2025 July 1 Tuesday

(day 182 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 02.2	-00.1	N 23 06.2	-00.2
01	194 02.1	-00.2	N 23 06.0	-00.2
02	209 01.9	-00.1	N 23 05.8	-00.1
03	224 01.8	-00.1	N 23 05.7	-00.2
04	239 01.7	-00.1	N 23 05.5	-00.2
05	254 01.6	-00.1	N 23 05.3	-00.2
06	269 01.5	-00.2	N 23 05.1	-00.1
07	284 01.3	-00.1	N 23 05.0	-00.2
08	299 01.2	-00.1	N 23 04.8	-00.2
09	314 01.1	-00.1	N 23 04.6	-00.2
10	329 01.0	-00.1	N 23 04.4	-00.1
11	344 00.9	-00.2	N 23 04.3	-00.2
12	359 00.7	-00.1	N 23 04.1	-00.2
13	14 00.6	-00.1	N 23 03.9	-00.2
14	29 00.5	-00.1	N 23 03.7	-00.2
15	44 00.4	-00.1	N 23 03.5	-00.1
16	59 00.3	-00.2	N 23 03.4	-00.2
17	74 00.1	-00.1	N 23 03.2	-00.2
18	89 00.0	-00.1	N 23 03.0	-00.2
19	103 59.9	-00.1	N 23 02.8	-00.2
20	118 59.8	-00.1	N 23 02.6	-00.1
21	133 59.7	-00.2	N 23 02.5	-00.2
22	148 59.5	-00.1	N 23 02.3	-00.2
23	163 59.4	-00.1	N 23 02.1	-00.2

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	260°	259°	259°	259°	259°	259°

Greenwich Culmination Time: 12:03

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 58.7	-00.3	N 16 42.1	+00.6
01	239 58.4	-00.3	N 16 42.7	+00.7
02	254 58.1	-00.3	N 16 43.4	+00.7
03	269 57.8	-00.3	N 16 44.1	+00.6
04	284 57.5	-00.3	N 16 44.7	+00.7
05	299 57.2	-00.3	N 16 45.4	+00.7
06	314 56.9	-00.3	N 16 46.1	+00.6
07	329 56.6	-00.3	N 16 46.7	+00.7
08	344 56.3	-00.3	N 16 47.4	+00.7
09	359 56.0	-00.3	N 16 48.1	+00.6
10	14 55.7	-00.3	N 16 48.7	+00.7
11	29 55.4	-00.3	N 16 49.4	+00.7
12	44 55.1	-00.3	N 16 50.1	+00.6
13	59 54.8	-00.3	N 16 50.7	+00.7
14	74 54.5	-00.3	N 16 51.4	+00.7
15	89 54.2	-00.3	N 16 52.1	+00.6
16	104 53.9	-00.3	N 16 52.7	+00.7
17	119 53.6	-00.3	N 16 53.4	+00.6
18	134 53.3	-00.3	N 16 54.0	+00.7
19	149 53.0	-00.3	N 16 54.7	+00.7
20	164 52.7	-00.3	N 16 55.4	+00.6
21	179 52.4	-00.3	N 16 56.0	+00.7
22	194 52.1	-00.3	N 16 56.7	+00.7
23	209 51.8	-00.3	N 16 57.4	+00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′2	00′2	00′2	00′2	00′2	00′2
SHA	306°	305°	305°	305°	305°	305°

Greenwich Culmination Time: 09:00

Moon

A: 20%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	109 13.7	-25.0	N 04 27.6	-14.7
01	123 48.7	-25.0	N 04 12.9	-14.6
02	138 23.7	-24.9	N 03 58.3	-14.7
03	152 58.8	-24.9	N 03 43.6	-14.6
04	167 33.9	-24.9	N 03 29.0	-14.7
05	182 09.0	-24.8	N 03 14.3	-14.7
06	196 44.2	-24.7	N 02 59.6	-14.6
07	211 19.5	-24.8	N 02 45.0	-14.7
08	225 54.7	-24.7	N 02 30.3	-14.6
09	240 30.0	-24.6	N 02 15.7	-14.7
10	255 05.4	-24.7	N 02 01.0	-14.6
11	269 40.7	-24.5	N 01 46.4	-14.7
12	284 16.2	-24.6	N 01 31.7	-14.6
13	298 51.6	-24.5	N 01 17.1	-14.6
14	313 27.1	-24.6	N 01 02.5	-14.6
15	328 02.5	-24.4	N 00 47.9	-14.6
16	342 38.1	-24.5	N 00 33.3	-14.6
17	357 13.6	-24.4	N 00 18.7	-14.5
18	11 49.2	-24.4	N 00 04.2	-14.6
19	26 24.8	-24.4	S 00 10.4	+14.6
20	41 00.4	-24.3	S 00 25.0	+14.5
21	55 36.1	-24.4	S 00 39.5	+14.5
22	70 11.7	-24.3	S 00 54.0	+14.5
23	84 47.4	-24.3	S 01 08.5	+14.5

UT	02	06	10	14	18	22
SD	15′1	15′1	15′1	15′0	15′0	15′0
HP	55′5	55′4	55′3	55′2	55′1	55′0
SHA	189°	187°	185°	184°	182°	180°

Greenwich Culmination Time: 17:11

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	119 28.5	+01.2	N 09 35.8	-00.6
01	134 29.7	+01.1	N 09 35.2	-00.5
02	149 30.8	+01.1	N 09 34.7	-00.6
03	164 31.9	+01.1	N 09 34.1	-00.6
04	179 33.0	+01.1	N 09 33.5	-00.6
05	194 34.1	+01.1	N 09 32.9	-00.5
06	209 35.2	+01.2	N 09 32.4	-00.6
07	224 36.4	+01.1	N 09 31.8	-00.6
08	239 37.5	+01.1	N 09 31.2	-00.6
09	254 38.6	+01.1	N 09 30.6	-00.5
10	269 39.7	+01.1	N 09 30.1	-00.6
11	284 40.8	+01.1	N 09 29.5	-00.6
12	299 41.9	+01.1	N 09 28.9	-00.5
13	314 43.0	+01.2	N 09 28.4	-00.6
14	329 44.2	+01.1	N 09 27.8	-00.6
15	344 45.3	+01.1	N 09 27.2	-00.6
16	359 46.4	+01.1	N 09 26.6	-00.5
17	14 47.5	+01.1	N 09 26.1	-00.6
18	29 48.6	+01.1	N 09 25.5	-00.6
19	44 49.7	+01.1	N 09 24.9	-00.6
20	59 50.8	+01.2	N 09 24.3	-00.5
21	74 52.0	+01.1	N 09 23.8	-00.6
22	89 53.1	+01.1	N 09 23.2	-00.6
23	104 54.2	+01.1	N 09 22.6	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	200°	200°	200°	200°	200°	200°

Greenwich Culmination Time: 16:00

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 03.6	+01.9	N 23 13.3	+00.0
01	199 05.5	+01.8	N 23 13.3	+00.0
02	214 07.3	+01.9	N 23 13.3	-00.1
03	229 09.2	+01.8	N 23 13.2	+00.0
04	244 11.0	+01.9	N 23 13.2	+00.0
05	259 12.9	+01.8	N 23 13.2	+00.0
06	274 14.7	+01.9	N 23 13.2	+00.0
07	289 16.6	+01.8	N 23 13.2	-00.1
08	304 18.4	+01.8	N 23 13.1	+00.0
09	319 20.2	+01.9	N 23 13.1	+00.0
10	334 22.1	+01.8	N 23 13.1	+00.0
11	349 23.9	+01.9	N 23 13.1	+00.0
12	4 25.8	+01.8	N 23 13.1	+00.0
13	19 27.6	+01.9	N 23 13.1	-00.1
14	34 29.5	+01.8	N 23 13.0	+00.0
15	49 31.3	+01.9	N 23 13.0	+00.0
16	64 33.2	+01.8	N 23 13.0	+00.0
17	79 35.0	+01.8	N 23 13.0	+00.0
18	94 36.8	+01.9	N 23 13.0	+00.0
19	109 38.7	+01.8	N 23 13.0	-00.1
20	124 40.5	+01.9	N 23 12.9	+00.0
21	139 42.4	+01.8	N 23 12.9	+00.0
22	154 44.2	+01.9	N 23 12.9	+00.0
23	169 46.1	+01.8	N 23 12.9	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	265°	265°	265°	265°	265°	265°

Greenwich Culmination Time: 11:42

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	276 45.1	+02.5	S 01 19.9	+00.0
01	291 47.6	+02.4	S 01 19.9	+00.0
02	306 50.0	+02.4	S 01 19.9	+00.0
03	321 52.4	+02.4	S 01 19.9	+00.0
04	336 54.8	+02.4	S 01 19.9	+00.0
05	351 57.2	+02.4	S 01 19.9	+00.0
06	6 59.6	+02.4	S 01 19.9	-00.1
07	22 02.0	+02.5	S 01 19.8	+00.0
08	37 04.5	+02.4	S 01 19.8	+00.0
09	52 06.9	+02.4	S 01 19.8	+00.0
10	67 09.3	+02.4	S 01 19.8	+00.0
11	82 11.7	+02.4	S 01 19.8	+00.0
12	97 14.1	+02.4	S 01 19.8	+00.0
13	112 16.5	+02.4	S 01 19.8	+00.0
14	127 18.9	+02.5	S 01 19.8	+00.0
15	142 21.4	+02.4	S 01 19.8	+00.0
16	157 23.8	+02.4	S 01 19.8	+00.0
17	172 26.2	+02.4	S 01 19.8	-00.1
18	187 28.6	+02.4	S 01 19.7	+00.0
19	202 31.0	+02.4	S 01 19.7	+00.0
20	217 33.4	+02.5	S 01 19.7	+00.0
21	232 35.9	+02.4	S 01 19.7	+00.0
22	247 38.3	+02.4	S 01 19.7	+00.0
23	262 40.7	+02.4	S 01 19.7	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:32

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2025 July 2 Wednesday (day 183 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 59.3	-00.1	N 23 01.9	-00.2
01	193 59.2	-00.1	N 23 01.7	-00.2
02	208 59.1	-00.2	N 23 01.5	-00.2
03	223 58.9	-00.1	N 23 01.3	-00.1
04	238 58.8	-00.1	N 23 01.2	-00.2
05	253 58.7	-00.1	N 23 01.0	-00.2
06	268 58.6	-00.1	N 23 00.8	-00.2
07	283 58.5	-00.1	N 23 00.6	-00.2
08	298 58.4	-00.2	N 23 00.4	-00.2
09	313 58.2	-00.1	N 23 00.2	-00.2
10	328 58.1	-00.1	N 23 00.0	-00.2
11	343 58.0	-00.1	N 22 59.8	-00.2
12	358 57.9	-00.1	N 22 59.6	-00.2
13	13 57.8	-00.1	N 22 59.4	-00.2
14	28 57.7	-00.2	N 22 59.2	-00.2
15	43 57.5	-00.1	N 22 59.0	-00.2
16	58 57.4	-00.1	N 22 58.8	-00.2
17	73 57.3	-00.1	N 22 58.6	-00.2
18	88 57.2	-00.1	N 22 58.4	-00.2
19	103 57.1	-00.1	N 22 58.2	-00.2
20	118 57.0	-00.2	N 22 58.0	-00.2
21	133 56.8	-00.1	N 22 57.8	-00.2
22	148 56.7	-00.1	N 22 57.6	-00.2
23	163 56.6	-00.1	N 22 57.4	-00.2

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	259°	258°	258°	258°	258°	258°

Greenwich Culmination Time: 12:04

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	224 51.5	-00.4	N 16 58.0	+00.7
01	239 51.1	-00.3	N 16 58.7	+00.6
02	254 50.8	-00.3	N 16 59.3	+00.7
03	269 50.5	-00.3	N 16 60.0	+00.6
04	284 50.2	-00.3	N 17 00.6	+00.7
05	299 49.9	-00.3	N 17 01.3	+00.7
06	314 49.6	-00.3	N 17 02.0	+00.6
07	329 49.3	-00.4	N 17 02.6	+00.7
08	344 48.9	-00.3	N 17 03.3	+00.6
09	359 48.6	-00.3	N 17 03.9	+00.7
10	14 48.3	-00.3	N 17 04.6	+00.6
11	29 48.0	-00.3	N 17 05.2	+00.7
12	44 47.7	-00.3	N 17 05.9	+00.6
13	59 47.4	-00.4	N 17 06.5	+00.7
14	74 47.0	-00.3	N 17 07.2	+00.6
15	89 46.7	-00.3	N 17 07.8	+00.7
16	104 46.4	-00.3	N 17 08.5	+00.6
17	119 46.1	-00.3	N 17 09.1	+00.7
18	134 45.8	-00.4	N 17 09.8	+00.6
19	149 45.4	-00.3	N 17 10.4	+00.7
20	164 45.1	-00.3	N 17 11.1	+00.6
21	179 44.8	-00.3	N 17 11.7	+00.7
22	194 44.5	-00.3	N 17 12.4	+00.6
23	209 44.2	-00.4	N 17 13.0	+00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′2	00′2	00′2	00′2	00′2	00′2
SHA	304°	304°	304°	304°	304°	304°

Greenwich Culmination Time: 09:00

Moon

A: 23%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	99 23.1	-24.3	S 01 23.0	+14.5
01	113 58.8	-24.3	S 01 37.5	+14.4
02	128 34.5	-24.2	S 01 51.9	+14.5
03	143 10.3	-24.3	S 02 06.4	+14.4
04	157 46.0	-24.2	S 02 20.8	+14.4
05	172 21.8	-24.2	S 02 35.2	+14.4
06	186 57.6	-24.3	S 02 49.6	+14.3
07	201 33.3	-24.2	S 03 03.9	+14.3
08	216 09.1	-24.2	S 03 18.2	+14.4
09	230 44.9	-24.2	S 03 32.6	+14.3
10	245 20.7	-24.2	S 03 46.9	+14.2
11	259 56.5	-24.1	S 04 01.1	+14.3
12	274 32.4	-24.2	S 04 15.4	+14.2
13	289 08.2	-24.2	S 04 29.6	+14.2
14	303 44.0	-24.2	S 04 43.8	+14.1
15	318 19.8	-24.2	S 04 57.9	+14.2
16	332 55.6	-24.2	S 05 12.1	+14.1
17	347 31.4	-24.2	S 05 26.2	+14.1
18	2 07.2	-24.2	S 05 40.3	+14.0
19	16 43.0	-24.2	S 05 54.3	+14.1
20	31 18.8	-24.2	S 06 08.4	+14.0
21	45 54.6	-24.3	S 06 22.4	+13.9
22	60 30.3	-24.2	S 06 36.3	+14.0
23	75 06.1	-24.3	S 06 50.3	+13.9

UT	02	06	10	14	18	22
SD	15′0	14′9	14′9	14′9	14′9	14′9
HP	54′9	54′8	54′8	54′7	54′6	54′6
SHA	178°	176°	175°	173°	171°	169°

Greenwich Culmination Time: 17:51

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	119 55.3	+01.1	N 09 22.0	-00.5
01	134 56.4	+01.1	N 09 21.5	-00.6
02	149 57.5	+01.1	N 09 20.9	-00.6
03	164 58.6	+01.2	N 09 20.3	-00.6
04	179 59.8	+01.1	N 09 19.7	-00.5
05	195 00.9	+01.1	N 09 19.2	-00.6
06	210 02.0	+01.1	N 09 18.6	-00.6
07	225 03.1	+01.1	N 09 18.0	-00.6
08	240 04.2	+01.1	N 09 17.4	-00.5
09	255 05.3	+01.1	N 09 16.9	-00.6
10	270 06.4	+01.2	N 09 16.3	-00.6
11	285 07.6	+01.1	N 09 15.7	-00.6
12	300 08.7	+01.1	N 09 15.1	-00.5
13	315 09.8	+01.1	N 09 14.6	-00.6
14	330 10.9	+01.1	N 09 14.0	-00.6
15	345 12.0	+01.1	N 09 13.4	-00.6
16	0 13.1	+01.1	N 09 12.8	-00.6
17	15 14.2	+01.1	N 09 12.2	-00.5
18	30 15.3	+01.2	N 09 11.7	-00.6
19	45 16.5	+01.1	N 09 11.1	-00.6
20	60 17.6	+01.1	N 09 10.5	-00.6
21	75 18.7	+01.1	N 09 09.9	-00.5
22	90 19.8	+01.1	N 09 09.4	-00.6
23	105 20.9	+01.1	N 09 08.8	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	200°	199°	199°	199°	199°	199°

Greenwich Culmination Time: 15:59

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	184 47.9	+01.9	N 23 12.9	+00.0
01	199 49.8	+01.8	N 23 12.9	-00.1
02	214 51.6	+01.9	N 23 12.8	+00.0
03	229 53.5	+01.8	N 23 12.8	+00.0
04	244 55.3	+01.8	N 23 12.8	+00.0
05	259 57.1	+01.9	N 23 12.8	+00.0
06	274 59.0	+01.8	N 23 12.8	-00.1
07	290 00.8	+01.9	N 23 12.7	+00.0
08	305 02.7	+01.8	N 23 12.7	+00.0
09	320 04.5	+01.9	N 23 12.7	+00.0
10	335 06.4	+01.8	N 23 12.7	+00.0
11	350 08.2	+01.9	N 23 12.7	+00.0
12	5 10.1	+01.8	N 23 12.7	-00.1
13	20 11.9	+01.8	N 23 12.6	+00.0
14	35 13.7	+01.9	N 23 12.6	+00.0
15	50 15.6	+01.8	N 23 12.6	+00.0
16	65 17.4	+01.9	N 23 12.6	+00.0
17	80 19.3	+01.8	N 23 12.6	-00.1
18	95 21.1	+01.9	N 23 12.5	+00.0
19	110 23.0	+01.8	N 23 12.5	+00.0
20	125 24.8	+01.9	N 23 12.5	+00.0
21	140 26.7	+01.8	N 23 12.5	+00.0
22	155 28.5	+01.9	N 23 12.5	+00.0
23	170 30.4	+01.8	N 23 12.5	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	264°	264°	264°	264°	264°	264°

Greenwich Culmination Time: 11:39

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	277 43.1	+02.4	S 01 19.7	+00.0
01	292 45.5	+02.4	S 01 19.7	+00.0
02	307 47.9	+02.5	S 01 19.7	+00.0
03	322 50.4	+02.4	S 01 19.7	+00.0
04	337 52.8	+02.4	S 01 19.7	+00.0
05	352 55.2	+02.4	S 01 19.7	-00.1
06	7 57.6	+02.4	S 01 19.6	+00.0
07	23 00.0	+02.4	S 01 19.6	+00.0
08	38 02.4	+02.5	S 01 19.6	+00.0
09	53 04.9	+02.4	S 01 19.6	+00.0
10	68 07.3	+02.4	S 01 19.6	+00.0
11	83 09.7	+02.4	S 01 19.6	+00.0
12	98 12.1	+02.4	S 01 19.6	+00.0
13	113 14.5	+02.5	S 01 19.6	+00.0
14	128 17.0	+02.4	S 01 19.6	+00.0
15	143 19.4	+02.4	S 01 19.6	+00.0
16	158 21.8	+02.4	S 01 19.6	+00.0
17	173 24.2	+02.4	S 01 19.6	+00.0
18	188 26.6	+02.5	S 01 19.6	+00.0
19	203 29.1	+02.4	S 01 19.6	-00.1
20	218 31.5	+02.4	S 01 19.5	+00.0
21	233 33.9	+02.4	S 01 19.5	+00.0
22	248 36.3	+02.4	S 01 19.5	+00.0
23	263 38.7	+02.5	S 01 19.5	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:28

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 3 Thursday

(day 184 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 56.5	-00.1	N 22 57.2	-00.2
01	193 56.4	-00.1	N 22 57.0	-00.2
02	208 56.3	-00.1	N 22 56.8	-00.2
03	223 56.2	-00.2	N 22 56.6	-00.2
04	238 56.0	-00.1	N 22 56.4	-00.2
05	253 55.9	-00.1	N 22 56.2	-00.2
06	268 55.8	-00.1	N 22 56.0	-00.2
07	283 55.7	-00.1	N 22 55.8	-00.2
08	298 55.6	-00.1	N 22 55.6	-00.2
09	313 55.5	-00.1	N 22 55.4	-00.2
10	328 55.4	-00.2	N 22 55.2	-00.2
11	343 55.2	-00.1	N 22 55.0	-00.2
12	358 55.1	-00.1	N 22 54.8	-00.3
13	13 55.0	-00.1	N 22 54.5	-00.2
14	28 54.9	-00.1	N 22 54.3	-00.2
15	43 54.8	-00.1	N 22 54.1	-00.2
16	58 54.7	-00.1	N 22 53.9	-00.2
17	73 54.6	-00.2	N 22 53.7	-00.2
18	88 54.4	-00.1	N 22 53.5	-00.2
19	103 54.3	-00.1	N 22 53.3	-00.3
20	118 54.2	-00.1	N 22 53.0	-00.2
21	133 54.1	-00.1	N 22 52.8	-00.2
22	148 54.0	-00.1	N 22 52.6	-00.2
23	163 53.9	-00.1	N 22 52.4	-00.2

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	258°	257°	257°	257°	257°	257°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 43.8	-00.3	N 17 13.7	+00.6
01	239 43.5	-00.3	N 17 14.3	+00.7
02	254 43.2	-00.4	N 17 15.0	+00.6
03	269 42.8	-00.3	N 17 15.6	+00.7
04	284 42.5	-00.3	N 17 16.3	+00.6
05	299 42.2	-00.3	N 17 16.9	+00.7
06	314 41.9	-00.4	N 17 17.6	+00.6
07	329 41.5	-00.3	N 17 18.2	+00.6
08	344 41.2	-00.3	N 17 18.8	+00.7
09	359 40.9	-00.4	N 17 19.5	+00.6
10	14 40.5	-00.3	N 17 20.1	+00.7
11	29 40.2	-00.3	N 17 20.8	+00.6
12	44 39.9	-00.3	N 17 21.4	+00.7
13	59 39.6	-00.4	N 17 22.1	+00.6
14	74 39.2	-00.3	N 17 22.7	+00.6
15	89 38.9	-00.3	N 17 23.3	+00.7
16	104 38.6	-00.4	N 17 24.0	+00.6
17	119 38.2	-00.3	N 17 24.6	+00.7
18	134 37.9	-00.4	N 17 25.3	+00.6
19	149 37.5	-00.3	N 17 25.9	+00.6
20	164 37.2	-00.3	N 17 26.5	+00.7
21	179 36.9	-00.4	N 17 27.2	+00.6
22	194 36.5	-00.3	N 17 27.8	+00.6
23	209 36.2	-00.3	N 17 28.4	+00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′2	00′2	00′2	00′2	00′2	00′2
SHA	303°	303°	303°	303°	303°	302°

Greenwich Culmination Time: 09:01

Moon

A: 26%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	89 41.8	-24.2	S 07 04.2	+13.8
01	104 17.6	-24.3	S 07 18.0	+13.9
02	118 53.3	-24.3	S 07 31.9	+13.8
03	133 29.0	-24.3	S 07 45.7	+13.7
04	148 04.7	-24.3	S 07 59.4	+13.8
05	162 40.4	-24.4	S 08 13.2	+13.7
06	177 16.0	-24.3	S 08 26.9	+13.6
07	191 51.7	-24.4	S 08 40.5	+13.6
08	206 27.3	-24.4	S 08 54.1	+13.6
09	221 02.9	-24.5	S 09 07.7	+13.6
10	235 38.4	-24.4	S 09 21.3	+13.5
11	250 14.0	-24.5	S 09 34.8	+13.4
12	264 49.5	-24.5	S 09 48.2	+13.5
13	279 25.0	-24.5	S 10 01.7	+13.3
14	294 00.5	-24.6	S 10 15.0	+13.4
15	308 35.9	-24.6	S 10 28.4	+13.3
16	323 11.3	-24.6	S 10 41.7	+13.2
17	337 46.7	-24.6	S 10 54.9	+13.2
18	352 22.1	-24.7	S 11 08.1	+13.2
19	6 57.4	-24.7	S 11 21.3	+13.1
20	21 32.7	-24.8	S 11 34.4	+13.1
21	36 07.9	-24.8	S 11 47.5	+13.0
22	50 43.1	-24.8	S 12 00.5	+13.0
23	65 18.3	-24.9	S 12 13.5	+13.0

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′5	54′4	54′4	54′4	54′3	54′3
SHA	168°	166°	164°	162°	160°	159°

Greenwich Culmination Time: 18:31

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	120 22.0	+01.1	N 09 08.2	-00.6
01	135 23.1	+01.1	N 09 07.6	-00.6
02	150 24.2	+01.2	N 09 07.0	-00.5
03	165 25.4	+01.1	N 09 06.5	-00.6
04	180 26.5	+01.1	N 09 05.9	-00.6
05	195 27.6	+01.1	N 09 05.3	-00.6
06	210 28.7	+01.1	N 09 04.7	-00.5
07	225 29.8	+01.1	N 09 04.2	-00.6
08	240 30.9	+01.1	N 09 03.6	-00.6
09	255 32.0	+01.1	N 09 03.0	-00.6
10	270 33.1	+01.2	N 09 02.4	-00.6
11	285 34.3	+01.1	N 09 01.8	-00.5
12	300 35.4	+01.1	N 09 01.3	-00.6
13	315 36.5	+01.1	N 09 00.7	-00.6
14	330 37.6	+01.1	N 09 00.1	-00.6
15	345 38.7	+01.1	N 08 59.5	-00.6
16	0 39.8	+01.1	N 08 58.9	-00.5
17	15 40.9	+01.1	N 08 58.4	-00.6
18	30 42.0	+01.2	N 08 57.8	-00.6
19	45 43.2	+01.1	N 08 57.2	-00.6
20	60 44.3	+01.1	N 08 56.6	-00.6
21	75 45.4	+01.1	N 08 56.0	-00.5
22	90 46.5	+01.1	N 08 55.5	-00.6
23	105 47.6	+01.1	N 08 54.9	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	199°	199°	199°	199°	199°	199°

Greenwich Culmination Time: 15:57

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	185 32.2	+01.9	N 23 12.4	+00.0
01	200 34.1	+01.8	N 23 12.4	+00.0
02	215 35.9	+01.8	N 23 12.4	+00.0
03	230 37.7	+01.9	N 23 12.4	+00.0
04	245 39.6	+01.8	N 23 12.4	-00.1
05	260 41.4	+01.9	N 23 12.3	+00.0
06	275 43.3	+01.8	N 23 12.3	+00.0
07	290 45.1	+01.9	N 23 12.3	+00.0
08	305 47.0	+01.8	N 23 12.3	+00.0
09	320 48.8	+01.9	N 23 12.3	-00.1
10	335 50.7	+01.8	N 23 12.2	+00.0
11	350 52.5	+01.9	N 23 12.2	+00.0
12	5 54.4	+01.8	N 23 12.2	+00.0
13	20 56.2	+01.8	N 23 12.2	+00.0
14	35 58.0	+01.9	N 23 12.2	-00.1
15	50 59.9	+01.8	N 23 12.1	+00.0
16	66 01.7	+01.9	N 23 12.1	+00.0
17	81 03.6	+01.8	N 23 12.1	+00.0
18	96 05.4	+01.9	N 23 12.1	+00.0
19	111 07.3	+01.8	N 23 12.1	+00.0
20	126 09.1	+01.9	N 23 12.1	-00.1
21	141 11.0	+01.8	N 23 12.0	+00.0
22	156 12.8	+01.9	N 23 12.0	+00.0
23	171 14.7	+01.8	N 23 12.0	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	264°	264°	264°	264°	264°	264°

Greenwich Culmination Time: 11:36

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	278 41.2	+02.4	S 01 19.5	+00.0
01	293 43.6	+02.4	S 01 19.5	+00.0
02	308 46.0	+02.4	S 01 19.5	+00.0
03	323 48.4	+02.4	S 01 19.5	+00.0
04	338 50.8	+02.5	S 01 19.5	+00.0
05	353 53.3	+02.4	S 01 19.5	+00.0
06	8 55.7	+02.4	S 01 19.5	+00.0
07	23 58.1	+02.4	S 01 19.5	+00.0
08	39 00.5	+02.4	S 01 19.5	+00.0
09	54 02.9	+02.5	S 01 19.5	+00.0
10	69 05.4	+02.4	S 01 19.5	+00.0
11	84 07.8	+02.4	S 01 19.5	+00.0
12	99 10.2	+02.4	S 01 19.5	-00.1
13	114 12.6	+02.5	S 01 19.4	+00.0
14	129 15.1	+02.4	S 01 19.4	+00.0
15	144 17.5	+02.4	S 01 19.4	+00.0
16	159 19.9	+02.4	S 01 19.4	+00.0
17	174 22.3	+02.4	S 01 19.4	+00.0
18	189 24.7	+02.5	S 01 19.4	+00.0
19	204 27.2	+02.4	S 01 19.4	+00.0
20	219 29.6	+02.4	S 01 19.4	+00.0
21	234 32.0	+02.4	S 01 19.4	+00.0
22	249 34.4	+02.5	S 01 19.4	+00.0
23	264 36.9	+02.4	S 01 19.4	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:24

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2025 July 4 Friday

(day 185 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 53.8	-00.1	N 22 52.2	-00.2
01	193 53.7	-00.2	N 22 52.0	-00.3
02	208 53.5	-00.1	N 22 51.7	-00.2
03	223 53.4	-00.1	N 22 51.5	-00.2
04	238 53.3	-00.1	N 22 51.3	-00.2
05	253 53.2	-00.1	N 22 51.1	-00.3
06	268 53.1	-00.1	N 22 50.8	-00.2
07	283 53.0	-00.1	N 22 50.6	-00.2
08	298 52.9	-00.1	N 22 50.4	-00.2
09	313 52.8	-00.1	N 22 50.2	-00.2
10	328 52.7	-00.2	N 22 50.0	-00.3
11	343 52.5	-00.1	N 22 49.7	-00.2
12	358 52.4	-00.1	N 22 49.5	-00.2
13	13 52.3	-00.1	N 22 49.3	-00.3
14	28 52.2	-00.1	N 22 49.0	-00.2
15	43 52.1	-00.1	N 22 48.8	-00.2
16	58 52.0	-00.1	N 22 48.6	-00.2
17	73 51.9	-00.1	N 22 48.4	-00.3
18	88 51.8	-00.1	N 22 48.1	-00.2
19	103 51.7	-00.1	N 22 47.9	-00.2
20	118 51.6	-00.1	N 22 47.7	-00.3
21	133 51.5	-00.2	N 22 47.4	-00.2
22	148 51.3	-00.1	N 22 47.2	-00.2
23	163 51.2	-00.1	N 22 47.0	-00.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	257°	256°	256°	256°	256°	256°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 35.9	-00.4	N 17 29.1	+00.6
01	239 35.5	-00.3	N 17 29.7	+00.6
02	254 35.2	-00.4	N 17 30.3	+00.7
03	269 34.8	-00.3	N 17 31.0	+00.6
04	284 34.5	-00.3	N 17 31.6	+00.6
05	299 34.2	-00.4	N 17 32.2	+00.7
06	314 33.8	-00.3	N 17 32.9	+00.6
07	329 33.5	-00.4	N 17 33.5	+00.6
08	344 33.1	-00.3	N 17 34.1	+00.7
09	359 32.8	-00.4	N 17 34.8	+00.6
10	14 32.4	-00.3	N 17 35.4	+00.6
11	29 32.1	-00.4	N 17 36.0	+00.6
12	44 31.7	-00.3	N 17 36.6	+00.7
13	59 31.4	-00.3	N 17 37.3	+00.6
14	74 31.1	-00.4	N 17 37.9	+00.6
15	89 30.7	-00.3	N 17 38.5	+00.7
16	104 30.4	-00.4	N 17 39.2	+00.6
17	119 30.0	-00.3	N 17 39.8	+00.6
18	134 29.7	-00.4	N 17 40.4	+00.6
19	149 29.3	-00.3	N 17 41.0	+00.7
20	164 29.0	-00.4	N 17 41.7	+00.6
21	179 28.6	-00.3	N 17 42.3	+00.6
22	194 28.3	-00.4	N 17 42.9	+00.6
23	209 27.9	-00.3	N 17 43.5	+00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′2	00′2	00′2	00′2	00′2	00′2
SHA	302°	302°	302°	302°	301°	301°

Greenwich Culmination Time: 09:01

Moon

A: 28%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	79 53.4	-24.9	S 12 26.5	+12.8
01	94 28.5	-24.9	S 12 39.3	+12.9
02	109 03.6	-25.0	S 12 52.2	+12.8
03	123 38.6	-25.0	S 13 05.0	+12.7
04	138 13.6	-25.1	S 13 17.7	+12.7
05	152 48.5	-25.1	S 13 30.4	+12.6
06	167 23.4	-25.1	S 13 43.0	+12.6
07	181 58.3	-25.2	S 13 55.6	+12.5
08	196 33.1	-25.3	S 14 08.1	+12.5
09	211 07.8	-25.3	S 14 20.6	+12.4
10	225 42.5	-25.3	S 14 33.0	+12.3
11	240 17.2	-25.4	S 14 45.3	+12.3
12	254 51.8	-25.5	S 14 57.6	+12.3
13	269 26.3	-25.4	S 15 09.9	+12.1
14	284 00.9	-25.6	S 15 22.0	+12.2
15	298 35.3	-25.6	S 15 34.2	+12.0
16	313 09.7	-25.6	S 15 46.2	+12.0
17	327 44.1	-25.8	S 15 58.2	+12.0
18	342 18.3	-25.7	S 16 10.2	+11.8
19	356 52.6	-25.8	S 16 22.0	+11.8
20	11 26.8	-25.9	S 16 33.8	+11.8
21	26 00.9	-26.0	S 16 45.6	+11.7
22	40 34.9	-26.0	S 16 57.3	+11.6
23	55 08.9	-26.0	S 17 08.9	+11.5

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′2	54′2	54′2	54′2	54′2	54′2
SHA	157°	155°	153°	151°	149°	147°

Greenwich Culmination Time: 19:12

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	120 48.7	+01.1	N 08 54.3	-00.6
01	135 49.8	+01.1	N 08 53.7	-00.6
02	150 50.9	+01.1	N 08 53.1	-00.5
03	165 52.0	+01.2	N 08 52.6	-00.6
04	180 53.2	+01.1	N 08 52.0	-00.6
05	195 54.3	+01.1	N 08 51.4	-00.6
06	210 55.4	+01.1	N 08 50.8	-00.6
07	225 56.5	+01.1	N 08 50.2	-00.5
08	240 57.6	+01.1	N 08 49.7	-00.6
09	255 58.7	+01.1	N 08 49.1	-00.6
10	270 59.8	+01.1	N 08 48.5	-00.6
11	286 00.9	+01.1	N 08 47.9	-00.6
12	301 02.0	+01.2	N 08 47.3	-00.6
13	316 03.2	+01.1	N 08 46.7	-00.5
14	331 04.3	+01.1	N 08 46.2	-00.6
15	346 05.4	+01.1	N 08 45.6	-00.6
16	1 06.5	+01.1	N 08 45.0	-00.6
17	16 07.6	+01.1	N 08 44.4	-00.6
18	31 08.7	+01.1	N 08 43.8	-00.5
19	46 09.8	+01.1	N 08 43.3	-00.6
20	61 10.9	+01.1	N 08 42.7	-00.6
21	76 12.0	+01.1	N 08 42.1	-00.6
22	91 13.1	+01.2	N 08 41.5	-00.6
23	106 14.3	+01.1	N 08 40.9	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	199°	198°	198°	198°	198°	198°

Greenwich Culmination Time: 15:55

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	186 16.5	+01.9	N 23 12.0	+00.0
01	201 18.4	+01.8	N 23 12.0	-00.1
02	216 20.2	+01.8	N 23 11.9	+00.0
03	231 22.0	+01.9	N 23 11.9	+00.0
04	246 23.9	+01.8	N 23 11.9	+00.0
05	261 25.7	+01.9	N 23 11.9	+00.0
06	276 27.6	+01.8	N 23 11.9	-00.1
07	291 29.4	+01.9	N 23 11.8	+00.0
08	306 31.3	+01.8	N 23 11.8	+00.0
09	321 33.1	+01.9	N 23 11.8	+00.0
10	336 35.0	+01.8	N 23 11.8	+00.0
11	351 36.8	+01.9	N 23 11.8	-00.1
12	6 38.7	+01.8	N 23 11.7	+00.0
13	21 40.5	+01.9	N 23 11.7	+00.0
14	36 42.4	+01.8	N 23 11.7	+00.0
15	51 44.2	+01.9	N 23 11.7	+00.0
16	66 46.1	+01.8	N 23 11.7	-00.1
17	81 47.9	+01.8	N 23 11.6	+00.0
18	96 49.7	+01.9	N 23 11.6	+00.0
19	111 51.6	+01.8	N 23 11.6	+00.0
20	126 53.4	+01.9	N 23 11.6	-00.1
21	141 55.3	+01.8	N 23 11.5	+00.0
22	156 57.1	+01.9	N 23 11.5	+00.0
23	171 59.0	+01.8	N 23 11.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	264°	264°	264°	264°	264°	264°

Greenwich Culmination Time: 11:33

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	279 39.3	+02.4	S 01 19.4	+00.0
01	294 41.7	+02.4	S 01 19.4	+00.0
02	309 44.1	+02.5	S 01 19.4	+00.0
03	324 46.6	+02.4	S 01 19.4	+00.0
04	339 49.0	+02.4	S 01 19.4	+00.0
05	354 51.4	+02.4	S 01 19.4	+00.0
06	9 53.8	+02.5	S 01 19.4	+00.0
07	24 56.3	+02.4	S 01 19.4	+00.0
08	39 58.7	+02.4	S 01 19.4	-00.1
09	55 01.1	+02.4	S 01 19.3	+00.0
10	70 03.5	+02.5	S 01 19.3	+00.0
11	85 06.0	+02.4	S 01 19.3	+00.0
12	100 08.4	+02.4	S 01 19.3	+00.0
13	115 10.8	+02.4	S 01 19.3	+00.0
14	130 13.2	+02.5	S 01 19.3	+00.0
15	145 15.7	+02.4	S 01 19.3	+00.0
16	160 18.1	+02.4	S 01 19.3	+00.0
17	175 20.5	+02.5	S 01 19.3	+00.0
18	190 23.0	+02.4	S 01 19.3	+00.0
19	205 25.4	+02.4	S 01 19.3	+00.0
20	220 27.8	+02.4	S 01 19.3	+00.0
21	235 30.2	+02.5	S 01 19.3	+00.0
22	250 32.7	+02.4	S 01 19.3	+00.0
23	265 35.1	+02.4	S 01 19.3	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:20

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 5 Saturday

(day 186 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 51.1	-00.1	N 22 46.7	-00.2
01	193 51.0	-00.1	N 22 46.5	-00.3
02	208 50.9	-00.1	N 22 46.2	-00.2
03	223 50.8	-00.1	N 22 46.0	-00.2
04	238 50.7	-00.1	N 22 45.8	-00.3
05	253 50.6	-00.1	N 22 45.5	-00.2
06	268 50.5	-00.1	N 22 45.3	-00.2
07	283 50.4	-00.1	N 22 45.1	-00.3
08	298 50.3	-00.1	N 22 44.8	-00.2
09	313 50.2	-00.1	N 22 44.6	-00.3
10	328 50.1	-00.2	N 22 44.3	-00.2
11	343 49.9	-00.1	N 22 44.1	-00.3
12	358 49.8	-00.1	N 22 43.8	-00.2
13	13 49.7	-00.1	N 22 43.6	-00.2
14	28 49.6	-00.1	N 22 43.4	-00.3
15	43 49.5	-00.1	N 22 43.1	-00.2
16	58 49.4	-00.1	N 22 42.9	-00.3
17	73 49.3	-00.1	N 22 42.6	-00.2
18	88 49.2	-00.1	N 22 42.4	-00.3
19	103 49.1	-00.1	N 22 42.1	-00.2
20	118 49.0	-00.1	N 22 41.9	-00.3
21	133 48.9	-00.1	N 22 41.6	-00.2
22	148 48.8	-00.1	N 22 41.4	-00.3
23	163 48.7	-00.1	N 22 41.1	-00.2

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	256°	255°	255°	255°	255°	255°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 27.6	-00.4	N 17 44.1	+00.7
01	239 27.2	-00.4	N 17 44.8	+00.6
02	254 26.8	-00.3	N 17 45.4	+00.6
03	269 26.5	-00.4	N 17 46.0	+00.6
04	284 26.1	-00.3	N 17 46.6	+00.6
05	299 25.8	-00.4	N 17 47.2	+00.7
06	314 25.4	-00.3	N 17 47.9	+00.6
07	329 25.1	-00.4	N 17 48.5	+00.6
08	344 24.7	-00.4	N 17 49.1	+00.6
09	359 24.3	-00.3	N 17 49.7	+00.6
10	14 24.0	-00.4	N 17 50.3	+00.7
11	29 23.6	-00.3	N 17 51.0	+00.6
12	44 23.3	-00.4	N 17 51.6	+00.6
13	59 22.9	-00.4	N 17 52.2	+00.6
14	74 22.5	-00.3	N 17 52.8	+00.6
15	89 22.2	-00.4	N 17 53.4	+00.6
16	104 21.8	-00.3	N 17 54.0	+00.6
17	119 21.5	-00.4	N 17 54.6	+00.6
18	134 21.1	-00.4	N 17 55.2	+00.7
19	149 20.7	-00.3	N 17 55.9	+00.6
20	164 20.4	-00.4	N 17 56.5	+00.6
21	179 20.0	-00.4	N 17 57.1	+00.6
22	194 19.6	-00.3	N 17 57.7	+00.6
23	209 19.3	-00.4	N 17 58.3	+00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′2	00′2	00′2	00′2	00′2	00′2
SHA	301°	301°	301°	301°	300°	300°

Greenwich Culmination Time: 09:02

Moon

A: 31%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	69 42.9	-26.1	S 17 20.4	+11.5
01	84 16.8	-26.2	S 17 31.9	+11.5
02	98 50.6	-26.2	S 17 43.4	+11.3
03	113 24.4	-26.3	S 17 54.7	+11.3
04	127 58.1	-26.4	S 18 06.0	+11.2
05	142 31.7	-26.4	S 18 17.2	+11.1
06	157 05.3	-26.5	S 18 28.3	+11.1
07	171 38.8	-26.6	S 18 39.4	+11.0
08	186 12.2	-26.6	S 18 50.4	+10.9
09	200 45.6	-26.7	S 19 01.3	+10.8
10	215 18.9	-26.8	S 19 12.1	+10.8
11	229 52.1	-26.8	S 19 22.9	+10.7
12	244 25.3	-27.0	S 19 33.6	+10.6
13	258 58.3	-26.9	S 19 44.2	+10.6
14	273 31.4	-27.1	S 19 54.8	+10.4
15	288 04.3	-27.1	S 20 05.2	+10.4
16	302 37.2	-27.2	S 20 15.6	+10.3
17	317 10.0	-27.2	S 20 25.9	+10.2
18	331 42.8	-27.4	S 20 36.1	+10.1
19	346 15.4	-27.4	S 20 46.2	+10.1
20	0 48.0	-27.5	S 20 56.3	+09.9
21	15 20.5	-27.5	S 21 06.2	+09.9
22	29 53.0	-27.7	S 21 16.1	+09.8
23	44 25.3	-27.7	S 21 25.9	+09.7

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′2	54′2	54′2	54′2	54′2	54′2
SHA	146°	144°	142°	140°	138°	136°

Greenwich Culmination Time: 19:56

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	121 15.4	+01.1	N 08 40.3	-00.5
01	136 16.5	+01.1	N 08 39.8	-00.6
02	151 17.6	+01.1	N 08 39.2	-00.6
03	166 18.7	+01.1	N 08 38.6	-00.6
04	181 19.8	+01.1	N 08 38.0	-00.6
05	196 20.9	+01.1	N 08 37.4	-00.6
06	211 22.0	+01.1	N 08 36.8	-00.6
07	226 23.1	+01.1	N 08 36.2	-00.5
08	241 24.2	+01.2	N 08 35.7	-00.6
09	256 25.4	+01.1	N 08 35.1	-00.6
10	271 26.5	+01.1	N 08 34.5	-00.6
11	286 27.6	+01.1	N 08 33.9	-00.6
12	301 28.7	+01.1	N 08 33.3	-00.6
13	316 29.8	+01.1	N 08 32.7	-00.5
14	331 30.9	+01.1	N 08 32.2	-00.6
15	346 32.0	+01.1	N 08 31.6	-00.6
16	1 33.1	+01.1	N 08 31.0	-00.6
17	16 34.2	+01.1	N 08 30.4	-00.6
18	31 35.3	+01.1	N 08 29.8	-00.6
19	46 36.4	+01.2	N 08 29.2	-00.6
20	61 37.6	+01.1	N 08 28.6	-00.5
21	76 38.7	+01.1	N 08 28.1	-00.6
22	91 39.8	+01.1	N 08 27.5	-00.6
23	106 40.9	+01.1	N 08 26.9	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	198°	198°	198°	198°	198°	198°

Greenwich Culmination Time: 15:53

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	187 00.8	+01.9	N 23 11.5	+00.0
01	202 02.7	+01.8	N 23 11.5	-00.1
02	217 04.5	+01.9	N 23 11.4	+00.0
03	232 06.4	+01.8	N 23 11.4	+00.0
04	247 08.2	+01.9	N 23 11.4	+00.0
05	262 10.1	+01.8	N 23 11.4	+00.0
06	277 11.9	+01.9	N 23 11.4	-00.1
07	292 13.8	+01.8	N 23 11.3	+00.0
08	307 15.6	+01.9	N 23 11.3	+00.0
09	322 17.5	+01.8	N 23 11.3	+00.0
10	337 19.3	+01.9	N 23 11.3	+00.0
11	352 21.2	+01.8	N 23 11.3	-00.1
12	7 23.0	+01.8	N 23 11.2	+00.0
13	22 24.8	+01.9	N 23 11.2	+00.0
14	37 26.7	+01.8	N 23 11.2	+00.0
15	52 28.5	+01.9	N 23 11.2	+00.0
16	67 30.4	+01.8	N 23 11.2	-00.1
17	82 32.2	+01.9	N 23 11.1	+00.0
18	97 34.1	+01.8	N 23 11.1	+00.0
19	112 35.9	+01.9	N 23 11.1	+00.0
20	127 37.8	+01.8	N 23 11.1	-00.1
21	142 39.6	+01.9	N 23 11.0	+00.0
22	157 41.5	+01.8	N 23 11.0	+00.0
23	172 43.3	+01.9	N 23 11.0	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	264°	264°	264°	264°	264°	264°

Greenwich Culmination Time: 11:30

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	280 37.5	+02.4	S 01 19.3	+00.0
01	295 39.9	+02.5	S 01 19.3	+00.0
02	310 42.4	+02.4	S 01 19.3	+00.0
03	325 44.8	+02.4	S 01 19.3	+00.0
04	340 47.2	+02.5	S 01 19.3	+00.0
05	355 49.7	+02.4	S 01 19.3	+00.0
06	10 52.1	+02.4	S 01 19.3	+00.0
07	25 54.5	+02.5	S 01 19.3	+00.0
08	40 57.0	+02.4	S 01 19.3	+00.0
09	55 59.4	+02.4	S 01 19.3	+00.0
10	71 01.8	+02.4	S 01 19.3	+00.0
11	86 04.2	+02.5	S 01 19.3	+00.0
12	101 06.7	+02.4	S 01 19.3	+00.0
13	116 09.1	+02.4	S 01 19.3	+00.0
14	131 11.5	+02.5	S 01 19.3	+00.0
15	146 14.0	+02.4	S 01 19.3	+00.0
16	161 16.4	+02.4	S 01 19.3	+00.0
17	176 18.8	+02.5	S 01 19.3	-00.1
18	191 21.3	+02.4	S 01 19.2	+00.0
19	206 23.7	+02.4	S 01 19.2	+00.0
20	221 26.1	+02.4	S 01 19.2	+00.0
21	236 28.5	+02.5	S 01 19.2	+00.0
22	251 31.0	+02.4	S 01 19.2	+00.0
23	266 33.4	+02.4	S 01 19.2	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:16

