 41.6	13 59.2	11.1	10.8	37	14 54.3	14 56.7	14 13.6	11.1	11.0
38	14 39.5	14 41.9	13 59.5	11.4	11.1	38	14 54.5	14 56.9	14 13.8	11.4	11.3
39	14 39.7	14 42.1	13 59.7	11.7	11.4	39	14 54.7	14 57.2	14 14.0	11.7	11.6
40	14 40.0	14 42.4	13 59.9	12.0	11.7	40	14 55.0	14 57.4	14 14.3	12.0	11.9
41	14 40.2	14 42.6	14 00.2	12.3	12.0	41	14 55.2	14 57.7	14 14.5	12.3	12.2
42	14 40.5	14 42.9	14 00.4	12.6	12.3	42	14 55.5	14 57.9	14 14.7	12.6	12.5
43	14 40.8	14 43.1	14 00.7	12.9	12.6	43	14 55.8	14 58.2	14 15.0	12.9	12.8
44	14 41.0	14 43.4	14 00.9	13.2	12.9	44	14 56.0	14 58.4	14 15.2	13.2	13.1
45	14 41.2	14 43.6	14 01.1	13.5	13.2	45	14 56.2	14 58.7	14 15.5	13.5	13.4
46	14 41.5	14 43.9	14 01.4	13.8	13.5	46	14 56.5	14 58.9	14 15.7	13.8	13.7
47	14 41.7	14 44.2	14 01.6	14.1	13.7	47	14 56.7	14 59.2	14 15.9	14.1	14.0
48	14 42.0	14 44.4	14 01.9	14.4	14.0	48	14 57.0	14 59.4	14 16.2	14.4	14.3
49	14 42.3	14 44.7	14 02.1	14.7	14.3	49	14 57.3	14 59.7	14 16.4	14.7	14.6
50	14 42.5	14 44.9	14 02.3	15.0	14.6	50	14 57.5	14 59.9	14 16.7	15.0	14.9
51	14 42.8	14 45.2	14 02.6	15.3	14.9	51	14 57.8	15 00.2	14 16.9	15.3	15.2
52	14 43.0	14 45.4	14 02.8	15.6	15.2	52	14 58.0	15 00.4	14 17.1	15.6	15.5
53	14 43.2	14 45.7	14 03.1	15.9	15.5	53	14 58.2	15 00.7	14 17.4	15.9	15.8
54	14 43.5	14 45.9	14 03.3	16.2	15.8	54	14 58.5	15 00.9	14 17.6	16.2	16.1
55	14 43.7	14 46.2	14 03.5	16.5	16.1	55	14 58.7	15 01.2	14 17.8	16.5	16.4
56	14 44.0	14 46.4	14 03.8	16.8	16.4	56	14 59.0	15 01.4	14 18.1	16.8	16.7
57	14 44.3	14 46.7	14 04.0	17.1	16.7	57	14 59.3	15 01.7	14 18.3	17.1	17.0
58	14 44.5	14 46.9	14 04.2	17.4	17.0	58	14 59.5	15 01.9	14 18.6	17.4	17.3
59	14 44.8	14 47.2	14 04.5	17.7	17.3	59	14 59.8	15 02.2	14 18.8	17.7	17.6