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2025 July 6 Sunday

(day 187 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 48.6	-00.1	N 22 40.9	-00.3
01	193 48.5	-00.1	N 22 40.6	-00.2
02	208 48.4	-00.1	N 22 40.4	-00.3
03	223 48.3	-00.1	N 22 40.1	-00.3
04	238 48.2	-00.1	N 22 39.8	-00.2
05	253 48.1	-00.1	N 22 39.6	-00.3
06	268 48.0	-00.1	N 22 39.3	-00.2
07	283 47.9	-00.2	N 22 39.1	-00.3
08	298 47.7	-00.1	N 22 38.8	-00.2
09	313 47.6	-00.1	N 22 38.6	-00.3
10	328 47.5	-00.1	N 22 38.3	-00.3
11	343 47.4	-00.1	N 22 38.0	-00.2
12	358 47.3	-00.1	N 22 37.8	-00.3
13	13 47.2	-00.1	N 22 37.5	-00.2
14	28 47.1	-00.1	N 22 37.3	-00.3
15	43 47.0	-00.1	N 22 37.0	-00.3
16	58 46.9	-00.1	N 22 36.7	-00.2
17	73 46.8	-00.1	N 22 36.5	-00.3
18	88 46.7	-00.1	N 22 36.2	-00.3
19	103 46.6	-00.1	N 22 35.9	-00.2
20	118 46.5	-00.1	N 22 35.7	-00.3
21	133 46.4	-00.1	N 22 35.4	-00.2
22	148 46.3	-00.1	N 22 35.2	-00.3
23	163 46.2	-00.1	N 22 34.9	-00.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	254°	254°	254°	254°	254°	254°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 18.9	-00.4	N 17 58.9	+00.6
01	239 18.5	-00.3	N 17 59.5	+00.6
02	254 18.2	-00.4	N 18 00.1	+00.6
03	269 17.8	-00.4	N 18 00.7	+00.6
04	284 17.4	-00.3	N 18 01.3	+00.6
05	299 17.1	-00.4	N 18 01.9	+00.6
06	314 16.7	-00.4	N 18 02.5	+00.7
07	329 16.3	-00.4	N 18 03.2	+00.6
08	344 15.9	-00.3	N 18 03.8	+00.6
09	359 15.6	-00.4	N 18 04.4	+00.6
10	14 15.2	-00.4	N 18 05.0	+00.6
11	29 14.8	-00.3	N 18 05.6	+00.6
12	44 14.5	-00.4	N 18 06.2	+00.6
13	59 14.1	-00.4	N 18 06.8	+00.6
14	74 13.7	-00.4	N 18 07.4	+00.6
15	89 13.3	-00.3	N 18 08.0	+00.6
16	104 13.0	-00.4	N 18 08.6	+00.6
17	119 12.6	-00.4	N 18 09.2	+00.6
18	134 12.2	-00.4	N 18 09.8	+00.6
19	149 11.8	-00.4	N 18 10.4	+00.6
20	164 11.4	-00.3	N 18 11.0	+00.6
21	179 11.1	-00.4	N 18 11.6	+00.5
22	194 10.7	-00.4	N 18 12.1	+00.6
23	209 10.3	-00.4	N 18 12.7	+00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′2	00′1	00′1	00′1	00′1	00′1
SHA	300°	300°	300°	299°	299°	299°

Greenwich Culmination Time: 09:02

Moon

A: 34%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	58 57.6	-27.8	S 21 35.6	+09.6
01	73 29.8	-27.8	S 21 45.2	+09.5
02	88 02.0	-28.0	S 21 54.7	+09.5
03	102 34.0	-28.0	S 22 04.2	+09.3
04	117 06.0	-28.1	S 22 13.5	+09.3
05	131 37.9	-28.1	S 22 22.8	+09.1
06	146 09.8	-28.3	S 22 31.9	+09.1
07	160 41.5	-28.3	S 22 41.0	+09.0
08	175 13.2	-28.4	S 22 50.0	+08.9
09	189 44.8	-28.5	S 22 58.9	+08.7
10	204 16.3	-28.6	S 23 07.6	+08.7
11	218 47.7	-28.6	S 23 16.3	+08.6
12	233 19.1	-28.7	S 23 24.9	+08.5
13	247 50.4	-28.8	S 23 33.4	+08.4
14	262 21.6	-28.9	S 23 41.8	+08.2
15	276 52.7	-29.0	S 23 50.0	+08.2
16	291 23.7	-29.0	S 23 58.2	+08.1
17	305 54.7	-29.1	S 24 06.3	+07.9
18	320 25.6	-29.2	S 24 14.2	+07.9
19	334 56.4	-29.3	S 24 22.1	+07.8
20	349 27.1	-29.4	S 24 29.9	+07.6
21	3 57.7	-29.4	S 24 37.5	+07.6
22	18 28.3	-29.5	S 24 45.1	+07.4
23	32 58.8	-29.6	S 24 52.5	+07.3

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′2	54′3	54′3	54′3	54′4	54′4
SHA	134°	132°	130°	128°	125°	123°

Greenwich Culmination Time: 20:43

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	121 42.0	+01.1	N 08 26.3	-00.6
01	136 43.1	+01.1	N 08 25.7	-00.6
02	151 44.2	+01.1	N 08 25.1	-00.6
03	166 45.3	+01.1	N 08 24.5	-00.5
04	181 46.4	+01.1	N 08 24.0	-00.6
05	196 47.5	+01.1	N 08 23.4	-00.6
06	211 48.6	+01.1	N 08 22.8	-00.6
07	226 49.7	+01.2	N 08 22.2	-00.6
08	241 50.9	+01.1	N 08 21.6	-00.6
09	256 52.0	+01.1	N 08 21.0	-00.6
10	271 53.1	+01.1	N 08 20.4	-00.5
11	286 54.2	+01.1	N 08 19.9	-00.6
12	301 55.3	+01.1	N 08 19.3	-00.6
13	316 56.4	+01.1	N 08 18.7	-00.6
14	331 57.5	+01.1	N 08 18.1	-00.6
15	346 58.6	+01.1	N 08 17.5	-00.6
16	1 59.7	+01.1	N 08 16.9	-00.6
17	17 00.8	+01.1	N 08 16.3	-00.6
18	32 01.9	+01.1	N 08 15.7	-00.6
19	47 03.0	+01.1	N 08 15.1	-00.5
20	62 04.1	+01.2	N 08 14.6	-00.6
21	77 05.3	+01.1	N 08 14.0	-00.6
22	92 06.4	+01.1	N 08 13.4	-00.6
23	107 07.5	+01.1	N 08 12.8	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	197°	197°	197°	197°	197°	197°

Greenwich Culmination Time: 15:52

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	187 45.2	+01.8	N 23 11.0	+00.0
01	202 47.0	+01.9	N 23 11.0	-00.1
02	217 48.9	+01.8	N 23 10.9	+00.0
03	232 50.7	+01.9	N 23 10.9	+00.0
04	247 52.6	+01.8	N 23 10.9	+00.0
05	262 54.4	+01.9	N 23 10.9	+00.0
06	277 56.3	+01.8	N 23 10.9	-00.1
07	292 58.1	+01.9	N 23 10.8	+00.0
08	307 60.0	+01.8	N 23 10.8	+00.0
09	323 01.8	+01.8	N 23 10.8	+00.0
10	338 03.6	+01.9	N 23 10.8	-00.1
11	353 05.5	+01.8	N 23 10.7	+00.0
12	8 07.3	+01.9	N 23 10.7	+00.0
13	23 09.2	+01.8	N 23 10.7	+00.0
14	38 11.0	+01.9	N 23 10.7	+00.0
15	53 12.9	+01.8	N 23 10.7	-00.1
16	68 14.7	+01.9	N 23 10.6	+00.0
17	83 16.6	+01.8	N 23 10.6	+00.0
18	98 18.4	+01.9	N 23 10.6	+00.0
19	113 20.3	+01.8	N 23 10.6	-00.1
20	128 22.1	+01.9	N 23 10.5	+00.0
21	143 24.0	+01.8	N 23 10.5	+00.0
22	158 25.8	+01.9	N 23 10.5	+00.0
23	173 27.7	+01.8	N 23 10.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	264°	263°	263°	263°	263°	263°

Greenwich Culmination Time: 11:27

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	281 35.8	+02.5	S 01 19.2	+00.0
01	296 38.3	+02.4	S 01 19.2	+00.0
02	311 40.7	+02.4	S 01 19.2	+00.0
03	326 43.1	+02.5	S 01 19.2	+00.0
04	341 45.6	+02.4	S 01 19.2	+00.0
05	356 48.0	+02.4	S 01 19.2	+00.0
06	11 50.4	+02.5	S 01 19.2	+00.0
07	26 52.9	+02.4	S 01 19.2	+00.0
08	41 55.3	+02.4	S 01 19.2	+00.0
09	56 57.7	+02.5	S 01 19.2	+00.0
10	72 00.2	+02.4	S 01 19.2	+00.0
11	87 02.6	+02.4	S 01 19.2	+00.0
12	102 05.0	+02.5	S 01 19.2	+00.0
13	117 07.5	+02.4	S 01 19.2	+00.0
14	132 09.9	+02.4	S 01 19.2	+00.0
15	147 12.3	+02.5	S 01 19.2	+00.0
16	162 14.8	+02.4	S 01 19.2	+00.0
17	177 17.2	+02.4	S 01 19.2	+00.0
18	192 19.6	+02.5	S 01 19.2	+00.0
19	207 22.1	+02.4	S 01 19.2	+00.0
20	222 24.5	+02.4	S 01 19.2	+00.0
21	237 26.9	+02.5	S 01 19.2	+00.0
22	252 29.4	+02.4	S 01 19.2	+00.0
23	267 31.8	+02.5	S 01 19.2	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:12

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 7 Monday

(day 188 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 46.1	-00.1	N 22 34.6	-00.3
01	193 46.0	-00.1	N 22 34.3	-00.2
02	208 45.9	-00.1	N 22 34.1	-00.3
03	223 45.8	-00.1	N 22 33.8	-00.3
04	238 45.7	-00.1	N 22 33.5	-00.2
05	253 45.6	-00.1	N 22 33.3	-00.3
06	268 45.5	-00.1	N 22 33.0	-00.3
07	283 45.4	-00.1	N 22 32.7	-00.3
08	298 45.3	-00.1	N 22 32.4	-00.2
09	313 45.2	-00.1	N 22 32.2	-00.3
10	328 45.1	-00.1	N 22 31.9	-00.3
11	343 45.0	-00.1	N 22 31.6	-00.3
12	358 44.9	-00.1	N 22 31.3	-00.2
13	13 44.8	-00.1	N 22 31.1	-00.3
14	28 44.7	-00.1	N 22 30.8	-00.3
15	43 44.6	-00.1	N 22 30.5	-00.3
16	58 44.5	-00.1	N 22 30.2	-00.2
17	73 44.4	-00.1	N 22 30.0	-00.3
18	88 44.3	-00.1	N 22 29.7	-00.3
19	103 44.2	-00.1	N 22 29.4	-00.3
20	118 44.1	+00.0	N 22 29.1	-00.3
21	133 44.1	-00.1	N 22 28.8	-00.3
22	148 44.0	-00.1	N 22 28.5	-00.2
23	163 43.9	-00.1	N 22 28.3	-00.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	253°	253°	253°	253°	253°	253°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 09.9	-00.4	N 18 13.3	+00.6
01	239 09.5	-00.3	N 18 13.9	+00.6
02	254 09.2	-00.4	N 18 14.5	+00.6
03	269 08.8	-00.4	N 18 15.1	+00.6
04	284 08.4	-00.4	N 18 15.7	+00.6
05	299 08.0	-00.4	N 18 16.3	+00.6
06	314 07.6	-00.4	N 18 16.9	+00.6
07	329 07.2	-00.3	N 18 17.5	+00.6
08	344 06.9	-00.4	N 18 18.1	+00.6
09	359 06.5	-00.4	N 18 18.7	+00.6
10	14 06.1	-00.4	N 18 19.3	+00.5
11	29 05.7	-00.4	N 18 19.8	+00.6
12	44 05.3	-00.4	N 18 20.4	+00.6
13	59 04.9	-00.4	N 18 21.0	+00.6
14	74 04.5	-00.4	N 18 21.6	+00.6
15	89 04.1	-00.4	N 18 22.2	+00.6
16	104 03.7	-00.3	N 18 22.8	+00.6
17	119 03.4	-00.4	N 18 23.4	+00.5
18	134 03.0	-00.4	N 18 23.9	+00.6
19	149 02.6	-00.4	N 18 24.5	+00.6
20	164 02.2	-00.4	N 18 25.1	+00.6
21	179 01.8	-00.4	N 18 25.7	+00.6
22	194 01.4	-00.4	N 18 26.3	+00.5
23	209 01.0	-00.4	N 18 26.8	+00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	299°	299°	298°	298°	298°	298°

Greenwich Culmination Time: 09:03

Moon

A: 38%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	47 29.2	-29.7	S 24 59.8	+07.2
01	61 59.5	-29.8	S 25 07.0	+07.1
02	76 29.7	-29.8	S 25 14.1	+07.0
03	90 59.9	-29.9	S 25 21.1	+06.9
04	105 30.0	-30.0	S 25 28.0	+06.7
05	120 00.0	-30.1	S 25 34.7	+06.6
06	134 29.9	-30.1	S 25 41.3	+06.6
07	148 59.8	-30.2	S 25 47.9	+06.4
08	163 29.6	-30.3	S 25 54.3	+06.2
09	177 59.3	-30.4	S 26 00.5	+06.2
10	192 28.9	-30.5	S 26 06.7	+06.0
11	206 58.4	-30.5	S 26 12.7	+06.0
12	221 27.9	-30.6	S 26 18.7	+05.8
13	235 57.3	-30.7	S 26 24.5	+05.6
14	250 26.6	-30.7	S 26 30.1	+05.6
15	264 55.9	-30.8	S 26 35.7	+05.4
16	279 25.1	-30.9	S 26 41.1	+05.3
17	293 54.2	-31.0	S 26 46.4	+05.2
18	308 23.2	-31.0	S 26 51.6	+05.0
19	322 52.2	-31.2	S 26 56.6	+04.9
20	337 21.0	-31.1	S 27 01.5	+04.8
21	351 49.9	-31.3	S 27 06.3	+04.6
22	6 18.6	-31.3	S 27 10.9	+04.5
23	20 47.3	-31.4	S 27 15.4	+04.4

UT	02	06	10	14	18	22
SD	14′8	14′8	14′9	14′9	14′9	14′9
HP	54′5	54′5	54′6	54′6	54′7	54′7
SHA	121°	119°	117°	115°	112°	110°

Greenwich Culmination Time: 21:33

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	122 08.6	+01.1	N 08 12.2	-00.6
01	137 09.7	+01.1	N 08 11.6	-00.6
02	152 10.8	+01.1	N 08 11.0	-00.6
03	167 11.9	+01.1	N 08 10.4	-00.5
04	182 13.0	+01.1	N 08 09.9	-00.6
05	197 14.1	+01.1	N 08 09.3	-00.6
06	212 15.2	+01.1	N 08 08.7	-00.6
07	227 16.3	+01.1	N 08 08.1	-00.6
08	242 17.4	+01.1	N 08 07.5	-00.6
09	257 18.5	+01.1	N 08 06.9	-00.6
10	272 19.6	+01.2	N 08 06.3	-00.6
11	287 20.8	+01.1	N 08 05.7	-00.6
12	302 21.9	+01.1	N 08 05.1	-00.6
13	317 23.0	+01.1	N 08 04.5	-00.5
14	332 24.1	+01.1	N 08 04.0	-00.6
15	347 25.2	+01.1	N 08 03.4	-00.6
16	2 26.3	+01.1	N 08 02.8	-00.6
17	17 27.4	+01.1	N 08 02.2	-00.6
18	32 28.5	+01.1	N 08 01.6	-00.6
19	47 29.6	+01.1	N 08 01.0	-00.6
20	62 30.7	+01.1	N 08 00.4	-00.6
21	77 31.8	+01.1	N 07 59.8	-00.6
22	92 32.9	+01.1	N 07 59.2	-00.6
23	107 34.0	+01.1	N 07 58.6	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	197°	197°	197°	197°	197°	196°

Greenwich Culmination Time: 15:50

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	188 29.5	+01.9	N 23 10.5	-00.1
01	203 31.4	+01.8	N 23 10.4	+00.0
02	218 33.2	+01.9	N 23 10.4	+00.0
03	233 35.1	+01.8	N 23 10.4	+00.0
04	248 36.9	+01.9	N 23 10.4	-00.1
05	263 38.8	+01.8	N 23 10.3	+00.0
06	278 40.6	+01.9	N 23 10.3	+00.0
07	293 42.5	+01.8	N 23 10.3	+00.0
08	308 44.3	+01.9	N 23 10.3	-00.1
09	323 46.2	+01.8	N 23 10.2	+00.0
10	338 48.0	+01.9	N 23 10.2	+00.0
11	353 49.9	+01.8	N 23 10.2	+00.0
12	8 51.7	+01.9	N 23 10.2	+00.0
13	23 53.6	+01.8	N 23 10.2	-00.1
14	38 55.4	+01.9	N 23 10.1	+00.0
15	53 57.3	+01.8	N 23 10.1	+00.0
16	68 59.1	+01.9	N 23 10.1	+00.0
17	84 01.0	+01.8	N 23 10.1	-00.1
18	99 02.8	+01.9	N 23 10.0	+00.0
19	114 04.7	+01.8	N 23 10.0	+00.0
20	129 06.5	+01.9	N 23 10.0	+00.0
21	144 08.4	+01.8	N 23 10.0	-00.1
22	159 10.2	+01.9	N 23 09.9	+00.0
23	174 12.1	+01.8	N 23 09.9	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	263°	263°	263°	263°	263°	263°

Greenwich Culmination Time: 11:24

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	282 34.3	+02.4	S 01 19.2	+00.0
01	297 36.7	+02.4	S 01 19.2	+00.0
02	312 39.1	+02.5	S 01 19.2	+00.0
03	327 41.6	+02.4	S 01 19.2	+00.0
04	342 44.0	+02.4	S 01 19.2	+00.0
05	357 46.4	+02.5	S 01 19.2	+00.0
06	12 48.9	+02.4	S 01 19.2	+00.0
07	27 51.3	+02.4	S 01 19.2	+00.0
08	42 53.7	+02.5	S 01 19.2	+00.0
09	57 56.2	+02.4	S 01 19.2	+00.0
10	72 58.6	+02.5	S 01 19.2	+00.0
11	88 01.1	+02.4	S 01 19.2	+00.0
12	103 03.5	+02.4	S 01 19.2	+00.0
13	118 05.9	+02.5	S 01 19.2	+00.0
14	133 08.4	+02.4	S 01 19.2	+00.0
15	148 10.8	+02.5	S 01 19.2	+00.0
16	163 13.3	+02.4	S 01 19.2	+00.0
17	178 15.7	+02.4	S 01 19.2	+00.0
18	193 18.1	+02.5	S 01 19.2	+00.0
19	208 20.6	+02.4	S 01 19.2	+00.0
20	223 23.0	+02.4	S 01 19.2	+00.0
21	238 25.4	+02.5	S 01 19.2	+00.0
22	253 27.9	+02.4	S 01 19.2	+00.0
23	268 30.3	+02.5	S 01 19.2	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:08

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2025 July 8 Tuesday

(day 189 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 43.8	-00.1	N 22 28.0	-00.3
01	193 43.7	-00.1	N 22 27.7	-00.3
02	208 43.6	-00.1	N 22 27.4	-00.3
03	223 43.5	-00.1	N 22 27.1	-00.3
04	238 43.4	-00.1	N 22 26.8	-00.3
05	253 43.3	-00.1	N 22 26.5	-00.2
06	268 43.2	-00.1	N 22 26.3	-00.3
07	283 43.1	-00.1	N 22 26.0	-00.3
08	298 43.0	-00.1	N 22 25.7	-00.3
09	313 42.9	-00.1	N 22 25.4	-00.3
10	328 42.8	-00.1	N 22 25.1	-00.3
11	343 42.7	-00.1	N 22 24.8	-00.3
12	358 42.6	-00.1	N 22 24.5	-00.3
13	13 42.5	-00.1	N 22 24.2	-00.3
14	28 42.4	-00.1	N 22 23.9	-00.3
15	43 42.3	-00.1	N 22 23.6	-00.3
16	58 42.2	+00.0	N 22 23.3	-00.3
17	73 42.2	-00.1	N 22 23.0	-00.3
18	88 42.1	-00.1	N 22 22.7	-00.3
19	103 42.0	-00.1	N 22 22.4	-00.2
20	118 41.9	-00.1	N 22 22.2	-00.3
21	133 41.8	-00.1	N 22 21.9	-00.3
22	148 41.7	-00.1	N 22 21.6	-00.3
23	163 41.6	-00.1	N 22 21.3	-00.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	252°	252°	252°	252°	252°	252°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 00.6	-00.4	N 18 27.4	+00.6
01	239 00.2	-00.4	N 18 28.0	+00.6
02	253 59.8	-00.4	N 18 28.6	+00.6
03	268 59.4	-00.4	N 18 29.2	+00.5
04	283 59.0	-00.4	N 18 29.7	+00.6
05	298 58.6	-00.4	N 18 30.3	+00.6
06	313 58.2	-00.4	N 18 30.9	+00.6
07	328 57.8	-00.4	N 18 31.5	+00.5
08	343 57.4	-00.4	N 18 32.0	+00.6
09	358 57.0	-00.4	N 18 32.6	+00.6
10	13 56.6	-00.4	N 18 33.2	+00.6
11	28 56.2	-00.4	N 18 33.8	+00.5
12	43 55.8	-00.4	N 18 34.3	+00.6
13	58 55.4	-00.4	N 18 34.9	+00.6
14	73 55.0	-00.4	N 18 35.5	+00.6
15	88 54.6	-00.4	N 18 36.1	+00.5
16	103 54.2	-00.4	N 18 36.6	+00.6
17	118 53.8	-00.4	N 18 37.2	+00.6
18	133 53.4	-00.4	N 18 37.8	+00.5
19	148 53.0	-00.4	N 18 38.3	+00.6
20	163 52.6	-00.4	N 18 38.9	+00.6
21	178 52.2	-00.4	N 18 39.5	+00.5
22	193 51.8	-00.4	N 18 40.0	+00.6
23	208 51.4	-00.5	N 18 40.6	+00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	298°	298°	297°	297°	297°	297°

Greenwich Culmination Time: 09:04

Moon

A: 41%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	35 15.9	-31.4	S 27 19.8	+04.3
01	49 44.5	-31.5	S 27 24.1	+04.1
02	64 13.0	-31.6	S 27 28.2	+04.0
03	78 41.4	-31.6	S 27 32.2	+03.8
04	93 09.8	-31.7	S 27 36.0	+03.7
05	107 38.1	-31.8	S 27 39.7	+03.6
06	122 06.3	-31.8	S 27 43.3	+03.4
07	136 34.5	-31.9	S 27 46.7	+03.3
08	151 02.6	-31.9	S 27 50.0	+03.1
09	165 30.7	-32.0	S 27 53.1	+03.0
10	179 58.7	-32.1	S 27 56.1	+02.9
11	194 26.6	-32.1	S 27 59.0	+02.7
12	208 54.5	-32.1	S 28 01.7	+02.6
13	223 22.4	-32.2	S 28 04.3	+02.5
14	237 50.2	-32.3	S 28 06.8	+02.2
15	252 17.9	-32.3	S 28 09.0	+02.2
16	266 45.6	-32.3	S 28 11.2	+02.0
17	281 13.3	-32.4	S 28 13.2	+01.9
18	295 40.9	-32.5	S 28 15.1	+01.7
19	310 08.4	-32.5	S 28 16.8	+01.5
20	324 35.9	-32.5	S 28 18.3	+01.4
21	339 03.4	-32.6	S 28 19.7	+01.3
22	353 30.8	-32.6	S 28 21.0	+01.1
23	7 58.2	-32.6	S 28 22.1	+01.0

UT	02	06	10	14	18	22
SD	14′9	14′9	15′0	15′0	15′0	15′0
HP	54′8	54′9	54′9	55′0	55′1	55′1
SHA	108°	106°	103°	101°	099°	096°

Greenwich Culmination Time: 22:26

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	122 35.1	+01.1	N 07 58.0	-00.5
01	137 36.2	+01.1	N 07 57.5	-00.6
02	152 37.3	+01.2	N 07 56.9	-00.6
03	167 38.5	+01.1	N 07 56.3	-00.6
04	182 39.6	+01.1	N 07 55.7	-00.6
05	197 40.7	+01.1	N 07 55.1	-00.6
06	212 41.8	+01.1	N 07 54.5	-00.6
07	227 42.9	+01.1	N 07 53.9	-00.6
08	242 44.0	+01.1	N 07 53.3	-00.6
09	257 45.1	+01.1	N 07 52.7	-00.6
10	272 46.2	+01.1	N 07 52.1	-00.6
11	287 47.3	+01.1	N 07 51.5	-00.6
12	302 48.4	+01.1	N 07 50.9	-00.5
13	317 49.5	+01.1	N 07 50.4	-00.6
14	332 50.6	+01.1	N 07 49.8	-00.6
15	347 51.7	+01.1	N 07 49.2	-00.6
16	2 52.8	+01.1	N 07 48.6	-00.6
17	17 53.9	+01.1	N 07 48.0	-00.6
18	32 55.0	+01.1	N 07 47.4	-00.6
19	47 56.1	+01.1	N 07 46.8	-00.6
20	62 57.2	+01.1	N 07 46.2	-00.6
21	77 58.3	+01.1	N 07 45.6	-00.6
22	92 59.4	+01.2	N 07 45.0	-00.6
23	108 00.6	+01.1	N 07 44.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	196°	196°	196°	196°	196°	196°

Greenwich Culmination Time: 15:48

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	189 13.9	+01.9	N 23 09.9	+00.0
01	204 15.8	+01.8	N 23 09.9	+00.0
02	219 17.6	+01.8	N 23 09.9	-00.1
03	234 19.4	+01.9	N 23 09.8	+00.0
04	249 21.3	+01.8	N 23 09.8	+00.0
05	264 23.1	+01.9	N 23 09.8	+00.0
06	279 25.0	+01.8	N 23 09.8	-00.1
07	294 26.8	+01.9	N 23 09.7	+00.0
08	309 28.7	+01.8	N 23 09.7	+00.0
09	324 30.5	+01.9	N 23 09.7	+00.0
10	339 32.4	+01.8	N 23 09.7	-00.1
11	354 34.2	+01.9	N 23 09.6	+00.0
12	9 36.1	+01.8	N 23 09.6	+00.0
13	24 37.9	+01.9	N 23 09.6	+00.0
14	39 39.8	+01.8	N 23 09.6	-00.1
15	54 41.6	+01.9	N 23 09.5	+00.0
16	69 43.5	+01.8	N 23 09.5	+00.0
17	84 45.3	+01.9	N 23 09.5	+00.0
18	99 47.2	+01.8	N 23 09.5	-00.1
19	114 49.0	+01.9	N 23 09.4	+00.0
20	129 50.9	+01.8	N 23 09.4	+00.0
21	144 52.7	+01.9	N 23 09.4	+00.0
22	159 54.6	+01.8	N 23 09.4	+00.0
23	174 56.4	+01.9	N 23 09.4	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	263°	263°	263°	263°	263°	263°

Greenwich Culmination Time: 11:21

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	283 32.8	+02.4	S 01 19.2	+00.0
01	298 35.2	+02.4	S 01 19.2	+00.1
02	313 37.6	+02.5	S 01 19.3	+00.0
03	328 40.1	+02.4	S 01 19.3	+00.0
04	343 42.5	+02.5	S 01 19.3	+00.0
05	358 45.0	+02.4	S 01 19.3	+00.0
06	13 47.4	+02.4	S 01 19.3	+00.0
07	28 49.8	+02.5	S 01 19.3	+00.0
08	43 52.3	+02.4	S 01 19.3	+00.0
09	58 54.7	+02.5	S 01 19.3	+00.0
10	73 57.2	+02.4	S 01 19.3	+00.0
11	88 59.6	+02.5	S 01 19.3	+00.0
12	104 02.1	+02.4	S 01 19.3	+00.0
13	119 04.5	+02.4	S 01 19.3	+00.0
14	134 06.9	+02.5	S 01 19.3	+00.0
15	149 09.4	+02.4	S 01 19.3	+00.0
16	164 11.8	+02.5	S 01 19.3	+00.0
17	179 14.3	+02.4	S 01 19.3	+00.0
18	194 16.7	+02.4	S 01 19.3	+00.0
19	209 19.1	+02.5	S 01 19.3	+00.0
20	224 21.6	+02.4	S 01 19.3	+00.0
21	239 24.0	+02.5	S 01 19.3	+00.0
22	254 26.5	+02.4	S 01 19.3	+00.0
23	269 28.9	+02.5	S 01 19.3	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:04

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 9 Wednesday (day 190 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 41.5	-00.1	N 22 21.0	-00.3
01	193 41.4	-00.1	N 22 20.7	-00.3
02	208 41.3	-00.1	N 22 20.4	-00.4
03	223 41.2	-00.1	N 22 20.0	-00.3
04	238 41.1	-00.1	N 22 19.7	-00.3
05	253 41.0	+00.0	N 22 19.4	-00.3
06	268 41.0	-00.1	N 22 19.1	-00.3
07	283 40.9	-00.1	N 22 18.8	-00.3
08	298 40.8	-00.1	N 22 18.5	-00.3
09	313 40.7	-00.1	N 22 18.2	-00.3
10	328 40.6	-00.1	N 22 17.9	-00.3
11	343 40.5	-00.1	N 22 17.6	-00.3
12	358 40.4	-00.1	N 22 17.3	-00.3
13	13 40.3	-00.1	N 22 17.0	-00.3
14	28 40.2	-00.1	N 22 16.7	-00.3
15	43 40.1	+00.0	N 22 16.4	-00.3
16	58 40.1	-00.1	N 22 16.1	-00.4
17	73 40.0	-00.1	N 22 15.7	-00.3
18	88 39.9	-00.1	N 22 15.4	-00.3
19	103 39.8	-00.1	N 22 15.1	-00.3
20	118 39.7	-00.1	N 22 14.8	-00.3
21	133 39.6	-00.1	N 22 14.5	-00.3
22	148 39.5	-00.1	N 22 14.2	-00.3
23	163 39.4	+00.0	N 22 13.9	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	251°	251°	251°	251°	251°	251°

Greenwich Culmination Time: 12:05

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	223 50.9	-00.4	N 18 41.2	+00.5
01	238 50.5	-00.4	N 18 41.7	+00.6
02	253 50.1	-00.4	N 18 42.3	+00.6
03	268 49.7	-00.4	N 18 42.9	+00.5
04	283 49.3	-00.4	N 18 43.4	+00.6
05	298 48.9	-00.4	N 18 44.0	+00.5
06	313 48.5	-00.4	N 18 44.5	+00.6
07	328 48.1	-00.4	N 18 45.1	+00.6
08	343 47.7	-00.5	N 18 45.7	+00.5
09	358 47.2	-00.4	N 18 46.2	+00.6
10	13 46.8	-00.4	N 18 46.8	+00.5
11	28 46.4	-00.4	N 18 47.3	+00.6
12	43 46.0	-00.4	N 18 47.9	+00.6
13	58 45.6	-00.4	N 18 48.5	+00.5
14	73 45.2	-00.5	N 18 49.0	+00.6
15	88 44.7	-00.4	N 18 49.6	+00.5
16	103 44.3	-00.4	N 18 50.1	+00.6
17	118 43.9	-00.4	N 18 50.7	+00.5
18	133 43.5	-00.4	N 18 51.2	+00.6
19	148 43.1	-00.4	N 18 51.8	+00.5
20	163 42.7	-00.5	N 18 52.3	+00.6
21	178 42.2	-00.4	N 18 52.9	+00.5
22	193 41.8	-00.4	N 18 53.4	+00.6
23	208 41.4	-00.4	N 18 54.0	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	297°	296°	296°	296°	296°	296°

Greenwich Culmination Time: 09:04

Moon

A: 45%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	22 25.6	-32.7	S 28 23.1	+00.8
01	36 52.9	-32.7	S 28 23.9	+00.7
02	51 20.2	-32.8	S 28 24.6	+00.5
03	65 47.4	-32.7	S 28 25.1	+00.4
04	80 14.7	-32.9	S 28 25.5	+00.2
05	94 41.8	-32.8	S 28 25.7	+00.1
06	109 09.0	-32.9	S 28 25.8	-00.1
07	123 36.1	-32.8	S 28 25.7	-00.3
08	138 03.3	-33.0	S 28 25.4	-00.4
09	152 30.3	-32.9	S 28 25.0	-00.5
10	166 57.4	-32.9	S 28 24.5	-00.7
11	181 24.5	-33.0	S 28 23.8	-00.9
12	195 51.5	-33.0	S 28 22.9	-01.0
13	210 18.5	-33.0	S 28 21.9	-01.1
14	224 45.5	-33.0	S 28 20.8	-01.4
15	239 12.5	-33.0	S 28 19.4	-01.4
16	253 39.5	-33.1	S 28 18.0	-01.6
17	268 06.4	-33.0	S 28 16.4	-01.8
18	282 33.4	-33.1	S 28 14.6	-02.0
19	297 00.3	-33.0	S 28 12.6	-02.1
20	311 27.3	-33.1	S 28 10.5	-02.2
21	325 54.2	-33.1	S 28 08.3	-02.4
22	340 21.1	-33.0	S 28 05.9	-02.6
23	354 48.1	-33.1	S 28 03.3	-02.7

UT	02	06	10	14	18	22
SD	15′0	15′1	15′1	15′1	15′1	15′2
HP	55′2	55′3	55′4	55′4	55′5	55′6
SHA	094°	092°	089°	087°	085°	082°

Greenwich Culmination Time: 23:21

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	123 01.7	+01.1	N 07 43.8	-00.6
01	138 02.8	+01.1	N 07 43.2	-00.6
02	153 03.9	+01.1	N 07 42.6	-00.6
03	168 05.0	+01.1	N 07 42.0	-00.6
04	183 06.1	+01.1	N 07 41.4	-00.5
05	198 07.2	+01.1	N 07 40.9	-00.6
06	213 08.3	+01.1	N 07 40.3	-00.6
07	228 09.4	+01.1	N 07 39.7	-00.6
08	243 10.5	+01.1	N 07 39.1	-00.6
09	258 11.6	+01.1	N 07 38.5	-00.6
10	273 12.7	+01.1	N 07 37.9	-00.6
11	288 13.8	+01.1	N 07 37.3	-00.6
12	303 14.9	+01.1	N 07 36.7	-00.6
13	318 16.0	+01.1	N 07 36.1	-00.6
14	333 17.1	+01.1	N 07 35.5	-00.6
15	348 18.2	+01.1	N 07 34.9	-00.6
16	3 19.3	+01.1	N 07 34.3	-00.6
17	18 20.4	+01.1	N 07 33.7	-00.6
18	33 21.5	+01.1	N 07 33.1	-00.6
19	48 22.6	+01.1	N 07 32.5	-00.6
20	63 23.7	+01.1	N 07 31.9	-00.6
21	78 24.8	+01.1	N 07 31.3	-00.6
22	93 25.9	+01.1	N 07 30.7	-00.6
23	108 27.0	+01.1	N 07 30.1	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	196°	196°	196°	196°	195°	195°

Greenwich Culmination Time: 15:46

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	189 58.3	+01.8	N 23 09.3	+00.0
01	205 00.1	+01.9	N 23 09.3	+00.0
02	220 02.0	+01.8	N 23 09.3	+00.0
03	235 03.8	+01.9	N 23 09.3	-00.1
04	250 05.7	+01.8	N 23 09.2	+00.0
05	265 07.5	+01.9	N 23 09.2	+00.0
06	280 09.4	+01.9	N 23 09.2	+00.0
07	295 11.3	+01.8	N 23 09.2	-00.1
08	310 13.1	+01.9	N 23 09.1	+00.0
09	325 15.0	+01.8	N 23 09.1	+00.0
10	340 16.8	+01.9	N 23 09.1	+00.0
11	355 18.7	+01.8	N 23 09.1	-00.1
12	10 20.5	+01.9	N 23 09.0	+00.0
13	25 22.4	+01.8	N 23 09.0	+00.0
14	40 24.2	+01.9	N 23 09.0	+00.0
15	55 26.1	+01.8	N 23 09.0	-00.1
16	70 27.9	+01.9	N 23 08.9	+00.0
17	85 29.8	+01.8	N 23 08.9	+00.0
18	100 31.6	+01.9	N 23 08.9	+00.0
19	115 33.5	+01.8	N 23 08.9	-00.1
20	130 35.3	+01.9	N 23 08.8	+00.0
21	145 37.2	+01.8	N 23 08.8	+00.0
22	160 39.0	+01.9	N 23 08.8	+00.0
23	175 40.9	+01.8	N 23 08.8	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	263°	263°	263°	263°	263°	263°

Greenwich Culmination Time: 11:18

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	284 31.4	+02.4	S 01 19.3	+00.0
01	299 33.8	+02.4	S 01 19.3	+00.0
02	314 36.2	+02.5	S 01 19.3	+00.0
03	329 38.7	+02.4	S 01 19.3	+00.0
04	344 41.1	+02.5	S 01 19.3	+00.0
05	359 43.6	+02.4	S 01 19.3	+00.0
06	14 46.0	+02.5	S 01 19.3	+00.0
07	29 48.5	+02.4	S 01 19.3	+00.0
08	44 50.9	+02.5	S 01 19.3	+00.0
09	59 53.4	+02.4	S 01 19.3	+00.0
10	74 55.8	+02.5	S 01 19.3	+00.1
11	89 58.3	+02.4	S 01 19.4	+00.0
12	105 00.7	+02.4	S 01 19.4	+00.0
13	120 03.1	+02.5	S 01 19.4	+00.0
14	135 05.6	+02.4	S 01 19.4	+00.0
15	150 08.0	+02.5	S 01 19.4	+00.0
16	165 10.5	+02.4	S 01 19.4	+00.0
17	180 12.9	+02.5	S 01 19.4	+00.0
18	195 15.4	+02.4	S 01 19.4	+00.0
19	210 17.8	+02.5	S 01 19.4	+00.0
20	225 20.3	+02.4	S 01 19.4	+00.0
21	240 22.7	+02.5	S 01 19.4	+00.0
22	255 25.2	+02.4	S 01 19.4	+00.0
23	270 27.6	+02.5	S 01 19.4	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 05:01

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2025 July 10 Thursday

(day 191 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 39.4	-00.1	N 22 13.5	-00.3
01	193 39.3	-00.1	N 22 13.2	-00.3
02	208 39.2	-00.1	N 22 12.9	-00.3
03	223 39.1	-00.1	N 22 12.6	-00.3
04	238 39.0	-00.1	N 22 12.3	-00.3
05	253 38.9	-00.1	N 22 12.0	-00.4
06	268 38.8	-00.1	N 22 11.6	-00.3
07	283 38.7	+00.0	N 22 11.3	-00.3
08	298 38.7	-00.1	N 22 11.0	-00.3
09	313 38.6	-00.1	N 22 10.7	-00.4
10	328 38.5	-00.1	N 22 10.3	-00.3
11	343 38.4	-00.1	N 22 10.0	-00.3
12	358 38.3	-00.1	N 22 09.7	-00.3
13	13 38.2	-00.1	N 22 09.4	-00.4
14	28 38.1	+00.0	N 22 09.0	-00.3
15	43 38.1	-00.1	N 22 08.7	-00.3
16	58 38.0	-00.1	N 22 08.4	-00.3
17	73 37.9	-00.1	N 22 08.1	-00.4
18	88 37.8	-00.1	N 22 07.7	-00.3
19	103 37.7	-00.1	N 22 07.4	-00.3
20	118 37.6	+00.0	N 22 07.1	-00.3
21	133 37.6	-00.1	N 22 06.8	-00.4
22	148 37.5	-00.1	N 22 06.4	-00.3
23	163 37.4	-00.1	N 22 06.1	-00.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	250°	250°	250°	250°	250°	250°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	223 41.0	-00.5	N 18 54.5	+00.6
01	238 40.5	-00.4	N 18 55.1	+00.5
02	253 40.1	-00.4	N 18 55.6	+00.6
03	268 39.7	-00.4	N 18 56.2	+00.5
04	283 39.3	-00.5	N 18 56.7	+00.6
05	298 38.8	-00.4	N 18 57.3	+00.5
06	313 38.4	-00.4	N 18 57.8	+00.6
07	328 38.0	-00.4	N 18 58.4	+00.5
08	343 37.6	-00.5	N 18 58.9	+00.6
09	358 37.1	-00.4	N 18 59.5	+00.5
10	13 36.7	-00.4	N 19 00.0	+00.5
11	28 36.3	-00.4	N 19 00.5	+00.6
12	43 35.9	-00.5	N 19 01.1	+00.5
13	58 35.4	-00.4	N 19 01.6	+00.6
14	73 35.0	-00.4	N 19 02.2	+00.5
15	88 34.6	-00.5	N 19 02.7	+00.5
16	103 34.1	-00.4	N 19 03.2	+00.6
17	118 33.7	-00.4	N 19 03.8	+00.5
18	133 33.3	-00.5	N 19 04.3	+00.6
19	148 32.8	-00.4	N 19 04.9	+00.5
20	163 32.4	-00.4	N 19 05.4	+00.5
21	178 32.0	-00.5	N 19 05.9	+00.6
22	193 31.5	-00.4	N 19 06.5	+00.5
23	208 31.1	-00.4	N 19 07.0	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	295°	295°	295°	295°	295°	294°

Greenwich Culmination Time: 09:05

Moon

A: 48%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	9 15.0	-33.1	S 28 00.6	-02.8
01	23 41.9	-33.0	S 27 57.8	-03.0
02	38 08.9	-33.1	S 27 54.8	-03.2
03	52 35.8	-33.0	S 27 51.6	-03.3
04	67 02.8	-33.0	S 27 48.3	-03.5
05	81 29.8	-33.1	S 27 44.8	-03.7
06	95 56.7	-33.0	S 27 41.1	-03.8
07	110 23.7	-33.0	S 27 37.3	-03.9
08	124 50.7	-33.0	S 27 33.4	-04.1
09	139 17.7	-32.9	S 27 29.3	-04.2
10	153 44.8	-33.0	S 27 25.1	-04.4
11	168 11.8	-32.9	S 27 20.7	-04.6
12	182 38.9	-32.9	S 27 16.1	-04.7
13	197 06.0	-32.9	S 27 11.4	-04.9
14	211 33.1	-32.8	S 27 06.5	-05.0
15	226 00.3	-32.9	S 27 01.5	-05.1
16	240 27.4	-32.8	S 26 56.4	-05.4
17	254 54.6	-32.7	S 26 51.0	-05.4
18	269 21.9	-32.8	S 26 45.6	-05.6
19	283 49.1	-32.7	S 26 40.0	-05.8
20	298 16.4	-32.7	S 26 34.2	-05.9
21	312 43.7	-32.6	S 26 28.3	-06.1
22	327 11.1	-32.6	S 26 22.2	-06.2
23	341 38.5	-32.6	S 26 16.0	-06.3

UT	02	06	10	14	18	22
SD	15′2	15′2	15′2	15′2	15′3	15′3
HP	55′7	55′8	55′9	55′9	56′0	56′1
SHA	080°	078°	075°	073°	070°	068°

Greenwich Culmination Time: -1:00

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	123 28.1	+01.1	N 07 29.5	-00.6
01	138 29.2	+01.1	N 07 28.9	-00.6
02	153 30.3	+01.2	N 07 28.3	-00.5
03	168 31.5	+01.1	N 07 27.8	-00.6
04	183 32.6	+01.1	N 07 27.2	-00.6
05	198 33.7	+01.1	N 07 26.6	-00.6
06	213 34.8	+01.1	N 07 26.0	-00.6
07	228 35.9	+01.1	N 07 25.4	-00.6
08	243 37.0	+01.1	N 07 24.8	-00.6
09	258 38.1	+01.1	N 07 24.2	-00.6
10	273 39.2	+01.1	N 07 23.6	-00.6
11	288 40.3	+01.1	N 07 23.0	-00.6
12	303 41.4	+01.1	N 07 22.4	-00.6
13	318 42.5	+01.1	N 07 21.8	-00.6
14	333 43.6	+01.1	N 07 21.2	-00.6
15	348 44.7	+01.1	N 07 20.6	-00.6
16	3 45.8	+01.1	N 07 20.0	-00.6
17	18 46.9	+01.1	N 07 19.4	-00.6
18	33 48.0	+01.1	N 07 18.8	-00.6
19	48 49.1	+01.1	N 07 18.2	-00.6
20	63 50.2	+01.1	N 07 17.6	-00.6
21	78 51.3	+01.1	N 07 17.0	-00.6
22	93 52.4	+01.1	N 07 16.4	-00.6
23	108 53.5	+01.1	N 07 15.8	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	195°	195°	195°	195°	195°	195°

Greenwich Culmination Time: 15:44

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	190 42.7	+01.9	N 23 08.7	+00.0
01	205 44.6	+01.8	N 23 08.7	+00.0
02	220 46.4	+01.9	N 23 08.7	+00.0
03	235 48.3	+01.8	N 23 08.7	-00.1
04	250 50.1	+01.9	N 23 08.6	+00.0
05	265 52.0	+01.8	N 23 08.6	+00.0
06	280 53.8	+01.9	N 23 08.6	+00.0
07	295 55.7	+01.8	N 23 08.6	-00.1
08	310 57.5	+01.9	N 23 08.5	+00.0
09	325 59.4	+01.8	N 23 08.5	+00.0
10	341 01.2	+01.9	N 23 08.5	+00.0
11	356 03.1	+01.8	N 23 08.5	-00.1
12	11 04.9	+01.9	N 23 08.4	+00.0
13	26 06.8	+01.8	N 23 08.4	+00.0
14	41 08.6	+01.9	N 23 08.4	-00.1
15	56 10.5	+01.8	N 23 08.3	+00.0
16	71 12.3	+01.9	N 23 08.3	+00.0
17	86 14.2	+01.8	N 23 08.3	+00.0
18	101 16.0	+01.9	N 23 08.3	-00.1
19	116 17.9	+01.8	N 23 08.2	+00.0
20	131 19.7	+01.9	N 23 08.2	+00.0
21	146 21.6	+01.9	N 23 08.2	+00.0
22	161 23.5	+01.8	N 23 08.2	-00.1
23	176 25.3	+01.9	N 23 08.1	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	263°	262°	262°	262°	262°	262°

Greenwich Culmination Time: 11:15

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	285 30.1	+02.4	S 01 19.4	+00.0
01	300 32.5	+02.4	S 01 19.4	+00.0
02	315 34.9	+02.5	S 01 19.4	+00.0
03	330 37.4	+02.4	S 01 19.4	+00.0
04	345 39.8	+02.5	S 01 19.4	+00.0
05	0 42.3	+02.4	S 01 19.4	+00.0
06	15 44.7	+02.5	S 01 19.4	+00.1
07	30 47.2	+02.4	S 01 19.5	+00.0
08	45 49.6	+02.5	S 01 19.5	+00.0
09	60 52.1	+02.4	S 01 19.5	+00.0
10	75 54.5	+02.5	S 01 19.5	+00.0
11	90 57.0	+02.4	S 01 19.5	+00.0
12	105 59.4	+02.5	S 01 19.5	+00.0
13	121 01.9	+02.4	S 01 19.5	+00.0
14	136 04.3	+02.5	S 01 19.5	+00.0
15	151 06.8	+02.4	S 01 19.5	+00.0
16	166 09.2	+02.5	S 01 19.5	+00.0
17	181 11.7	+02.4	S 01 19.5	+00.0
18	196 14.1	+02.5	S 01 19.5	+00.0
19	211 16.6	+02.4	S 01 19.5	+00.0
20	226 19.0	+02.5	S 01 19.5	+00.0
21	241 21.5	+02.4	S 01 19.5	+00.0
22	256 23.9	+02.5	S 01 19.5	+00.1
23	271 26.4	+02.4	S 01 19.6	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:57

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2025 July 11 Friday

(day 192 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 37.3	-00.1	N 22 05.8	-00.4
01	193 37.2	-00.1	N 22 05.4	-00.3
02	208 37.1	+00.0	N 22 05.1	-00.3
03	223 37.1	-00.1	N 22 04.8	-00.4
04	238 37.0	-00.1	N 22 04.4	-00.3
05	253 36.9	-00.1	N 22 04.1	-00.4
06	268 36.8	-00.1	N 22 03.7	-00.3
07	283 36.7	+00.0	N 22 03.4	-00.3
08	298 36.7	-00.1	N 22 03.1	-00.4
09	313 36.6	-00.1	N 22 02.7	-00.3
10	328 36.5	-00.1	N 22 02.4	-00.3
11	343 36.4	-00.1	N 22 02.1	-00.4
12	358 36.3	-00.1	N 22 01.7	-00.3
13	13 36.2	+00.0	N 22 01.4	-00.4
14	28 36.2	-00.1	N 22 01.0	-00.3
15	43 36.1	-00.1	N 22 00.7	-00.3
16	58 36.0	-00.1	N 22 00.4	-00.4
17	73 35.9	-00.1	N 22 00.0	-00.3
18	88 35.8	+00.0	N 21 59.7	-00.4
19	103 35.8	-00.1	N 21 59.3	-00.3
20	118 35.7	-00.1	N 21 59.0	-00.4
21	133 35.6	-00.1	N 21 58.6	-00.3
22	148 35.5	+00.0	N 21 58.3	-00.4
23	163 35.5	-00.1	N 21 57.9	-00.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	249°	249°	249°	249°	249°	249°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	223 30.7	-00.5	N 19 07.5	+00.6
01	238 30.2	-00.4	N 19 08.1	+00.5
02	253 29.8	-00.5	N 19 08.6	+00.5
03	268 29.3	-00.4	N 19 09.1	+00.6
04	283 28.9	-00.4	N 19 09.7	+00.5
05	298 28.5	-00.5	N 19 10.2	+00.5
06	313 28.0	-00.4	N 19 10.7	+00.6
07	328 27.6	-00.5	N 19 11.3	+00.5
08	343 27.1	-00.4	N 19 11.8	+00.5
09	358 26.7	-00.4	N 19 12.3	+00.5
10	13 26.3	-00.5	N 19 12.8	+00.6
11	28 25.8	-00.4	N 19 13.4	+00.5
12	43 25.4	-00.5	N 19 13.9	+00.5
13	58 24.9	-00.4	N 19 14.4	+00.5
14	73 24.5	-00.5	N 19 14.9	+00.6
15	88 24.0	-00.4	N 19 15.5	+00.5
16	103 23.6	-00.4	N 19 16.0	+00.5
17	118 23.2	-00.5	N 19 16.5	+00.5
18	133 22.7	-00.4	N 19 17.0	+00.6
19	148 22.3	-00.5	N 19 17.6	+00.5
20	163 21.8	-00.4	N 19 18.1	+00.5
21	178 21.4	-00.5	N 19 18.6	+00.5
22	193 20.9	-00.4	N 19 19.1	+00.5
23	208 20.5	-00.5	N 19 19.6	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	294°	294°	294°	294°	293°	293°

Greenwich Culmination Time: 09:06

Moon

A: 52%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	356 05.9	-32.5	S 26 09.7	-06.5
01	10 33.4	-32.5	S 26 03.2	-06.7
02	25 00.9	-32.5	S 25 56.5	-06.8
03	39 28.4	-32.4	S 25 49.7	-06.9
04	53 56.0	-32.4	S 25 42.8	-07.1
05	68 23.6	-32.3	S 25 35.7	-07.2
06	82 51.3	-32.3	S 25 28.5	-07.4
07	97 19.0	-32.3	S 25 21.1	-07.5
08	111 46.7	-32.2	S 25 13.6	-07.6
09	126 14.5	-32.1	S 25 06.0	-07.8
10	140 42.4	-32.1	S 24 58.2	-08.0
11	155 10.3	-32.1	S 24 50.2	-08.0
12	169 38.2	-32.0	S 24 42.2	-08.2
13	184 06.2	-31.9	S 24 34.0	-08.4
14	198 34.3	-31.9	S 24 25.6	-08.5
15	213 02.4	-31.9	S 24 17.1	-08.6
16	227 30.5	-31.8	S 24 08.5	-08.7
17	241 58.7	-31.8	S 23 59.8	-08.9
18	256 26.9	-31.6	S 23 50.9	-09.0
19	270 55.3	-31.7	S 23 41.9	-09.2
20	285 23.6	-31.6	S 23 32.7	-09.2
21	299 52.0	-31.5	S 23 23.5	-09.5
22	314 20.5	-31.5	S 23 14.0	-09.5
23	328 49.0	-31.4	S 23 04.5	-09.7

UT	02	06	10	14	18	22
SD	15′3	15′3	15′4	15′4	15′4	15′4
HP	56′2	56′3	56′4	56′5	56′6	56′6
SHA	066°	063°	061°	059°	057°	054°

Greenwich Culmination Time: 00:16

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	123 54.6	+01.1	N 07 15.2	-00.6
01	138 55.7	+01.1	N 07 14.6	-00.6
02	153 56.8	+01.1	N 07 14.0	-00.6
03	168 57.9	+01.1	N 07 13.4	-00.6
04	183 59.0	+01.1	N 07 12.8	-00.6
05	199 00.1	+01.1	N 07 12.2	-00.6
06	214 01.2	+01.1	N 07 11.6	-00.6
07	229 02.3	+01.1	N 07 11.0	-00.6
08	244 03.4	+01.1	N 07 10.4	-00.6
09	259 04.5	+01.1	N 07 09.8	-00.6
10	274 05.6	+01.1	N 07 09.2	-00.6
11	289 06.7	+01.1	N 07 08.6	-00.6
12	304 07.8	+01.1	N 07 08.0	-00.6
13	319 08.9	+01.1	N 07 07.4	-00.6
14	334 10.0	+01.1	N 07 06.8	-00.6
15	349 11.1	+01.1	N 07 06.2	-00.6
16	4 12.2	+01.1	N 07 05.6	-00.6
17	19 13.3	+01.1	N 07 05.0	-00.6
18	34 14.4	+01.1	N 07 04.4	-00.6
19	49 15.5	+01.1	N 07 03.8	-00.6
20	64 16.6	+01.1	N 07 03.2	-00.6
21	79 17.7	+01.1	N 07 02.6	-00.6
22	94 18.8	+01.1	N 07 02.0	-00.6
23	109 19.9	+01.1	N 07 01.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	195°	195°	195°	194°	194°	194°

Greenwich Culmination Time: 15:43

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	191 27.2	+01.8	N 23 08.1	+00.0
01	206 29.0	+01.9	N 23 08.1	+00.0
02	221 30.9	+01.8	N 23 08.1	-00.1
03	236 32.7	+01.9	N 23 08.0	+00.0
04	251 34.6	+01.8	N 23 08.0	+00.0
05	266 36.4	+01.9	N 23 08.0	+00.0
06	281 38.3	+01.8	N 23 08.0	-00.1
07	296 40.1	+01.9	N 23 07.9	+00.0
08	311 42.0	+01.8	N 23 07.9	+00.0
09	326 43.8	+01.9	N 23 07.9	+00.0
10	341 45.7	+01.8	N 23 07.9	-00.1
11	356 47.5	+01.9	N 23 07.8	+00.0
12	11 49.4	+01.8	N 23 07.8	+00.0
13	26 51.2	+01.9	N 23 07.8	-00.1
14	41 53.1	+01.8	N 23 07.7	+00.0
15	56 54.9	+01.9	N 23 07.7	+00.0
16	71 56.8	+01.8	N 23 07.7	+00.0
17	86 58.6	+01.9	N 23 07.7	-00.1
18	102 00.5	+01.9	N 23 07.6	+00.0
19	117 02.4	+01.8	N 23 07.6	+00.0
20	132 04.2	+01.9	N 23 07.6	+00.0
21	147 06.1	+01.8	N 23 07.6	-00.1
22	162 07.9	+01.9	N 23 07.5	+00.0
23	177 09.8	+01.8	N 23 07.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	262°	262°	262°	262°	262°	262°

Greenwich Culmination Time: 11:12

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	286 28.8	+02.5	S 01 19.6	+00.0
01	301 31.3	+02.4	S 01 19.6	+00.0
02	316 33.7	+02.5	S 01 19.6	+00.0
03	331 36.2	+02.4	S 01 19.6	+00.0
04	346 38.6	+02.5	S 01 19.6	+00.0
05	1 41.1	+02.4	S 01 19.6	+00.0
06	16 43.5	+02.5	S 01 19.6	+00.0
07	31 46.0	+02.5	S 01 19.6	+00.0
08	46 48.5	+02.4	S 01 19.6	+00.0
09	61 50.9	+02.5	S 01 19.6	+00.0
10	76 53.4	+02.4	S 01 19.6	+00.0
11	91 55.8	+02.5	S 01 19.6	+00.0
12	106 58.3	+02.4	S 01 19.6	+00.1
13	122 00.7	+02.5	S 01 19.7	+00.0
14	137 03.2	+02.4	S 01 19.7	+00.0
15	152 05.6	+02.5	S 01 19.7	+00.0
16	167 08.1	+02.4	S 01 19.7	+00.0
17	182 10.5	+02.5	S 01 19.7	+00.0
18	197 13.0	+02.4	S 01 19.7	+00.0
19	212 15.4	+02.5	S 01 19.7	+00.0
20	227 17.9	+02.4	S 01 19.7	+00.0
21	242 20.3	+02.5	S 01 19.7	+00.0
22	257 22.8	+02.5	S 01 19.7	+00.0
23	272 25.3	+02.4	S 01 19.7	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:53

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2025 July 12 Saturday

(day 193 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 35.4	-00.1	N 21 57.6	-00.4
01	193 35.3	-00.1	N 21 57.2	-00.3
02	208 35.2	-00.1	N 21 56.9	-00.4
03	223 35.1	+00.0	N 21 56.5	-00.3
04	238 35.1	-00.1	N 21 56.2	-00.4
05	253 35.0	-00.1	N 21 55.8	-00.3
06	268 34.9	-00.1	N 21 55.5	-00.4
07	283 34.8	+00.0	N 21 55.1	-00.3
08	298 34.8	-00.1	N 21 54.8	-00.4
09	313 34.7	-00.1	N 21 54.4	-00.3
10	328 34.6	-00.1	N 21 54.1	-00.4
11	343 34.5	+00.0	N 21 53.7	-00.3
12	358 34.5	-00.1	N 21 53.4	-00.4
13	13 34.4	-00.1	N 21 53.0	-00.4
14	28 34.3	-00.1	N 21 52.6	-00.3
15	43 34.2	+00.0	N 21 52.3	-00.4
16	58 34.2	-00.1	N 21 51.9	-00.3
17	73 34.1	-00.1	N 21 51.6	-00.4
18	88 34.0	-00.1	N 21 51.2	-00.3
19	103 33.9	+00.0	N 21 50.9	-00.4
20	118 33.9	-00.1	N 21 50.5	-00.4
21	133 33.8	-00.1	N 21 50.1	-00.3
22	148 33.7	-00.1	N 21 49.8	-00.4
23	163 33.6	+00.0	N 21 49.4	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	248°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 12:05

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	223 20.0	-00.4	N 19 20.1	+00.6
01	238 19.6	-00.5	N 19 20.7	+00.5
02	253 19.1	-00.4	N 19 21.2	+00.5
03	268 18.7	-00.5	N 19 21.7	+00.5
04	283 18.2	-00.4	N 19 22.2	+00.5
05	298 17.8	-00.5	N 19 22.7	+00.5
06	313 17.3	-00.4	N 19 23.2	+00.6
07	328 16.9	-00.5	N 19 23.8	+00.5
08	343 16.4	-00.5	N 19 24.3	+00.5
09	358 15.9	-00.4	N 19 24.8	+00.5
10	13 15.5	-00.5	N 19 25.3	+00.5
11	28 15.0	-00.4	N 19 25.8	+00.5
12	43 14.6	-00.5	N 19 26.3	+00.5
13	58 14.1	-00.4	N 19 26.8	+00.5
14	73 13.7	-00.5	N 19 27.3	+00.5
15	88 13.2	-00.4	N 19 27.8	+00.5
16	103 12.8	-00.5	N 19 28.3	+00.5
17	118 12.3	-00.5	N 19 28.8	+00.5
18	133 11.8	-00.4	N 19 29.3	+00.6
19	148 11.4	-00.5	N 19 29.9	+00.5
20	163 10.9	-00.4	N 19 30.4	+00.5
21	178 10.5	-00.5	N 19 30.9	+00.5
22	193 10.0	-00.5	N 19 31.4	+00.5
23	208 09.5	-00.4	N 19 31.9	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	293°	293°	293°	293°	292°	292°

Greenwich Culmination Time: 09:06

Moon

A: 55%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	343 17.6	-31.4	S 22 54.8	-09.8
01	357 46.2	-31.3	S 22 45.0	-09.9
02	12 14.9	-31.2	S 22 35.1	-10.0
03	26 43.7	-31.2	S 22 25.1	-10.2
04	41 12.5	-31.2	S 22 14.9	-10.3
05	55 41.3	-31.0	S 22 04.6	-10.4
06	70 10.3	-31.1	S 21 54.2	-10.5
07	84 39.2	-30.9	S 21 43.7	-10.7
08	99 08.3	-30.9	S 21 33.0	-10.7
09	113 37.4	-30.9	S 21 22.3	-10.9
10	128 06.5	-30.8	S 21 11.4	-11.0
11	142 35.7	-30.7	S 21 00.4	-11.2
12	157 05.0	-30.7	S 20 49.2	-11.2
13	171 34.3	-30.6	S 20 38.0	-11.3
14	186 03.7	-30.5	S 20 26.7	-11.5
15	200 33.2	-30.5	S 20 15.2	-11.6
16	215 02.7	-30.4	S 20 03.6	-11.7
17	229 32.3	-30.4	S 19 51.9	-11.8
18	244 01.9	-30.3	S 19 40.1	-11.9
19	258 31.6	-30.3	S 19 28.2	-12.0
20	273 01.3	-30.2	S 19 16.2	-12.1
21	287 31.1	-30.1	S 19 04.1	-12.2
22	302 01.0	-30.1	S 18 51.9	-12.3
23	316 30.9	-30.0	S 18 39.6	-12.4

UT	02	06	10	14	18	22
SD	15′5	15′5	15′5	15′5	15′6	15′6
HP	56′7	56′8	56′9	57′0	57′1	57′2
SHA	052°	050°	048°	045°	043°	041°

Greenwich Culmination Time: 01:09

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	124 21.0	+01.1	N 07 00.8	-00.6
01	139 22.1	+01.1	N 07 00.2	-00.6
02	154 23.2	+01.1	N 06 59.6	-00.6
03	169 24.3	+01.1	N 06 59.0	-00.6
04	184 25.4	+01.1	N 06 58.4	-00.6
05	199 26.5	+01.1	N 06 57.8	-00.6
06	214 27.6	+01.1	N 06 57.2	-00.6
07	229 28.7	+01.1	N 06 56.6	-00.6
08	244 29.8	+01.1	N 06 56.0	-00.6
09	259 30.9	+01.1	N 06 55.4	-00.6
10	274 32.0	+01.1	N 06 54.8	-00.6
11	289 33.1	+01.1	N 06 54.2	-00.6
12	304 34.2	+01.1	N 06 53.6	-00.6
13	319 35.3	+01.1	N 06 53.0	-00.6
14	334 36.4	+01.1	N 06 52.4	-00.6
15	349 37.5	+01.1	N 06 51.8	-00.6
16	4 38.6	+01.1	N 06 51.2	-00.6
17	19 39.7	+01.1	N 06 50.6	-00.6
18	34 40.8	+01.1	N 06 50.0	-00.6
19	49 41.9	+01.1	N 06 49.4	-00.6
20	64 43.0	+01.1	N 06 48.8	-00.6
21	79 44.1	+01.1	N 06 48.2	-00.7
22	94 45.2	+01.1	N 06 47.5	-00.6
23	109 46.3	+01.1	N 06 46.9	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	194°	194°	194°	194°	194°	194°

Greenwich Culmination Time: 15:41

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	192 11.6	+01.9	N 23 07.5	-00.1
01	207 13.5	+01.8	N 23 07.4	+00.0
02	222 15.3	+01.9	N 23 07.4	+00.0
03	237 17.2	+01.8	N 23 07.4	+00.0
04	252 19.0	+01.9	N 23 07.4	-00.1
05	267 20.9	+01.8	N 23 07.3	+00.0
06	282 22.7	+01.9	N 23 07.3	+00.0
07	297 24.6	+01.8	N 23 07.3	+00.0
08	312 26.4	+01.9	N 23 07.3	-00.1
09	327 28.3	+01.9	N 23 07.2	+00.0
10	342 30.2	+01.8	N 23 07.2	+00.0
11	357 32.0	+01.9	N 23 07.2	-00.1
12	12 33.9	+01.8	N 23 07.1	+00.0
13	27 35.7	+01.9	N 23 07.1	+00.0
14	42 37.6	+01.8	N 23 07.1	+00.0
15	57 39.4	+01.9	N 23 07.1	-00.1
16	72 41.3	+01.8	N 23 07.0	+00.0
17	87 43.1	+01.9	N 23 07.0	+00.0
18	102 45.0	+01.8	N 23 07.0	+00.0
19	117 46.8	+01.9	N 23 07.0	-00.1
20	132 48.7	+01.8	N 23 06.9	+00.0
21	147 50.5	+01.9	N 23 06.9	+00.0
22	162 52.4	+01.9	N 23 06.9	-00.1
23	177 54.3	+01.8	N 23 06.8	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	262°	262°	262°	262°	262°	262°

Greenwich Culmination Time: 11:09

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	287 27.7	+02.5	S 01 19.7	+00.0
01	302 30.2	+02.4	S 01 19.7	+00.1
02	317 32.6	+02.5	S 01 19.8	+00.0
03	332 35.1	+02.4	S 01 19.8	+00.0
04	347 37.5	+02.5	S 01 19.8	+00.0
05	2 40.0	+02.4	S 01 19.8	+00.0
06	17 42.4	+02.5	S 01 19.8	+00.0
07	32 44.9	+02.5	S 01 19.8	+00.0
08	47 47.4	+02.4	S 01 19.8	+00.0
09	62 49.8	+02.5	S 01 19.8	+00.0
10	77 52.3	+02.4	S 01 19.8	+00.0
11	92 54.7	+02.5	S 01 19.8	+00.0
12	107 57.2	+02.4	S 01 19.8	+00.1
13	122 59.6	+02.5	S 01 19.9	+00.0
14	138 02.1	+02.5	S 01 19.9	+00.0
15	153 04.6	+02.4	S 01 19.9	+00.0
16	168 07.0	+02.5	S 01 19.9	+00.0
17	183 09.5	+02.4	S 01 19.9	+00.0
18	198 11.9	+02.5	S 01 19.9	+00.0
19	213 14.4	+02.4	S 01 19.9	+00.0
20	228 16.8	+02.5	S 01 19.9	+00.0
21	243 19.3	+02.5	S 01 19.9	+00.0
22	258 21.8	+02.4	S 01 19.9	+00.1
23	273 24.2	+02.5	S 01 20.0	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:49

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2025 July 13 Sunday

(day 194 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 33.6	-00.1	N 21 49.0	-00.3
01	193 33.5	-00.1	N 21 48.7	-00.4
02	208 33.4	-00.1	N 21 48.3	-00.4
03	223 33.3	+00.0	N 21 47.9	-00.3
04	238 33.3	-00.1	N 21 47.6	-00.4
05	253 33.2	-00.1	N 21 47.2	-00.4
06	268 33.1	-00.1	N 21 46.8	-00.3
07	283 33.0	+00.0	N 21 46.5	-00.4
08	298 33.0	-00.1	N 21 46.1	-00.4
09	313 32.9	-00.1	N 21 45.7	-00.3
10	328 32.8	+00.0	N 21 45.4	-00.4
11	343 32.8	-00.1	N 21 45.0	-00.4
12	358 32.7	-00.1	N 21 44.6	-00.3
13	13 32.6	+00.0	N 21 44.3	-00.4
14	28 32.6	-00.1	N 21 43.9	-00.4
15	43 32.5	-00.1	N 21 43.5	-00.4
16	58 32.4	-00.1	N 21 43.1	-00.3
17	73 32.3	+00.0	N 21 42.8	-00.4
18	88 32.3	-00.1	N 21 42.4	-00.4
19	103 32.2	-00.1	N 21 42.0	-00.4
20	118 32.1	+00.0	N 21 41.6	-00.3
21	133 32.1	-00.1	N 21 41.3	-00.4
22	148 32.0	-00.1	N 21 40.9	-00.4
23	163 31.9	+00.0	N 21 40.5	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	247°	247°	247°	247°	247°	246°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	223 09.1	-00.5	N 19 32.4	+00.5
01	238 08.6	-00.5	N 19 32.9	+00.5
02	253 08.1	-00.4	N 19 33.4	+00.5
03	268 07.7	-00.5	N 19 33.9	+00.5
04	283 07.2	-00.5	N 19 34.4	+00.5
05	298 06.7	-00.4	N 19 34.9	+00.5
06	313 06.3	-00.5	N 19 35.4	+00.4
07	328 05.8	-00.5	N 19 35.8	+00.5
08	343 05.3	-00.4	N 19 36.3	+00.5
09	358 04.9	-00.5	N 19 36.8	+00.5
10	13 04.4	-00.5	N 19 37.3	+00.5
11	28 03.9	-00.4	N 19 37.8	+00.5
12	43 03.5	-00.5	N 19 38.3	+00.5
13	58 03.0	-00.5	N 19 38.8	+00.5
14	73 02.5	-00.4	N 19 39.3	+00.5
15	88 02.1	-00.5	N 19 39.8	+00.5
16	103 01.6	-00.5	N 19 40.3	+00.5
17	118 01.1	-00.5	N 19 40.8	+00.5
18	133 00.6	-00.4	N 19 41.3	+00.4
19	148 00.2	-00.5	N 19 41.7	+00.5
20	162 59.7	-00.5	N 19 42.2	+00.5
21	177 59.2	-00.5	N 19 42.7	+00.5
22	192 58.7	-00.4	N 19 43.2	+00.5
23	207 58.3	-00.5	N 19 43.7	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	292°	292°	292°	291°	291°	291°

Greenwich Culmination Time: 09:07

Moon

A: 59%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	331 00.9	-30.0	S 18 27.2	-12.6
01	345 30.9	-29.9	S 18 14.6	-12.6
02	0 01.0	-29.9	S 18 02.0	-12.7
03	14 31.1	-29.8	S 17 49.3	-12.8
04	29 01.3	-29.7	S 17 36.5	-12.9
05	43 31.6	-29.7	S 17 23.6	-13.0
06	58 01.9	-29.6	S 17 10.6	-13.1
07	72 32.3	-29.6	S 16 57.5	-13.2
08	87 02.7	-29.5	S 16 44.3	-13.3
09	101 33.2	-29.5	S 16 31.0	-13.4
10	116 03.7	-29.4	S 16 17.6	-13.4
11	130 34.3	-29.4	S 16 04.2	-13.6
12	145 04.9	-29.3	S 15 50.6	-13.6
13	159 35.6	-29.3	S 15 37.0	-13.7
14	174 06.3	-29.2	S 15 23.3	-13.8
15	188 37.1	-29.2	S 15 09.5	-13.9
16	203 07.9	-29.1	S 14 55.6	-14.0
17	217 38.8	-29.0	S 14 41.6	-14.1
18	232 09.8	-29.1	S 14 27.5	-14.1
19	246 40.7	-28.9	S 14 13.4	-14.2
20	261 11.8	-29.0	S 13 59.2	-14.3
21	275 42.8	-28.9	S 13 44.9	-14.3
22	290 13.9	-28.8	S 13 30.6	-14.4
23	304 45.1	-28.8	S 13 16.2	-14.6

UT	02	06	10	14	18	22
SD	15′6	15′6	15′6	15′7	15′7	15′7
HP	57′2	57′3	57′4	57′5	57′6	57′6
SHA	039°	037°	035°	032°	030°	028°

Greenwich Culmination Time: 01:59

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	124 47.4	+01.1	N 06 46.3	-00.6
01	139 48.5	+01.1	N 06 45.7	-00.6
02	154 49.6	+01.1	N 06 45.1	-00.6
03	169 50.7	+01.1	N 06 44.5	-00.6
04	184 51.8	+01.1	N 06 43.9	-00.6
05	199 52.9	+01.1	N 06 43.3	-00.6
06	214 54.0	+01.1	N 06 42.7	-00.6
07	229 55.1	+01.1	N 06 42.1	-00.6
08	244 56.2	+01.1	N 06 41.5	-00.6
09	259 57.3	+01.1	N 06 40.9	-00.6
10	274 58.4	+01.1	N 06 40.3	-00.6
11	289 59.5	+01.1	N 06 39.7	-00.6
12	305 00.6	+01.1	N 06 39.1	-00.6
13	320 01.7	+01.1	N 06 38.5	-00.6
14	335 02.8	+01.1	N 06 37.9	-00.6
15	350 03.9	+01.1	N 06 37.3	-00.6
16	5 05.0	+01.1	N 06 36.7	-00.6
17	20 06.1	+01.1	N 06 36.1	-00.6
18	35 07.2	+01.1	N 06 35.5	-00.6
19	50 08.3	+01.1	N 06 34.9	-00.7
20	65 09.4	+01.0	N 06 34.2	-00.6
21	80 10.4	+01.1	N 06 33.6	-00.6
22	95 11.5	+01.1	N 06 33.0	-00.6
23	110 12.6	+01.1	N 06 32.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	194°	194°	193°	193°	193°	193°

Greenwich Culmination Time: 15:39

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	192 56.1	+01.9	N 23 06.8	+00.0
01	207 58.0	+01.8	N 23 06.8	+00.0
02	222 59.8	+01.9	N 23 06.8	-00.1
03	238 01.7	+01.8	N 23 06.7	+00.0
04	253 03.5	+01.9	N 23 06.7	+00.0
05	268 05.4	+01.8	N 23 06.7	-00.1
06	283 07.2	+01.9	N 23 06.6	+00.0
07	298 09.1	+01.8	N 23 06.6	+00.0
08	313 10.9	+01.9	N 23 06.6	+00.0
09	328 12.8	+01.9	N 23 06.6	-00.1
10	343 14.7	+01.8	N 23 06.5	+00.0
11	358 16.5	+01.9	N 23 06.5	+00.0
12	13 18.4	+01.8	N 23 06.5	+00.0
13	28 20.2	+01.9	N 23 06.5	-00.1
14	43 22.1	+01.8	N 23 06.4	+00.0
15	58 23.9	+01.9	N 23 06.4	+00.0
16	73 25.8	+01.8	N 23 06.4	-00.1
17	88 27.6	+01.9	N 23 06.3	+00.0
18	103 29.5	+01.9	N 23 06.3	+00.0
19	118 31.4	+01.8	N 23 06.3	+00.0
20	133 33.2	+01.9	N 23 06.3	-00.1
21	148 35.1	+01.8	N 23 06.2	+00.0
22	163 36.9	+01.9	N 23 06.2	+00.0
23	178 38.8	+01.8	N 23 06.2	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	262°	262°	262°	262°	262°	262°

Greenwich Culmination Time: 11:06

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	288 26.7	+02.4	S 01 20.0	+00.0
01	303 29.1	+02.5	S 01 20.0	+00.0
02	318 31.6	+02.5	S 01 20.0	+00.0
03	333 34.1	+02.4	S 01 20.0	+00.0
04	348 36.5	+02.5	S 01 20.0	+00.0
05	3 39.0	+02.4	S 01 20.0	+00.0
06	18 41.4	+02.5	S 01 20.0	+00.0
07	33 43.9	+02.5	S 01 20.0	+00.0
08	48 46.4	+02.4	S 01 20.0	+00.1
09	63 48.8	+02.5	S 01 20.1	+00.0
10	78 51.3	+02.4	S 01 20.1	+00.0
11	93 53.7	+02.5	S 01 20.1	+00.0
12	108 56.2	+02.5	S 01 20.1	+00.0
13	123 58.7	+02.4	S 01 20.1	+00.0
14	139 01.1	+02.5	S 01 20.1	+00.0
15	154 03.6	+02.4	S 01 20.1	+00.0
16	169 06.0	+02.5	S 01 20.1	+00.0
17	184 08.5	+02.5	S 01 20.1	+00.1
18	199 11.0	+02.4	S 01 20.2	+00.0
19	214 13.4	+02.5	S 01 20.2	+00.0
20	229 15.9	+02.5	S 01 20.2	+00.0
21	244 18.4	+02.4	S 01 20.2	+00.0
22	259 20.8	+02.5	S 01 20.2	+00.0
23	274 23.3	+02.4	S 01 20.2	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:45

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2025 July 14 Monday

(day 195 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 31.9	-00.1	N 21 40.1	-00.4
01	193 31.8	-00.1	N 21 39.7	-00.3
02	208 31.7	+00.0	N 21 39.4	-00.4
03	223 31.7	-00.1	N 21 39.0	-00.4
04	238 31.6	-00.1	N 21 38.6	-00.4
05	253 31.5	+00.0	N 21 38.2	-00.4
06	268 31.5	-00.1	N 21 37.8	-00.3
07	283 31.4	-00.1	N 21 37.5	-00.4
08	298 31.3	+00.0	N 21 37.1	-00.4
09	313 31.3	-00.1	N 21 36.7	-00.4
10	328 31.2	-00.1	N 21 36.3	-00.4
11	343 31.1	+00.0	N 21 35.9	-00.4
12	358 31.1	-00.1	N 21 35.5	-00.4
13	13 31.0	-00.1	N 21 35.1	-00.3
14	28 30.9	+00.0	N 21 34.8	-00.4
15	43 30.9	-00.1	N 21 34.4	-00.4
16	58 30.8	-00.1	N 21 34.0	-00.4
17	73 30.7	+00.0	N 21 33.6	-00.4
18	88 30.7	-00.1	N 21 33.2	-00.4
19	103 30.6	-00.1	N 21 32.8	-00.4
20	118 30.5	+00.0	N 21 32.4	-00.4
21	133 30.5	-00.1	N 21 32.0	-00.4
22	148 30.4	-00.1	N 21 31.6	-00.4
23	163 30.3	+00.0	N 21 31.2	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	246°	246°	246°	246°	246°	245°

Greenwich Culmination Time: 12:05

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	222 57.8	-00.5	N 19 44.2	+00.4
01	237 57.3	-00.5	N 19 44.6	+00.5
02	252 56.8	-00.4	N 19 45.1	+00.5
03	267 56.4	-00.5	N 19 45.6	+00.5
04	282 55.9	-00.5	N 19 46.1	+00.5
05	297 55.4	-00.5	N 19 46.6	+00.4
06	312 54.9	-00.5	N 19 47.0	+00.5
07	327 54.4	-00.4	N 19 47.5	+00.5
08	342 54.0	-00.5	N 19 48.0	+00.5
09	357 53.5	-00.5	N 19 48.5	+00.5
10	12 53.0	-00.5	N 19 49.0	+00.4
11	27 52.5	-00.5	N 19 49.4	+00.5
12	42 52.0	-00.4	N 19 49.9	+00.5
13	57 51.6	-00.5	N 19 50.4	+00.5
14	72 51.1	-00.5	N 19 50.9	+00.4
15	87 50.6	-00.5	N 19 51.3	+00.5
16	102 50.1	-00.5	N 19 51.8	+00.5
17	117 49.6	-00.5	N 19 52.3	+00.4
18	132 49.1	-00.4	N 19 52.7	+00.5
19	147 48.7	-00.5	N 19 53.2	+00.5
20	162 48.2	-00.5	N 19 53.7	+00.4
21	177 47.7	-00.5	N 19 54.1	+00.5
22	192 47.2	-00.5	N 19 54.6	+00.5
23	207 46.7	-00.5	N 19 55.1	+00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	291°	291°	290°	290°	290°	290°

Greenwich Culmination Time: 09:08

Moon

A: 62%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	319 16.3	-28.8	S 13 01.6	-14.5
01	333 47.5	-28.7	S 12 47.1	-14.7
02	348 18.8	-28.6	S 12 32.4	-14.7
03	2 50.2	-28.7	S 12 17.7	-14.8
04	17 21.5	-28.6	S 12 02.9	-14.8
05	31 52.9	-28.5	S 11 48.1	-14.9
06	46 24.4	-28.5	S 11 33.2	-15.0
07	60 55.9	-28.5	S 11 18.2	-15.0
08	75 27.4	-28.5	S 11 03.2	-15.1
09	89 58.9	-28.4	S 10 48.1	-15.2
10	104 30.5	-28.4	S 10 32.9	-15.2
11	119 02.1	-28.3	S 10 17.7	-15.3
12	133 33.8	-28.3	S 10 02.4	-15.3
13	148 05.5	-28.3	S 09 47.1	-15.4
14	162 37.2	-28.3	S 09 31.7	-15.4
15	177 08.9	-28.2	S 09 16.3	-15.5
16	191 40.7	-28.2	S 09 00.8	-15.6
17	206 12.5	-28.2	S 08 45.2	-15.6
18	220 44.3	-28.1	S 08 29.6	-15.6
19	235 16.2	-28.2	S 08 14.0	-15.7
20	249 48.0	-28.1	S 07 58.3	-15.7
21	264 19.9	-28.1	S 07 42.6	-15.8
22	278 51.8	-28.0	S 07 26.8	-15.9
23	293 23.8	-28.1	S 07 10.9	-15.8

UT	02	06	10	14	18	22
SD	15′7	15′7	15′8	15′8	15′8	15′8
HP	57′7	57′8	57′9	57′9	58′0	58′1
SHA	026°	024°	022°	020°	018°	016°

Greenwich Culmination Time: 02:48

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	125 13.7	+01.1	N 06 31.8	-00.6
01	140 14.8	+01.1	N 06 31.2	-00.6
02	155 15.9	+01.1	N 06 30.6	-00.6
03	170 17.0	+01.1	N 06 30.0	-00.6
04	185 18.1	+01.1	N 06 29.4	-00.6
05	200 19.2	+01.1	N 06 28.8	-00.6
06	215 20.3	+01.1	N 06 28.2	-00.6
07	230 21.4	+01.1	N 06 27.6	-00.6
08	245 22.5	+01.1	N 06 27.0	-00.6
09	260 23.6	+01.1	N 06 26.4	-00.6
10	275 24.7	+01.1	N 06 25.8	-00.6
11	290 25.8	+01.1	N 06 25.2	-00.7
12	305 26.9	+01.1	N 06 24.5	-00.6
13	320 28.0	+01.1	N 06 23.9	-00.6
14	335 29.1	+01.1	N 06 23.3	-00.6
15	350 30.2	+01.1	N 06 22.7	-00.6
16	5 31.3	+01.1	N 06 22.1	-00.6
17	20 32.4	+01.1	N 06 21.5	-00.6
18	35 33.5	+01.1	N 06 20.9	-00.6
19	50 34.6	+01.1	N 06 20.3	-00.6
20	65 35.7	+01.1	N 06 19.7	-00.6
21	80 36.8	+01.1	N 06 19.1	-00.6
22	95 37.9	+01.0	N 06 18.5	-00.6
23	110 38.9	+01.1	N 06 17.9	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	193°	193°	193°	193°	193°	193°

Greenwich Culmination Time: 15:37

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	193 40.6	+01.9	N 23 06.1	+00.0
01	208 42.5	+01.8	N 23 06.1	+00.0
02	223 44.3	+01.9	N 23 06.1	-00.1
03	238 46.2	+01.8	N 23 06.0	+00.0
04	253 48.0	+01.9	N 23 06.0	+00.0
05	268 49.9	+01.9	N 23 06.0	+00.0
06	283 51.8	+01.8	N 23 06.0	-00.1
07	298 53.6	+01.9	N 23 05.9	+00.0
08	313 55.5	+01.8	N 23 05.9	+00.0
09	328 57.3	+01.9	N 23 05.9	-00.1
10	343 59.2	+01.8	N 23 05.8	+00.0
11	359 01.0	+01.9	N 23 05.8	+00.0
12	14 02.9	+01.9	N 23 05.8	+00.0
13	29 04.8	+01.8	N 23 05.8	-00.1
14	44 06.6	+01.9	N 23 05.7	+00.0
15	59 08.5	+01.8	N 23 05.7	+00.0
16	74 10.3	+01.9	N 23 05.7	-00.1
17	89 12.2	+01.8	N 23 05.6	+00.0
18	104 14.0	+01.9	N 23 05.6	+00.0
19	119 15.9	+01.8	N 23 05.6	+00.0
20	134 17.7	+01.9	N 23 05.6	-00.1
21	149 19.6	+01.9	N 23 05.5	+00.0
22	164 21.5	+01.8	N 23 05.5	+00.0
23	179 23.3	+01.9	N 23 05.5	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	262°	262°	261°	261°	261°	261°

Greenwich Culmination Time: 11:03

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	289 25.7	+02.5	S 01 20.2	+00.0
01	304 28.2	+02.5	S 01 20.2	+00.1
02	319 30.7	+02.4	S 01 20.3	+00.0
03	334 33.1	+02.5	S 01 20.3	+00.0
04	349 35.6	+02.5	S 01 20.3	+00.0
05	4 38.1	+02.4	S 01 20.3	+00.0
06	19 40.5	+02.5	S 01 20.3	+00.0
07	34 43.0	+02.5	S 01 20.3	+00.0
08	49 45.5	+02.4	S 01 20.3	+00.0
09	64 47.9	+02.5	S 01 20.3	+00.0
10	79 50.4	+02.4	S 01 20.3	+00.1
11	94 52.8	+02.5	S 01 20.4	+00.0
12	109 55.3	+02.5	S 01 20.4	+00.0
13	124 57.8	+02.4	S 01 20.4	+00.0
14	140 00.2	+02.5	S 01 20.4	+00.0
15	155 02.7	+02.5	S 01 20.4	+00.0
16	170 05.2	+02.4	S 01 20.4	+00.0
17	185 07.6	+02.5	S 01 20.4	+00.1
18	200 10.1	+02.5	S 01 20.5	+00.0
19	215 12.6	+02.4	S 01 20.5	+00.0
20	230 15.0	+02.5	S 01 20.5	+00.0
21	245 17.5	+02.5	S 01 20.5	+00.0
22	260 20.0	+02.4	S 01 20.5	+00.0
23	275 22.4	+02.5	S 01 20.5	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:41

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2025 July 15 Tuesday

(day 196 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 30.3	-00.1	N 21 30.8	-00.4
01	193 30.2	+00.0	N 21 30.4	-00.4
02	208 30.2	-00.1	N 21 30.0	-00.3
03	223 30.1	-00.1	N 21 29.7	-00.4
04	238 30.0	+00.0	N 21 29.3	-00.4
05	253 30.0	-00.1	N 21 28.9	-00.4
06	268 29.9	-00.1	N 21 28.5	-00.4
07	283 29.8	+00.0	N 21 28.1	-00.4
08	298 29.8	-00.1	N 21 27.7	-00.4
09	313 29.7	+00.0	N 21 27.3	-00.4
10	328 29.7	-00.1	N 21 26.9	-00.4
11	343 29.6	-00.1	N 21 26.5	-00.4
12	358 29.5	+00.0	N 21 26.1	-00.4
13	13 29.5	-00.1	N 21 25.7	-00.4
14	28 29.4	+00.0	N 21 25.3	-00.5
15	43 29.4	-00.1	N 21 24.8	-00.4
16	58 29.3	-00.1	N 21 24.4	-00.4
17	73 29.2	+00.0	N 21 24.0	-00.4
18	88 29.2	-00.1	N 21 23.6	-00.4
19	103 29.1	+00.0	N 21 23.2	-00.4
20	118 29.1	-00.1	N 21 22.8	-00.4
21	133 29.0	-00.1	N 21 22.4	-00.4
22	148 28.9	+00.0	N 21 22.0	-00.4
23	163 28.9	-00.1	N 21 21.6	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	245°	245°	245°	245°	245°	244°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	222 46.2	-00.5	N 19 55.5	+00.5
01	237 45.7	-00.5	N 19 56.0	+00.5
02	252 45.2	-00.5	N 19 56.5	+00.4
03	267 44.7	-00.4	N 19 56.9	+00.5
04	282 44.3	-00.5	N 19 57.4	+00.5
05	297 43.8	-00.5	N 19 57.9	+00.4
06	312 43.3	-00.5	N 19 58.3	+00.5
07	327 42.8	-00.5	N 19 58.8	+00.4
08	342 42.3	-00.5	N 19 59.2	+00.5
09	357 41.8	-00.5	N 19 59.7	+00.5
10	12 41.3	-00.5	N 20 00.2	+00.4
11	27 40.8	-00.5	N 20 00.6	+00.5
12	42 40.3	-00.5	N 20 01.1	+00.4
13	57 39.8	-00.5	N 20 01.5	+00.5
14	72 39.3	-00.5	N 20 02.0	+00.4
15	87 38.8	-00.5	N 20 02.4	+00.5
16	102 38.3	-00.5	N 20 02.9	+00.4
17	117 37.8	-00.5	N 20 03.3	+00.5
18	132 37.3	-00.5	N 20 03.8	+00.5
19	147 36.8	-00.5	N 20 04.3	+00.4
20	162 36.3	-00.5	N 20 04.7	+00.5
21	177 35.8	-00.5	N 20 05.2	+00.4
22	192 35.3	-00.5	N 20 05.6	+00.4
23	207 34.8	-00.5	N 20 06.0	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	290°	289°	289°	289°	289°	289°

Greenwich Culmination Time: 09:09

Moon

A: 65%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	307 55.7	-28.0	S 06 55.1	-15.9
01	322 27.7	-28.0	S 06 39.2	-16.0
02	336 59.7	-28.0	S 06 23.2	-16.0
03	351 31.7	-28.0	S 06 07.2	-16.0
04	6 03.7	-27.9	S 05 51.2	-16.1
05	20 35.8	-28.0	S 05 35.1	-16.1
06	35 07.8	-27.9	S 05 19.0	-16.1
07	49 39.9	-28.0	S 05 02.9	-16.1
08	64 11.9	-27.9	S 04 46.8	-16.2
09	78 44.0	-27.9	S 04 30.6	-16.3
10	93 16.1	-27.9	S 04 14.3	-16.2
11	107 48.2	-27.9	S 03 58.1	-16.3
12	122 20.3	-28.0	S 03 41.8	-16.3
13	136 52.3	-27.9	S 03 25.5	-16.3
14	151 24.4	-27.9	S 03 09.2	-16.4
15	165 56.5	-27.9	S 02 52.8	-16.3
16	180 28.6	-27.9	S 02 36.5	-16.4
17	195 00.7	-27.9	S 02 20.1	-16.4
18	209 32.8	-27.9	S 02 03.7	-16.5
19	224 04.9	-27.9	S 01 47.2	-16.4
20	238 37.0	-27.9	S 01 30.8	-16.5
21	253 09.1	-28.0	S 01 14.3	-16.4
22	267 41.1	-27.9	S 00 57.9	-16.5
23	282 13.2	-28.0	S 00 41.4	-16.5

UT	02	06	10	14	18	22
SD	15′8	15′9	15′9	15′9	15′9	15′9
HP	58′2	58′2	58′3	58′4	58′4	58′5
SHA	014°	012°	010°	008°	006°	004°

Greenwich Culmination Time: 03:34

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	125 40.0	+01.1	N 06 17.3	-00.7
01	140 41.1	+01.1	N 06 16.6	-00.6
02	155 42.2	+01.1	N 06 16.0	-00.6
03	170 43.3	+01.1	N 06 15.4	-00.6
04	185 44.4	+01.1	N 06 14.8	-00.6
05	200 45.5	+01.1	N 06 14.2	-00.6
06	215 46.6	+01.1	N 06 13.6	-00.6
07	230 47.7	+01.1	N 06 13.0	-00.6
08	245 48.8	+01.1	N 06 12.4	-00.6
09	260 49.9	+01.1	N 06 11.8	-00.6
10	275 51.0	+01.1	N 06 11.2	-00.6
11	290 52.1	+01.1	N 06 10.6	-00.6
12	305 53.2	+01.1	N 06 10.0	-00.7
13	320 54.3	+01.1	N 06 09.3	-00.6
14	335 55.4	+01.1	N 06 08.7	-00.6
15	350 56.5	+01.1	N 06 08.1	-00.6
16	5 57.6	+01.1	N 06 07.5	-00.6
17	20 58.7	+01.0	N 06 06.9	-00.6
18	35 59.7	+01.1	N 06 06.3	-00.6
19	51 00.8	+01.1	N 06 05.7	-00.6
20	66 01.9	+01.1	N 06 05.1	-00.6
21	81 03.0	+01.1	N 06 04.5	-00.6
22	96 04.1	+01.1	N 06 03.9	-00.7
23	111 05.2	+01.1	N 06 03.2	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	193°	192°	192°	192°	192°	192°

Greenwich Culmination Time: 15:36

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	194 25.2	+01.8	N 23 05.4	+00.0
01	209 27.0	+01.9	N 23 05.4	+00.0
02	224 28.9	+01.8	N 23 05.4	-00.1
03	239 30.7	+01.9	N 23 05.3	+00.0
04	254 32.6	+01.9	N 23 05.3	+00.0
05	269 34.5	+01.8	N 23 05.3	+00.0
06	284 36.3	+01.9	N 23 05.3	-00.1
07	299 38.2	+01.8	N 23 05.2	+00.0
08	314 40.0	+01.9	N 23 05.2	+00.0
09	329 41.9	+01.8	N 23 05.2	-00.1
10	344 43.7	+01.9	N 23 05.1	+00.0
11	359 45.6	+01.9	N 23 05.1	+00.0
12	14 47.5	+01.8	N 23 05.1	-00.1
13	29 49.3	+01.9	N 23 05.0	+00.0
14	44 51.2	+01.8	N 23 05.0	+00.0
15	59 53.0	+01.9	N 23 05.0	+00.0
16	74 54.9	+01.8	N 23 05.0	-00.1
17	89 56.7	+01.9	N 23 04.9	+00.0
18	104 58.6	+01.9	N 23 04.9	+00.0
19	120 00.5	+01.8	N 23 04.9	-00.1
20	135 02.3	+01.9	N 23 04.8	+00.0
21	150 04.2	+01.8	N 23 04.8	+00.0
22	165 06.0	+01.9	N 23 04.8	-00.1
23	180 07.9	+01.8	N 23 04.7	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	261°	261°	261°	261°	261°	261°

Greenwich Culmination Time: 11:00

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	290 24.9	+02.5	S 01 20.5	+00.0
01	305 27.4	+02.4	S 01 20.5	+00.1
02	320 29.8	+02.5	S 01 20.6	+00.0
03	335 32.3	+02.5	S 01 20.6	+00.0
04	350 34.8	+02.4	S 01 20.6	+00.0
05	5 37.2	+02.5	S 01 20.6	+00.0
06	20 39.7	+02.5	S 01 20.6	+00.0
07	35 42.2	+02.4	S 01 20.6	+00.0
08	50 44.6	+02.5	S 01 20.6	+00.1
09	65 47.1	+02.5	S 01 20.7	+00.0
10	80 49.6	+02.4	S 01 20.7	+00.0
11	95 52.0	+02.5	S 01 20.7	+00.0
12	110 54.5	+02.5	S 01 20.7	+00.0
13	125 57.0	+02.4	S 01 20.7	+00.0
14	140 59.4	+02.5	S 01 20.7	+00.0
15	156 01.9	+02.5	S 01 20.7	+00.1
16	171 04.4	+02.5	S 01 20.8	+00.0
17	186 06.9	+02.4	S 01 20.8	+00.0
18	201 09.3	+02.5	S 01 20.8	+00.0
19	216 11.8	+02.5	S 01 20.8	+00.0
20	231 14.3	+02.4	S 01 20.8	+00.0
21	246 16.7	+02.5	S 01 20.8	+00.0
22	261 19.2	+02.5	S 01 20.8	+00.1
23	276 21.7	+02.4	S 01 20.9	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:37

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2025 July 16 Wednesday (day 197 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 28.8	+00.0	N 21 21.2	−00.4
01	193 28.8	−00.1	N 21 20.8	−00.4
02	208 28.7	−00.1	N 21 20.4	−00.4
03	223 28.6	+00.0	N 21 20.0	−00.5
04	238 28.6	−00.1	N 21 19.5	−00.4
05	253 28.5	+00.0	N 21 19.1	−00.4
06	268 28.5	−00.1	N 21 18.7	−00.4
07	283 28.4	+00.0	N 21 18.3	−00.4
08	298 28.4	−00.1	N 21 17.9	−00.4
09	313 28.3	−00.1	N 21 17.5	−00.4
10	328 28.2	+00.0	N 21 17.1	−00.5
11	343 28.2	−00.1	N 21 16.6	−00.4
12	358 28.1	+00.0	N 21 16.2	−00.4
13	13 28.1	−00.1	N 21 15.8	−00.4
14	28 28.0	+00.0	N 21 15.4	−00.4
15	43 28.0	−00.1	N 21 15.0	−00.5
16	58 27.9	+00.0	N 21 14.5	−00.4
17	73 27.9	−00.1	N 21 14.1	−00.4
18	88 27.8	+00.0	N 21 13.7	−00.4
19	103 27.8	−00.1	N 21 13.3	−00.4
20	118 27.7	−00.1	N 21 12.9	−00.5
21	133 27.6	+00.0	N 21 12.4	−00.4
22	148 27.6	−00.1	N 21 12.0	−00.4
23	163 27.5	+00.0	N 21 11.6	−00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	244°	244°	244°	244°	244°	243°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	222 34.3	−00.5	N 20 06.5	+00.4
01	237 33.8	−00.5	N 20 06.9	+00.5
02	252 33.3	−00.5	N 20 07.4	+00.4
03	267 32.8	−00.5	N 20 07.8	+00.5
04	282 32.3	−00.5	N 20 08.3	+00.4
05	297 31.8	−00.5	N 20 08.7	+00.5
06	312 31.3	−00.5	N 20 09.2	+00.4
07	327 30.8	−00.5	N 20 09.6	+00.4
08	342 30.3	−00.5	N 20 10.0	+00.5
09	357 29.8	−00.5	N 20 10.5	+00.4
10	12 29.3	−00.5	N 20 10.9	+00.5
11	27 28.8	−00.5	N 20 11.4	+00.4
12	42 28.3	−00.5	N 20 11.8	+00.4
13	57 27.8	−00.5	N 20 12.2	+00.5
14	72 27.3	−00.6	N 20 12.7	+00.4
15	87 26.7	−00.5	N 20 13.1	+00.4
16	102 26.2	−00.5	N 20 13.5	+00.5
17	117 25.7	−00.5	N 20 14.0	+00.4
18	132 25.2	−00.5	N 20 14.4	+00.4
19	147 24.7	−00.5	N 20 14.8	+00.5
20	162 24.2	−00.5	N 20 15.3	+00.4
21	177 23.7	−00.5	N 20 15.7	+00.4
22	192 23.2	−00.6	N 20 16.1	+00.5
23	207 22.6	−00.5	N 20 16.6	+00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	288°	288°	288°	288°	288°	287°

Greenwich Culmination Time: 09:10

Moon

A: 68%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	296 45.2	−27.9	S 00 24.9	−16.5
01	311 17.3	−28.0	S 00 08.4	−16.6
02	325 49.3	−28.0	N 00 08.2	+16.5
03	340 21.3	−28.0	N 00 24.7	+16.5
04	354 53.3	−28.1	N 00 41.2	+16.6
05	9 25.2	−28.0	N 00 57.8	+16.5
06	23 57.2	−28.1	N 01 14.3	+16.5
07	38 29.1	−28.1	N 01 30.8	+16.6
08	53 01.0	−28.1	N 01 47.4	+16.5
09	67 32.9	−28.1	N 02 03.9	+16.6
10	82 04.8	−28.2	N 02 20.5	+16.5
11	96 36.6	−28.2	N 02 37.0	+16.5
12	111 08.4	−28.2	N 02 53.5	+16.6
13	125 40.2	−28.3	N 03 10.1	+16.5
14	140 11.9	−28.3	N 03 26.6	+16.5
15	154 43.6	−28.3	N 03 43.1	+16.5
16	169 15.3	−28.3	N 03 59.6	+16.5
17	183 47.0	−28.4	N 04 16.1	+16.4
18	198 18.6	−28.4	N 04 32.5	+16.5
19	212 50.2	−28.5	N 04 49.0	+16.4
20	227 21.7	−28.5	N 05 05.4	+16.5
21	241 53.2	−28.6	N 05 21.9	+16.4
22	256 24.6	−28.6	N 05 38.3	+16.4
23	270 56.0	−28.6	N 05 54.7	+16.3

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	58′6	58′6	58′7	58′7	58′8	58′9
SHA	002°	360°	358°	356°	353°	351°

Greenwich Culmination Time: 04:21

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	126 06.3	+01.1	N 06 02.6	−00.6
01	141 07.4	+01.1	N 06 02.0	−00.6
02	156 08.5	+01.1	N 06 01.4	−00.6
03	171 09.6	+01.1	N 06 00.8	−00.6
04	186 10.7	+01.1	N 06 00.2	−00.6
05	201 11.8	+01.1	N 05 59.6	−00.6
06	216 12.9	+01.1	N 05 59.0	−00.6
07	231 14.0	+01.1	N 05 58.4	−00.7
08	246 15.1	+01.1	N 05 57.7	−00.6
09	261 16.2	+01.0	N 05 57.1	−00.6
10	276 17.2	+01.1	N 05 56.5	−00.6
11	291 18.3	+01.1	N 05 55.9	−00.6
12	306 19.4	+01.1	N 05 55.3	−00.6
13	321 20.5	+01.1	N 05 54.7	−00.6
14	336 21.6	+01.1	N 05 54.1	−00.6
15	351 22.7	+01.1	N 05 53.5	−00.6
16	6 23.8	+01.1	N 05 52.9	−00.7
17	21 24.9	+01.1	N 05 52.2	−00.6
18	36 26.0	+01.1	N 05 51.6	−00.6
19	51 27.1	+01.1	N 05 51.0	−00.6
20	66 28.2	+01.1	N 05 50.4	−00.6
21	81 29.3	+01.1	N 05 49.8	−00.6
22	96 30.4	+01.0	N 05 49.2	−00.6
23	111 31.4	+01.1	N 05 48.6	−00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	192°	192°	192°	192°	192°	192°

Greenwich Culmination Time: 15:34

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	195 09.7	+01.9	N 23 04.7	+00.0
01	210 11.6	+01.9	N 23 04.7	−00.1
02	225 13.5	+01.8	N 23 04.6	+00.0
03	240 15.3	+01.9	N 23 04.6	+00.0
04	255 17.2	+01.8	N 23 04.6	+00.0
05	270 19.0	+01.9	N 23 04.6	−00.1
06	285 20.9	+01.8	N 23 04.5	+00.0
07	300 22.7	+01.9	N 23 04.5	+00.0
08	315 24.6	+01.9	N 23 04.5	−00.1
09	330 26.5	+01.8	N 23 04.4	+00.0
10	345 28.3	+01.9	N 23 04.4	+00.0
11	0 30.2	+01.8	N 23 04.4	−00.1
12	15 32.0	+01.9	N 23 04.3	+00.0
13	30 33.9	+01.9	N 23 04.3	+00.0
14	45 35.8	+01.8	N 23 04.3	−00.1
15	60 37.6	+01.9	N 23 04.2	+00.0
16	75 39.5	+01.8	N 23 04.2	+00.0
17	90 41.3	+01.9	N 23 04.2	+00.0
18	105 43.2	+01.9	N 23 04.2	−00.1
19	120 45.1	+01.8	N 23 04.1	+00.0
20	135 46.9	+01.9	N 23 04.1	+00.0
21	150 48.8	+01.8	N 23 04.1	−00.1
22	165 50.6	+01.9	N 23 04.0	+00.0
23	180 52.5	+01.8	N 23 04.0	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	261°	261°	261°	261°	261°	261°

Greenwich Culmination Time: 10:57

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	291 24.1	+02.5	S 01 20.9	+00.0
01	306 26.6	+02.5	S 01 20.9	+00.0
02	321 29.1	+02.5	S 01 20.9	+00.0
03	336 31.6	+02.4	S 01 20.9	+00.0
04	351 34.0	+02.5	S 01 20.9	+00.0
05	6 36.5	+02.5	S 01 20.9	+00.1
06	21 39.0	+02.4	S 01 21.0	+00.0
07	36 41.4	+02.5	S 01 21.0	+00.0
08	51 43.9	+02.5	S 01 21.0	+00.0
09	66 46.4	+02.5	S 01 21.0	+00.0
10	81 48.9	+02.4	S 01 21.0	+00.0
11	96 51.3	+02.5	S 01 21.0	+00.1
12	111 53.8	+02.5	S 01 21.1	+00.0
13	126 56.3	+02.4	S 01 21.1	+00.0
14	141 58.7	+02.5	S 01 21.1	+00.0
15	157 01.2	+02.5	S 01 21.1	+00.0
16	172 03.7	+02.5	S 01 21.1	+00.0
17	187 06.2	+02.4	S 01 21.1	+00.1
18	202 08.6	+02.5	S 01 21.2	+00.0
19	217 11.1	+02.5	S 01 21.2	+00.0
20	232 13.6	+02.5	S 01 21.2	+00.0
21	247 16.1	+02.4	S 01 21.2	+00.0
22	262 18.5	+02.5	S 01 21.2	+00.0
23	277 21.0	+02.5	S 01 21.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:33

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2025 July 17 Thursday

(day 198 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 27.5	-00.1	N 21 11.2	-00.5
01	193 27.4	+00.0	N 21 10.7	-00.4
02	208 27.4	-00.1	N 21 10.3	-00.4
03	223 27.3	+00.0	N 21 09.9	-00.4
04	238 27.3	-00.1	N 21 09.5	-00.5
05	253 27.2	+00.0	N 21 09.0	-00.4
06	268 27.2	-00.1	N 21 08.6	-00.4
07	283 27.1	+00.0	N 21 08.2	-00.5
08	298 27.1	-00.1	N 21 07.7	-00.4
09	313 27.0	+00.0	N 21 07.3	-00.4
10	328 27.0	-00.1	N 21 06.9	-00.4
11	343 26.9	+00.0	N 21 06.5	-00.5
12	358 26.9	-00.1	N 21 06.0	-00.4
13	13 26.8	+00.0	N 21 05.6	-00.4
14	28 26.8	-00.1	N 21 05.2	-00.5
15	43 26.7	+00.0	N 21 04.7	-00.4
16	58 26.7	-00.1	N 21 04.3	-00.4
17	73 26.6	+00.0	N 21 03.9	-00.5
18	88 26.6	-00.1	N 21 03.4	-00.4
19	103 26.5	+00.0	N 21 03.0	-00.5
20	118 26.5	-00.1	N 21 02.5	-00.4
21	133 26.4	+00.0	N 21 02.1	-00.4
22	148 26.4	-00.1	N 21 01.7	-00.5
23	163 26.3	+00.0	N 21 01.2	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	243°	243°	243°	243°	243°	242°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	222 22.1	-00.5	N 20 17.0	+00.4
01	237 21.6	-00.5	N 20 17.4	+00.5
02	252 21.1	-00.5	N 20 17.9	+00.4
03	267 20.6	-00.5	N 20 18.3	+00.4
04	282 20.1	-00.5	N 20 18.7	+00.4
05	297 19.6	-00.6	N 20 19.1	+00.5
06	312 19.0	-00.5	N 20 19.6	+00.4
07	327 18.5	-00.5	N 20 20.0	+00.4
08	342 18.0	-00.5	N 20 20.4	+00.4
09	357 17.5	-00.5	N 20 20.8	+00.4
10	12 17.0	-00.5	N 20 21.2	+00.5
11	27 16.5	-00.6	N 20 21.7	+00.4
12	42 15.9	-00.5	N 20 22.1	+00.4
13	57 15.4	-00.5	N 20 22.5	+00.4
14	72 14.9	-00.5	N 20 22.9	+00.4
15	87 14.4	-00.6	N 20 23.3	+00.5
16	102 13.8	-00.5	N 20 23.8	+00.4
17	117 13.3	-00.5	N 20 24.2	+00.4
18	132 12.8	-00.5	N 20 24.6	+00.4
19	147 12.3	-00.5	N 20 25.0	+00.4
20	162 11.8	-00.6	N 20 25.4	+00.4
21	177 11.2	-00.5	N 20 25.8	+00.4
22	192 10.7	-00.5	N 20 26.2	+00.4
23	207 10.2	-00.5	N 20 26.6	+00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	287°	287°	287°	287°	286°	286°

Greenwich Culmination Time: 09:10

Moon

A: 71%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	285 27.4	-28.7	N 06 11.0	+16.4
01	299 58.7	-28.7	N 06 27.4	+16.3
02	314 30.0	-28.8	N 06 43.7	+16.3
03	329 01.2	-28.8	N 06 60.0	+16.2
04	343 32.4	-28.9	N 07 16.2	+16.3
05	358 03.5	-28.9	N 07 32.5	+16.2
06	12 34.6	-29.0	N 07 48.7	+16.2
07	27 05.6	-29.0	N 08 04.9	+16.1
08	41 36.6	-29.1	N 08 21.0	+16.1
09	56 07.5	-29.1	N 08 37.1	+16.1
10	70 38.4	-29.2	N 08 53.2	+16.0
11	85 09.2	-29.3	N 09 09.2	+16.0
12	99 39.9	-29.3	N 09 25.2	+16.0
13	114 10.6	-29.4	N 09 41.2	+15.9
14	128 41.2	-29.5	N 09 57.1	+15.8
15	143 11.7	-29.5	N 10 12.9	+15.8
16	157 42.2	-29.6	N 10 28.7	+15.8
17	172 12.6	-29.6	N 10 44.5	+15.7
18	186 43.0	-29.8	N 11 00.2	+15.7
19	201 13.2	-29.8	N 11 15.9	+15.6
20	215 43.4	-29.8	N 11 31.5	+15.6
21	230 13.6	-30.0	N 11 47.1	+15.5
22	244 43.6	-30.0	N 12 02.6	+15.5
23	259 13.6	-30.1	N 12 18.1	+15.4

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	58′9	59′0	59′0	59′1	59′1	59′2
SHA	349°	347°	345°	343°	341°	339°

Greenwich Culmination Time: 05:08

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	126 32.5	+01.1	N 05 48.0	-00.7
01	141 33.6	+01.1	N 05 47.3	-00.6
02	156 34.7	+01.1	N 05 46.7	-00.6
03	171 35.8	+01.1	N 05 46.1	-00.6
04	186 36.9	+01.1	N 05 45.5	-00.6
05	201 38.0	+01.1	N 05 44.9	-00.6
06	216 39.1	+01.1	N 05 44.3	-00.6
07	231 40.2	+01.1	N 05 43.7	-00.7
08	246 41.3	+01.1	N 05 43.0	-00.6
09	261 42.4	+01.1	N 05 42.4	-00.6
10	276 43.5	+01.0	N 05 41.8	-00.6
11	291 44.5	+01.1	N 05 41.2	-00.6
12	306 45.6	+01.1	N 05 40.6	-00.6
13	321 46.7	+01.1	N 05 40.0	-00.6
14	336 47.8	+01.1	N 05 39.4	-00.6
15	351 48.9	+01.1	N 05 38.8	-00.7
16	6 50.0	+01.1	N 05 38.1	-00.6
17	21 51.1	+01.1	N 05 37.5	-00.6
18	36 52.2	+01.1	N 05 36.9	-00.6
19	51 53.3	+01.1	N 05 36.3	-00.6
20	66 54.4	+01.1	N 05 35.7	-00.6
21	81 55.5	+01.0	N 05 35.1	-00.6
22	96 56.5	+01.1	N 05 34.5	-00.7
23	111 57.6	+01.1	N 05 33.8	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	191°	191°	191°	191°	191°	191°

Greenwich Culmination Time: 15:32

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	195 54.3	+01.9	N 23 04.0	-00.1
01	210 56.2	+01.9	N 23 03.9	+00.0
02	225 58.1	+01.8	N 23 03.9	+00.0
03	240 59.9	+01.9	N 23 03.9	-00.1
04	256 01.8	+01.8	N 23 03.8	+00.0
05	271 03.6	+01.9	N 23 03.8	+00.0
06	286 05.5	+01.9	N 23 03.8	-00.1
07	301 07.4	+01.8	N 23 03.7	+00.0
08	316 09.2	+01.9	N 23 03.7	+00.0
09	331 11.1	+01.8	N 23 03.7	-00.1
10	346 12.9	+01.9	N 23 03.6	+00.0
11	1 14.8	+01.9	N 23 03.6	+00.0
12	16 16.7	+01.8	N 23 03.6	+00.0
13	31 18.5	+01.9	N 23 03.6	-00.1
14	46 20.4	+01.8	N 23 03.5	+00.0
15	61 22.2	+01.9	N 23 03.5	+00.0
16	76 24.1	+01.9	N 23 03.5	-00.1
17	91 26.0	+01.8	N 23 03.4	+00.0
18	106 27.8	+01.9	N 23 03.4	+00.0
19	121 29.7	+01.8	N 23 03.4	-00.1
20	136 31.5	+01.9	N 23 03.3	+00.0
21	151 33.4	+01.9	N 23 03.3	+00.0
22	166 35.3	+01.8	N 23 03.3	-00.1
23	181 37.1	+01.9	N 23 03.2	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	261°	261°	261°	261°	261°	261°

Greenwich Culmination Time: 10:55

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	292 23.5	+02.5	S 01 21.3	+00.0
01	307 26.0	+02.4	S 01 21.3	+00.0
02	322 28.4	+02.5	S 01 21.3	+00.0
03	337 30.9	+02.5	S 01 21.3	+00.0
04	352 33.4	+02.5	S 01 21.3	+00.0
05	7 35.9	+02.4	S 01 21.3	+00.1
06	22 38.3	+02.5	S 01 21.4	+00.0
07	37 40.8	+02.5	S 01 21.4	+00.0
08	52 43.3	+02.5	S 01 21.4	+00.0
09	67 45.8	+02.4	S 01 21.4	+00.0
10	82 48.2	+02.5	S 01 21.4	+00.0
11	97 50.7	+02.5	S 01 21.4	+00.1
12	112 53.2	+02.5	S 01 21.5	+00.0
13	127 55.7	+02.4	S 01 21.5	+00.0
14	142 58.1	+02.5	S 01 21.5	+00.0
15	158 00.6	+02.5	S 01 21.5	+00.0
16	173 03.1	+02.5	S 01 21.5	+00.0
17	188 05.6	+02.4	S 01 21.5	+00.1
18	203 08.0	+02.5	S 01 21.6	+00.0
19	218 10.5	+02.5	S 01 21.6	+00.0
20	233 13.0	+02.5	S 01 21.6	+00.0
21	248 15.5	+02.5	S 01 21.6	+00.0
22	263 18.0	+02.4	S 01 21.6	+00.1
23	278 20.4	+02.5	S 01 21.7	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:29

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 18 Friday

(day 199 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 26.3	-00.1	N 21 00.8	-00.5
01	193 26.2	+00.0	N 21 00.3	-00.4
02	208 26.2	-00.1	N 20 59.9	-00.4
03	223 26.1	+00.0	N 20 59.5	-00.5
04	238 26.1	-00.1	N 20 59.0	-00.4
05	253 26.0	+00.0	N 20 58.6	-00.5
06	268 26.0	-00.1	N 20 58.1	-00.4
07	283 25.9	+00.0	N 20 57.7	-00.4
08	298 25.9	+00.0	N 20 57.3	-00.5
09	313 25.9	-00.1	N 20 56.8	-00.4
10	328 25.8	+00.0	N 20 56.4	-00.5
11	343 25.8	-00.1	N 20 55.9	-00.4
12	358 25.7	+00.0	N 20 55.5	-00.5
13	13 25.7	-00.1	N 20 55.0	-00.4
14	28 25.6	+00.0	N 20 54.6	-00.5
15	43 25.6	-00.1	N 20 54.1	-00.4
16	58 25.5	+00.0	N 20 53.7	-00.5
17	73 25.5	+00.0	N 20 53.2	-00.4
18	88 25.5	-00.1	N 20 52.8	-00.5
19	103 25.4	+00.0	N 20 52.3	-00.4
20	118 25.4	-00.1	N 20 51.9	-00.5
21	133 25.3	+00.0	N 20 51.4	-00.4
22	148 25.3	-00.1	N 20 51.0	-00.5
23	163 25.2	+00.0	N 20 50.5	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	242°	242°	242°	242°	242°	241°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	222 09.7	-00.6	N 20 27.1	+00.4
01	237 09.1	-00.5	N 20 27.5	+00.4
02	252 08.6	-00.5	N 20 27.9	+00.4
03	267 08.1	-00.6	N 20 28.3	+00.4
04	282 07.5	-00.5	N 20 28.7	+00.4
05	297 07.0	-00.5	N 20 29.1	+00.4
06	312 06.5	-00.5	N 20 29.5	+00.4
07	327 06.0	-00.6	N 20 29.9	+00.4
08	342 05.4	-00.5	N 20 30.3	+00.4
09	357 04.9	-00.5	N 20 30.7	+00.4
10	12 04.4	-00.6	N 20 31.1	+00.4
11	27 03.8	-00.5	N 20 31.5	+00.4
12	42 03.3	-00.5	N 20 31.9	+00.4
13	57 02.8	-00.6	N 20 32.3	+00.4
14	72 02.2	-00.5	N 20 32.7	+00.4
15	87 01.7	-00.5	N 20 33.1	+00.4
16	102 01.2	-00.6	N 20 33.5	+00.4
17	117 00.6	-00.5	N 20 33.9	+00.4
18	132 00.1	-00.5	N 20 34.3	+00.4
19	146 59.6	-00.6	N 20 34.7	+00.4
20	161 59.0	-00.5	N 20 35.1	+00.4
21	176 58.5	-00.5	N 20 35.5	+00.4
22	191 58.0	-00.6	N 20 35.9	+00.4
23	206 57.4	-00.5	N 20 36.3	+00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	286°	286°	286°	285°	285°	285°

Greenwich Culmination Time: 09:11

Moon

A: 75%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	273 43.5	-30.1	N 12 33.5	+15.3
01	288 13.4	-30.3	N 12 48.8	+15.3
02	302 43.1	-30.3	N 13 04.1	+15.2
03	317 12.8	-30.4	N 13 19.3	+15.1
04	331 42.4	-30.5	N 13 34.4	+15.1
05	346 11.9	-30.6	N 13 49.5	+15.0
06	0 41.3	-30.6	N 14 04.5	+15.0
07	15 10.7	-30.8	N 14 19.5	+14.8
08	29 39.9	-30.8	N 14 34.3	+14.8
09	44 09.1	-30.9	N 14 49.1	+14.8
10	58 38.2	-31.0	N 15 03.9	+14.6
11	73 07.2	-31.1	N 15 18.5	+14.6
12	87 36.1	-31.2	N 15 33.1	+14.5
13	102 04.9	-31.3	N 15 47.6	+14.4
14	116 33.6	-31.3	N 16 02.0	+14.3
15	131 02.3	-31.5	N 16 16.3	+14.2
16	145 30.8	-31.5	N 16 30.5	+14.2
17	159 59.3	-31.7	N 16 44.7	+14.0
18	174 27.6	-31.7	N 16 58.7	+14.0
19	188 55.9	-31.9	N 17 12.7	+13.9
20	203 24.0	-31.9	N 17 26.6	+13.8
21	217 52.1	-32.0	N 17 40.4	+13.7
22	232 20.1	-32.1	N 17 54.1	+13.6
23	246 48.0	-32.3	N 18 07.7	+13.4

UT	02	06	10	14	18	22
SD	16′1	16′1	16′2	16′2	16′2	16′2
HP	59′2	59′2	59′3	59′3	59′4	59′4
SHA	337°	334°	332°	330°	328°	325°

Greenwich Culmination Time: 05:57

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	126 58.7	+01.1	N 05 33.2	-00.6
01	141 59.8	+01.1	N 05 32.6	-00.6
02	157 00.9	+01.1	N 05 32.0	-00.6
03	172 02.0	+01.1	N 05 31.4	-00.6
04	187 03.1	+01.1	N 05 30.8	-00.7
05	202 04.2	+01.1	N 05 30.1	-00.6
06	217 05.3	+01.1	N 05 29.5	-00.6
07	232 06.4	+01.0	N 05 28.9	-00.6
08	247 07.4	+01.1	N 05 28.3	-00.6
09	262 08.5	+01.1	N 05 27.7	-00.6
10	277 09.6	+01.1	N 05 27.1	-00.6
11	292 10.7	+01.1	N 05 26.5	-00.7
12	307 11.8	+01.1	N 05 25.8	-00.6
13	322 12.9	+01.1	N 05 25.2	-00.6
14	337 14.0	+01.1	N 05 24.6	-00.6
15	352 15.1	+01.1	N 05 24.0	-00.6
16	7 16.2	+01.0	N 05 23.4	-00.6
17	22 17.2	+01.1	N 05 22.8	-00.7
18	37 18.3	+01.1	N 05 22.1	-00.6
19	52 19.4	+01.1	N 05 21.5	-00.6
20	67 20.5	+01.1	N 05 20.9	-00.6
21	82 21.6	+01.1	N 05 20.3	-00.6
22	97 22.7	+01.1	N 05 19.7	-00.6
23	112 23.8	+01.1	N 05 19.1	-00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	191°	191°	191°	191°	191°	190°

Greenwich Culmination Time: 15:30

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	196 39.0	+01.8	N 23 03.2	+00.0
01	211 40.8	+01.9	N 23 03.2	-00.1
02	226 42.7	+01.9	N 23 03.1	+00.0
03	241 44.6	+01.8	N 23 03.1	+00.0
04	256 46.4	+01.9	N 23 03.1	-00.1
05	271 48.3	+01.8	N 23 03.0	+00.0
06	286 50.1	+01.9	N 23 03.0	+00.0
07	301 52.0	+01.9	N 23 03.0	-00.1
08	316 53.9	+01.8	N 23 02.9	+00.0
09	331 55.7	+01.9	N 23 02.9	+00.0
10	346 57.6	+01.8	N 23 02.9	-00.1
11	1 59.4	+01.9	N 23 02.8	+00.0
12	17 01.3	+01.9	N 23 02.8	+00.0
13	32 03.2	+01.8	N 23 02.8	-00.1
14	47 05.0	+01.9	N 23 02.7	+00.0
15	62 06.9	+01.9	N 23 02.7	+00.0
16	77 08.8	+01.8	N 23 02.7	-00.1
17	92 10.6	+01.9	N 23 02.6	+00.0
18	107 12.5	+01.8	N 23 02.6	+00.0
19	122 14.3	+01.9	N 23 02.6	-00.1
20	137 16.2	+01.9	N 23 02.5	+00.0
21	152 18.1	+01.8	N 23 02.5	+00.0
22	167 19.9	+01.9	N 23 02.5	-00.1
23	182 21.8	+01.8	N 23 02.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	261°	261°	260°	260°	260°	260°

Greenwich Culmination Time: 10:52

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	293 22.9	+02.5	S 01 21.7	+00.0
01	308 25.4	+02.5	S 01 21.7	+00.0
02	323 27.9	+02.5	S 01 21.7	+00.0
03	338 30.4	+02.4	S 01 21.7	+00.1
04	353 32.8	+02.5	S 01 21.8	+00.0
05	8 35.3	+02.5	S 01 21.8	+00.0
06	23 37.8	+02.5	S 01 21.8	+00.0
07	38 40.3	+02.4	S 01 21.8	+00.0
08	53 42.7	+02.5	S 01 21.8	+00.0
09	68 45.2	+02.5	S 01 21.8	+00.1
10	83 47.7	+02.5	S 01 21.9	+00.0
11	98 50.2	+02.5	S 01 21.9	+00.0
12	113 52.7	+02.4	S 01 21.9	+00.0
13	128 55.1	+02.5	S 01 21.9	+00.0
14	143 57.6	+02.5	S 01 21.9	+00.1
15	159 00.1	+02.5	S 01 22.0	+00.0
16	174 02.6	+02.5	S 01 22.0	+00.0
17	189 05.1	+02.5	S 01 22.0	+00.0
18	204 07.6	+02.4	S 01 22.0	+00.0
19	219 10.0	+02.5	S 01 22.0	+00.1
20	234 12.5	+02.5	S 01 22.1	+00.0
21	249 15.0	+02.5	S 01 22.1	+00.0
22	264 17.5	+02.5	S 01 22.1	+00.0
23	279 20.0	+02.4	S 01 22.1	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:25

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2025 July 19 Saturday

(day 200 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 25.2	+00.0	N 20 50.1	−00.5
01	193 25.2	−00.1	N 20 49.6	−00.5
02	208 25.1	+00.0	N 20 49.1	−00.4
03	223 25.1	−00.1	N 20 48.7	−00.5
04	238 25.0	+00.0	N 20 48.2	−00.4
05	253 25.0	+00.0	N 20 47.8	−00.5
06	268 25.0	−00.1	N 20 47.3	−00.4
07	283 24.9	+00.0	N 20 46.9	−00.5
08	298 24.9	−00.1	N 20 46.4	−00.5
09	313 24.8	+00.0	N 20 45.9	−00.4
10	328 24.8	+00.0	N 20 45.5	−00.5
11	343 24.8	−00.1	N 20 45.0	−00.4
12	358 24.7	+00.0	N 20 44.6	−00.5
13	13 24.7	−00.1	N 20 44.1	−00.5
14	28 24.6	+00.0	N 20 43.6	−00.4
15	43 24.6	+00.0	N 20 43.2	−00.5
16	58 24.6	−00.1	N 20 42.7	−00.5
17	73 24.5	+00.0	N 20 42.2	−00.4
18	88 24.5	−00.1	N 20 41.8	−00.5
19	103 24.4	+00.0	N 20 41.3	−00.5
20	118 24.4	+00.0	N 20 40.8	−00.4
21	133 24.4	−00.1	N 20 40.4	−00.5
22	148 24.3	+00.0	N 20 39.9	−00.5
23	163 24.3	+00.0	N 20 39.4	−00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	241°	241°	241°	241°	241°	240°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	221 56.9	−00.6	N 20 36.6	+00.4
01	236 56.3	−00.5	N 20 37.0	+00.4
02	251 55.8	−00.5	N 20 37.4	+00.4
03	266 55.3	−00.6	N 20 37.8	+00.4
04	281 54.7	−00.5	N 20 38.2	+00.4
05	296 54.2	−00.5	N 20 38.6	+00.4
06	311 53.7	−00.6	N 20 39.0	+00.4
07	326 53.1	−00.5	N 20 39.4	+00.3
08	341 52.6	−00.6	N 20 39.7	+00.4
09	356 52.0	−00.5	N 20 40.1	+00.4
10	11 51.5	−00.6	N 20 40.5	+00.4
11	26 50.9	−00.5	N 20 40.9	+00.4
12	41 50.4	−00.5	N 20 41.3	+00.3
13	56 49.9	−00.6	N 20 41.6	+00.4
14	71 49.3	−00.5	N 20 42.0	+00.4
15	86 48.8	−00.6	N 20 42.4	+00.4
16	101 48.2	−00.5	N 20 42.8	+00.4
17	116 47.7	−00.6	N 20 43.2	+00.3
18	131 47.1	−00.5	N 20 43.5	+00.4
19	146 46.6	−00.6	N 20 43.9	+00.4
20	161 46.0	−00.5	N 20 44.3	+00.3
21	176 45.5	−00.6	N 20 44.6	+00.4
22	191 44.9	−00.5	N 20 45.0	+00.4
23	206 44.4	−00.6	N 20 45.4	+00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	285°	285°	284°	284°	284°	284°

Greenwich Culmination Time: 09:12

Moon

A: 78%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	261 15.7	−32.3	N 18 21.1	+13.4
01	275 43.4	−32.4	N 18 34.5	+13.3
02	290 11.0	−32.6	N 18 47.8	+13.2
03	304 38.4	−32.6	N 19 01.0	+13.1
04	319 05.8	−32.7	N 19 14.1	+13.0
05	333 33.1	−32.9	N 19 27.1	+12.8
06	348 00.2	−32.9	N 19 39.9	+12.8
07	2 27.3	−33.1	N 19 52.7	+12.6
08	16 54.2	−33.1	N 20 05.3	+12.5
09	31 21.1	−33.3	N 20 17.8	+12.4
10	45 47.8	−33.3	N 20 30.2	+12.3
11	60 14.5	−33.5	N 20 42.5	+12.1
12	74 41.0	−33.5	N 20 54.6	+12.1
13	89 07.5	−33.7	N 21 06.7	+11.9
14	103 33.8	−33.8	N 21 18.6	+11.8
15	118 00.0	−33.9	N 21 30.4	+11.6
16	132 26.1	−34.0	N 21 42.0	+11.5
17	146 52.1	−34.1	N 21 53.5	+11.4
18	161 18.0	−34.2	N 22 04.9	+11.3
19	175 43.8	−34.3	N 22 16.2	+11.1
20	190 09.5	−34.4	N 22 27.3	+11.0
21	204 35.1	−34.5	N 22 38.3	+10.9
22	219 00.6	−34.6	N 22 49.2	+10.7
23	233 26.0	−34.7	N 22 59.9	+10.5

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	59′4	59′4	59′5	59′5	59′5	59′5
SHA	323°	321°	318°	316°	314°	311°

Greenwich Culmination Time: 06:49

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	127 24.9	+01.1	N 05 18.4	−00.6
01	142 26.0	+01.0	N 05 17.8	−00.6
02	157 27.0	+01.1	N 05 17.2	−00.6
03	172 28.1	+01.1	N 05 16.6	−00.6
04	187 29.2	+01.1	N 05 16.0	−00.6
05	202 30.3	+01.1	N 05 15.4	−00.7
06	217 31.4	+01.1	N 05 14.7	−00.6
07	232 32.5	+01.1	N 05 14.1	−00.6
08	247 33.6	+01.1	N 05 13.5	−00.6
09	262 34.7	+01.0	N 05 12.9	−00.6
10	277 35.7	+01.1	N 05 12.3	−00.7
11	292 36.8	+01.1	N 05 11.6	−00.6
12	307 37.9	+01.1	N 05 11.0	−00.6
13	322 39.0	+01.1	N 05 10.4	−00.6
14	337 40.1	+01.1	N 05 09.8	−00.6
15	352 41.2	+01.1	N 05 09.2	−00.6
16	7 42.3	+01.1	N 05 08.6	−00.7
17	22 43.4	+01.0	N 05 07.9	−00.6
18	37 44.4	+01.1	N 05 07.3	−00.6
19	52 45.5	+01.1	N 05 06.7	−00.6
20	67 46.6	+01.1	N 05 06.1	−00.6
21	82 47.7	+01.1	N 05 05.5	−00.7
22	97 48.8	+01.1	N 05 04.8	−00.6
23	112 49.9	+01.1	N 05 04.2	−00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	190°	190°	190°	190°	190°	190°

Greenwich Culmination Time: 15:29

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	197 23.6	+01.9	N 23 02.4	+00.0
01	212 25.5	+01.9	N 23 02.4	−00.1
02	227 27.4	+01.8	N 23 02.3	+00.0
03	242 29.2	+01.9	N 23 02.3	+00.0
04	257 31.1	+01.9	N 23 02.3	−00.1
05	272 33.0	+01.8	N 23 02.2	+00.0
06	287 34.8	+01.9	N 23 02.2	+00.0
07	302 36.7	+01.8	N 23 02.2	−00.1
08	317 38.5	+01.9	N 23 02.1	+00.0
09	332 40.4	+01.9	N 23 02.1	+00.0
10	347 42.3	+01.8	N 23 02.1	−00.1
11	2 44.1	+01.9	N 23 02.0	+00.0
12	17 46.0	+01.9	N 23 02.0	+00.0
13	32 47.9	+01.8	N 23 02.0	−00.1
14	47 49.7	+01.9	N 23 01.9	+00.0
15	62 51.6	+01.8	N 23 01.9	+00.0
16	77 53.4	+01.9	N 23 01.9	−00.1
17	92 55.3	+01.9	N 23 01.8	+00.0
18	107 57.2	+01.8	N 23 01.8	+00.0
19	122 59.0	+01.9	N 23 01.8	−00.1
20	138 00.9	+01.9	N 23 01.7	+00.0
21	153 02.8	+01.8	N 23 01.7	+00.0
22	168 04.6	+01.9	N 23 01.7	−00.1
23	183 06.5	+01.8	N 23 01.6	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	260°	260°	260°	260°	260°	260°

Greenwich Culmination Time: 10:49

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	294 22.4	+02.5	S 01 22.1	+00.1
01	309 24.9	+02.5	S 01 22.2	+00.0
02	324 27.4	+02.5	S 01 22.2	+00.0
03	339 29.9	+02.5	S 01 22.2	+00.0
04	354 32.4	+02.5	S 01 22.2	+00.0
05	9 34.9	+02.4	S 01 22.2	+00.1
06	24 37.3	+02.5	S 01 22.3	+00.0
07	39 39.8	+02.5	S 01 22.3	+00.0
08	54 42.3	+02.5	S 01 22.3	+00.0
09	69 44.8	+02.5	S 01 22.3	+00.0
10	84 47.3	+02.5	S 01 22.3	+00.1
11	99 49.8	+02.4	S 01 22.4	+00.0
12	114 52.2	+02.5	S 01 22.4	+00.0
13	129 54.7	+02.5	S 01 22.4	+00.0
14	144 57.2	+02.5	S 01 22.4	+00.0
15	159 59.7	+02.5	S 01 22.4	+00.1
16	175 02.2	+02.5	S 01 22.5	+00.0
17	190 04.7	+02.4	S 01 22.5	+00.0
18	205 07.1	+02.5	S 01 22.5	+00.0
19	220 09.6	+02.5	S 01 22.5	+00.1
20	235 12.1	+02.5	S 01 22.6	+00.0
21	250 14.6	+02.5	S 01 22.6	+00.0
22	265 17.1	+02.5	S 01 22.6	+00.0
23	280 19.6	+02.5	S 01 22.6	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:21

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2025 July 20 Sunday

(day 201 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 24.3	-00.1	N 20 39.0	-00.5
01	193 24.2	+00.0	N 20 38.5	-00.5
02	208 24.2	-00.1	N 20 38.0	-00.4
03	223 24.1	+00.0	N 20 37.6	-00.5
04	238 24.1	+00.0	N 20 37.1	-00.5
05	253 24.1	-00.1	N 20 36.6	-00.5
06	268 24.0	+00.0	N 20 36.1	-00.4
07	283 24.0	+00.0	N 20 35.7	-00.5
08	298 24.0	-00.1	N 20 35.2	-00.5
09	313 23.9	+00.0	N 20 34.7	-00.5
10	328 23.9	+00.0	N 20 34.2	-00.4
11	343 23.9	-00.1	N 20 33.8	-00.5
12	358 23.8	+00.0	N 20 33.3	-00.5
13	13 23.8	+00.0	N 20 32.8	-00.5
14	28 23.8	-00.1	N 20 32.3	-00.4
15	43 23.7	+00.0	N 20 31.9	-00.5
16	58 23.7	+00.0	N 20 31.4	-00.5
17	73 23.7	-00.1	N 20 30.9	-00.5
18	88 23.6	+00.0	N 20 30.4	-00.5
19	103 23.6	+00.0	N 20 29.9	-00.4
20	118 23.6	-00.1	N 20 29.5	-00.5
21	133 23.5	+00.0	N 20 29.0	-00.5
22	148 23.5	+00.0	N 20 28.5	-00.5
23	163 23.5	-00.1	N 20 28.0	-00.5

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	240°	240°	240°	240°	240°	239°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	221 43.8	-00.5	N 20 45.8	+00.3
01	236 43.3	-00.6	N 20 46.1	+00.4
02	251 42.7	-00.5	N 20 46.5	+00.4
03	266 42.2	-00.6	N 20 46.9	+00.3
04	281 41.6	-00.5	N 20 47.2	+00.4
05	296 41.1	-00.6	N 20 47.6	+00.4
06	311 40.5	-00.5	N 20 48.0	+00.3
07	326 40.0	-00.6	N 20 48.3	+00.4
08	341 39.4	-00.5	N 20 48.7	+00.4
09	356 38.9	-00.6	N 20 49.1	+00.3
10	11 38.3	-00.5	N 20 49.4	+00.4
11	26 37.8	-00.6	N 20 49.8	+00.3
12	41 37.2	-00.5	N 20 50.1	+00.4
13	56 36.7	-00.6	N 20 50.5	+00.4
14	71 36.1	-00.5	N 20 50.9	+00.3
15	86 35.6	-00.6	N 20 51.2	+00.4
16	101 35.0	-00.6	N 20 51.6	+00.3
17	116 34.4	-00.5	N 20 51.9	+00.4
18	131 33.9	-00.6	N 20 52.3	+00.3
19	146 33.3	-00.5	N 20 52.6	+00.4
20	161 32.8	-00.6	N 20 53.0	+00.3
21	176 32.2	-00.6	N 20 53.3	+00.4
22	191 31.6	-00.5	N 20 53.7	+00.3
23	206 31.1	-00.6	N 20 54.0	+00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	284°	283°	283°	283°	283°	283°

Greenwich Culmination Time: 09:13

Moon

A: 82%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	247 51.3	-34.8	N 23 10.4	+10.4
01	262 16.5	-35.0	N 23 20.8	+10.3
02	276 41.5	-35.0	N 23 31.1	+10.1
03	291 06.5	-35.1	N 23 41.2	+10.0
04	305 31.4	-35.2	N 23 51.2	+09.8
05	319 56.2	-35.4	N 24 01.0	+09.7
06	334 20.8	-35.4	N 24 10.7	+09.5
07	348 45.4	-35.5	N 24 20.2	+09.4
08	3 09.9	-35.6	N 24 29.6	+09.2
09	17 34.3	-35.8	N 24 38.8	+09.0
10	31 58.5	-35.8	N 24 47.8	+08.9
11	46 22.7	-35.9	N 24 56.7	+08.7
12	60 46.8	-36.0	N 25 05.4	+08.6
13	75 10.8	-36.1	N 25 14.0	+08.4
14	89 34.7	-36.2	N 25 22.4	+08.2
15	103 58.5	-36.3	N 25 30.6	+08.1
16	118 22.2	-36.3	N 25 38.7	+07.8
17	132 45.9	-36.5	N 25 46.5	+07.8
18	147 09.4	-36.5	N 25 54.3	+07.5
19	161 32.9	-36.6	N 26 01.8	+07.4
20	175 56.3	-36.8	N 26 09.2	+07.1
21	190 19.5	-36.7	N 26 16.3	+07.0
22	204 42.8	-36.9	N 26 23.3	+06.9
23	219 05.9	-36.9	N 26 30.2	+06.6

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	59′5	59′5	59′5	59′5	59′5	59′5
SHA	309°	306°	304°	301°	298°	296°

Greenwich Culmination Time: 07:46

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	127 51.0	+01.1	N 05 03.6	-00.6
01	142 52.1	+01.0	N 05 03.0	-00.6
02	157 53.1	+01.1	N 05 02.4	-00.7
03	172 54.2	+01.1	N 05 01.7	-00.6
04	187 55.3	+01.1	N 05 01.1	-00.6
05	202 56.4	+01.1	N 05 00.5	-00.6
06	217 57.5	+01.1	N 04 59.9	-00.6
07	232 58.6	+01.1	N 04 59.3	-00.7
08	247 59.7	+01.0	N 04 58.6	-00.6
09	263 00.7	+01.1	N 04 58.0	-00.6
10	278 01.8	+01.1	N 04 57.4	-00.6
11	293 02.9	+01.1	N 04 56.8	-00.6
12	308 04.0	+01.1	N 04 56.2	-00.7
13	323 05.1	+01.1	N 04 55.5	-00.6
14	338 06.2	+01.1	N 04 54.9	-00.6
15	353 07.3	+01.0	N 04 54.3	-00.6
16	8 08.3	+01.1	N 04 53.7	-00.6
17	23 09.4	+01.1	N 04 53.1	-00.7
18	38 10.5	+01.1	N 04 52.4	-00.6
19	53 11.6	+01.1	N 04 51.8	-00.6
20	68 12.7	+01.1	N 04 51.2	-00.6
21	83 13.8	+01.1	N 04 50.6	-00.6
22	98 14.9	+01.0	N 04 50.0	-00.7
23	113 15.9	+01.1	N 04 49.3	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	190°	190°	190°	189°	189°	189°

Greenwich Culmination Time: 15:27

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	198 08.3	+01.9	N 23 01.6	+00.0
01	213 10.2	+01.9	N 23 01.6	-00.1
02	228 12.1	+01.8	N 23 01.5	+00.0
03	243 13.9	+01.9	N 23 01.5	+00.0
04	258 15.8	+01.9	N 23 01.5	-00.1
05	273 17.7	+01.8	N 23 01.4	+00.0
06	288 19.5	+01.9	N 23 01.4	+00.0
07	303 21.4	+01.9	N 23 01.4	-00.1
08	318 23.3	+01.8	N 23 01.3	+00.0
09	333 25.1	+01.9	N 23 01.3	+00.0
10	348 27.0	+01.8	N 23 01.3	-00.1
11	3 28.8	+01.9	N 23 01.2	+00.0
12	18 30.7	+01.9	N 23 01.2	+00.0
13	33 32.6	+01.8	N 23 01.2	-00.1
14	48 34.4	+01.9	N 23 01.1	+00.0
15	63 36.3	+01.9	N 23 01.1	+00.0
16	78 38.2	+01.8	N 23 01.1	-00.1
17	93 40.0	+01.9	N 23 01.0	+00.0
18	108 41.9	+01.9	N 23 01.0	+00.0
19	123 43.8	+01.8	N 23 01.0	-00.1
20	138 45.6	+01.9	N 23 00.9	+00.0
21	153 47.5	+01.9	N 23 00.9	-00.1
22	168 49.4	+01.8	N 23 00.8	+00.0
23	183 51.2	+01.9	N 23 00.8	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	260°	260°	260°	260°	260°	260°

Greenwich Culmination Time: 10:46

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	295 22.1	+02.4	S 01 22.6	+00.1
01	310 24.5	+02.5	S 01 22.7	+00.0
02	325 27.0	+02.5	S 01 22.7	+00.0
03	340 29.5	+02.5	S 01 22.7	+00.0
04	355 32.0	+02.5	S 01 22.7	+00.0
05	10 34.5	+02.5	S 01 22.7	+00.1
06	25 37.0	+02.5	S 01 22.8	+00.0
07	40 39.5	+02.5	S 01 22.8	+00.0
08	55 42.0	+02.4	S 01 22.8	+00.0
09	70 44.4	+02.5	S 01 22.8	+00.1
10	85 46.9	+02.5	S 01 22.9	+00.0
11	100 49.4	+02.5	S 01 22.9	+00.0
12	115 51.9	+02.5	S 01 22.9	+00.0
13	130 54.4	+02.5	S 01 22.9	+00.0
14	145 56.9	+02.5	S 01 22.9	+00.1
15	160 59.4	+02.5	S 01 23.0	+00.0
16	176 01.9	+02.4	S 01 23.0	+00.0
17	191 04.3	+02.5	S 01 23.0	+00.0
18	206 06.8	+02.5	S 01 23.0	+00.1
19	221 09.3	+02.5	S 01 23.1	+00.0
20	236 11.8	+02.5	S 01 23.1	+00.0
21	251 14.3	+02.5	S 01 23.1	+00.0
22	266 16.8	+02.5	S 01 23.1	+00.1
23	281 19.3	+02.5	S 01 23.2	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:17

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2025 July 21 Monday

(day 202 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 23.4	+00.0	N 20 27.5	-00.5
01	193 23.4	+00.0	N 20 27.0	-00.4
02	208 23.4	+00.0	N 20 26.6	-00.5
03	223 23.4	-00.1	N 20 26.1	-00.5
04	238 23.3	+00.0	N 20 25.6	-00.5
05	253 23.3	+00.0	N 20 25.1	-00.5
06	268 23.3	-00.1	N 20 24.6	-00.5
07	283 23.2	+00.0	N 20 24.1	-00.5
08	298 23.2	+00.0	N 20 23.6	-00.4
09	313 23.2	-00.1	N 20 23.2	-00.5
10	328 23.1	+00.0	N 20 22.7	-00.5
11	343 23.1	+00.0	N 20 22.2	-00.5
12	358 23.1	+00.0	N 20 21.7	-00.5
13	13 23.1	-00.1	N 20 21.2	-00.5
14	28 23.0	+00.0	N 20 20.7	-00.5
15	43 23.0	+00.0	N 20 20.2	-00.5
16	58 23.0	+00.0	N 20 19.7	-00.5
17	73 23.0	-00.1	N 20 19.2	-00.5
18	88 22.9	+00.0	N 20 18.7	-00.5
19	103 22.9	+00.0	N 20 18.2	-00.5
20	118 22.9	-00.1	N 20 17.7	-00.5
21	133 22.8	+00.0	N 20 17.2	-00.5
22	148 22.8	+00.0	N 20 16.7	-00.5
23	163 22.8	+00.0	N 20 16.2	-00.4

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	239°	239°	239°	239°	239°	238°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	221 30.5	-00.5	N 20 54.4	+00.3
01	236 30.0	-00.6	N 20 54.7	+00.4
02	251 29.4	-00.6	N 20 55.1	+00.3
03	266 28.8	-00.5	N 20 55.4	+00.4
04	281 28.3	-00.6	N 20 55.8	+00.3
05	296 27.7	-00.5	N 20 56.1	+00.4
06	311 27.2	-00.6	N 20 56.5	+00.3
07	326 26.6	-00.6	N 20 56.8	+00.4
08	341 26.0	-00.5	N 20 57.2	+00.3
09	356 25.5	-00.6	N 20 57.5	+00.3
10	11 24.9	-00.6	N 20 57.8	+00.4
11	26 24.3	-00.5	N 20 58.2	+00.3
12	41 23.8	-00.6	N 20 58.5	+00.4
13	56 23.2	-00.6	N 20 58.9	+00.3
14	71 22.6	-00.5	N 20 59.2	+00.3
15	86 22.1	-00.6	N 20 59.5	+00.4
16	101 21.5	-00.6	N 20 59.9	+00.3
17	116 20.9	-00.5	N 21 00.2	+00.3
18	131 20.4	-00.6	N 21 00.5	+00.4
19	146 19.8	-00.6	N 21 00.9	+00.3
20	161 19.2	-00.5	N 21 01.2	+00.3
21	176 18.7	-00.6	N 21 01.5	+00.4
22	191 18.1	-00.6	N 21 01.9	+00.3
23	206 17.5	-00.6	N 21 02.2	+00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	282°	282°	282°	282°	282°	281°

Greenwich Culmination Time: 09:14

Moon

A: 86%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	233 29.0	-37.1	N 26 36.8	+06.5
01	247 51.9	-37.0	N 26 43.3	+06.3
02	262 14.9	-37.2	N 26 49.6	+06.1
03	276 37.7	-37.2	N 26 55.7	+05.9
04	291 00.5	-37.3	N 27 01.6	+05.7
05	305 23.2	-37.4	N 27 07.3	+05.6
06	319 45.8	-37.4	N 27 12.9	+05.3
07	334 08.4	-37.5	N 27 18.2	+05.2
08	348 30.9	-37.5	N 27 23.4	+04.9
09	2 53.4	-37.6	N 27 28.3	+04.8
10	17 15.8	-37.7	N 27 33.1	+04.6
11	31 38.1	-37.7	N 27 37.7	+04.4
12	46 00.4	-37.7	N 27 42.1	+04.2
13	60 22.7	-37.8	N 27 46.3	+04.0
14	74 44.9	-37.9	N 27 50.3	+03.8
15	89 07.0	-37.8	N 27 54.1	+03.6
16	103 29.2	-38.0	N 27 57.7	+03.5
17	117 51.2	-37.9	N 28 01.2	+03.2
18	132 13.3	-38.0	N 28 04.4	+03.0
19	146 35.3	-38.0	N 28 07.4	+02.8
20	160 57.3	-38.1	N 28 10.2	+02.6
21	175 19.2	-38.0	N 28 12.8	+02.5
22	189 41.2	-38.1	N 28 15.3	+02.2
23	204 03.1	-38.1	N 28 17.5	+02.0

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	59′5	59′5	59′5	59′5	59′5	59′4
SHA	293°	291°	288°	285°	282°	280°

Greenwich Culmination Time: 08:47

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	128 17.0	+01.1	N 04 48.7	-00.6
01	143 18.1	+01.1	N 04 48.1	-00.6
02	158 19.2	+01.1	N 04 47.5	-00.6
03	173 20.3	+01.1	N 04 46.9	-00.7
04	188 21.4	+01.0	N 04 46.2	-00.6
05	203 22.4	+01.1	N 04 45.6	-00.6
06	218 23.5	+01.1	N 04 45.0	-00.6
07	233 24.6	+01.1	N 04 44.4	-00.7
08	248 25.7	+01.1	N 04 43.7	-00.6
09	263 26.8	+01.1	N 04 43.1	-00.6
10	278 27.9	+01.1	N 04 42.5	-00.6
11	293 29.0	+01.0	N 04 41.9	-00.6
12	308 30.0	+01.1	N 04 41.3	-00.7
13	323 31.1	+01.1	N 04 40.6	-00.6
14	338 32.2	+01.1	N 04 40.0	-00.6
15	353 33.3	+01.1	N 04 39.4	-00.6
16	8 34.4	+01.1	N 04 38.8	-00.7
17	23 35.5	+01.0	N 04 38.1	-00.6
18	38 36.5	+01.1	N 04 37.5	-00.6
19	53 37.6	+01.1	N 04 36.9	-00.6
20	68 38.7	+01.1	N 04 36.3	-00.6
21	83 39.8	+01.1	N 04 35.7	-00.7
22	98 40.9	+01.1	N 04 35.0	-00.6
23	113 42.0	+01.0	N 04 34.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	189°	189°	189°	189°	189°	189°

Greenwich Culmination Time: 15:25

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	198 53.1	+01.8	N 23 00.8	-00.1
01	213 54.9	+01.9	N 23 00.7	+00.0
02	228 56.8	+01.9	N 23 00.7	+00.0
03	243 58.7	+01.8	N 23 00.7	-00.1
04	259 00.5	+01.9	N 23 00.6	+00.0
05	274 02.4	+01.9	N 23 00.6	+00.0
06	289 04.3	+01.8	N 23 00.6	-00.1
07	304 06.1	+01.9	N 23 00.5	+00.0
08	319 08.0	+01.9	N 23 00.5	+00.0
09	334 09.9	+01.8	N 23 00.5	-00.1
10	349 11.7	+01.9	N 23 00.4	+00.0
11	4 13.6	+01.9	N 23 00.4	+00.0
12	19 15.5	+01.8	N 23 00.4	-00.1
13	34 17.3	+01.9	N 23 00.3	+00.0
14	49 19.2	+01.9	N 23 00.3	-00.1
15	64 21.1	+01.8	N 23 00.2	+00.0
16	79 22.9	+01.9	N 23 00.2	+00.0
17	94 24.8	+01.9	N 23 00.2	-00.1
18	109 26.7	+01.8	N 23 00.1	+00.0
19	124 28.5	+01.9	N 23 00.1	+00.0
20	139 30.4	+01.9	N 23 00.1	-00.1
21	154 32.3	+01.8	N 23 00.0	+00.0
22	169 34.1	+01.9	N 23 00.0	+00.0
23	184 36.0	+01.9	N 22 60.0	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	260°	260°	260°	260°	260°	260°

Greenwich Culmination Time: 10:43

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	296 21.8	+02.5	S 01 23.2	+00.0
01	311 24.3	+02.4	S 01 23.2	+00.0
02	326 26.7	+02.5	S 01 23.2	+00.0
03	341 29.2	+02.5	S 01 23.2	+00.1
04	356 31.7	+02.5	S 01 23.3	+00.0
05	11 34.2	+02.5	S 01 23.3	+00.0
06	26 36.7	+02.5	S 01 23.3	+00.0
07	41 39.2	+02.5	S 01 23.3	+00.1
08	56 41.7	+02.5	S 01 23.4	+00.0
09	71 44.2	+02.5	S 01 23.4	+00.0
10	86 46.7	+02.5	S 01 23.4	+00.0
11	101 49.2	+02.5	S 01 23.4	+00.1
12	116 51.7	+02.5	S 01 23.5	+00.0
13	131 54.2	+02.4	S 01 23.5	+00.0
14	146 56.6	+02.5	S 01 23.5	+00.0
15	161 59.1	+02.5	S 01 23.5	+00.1
16	177 01.6	+02.5	S 01 23.6	+00.0
17	192 04.1	+02.5	S 01 23.6	+00.0
18	207 06.6	+02.5	S 01 23.6	+00.0
19	222 09.1	+02.5	S 01 23.6	+00.1
20	237 11.6	+02.5	S 01 23.7	+00.0
21	252 14.1	+02.5	S 01 23.7	+00.0
22	267 16.6	+02.5	S 01 23.7	+00.0
23	282 19.1	+02.5	S 01 23.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:13

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 22 Tuesday

(day 203 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 22.8	-00.1	N 20 15.8	-00.5
01	193 22.7	+00.0	N 20 15.3	-00.5
02	208 22.7	+00.0	N 20 14.8	-00.5
03	223 22.7	+00.0	N 20 14.3	-00.5
04	238 22.7	-00.1	N 20 13.8	-00.5
05	253 22.6	+00.0	N 20 13.3	-00.5
06	268 22.6	+00.0	N 20 12.8	-00.5
07	283 22.6	+00.0	N 20 12.3	-00.6
08	298 22.6	+00.0	N 20 11.7	-00.5
09	313 22.6	-00.1	N 20 11.2	-00.5
10	328 22.5	+00.0	N 20 10.7	-00.5
11	343 22.5	+00.0	N 20 10.2	-00.5
12	358 22.5	+00.0	N 20 09.7	-00.5
13	13 22.5	-00.1	N 20 09.2	-00.5
14	28 22.4	+00.0	N 20 08.7	-00.5
15	43 22.4	+00.0	N 20 08.2	-00.5
16	58 22.4	+00.0	N 20 07.7	-00.5
17	73 22.4	+00.0	N 20 07.2	-00.5
18	88 22.4	-00.1	N 20 06.7	-00.5
19	103 22.3	+00.0	N 20 06.2	-00.5
20	118 22.3	+00.0	N 20 05.7	-00.5
21	133 22.3	+00.0	N 20 05.2	-00.5
22	148 22.3	+00.0	N 20 04.7	-00.6
23	163 22.3	-00.1	N 20 04.1	-00.5

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	238°	238°	238°	238°	238°	237°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	221 16.9	-00.5	N 21 02.5	+00.4
01	236 16.4	-00.6	N 21 02.9	+00.3
02	251 15.8	-00.6	N 21 03.2	+00.3
03	266 15.2	-00.5	N 21 03.5	+00.3
04	281 14.7	-00.6	N 21 03.8	+00.4
05	296 14.1	-00.6	N 21 04.2	+00.3
06	311 13.5	-00.6	N 21 04.5	+00.3
07	326 12.9	-00.5	N 21 04.8	+00.3
08	341 12.4	-00.6	N 21 05.1	+00.4
09	356 11.8	-00.6	N 21 05.5	+00.3
10	11 11.2	-00.6	N 21 05.8	+00.3
11	26 10.6	-00.5	N 21 06.1	+00.3
12	41 10.1	-00.6	N 21 06.4	+00.3
13	56 09.5	-00.6	N 21 06.7	+00.4
14	71 08.9	-00.6	N 21 07.1	+00.3
15	86 08.3	-00.5	N 21 07.4	+00.3
16	101 07.8	-00.6	N 21 07.7	+00.3
17	116 07.2	-00.6	N 21 08.0	+00.3
18	131 06.6	-00.6	N 21 08.3	+00.3
19	146 06.0	-00.6	N 21 08.6	+00.3
20	161 05.4	-00.5	N 21 08.9	+00.4
21	176 04.9	-00.6	N 21 09.3	+00.3
22	191 04.3	-00.6	N 21 09.6	+00.3
23	206 03.7	-00.6	N 21 09.9	+00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	281°	281°	281°	281°	280°	280°

Greenwich Culmination Time: 09:15

Moon

A: 90%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	218 25.0	-38.1	N 28 19.5	+01.8
01	232 46.9	-38.2	N 28 21.3	+01.7
02	247 08.7	-38.1	N 28 23.0	+01.4
03	261 30.6	-38.2	N 28 24.4	+01.2
04	275 52.4	-38.1	N 28 25.6	+01.0
05	290 14.3	-38.2	N 28 26.6	+00.8
06	304 36.1	-38.1	N 28 27.4	+00.6
07	318 58.0	-38.2	N 28 28.0	+00.5
08	333 19.8	-38.1	N 28 28.5	+00.2
09	347 41.7	-38.1	N 28 28.7	+00.0
10	2 03.6	-38.1	N 28 28.7	-00.2
11	16 25.5	-38.1	N 28 28.5	-00.4
12	30 47.4	-38.1	N 28 28.1	-00.6
13	45 09.3	-38.1	N 28 27.5	-00.8
14	59 31.2	-38.0	N 28 26.7	-01.0
15	73 53.2	-38.0	N 28 25.7	-01.2
16	88 15.2	-37.9	N 28 24.5	-01.4
17	102 37.3	-38.0	N 28 23.1	-01.6
18	116 59.3	-37.9	N 28 21.5	-01.7
19	131 21.4	-37.8	N 28 19.8	-02.0
20	145 43.6	-37.8	N 28 17.8	-02.2
21	160 05.8	-37.8	N 28 15.6	-02.4
22	174 28.0	-37.7	N 28 13.2	-02.6
23	188 50.3	-37.7	N 28 10.6	-02.7

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′1	16′1	16′1
HP	59′4	59′3	59′3	59′3	59′2	59′2
SHA	277°	274°	272°	269°	266°	264°

Greenwich Culmination Time: 09:51

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	128 43.0	+01.1	N 04 33.8	-00.6
01	143 44.1	+01.1	N 04 33.2	-00.7
02	158 45.2	+01.1	N 04 32.5	-00.6
03	173 46.3	+01.1	N 04 31.9	-00.6
04	188 47.4	+01.0	N 04 31.3	-00.6
05	203 48.4	+01.1	N 04 30.7	-00.7
06	218 49.5	+01.1	N 04 30.0	-00.6
07	233 50.6	+01.1	N 04 29.4	-00.6
08	248 51.7	+01.1	N 04 28.8	-00.6
09	263 52.8	+01.1	N 04 28.2	-00.6
10	278 53.9	+01.0	N 04 27.6	-00.7
11	293 54.9	+01.1	N 04 26.9	-00.6
12	308 56.0	+01.1	N 04 26.3	-00.6
13	323 57.1	+01.1	N 04 25.7	-00.6
14	338 58.2	+01.1	N 04 25.1	-00.7
15	353 59.3	+01.0	N 04 24.4	-00.6
16	9 00.3	+01.1	N 04 23.8	-00.6
17	24 01.4	+01.1	N 04 23.2	-00.6
18	39 02.5	+01.1	N 04 22.6	-00.7
19	54 03.6	+01.1	N 04 21.9	-00.6
20	69 04.7	+01.1	N 04 21.3	-00.6
21	84 05.8	+01.0	N 04 20.7	-00.6
22	99 06.8	+01.1	N 04 20.1	-00.7
23	114 07.9	+01.1	N 04 19.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	189°	189°	188°	188°	188°	188°

Greenwich Culmination Time: 15:24

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	199 37.9	+01.8	N 22 59.9	+00.0
01	214 39.7	+01.9	N 22 59.9	+00.0
02	229 41.6	+01.9	N 22 59.9	-00.1
03	244 43.5	+01.8	N 22 59.8	+00.0
04	259 45.3	+01.9	N 22 59.8	+00.0
05	274 47.2	+01.9	N 22 59.8	-00.1
06	289 49.1	+01.8	N 22 59.7	+00.0
07	304 50.9	+01.9	N 22 59.7	-00.1
08	319 52.8	+01.9	N 22 59.6	+00.0
09	334 54.7	+01.8	N 22 59.6	+00.0
10	349 56.5	+01.9	N 22 59.6	-00.1
11	4 58.4	+01.9	N 22 59.5	+00.0
12	20 00.3	+01.8	N 22 59.5	+00.0
13	35 02.1	+01.9	N 22 59.5	-00.1
14	50 04.0	+01.9	N 22 59.4	+00.0
15	65 05.9	+01.8	N 22 59.4	+00.0
16	80 07.7	+01.9	N 22 59.4	-00.1
17	95 09.6	+01.9	N 22 59.3	+00.0
18	110 11.5	+01.8	N 22 59.3	-00.1
19	125 13.3	+01.9	N 22 59.2	+00.0
20	140 15.2	+01.9	N 22 59.2	+00.0
21	155 17.1	+01.8	N 22 59.2	-00.1
22	170 18.9	+01.9	N 22 59.1	+00.0
23	185 20.8	+01.9	N 22 59.1	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	260°	260°	260°	259°	259°	259°

Greenwich Culmination Time: 10:40

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	297 21.6	+02.5	S 01 23.8	+00.0
01	312 24.1	+02.5	S 01 23.8	+00.0
02	327 26.6	+02.5	S 01 23.8	+00.0
03	342 29.1	+02.4	S 01 23.8	+00.1
04	357 31.5	+02.5	S 01 23.9	+00.0
05	12 34.0	+02.5	S 01 23.9	+00.0
06	27 36.5	+02.5	S 01 23.9	+00.0
07	42 39.0	+02.5	S 01 23.9	+00.1
08	57 41.5	+02.5	S 01 24.0	+00.0
09	72 44.0	+02.5	S 01 24.0	+00.0
10	87 46.5	+02.5	S 01 24.0	+00.0
11	102 49.0	+02.5	S 01 24.0	+00.1
12	117 51.5	+02.5	S 01 24.1	+00.0
13	132 54.0	+02.5	S 01 24.1	+00.0
14	147 56.5	+02.5	S 01 24.1	+00.0
15	162 59.0	+02.5	S 01 24.1	+00.1
16	178 01.5	+02.5	S 01 24.2	+00.0
17	193 04.0	+02.5	S 01 24.2	+00.0
18	208 06.5	+02.5	S 01 24.2	+00.0
19	223 09.0	+02.5	S 01 24.2	+00.1
20	238 11.5	+02.5	S 01 24.3	+00.0
21	253 14.0	+02.5	S 01 24.3	+00.0
22	268 16.5	+02.5	S 01 24.3	+00.0
23	283 19.0	+02.5	S 01 24.3	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:09

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2025 July 23 Wednesday (day 204 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 22.2	+00.0	N 20 03.6	-00.5
01	193 22.2	+00.0	N 20 03.1	-00.5
02	208 22.2	+00.0	N 20 02.6	-00.5
03	223 22.2	+00.0	N 20 02.1	-00.5
04	238 22.2	-00.1	N 20 01.6	-00.5
05	253 22.1	+00.0	N 20 01.1	-00.6
06	268 22.1	+00.0	N 20 00.5	-00.5
07	283 22.1	+00.0	N 20 00.0	-00.5
08	298 22.1	+00.0	N 19 59.5	-00.5
09	313 22.1	+00.0	N 19 59.0	-00.5
10	328 22.1	-00.1	N 19 58.5	-00.5
11	343 22.0	+00.0	N 19 58.0	-00.6
12	358 22.0	+00.0	N 19 57.4	-00.5
13	13 22.0	+00.0	N 19 56.9	-00.5
14	28 22.0	+00.0	N 19 56.4	-00.5
15	43 22.0	+00.0	N 19 55.9	-00.5
16	58 22.0	-00.1	N 19 55.4	-00.6
17	73 21.9	+00.0	N 19 54.8	-00.5
18	88 21.9	+00.0	N 19 54.3	-00.5
19	103 21.9	+00.0	N 19 53.8	-00.5
20	118 21.9	+00.0	N 19 53.3	-00.6
21	133 21.9	+00.0	N 19 52.7	-00.5
22	148 21.9	+00.0	N 19 52.2	-00.5
23	163 21.9	+00.0	N 19 51.7	-00.5

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	237°	237°	237°	237°	237°	236°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	221 03.1	-00.6	N 21 10.2	+00.3
01	236 02.5	-00.5	N 21 10.5	+00.3
02	251 02.0	-00.6	N 21 10.8	+00.3
03	266 01.4	-00.6	N 21 11.1	+00.3
04	281 00.8	-00.6	N 21 11.4	+00.3
05	296 00.2	-00.6	N 21 11.7	+00.3
06	310 59.6	-00.6	N 21 12.0	+00.3
07	325 59.0	-00.5	N 21 12.3	+00.3
08	340 58.5	-00.6	N 21 12.6	+00.3
09	355 57.9	-00.6	N 21 12.9	+00.3
10	10 57.3	-00.6	N 21 13.2	+00.3
11	25 56.7	-00.6	N 21 13.5	+00.3
12	40 56.1	-00.6	N 21 13.8	+00.3
13	55 55.5	-00.6	N 21 14.1	+00.3
14	70 54.9	-00.5	N 21 14.4	+00.3
15	85 54.4	-00.6	N 21 14.7	+00.3
16	100 53.8	-00.6	N 21 15.0	+00.3
17	115 53.2	-00.6	N 21 15.3	+00.3
18	130 52.6	-00.6	N 21 15.6	+00.3
19	145 52.0	-00.6	N 21 15.9	+00.3
20	160 51.4	-00.6	N 21 16.2	+00.2
21	175 50.8	-00.6	N 21 16.4	+00.3
22	190 50.2	-00.6	N 21 16.7	+00.3
23	205 49.6	-00.5	N 21 17.0	+00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	280°	280°	280°	279°	279°	279°

Greenwich Culmination Time: 09:16

Moon

A: 95%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	203 12.6	-37.6	N 28 07.9	-03.0
01	217 35.0	-37.5	N 28 04.9	-03.1
02	231 57.5	-37.5	N 28 01.8	-03.4
03	246 20.0	-37.5	N 27 58.4	-03.5
04	260 42.5	-37.3	N 27 54.9	-03.7
05	275 05.2	-37.3	N 27 51.2	-04.0
06	289 27.9	-37.3	N 27 47.2	-04.1
07	303 50.6	-37.1	N 27 43.1	-04.2
08	318 13.5	-37.1	N 27 38.9	-04.5
09	332 36.4	-37.0	N 27 34.4	-04.7
10	346 59.4	-36.9	N 27 29.7	-04.8
11	1 22.5	-36.9	N 27 24.9	-05.0
12	15 45.6	-36.8	N 27 19.9	-05.2
13	30 08.8	-36.6	N 27 14.7	-05.4
14	44 32.2	-36.6	N 27 09.3	-05.6
15	58 55.6	-36.5	N 27 03.7	-05.7
16	73 19.1	-36.5	N 26 58.0	-05.9
17	87 42.6	-36.3	N 26 52.1	-06.1
18	102 06.3	-36.2	N 26 46.0	-06.3
19	116 30.1	-36.1	N 26 39.7	-06.4
20	130 54.0	-36.1	N 26 33.3	-06.6
21	145 17.9	-35.9	N 26 26.7	-06.7
22	159 42.0	-35.8	N 26 20.0	-07.0
23	174 06.2	-35.7	N 26 13.0	-07.1

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′0	16′0	16′0
HP	59′1	59′0	59′0	58′9	58′8	58′7
SHA	261°	258°	256°	253°	250°	248°

Greenwich Culmination Time: 10:54

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	129 09.0	+01.1	N 04 18.8	-00.6
01	144 10.1	+01.1	N 04 18.2	-00.6
02	159 11.2	+01.0	N 04 17.6	-00.7
03	174 12.2	+01.1	N 04 16.9	-00.6
04	189 13.3	+01.1	N 04 16.3	-00.6
05	204 14.4	+01.1	N 04 15.7	-00.6
06	219 15.5	+01.1	N 04 15.1	-00.7
07	234 16.6	+01.0	N 04 14.4	-00.6
08	249 17.6	+01.1	N 04 13.8	-00.6
09	264 18.7	+01.1	N 04 13.2	-00.6
10	279 19.8	+01.1	N 04 12.6	-00.7
11	294 20.9	+01.1	N 04 11.9	-00.6
12	309 22.0	+01.0	N 04 11.3	-00.6
13	324 23.0	+01.1	N 04 10.7	-00.7
14	339 24.1	+01.1	N 04 10.0	-00.6
15	354 25.2	+01.1	N 04 09.4	-00.6
16	9 26.3	+01.1	N 04 08.8	-00.6
17	24 27.4	+01.0	N 04 08.2	-00.7
18	39 28.4	+01.1	N 04 07.5	-00.6
19	54 29.5	+01.1	N 04 06.9	-00.6
20	69 30.6	+01.1	N 04 06.3	-00.6
21	84 31.7	+01.1	N 04 05.7	-00.7
22	99 32.8	+01.0	N 04 05.0	-00.6
23	114 33.8	+01.1	N 04 04.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	188°	188°	188°	188°	188°	188°

Greenwich Culmination Time: 15:22

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	200 22.7	+01.8	N 22 59.1	-00.1
01	215 24.5	+01.9	N 22 59.0	+00.0
02	230 26.4	+01.9	N 22 59.0	+00.0
03	245 28.3	+01.8	N 22 59.0	-00.1
04	260 30.1	+01.9	N 22 58.9	+00.0
05	275 32.0	+01.9	N 22 58.9	-00.1
06	290 33.9	+01.8	N 22 58.8	+00.0
07	305 35.7	+01.9	N 22 58.8	+00.0
08	320 37.6	+01.9	N 22 58.8	-00.1
09	335 39.5	+01.8	N 22 58.7	+00.0
10	350 41.3	+01.9	N 22 58.7	+00.0
11	5 43.2	+01.9	N 22 58.7	-00.1
12	20 45.1	+01.9	N 22 58.6	+00.0
13	35 47.0	+01.8	N 22 58.6	+00.0
14	50 48.8	+01.9	N 22 58.6	-00.1
15	65 50.7	+01.9	N 22 58.5	+00.0
16	80 52.6	+01.8	N 22 58.5	-00.1
17	95 54.4	+01.9	N 22 58.4	+00.0
18	110 56.3	+01.9	N 22 58.4	+00.0
19	125 58.2	+01.8	N 22 58.4	-00.1
20	141 00.0	+01.9	N 22 58.3	+00.0
21	156 01.9	+01.9	N 22 58.3	+00.0
22	171 03.8	+01.8	N 22 58.3	-00.1
23	186 05.6	+01.9	N 22 58.2	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	259°	259°	259°	259°	259°	259°

Greenwich Culmination Time: 10:37

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	298 21.5	+02.5	S 01 24.4	+00.0
01	313 24.0	+02.5	S 01 24.4	+00.0
02	328 26.5	+02.5	S 01 24.4	+00.0
03	343 29.0	+02.5	S 01 24.4	+00.1
04	358 31.5	+02.5	S 01 24.5	+00.0
05	13 34.0	+02.5	S 01 24.5	+00.0
06	28 36.5	+02.5	S 01 24.5	+00.1
07	43 39.0	+02.5	S 01 24.6	+00.0
08	58 41.5	+02.5	S 01 24.6	+00.0
09	73 44.0	+02.4	S 01 24.6	+00.0
10	88 46.4	+02.5	S 01 24.6	+00.1
11	103 48.9	+02.5	S 01 24.7	+00.0
12	118 51.4	+02.5	S 01 24.7	+00.0
13	133 53.9	+02.5	S 01 24.7	+00.0
14	148 56.4	+02.5	S 01 24.7	+00.1
15	163 58.9	+02.5	S 01 24.8	+00.0
16	179 01.4	+02.5	S 01 24.8	+00.0
17	194 03.9	+02.5	S 01 24.8	+00.1
18	209 06.4	+02.5	S 01 24.9	+00.0
19	224 08.9	+02.5	S 01 24.9	+00.0
20	239 11.4	+02.5	S 01 24.9	+00.0
21	254 13.9	+02.6	S 01 24.9	+00.1
22	269 16.5	+02.5	S 01 25.0	+00.0
23	284 19.0	+02.5	S 01 25.0	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:05

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 July 24 Thursday

(day 205 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 21.9	-00.1	N 19 51.2	-00.6
01	193 21.8	+00.0	N 19 50.6	-00.5
02	208 21.8	+00.0	N 19 50.1	-00.5
03	223 21.8	+00.0	N 19 49.6	-00.5
04	238 21.8	+00.0	N 19 49.1	-00.6
05	253 21.8	+00.0	N 19 48.5	-00.5
06	268 21.8	+00.0	N 19 48.0	-00.5
07	283 21.8	+00.0	N 19 47.5	-00.6
08	298 21.8	-00.1	N 19 46.9	-00.5
09	313 21.7	+00.0	N 19 46.4	-00.5
10	328 21.7	+00.0	N 19 45.9	-00.5
11	343 21.7	+00.0	N 19 45.4	-00.6
12	358 21.7	+00.0	N 19 44.8	-00.5
13	13 21.7	+00.0	N 19 44.3	-00.5
14	28 21.7	+00.0	N 19 43.8	-00.6
15	43 21.7	+00.0	N 19 43.2	-00.5
16	58 21.7	+00.0	N 19 42.7	-00.5
17	73 21.7	+00.0	N 19 42.2	-00.6
18	88 21.7	-00.1	N 19 41.6	-00.5
19	103 21.6	+00.0	N 19 41.1	-00.6
20	118 21.6	+00.0	N 19 40.5	-00.5
21	133 21.6	+00.0	N 19 40.0	-00.5
22	148 21.6	+00.0	N 19 39.5	-00.6
23	163 21.6	+00.0	N 19 38.9	-00.5

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	236°	236°	236°	236°	236°	235°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	220 49.1	-00.6	N 21 17.3	+00.3
01	235 48.5	-00.6	N 21 17.6	+00.3
02	250 47.9	-00.6	N 21 17.9	+00.3
03	265 47.3	-00.6	N 21 18.2	+00.3
04	280 46.7	-00.6	N 21 18.5	+00.2
05	295 46.1	-00.6	N 21 18.7	+00.3
06	310 45.5	-00.6	N 21 19.0	+00.3
07	325 44.9	-00.6	N 21 19.3	+00.3
08	340 44.3	-00.6	N 21 19.6	+00.3
09	355 43.7	-00.6	N 21 19.9	+00.2
10	10 43.1	-00.6	N 21 20.1	+00.3
11	25 42.5	-00.6	N 21 20.4	+00.3
12	40 41.9	-00.6	N 21 20.7	+00.3
13	55 41.3	-00.6	N 21 21.0	+00.2
14	70 40.7	-00.6	N 21 21.2	+00.3
15	85 40.1	-00.6	N 21 21.5	+00.3
16	100 39.5	-00.6	N 21 21.8	+00.3
17	115 38.9	-00.6	N 21 22.1	+00.2
18	130 38.3	-00.6	N 21 22.3	+00.3
19	145 37.7	-00.6	N 21 22.6	+00.3
20	160 37.1	-00.5	N 21 22.9	+00.2
21	175 36.6	-00.6	N 21 23.1	+00.3
22	190 36.0	-00.6	N 21 23.4	+00.3
23	205 35.4	-00.7	N 21 23.7	+00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	279°	279°	278°	278°	278°	278°

Greenwich Culmination Time: 09:17

Moon

A: 99%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	188 30.5	-35.7	N 26 05.9	-07.2
01	202 54.8	-35.5	N 25 58.7	-07.4
02	217 19.3	-35.4	N 25 51.3	-07.6
03	231 43.9	-35.3	N 25 43.7	-07.7
04	246 08.6	-35.2	N 25 36.0	-07.9
05	260 33.4	-35.1	N 25 28.1	-08.1
06	274 58.3	-34.9	N 25 20.0	-08.2
07	289 23.4	-34.9	N 25 11.8	-08.3
08	303 48.5	-34.7	N 25 03.5	-08.5
09	318 13.8	-34.7	N 24 55.0	-08.6
10	332 39.1	-34.5	N 24 46.4	-08.8
11	347 04.6	-34.4	N 24 37.6	-08.9
12	1 30.2	-34.2	N 24 28.7	-09.1
13	15 56.0	-34.2	N 24 19.6	-09.2
14	30 21.8	-34.0	N 24 10.4	-09.4
15	44 47.8	-34.0	N 24 01.0	-09.5
16	59 13.8	-33.8	N 23 51.5	-09.6
17	73 40.0	-33.7	N 23 41.9	-09.7
18	88 06.3	-33.5	N 23 32.2	-09.9
19	102 32.8	-33.5	N 23 22.3	-10.0
20	116 59.3	-33.3	N 23 12.3	-10.2
21	131 26.0	-33.2	N 23 02.1	-10.2
22	145 52.8	-33.1	N 22 51.9	-10.4
23	160 19.7	-32.9	N 22 41.5	-10.5

UT	02	06	10	14	18	22
SD	16′0	16′0	15′9	15′9	15′9	15′8
HP	58′6	58′6	58′5	58′4	58′3	58′2
SHA	245°	243°	240°	238°	235°	233°

Greenwich Culmination Time: 11:53

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	129 34.9	+01.1	N 04 03.8	-00.6
01	144 36.0	+01.1	N 04 03.2	-00.7
02	159 37.1	+01.0	N 04 02.5	-00.6
03	174 38.1	+01.1	N 04 01.9	-00.6
04	189 39.2	+01.1	N 04 01.3	-00.7
05	204 40.3	+01.1	N 04 00.6	-00.6
06	219 41.4	+01.1	N 04 00.0	-00.6
07	234 42.5	+01.0	N 03 59.4	-00.6
08	249 43.5	+01.1	N 03 58.8	-00.7
09	264 44.6	+01.1	N 03 58.1	-00.6
10	279 45.7	+01.1	N 03 57.5	-00.6
11	294 46.8	+01.1	N 03 56.9	-00.6
12	309 47.9	+01.0	N 03 56.3	-00.7
13	324 48.9	+01.1	N 03 55.6	-00.6
14	339 50.0	+01.1	N 03 55.0	-00.6
15	354 51.1	+01.1	N 03 54.4	-00.7
16	9 52.2	+01.0	N 03 53.7	-00.6
17	24 53.2	+01.1	N 03 53.1	-00.6
18	39 54.3	+01.1	N 03 52.5	-00.6
19	54 55.4	+01.1	N 03 51.9	-00.7
20	69 56.5	+01.0	N 03 51.2	-00.6
21	84 57.5	+01.1	N 03 50.6	-00.6
22	99 58.6	+01.1	N 03 50.0	-00.7
23	114 59.7	+01.1	N 03 49.3	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	188°	187°	187°	187°	187°	187°

Greenwich Culmination Time: 15:20

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	201 07.5	+01.9	N 22 58.2	-00.1
01	216 09.4	+01.9	N 22 58.1	+00.0
02	231 11.3	+01.8	N 22 58.1	+00.0
03	246 13.1	+01.9	N 22 58.1	-00.1
04	261 15.0	+01.9	N 22 58.0	+00.0
05	276 16.9	+01.8	N 22 58.0	+00.0
06	291 18.7	+01.9	N 22 58.0	-00.1
07	306 20.6	+01.9	N 22 57.9	+00.0
08	321 22.5	+01.8	N 22 57.9	-00.1
09	336 24.3	+01.9	N 22 57.8	+00.0
10	351 26.2	+01.9	N 22 57.8	+00.0
11	6 28.1	+01.9	N 22 57.8	-00.1
12	21 30.0	+01.8	N 22 57.7	+00.0
13	36 31.8	+01.9	N 22 57.7	+00.0
14	51 33.7	+01.9	N 22 57.7	-00.1
15	66 35.6	+01.8	N 22 57.6	+00.0
16	81 37.4	+01.9	N 22 57.6	-00.1
17	96 39.3	+01.9	N 22 57.5	+00.0
18	111 41.2	+01.8	N 22 57.5	+00.0
19	126 43.0	+01.9	N 22 57.5	-00.1
20	141 44.9	+01.9	N 22 57.4	+00.0
21	156 46.8	+01.9	N 22 57.4	+00.0
22	171 48.7	+01.8	N 22 57.4	-00.1
23	186 50.5	+01.9	N 22 57.3	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	259°	259°	259°	259°	259°	259°

Greenwich Culmination Time: 10:34

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	299 21.5	+02.5	S 01 25.0	+00.0
01	314 24.0	+02.5	S 01 25.0	+00.1
02	329 26.5	+02.5	S 01 25.1	+00.0
03	344 29.0	+02.5	S 01 25.1	+00.0
04	359 31.5	+02.5	S 01 25.1	+00.1
05	14 34.0	+02.5	S 01 25.2	+00.0
06	29 36.5	+02.5	S 01 25.2	+00.0
07	44 39.0	+02.5	S 01 25.2	+00.0
08	59 41.5	+02.5	S 01 25.2	+00.1
09	74 44.0	+02.5	S 01 25.3	+00.0
10	89 46.5	+02.5	S 01 25.3	+00.0
11	104 49.0	+02.5	S 01 25.3	+00.1
12	119 51.5	+02.5	S 01 25.4	+00.0
13	134 54.0	+02.5	S 01 25.4	+00.0
14	149 56.5	+02.5	S 01 25.4	+00.0
15	164 59.0	+02.5	S 01 25.4	+00.1
16	180 01.5	+02.5	S 01 25.5	+00.0
17	195 04.0	+02.5	S 01 25.5	+00.0
18	210 06.5	+02.5	S 01 25.5	+00.1
19	225 09.0	+02.5	S 01 25.6	+00.0
20	240 11.5	+02.5	S 01 25.6	+00.0
21	255 14.0	+02.5	S 01 25.6	+00.1
22	270 16.5	+02.5	S 01 25.7	+00.0
23	285 19.0	+02.5	S 01 25.7	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 04:01

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2025 July 25 Friday

(day 206 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 21.6	+00.0	N 19 38.4	-00.6
01	193 21.6	+00.0	N 19 37.8	-00.5
02	208 21.6	+00.0	N 19 37.3	-00.5
03	223 21.6	+00.0	N 19 36.8	-00.6
04	238 21.6	+00.0	N 19 36.2	-00.5
05	253 21.6	+00.0	N 19 35.7	-00.6
06	268 21.6	+00.0	N 19 35.1	-00.5
07	283 21.6	+00.0	N 19 34.6	-00.5
08	298 21.6	+00.0	N 19 34.1	-00.6
09	313 21.6	+00.0	N 19 33.5	-00.5
10	328 21.6	-00.1	N 19 33.0	-00.6
11	343 21.5	+00.0	N 19 32.4	-00.5
12	358 21.5	+00.0	N 19 31.9	-00.6
13	13 21.5	+00.0	N 19 31.3	-00.5
14	28 21.5	+00.0	N 19 30.8	-00.6
15	43 21.5	+00.0	N 19 30.2	-00.5
16	58 21.5	+00.0	N 19 29.7	-00.6
17	73 21.5	+00.0	N 19 29.1	-00.5
18	88 21.5	+00.0	N 19 28.6	-00.6
19	103 21.5	+00.0	N 19 28.0	-00.5
20	118 21.5	+00.0	N 19 27.5	-00.6
21	133 21.5	+00.0	N 19 26.9	-00.5
22	148 21.5	+00.0	N 19 26.4	-00.6
23	163 21.5	+00.0	N 19 25.8	-00.5

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	235°	235°	235°	235°	235°	234°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	220 34.7	-00.6	N 21 23.9	+00.3
01	235 34.1	-00.6	N 21 24.2	+00.3
02	250 33.5	-00.6	N 21 24.5	+00.2
03	265 32.9	-00.6	N 21 24.7	+00.3
04	280 32.3	-00.6	N 21 25.0	+00.2
05	295 31.7	-00.6	N 21 25.2	+00.3
06	310 31.1	-00.6	N 21 25.5	+00.3
07	325 30.5	-00.6	N 21 25.8	+00.2
08	340 29.9	-00.6	N 21 26.0	+00.3
09	355 29.3	-00.6	N 21 26.3	+00.2
10	10 28.7	-00.6	N 21 26.5	+00.3
11	25 28.1	-00.6	N 21 26.8	+00.2
12	40 27.5	-00.6	N 21 27.0	+00.3
13	55 26.9	-00.6	N 21 27.3	+00.2
14	70 26.3	-00.6	N 21 27.5	+00.3
15	85 25.7	-00.6	N 21 27.8	+00.2
16	100 25.1	-00.6	N 21 28.0	+00.3
17	115 24.5	-00.6	N 21 28.3	+00.2
18	130 23.9	-00.6	N 21 28.5	+00.3
19	145 23.3	-00.6	N 21 28.8	+00.2
20	160 22.7	-00.6	N 21 29.0	+00.3
21	175 22.1	-00.7	N 21 29.3	+00.2
22	190 21.4	-00.6	N 21 29.5	+00.3
23	205 20.8	-00.6	N 21 29.8	+00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	278°	277°	277°	277°	277°	276°

Greenwich Culmination Time: 09:18

Moon

A: 02%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	174 46.8	-32.8	N 22 31.0	-10.7
01	189 14.0	-32.8	N 22 20.3	-10.7
02	203 41.2	-32.6	N 22 09.6	-10.9
03	218 08.6	-32.4	N 21 58.7	-10.9
04	232 36.2	-32.4	N 21 47.8	-11.1
05	247 03.8	-32.2	N 21 36.7	-11.2
06	261 31.6	-32.1	N 21 25.5	-11.3
07	275 59.5	-32.0	N 21 14.2	-11.4
08	290 27.5	-31.8	N 21 02.8	-11.6
09	304 55.7	-31.8	N 20 51.2	-11.6
10	319 23.9	-31.6	N 20 39.6	-11.7
11	333 52.3	-31.5	N 20 27.9	-11.8
12	348 20.8	-31.4	N 20 16.1	-11.9
13	2 49.4	-31.2	N 20 04.2	-12.0
14	17 18.2	-31.2	N 19 52.2	-12.2
15	31 47.0	-31.0	N 19 40.0	-12.2
16	46 16.0	-30.9	N 19 27.8	-12.2
17	60 45.1	-30.8	N 19 15.6	-12.4
18	75 14.3	-30.7	N 19 03.2	-12.5
19	89 43.6	-30.5	N 18 50.7	-12.5
20	104 13.1	-30.5	N 18 38.2	-12.7
21	118 42.6	-30.3	N 18 25.5	-12.7
22	133 12.3	-30.2	N 18 12.8	-12.8
23	147 42.1	-30.1	N 18 00.0	-12.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′7	15′7	15′7
HP	58′1	58′0	57′9	57′7	57′6	57′5
SHA	231°	228°	226°	224°	222°	219°

Greenwich Culmination Time: 12:48

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	130 00.8	+01.1	N 03 48.7	-00.6
01	145 01.9	+01.0	N 03 48.1	-00.6
02	160 02.9	+01.1	N 03 47.5	-00.7
03	175 04.0	+01.1	N 03 46.8	-00.6
04	190 05.1	+01.1	N 03 46.2	-00.6
05	205 06.2	+01.0	N 03 45.6	-00.7
06	220 07.2	+01.1	N 03 44.9	-00.6
07	235 08.3	+01.1	N 03 44.3	-00.6
08	250 09.4	+01.1	N 03 43.7	-00.7
09	265 10.5	+01.0	N 03 43.0	-00.6
10	280 11.5	+01.1	N 03 42.4	-00.6
11	295 12.6	+01.1	N 03 41.8	-00.6
12	310 13.7	+01.1	N 03 41.2	-00.7
13	325 14.8	+01.0	N 03 40.5	-00.6
14	340 15.8	+01.1	N 03 39.9	-00.6
15	355 16.9	+01.1	N 03 39.3	-00.7
16	10 18.0	+01.1	N 03 38.6	-00.6
17	25 19.1	+01.1	N 03 38.0	-00.6
18	40 20.2	+01.0	N 03 37.4	-00.7
19	55 21.2	+01.1	N 03 36.7	-00.6
20	70 22.3	+01.1	N 03 36.1	-00.6
21	85 23.4	+01.1	N 03 35.5	-00.6
22	100 24.5	+01.0	N 03 34.9	-00.7
23	115 25.5	+01.1	N 03 34.2	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	187°	187°	187°	187°	187°	187°

Greenwich Culmination Time: 15:18

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	201 52.4	+01.9	N 22 57.3	-00.1
01	216 54.3	+01.8	N 22 57.2	+00.0
02	231 56.1	+01.9	N 22 57.2	+00.0
03	246 58.0	+01.9	N 22 57.2	-00.1
04	261 59.9	+01.9	N 22 57.1	+00.0
05	277 01.8	+01.8	N 22 57.1	-00.1
06	292 03.6	+01.9	N 22 57.0	+00.0
07	307 05.5	+01.9	N 22 57.0	+00.0
08	322 07.4	+01.9	N 22 57.0	-00.1
09	337 09.3	+01.8	N 22 56.9	+00.0
10	352 11.1	+01.9	N 22 56.9	+00.0
11	7 13.0	+01.9	N 22 56.9	-00.1
12	22 14.9	+01.8	N 22 56.8	+00.0
13	37 16.7	+01.9	N 22 56.8	-00.1
14	52 18.6	+01.9	N 22 56.7	+00.0
15	67 20.5	+01.9	N 22 56.7	+00.0
16	82 22.4	+01.8	N 22 56.7	-00.1
17	97 24.2	+01.9	N 22 56.6	+00.0
18	112 26.1	+01.9	N 22 56.6	+00.0
19	127 28.0	+01.8	N 22 56.6	-00.1
20	142 29.8	+01.9	N 22 56.5	+00.0
21	157 31.7	+01.9	N 22 56.5	-00.1
22	172 33.6	+01.9	N 22 56.4	+00.0
23	187 35.5	+01.8	N 22 56.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	259°	259°	259°	259°	259°	259°

Greenwich Culmination Time: 10:31

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	300 21.5	+02.5	S 01 25.7	+00.0
01	315 24.0	+02.5	S 01 25.7	+00.1
02	330 26.5	+02.5	S 01 25.8	+00.0
03	345 29.0	+02.6	S 01 25.8	+00.0
04	0 31.6	+02.5	S 01 25.8	+00.1
05	15 34.1	+02.5	S 01 25.9	+00.0
06	30 36.6	+02.5	S 01 25.9	+00.0
07	45 39.1	+02.5	S 01 25.9	+00.1
08	60 41.6	+02.5	S 01 26.0	+00.0
09	75 44.1	+02.5	S 01 26.0	+00.0
10	90 46.6	+02.5	S 01 26.0	+00.0
11	105 49.1	+02.5	S 01 26.0	+00.1
12	120 51.6	+02.5	S 01 26.1	+00.0
13	135 54.1	+02.5	S 01 26.1	+00.0
14	150 56.6	+02.5	S 01 26.1	+00.1
15	165 59.1	+02.5	S 01 26.2	+00.0
16	181 01.6	+02.5	S 01 26.2	+00.0
17	196 04.1	+02.6	S 01 26.2	+00.1
18	211 06.7	+02.5	S 01 26.3	+00.0
19	226 09.2	+02.5	S 01 26.3	+00.0
20	241 11.7	+02.5	S 01 26.3	+00.0
21	256 14.2	+02.5	S 01 26.3	+00.1
22	271 16.7	+02.5	S 01 26.4	+00.0
23	286 19.2	+02.5	S 01 26.4	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 03:57

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2025 July 26 Saturday

(day 207 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 21.5	+00.0	N 19 25.3	-00.6
01	193 21.5	+00.0	N 19 24.7	-00.5
02	208 21.5	+00.0	N 19 24.2	-00.6
03	223 21.5	+00.0	N 19 23.6	-00.5
04	238 21.5	+00.0	N 19 23.1	-00.6
05	253 21.5	+00.0	N 19 22.5	-00.6
06	268 21.5	+00.0	N 19 21.9	-00.5
07	283 21.5	+00.0	N 19 21.4	-00.6
08	298 21.5	+00.0	N 19 20.8	-00.5
09	313 21.5	+00.0	N 19 20.3	-00.6
10	328 21.5	+00.0	N 19 19.7	-00.5
11	343 21.5	+00.0	N 19 19.2	-00.6
12	358 21.5	+00.0	N 19 18.6	-00.6
13	13 21.5	+00.0	N 19 18.0	-00.5
14	28 21.5	+00.0	N 19 17.5	-00.6
15	43 21.5	+00.0	N 19 16.9	-00.5
16	58 21.5	+00.0	N 19 16.4	-00.6
17	73 21.5	+00.0	N 19 15.8	-00.6
18	88 21.5	+00.1	N 19 15.2	-00.5
19	103 21.6	+00.0	N 19 14.7	-00.6
20	118 21.6	+00.0	N 19 14.1	-00.6
21	133 21.6	+00.0	N 19 13.5	-00.5
22	148 21.6	+00.0	N 19 13.0	-00.6
23	163 21.6	+00.0	N 19 12.4	-00.6

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′7	15′7
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	234°	234°	234°	234°	234°	234°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	220 20.2	-00.6	N 21 30.0	+00.3
01	235 19.6	-00.6	N 21 30.3	+00.2
02	250 19.0	-00.6	N 21 30.5	+00.2
03	265 18.4	-00.6	N 21 30.7	+00.3
04	280 17.8	-00.6	N 21 31.0	+00.2
05	295 17.2	-00.6	N 21 31.2	+00.3
06	310 16.6	-00.6	N 21 31.5	+00.2
07	325 16.0	-00.7	N 21 31.7	+00.2
08	340 15.3	-00.6	N 21 31.9	+00.3
09	355 14.7	-00.6	N 21 32.2	+00.2
10	10 14.1	-00.6	N 21 32.4	+00.2
11	25 13.5	-00.6	N 21 32.6	+00.3
12	40 12.9	-00.6	N 21 32.9	+00.2
13	55 12.3	-00.6	N 21 33.1	+00.2
14	70 11.7	-00.7	N 21 33.3	+00.3
15	85 11.0	-00.6	N 21 33.6	+00.2
16	100 10.4	-00.6	N 21 33.8	+00.2
17	115 09.8	-00.6	N 21 34.0	+00.2
18	130 09.2	-00.6	N 21 34.2	+00.3
19	145 08.6	-00.6	N 21 34.5	+00.2
20	160 08.0	-00.7	N 21 34.7	+00.2
21	175 07.3	-00.6	N 21 34.9	+00.2
22	190 06.7	-00.6	N 21 35.1	+00.3
23	205 06.1	-00.6	N 21 35.4	+00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	276°	276°	276°	276°	275°	275°

Greenwich Culmination Time: 09:19

Moon

A: 06%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	162 12.0	-30.0	N 17 47.1	-12.9
01	176 42.0	-29.9	N 17 34.2	-13.0
02	191 12.1	-29.8	N 17 21.2	-13.1
03	205 42.3	-29.6	N 17 08.1	-13.2
04	220 12.7	-29.6	N 16 54.9	-13.2
05	234 43.1	-29.4	N 16 41.7	-13.3
06	249 13.7	-29.4	N 16 28.4	-13.4
07	263 44.3	-29.2	N 16 15.0	-13.4
08	278 15.1	-29.1	N 16 01.6	-13.5
09	292 46.0	-29.0	N 15 48.1	-13.6
10	307 17.0	-29.0	N 15 34.5	-13.6
11	321 48.0	-28.8	N 15 20.9	-13.7
12	336 19.2	-28.7	N 15 07.2	-13.7
13	350 50.5	-28.6	N 14 53.5	-13.8
14	5 21.9	-28.5	N 14 39.7	-13.9
15	19 53.4	-28.4	N 14 25.8	-13.9
16	34 25.0	-28.4	N 14 11.9	-13.9
17	48 56.6	-28.2	N 13 58.0	-14.0
18	63 28.4	-28.1	N 13 44.0	-14.1
19	78 00.3	-28.0	N 13 29.9	-14.1
20	92 32.3	-28.0	N 13 15.8	-14.1
21	107 04.3	-27.8	N 13 01.7	-14.2
22	121 36.5	-27.8	N 12 47.5	-14.2
23	136 08.7	-27.7	N 12 33.3	-14.3

UT	02	06	10	14	18	22
SD	15′6	15′6	15′6	15′5	15′5	15′5
HP	57′4	57′3	57′2	57′1	56′9	56′8
SHA	217°	215°	213°	211°	209°	207°

Greenwich Culmination Time: 13:37

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	130 26.6	+01.1	N 03 33.6	-00.6
01	145 27.7	+01.1	N 03 33.0	-00.7
02	160 28.8	+01.0	N 03 32.3	-00.6
03	175 29.8	+01.1	N 03 31.7	-00.6
04	190 30.9	+01.1	N 03 31.1	-00.7
05	205 32.0	+01.0	N 03 30.4	-00.6
06	220 33.0	+01.1	N 03 29.8	-00.6
07	235 34.1	+01.1	N 03 29.2	-00.6
08	250 35.2	+01.1	N 03 28.6	-00.7
09	265 36.3	+01.0	N 03 27.9	-00.6
10	280 37.3	+01.1	N 03 27.3	-00.6
11	295 38.4	+01.1	N 03 26.7	-00.7
12	310 39.5	+01.1	N 03 26.0	-00.6
13	325 40.6	+01.0	N 03 25.4	-00.6
14	340 41.6	+01.1	N 03 24.8	-00.7
15	355 42.7	+01.1	N 03 24.1	-00.6
16	10 43.8	+01.1	N 03 23.5	-00.6
17	25 44.9	+01.0	N 03 22.9	-00.7
18	40 45.9	+01.1	N 03 22.2	-00.6
19	55 47.0	+01.1	N 03 21.6	-00.6
20	70 48.1	+01.1	N 03 21.0	-00.7
21	85 49.2	+01.0	N 03 20.3	-00.6
22	100 50.2	+01.1	N 03 19.7	-00.6
23	115 51.3	+01.1	N 03 19.1	-00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	186°	186°	186°	186°	186°	186°

Greenwich Culmination Time: 15:17

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	202 37.3	+01.9	N 22 56.4	-00.1
01	217 39.2	+01.9	N 22 56.3	+00.0
02	232 41.1	+01.9	N 22 56.3	-00.1
03	247 43.0	+01.8	N 22 56.2	+00.0
04	262 44.8	+01.9	N 22 56.2	+00.0
05	277 46.7	+01.9	N 22 56.2	-00.1
06	292 48.6	+01.9	N 22 56.1	+00.0
07	307 50.5	+01.8	N 22 56.1	-00.1
08	322 52.3	+01.9	N 22 56.0	+00.0
09	337 54.2	+01.9	N 22 56.0	+00.0
10	352 56.1	+01.9	N 22 56.0	-00.1
11	7 58.0	+01.8	N 22 55.9	+00.0
12	22 59.8	+01.9	N 22 55.9	+00.0
13	38 01.7	+01.9	N 22 55.9	-00.1
14	53 03.6	+01.8	N 22 55.8	+00.0
15	68 05.4	+01.9	N 22 55.8	-00.1
16	83 07.3	+01.9	N 22 55.7	+00.0
17	98 09.2	+01.9	N 22 55.7	+00.0
18	113 11.1	+01.8	N 22 55.7	-00.1
19	128 12.9	+01.9	N 22 55.6	+00.0
20	143 14.8	+01.9	N 22 55.6	-00.1
21	158 16.7	+01.9	N 22 55.5	+00.0
22	173 18.6	+01.8	N 22 55.5	+00.0
23	188 20.4	+01.9	N 22 55.5	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	259°	259°	259°	259°	259°	258°

Greenwich Culmination Time: 10:28

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	301 21.7	+02.5	S 01 26.4	+00.1
01	316 24.2	+02.5	S 01 26.5	+00.0
02	331 26.7	+02.5	S 01 26.5	+00.0
03	346 29.2	+02.5	S 01 26.5	+00.1
04	1 31.7	+02.5	S 01 26.6	+00.0
05	16 34.2	+02.6	S 01 26.6	+00.0
06	31 36.8	+02.5	S 01 26.6	+00.1
07	46 39.3	+02.5	S 01 26.7	+00.0
08	61 41.8	+02.5	S 01 26.7	+00.0
09	76 44.3	+02.5	S 01 26.7	+00.1
10	91 46.8	+02.5	S 01 26.8	+00.0
11	106 49.3	+02.5	S 01 26.8	+00.0
12	121 51.8	+02.5	S 01 26.8	+00.1
13	136 54.3	+02.5	S 01 26.9	+00.0
14	151 56.8	+02.6	S 01 26.9	+00.0
15	166 59.4	+02.5	S 01 26.9	+00.1
16	182 01.9	+02.5	S 01 27.0	+00.0
17	197 04.4	+02.5	S 01 27.0	+00.0
18	212 06.9	+02.5	S 01 27.0	+00.0
19	227 09.4	+02.5	S 01 27.0	+00.1
20	242 11.9	+02.5	S 01 27.1	+00.0
21	257 14.4	+02.5	S 01 27.1	+00.0
22	272 16.9	+02.5	S 01 27.1	+00.1
23	287 19.4	+02.6	S 01 27.2	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 03:53

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2025 July 27 Sunday

(day 208 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 21.6	+00.0	N 19 11.8	-00.5
01	193 21.6	+00.0	N 19 11.3	-00.6
02	208 21.6	+00.0	N 19 10.7	-00.6
03	223 21.6	+00.0	N 19 10.1	-00.5
04	238 21.6	+00.0	N 19 09.6	-00.6
05	253 21.6	+00.0	N 19 09.0	-00.6
06	268 21.6	+00.0	N 19 08.4	-00.5
07	283 21.6	+00.0	N 19 07.9	-00.6
08	298 21.6	+00.0	N 19 07.3	-00.6
09	313 21.6	+00.0	N 19 06.7	-00.6
10	328 21.6	+00.1	N 19 06.1	-00.5
11	343 21.7	+00.0	N 19 05.6	-00.6
12	358 21.7	+00.0	N 19 05.0	-00.6
13	13 21.7	+00.0	N 19 04.4	-00.5
14	28 21.7	+00.0	N 19 03.9	-00.6
15	43 21.7	+00.0	N 19 03.3	-00.6
16	58 21.7	+00.0	N 19 02.7	-00.6
17	73 21.7	+00.0	N 19 02.1	-00.5
18	88 21.7	+00.0	N 19 01.6	-00.6
19	103 21.7	+00.0	N 19 01.0	-00.6
20	118 21.7	+00.1	N 19 00.4	-00.6
21	133 21.8	+00.0	N 18 59.8	-00.6
22	148 21.8	+00.0	N 18 59.2	-00.5
23	163 21.8	+00.0	N 18 58.7	-00.6

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	233°	233°	233°	233°	233°	233°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	220 05.5	-00.6	N 21 35.6	+00.2
01	235 04.9	-00.6	N 21 35.8	+00.2
02	250 04.3	-00.7	N 21 36.0	+00.2
03	265 03.6	-00.6	N 21 36.2	+00.3
04	280 03.0	-00.6	N 21 36.5	+00.2
05	295 02.4	-00.6	N 21 36.7	+00.2
06	310 01.8	-00.6	N 21 36.9	+00.2
07	325 01.2	-00.7	N 21 37.1	+00.2
08	340 00.5	-00.6	N 21 37.3	+00.2
09	354 59.9	-00.6	N 21 37.5	+00.2
10	9 59.3	-00.6	N 21 37.7	+00.2
11	24 58.7	-00.7	N 21 37.9	+00.3
12	39 58.0	-00.6	N 21 38.2	+00.2
13	54 57.4	-00.6	N 21 38.4	+00.2
14	69 56.8	-00.6	N 21 38.6	+00.2
15	84 56.2	-00.6	N 21 38.8	+00.2
16	99 55.6	-00.7	N 21 39.0	+00.2
17	114 54.9	-00.6	N 21 39.2	+00.2
18	129 54.3	-00.6	N 21 39.4	+00.2
19	144 53.7	-00.6	N 21 39.6	+00.2
20	159 53.1	-00.7	N 21 39.8	+00.2
21	174 52.4	-00.6	N 21 40.0	+00.2
22	189 51.8	-00.6	N 21 40.2	+00.2
23	204 51.2	-00.6	N 21 40.4	+00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	275°	275°	275°	274°	274°	274°

Greenwich Culmination Time: 09:20

Moon

A: 09%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	150 41.0	-27.6	N 12 19.0	-14.3
01	165 13.4	-27.5	N 12 04.7	-14.3
02	179 45.9	-27.4	N 11 50.4	-14.4
03	194 18.5	-27.3	N 11 36.0	-14.4
04	208 51.2	-27.3	N 11 21.6	-14.5
05	223 23.9	-27.1	N 11 07.1	-14.4
06	237 56.8	-27.1	N 10 52.7	-14.6
07	252 29.7	-27.0	N 10 38.1	-14.5
08	267 02.7	-26.9	N 10 23.6	-14.6
09	281 35.8	-26.9	N 10 09.0	-14.6
10	296 08.9	-26.8	N 09 54.4	-14.6
11	310 42.1	-26.7	N 09 39.8	-14.7
12	325 15.4	-26.6	N 09 25.1	-14.6
13	339 48.8	-26.5	N 09 10.5	-14.7
14	354 22.3	-26.5	N 08 55.8	-14.8
15	8 55.8	-26.4	N 08 41.0	-14.7
16	23 29.4	-26.4	N 08 26.3	-14.8
17	38 03.0	-26.3	N 08 11.5	-14.7
18	52 36.7	-26.2	N 07 56.8	-14.8
19	67 10.5	-26.1	N 07 42.0	-14.8
20	81 44.4	-26.1	N 07 27.2	-14.9
21	96 18.3	-26.0	N 07 12.3	-14.8
22	110 52.3	-26.0	N 06 57.5	-14.9
23	125 26.3	-25.9	N 06 42.6	-14.8

UT	02	06	10	14	18	22
SD	15′4	15′4	15′4	15′4	15′3	15′3
HP	56′7	56′6	56′5	56′4	56′2	56′1
SHA	205°	203°	201°	199°	197°	195°

Greenwich Culmination Time: 14:23

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	130 52.4	+01.0	N 03 18.4	-00.6
01	145 53.4	+01.1	N 03 17.8	-00.6
02	160 54.5	+01.1	N 03 17.2	-00.7
03	175 55.6	+01.1	N 03 16.5	-00.6
04	190 56.7	+01.0	N 03 15.9	-00.6
05	205 57.7	+01.1	N 03 15.3	-00.7
06	220 58.8	+01.1	N 03 14.6	-00.6
07	235 59.9	+01.1	N 03 14.0	-00.6
08	251 01.0	+01.0	N 03 13.4	-00.6
09	266 02.0	+01.1	N 03 12.8	-00.7
10	281 03.1	+01.1	N 03 12.1	-00.6
11	296 04.2	+01.0	N 03 11.5	-00.6
12	311 05.2	+01.1	N 03 10.9	-00.7
13	326 06.3	+01.1	N 03 10.2	-00.6
14	341 07.4	+01.1	N 03 09.6	-00.6
15	356 08.5	+01.0	N 03 09.0	-00.7
16	11 09.5	+01.1	N 03 08.3	-00.6
17	26 10.6	+01.1	N 03 07.7	-00.6
18	41 11.7	+01.0	N 03 07.1	-00.7
19	56 12.7	+01.1	N 03 06.4	-00.6
20	71 13.8	+01.1	N 03 05.8	-00.6
21	86 14.9	+01.1	N 03 05.2	-00.7
22	101 16.0	+01.0	N 03 04.5	-00.6
23	116 17.0	+01.1	N 03 03.9	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	186°	186°	186°	186°	186°	185°

Greenwich Culmination Time: 15:15

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	203 22.3	+01.9	N 22 55.4	+00.0
01	218 24.2	+01.9	N 22 55.4	-00.1
02	233 26.1	+01.8	N 22 55.3	+00.0
03	248 27.9	+01.9	N 22 55.3	+00.0
04	263 29.8	+01.9	N 22 55.3	-00.1
05	278 31.7	+01.9	N 22 55.2	+00.0
06	293 33.6	+01.8	N 22 55.2	-00.1
07	308 35.4	+01.9	N 22 55.1	+00.0
08	323 37.3	+01.9	N 22 55.1	+00.0
09	338 39.2	+01.9	N 22 55.1	-00.1
10	353 41.1	+01.9	N 22 55.0	+00.0
11	8 43.0	+01.8	N 22 55.0	-00.1
12	23 44.8	+01.9	N 22 54.9	+00.0
13	38 46.7	+01.9	N 22 54.9	+00.0
14	53 48.6	+01.9	N 22 54.9	-00.1
15	68 50.5	+01.8	N 22 54.8	+00.0
16	83 52.3	+01.9	N 22 54.8	-00.1
17	98 54.2	+01.9	N 22 54.7	+00.0
18	113 56.1	+01.9	N 22 54.7	+00.0
19	128 58.0	+01.8	N 22 54.7	-00.1
20	143 59.8	+01.9	N 22 54.6	+00.0
21	159 01.7	+01.9	N 22 54.6	-00.1
22	174 03.6	+01.9	N 22 54.5	+00.0
23	189 05.5	+01.8	N 22 54.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	258°	258°	258°	258°	258°	258°

Greenwich Culmination Time: 10:25

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	302 22.0	+02.5	S 01 27.2	+00.0
01	317 24.5	+02.5	S 01 27.2	+00.1
02	332 27.0	+02.5	S 01 27.3	+00.0
03	347 29.5	+02.5	S 01 27.3	+00.0
04	2 32.0	+02.5	S 01 27.3	+00.1
05	17 34.5	+02.5	S 01 27.4	+00.0
06	32 37.0	+02.6	S 01 27.4	+00.0
07	47 39.6	+02.5	S 01 27.4	+00.1
08	62 42.1	+02.5	S 01 27.5	+00.0
09	77 44.6	+02.5	S 01 27.5	+00.0
10	92 47.1	+02.5	S 01 27.5	+00.1
11	107 49.6	+02.5	S 01 27.6	+00.0
12	122 52.1	+02.5	S 01 27.6	+00.0
13	137 54.6	+02.6	S 01 27.6	+00.1
14	152 57.2	+02.5	S 01 27.7	+00.0
15	167 59.7	+02.5	S 01 27.7	+00.0
16	183 02.2	+02.5	S 01 27.7	+00.1
17	198 04.7	+02.5	S 01 27.8	+00.0
18	213 07.2	+02.5	S 01 27.8	+00.0
19	228 09.7	+02.5	S 01 27.8	+00.1
20	243 12.2	+02.6	S 01 27.9	+00.0
21	258 14.8	+02.5	S 01 27.9	+00.0
22	273 17.3	+02.5	S 01 27.9	+00.1
23	288 19.8	+02.5	S 01 28.0	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 03:49

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2025 July 28 Monday

(day 209 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 21.8	+00.0	N 18 58.1	-00.6
01	193 21.8	+00.0	N 18 57.5	-00.6
02	208 21.8	+00.0	N 18 56.9	-00.6
03	223 21.8	+00.0	N 18 56.3	-00.5
04	238 21.8	+00.1	N 18 55.8	-00.6
05	253 21.9	+00.0	N 18 55.2	-00.6
06	268 21.9	+00.0	N 18 54.6	-00.6
07	283 21.9	+00.0	N 18 54.0	-00.6
08	298 21.9	+00.0	N 18 53.4	-00.6
09	313 21.9	+00.0	N 18 52.8	-00.5
10	328 21.9	+00.0	N 18 52.3	-00.6
11	343 21.9	+00.1	N 18 51.7	-00.6
12	358 22.0	+00.0	N 18 51.1	-00.6
13	13 22.0	+00.0	N 18 50.5	-00.6
14	28 22.0	+00.0	N 18 49.9	-00.6
15	43 22.0	+00.0	N 18 49.3	-00.6
16	58 22.0	+00.0	N 18 48.7	-00.5
17	73 22.0	+00.0	N 18 48.2	-00.6
18	88 22.0	+00.1	N 18 47.6	-00.6
19	103 22.1	+00.0	N 18 47.0	-00.6
20	118 22.1	+00.0	N 18 46.4	-00.6
21	133 22.1	+00.0	N 18 45.8	-00.6
22	148 22.1	+00.0	N 18 45.2	-00.6
23	163 22.1	+00.1	N 18 44.6	-00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	232°	232°	232°	232°	232°	232°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	219 50.6	-00.7	N 21 40.6	+00.2
01	234 49.9	-00.6	N 21 40.8	+00.2
02	249 49.3	-00.6	N 21 41.0	+00.2
03	264 48.7	-00.7	N 21 41.2	+00.2
04	279 48.0	-00.6	N 21 41.4	+00.2
05	294 47.4	-00.6	N 21 41.6	+00.2
06	309 46.8	-00.6	N 21 41.8	+00.2
07	324 46.2	-00.7	N 21 42.0	+00.1
08	339 45.5	-00.6	N 21 42.1	+00.2
09	354 44.9	-00.6	N 21 42.3	+00.2
10	9 44.3	-00.7	N 21 42.5	+00.2
11	24 43.6	-00.6	N 21 42.7	+00.2
12	39 43.0	-00.6	N 21 42.9	+00.2
13	54 42.4	-00.6	N 21 43.1	+00.2
14	69 41.8	-00.7	N 21 43.3	+00.2
15	84 41.1	-00.6	N 21 43.5	+00.1
16	99 40.5	-00.6	N 21 43.6	+00.2
17	114 39.9	-00.7	N 21 43.8	+00.2
18	129 39.2	-00.6	N 21 44.0	+00.2
19	144 38.6	-00.6	N 21 44.2	+00.2
20	159 38.0	-00.7	N 21 44.4	+00.1
21	174 37.3	-00.6	N 21 44.5	+00.2
22	189 36.7	-00.6	N 21 44.7	+00.2
23	204 36.1	-00.7	N 21 44.9	+00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	274°	274°	273°	273°	273°	273°

Greenwich Culmination Time: 09:21

Moon

A: 12%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	140 00.4	-25.9	N 06 27.8	-14.9
01	154 34.5	-25.7	N 06 12.9	-14.9
02	169 08.8	-25.8	N 05 58.0	-14.9
03	183 43.0	-25.6	N 05 43.1	-14.9
04	198 17.4	-25.7	N 05 28.2	-14.9
05	212 51.7	-25.5	N 05 13.3	-14.9
06	227 26.2	-25.6	N 04 58.4	-14.9
07	242 00.6	-25.4	N 04 43.5	-14.9
08	256 35.2	-25.5	N 04 28.6	-14.9
09	271 09.7	-25.3	N 04 13.7	-15.0
10	285 44.4	-25.4	N 03 58.7	-14.9
11	300 19.0	-25.3	N 03 43.8	-14.9
12	314 53.7	-25.2	N 03 28.9	-14.9
13	329 28.5	-25.2	N 03 14.0	-14.9
14	344 03.3	-25.2	N 02 59.1	-15.0
15	358 38.1	-25.1	N 02 44.1	-14.9
16	13 13.0	-25.1	N 02 29.2	-14.9
17	27 47.9	-25.0	N 02 14.3	-14.9
18	42 22.9	-25.0	N 01 59.4	-14.9
19	56 57.9	-25.0	N 01 44.5	-14.8
20	71 32.9	-25.0	N 01 29.7	-14.9
21	86 07.9	-24.9	N 01 14.8	-14.9
22	100 43.0	-24.8	N 00 59.9	-14.8
23	115 18.2	-24.9	N 00 45.1	-14.9

UT	02	06	10	14	18	22
SD	15′3	15′2	15′2	15′2	15′1	15′1
HP	56′0	55′9	55′8	55′7	55′6	55′5
SHA	193°	191°	189°	188°	186°	184°

Greenwich Culmination Time: 15:05

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	131 18.1	+01.1	N 03 03.3	-00.7
01	146 19.2	+01.0	N 03 02.6	-00.6
02	161 20.2	+01.1	N 03 02.0	-00.7
03	176 21.3	+01.1	N 03 01.3	-00.6
04	191 22.4	+01.0	N 03 00.7	-00.6
05	206 23.4	+01.1	N 03 00.1	-00.7
06	221 24.5	+01.1	N 02 59.4	-00.6
07	236 25.6	+01.1	N 02 58.8	-00.6
08	251 26.7	+01.0	N 02 58.2	-00.7
09	266 27.7	+01.1	N 02 57.5	-00.6
10	281 28.8	+01.1	N 02 56.9	-00.6
11	296 29.9	+01.0	N 02 56.3	-00.7
12	311 30.9	+01.1	N 02 55.6	-00.6
13	326 32.0	+01.1	N 02 55.0	-00.6
14	341 33.1	+01.0	N 02 54.4	-00.7
15	356 34.1	+01.1	N 02 53.7	-00.6
16	11 35.2	+01.1	N 02 53.1	-00.6
17	26 36.3	+01.1	N 02 52.5	-00.7
18	41 37.4	+01.0	N 02 51.8	-00.6
19	56 38.4	+01.1	N 02 51.2	-00.6
20	71 39.5	+01.1	N 02 50.6	-00.7
21	86 40.6	+01.0	N 02 49.9	-00.6
22	101 41.6	+01.1	N 02 49.3	-00.6
23	116 42.7	+01.1	N 02 48.7	-00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	185°	185°	185°	185°	185°	185°

Greenwich Culmination Time: 15:13

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	204 07.3	+01.9	N 22 54.5	-00.1
01	219 09.2	+01.9	N 22 54.4	+00.0
02	234 11.1	+01.9	N 22 54.4	-00.1
03	249 13.0	+01.9	N 22 54.3	+00.0
04	264 14.9	+01.8	N 22 54.3	+00.0
05	279 16.7	+01.9	N 22 54.3	-00.1
06	294 18.6	+01.9	N 22 54.2	+00.0
07	309 20.5	+01.9	N 22 54.2	-00.1
08	324 22.4	+01.8	N 22 54.1	+00.0
09	339 24.2	+01.9	N 22 54.1	+00.0
10	354 26.1	+01.9	N 22 54.1	-00.1
11	9 28.0	+01.9	N 22 54.0	+00.0
12	24 29.9	+01.9	N 22 54.0	-00.1
13	39 31.8	+01.8	N 22 53.9	+00.0
14	54 33.6	+01.9	N 22 53.9	+00.0
15	69 35.5	+01.9	N 22 53.9	-00.1
16	84 37.4	+01.9	N 22 53.8	+00.0
17	99 39.3	+01.9	N 22 53.8	-00.1
18	114 41.2	+01.8	N 22 53.7	+00.0
19	129 43.0	+01.9	N 22 53.7	+00.0
20	144 44.9	+01.9	N 22 53.7	-00.1
21	159 46.8	+01.9	N 22 53.6	+00.0
22	174 48.7	+01.8	N 22 53.6	-00.1
23	189 50.5	+01.9	N 22 53.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	258°	258°	258°	258°	258°	258°

Greenwich Culmination Time: 10:22

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	303 22.3	+02.5	S 01 28.0	+00.1
01	318 24.8	+02.5	S 01 28.1	+00.0
02	333 27.3	+02.6	S 01 28.1	+00.0
03	348 29.9	+02.5	S 01 28.1	+00.1
04	3 32.4	+02.5	S 01 28.2	+00.0
05	18 34.9	+02.5	S 01 28.2	+00.0
06	33 37.4	+02.5	S 01 28.2	+00.1
07	48 39.9	+02.5	S 01 28.3	+00.0
08	63 42.4	+02.6	S 01 28.3	+00.0
09	78 45.0	+02.5	S 01 28.3	+00.1
10	93 47.5	+02.5	S 01 28.4	+00.0
11	108 50.0	+02.5	S 01 28.4	+00.0
12	123 52.5	+02.5	S 01 28.4	+00.1
13	138 55.0	+02.6	S 01 28.5	+00.0
14	153 57.6	+02.5	S 01 28.5	+00.0
15	169 00.1	+02.5	S 01 28.5	+00.1
16	184 02.6	+02.5	S 01 28.6	+00.0
17	199 05.1	+02.5	S 01 28.6	+00.0
18	214 07.6	+02.6	S 01 28.6	+00.1
19	229 10.2	+02.5	S 01 28.7	+00.0
20	244 12.7	+02.5	S 01 28.7	+00.1
21	259 15.2	+02.5	S 01 28.8	+00.0
22	274 17.7	+02.5	S 01 28.8	+00.0
23	289 20.2	+02.5	S 01 28.8	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 03:45

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2025 July 29 Tuesday

(day 210 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 22.2	+00.0	N 18 44.0	-00.6
01	193 22.2	+00.0	N 18 43.4	-00.6
02	208 22.2	+00.0	N 18 42.8	-00.6
03	223 22.2	+00.0	N 18 42.2	-00.6
04	238 22.2	+00.0	N 18 41.6	-00.5
05	253 22.2	+00.1	N 18 41.1	-00.6
06	268 22.3	+00.0	N 18 40.5	-00.6
07	283 22.3	+00.0	N 18 39.9	-00.6
08	298 22.3	+00.0	N 18 39.3	-00.6
09	313 22.3	+00.1	N 18 38.7	-00.6
10	328 22.4	+00.0	N 18 38.1	-00.6
11	343 22.4	+00.0	N 18 37.5	-00.6
12	358 22.4	+00.0	N 18 36.9	-00.6
13	13 22.4	+00.0	N 18 36.3	-00.6
14	28 22.4	+00.1	N 18 35.7	-00.6
15	43 22.5	+00.0	N 18 35.1	-00.6
16	58 22.5	+00.0	N 18 34.5	-00.6
17	73 22.5	+00.0	N 18 33.9	-00.6
18	88 22.5	+00.1	N 18 33.3	-00.6
19	103 22.6	+00.0	N 18 32.7	-00.6
20	118 22.6	+00.0	N 18 32.1	-00.6
21	133 22.6	+00.0	N 18 31.5	-00.6
22	148 22.6	+00.0	N 18 30.9	-00.6
23	163 22.6	+00.1	N 18 30.3	-00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	231°	231°	231°	231°	231°	231°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	219 35.4	-00.6	N 21 45.1	+00.1
01	234 34.8	-00.6	N 21 45.2	+00.2
02	249 34.2	-00.7	N 21 45.4	+00.2
03	264 33.5	-00.6	N 21 45.6	+00.2
04	279 32.9	-00.7	N 21 45.8	+00.1
05	294 32.2	-00.6	N 21 45.9	+00.2
06	309 31.6	-00.6	N 21 46.1	+00.2
07	324 31.0	-00.7	N 21 46.3	+00.1
08	339 30.3	-00.6	N 21 46.4	+00.2
09	354 29.7	-00.6	N 21 46.6	+00.2
10	9 29.1	-00.7	N 21 46.8	+00.1
11	24 28.4	-00.6	N 21 46.9	+00.2
12	39 27.8	-00.6	N 21 47.1	+00.2
13	54 27.2	-00.7	N 21 47.3	+00.1
14	69 26.5	-00.6	N 21 47.4	+00.2
15	84 25.9	-00.7	N 21 47.6	+00.1
16	99 25.2	-00.6	N 21 47.7	+00.2
17	114 24.6	-00.6	N 21 47.9	+00.2
18	129 24.0	-00.7	N 21 48.1	+00.1
19	144 23.3	-00.6	N 21 48.2	+00.2
20	159 22.7	-00.7	N 21 48.4	+00.1
21	174 22.0	-00.6	N 21 48.5	+00.2
22	189 21.4	-00.6	N 21 48.7	+00.1
23	204 20.8	-00.7	N 21 48.8	+00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	273°	272°	272°	272°	272°	272°

Greenwich Culmination Time: 09:22

Moon

A: 14%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	129 53.3	-24.8	N 00 30.2	-14.8
01	144 28.5	-24.8	N 00 15.4	-14.8
02	159 03.7	-24.8	N 00 00.6	-14.8
03	173 38.9	-24.7	S 00 14.2	+14.8
04	188 14.2	-24.7	S 00 29.0	+14.8
05	202 49.5	-24.7	S 00 43.8	+14.8
06	217 24.8	-24.7	S 00 58.6	+14.7
07	232 00.1	-24.7	S 01 13.3	+14.7
08	246 35.4	-24.6	S 01 28.0	+14.7
09	261 10.8	-24.6	S 01 42.7	+14.7
10	275 46.2	-24.6	S 01 57.4	+14.7
11	290 21.6	-24.6	S 02 12.1	+14.6
12	304 57.0	-24.6	S 02 26.7	+14.6
13	319 32.4	-24.6	S 02 41.3	+14.6
14	334 07.8	-24.5	S 02 55.9	+14.6
15	348 43.3	-24.6	S 03 10.5	+14.6
16	3 18.7	-24.5	S 03 25.1	+14.5
17	17 54.2	-24.5	S 03 39.6	+14.5
18	32 29.7	-24.5	S 03 54.1	+14.5
19	47 05.2	-24.6	S 04 08.6	+14.4
20	61 40.6	-24.5	S 04 23.0	+14.4
21	76 16.1	-24.5	S 04 37.4	+14.4
22	90 51.6	-24.5	S 04 51.8	+14.4
23	105 27.1	-24.5	S 05 06.2	+14.3

UT	02	06	10	14	18	22
SD	15′1	15′1	15′0	15′0	15′0	15′0
HP	55′4	55′3	55′2	55′1	55′0	55′0
SHA	182°	180°	178°	177°	175°	173°

Greenwich Culmination Time: 15:46

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	131 43.8	+01.0	N 02 48.0	-00.6
01	146 44.8	+01.1	N 02 47.4	-00.7
02	161 45.9	+01.1	N 02 46.7	-00.6
03	176 47.0	+01.0	N 02 46.1	-00.6
04	191 48.0	+01.1	N 02 45.5	-00.7
05	206 49.1	+01.1	N 02 44.8	-00.6
06	221 50.2	+01.0	N 02 44.2	-00.6
07	236 51.2	+01.1	N 02 43.6	-00.7
08	251 52.3	+01.1	N 02 42.9	-00.6
09	266 53.4	+01.1	N 02 42.3	-00.6
10	281 54.5	+01.0	N 02 41.7	-00.7
11	296 55.5	+01.1	N 02 41.0	-00.6
12	311 56.6	+01.1	N 02 40.4	-00.6
13	326 57.7	+01.0	N 02 39.8	-00.7
14	341 58.7	+01.1	N 02 39.1	-00.6
15	356 59.8	+01.1	N 02 38.5	-00.7
16	12 00.9	+01.0	N 02 37.8	-00.6
17	27 01.9	+01.1	N 02 37.2	-00.6
18	42 03.0	+01.1	N 02 36.6	-00.7
19	57 04.1	+01.0	N 02 35.9	-00.6
20	72 05.1	+01.1	N 02 35.3	-00.6
21	87 06.2	+01.1	N 02 34.7	-00.7
22	102 07.3	+01.0	N 02 34.0	-00.6
23	117 08.3	+01.1	N 02 33.4	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	185°	185°	185°	185°	184°	184°

Greenwich Culmination Time: 15:11

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	204 52.4	+01.9	N 22 53.5	-00.1
01	219 54.3	+01.9	N 22 53.4	+00.0
02	234 56.2	+01.9	N 22 53.4	+00.0
03	249 58.1	+01.8	N 22 53.4	-00.1
04	264 59.9	+01.9	N 22 53.3	+00.0
05	280 01.8	+01.9	N 22 53.3	-00.1
06	295 03.7	+01.9	N 22 53.2	+00.0
07	310 05.6	+01.9	N 22 53.2	+00.0
08	325 07.5	+01.8	N 22 53.2	-00.1
09	340 09.3	+01.9	N 22 53.1	+00.0
10	355 11.2	+01.9	N 22 53.1	-00.1
11	10 13.1	+01.9	N 22 53.0	+00.0
12	25 15.0	+01.9	N 22 53.0	+00.0
13	40 16.9	+01.8	N 22 53.0	-00.1
14	55 18.7	+01.9	N 22 52.9	+00.0
15	70 20.6	+01.9	N 22 52.9	-00.1
16	85 22.5	+01.9	N 22 52.8	+00.0
17	100 24.4	+01.9	N 22 52.8	-00.1
18	115 26.3	+01.8	N 22 52.7	+00.0
19	130 28.1	+01.9	N 22 52.7	+00.0
20	145 30.0	+01.9	N 22 52.7	-00.1
21	160 31.9	+01.9	N 22 52.6	+00.0
22	175 33.8	+01.9	N 22 52.6	-00.1
23	190 35.7	+01.8	N 22 52.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	258°	258°	258°	258°	258°	258°

Greenwich Culmination Time: 10:19

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	304 22.7	+02.6	S 01 28.9	+00.0
01	319 25.3	+02.5	S 01 28.9	+00.0
02	334 27.8	+02.5	S 01 28.9	+00.1
03	349 30.3	+02.5	S 01 29.0	+00.0
04	4 32.8	+02.6	S 01 29.0	+00.0
05	19 35.4	+02.5	S 01 29.0	+00.1
06	34 37.9	+02.5	S 01 29.1	+00.0
07	49 40.4	+02.5	S 01 29.1	+00.0
08	64 42.9	+02.5	S 01 29.1	+00.1
09	79 45.4	+02.6	S 01 29.2	+00.0
10	94 48.0	+02.5	S 01 29.2	+00.1
11	109 50.5	+02.5	S 01 29.3	+00.0
12	124 53.0	+02.5	S 01 29.3	+00.0
13	139 55.5	+02.5	S 01 29.3	+00.1
14	154 58.0	+02.6	S 01 29.4	+00.0
15	170 00.6	+02.5	S 01 29.4	+00.0
16	185 03.1	+02.5	S 01 29.4	+00.1
17	200 05.6	+02.5	S 01 29.5	+00.0
18	215 08.1	+02.6	S 01 29.5	+00.1
19	230 10.7	+02.5	S 01 29.6	+00.0
20	245 13.2	+02.5	S 01 29.6	+00.0
21	260 15.7	+02.5	S 01 29.6	+00.1
22	275 18.2	+02.6	S 01 29.7	+00.0
23	290 20.8	+02.5	S 01 29.7	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	357°	357°	357°	357°	357°	357°

Greenwich Culmination Time: 03:41

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2025 July 30 Wednesday (day 211 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 22.7	+00.0	N 18 29.7	-00.7
01	193 22.7	+00.0	N 18 29.0	-00.6
02	208 22.7	+00.1	N 18 28.4	-00.6
03	223 22.8	+00.0	N 18 27.8	-00.6
04	238 22.8	+00.0	N 18 27.2	-00.6
05	253 22.8	+00.0	N 18 26.6	-00.6
06	268 22.8	+00.1	N 18 26.0	-00.6
07	283 22.9	+00.0	N 18 25.4	-00.6
08	298 22.9	+00.0	N 18 24.8	-00.6
09	313 22.9	+00.0	N 18 24.2	-00.6
10	328 22.9	+00.1	N 18 23.6	-00.6
11	343 23.0	+00.0	N 18 23.0	-00.6
12	358 23.0	+00.0	N 18 22.4	-00.7
13	13 23.0	+00.1	N 18 21.7	-00.6
14	28 23.1	+00.0	N 18 21.1	-00.6
15	43 23.1	+00.0	N 18 20.5	-00.6
16	58 23.1	+00.0	N 18 19.9	-00.6
17	73 23.1	+00.1	N 18 19.3	-00.6
18	88 23.2	+00.0	N 18 18.7	-00.6
19	103 23.2	+00.0	N 18 18.1	-00.7
20	118 23.2	+00.1	N 18 17.4	-00.6
21	133 23.3	+00.0	N 18 16.8	-00.6
22	148 23.3	+00.0	N 18 16.2	-00.6
23	163 23.3	+00.1	N 18 15.6	-00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	230°	230°	230°	230°	230°	230°

Greenwich Culmination Time: 12:06

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	219 20.1	-00.6	N 21 49.0	+00.1
01	234 19.5	-00.7	N 21 49.1	+00.2
02	249 18.8	-00.6	N 21 49.3	+00.1
03	264 18.2	-00.7	N 21 49.4	+00.2
04	279 17.5	-00.6	N 21 49.6	+00.1
05	294 16.9	-00.6	N 21 49.7	+00.2
06	309 16.3	-00.7	N 21 49.9	+00.1
07	324 15.6	-00.6	N 21 50.0	+00.2
08	339 15.0	-00.7	N 21 50.2	+00.1
09	354 14.3	-00.6	N 21 50.3	+00.2
10	9 13.7	-00.7	N 21 50.5	+00.1
11	24 13.0	-00.6	N 21 50.6	+00.1
12	39 12.4	-00.7	N 21 50.7	+00.2
13	54 11.7	-00.6	N 21 50.9	+00.1
14	69 11.1	-00.6	N 21 51.0	+00.1
15	84 10.5	-00.7	N 21 51.1	+00.2
16	99 09.8	-00.6	N 21 51.3	+00.1
17	114 09.2	-00.7	N 21 51.4	+00.2
18	129 08.5	-00.6	N 21 51.6	+00.1
19	144 07.9	-00.7	N 21 51.7	+00.1
20	159 07.2	-00.6	N 21 51.8	+00.2
21	174 06.6	-00.7	N 21 52.0	+00.1
22	189 05.9	-00.6	N 21 52.1	+00.1
23	204 05.3	-00.7	N 21 52.2	+00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	271°	271°	271°	271°	271°	270°

Greenwich Culmination Time: 09:23

Moon

A: 17%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	120 02.6	-24.5	S 05 20.5	+14.3
01	134 38.1	-24.5	S 05 34.8	+14.3
02	149 13.6	-24.5	S 05 49.1	+14.3
03	163 49.1	-24.5	S 06 03.4	+14.2
04	178 24.6	-24.5	S 06 17.6	+14.1
05	193 00.1	-24.5	S 06 31.7	+14.2
06	207 35.6	-24.5	S 06 45.9	+14.1
07	222 11.1	-24.6	S 06 60.0	+14.0
08	236 46.5	-24.5	S 07 14.0	+14.1
09	251 22.0	-24.6	S 07 28.1	+14.0
10	265 57.4	-24.5	S 07 42.1	+13.9
11	280 32.9	-24.6	S 07 56.0	+14.0
12	295 08.3	-24.6	S 08 10.0	+13.8
13	309 43.7	-24.6	S 08 23.8	+13.9
14	324 19.1	-24.6	S 08 37.7	+13.8
15	338 54.5	-24.7	S 08 51.5	+13.7
16	353 29.8	-24.6	S 09 05.2	+13.8
17	8 05.2	-24.7	S 09 19.0	+13.6
18	22 40.5	-24.7	S 09 32.6	+13.7
19	37 15.8	-24.7	S 09 46.3	+13.6
20	51 51.1	-24.8	S 09 59.9	+13.5
21	66 26.3	-24.7	S 10 13.4	+13.5
22	81 01.6	-24.8	S 10 26.9	+13.5
23	95 36.8	-24.8	S 10 40.4	+13.4

UT	02	06	10	14	18	22
SD	15′0	14′9	14′9	14′9	14′9	14′9
HP	54′9	54′8	54′7	54′7	54′6	54′6
SHA	171°	169°	168°	166°	164°	162°

Greenwich Culmination Time: 16:26

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	132 09.4	+01.1	N 02 32.8	-00.7
01	147 10.5	+01.0	N 02 32.1	-00.6
02	162 11.5	+01.1	N 02 31.5	-00.7
03	177 12.6	+01.1	N 02 30.8	-00.6
04	192 13.7	+01.0	N 02 30.2	-00.6
05	207 14.7	+01.1	N 02 29.6	-00.7
06	222 15.8	+01.1	N 02 28.9	-00.6
07	237 16.9	+01.0	N 02 28.3	-00.6
08	252 17.9	+01.1	N 02 27.7	-00.7
09	267 19.0	+01.1	N 02 27.0	-00.6
10	282 20.1	+01.0	N 02 26.4	-00.7
11	297 21.1	+01.1	N 02 25.7	-00.6
12	312 22.2	+01.1	N 02 25.1	-00.6
13	327 23.3	+01.0	N 02 24.5	-00.7
14	342 24.3	+01.1	N 02 23.8	-00.6
15	357 25.4	+01.0	N 02 23.2	-00.6
16	12 26.4	+01.1	N 02 22.6	-00.7
17	27 27.5	+01.1	N 02 21.9	-00.6
18	42 28.6	+01.0	N 02 21.3	-00.7
19	57 29.6	+01.1	N 02 20.6	-00.6
20	72 30.7	+01.1	N 02 20.0	-00.6
21	87 31.8	+01.0	N 02 19.4	-00.7
22	102 32.8	+01.1	N 02 18.7	-00.6
23	117 33.9	+01.1	N 02 18.1	-00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	184°	184°	184°	184°	184°	184°

Greenwich Culmination Time: 15:10

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	205 37.5	+01.9	N 22 52.5	+00.0
01	220 39.4	+01.9	N 22 52.5	-00.1
02	235 41.3	+01.9	N 22 52.4	+00.0
03	250 43.2	+01.9	N 22 52.4	-00.1
04	265 45.1	+01.9	N 22 52.3	+00.0
05	280 47.0	+01.8	N 22 52.3	-00.1
06	295 48.8	+01.9	N 22 52.2	+00.0
07	310 50.7	+01.9	N 22 52.2	+00.0
08	325 52.6	+01.9	N 22 52.2	-00.1
09	340 54.5	+01.9	N 22 52.1	+00.0
10	355 56.4	+01.8	N 22 52.1	-00.1
11	10 58.2	+01.9	N 22 52.0	+00.0
12	26 00.1	+01.9	N 22 52.0	+00.0
13	41 02.0	+01.9	N 22 52.0	-00.1
14	56 03.9	+01.9	N 22 51.9	+00.0
15	71 05.8	+01.9	N 22 51.9	-00.1
16	86 07.7	+01.8	N 22 51.8	+00.0
17	101 09.5	+01.9	N 22 51.8	-00.1
18	116 11.4	+01.9	N 22 51.7	+00.0
19	131 13.3	+01.9	N 22 51.7	+00.0
20	146 15.2	+01.9	N 22 51.7	-00.1
21	161 17.1	+01.9	N 22 51.6	+00.0
22	176 19.0	+01.8	N 22 51.6	-00.1
23	191 20.8	+01.9	N 22 51.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	258°	258°	258°	258°	258°	258°

Greenwich Culmination Time: 10:16

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	305 23.3	+02.5	S 01 29.7	+00.1
01	320 25.8	+02.5	S 01 29.8	+00.0
02	335 28.3	+02.5	S 01 29.8	+00.1
03	350 30.8	+02.6	S 01 29.9	+00.0
04	5 33.4	+02.5	S 01 29.9	+00.0
05	20 35.9	+02.5	S 01 29.9	+00.1
06	35 38.4	+02.5	S 01 30.0	+00.0
07	50 40.9	+02.6	S 01 30.0	+00.0
08	65 43.5	+02.5	S 01 30.0	+00.1
09	80 46.0	+02.5	S 01 30.1	+00.0
10	95 48.5	+02.5	S 01 30.1	+00.1
11	110 51.0	+02.6	S 01 30.2	+00.0
12	125 53.6	+02.5	S 01 30.2	+00.0
13	140 56.1	+02.5	S 01 30.2	+00.1
14	155 58.6	+02.6	S 01 30.3	+00.0
15	171 01.2	+02.5	S 01 30.3	+00.0
16	186 03.7	+02.5	S 01 30.3	+00.1
17	201 06.2	+02.5	S 01 30.4	+00.0
18	216 08.7	+02.6	S 01 30.4	+00.1
19	231 11.3	+02.5	S 01 30.5	+00.0
20	246 13.8	+02.5	S 01 30.5	+00.0
21	261 16.3	+02.5	S 01 30.5	+00.1
22	276 18.8	+02.6	S 01 30.6	+00.0
23	291 21.4	+02.5	S 01 30.6	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:37

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2025 July 31 Thursday

(day 212 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 23.4	+00.0	N 18 15.0	-00.6
01	193 23.4	+00.0	N 18 14.4	-00.7
02	208 23.4	+00.0	N 18 13.7	-00.6
03	223 23.4	+00.1	N 18 13.1	-00.6
04	238 23.5	+00.0	N 18 12.5	-00.6
05	253 23.5	+00.0	N 18 11.9	-00.6
06	268 23.5	+00.1	N 18 11.3	-00.7
07	283 23.6	+00.0	N 18 10.6	-00.6
08	298 23.6	+00.0	N 18 10.0	-00.6
09	313 23.6	+00.1	N 18 09.4	-00.6
10	328 23.7	+00.0	N 18 08.8	-00.6
11	343 23.7	+00.1	N 18 08.2	-00.7
12	358 23.8	+00.0	N 18 07.5	-00.6
13	13 23.8	+00.0	N 18 06.9	-00.6
14	28 23.8	+00.1	N 18 06.3	-00.6
15	43 23.9	+00.0	N 18 05.7	-00.7
16	58 23.9	+00.0	N 18 05.0	-00.6
17	73 23.9	+00.1	N 18 04.4	-00.6
18	88 24.0	+00.0	N 18 03.8	-00.6
19	103 24.0	+00.0	N 18 03.2	-00.7
20	118 24.0	+00.1	N 18 02.5	-00.6
21	133 24.1	+00.0	N 18 01.9	-00.6
22	148 24.1	+00.0	N 18 01.3	-00.7
23	163 24.1	+00.1	N 18 00.6	-00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	229°	229°	229°	229°	229°	229°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	219 04.6	-00.6	N 21 52.3	+00.2
01	234 04.0	-00.7	N 21 52.5	+00.1
02	249 03.3	-00.6	N 21 52.6	+00.1
03	264 02.7	-00.7	N 21 52.7	+00.1
04	279 02.0	-00.6	N 21 52.8	+00.2
05	294 01.4	-00.7	N 21 53.0	+00.1
06	309 00.7	-00.6	N 21 53.1	+00.1
07	324 00.1	-00.7	N 21 53.2	+00.1
08	338 59.4	-00.6	N 21 53.3	+00.2
09	353 58.8	-00.7	N 21 53.5	+00.1
10	8 58.1	-00.6	N 21 53.6	+00.1
11	23 57.5	-00.7	N 21 53.7	+00.1
12	38 56.8	-00.6	N 21 53.8	+00.1
13	53 56.2	-00.7	N 21 53.9	+00.1
14	68 55.5	-00.6	N 21 54.0	+00.2
15	83 54.9	-00.7	N 21 54.2	+00.1
16	98 54.2	-00.6	N 21 54.3	+00.1
17	113 53.6	-00.7	N 21 54.4	+00.1
18	128 52.9	-00.6	N 21 54.5	+00.1
19	143 52.3	-00.7	N 21 54.6	+00.1
20	158 51.6	-00.6	N 21 54.7	+00.1
21	173 51.0	-00.7	N 21 54.8	+00.1
22	188 50.3	-00.7	N 21 54.9	+00.1
23	203 49.6	-00.6	N 21 55.0	+00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	270°	270°	270°	269°	269°	269°

Greenwich Culmination Time: 09:24

Moon

A: 20%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	110 12.0	-24.9	S 10 53.8	+13.3
01	124 47.1	-24.8	S 11 07.1	+13.4
02	139 22.3	-24.9	S 11 20.5	+13.2
03	153 57.4	-24.9	S 11 33.7	+13.2
04	168 32.5	-25.0	S 11 46.9	+13.2
05	183 07.5	-25.0	S 12 00.1	+13.1
06	197 42.5	-25.0	S 12 13.2	+13.1
07	212 17.5	-25.1	S 12 26.3	+13.0
08	226 52.4	-25.0	S 12 39.3	+13.0
09	241 27.4	-25.2	S 12 52.3	+12.9
10	256 02.2	-25.1	S 13 05.2	+12.8
11	270 37.1	-25.2	S 13 18.0	+12.8
12	285 11.9	-25.3	S 13 30.8	+12.7
13	299 46.6	-25.2	S 13 43.5	+12.7
14	314 21.4	-25.3	S 13 56.2	+12.7
15	328 56.1	-25.4	S 14 08.9	+12.5
16	343 30.7	-25.4	S 14 21.4	+12.5
17	358 05.3	-25.4	S 14 33.9	+12.5
18	12 39.9	-25.5	S 14 46.4	+12.4
19	27 14.4	-25.6	S 14 58.8	+12.3
20	41 48.8	-25.5	S 15 11.1	+12.3
21	56 23.3	-25.7	S 15 23.4	+12.2
22	70 57.6	-25.7	S 15 35.6	+12.1
23	85 31.9	-25.7	S 15 47.7	+12.1

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′5	54′4	54′4	54′4	54′3	54′3
SHA	160°	159°	157°	155°	153°	151°

Greenwich Culmination Time: 17:07

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	132 35.0	+01.0	N 02 17.4	-00.6
01	147 36.0	+01.1	N 02 16.8	-00.6
02	162 37.1	+01.1	N 02 16.2	-00.7
03	177 38.2	+01.0	N 02 15.5	-00.6
04	192 39.2	+01.1	N 02 14.9	-00.6
05	207 40.3	+01.1	N 02 14.3	-00.7
06	222 41.4	+01.0	N 02 13.6	-00.6
07	237 42.4	+01.1	N 02 13.0	-00.7
08	252 43.5	+01.0	N 02 12.3	-00.6
09	267 44.5	+01.1	N 02 11.7	-00.6
10	282 45.6	+01.1	N 02 11.1	-00.7
11	297 46.7	+01.0	N 02 10.4	-00.6
12	312 47.7	+01.1	N 02 09.8	-00.7
13	327 48.8	+01.1	N 02 09.1	-00.6
14	342 49.9	+01.0	N 02 08.5	-00.6
15	357 50.9	+01.1	N 02 07.9	-00.7
16	12 52.0	+01.0	N 02 07.2	-00.6
17	27 53.0	+01.1	N 02 06.6	-00.6
18	42 54.1	+01.1	N 02 06.0	-00.7
19	57 55.2	+01.0	N 02 05.3	-00.6
20	72 56.2	+01.1	N 02 04.7	-00.7
21	87 57.3	+01.1	N 02 04.0	-00.6
22	102 58.4	+01.0	N 02 03.4	-00.6
23	117 59.4	+01.1	N 02 02.8	-00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	184°	184°	183°	183°	183°	183°

Greenwich Culmination Time: 15:08

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	206 22.7	+01.9	N 22 51.5	-00.1
01	221 24.6	+01.9	N 22 51.4	+00.0
02	236 26.5	+01.9	N 22 51.4	+00.0
03	251 28.4	+01.9	N 22 51.4	-00.1
04	266 30.3	+01.8	N 22 51.3	+00.0
05	281 32.1	+01.9	N 22 51.3	-00.1
06	296 34.0	+01.9	N 22 51.2	+00.0
07	311 35.9	+01.9	N 22 51.2	-00.1
08	326 37.8	+01.9	N 22 51.1	+00.0
09	341 39.7	+01.9	N 22 51.1	+00.0
10	356 41.6	+01.8	N 22 51.1	-00.1
11	11 43.4	+01.9	N 22 51.0	+00.0
12	26 45.3	+01.9	N 22 51.0	-00.1
13	41 47.2	+01.9	N 22 50.9	+00.0
14	56 49.1	+01.9	N 22 50.9	-00.1
15	71 51.0	+01.9	N 22 50.8	+00.0
16	86 52.9	+01.9	N 22 50.8	+00.0
17	101 54.8	+01.8	N 22 50.8	-00.1
18	116 56.6	+01.9	N 22 50.7	+00.0
19	131 58.5	+01.9	N 22 50.7	-00.1
20	147 00.4	+01.9	N 22 50.6	+00.0
21	162 02.3	+01.9	N 22 50.6	-00.1
22	177 04.2	+01.9	N 22 50.5	+00.0
23	192 06.1	+01.9	N 22 50.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	257°	257°	257°	257°	257°	257°

Greenwich Culmination Time: 10:13

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	306 23.9	+02.5	S 01 30.7	+00.0
01	321 26.4	+02.5	S 01 30.7	+00.0
02	336 28.9	+02.6	S 01 30.7	+00.1
03	351 31.5	+02.5	S 01 30.8	+00.0
04	6 34.0	+02.5	S 01 30.8	+00.1
05	21 36.5	+02.6	S 01 30.9	+00.0
06	36 39.1	+02.5	S 01 30.9	+00.0
07	51 41.6	+02.5	S 01 30.9	+00.1
08	66 44.1	+02.5	S 01 31.0	+00.0
09	81 46.6	+02.6	S 01 31.0	+00.0
10	96 49.2	+02.5	S 01 31.0	+00.1
11	111 51.7	+02.5	S 01 31.1	+00.0
12	126 54.2	+02.6	S 01 31.1	+00.1
13	141 56.8	+02.5	S 01 31.2	+00.0
14	156 59.3	+02.5	S 01 31.2	+00.0
15	172 01.8	+02.6	S 01 31.2	+00.1
16	187 04.4	+02.5	S 01 31.3	+00.0
17	202 06.9	+02.5	S 01 31.3	+00.1
18	217 09.4	+02.5	S 01 31.4	+00.0
19	232 11.9	+02.6	S 01 31.4	+00.0
20	247 14.5	+02.5	S 01 31.4	+00.1
21	262 17.0	+02.5	S 01 31.5	+00.0
22	277 19.5	+02.6	S 01 31.5	+00.1
23	292 22.1	+02.5	S 01 31.6	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:33

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2025 August 1 Friday

(day 213 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 24.2	+00.0	N 18 00.0	−00.6
01	193 24.2	+00.1	N 17 59.4	−00.7
02	208 24.3	+00.0	N 17 58.7	−00.6
03	223 24.3	+00.0	N 17 58.1	−00.6
04	238 24.3	+00.1	N 17 57.5	−00.6
05	253 24.4	+00.0	N 17 56.9	−00.7
06	268 24.4	+00.1	N 17 56.2	−00.6
07	283 24.5	+00.0	N 17 55.6	−00.6
08	298 24.5	+00.0	N 17 55.0	−00.7
09	313 24.5	+00.1	N 17 54.3	−00.6
10	328 24.6	+00.0	N 17 53.7	−00.7
11	343 24.6	+00.1	N 17 53.0	−00.6
12	358 24.7	+00.0	N 17 52.4	−00.6
13	13 24.7	+00.0	N 17 51.8	−00.7
14	28 24.7	+00.1	N 17 51.1	−00.6
15	43 24.8	+00.0	N 17 50.5	−00.6
16	58 24.8	+00.1	N 17 49.9	−00.7
17	73 24.9	+00.0	N 17 49.2	−00.6
18	88 24.9	+00.1	N 17 48.6	−00.7
19	103 25.0	+00.0	N 17 47.9	−00.6
20	118 25.0	+00.0	N 17 47.3	−00.6
21	133 25.0	+00.1	N 17 46.7	−00.7
22	148 25.1	+00.0	N 17 46.0	−00.6
23	163 25.1	+00.1	N 17 45.4	−00.7

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	228°	228°	228°	228°	228°	228°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	218 49.0	−00.7	N 21 55.1	+00.1
01	233 48.3	−00.6	N 21 55.2	+00.1
02	248 47.7	−00.7	N 21 55.3	+00.1
03	263 47.0	−00.6	N 21 55.4	+00.1
04	278 46.4	−00.7	N 21 55.5	+00.1
05	293 45.7	−00.6	N 21 55.6	+00.1
06	308 45.1	−00.7	N 21 55.7	+00.1
07	323 44.4	−00.7	N 21 55.8	+00.1
08	338 43.7	−00.6	N 21 55.9	+00.1
09	353 43.1	−00.7	N 21 56.0	+00.1
10	8 42.4	−00.6	N 21 56.1	+00.1
11	23 41.8	−00.7	N 21 56.2	+00.1
12	38 41.1	−00.6	N 21 56.3	+00.1
13	53 40.5	−00.7	N 21 56.4	+00.1
14	68 39.8	−00.7	N 21 56.5	+00.1
15	83 39.1	−00.6	N 21 56.6	+00.1
16	98 38.5	−00.7	N 21 56.7	+00.1
17	113 37.8	−00.6	N 21 56.8	+00.1
18	128 37.2	−00.7	N 21 56.9	+00.0
19	143 36.5	−00.7	N 21 56.9	+00.1
20	158 35.8	−00.6	N 21 57.0	+00.1
21	173 35.2	−00.7	N 21 57.1	+00.1
22	188 34.5	−00.6	N 21 57.2	+00.1
23	203 33.9	−00.7	N 21 57.3	+00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	269°	269°	268°	268°	268°	268°

Greenwich Culmination Time: 09:25

Moon

A: 23%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	100 06.2	−25.7	S 15 59.8	+12.0
01	114 40.5	−25.9	S 16 11.8	+12.0
02	129 14.6	−25.8	S 16 23.8	+11.9
03	143 48.8	−26.0	S 16 35.7	+11.8
04	158 22.8	−26.0	S 16 47.5	+11.8
05	172 56.8	−26.0	S 16 59.3	+11.6
06	187 30.8	−26.1	S 17 10.9	+11.7
07	202 04.7	−26.1	S 17 22.6	+11.5
08	216 38.6	−26.2	S 17 34.1	+11.5
09	231 12.4	−26.3	S 17 45.6	+11.4
10	245 46.1	−26.3	S 17 57.0	+11.3
11	260 19.8	−26.4	S 18 08.3	+11.3
12	274 53.4	−26.4	S 18 19.6	+11.2
13	289 27.0	−26.5	S 18 30.8	+11.1
14	304 00.5	−26.6	S 18 41.9	+11.0
15	318 33.9	−26.6	S 18 52.9	+11.0
16	333 07.3	−26.7	S 19 03.9	+10.9
17	347 40.6	−26.7	S 19 14.8	+10.8
18	2 13.9	−26.8	S 19 25.6	+10.7
19	16 47.1	−26.9	S 19 36.3	+10.7
20	31 20.2	−26.9	S 19 47.0	+10.5
21	45 53.3	−27.1	S 19 57.5	+10.5
22	60 26.2	−27.0	S 20 08.0	+10.4
23	74 59.2	−27.2	S 20 18.4	+10.4

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′3	54′3	54′2	54′2	54′2	54′2
SHA	149°	147°	146°	144°	142°	140°

Greenwich Culmination Time: 17:50

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	133 00.5	+01.0	N 02 02.1	−00.6
01	148 01.5	+01.1	N 02 01.5	−00.7
02	163 02.6	+01.1	N 02 00.8	−00.6
03	178 03.7	+01.0	N 02 00.2	−00.6
04	193 04.7	+01.1	N 01 59.6	−00.7
05	208 05.8	+01.1	N 01 58.9	−00.6
06	223 06.9	+01.0	N 01 58.3	−00.7
07	238 07.9	+01.1	N 01 57.6	−00.6
08	253 09.0	+01.0	N 01 57.0	−00.6
09	268 10.0	+01.1	N 01 56.4	−00.7
10	283 11.1	+01.1	N 01 55.7	−00.6
11	298 12.2	+01.0	N 01 55.1	−00.7
12	313 13.2	+01.1	N 01 54.4	−00.6
13	328 14.3	+01.0	N 01 53.8	−00.6
14	343 15.3	+01.1	N 01 53.2	−00.7
15	358 16.4	+01.1	N 01 52.5	−00.6
16	13 17.5	+01.0	N 01 51.9	−00.7
17	28 18.5	+01.1	N 01 51.2	−00.6
18	43 19.6	+01.1	N 01 50.6	−00.7
19	58 20.7	+01.0	N 01 49.9	−00.6
20	73 21.7	+01.1	N 01 49.3	−00.6
21	88 22.8	+01.0	N 01 48.7	−00.7
22	103 23.8	+01.1	N 01 48.0	−00.6
23	118 24.9	+01.1	N 01 47.4	−00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	183°	183°	183°	183°	183°	183°

Greenwich Culmination Time: 15:06

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	207 08.0	+01.8	N 22 50.5	−00.1
01	222 09.8	+01.9	N 22 50.4	+00.0
02	237 11.7	+01.9	N 22 50.4	−00.1
03	252 13.6	+01.9	N 22 50.3	+00.0
04	267 15.5	+01.9	N 22 50.3	−00.1
05	282 17.4	+01.9	N 22 50.2	+00.0
06	297 19.3	+01.9	N 22 50.2	+00.0
07	312 21.2	+01.8	N 22 50.2	−00.1
08	327 23.0	+01.9	N 22 50.1	+00.0
09	342 24.9	+01.9	N 22 50.1	−00.1
10	357 26.8	+01.9	N 22 50.0	+00.0
11	12 28.7	+01.9	N 22 50.0	−00.1
12	27 30.6	+01.9	N 22 49.9	+00.0
13	42 32.5	+01.9	N 22 49.9	+00.0
14	57 34.4	+01.8	N 22 49.9	−00.1
15	72 36.2	+01.9	N 22 49.8	+00.0
16	87 38.1	+01.9	N 22 49.8	−00.1
17	102 40.0	+01.9	N 22 49.7	+00.0
18	117 41.9	+01.9	N 22 49.7	−00.1
19	132 43.8	+01.9	N 22 49.6	+00.0
20	147 45.7	+01.9	N 22 49.6	+00.0
21	162 47.6	+01.9	N 22 49.6	−00.1
22	177 49.5	+01.8	N 22 49.5	+00.0
23	192 51.3	+01.9	N 22 49.5	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	257°	257°	257°	257°	257°	257°

Greenwich Culmination Time: 10:10

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	307 24.6	+02.5	S 01 31.6	+00.0
01	322 27.1	+02.6	S 01 31.6	+00.1
02	337 29.7	+02.5	S 01 31.7	+00.0
03	352 32.2	+02.5	S 01 31.7	+00.1
04	7 34.7	+02.6	S 01 31.8	+00.0
05	22 37.3	+02.5	S 01 31.8	+00.0
06	37 39.8	+02.5	S 01 31.8	+00.1
07	52 42.3	+02.5	S 01 31.9	+00.0
08	67 44.8	+02.6	S 01 31.9	+00.1
09	82 47.4	+02.5	S 01 32.0	+00.0
10	97 49.9	+02.5	S 01 32.0	+00.1
11	112 52.4	+02.6	S 01 32.1	+00.0
12	127 55.0	+02.5	S 01 32.1	+00.0
13	142 57.5	+02.5	S 01 32.1	+00.1
14	158 00.0	+02.6	S 01 32.2	+00.0
15	173 02.6	+02.5	S 01 32.2	+00.1
16	188 05.1	+02.5	S 01 32.3	+00.0
17	203 07.6	+02.6	S 01 32.3	+00.0
18	218 10.2	+02.5	S 01 32.3	+00.1
19	233 12.7	+02.5	S 01 32.4	+00.0
20	248 15.2	+02.6	S 01 32.4	+00.1
21	263 17.8	+02.5	S 01 32.5	+00.0
22	278 20.3	+02.5	S 01 32.5	+00.1
23	293 22.8	+02.6	S 01 32.6	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:29

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 2 Saturday

(day 214 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 25.2	+00.0	N 17 44.7	−00.6
01	193 25.2	+00.1	N 17 44.1	−00.6
02	208 25.3	+00.0	N 17 43.5	−00.7
03	223 25.3	+00.1	N 17 42.8	−00.6
04	238 25.4	+00.0	N 17 42.2	−00.7
05	253 25.4	+00.0	N 17 41.5	−00.6
06	268 25.4	+00.1	N 17 40.9	−00.7
07	283 25.5	+00.0	N 17 40.2	−00.6
08	298 25.5	+00.1	N 17 39.6	−00.7
09	313 25.6	+00.0	N 17 38.9	−00.6
10	328 25.6	+00.1	N 17 38.3	−00.6
11	343 25.7	+00.0	N 17 37.7	−00.7
12	358 25.7	+00.1	N 17 37.0	−00.6
13	13 25.8	+00.0	N 17 36.4	−00.7
14	28 25.8	+00.1	N 17 35.7	−00.6
15	43 25.9	+00.0	N 17 35.1	−00.7
16	58 25.9	+00.1	N 17 34.4	−00.6
17	73 26.0	+00.0	N 17 33.8	−00.7
18	88 26.0	+00.1	N 17 33.1	−00.6
19	103 26.1	+00.0	N 17 32.5	−00.7
20	118 26.1	+00.1	N 17 31.8	−00.6
21	133 26.2	+00.0	N 17 31.2	−00.7
22	148 26.2	+00.1	N 17 30.5	−00.7
23	163 26.3	+00.0	N 17 29.8	−00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	227°	227°	227°	227°	227°	227°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	218 33.2	−00.7	N 21 57.4	+00.0
01	233 32.5	−00.6	N 21 57.4	+00.1
02	248 31.9	−00.7	N 21 57.5	+00.1
03	263 31.2	−00.6	N 21 57.6	+00.1
04	278 30.6	−00.7	N 21 57.7	+00.1
05	293 29.9	−00.7	N 21 57.8	+00.0
06	308 29.2	−00.6	N 21 57.8	+00.1
07	323 28.6	−00.7	N 21 57.9	+00.1
08	338 27.9	−00.7	N 21 58.0	+00.1
09	353 27.2	−00.6	N 21 58.1	+00.0
10	8 26.6	−00.7	N 21 58.1	+00.1
11	23 25.9	−00.7	N 21 58.2	+00.1
12	38 25.2	−00.6	N 21 58.3	+00.0
13	53 24.6	−00.7	N 21 58.3	+00.1
14	68 23.9	−00.6	N 21 58.4	+00.1
15	83 23.3	−00.7	N 21 58.5	+00.0
16	98 22.6	−00.7	N 21 58.5	+00.1
17	113 21.9	−00.6	N 21 58.6	+00.1
18	128 21.3	−00.7	N 21 58.7	+00.0
19	143 20.6	−00.7	N 21 58.7	+00.1
20	158 19.9	−00.6	N 21 58.8	+00.0
21	173 19.3	−00.7	N 21 58.8	+00.1
22	188 18.6	−00.7	N 21 58.9	+00.1
23	203 17.9	−00.6	N 21 59.0	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	268°	267°	267°	267°	267°	267°

Greenwich Culmination Time: 09:26

Moon

A: 26%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	89 32.0	−27.2	S 20 28.8	+10.2
01	104 04.8	−27.2	S 20 39.0	+10.2
02	118 37.6	−27.4	S 20 49.2	+10.0
03	133 10.2	−27.4	S 20 59.2	+10.0
04	147 42.8	−27.5	S 21 09.2	+09.9
05	162 15.3	−27.5	S 21 19.1	+09.9
06	176 47.8	−27.7	S 21 29.0	+09.7
07	191 20.1	−27.7	S 21 38.7	+09.6
08	205 52.4	−27.7	S 21 48.3	+09.6
09	220 24.7	−27.9	S 21 57.9	+09.4
10	234 56.8	−27.9	S 22 07.3	+09.4
11	249 28.9	−28.0	S 22 16.7	+09.3
12	264 00.9	−28.0	S 22 26.0	+09.1
13	278 32.9	−28.2	S 22 35.1	+09.1
14	293 04.7	−28.2	S 22 44.2	+09.0
15	307 36.5	−28.3	S 22 53.2	+08.9
16	322 08.2	−28.3	S 23 02.1	+08.8
17	336 39.9	−28.5	S 23 10.9	+08.7
18	351 11.4	−28.5	S 23 19.6	+08.6
19	5 42.9	−28.6	S 23 28.2	+08.5
20	20 14.3	−28.6	S 23 36.7	+08.4
21	34 45.7	−28.8	S 23 45.1	+08.3
22	49 16.9	−28.8	S 23 53.4	+08.2
23	63 48.1	−28.9	S 24 01.6	+08.1

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′2	54′2	54′3	54′3	54′3	54′3
SHA	138°	136°	134°	132°	130°	128°

Greenwich Culmination Time: 18:36

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	133 26.0	+01.0	N 01 46.7	−00.6
01	148 27.0	+01.1	N 01 46.1	−00.6
02	163 28.1	+01.0	N 01 45.5	−00.7
03	178 29.1	+01.1	N 01 44.8	−00.6
04	193 30.2	+01.1	N 01 44.2	−00.7
05	208 31.3	+01.0	N 01 43.5	−00.6
06	223 32.3	+01.1	N 01 42.9	−00.6
07	238 33.4	+01.0	N 01 42.3	−00.7
08	253 34.4	+01.1	N 01 41.6	−00.6
09	268 35.5	+01.1	N 01 41.0	−00.7
10	283 36.6	+01.0	N 01 40.3	−00.6
11	298 37.6	+01.1	N 01 39.7	−00.7
12	313 38.7	+01.0	N 01 39.0	−00.6
13	328 39.7	+01.1	N 01 38.4	−00.6
14	343 40.8	+01.0	N 01 37.8	−00.7
15	358 41.8	+01.1	N 01 37.1	−00.6
16	13 42.9	+01.1	N 01 36.5	−00.7
17	28 44.0	+01.0	N 01 35.8	−00.6
18	43 45.0	+01.1	N 01 35.2	−00.6
19	58 46.1	+01.0	N 01 34.6	−00.7
20	73 47.1	+01.1	N 01 33.9	−00.6
21	88 48.2	+01.1	N 01 33.3	−00.7
22	103 49.3	+01.0	N 01 32.6	−00.6
23	118 50.3	+01.1	N 01 32.0	−00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	183°	182°	182°	182°	182°	182°

Greenwich Culmination Time: 15:05

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	207 53.2	+01.9	N 22 49.4	+00.0
01	222 55.1	+01.9	N 22 49.4	−00.1
02	237 57.0	+01.9	N 22 49.3	+00.0
03	252 58.9	+01.9	N 22 49.3	−00.1
04	268 00.8	+01.9	N 22 49.2	+00.0
05	283 02.7	+01.9	N 22 49.2	+00.0
06	298 04.6	+01.8	N 22 49.2	−00.1
07	313 06.4	+01.9	N 22 49.1	+00.0
08	328 08.3	+01.9	N 22 49.1	−00.1
09	343 10.2	+01.9	N 22 49.0	+00.0
10	358 12.1	+01.9	N 22 49.0	−00.1
11	13 14.0	+01.9	N 22 48.9	+00.0
12	28 15.9	+01.9	N 22 48.9	−00.1
13	43 17.8	+01.9	N 22 48.8	+00.0
14	58 19.7	+01.9	N 22 48.8	+00.0
15	73 21.6	+01.8	N 22 48.8	−00.1
16	88 23.4	+01.9	N 22 48.7	+00.0
17	103 25.3	+01.9	N 22 48.7	−00.1
18	118 27.2	+01.9	N 22 48.6	+00.0
19	133 29.1	+01.9	N 22 48.6	−00.1
20	148 31.0	+01.9	N 22 48.5	+00.0
21	163 32.9	+01.9	N 22 48.5	+00.0
22	178 34.8	+01.9	N 22 48.5	−00.1
23	193 36.7	+01.9	N 22 48.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	257°	257°	257°	257°	257°	257°

Greenwich Culmination Time: 10:07

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	308 25.4	+02.5	S 01 32.6	+00.0
01	323 27.9	+02.6	S 01 32.6	+00.1
02	338 30.5	+02.5	S 01 32.7	+00.0
03	353 33.0	+02.5	S 01 32.7	+00.1
04	8 35.5	+02.6	S 01 32.8	+00.0
05	23 38.1	+02.5	S 01 32.8	+00.0
06	38 40.6	+02.5	S 01 32.8	+00.1
07	53 43.1	+02.6	S 01 32.9	+00.0
08	68 45.7	+02.5	S 01 32.9	+00.1
09	83 48.2	+02.5	S 01 33.0	+00.0
10	98 50.7	+02.6	S 01 33.0	+00.1
11	113 53.3	+02.5	S 01 33.1	+00.0
12	128 55.8	+02.5	S 01 33.1	+00.0
13	143 58.3	+02.6	S 01 33.1	+00.1
14	159 00.9	+02.5	S 01 33.2	+00.0
15	174 03.4	+02.6	S 01 33.2	+00.1
16	189 06.0	+02.5	S 01 33.3	+00.0
17	204 08.5	+02.5	S 01 33.3	+00.1
18	219 11.0	+02.6	S 01 33.4	+00.0
19	234 13.6	+02.5	S 01 33.4	+00.0
20	249 16.1	+02.5	S 01 33.4	+00.1
21	264 18.6	+02.6	S 01 33.5	+00.0
22	279 21.2	+02.5	S 01 33.5	+00.1
23	294 23.7	+02.6	S 01 33.6	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:25

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2025 August 3 Sunday

(day 215 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 26.3	+00.1	N 17 29.2	-00.7
01	193 26.4	+00.0	N 17 28.5	-00.6
02	208 26.4	+00.1	N 17 27.9	-00.7
03	223 26.5	+00.0	N 17 27.2	-00.6
04	238 26.5	+00.1	N 17 26.6	-00.7
05	253 26.6	+00.0	N 17 25.9	-00.6
06	268 26.6	+00.1	N 17 25.3	-00.7
07	283 26.7	+00.0	N 17 24.6	-00.7
08	298 26.7	+00.1	N 17 23.9	-00.6
09	313 26.8	+00.0	N 17 23.3	-00.7
10	328 26.8	+00.1	N 17 22.6	-00.6
11	343 26.9	+00.1	N 17 22.0	-00.7
12	358 27.0	+00.0	N 17 21.3	-00.6
13	13 27.0	+00.1	N 17 20.7	-00.7
14	28 27.1	+00.0	N 17 20.0	-00.7
15	43 27.1	+00.1	N 17 19.3	-00.6
16	58 27.2	+00.0	N 17 18.7	-00.7
17	73 27.2	+00.1	N 17 18.0	-00.7
18	88 27.3	+00.0	N 17 17.3	-00.6
19	103 27.3	+00.1	N 17 16.7	-00.7
20	118 27.4	+00.1	N 17 16.0	-00.6
21	133 27.5	+00.0	N 17 15.4	-00.7
22	148 27.5	+00.1	N 17 14.7	-00.7
23	163 27.6	+00.0	N 17 14.0	-00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	227°	226°	226°	226°	226°	226°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	218 17.3	-00.7	N 21 59.0	+00.1
01	233 16.6	-00.7	N 21 59.1	+00.0
02	248 15.9	-00.6	N 21 59.1	+00.1
03	263 15.3	-00.7	N 21 59.2	+00.0
04	278 14.6	-00.7	N 21 59.2	+00.1
05	293 13.9	-00.6	N 21 59.3	+00.0
06	308 13.3	-00.7	N 21 59.3	+00.1
07	323 12.6	-00.7	N 21 59.4	+00.0
08	338 11.9	-00.6	N 21 59.4	+00.1
09	353 11.3	-00.7	N 21 59.5	+00.0
10	8 10.6	-00.7	N 21 59.5	+00.1
11	23 09.9	-00.6	N 21 59.6	+00.0
12	38 09.3	-00.7	N 21 59.6	+00.1
13	53 08.6	-00.7	N 21 59.7	+00.0
14	68 07.9	-00.7	N 21 59.7	+00.1
15	83 07.2	-00.6	N 21 59.8	+00.0
16	98 06.6	-00.7	N 21 59.8	+00.0
17	113 05.9	-00.7	N 21 59.8	+00.1
18	128 05.2	-00.6	N 21 59.9	+00.0
19	143 04.6	-00.7	N 21 59.9	+00.1
20	158 03.9	-00.7	N 21 60.0	+00.0
21	173 03.2	-00.7	N 21 60.0	+00.0
22	188 02.5	-00.6	N 22 00.0	+00.1
23	203 01.9	-00.7	N 22 00.1	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	266°	266°	266°	266°	266°	265°

Greenwich Culmination Time: 09:27

Moon

A: 29%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	78 19.2	-28.9	S 24 09.7	+07.9
01	92 50.3	-29.1	S 24 17.6	+07.9
02	107 21.2	-29.1	S 24 25.5	+07.8
03	121 52.1	-29.2	S 24 33.3	+07.7
04	136 22.9	-29.3	S 24 41.0	+07.5
05	150 53.6	-29.3	S 24 48.5	+07.5
06	165 24.3	-29.5	S 24 56.0	+07.3
07	179 54.8	-29.5	S 25 03.3	+07.2
08	194 25.3	-29.6	S 25 10.5	+07.2
09	208 55.7	-29.6	S 25 17.7	+07.0
10	223 26.1	-29.7	S 25 24.7	+06.9
11	237 56.4	-29.9	S 25 31.6	+06.7
12	252 26.5	-29.8	S 25 38.3	+06.7
13	266 56.7	-30.0	S 25 45.0	+06.5
14	281 26.7	-30.0	S 25 51.5	+06.5
15	295 56.7	-30.2	S 25 58.0	+06.3
16	310 26.5	-30.1	S 26 04.3	+06.2
17	324 56.4	-30.3	S 26 10.5	+06.0
18	339 26.1	-30.3	S 26 16.5	+06.0
19	353 55.8	-30.5	S 26 22.5	+05.8
20	8 25.3	-30.4	S 26 28.3	+05.7
21	22 54.9	-30.6	S 26 34.0	+05.6
22	37 24.3	-30.6	S 26 39.6	+05.5
23	51 53.7	-30.7	S 26 45.1	+05.3

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′9	14′9
HP	54′4	54′4	54′4	54′5	54′5	54′6
SHA	125°	123°	121°	119°	117°	115°

Greenwich Culmination Time: 19:25

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	133 51.4	+01.0	N 01 31.3	-00.6
01	148 52.4	+01.1	N 01 30.7	-00.6
02	163 53.5	+01.0	N 01 30.1	-00.7
03	178 54.5	+01.1	N 01 29.4	-00.6
04	193 55.6	+01.1	N 01 28.8	-00.7
05	208 56.7	+01.0	N 01 28.1	-00.6
06	223 57.7	+01.1	N 01 27.5	-00.7
07	238 58.8	+01.0	N 01 26.8	-00.6
08	253 59.8	+01.1	N 01 26.2	-00.6
09	269 00.9	+01.0	N 01 25.6	-00.7
10	284 01.9	+01.1	N 01 24.9	-00.6
11	299 03.0	+01.1	N 01 24.3	-00.7
12	314 04.1	+01.0	N 01 23.6	-00.6
13	329 05.1	+01.1	N 01 23.0	-00.6
14	344 06.2	+01.0	N 01 22.4	-00.7
15	359 07.2	+01.1	N 01 21.7	-00.6
16	14 08.3	+01.0	N 01 21.1	-00.7
17	29 09.3	+01.1	N 01 20.4	-00.6
18	44 10.4	+01.1	N 01 19.8	-00.7
19	59 11.5	+01.0	N 01 19.1	-00.6
20	74 12.5	+01.1	N 01 18.5	-00.7
21	89 13.6	+01.0	N 01 17.8	-00.6
22	104 14.6	+01.1	N 01 17.2	-00.6
23	119 15.7	+01.0	N 01 16.6	-00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	182°	182°	182°	182°	182°	182°

Greenwich Culmination Time: 15:03

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	208 38.6	+01.9	N 22 48.4	-00.1
01	223 40.5	+01.8	N 22 48.3	+00.0
02	238 42.3	+01.9	N 22 48.3	-00.1
03	253 44.2	+01.9	N 22 48.2	+00.0
04	268 46.1	+01.9	N 22 48.2	-00.1
05	283 48.0	+01.9	N 22 48.1	+00.0
06	298 49.9	+01.9	N 22 48.1	+00.0
07	313 51.8	+01.9	N 22 48.1	-00.1
08	328 53.7	+01.9	N 22 48.0	+00.0
09	343 55.6	+01.9	N 22 48.0	-00.1
10	358 57.5	+01.9	N 22 47.9	+00.0
11	13 59.4	+01.9	N 22 47.9	-00.1
12	29 01.3	+01.8	N 22 47.8	+00.0
13	44 03.1	+01.9	N 22 47.8	-00.1
14	59 05.0	+01.9	N 22 47.7	+00.0
15	74 06.9	+01.9	N 22 47.7	-00.1
16	89 08.8	+01.9	N 22 47.6	+00.0
17	104 10.7	+01.9	N 22 47.6	+00.0
18	119 12.6	+01.9	N 22 47.6	-00.1
19	134 14.5	+01.9	N 22 47.5	+00.0
20	149 16.4	+01.9	N 22 47.5	-00.1
21	164 18.3	+01.9	N 22 47.4	+00.0
22	179 20.2	+01.9	N 22 47.4	-00.1
23	194 22.1	+01.9	N 22 47.3	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	257°	257°	257°	257°	257°	257°

Greenwich Culmination Time: 10:04

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	309 26.3	+02.5	S 01 33.6	+00.1
01	324 28.8	+02.5	S 01 33.7	+00.0
02	339 31.3	+02.6	S 01 33.7	+00.0
03	354 33.9	+02.5	S 01 33.7	+00.1
04	9 36.4	+02.6	S 01 33.8	+00.0
05	24 39.0	+02.5	S 01 33.8	+00.1
06	39 41.5	+02.5	S 01 33.9	+00.0
07	54 44.0	+02.6	S 01 33.9	+00.1
08	69 46.6	+02.5	S 01 34.0	+00.0
09	84 49.1	+02.5	S 01 34.0	+00.0
10	99 51.6	+02.6	S 01 34.0	+00.1
11	114 54.2	+02.5	S 01 34.1	+00.0
12	129 56.7	+02.6	S 01 34.1	+00.1
13	144 59.3	+02.5	S 01 34.2	+00.0
14	160 01.8	+02.5	S 01 34.2	+00.1
15	175 04.3	+02.6	S 01 34.3	+00.0
16	190 06.9	+02.5	S 01 34.3	+00.1
17	205 09.4	+02.6	S 01 34.4	+00.0
18	220 12.0	+02.5	S 01 34.4	+00.0
19	235 14.5	+02.6	S 01 34.4	+00.1
20	250 17.1	+02.5	S 01 34.5	+00.0
21	265 19.6	+02.5	S 01 34.5	+00.1
22	280 22.1	+02.6	S 01 34.6	+00.0
23	295 24.7	+02.5	S 01 34.6	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:21

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 4 Monday

(day 216 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 27.6	+00.1	N 17 13.4	-00.7
01	193 27.7	+00.0	N 17 12.7	-00.7
02	208 27.7	+00.1	N 17 12.0	-00.6
03	223 27.8	+00.1	N 17 11.4	-00.7
04	238 27.9	+00.0	N 17 10.7	-00.7
05	253 27.9	+00.1	N 17 10.0	-00.6
06	268 28.0	+00.0	N 17 09.4	-00.7
07	283 28.0	+00.1	N 17 08.7	-00.7
08	298 28.1	+00.1	N 17 08.0	-00.6
09	313 28.2	+00.0	N 17 07.4	-00.7
10	328 28.2	+00.1	N 17 06.7	-00.7
11	343 28.3	+00.0	N 17 06.0	-00.7
12	358 28.3	+00.1	N 17 05.3	-00.6
13	13 28.4	+00.1	N 17 04.7	-00.7
14	28 28.5	+00.0	N 17 04.0	-00.7
15	43 28.5	+00.1	N 17 03.3	-00.6
16	58 28.6	+00.0	N 17 02.7	-00.7
17	73 28.6	+00.1	N 17 02.0	-00.7
18	88 28.7	+00.1	N 17 01.3	-00.7
19	103 28.8	+00.0	N 17 00.6	-00.6
20	118 28.8	+00.1	N 16 60.0	-00.7
21	133 28.9	+00.1	N 16 59.3	-00.7
22	148 29.0	+00.0	N 16 58.6	-00.7
23	163 29.0	+00.1	N 16 57.9	-00.6

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	226°	225°	225°	225°	225°	225°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	218 01.2	-00.7	N 22 00.1	+00.0
01	233 00.5	-00.6	N 22 00.1	+00.1
02	247 59.9	-00.7	N 22 00.2	+00.0
03	262 59.2	-00.7	N 22 00.2	+00.0
04	277 58.5	-00.7	N 22 00.2	+00.0
05	292 57.8	-00.6	N 22 00.2	+00.1
06	307 57.2	-00.7	N 22 00.3	+00.0
07	322 56.5	-00.7	N 22 00.3	+00.0
08	337 55.8	-00.6	N 22 00.3	+00.0
09	352 55.2	-00.7	N 22 00.3	+00.1
10	7 54.5	-00.7	N 22 00.4	+00.0
11	22 53.8	-00.7	N 22 00.4	+00.0
12	37 53.1	-00.6	N 22 00.4	+00.0
13	52 52.5	-00.7	N 22 00.4	+00.0
14	67 51.8	-00.7	N 22 00.4	+00.1
15	82 51.1	-00.7	N 22 00.5	+00.0
16	97 50.4	-00.6	N 22 00.5	+00.0
17	112 49.8	-00.7	N 22 00.5	+00.0
18	127 49.1	-00.7	N 22 00.5	+00.0
19	142 48.4	-00.7	N 22 00.5	+00.0
20	157 47.7	-00.6	N 22 00.5	+00.1
21	172 47.1	-00.7	N 22 00.6	+00.0
22	187 46.4	-00.7	N 22 00.6	+00.0
23	202 45.7	-00.7	N 22 00.6	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	265°	265°	265°	264°	264°	264°

Greenwich Culmination Time: 09:28

Moon

A: 32%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	66 23.0	-30.8	S 26 50.4	+05.2
01	80 52.2	-30.9	S 26 55.6	+05.1
02	95 21.3	-30.9	S 27 00.7	+04.9
03	109 50.4	-31.0	S 27 05.6	+04.8
04	124 19.4	-31.0	S 27 10.4	+04.7
05	138 48.4	-31.1	S 27 15.1	+04.6
06	153 17.3	-31.2	S 27 19.7	+04.4
07	167 46.1	-31.3	S 27 24.1	+04.3
08	182 14.8	-31.3	S 27 28.4	+04.2
09	196 43.5	-31.4	S 27 32.6	+04.0
10	211 12.1	-31.4	S 27 36.6	+03.9
11	225 40.7	-31.6	S 27 40.5	+03.8
12	240 09.1	-31.5	S 27 44.3	+03.6
13	254 37.6	-31.7	S 27 47.9	+03.5
14	269 05.9	-31.7	S 27 51.4	+03.4
15	283 34.2	-31.7	S 27 54.8	+03.2
16	298 02.5	-31.9	S 27 58.0	+03.0
17	312 30.6	-31.8	S 28 01.0	+03.0
18	326 58.8	-32.0	S 28 04.0	+02.8
19	341 26.8	-32.0	S 28 06.8	+02.6
20	355 54.8	-32.0	S 28 09.4	+02.5
21	10 22.8	-32.1	S 28 11.9	+02.4
22	24 50.7	-32.1	S 28 14.3	+02.2
23	39 18.6	-32.2	S 28 16.5	+02.1

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′9	15′0	15′0
HP	54′6	54′7	54′8	54′8	54′9	55′0
SHA	112°	110°	108°	106°	103°	101°

Greenwich Culmination Time: 20:16

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	134 16.7	+01.1	N 01 15.9	-00.6
01	149 17.8	+01.0	N 01 15.3	-00.7
02	164 18.8	+01.1	N 01 14.6	-00.6
03	179 19.9	+01.1	N 01 14.0	-00.7
04	194 21.0	+01.0	N 01 13.3	-00.6
05	209 22.0	+01.1	N 01 12.7	-00.6
06	224 23.1	+01.0	N 01 12.1	-00.7
07	239 24.1	+01.1	N 01 11.4	-00.6
08	254 25.2	+01.0	N 01 10.8	-00.7
09	269 26.2	+01.1	N 01 10.1	-00.6
10	284 27.3	+01.0	N 01 09.5	-00.7
11	299 28.3	+01.1	N 01 08.8	-00.6
12	314 29.4	+01.0	N 01 08.2	-00.6
13	329 30.4	+01.1	N 01 07.6	-00.7
14	344 31.5	+01.1	N 01 06.9	-00.6
15	359 32.6	+01.0	N 01 06.3	-00.7
16	14 33.6	+01.1	N 01 05.6	-00.6
17	29 34.7	+01.0	N 01 05.0	-00.7
18	44 35.7	+01.1	N 01 04.3	-00.6
19	59 36.8	+01.0	N 01 03.7	-00.7
20	74 37.8	+01.1	N 01 03.0	-00.6
21	89 38.9	+01.0	N 01 02.4	-00.6
22	104 39.9	+01.1	N 01 01.8	-00.7
23	119 41.0	+01.0	N 01 01.1	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	181°	181°	181°	181°	181°	181°

Greenwich Culmination Time: 15:01

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	209 24.0	+01.8	N 22 47.3	-00.1
01	224 25.8	+01.9	N 22 47.2	+00.0
02	239 27.7	+01.9	N 22 47.2	+00.0
03	254 29.6	+01.9	N 22 47.2	-00.1
04	269 31.5	+01.9	N 22 47.1	+00.0
05	284 33.4	+01.9	N 22 47.1	-00.1
06	299 35.3	+01.9	N 22 47.0	+00.0
07	314 37.2	+01.9	N 22 47.0	-00.1
08	329 39.1	+01.9	N 22 46.9	+00.0
09	344 41.0	+01.9	N 22 46.9	-00.1
10	359 42.9	+01.9	N 22 46.8	+00.0
11	14 44.8	+01.9	N 22 46.8	-00.1
12	29 46.7	+01.9	N 22 46.7	+00.0
13	44 48.6	+01.9	N 22 46.7	+00.0
14	59 50.5	+01.9	N 22 46.7	-00.1
15	74 52.4	+01.8	N 22 46.6	+00.0
16	89 54.2	+01.9	N 22 46.6	-00.1
17	104 56.1	+01.9	N 22 46.5	+00.0
18	119 58.0	+01.9	N 22 46.5	-00.1
19	134 59.9	+01.9	N 22 46.4	+00.0
20	150 01.8	+01.9	N 22 46.4	-00.1
21	165 03.7	+01.9	N 22 46.3	+00.0
22	180 05.6	+01.9	N 22 46.3	-00.1
23	195 07.5	+01.9	N 22 46.2	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	257°	257°	256°	256°	256°	256°

Greenwich Culmination Time: 10:01

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	310 27.2	+02.6	S 01 34.7	+00.0
01	325 29.8	+02.5	S 01 34.7	+00.1
02	340 32.3	+02.5	S 01 34.8	+00.0
03	355 34.8	+02.6	S 01 34.8	+00.0
04	10 37.4	+02.5	S 01 34.8	+00.1
05	25 39.9	+02.6	S 01 34.9	+00.0
06	40 42.5	+02.5	S 01 34.9	+00.1
07	55 45.0	+02.6	S 01 35.0	+00.0
08	70 47.6	+02.5	S 01 35.0	+00.1
09	85 50.1	+02.5	S 01 35.1	+00.0
10	100 52.6	+02.6	S 01 35.1	+00.1
11	115 55.2	+02.5	S 01 35.2	+00.0
12	130 57.7	+02.6	S 01 35.2	+00.1
13	146 00.3	+02.5	S 01 35.3	+00.0
14	161 02.8	+02.6	S 01 35.3	+00.0
15	176 05.4	+02.5	S 01 35.3	+00.1
16	191 07.9	+02.5	S 01 35.4	+00.0
17	206 10.4	+02.6	S 01 35.4	+00.1
18	221 13.0	+02.5	S 01 35.5	+00.0
19	236 15.5	+02.6	S 01 35.5	+00.1
20	251 18.1	+02.5	S 01 35.6	+00.0
21	266 20.6	+02.6	S 01 35.6	+00.1
22	281 23.2	+02.5	S 01 35.7	+00.0
23	296 25.7	+02.6	S 01 35.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:17

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2025 August 5 Tuesday

(day 217 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 29.1	+00.0	N 16 57.3	-00.7
01	193 29.1	+00.1	N 16 56.6	-00.7
02	208 29.2	+00.1	N 16 55.9	-00.7
03	223 29.3	+00.0	N 16 55.2	-00.7
04	238 29.3	+00.1	N 16 54.5	-00.6
05	253 29.4	+00.1	N 16 53.9	-00.7
06	268 29.5	+00.0	N 16 53.2	-00.7
07	283 29.5	+00.1	N 16 52.5	-00.7
08	298 29.6	+00.1	N 16 51.8	-00.7
09	313 29.7	+00.0	N 16 51.1	-00.6
10	328 29.7	+00.1	N 16 50.5	-00.7
11	343 29.8	+00.1	N 16 49.8	-00.7
12	358 29.9	+00.0	N 16 49.1	-00.7
13	13 29.9	+00.1	N 16 48.4	-00.7
14	28 30.0	+00.1	N 16 47.7	-00.7
15	43 30.1	+00.0	N 16 47.0	-00.6
16	58 30.1	+00.1	N 16 46.4	-00.7
17	73 30.2	+00.1	N 16 45.7	-00.7
18	88 30.3	+00.0	N 16 45.0	-00.7
19	103 30.3	+00.1	N 16 44.3	-00.7
20	118 30.4	+00.1	N 16 43.6	-00.7
21	133 30.5	+00.1	N 16 42.9	-00.7
22	148 30.6	+00.0	N 16 42.2	-00.6
23	163 30.6	+00.1	N 16 41.6	-00.7

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	225°	224°	224°	224°	224°	224°

Greenwich Culmination Time: 12:06

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	217 45.0	-00.6	N 22 00.6	+00.0
01	232 44.4	-00.7	N 22 00.6	+00.0
02	247 43.7	-00.7	N 22 00.6	+00.0
03	262 43.0	-00.7	N 22 00.6	+00.0
04	277 42.3	-00.7	N 22 00.6	+00.0
05	292 41.6	-00.6	N 22 00.6	+00.0
06	307 41.0	-00.7	N 22 00.6	+00.0
07	322 40.3	-00.7	N 22 00.6	+00.0
08	337 39.6	-00.7	N 22 00.6	+00.0
09	352 38.9	-00.6	N 22 00.6	+00.0
10	7 38.3	-00.7	N 22 00.6	+00.0
11	22 37.6	-00.7	N 22 00.6	+00.0
12	37 36.9	-00.7	N 22 00.6	+00.0
13	52 36.2	-00.7	N 22 00.6	+00.0
14	67 35.5	-00.6	N 22 00.6	+00.0
15	82 34.9	-00.7	N 22 00.6	+00.0
16	97 34.2	-00.7	N 22 00.6	+00.0
17	112 33.5	-00.7	N 22 00.6	+00.0
18	127 32.8	-00.7	N 22 00.6	+00.0
19	142 32.1	-00.6	N 22 00.6	-00.1
20	157 31.5	-00.7	N 22 00.5	+00.0
21	172 30.8	-00.7	N 22 00.5	+00.0
22	187 30.1	-00.7	N 22 00.5	+00.0
23	202 29.4	-00.7	N 22 00.5	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	264°	264°	263°	263°	263°	263°

Greenwich Culmination Time: 09:29

Moon

A: 36%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	53 46.4	-32.3	S 28 18.6	+01.9
01	68 14.1	-32.3	S 28 20.5	+01.8
02	82 41.8	-32.3	S 28 22.3	+01.7
03	97 09.5	-32.4	S 28 24.0	+01.5
04	111 37.1	-32.5	S 28 25.5	+01.3
05	126 04.6	-32.5	S 28 26.8	+01.2
06	140 32.1	-32.5	S 28 28.0	+01.1
07	154 59.6	-32.5	S 28 29.1	+00.9
08	169 27.1	-32.7	S 28 30.0	+00.7
09	183 54.4	-32.6	S 28 30.7	+00.6
10	198 21.8	-32.7	S 28 31.3	+00.5
11	212 49.1	-32.7	S 28 31.8	+00.3
12	227 16.4	-32.7	S 28 32.1	+00.2
13	241 43.7	-32.8	S 28 32.3	+00.0
14	256 10.9	-32.8	S 28 32.3	-00.2
15	270 38.1	-32.9	S 28 32.1	-00.3
16	285 05.2	-32.8	S 28 31.8	-00.4
17	299 32.4	-32.9	S 28 31.4	-00.6
18	313 59.5	-33.0	S 28 30.8	-00.8
19	328 26.5	-32.9	S 28 30.0	-00.9
20	342 53.6	-33.0	S 28 29.1	-01.1
21	357 20.6	-32.9	S 28 28.0	-01.2
22	11 47.7	-33.0	S 28 26.8	-01.4
23	26 14.7	-33.1	S 28 25.4	-01.5

UT	02	06	10	14	18	22
SD	15′0	15′0	15′1	15′1	15′1	15′1
HP	55′1	55′2	55′2	55′3	55′4	55′5
SHA	099°	096°	094°	092°	089°	087°

Greenwich Culmination Time: 21:11

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	134 42.0	+01.1	N 01 00.5	-00.7
01	149 43.1	+01.0	N 00 59.8	-00.6
02	164 44.1	+01.1	N 00 59.2	-00.7
03	179 45.2	+01.1	N 00 58.5	-00.6
04	194 46.3	+01.0	N 00 57.9	-00.7
05	209 47.3	+01.1	N 00 57.2	-00.6
06	224 48.4	+01.0	N 00 56.6	-00.6
07	239 49.4	+01.1	N 00 56.0	-00.7
08	254 50.5	+01.0	N 00 55.3	-00.6
09	269 51.5	+01.1	N 00 54.7	-00.7
10	284 52.6	+01.0	N 00 54.0	-00.6
11	299 53.6	+01.1	N 00 53.4	-00.7
12	314 54.7	+01.0	N 00 52.7	-00.6
13	329 55.7	+01.1	N 00 52.1	-00.7
14	344 56.8	+01.0	N 00 51.4	-00.6
15	359 57.8	+01.1	N 00 50.8	-00.7
16	14 58.9	+01.0	N 00 50.1	-00.6
17	29 59.9	+01.1	N 00 49.5	-00.6
18	45 01.0	+01.0	N 00 48.9	-00.7
19	60 02.0	+01.1	N 00 48.2	-00.6
20	75 03.1	+01.0	N 00 47.6	-00.7
21	90 04.1	+01.1	N 00 46.9	-00.6
22	105 05.2	+01.0	N 00 46.3	-00.7
23	120 06.2	+01.1	N 00 45.6	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	181°	181°	181°	181°	180°	180°

Greenwich Culmination Time: 15:00

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	210 09.4	+01.9	N 22 46.2	+00.0
01	225 11.3	+01.9	N 22 46.2	-00.1
02	240 13.2	+01.9	N 22 46.1	+00.0
03	255 15.1	+01.9	N 22 46.1	-00.1
04	270 17.0	+01.9	N 22 46.0	+00.0
05	285 18.9	+01.9	N 22 46.0	-00.1
06	300 20.8	+01.9	N 22 45.9	+00.0
07	315 22.7	+01.9	N 22 45.9	-00.1
08	330 24.6	+01.9	N 22 45.8	+00.0
09	345 26.5	+01.9	N 22 45.8	-00.1
10	0 28.4	+01.9	N 22 45.7	+00.0
11	15 30.3	+01.8	N 22 45.7	+00.0
12	30 32.1	+01.9	N 22 45.7	-00.1
13	45 34.0	+01.9	N 22 45.6	+00.0
14	60 35.9	+01.9	N 22 45.6	-00.1
15	75 37.8	+01.9	N 22 45.5	+00.0
16	90 39.7	+01.9	N 22 45.5	-00.1
17	105 41.6	+01.9	N 22 45.4	+00.0
18	120 43.5	+01.9	N 22 45.4	-00.1
19	135 45.4	+01.9	N 22 45.3	+00.0
20	150 47.3	+01.9	N 22 45.3	-00.1
21	165 49.2	+01.9	N 22 45.2	+00.0
22	180 51.1	+01.9	N 22 45.2	-00.1
23	195 53.0	+01.9	N 22 45.1	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	256°	256°	256°	256°	256°	256°

Greenwich Culmination Time: 09:58

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	311 28.3	+02.5	S 01 35.8	+00.0
01	326 30.8	+02.6	S 01 35.8	+00.0
02	341 33.4	+02.5	S 01 35.8	+00.1
03	356 35.9	+02.5	S 01 35.9	+00.0
04	11 38.4	+02.6	S 01 35.9	+00.1
05	26 41.0	+02.5	S 01 36.0	+00.0
06	41 43.5	+02.6	S 01 36.0	+00.1
07	56 46.1	+02.5	S 01 36.1	+00.0
08	71 48.6	+02.6	S 01 36.1	+00.1
09	86 51.2	+02.5	S 01 36.2	+00.0
10	101 53.7	+02.6	S 01 36.2	+00.1
11	116 56.3	+02.5	S 01 36.3	+00.0
12	131 58.8	+02.6	S 01 36.3	+00.1
13	147 01.4	+02.5	S 01 36.4	+00.0
14	162 03.9	+02.6	S 01 36.4	+00.1
15	177 06.5	+02.5	S 01 36.5	+00.0
16	192 09.0	+02.5	S 01 36.5	+00.0
17	207 11.5	+02.6	S 01 36.5	+00.1
18	222 14.1	+02.5	S 01 36.6	+00.0
19	237 16.6	+02.6	S 01 36.6	+00.1
20	252 19.2	+02.5	S 01 36.7	+00.0
21	267 21.7	+02.6	S 01 36.7	+00.1
22	282 24.3	+02.5	S 01 36.8	+00.0
23	297 26.8	+02.6	S 01 36.8	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:13

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 6 Wednesday (day 218 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 30.7	+00.1	N 16 40.9	-00.7
01	193 30.8	+00.0	N 16 40.2	-00.7
02	208 30.8	+00.1	N 16 39.5	-00.7
03	223 30.9	+00.1	N 16 38.8	-00.7
04	238 31.0	+00.0	N 16 38.1	-00.7
05	253 31.0	+00.1	N 16 37.4	-00.7
06	268 31.1	+00.1	N 16 36.7	-00.7
07	283 31.2	+00.1	N 16 36.0	-00.6
08	298 31.3	+00.0	N 16 35.4	-00.7
09	313 31.3	+00.1	N 16 34.7	-00.7
10	328 31.4	+00.1	N 16 34.0	-00.7
11	343 31.5	+00.1	N 16 33.3	-00.7
12	358 31.6	+00.0	N 16 32.6	-00.7
13	13 31.6	+00.1	N 16 31.9	-00.7
14	28 31.7	+00.1	N 16 31.2	-00.7
15	43 31.8	+00.1	N 16 30.5	-00.7
16	58 31.9	+00.0	N 16 29.8	-00.7
17	73 31.9	+00.1	N 16 29.1	-00.7
18	88 32.0	+00.1	N 16 28.4	-00.7
19	103 32.1	+00.1	N 16 27.7	-00.7
20	118 32.2	+00.0	N 16 27.0	-00.7
21	133 32.2	+00.1	N 16 26.3	-00.7
22	148 32.3	+00.1	N 16 25.6	-00.7
23	163 32.4	+00.1	N 16 24.9	-00.7

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	224°	223°	223°	223°	223°	223°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	217 28.7	-00.6	N 22 00.5	+00.0
01	232 28.1	-00.7	N 22 00.5	+00.0
02	247 27.4	-00.7	N 22 00.5	-00.1
03	262 26.7	-00.7	N 22 00.4	+00.0
04	277 26.0	-00.7	N 22 00.4	+00.0
05	292 25.3	-00.6	N 22 00.4	+00.0
06	307 24.7	-00.7	N 22 00.4	-00.1
07	322 24.0	-00.7	N 22 00.3	+00.0
08	337 23.3	-00.7	N 22 00.3	+00.0
09	352 22.6	-00.7	N 22 00.3	+00.0
10	7 21.9	-00.6	N 22 00.3	-00.1
11	22 21.3	-00.7	N 22 00.2	+00.0
12	37 20.6	-00.7	N 22 00.2	+00.0
13	52 19.9	-00.7	N 22 00.2	+00.0
14	67 19.2	-00.7	N 22 00.2	-00.1
15	82 18.5	-00.7	N 22 00.1	+00.0
16	97 17.8	-00.6	N 22 00.1	+00.0
17	112 17.2	-00.7	N 22 00.1	-00.1
18	127 16.5	-00.7	N 22 00.0	+00.0
19	142 15.8	-00.7	N 21 60.0	+00.0
20	157 15.1	-00.7	N 21 60.0	-00.1
21	172 14.4	-00.7	N 21 59.9	+00.0
22	187 13.7	-00.6	N 21 59.9	-00.1
23	202 13.1	-00.7	N 21 59.8	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	263°	262°	262°	262°	262°	262°

Greenwich Culmination Time: 09:30

Moon

A: 40%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	40 41.6	-33.0	S 28 23.9	-01.7
01	55 08.6	-33.1	S 28 22.2	-01.9
02	69 35.5	-33.0	S 28 20.3	-02.0
03	84 02.5	-33.1	S 28 18.3	-02.1
04	98 29.4	-33.1	S 28 16.2	-02.3
05	112 56.3	-33.1	S 28 13.9	-02.5
06	127 23.2	-33.1	S 28 11.4	-02.6
07	141 50.1	-33.1	S 28 08.8	-02.8
08	156 17.0	-33.1	S 28 06.0	-02.9
09	170 43.9	-33.1	S 28 03.1	-03.1
10	185 10.8	-33.1	S 27 60.0	-03.3
11	199 37.7	-33.1	S 27 56.7	-03.4
12	214 04.6	-33.1	S 27 53.3	-03.5
13	228 31.5	-33.1	S 27 49.8	-03.7
14	242 58.4	-33.1	S 27 46.1	-03.9
15	257 25.3	-33.1	S 27 42.2	-04.0
16	271 52.2	-33.1	S 27 38.2	-04.2
17	286 19.1	-33.0	S 27 34.0	-04.3
18	300 46.1	-33.1	S 27 29.7	-04.5
19	315 13.0	-33.0	S 27 25.2	-04.7
20	329 40.0	-33.1	S 27 20.5	-04.8
21	344 06.9	-33.0	S 27 15.7	-04.9
22	358 33.9	-33.0	S 27 10.8	-05.1
23	13 00.9	-33.0	S 27 05.7	-05.3

UT	02	06	10	14	18	22
SD	15′2	15′2	15′2	15′2	15′3	15′3
HP	55′6	55′7	55′8	55′9	56′0	56′1
SHA	085°	082°	080°	078°	075°	073°

Greenwich Culmination Time: 22:05

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	135 07.3	+01.0	N 00 45.0	-00.7
01	150 08.3	+01.1	N 00 44.3	-00.6
02	165 09.4	+01.0	N 00 43.7	-00.7
03	180 10.4	+01.1	N 00 43.0	-00.6
04	195 11.5	+01.0	N 00 42.4	-00.6
05	210 12.5	+01.1	N 00 41.8	-00.7
06	225 13.6	+01.0	N 00 41.1	-00.6
07	240 14.6	+01.1	N 00 40.5	-00.7
08	255 15.7	+01.0	N 00 39.8	-00.6
09	270 16.7	+01.1	N 00 39.2	-00.7
10	285 17.8	+01.0	N 00 38.5	-00.6
11	300 18.8	+01.1	N 00 37.9	-00.7
12	315 19.9	+01.0	N 00 37.2	-00.6
13	330 20.9	+01.1	N 00 36.6	-00.7
14	345 22.0	+01.0	N 00 35.9	-00.6
15	0 23.0	+01.1	N 00 35.3	-00.7
16	15 24.1	+01.0	N 00 34.6	-00.6
17	30 25.1	+01.1	N 00 34.0	-00.6
18	45 26.2	+01.0	N 00 33.4	-00.7
19	60 27.2	+01.1	N 00 32.7	-00.6
20	75 28.3	+01.0	N 00 32.1	-00.7
21	90 29.3	+01.1	N 00 31.4	-00.6
22	105 30.4	+01.0	N 00 30.8	-00.7
23	120 31.4	+01.1	N 00 30.1	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	180°	180°	180°	180°	180°	180°

Greenwich Culmination Time: 14:58

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	210 54.9	+01.9	N 22 45.1	+00.0
01	225 56.8	+01.9	N 22 45.1	-00.1
02	240 58.7	+01.9	N 22 45.0	+00.0
03	256 00.6	+01.9	N 22 45.0	-00.1
04	271 02.5	+01.9	N 22 44.9	+00.0
05	286 04.4	+01.9	N 22 44.9	-00.1
06	301 06.3	+01.9	N 22 44.8	+00.0
07	316 08.2	+01.9	N 22 44.8	-00.1
08	331 10.1	+01.9	N 22 44.7	+00.0
09	346 12.0	+01.9	N 22 44.7	-00.1
10	1 13.9	+01.9	N 22 44.6	+00.0
11	16 15.8	+01.9	N 22 44.6	-00.1
12	31 17.7	+01.9	N 22 44.5	+00.0
13	46 19.6	+01.9	N 22 44.5	+00.0
14	61 21.5	+01.9	N 22 44.5	-00.1
15	76 23.4	+01.9	N 22 44.4	+00.0
16	91 25.3	+01.9	N 22 44.4	-00.1
17	106 27.2	+01.9	N 22 44.3	+00.0
18	121 29.1	+01.9	N 22 44.3	-00.1
19	136 31.0	+01.9	N 22 44.2	+00.0
20	151 32.9	+01.9	N 22 44.2	-00.1
21	166 34.8	+01.9	N 22 44.1	+00.0
22	181 36.7	+01.9	N 22 44.1	-00.1
23	196 38.6	+01.9	N 22 44.0	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	256°	256°	256°	256°	256°	256°

Greenwich Culmination Time: 09:55

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	312 29.4	+02.5	S 01 36.9	+00.0
01	327 31.9	+02.6	S 01 36.9	+00.1
02	342 34.5	+02.5	S 01 37.0	+00.0
03	357 37.0	+02.6	S 01 37.0	+00.1
04	12 39.6	+02.5	S 01 37.1	+00.0
05	27 42.1	+02.6	S 01 37.1	+00.1
06	42 44.7	+02.5	S 01 37.2	+00.0
07	57 47.2	+02.6	S 01 37.2	+00.1
08	72 49.8	+02.5	S 01 37.3	+00.0
09	87 52.3	+02.6	S 01 37.3	+00.1
10	102 54.9	+02.5	S 01 37.4	+00.0
11	117 57.4	+02.6	S 01 37.4	+00.0
12	132 60.0	+02.5	S 01 37.4	+00.1
13	148 02.5	+02.6	S 01 37.5	+00.0
14	163 05.1	+02.5	S 01 37.5	+00.1
15	178 07.6	+02.6	S 01 37.6	+00.0
16	193 10.2	+02.5	S 01 37.6	+00.1
17	208 12.7	+02.6	S 01 37.7	+00.0
18	223 15.3	+02.5	S 01 37.7	+00.1
19	238 17.8	+02.6	S 01 37.8	+00.0
20	253 20.4	+02.5	S 01 37.8	+00.1
21	268 22.9	+02.6	S 01 37.9	+00.0
22	283 25.5	+02.5	S 01 37.9	+00.1
23	298 28.0	+02.6	S 01 38.0	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:09

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2025 August 7 Thursday

(day 219 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 32.5	+00.0	N 16 24.2	-00.7
01	193 32.5	+00.1	N 16 23.5	-00.7
02	208 32.6	+00.1	N 16 22.8	-00.7
03	223 32.7	+00.1	N 16 22.1	-00.7
04	238 32.8	+00.0	N 16 21.4	-00.7
05	253 32.8	+00.1	N 16 20.7	-00.7
06	268 32.9	+00.1	N 16 20.0	-00.7
07	283 33.0	+00.1	N 16 19.3	-00.7
08	298 33.1	+00.1	N 16 18.6	-00.7
09	313 33.2	+00.0	N 16 17.9	-00.7
10	328 33.2	+00.1	N 16 17.2	-00.7
11	343 33.3	+00.1	N 16 16.5	-00.7
12	358 33.4	+00.1	N 16 15.8	-00.7
13	13 33.5	+00.1	N 16 15.1	-00.7
14	28 33.6	+00.0	N 16 14.4	-00.7
15	43 33.6	+00.1	N 16 13.7	-00.7
16	58 33.7	+00.1	N 16 13.0	-00.7
17	73 33.8	+00.1	N 16 12.3	-00.7
18	88 33.9	+00.1	N 16 11.6	-00.7
19	103 34.0	+00.0	N 16 10.9	-00.8
20	118 34.0	+00.1	N 16 10.1	-00.7
21	133 34.1	+00.1	N 16 09.4	-00.7
22	148 34.2	+00.1	N 16 08.7	-00.7
23	163 34.3	+00.1	N 16 08.0	-00.7

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	223°	223°	222°	222°	222°	222°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	217 12.4	-00.7	N 21 59.8	+00.0
01	232 11.7	-00.7	N 21 59.8	-00.1
02	247 11.0	-00.7	N 21 59.7	+00.0
03	262 10.3	-00.7	N 21 59.7	-00.1
04	277 09.6	-00.7	N 21 59.6	+00.0
05	292 08.9	-00.6	N 21 59.6	-00.1
06	307 08.3	-00.7	N 21 59.5	+00.0
07	322 07.6	-00.7	N 21 59.5	-00.1
08	337 06.9	-00.7	N 21 59.4	+00.0
09	352 06.2	-00.7	N 21 59.4	-00.1
10	7 05.5	-00.7	N 21 59.3	+00.0
11	22 04.8	-00.7	N 21 59.3	-00.1
12	37 04.1	-00.6	N 21 59.2	+00.0
13	52 03.5	-00.7	N 21 59.2	-00.1
14	67 02.8	-00.7	N 21 59.1	+00.0
15	82 02.1	-00.7	N 21 59.1	-00.1
16	97 01.4	-00.7	N 21 59.0	+00.0
17	112 00.7	-00.7	N 21 59.0	-00.1
18	127 00.0	-00.7	N 21 58.9	-00.1
19	141 59.3	-00.6	N 21 58.8	+00.0
20	156 58.7	-00.7	N 21 58.8	-00.1
21	171 58.0	-00.7	N 21 58.7	+00.0
22	186 57.3	-00.7	N 21 58.7	-00.1
23	201 56.6	-00.7	N 21 58.6	-00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	261°	261°	261°	261°	260°	260°

Greenwich Culmination Time: 09:31

Moon

A: 43%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	27 27.9	-32.9	S 27 00.4	-05.4
01	41 55.0	-33.0	S 26 55.0	-05.6
02	56 22.0	-32.9	S 26 49.4	-05.7
03	70 49.1	-32.9	S 26 43.7	-05.9
04	85 16.2	-32.8	S 26 37.8	-06.0
05	99 43.4	-32.9	S 26 31.8	-06.2
06	114 10.5	-32.8	S 26 25.6	-06.3
07	128 37.7	-32.7	S 26 19.3	-06.5
08	143 05.0	-32.8	S 26 12.8	-06.6
09	157 32.2	-32.7	S 26 06.2	-06.8
10	171 59.5	-32.7	S 25 59.4	-06.9
11	186 26.8	-32.6	S 25 52.5	-07.1
12	200 54.2	-32.7	S 25 45.4	-07.2
13	215 21.5	-32.5	S 25 38.2	-07.3
14	229 49.0	-32.6	S 25 30.9	-07.6
15	244 16.4	-32.5	S 25 23.3	-07.6
16	258 43.9	-32.5	S 25 15.7	-07.8
17	273 11.4	-32.4	S 25 07.9	-08.0
18	287 39.0	-32.4	S 24 59.9	-08.1
19	302 06.6	-32.3	S 24 51.8	-08.2
20	316 34.3	-32.3	S 24 43.6	-08.4
21	331 02.0	-32.3	S 24 35.2	-08.5
22	345 29.7	-32.2	S 24 26.7	-08.7
23	359 57.5	-32.2	S 24 18.0	-08.8

UT	02	06	10	14	18	22
SD	15′3	15′3	15′4	15′4	15′4	15′5
HP	56′2	56′3	56′4	56′6	56′7	56′8
SHA	071°	068°	066°	063°	061°	059°

Greenwich Culmination Time: 23:00

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	135 32.5	+01.0	N 00 29.5	-00.7
01	150 33.5	+01.1	N 00 28.8	-00.6
02	165 34.6	+01.0	N 00 28.2	-00.7
03	180 35.6	+01.1	N 00 27.5	-00.6
04	195 36.7	+01.0	N 00 26.9	-00.7
05	210 37.7	+01.1	N 00 26.2	-00.6
06	225 38.8	+01.0	N 00 25.6	-00.6
07	240 39.8	+01.1	N 00 25.0	-00.7
08	255 40.9	+01.0	N 00 24.3	-00.6
09	270 41.9	+01.1	N 00 23.7	-00.7
10	285 43.0	+01.0	N 00 23.0	-00.6
11	300 44.0	+01.1	N 00 22.4	-00.7
12	315 45.1	+01.0	N 00 21.7	-00.6
13	330 46.1	+01.1	N 00 21.1	-00.7
14	345 47.2	+01.0	N 00 20.4	-00.6
15	0 48.2	+01.1	N 00 19.8	-00.7
16	15 49.3	+01.0	N 00 19.1	-00.6
17	30 50.3	+01.0	N 00 18.5	-00.7
18	45 51.3	+01.1	N 00 17.8	-00.6
19	60 52.4	+01.0	N 00 17.2	-00.7
20	75 53.4	+01.1	N 00 16.5	-00.6
21	90 54.5	+01.0	N 00 15.9	-00.7
22	105 55.5	+01.1	N 00 15.2	-00.6
23	120 56.6	+01.0	N 00 14.6	-00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	180°	180°	180°	179°	179°	179°

Greenwich Culmination Time: 14:56

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	211 40.5	+01.9	N 22 44.0	-00.1
01	226 42.4	+01.9	N 22 43.9	+00.0
02	241 44.3	+01.9	N 22 43.9	-00.1
03	256 46.2	+01.9	N 22 43.8	+00.0
04	271 48.1	+01.9	N 22 43.8	+00.0
05	286 50.0	+01.9	N 22 43.8	-00.1
06	301 51.9	+01.9	N 22 43.7	+00.0
07	316 53.8	+01.9	N 22 43.7	-00.1
08	331 55.7	+01.9	N 22 43.6	+00.0
09	346 57.6	+01.9	N 22 43.6	-00.1
10	1 59.5	+01.9	N 22 43.5	+00.0
11	17 01.4	+01.9	N 22 43.5	-00.1
12	32 03.3	+01.9	N 22 43.4	+00.0
13	47 05.2	+01.9	N 22 43.4	-00.1
14	62 07.1	+01.9	N 22 43.3	+00.0
15	77 09.0	+01.9	N 22 43.3	-00.1
16	92 10.9	+01.9	N 22 43.2	+00.0
17	107 12.8	+01.9	N 22 43.2	-00.1
18	122 14.7	+01.9	N 22 43.1	+00.0
19	137 16.6	+01.9	N 22 43.1	-00.1
20	152 18.5	+01.9	N 22 43.0	+00.0
21	167 20.4	+01.9	N 22 43.0	+00.0
22	182 22.3	+01.9	N 22 43.0	-00.1
23	197 24.2	+01.9	N 22 42.9	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	256°	256°	256°	256°	256°	256°

Greenwich Culmination Time: 09:52

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	313 30.6	+02.5	S 01 38.0	+00.1
01	328 33.1	+02.6	S 01 38.1	+00.0
02	343 35.7	+02.6	S 01 38.1	+00.1
03	358 38.3	+02.5	S 01 38.2	+00.0
04	13 40.8	+02.6	S 01 38.2	+00.1
05	28 43.4	+02.5	S 01 38.3	+00.0
06	43 45.9	+02.6	S 01 38.3	+00.1
07	58 48.5	+02.5	S 01 38.4	+00.0
08	73 51.0	+02.6	S 01 38.4	+00.1
09	88 53.6	+02.5	S 01 38.5	+00.0
10	103 56.1	+02.6	S 01 38.5	+00.1
11	118 58.7	+02.5	S 01 38.6	+00.0
12	134 01.2	+02.6	S 01 38.6	+00.1
13	149 03.8	+02.5	S 01 38.7	+00.0
14	164 06.3	+02.6	S 01 38.7	+00.1
15	179 08.9	+02.5	S 01 38.8	+00.0
16	194 11.4	+02.6	S 01 38.8	+00.1
17	209 14.0	+02.6	S 01 38.9	+00.0
18	224 16.6	+02.5	S 01 38.9	+00.1
19	239 19.1	+02.6	S 01 39.0	+00.0
20	254 21.7	+02.5	S 01 39.0	+00.1
21	269 24.2	+02.6	S 01 39.1	+00.0
22	284 26.8	+02.5	S 01 39.1	+00.1
23	299 29.3	+02.6	S 01 39.2	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:05

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 8 Friday

(day 220 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 34.4	+00.1	N 16 07.3	-00.7
01	193 34.5	+00.0	N 16 06.6	-00.7
02	208 34.5	+00.1	N 16 05.9	-00.7
03	223 34.6	+00.1	N 16 05.2	-00.7
04	238 34.7	+00.1	N 16 04.5	-00.7
05	253 34.8	+00.1	N 16 03.8	-00.8
06	268 34.9	+00.1	N 16 03.0	-00.7
07	283 35.0	+00.0	N 16 02.3	-00.7
08	298 35.0	+00.1	N 16 01.6	-00.7
09	313 35.1	+00.1	N 16 00.9	-00.7
10	328 35.2	+00.1	N 16 00.2	-00.7
11	343 35.3	+00.1	N 15 59.5	-00.7
12	358 35.4	+00.1	N 15 58.8	-00.8
13	13 35.5	+00.1	N 15 58.0	-00.7
14	28 35.6	+00.0	N 15 57.3	-00.7
15	43 35.6	+00.1	N 15 56.6	-00.7
16	58 35.7	+00.1	N 15 55.9	-00.7
17	73 35.8	+00.1	N 15 55.2	-00.7
18	88 35.9	+00.1	N 15 54.5	-00.8
19	103 36.0	+00.1	N 15 53.7	-00.7
20	118 36.1	+00.1	N 15 53.0	-00.7
21	133 36.2	+00.0	N 15 52.3	-00.7
22	148 36.2	+00.1	N 15 51.6	-00.7
23	163 36.3	+00.1	N 15 50.9	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	222°	222°	221°	221°	221°	221°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	216 55.9	-00.7	N 21 58.5	+00.0
01	231 55.2	-00.7	N 21 58.5	-00.1
02	246 54.5	-00.7	N 21 58.4	-00.1
03	261 53.8	-00.6	N 21 58.3	+00.0
04	276 53.2	-00.7	N 21 58.3	-00.1
05	291 52.5	-00.7	N 21 58.2	-00.1
06	306 51.8	-00.7	N 21 58.1	-00.1
07	321 51.1	-00.7	N 21 58.0	+00.0
08	336 50.4	-00.7	N 21 58.0	-00.1
09	351 49.7	-00.7	N 21 57.9	-00.1
10	6 49.0	-00.7	N 21 57.8	-00.1
11	21 48.3	-00.7	N 21 57.7	+00.0
12	36 47.6	-00.6	N 21 57.7	-00.1
13	51 47.0	-00.7	N 21 57.6	-00.1
14	66 46.3	-00.7	N 21 57.5	-00.1
15	81 45.6	-00.7	N 21 57.4	-00.1
16	96 44.9	-00.7	N 21 57.3	+00.0
17	111 44.2	-00.7	N 21 57.3	-00.1
18	126 43.5	-00.7	N 21 57.2	-00.1
19	141 42.8	-00.7	N 21 57.1	-00.1
20	156 42.1	-00.7	N 21 57.0	-00.1
21	171 41.4	-00.6	N 21 56.9	-00.1
22	186 40.8	-00.7	N 21 56.8	-00.1
23	201 40.1	-00.7	N 21 56.7	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	260°	260°	260°	259°	259°	259°

Greenwich Culmination Time: 09:32

Moon

A: 47%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	14 25.3	-32.1	S 24 09.2	-08.9
01	28 53.2	-32.1	S 24 00.3	-09.1
02	43 21.1	-32.0	S 23 51.2	-09.2
03	57 49.1	-32.0	S 23 42.0	-09.4
04	72 17.1	-31.9	S 23 32.6	-09.4
05	86 45.2	-31.9	S 23 23.2	-09.7
06	101 13.3	-31.8	S 23 13.5	-09.7
07	115 41.5	-31.8	S 23 03.8	-09.9
08	130 09.7	-31.8	S 22 53.9	-10.0
09	144 37.9	-31.6	S 22 43.9	-10.2
10	159 06.3	-31.7	S 22 33.7	-10.3
11	173 34.6	-31.6	S 22 23.4	-10.4
12	188 03.0	-31.5	S 22 13.0	-10.5
13	202 31.5	-31.5	S 22 02.5	-10.7
14	217 00.0	-31.4	S 21 51.8	-10.8
15	231 28.6	-31.4	S 21 41.0	-10.9
16	245 57.2	-31.3	S 21 30.1	-11.1
17	260 25.9	-31.3	S 21 19.0	-11.1
18	274 54.6	-31.2	S 21 07.9	-11.3
19	289 23.4	-31.1	S 20 56.6	-11.4
20	303 52.3	-31.1	S 20 45.2	-11.6
21	318 21.2	-31.1	S 20 33.6	-11.6
22	332 50.1	-31.0	S 20 22.0	-11.8
23	347 19.1	-30.9	S 20 10.2	-11.9

UT	02	06	10	14	18	22
SD	15′5	15′5	15′6	15′6	15′6	15′6
HP	56′9	57′0	57′1	57′2	57′3	57′4
SHA	057°	054°	052°	050°	047°	045°

Greenwich Culmination Time: 23:52

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	135 57.6	+01.1	N 00 14.0	-00.7
01	150 58.7	+01.0	N 00 13.3	-00.6
02	165 59.7	+01.1	N 00 12.7	-00.7
03	181 00.8	+01.0	N 00 12.0	-00.6
04	196 01.8	+01.1	N 00 11.4	-00.7
05	211 02.9	+01.0	N 00 10.7	-00.6
06	226 03.9	+01.0	N 00 10.1	-00.7
07	241 04.9	+01.1	N 00 09.4	-00.6
08	256 06.0	+01.0	N 00 08.8	-00.7
09	271 07.0	+01.1	N 00 08.1	-00.6
10	286 08.1	+01.0	N 00 07.5	-00.7
11	301 09.1	+01.1	N 00 06.8	-00.6
12	316 10.2	+01.0	N 00 06.2	-00.7
13	331 11.2	+01.1	N 00 05.5	-00.6
14	346 12.3	+01.0	N 00 04.9	-00.7
15	1 13.3	+01.1	N 00 04.2	-00.6
16	16 14.4	+01.0	N 00 03.6	-00.7
17	31 15.4	+01.0	N 00 02.9	-00.6
18	46 16.4	+01.1	N 00 02.3	-00.7
19	61 17.5	+01.0	N 00 01.6	-00.6
20	76 18.5	+01.1	N 00 01.0	-00.7
21	91 19.6	+01.0	N 00 00.3	-00.6
22	106 20.6	+01.1	S 00 00.3	+00.6
23	121 21.7	+01.0	S 00 00.9	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	179°	179°	179°	179°	179°	179°

Greenwich Culmination Time: 14:55

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	212 26.1	+01.9	N 22 42.9	-00.1
01	227 28.0	+01.9	N 22 42.8	+00.0
02	242 29.9	+01.9	N 22 42.8	-00.1
03	257 31.8	+01.9	N 22 42.7	+00.0
04	272 33.7	+01.9	N 22 42.7	-00.1
05	287 35.6	+01.9	N 22 42.6	+00.0
06	302 37.5	+01.9	N 22 42.6	-00.1
07	317 39.4	+01.9	N 22 42.5	+00.0
08	332 41.3	+01.9	N 22 42.5	-00.1
09	347 43.2	+01.9	N 22 42.4	+00.0
10	2 45.1	+01.9	N 22 42.4	-00.1
11	17 47.0	+01.9	N 22 42.3	+00.0
12	32 48.9	+01.9	N 22 42.3	-00.1
13	47 50.8	+01.9	N 22 42.2	+00.0
14	62 52.7	+02.0	N 22 42.2	-00.1
15	77 54.7	+01.9	N 22 42.1	+00.0
16	92 56.6	+01.9	N 22 42.1	+00.0
17	107 58.5	+01.9	N 22 42.1	-00.1
18	123 00.4	+01.9	N 22 42.0	+00.0
19	138 02.3	+01.9	N 22 42.0	-00.1
20	153 04.2	+01.9	N 22 41.9	+00.0
21	168 06.1	+01.9	N 22 41.9	-00.1
22	183 08.0	+01.9	N 22 41.8	+00.0
23	198 09.9	+01.9	N 22 41.8	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	256°	256°	256°	256°	256°	255°

Greenwich Culmination Time: 09:49

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	314 31.9	+02.5	S 01 39.2	+00.1
01	329 34.4	+02.6	S 01 39.3	+00.0
02	344 37.0	+02.6	S 01 39.3	+00.1
03	359 39.6	+02.5	S 01 39.4	+00.0
04	14 42.1	+02.6	S 01 39.4	+00.1
05	29 44.7	+02.5	S 01 39.5	+00.0
06	44 47.2	+02.6	S 01 39.5	+00.1
07	59 49.8	+02.5	S 01 39.6	+00.0
08	74 52.3	+02.6	S 01 39.6	+00.1
09	89 54.9	+02.5	S 01 39.7	+00.0
10	104 57.4	+02.6	S 01 39.7	+00.1
11	120 00.0	+02.6	S 01 39.8	+00.0
12	135 02.6	+02.5	S 01 39.8	+00.1
13	150 05.1	+02.6	S 01 39.9	+00.0
14	165 07.7	+02.5	S 01 39.9	+00.1
15	180 10.2	+02.6	S 01 40.0	+00.0
16	195 12.8	+02.5	S 01 40.0	+00.1
17	210 15.3	+02.6	S 01 40.1	+00.0
18	225 17.9	+02.6	S 01 40.1	+00.1
19	240 20.5	+02.5	S 01 40.2	+00.0
20	255 23.0	+02.6	S 01 40.2	+00.1
21	270 25.6	+02.5	S 01 40.3	+00.0
22	285 28.1	+02.6	S 01 40.3	+00.1
23	300 30.7	+02.6	S 01 40.4	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 03:01

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2025 August 9 Saturday

(day 221 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 36.4	+00.1	N 15 50.1	-00.7
01	193 36.5	+00.1	N 15 49.4	-00.7
02	208 36.6	+00.1	N 15 48.7	-00.7
03	223 36.7	+00.1	N 15 48.0	-00.7
04	238 36.8	+00.1	N 15 47.3	-00.8
05	253 36.9	+00.1	N 15 46.5	-00.7
06	268 37.0	+00.1	N 15 45.8	-00.7
07	283 37.1	+00.0	N 15 45.1	-00.7
08	298 37.1	+00.1	N 15 44.4	-00.8
09	313 37.2	+00.1	N 15 43.6	-00.7
10	328 37.3	+00.1	N 15 42.9	-00.7
11	343 37.4	+00.1	N 15 42.2	-00.7
12	358 37.5	+00.1	N 15 41.5	-00.8
13	13 37.6	+00.1	N 15 40.7	-00.7
14	28 37.7	+00.1	N 15 40.0	-00.7
15	43 37.8	+00.1	N 15 39.3	-00.7
16	58 37.9	+00.1	N 15 38.6	-00.8
17	73 38.0	+00.1	N 15 37.8	-00.7
18	88 38.1	+00.1	N 15 37.1	-00.7
19	103 38.2	+00.1	N 15 36.4	-00.8
20	118 38.3	+00.0	N 15 35.6	-00.7
21	133 38.3	+00.1	N 15 34.9	-00.7
22	148 38.4	+00.1	N 15 34.2	-00.7
23	163 38.5	+00.1	N 15 33.5	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	221°	221°	220°	220°	220°	220°

Greenwich Culmination Time: 12:05

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	216 39.4	-00.7	N 21 56.7	-00.1
01	231 38.7	-00.7	N 21 56.6	-00.1
02	246 38.0	-00.7	N 21 56.5	-00.1
03	261 37.3	-00.7	N 21 56.4	-00.1
04	276 36.6	-00.7	N 21 56.3	-00.1
05	291 35.9	-00.7	N 21 56.2	-00.1
06	306 35.2	-00.7	N 21 56.1	-00.1
07	321 34.5	-00.7	N 21 56.0	-00.1
08	336 33.8	-00.6	N 21 55.9	-00.1
09	351 33.2	-00.7	N 21 55.8	-00.1
10	6 32.5	-00.7	N 21 55.7	-00.1
11	21 31.8	-00.7	N 21 55.6	-00.1
12	36 31.1	-00.7	N 21 55.5	-00.1
13	51 30.4	-00.7	N 21 55.4	-00.1
14	66 29.7	-00.7	N 21 55.3	-00.1
15	81 29.0	-00.7	N 21 55.2	-00.1
16	96 28.3	-00.7	N 21 55.1	-00.1
17	111 27.6	-00.7	N 21 55.0	-00.1
18	126 26.9	-00.7	N 21 54.9	-00.2
19	141 26.2	-00.7	N 21 54.7	-00.1
20	156 25.5	-00.6	N 21 54.6	-00.1
21	171 24.9	-00.7	N 21 54.5	-00.1
22	186 24.2	-00.7	N 21 54.4	-00.1
23	201 23.5	-00.7	N 21 54.3	-00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	259°	259°	258°	258°	258°	258°

Greenwich Culmination Time: 09:33

Moon

A: 50%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	1 48.2	-30.9	S 19 58.3	-12.0
01	16 17.3	-30.9	S 19 46.3	-12.1
02	30 46.4	-30.7	S 19 34.2	-12.2
03	45 15.7	-30.8	S 19 22.0	-12.3
04	59 44.9	-30.6	S 19 09.7	-12.5
05	74 14.3	-30.7	S 18 57.2	-12.5
06	88 43.6	-30.5	S 18 44.7	-12.7
07	103 13.1	-30.5	S 18 32.0	-12.8
08	117 42.6	-30.5	S 18 19.2	-12.8
09	132 12.1	-30.4	S 18 06.4	-13.0
10	146 41.7	-30.4	S 17 53.4	-13.1
11	161 11.3	-30.3	S 17 40.3	-13.2
12	175 41.0	-30.2	S 17 27.1	-13.3
13	190 10.8	-30.2	S 17 13.8	-13.4
14	204 40.6	-30.2	S 17 00.4	-13.4
15	219 10.4	-30.1	S 16 47.0	-13.6
16	233 40.3	-30.0	S 16 33.4	-13.7
17	248 10.3	-30.0	S 16 19.7	-13.8
18	262 40.3	-30.0	S 16 05.9	-13.8
19	277 10.3	-29.9	S 15 52.1	-14.0
20	291 40.4	-29.8	S 15 38.1	-14.0
21	306 10.6	-29.8	S 15 24.1	-14.2
22	320 40.8	-29.8	S 15 09.9	-14.2
23	335 11.0	-29.7	S 14 55.7	-14.3

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′8	15′8	15′8
HP	57′5	57′6	57′7	57′8	57′9	58′0
SHA	043°	041°	039°	036°	034°	032°

Greenwich Culmination Time: -1:00

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	136 22.7	+01.0	S 00 01.6	+00.6
01	151 23.7	+01.1	S 00 02.2	+00.7
02	166 24.8	+01.0	S 00 02.9	+00.6
03	181 25.8	+01.1	S 00 03.5	+00.7
04	196 26.9	+01.0	S 00 04.2	+00.6
05	211 27.9	+01.1	S 00 04.8	+00.7
06	226 29.0	+01.0	S 00 05.5	+00.6
07	241 30.0	+01.0	S 00 06.1	+00.7
08	256 31.0	+01.1	S 00 06.8	+00.6
09	271 32.1	+01.0	S 00 07.4	+00.7
10	286 33.1	+01.1	S 00 08.1	+00.6
11	301 34.2	+01.0	S 00 08.7	+00.7
12	316 35.2	+01.1	S 00 09.4	+00.6
13	331 36.3	+01.0	S 00 10.0	+00.7
14	346 37.3	+01.0	S 00 10.7	+00.6
15	1 38.3	+01.1	S 00 11.3	+00.7
16	16 39.4	+01.0	S 00 12.0	+00.6
17	31 40.4	+01.1	S 00 12.6	+00.7
18	46 41.5	+01.0	S 00 13.3	+00.6
19	61 42.5	+01.1	S 00 13.9	+00.7
20	76 43.6	+01.0	S 00 14.6	+00.6
21	91 44.6	+01.0	S 00 15.2	+00.7
22	106 45.6	+01.1	S 00 15.9	+00.6
23	121 46.7	+01.0	S 00 16.5	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	179°	178°	178°	178°	178°	178°

Greenwich Culmination Time: 14:53

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	213 11.8	+01.9	N 22 41.7	+00.0
01	228 13.7	+01.9	N 22 41.7	-00.1
02	243 15.6	+01.9	N 22 41.6	+00.0
03	258 17.5	+01.9	N 22 41.6	-00.1
04	273 19.4	+01.9	N 22 41.5	+00.0
05	288 21.3	+01.9	N 22 41.5	-00.1
06	303 23.2	+01.9	N 22 41.4	+00.0
07	318 25.1	+01.9	N 22 41.4	-00.1
08	333 27.0	+01.9	N 22 41.3	+00.0
09	348 28.9	+01.9	N 22 41.3	-00.1
10	3 30.8	+02.0	N 22 41.2	+00.0
11	18 32.8	+01.9	N 22 41.2	-00.1
12	33 34.7	+01.9	N 22 41.1	+00.0
13	48 36.6	+01.9	N 22 41.1	-00.1
14	63 38.5	+01.9	N 22 41.0	+00.0
15	78 40.4	+01.9	N 22 41.0	-00.1
16	93 42.3	+01.9	N 22 40.9	+00.0
17	108 44.2	+01.9	N 22 40.9	+00.0
18	123 46.1	+01.9	N 22 40.9	-00.1
19	138 48.0	+01.9	N 22 40.8	+00.0
20	153 49.9	+01.9	N 22 40.8	-00.1
21	168 51.8	+01.9	N 22 40.7	+00.0
22	183 53.7	+01.9	N 22 40.7	-00.1
23	198 55.6	+01.9	N 22 40.6	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	255°	255°	255°	255°	255°	255°

Greenwich Culmination Time: 09:45

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	315 33.3	+02.5	S 01 40.4	+00.1
01	330 35.8	+02.6	S 01 40.5	+00.0
02	345 38.4	+02.5	S 01 40.5	+00.1
03	0 40.9	+02.6	S 01 40.6	+00.0
04	15 43.5	+02.5	S 01 40.6	+00.1
05	30 46.0	+02.6	S 01 40.7	+00.0
06	45 48.6	+02.6	S 01 40.7	+00.1
07	60 51.2	+02.5	S 01 40.8	+00.0
08	75 53.7	+02.6	S 01 40.8	+00.1
09	90 56.3	+02.5	S 01 40.9	+00.0
10	105 58.8	+02.6	S 01 40.9	+00.1
11	121 01.4	+02.6	S 01 41.0	+00.1
12	136 04.0	+02.5	S 01 41.1	+00.0
13	151 06.5	+02.6	S 01 41.1	+00.1
14	166 09.1	+02.6	S 01 41.2	+00.0
15	181 11.7	+02.5	S 01 41.2	+00.1
16	196 14.2	+02.6	S 01 41.3	+00.0
17	211 16.8	+02.5	S 01 41.3	+00.1
18	226 19.3	+02.6	S 01 41.4	+00.0
19	241 21.9	+02.6	S 01 41.4	+00.1
20	256 24.5	+02.5	S 01 41.5	+00.0
21	271 27.0	+02.6	S 01 41.5	+00.1
22	286 29.6	+02.5	S 01 41.6	+00.0
23	301 32.1	+02.6	S 01 41.6	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:57

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 10 Sunday

(day 222 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 38.6	+00.1	N 15 32.7	−00.7
01	193 38.7	+00.1	N 15 32.0	−00.7
02	208 38.8	+00.1	N 15 31.3	−00.8
03	223 38.9	+00.1	N 15 30.5	−00.7
04	238 39.0	+00.1	N 15 29.8	−00.7
05	253 39.1	+00.1	N 15 29.1	−00.8
06	268 39.2	+00.1	N 15 28.3	−00.7
07	283 39.3	+00.1	N 15 27.6	−00.7
08	298 39.4	+00.1	N 15 26.9	−00.8
09	313 39.5	+00.1	N 15 26.1	−00.7
10	328 39.6	+00.1	N 15 25.4	−00.7
11	343 39.7	+00.1	N 15 24.7	−00.8
12	358 39.8	+00.1	N 15 23.9	−00.7
13	13 39.9	+00.1	N 15 23.2	−00.8
14	28 40.0	+00.1	N 15 22.4	−00.7
15	43 40.1	+00.1	N 15 21.7	−00.7
16	58 40.2	+00.1	N 15 21.0	−00.8
17	73 40.3	+00.1	N 15 20.2	−00.7
18	88 40.4	+00.1	N 15 19.5	−00.7
19	103 40.5	+00.1	N 15 18.8	−00.8
20	118 40.6	+00.1	N 15 18.0	−00.7
21	133 40.7	+00.1	N 15 17.3	−00.8
22	148 40.8	+00.1	N 15 16.5	−00.7
23	163 40.9	+00.1	N 15 15.8	−00.7

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	220°	220°	220°	219°	219°	219°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	216 22.8	−00.7	N 21 54.2	−00.1
01	231 22.1	−00.7	N 21 54.1	−00.1
02	246 21.4	−00.7	N 21 54.0	−00.2
03	261 20.7	−00.7	N 21 53.8	−00.1
04	276 20.0	−00.7	N 21 53.7	−00.1
05	291 19.3	−00.7	N 21 53.6	−00.1
06	306 18.6	−00.7	N 21 53.5	−00.1
07	321 17.9	−00.7	N 21 53.4	−00.2
08	336 17.2	−00.7	N 21 53.2	−00.1
09	351 16.5	−00.7	N 21 53.1	−00.1
10	6 15.8	−00.7	N 21 53.0	−00.1
11	21 15.1	−00.6	N 21 52.9	−00.2
12	36 14.5	−00.7	N 21 52.7	−00.1
13	51 13.8	−00.7	N 21 52.6	−00.1
14	66 13.1	−00.7	N 21 52.5	−00.2
15	81 12.4	−00.7	N 21 52.3	−00.1
16	96 11.7	−00.7	N 21 52.2	−00.1
17	111 11.0	−00.7	N 21 52.1	−00.2
18	126 10.3	−00.7	N 21 51.9	−00.1
19	141 09.6	−00.7	N 21 51.8	−00.1
20	156 08.9	−00.7	N 21 51.7	−00.2
21	171 08.2	−00.7	N 21 51.5	−00.1
22	186 07.5	−00.7	N 21 51.4	−00.1
23	201 06.8	−00.7	N 21 51.3	−00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	258°	257°	257°	257°	257°	256°

Greenwich Culmination Time: 09:34

Moon

A: 54%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	349 41.3	−29.7	S 14 41.4	−14.4
01	4 11.6	−29.6	S 14 27.0	−14.5
02	18 42.0	−29.6	S 14 12.5	−14.5
03	33 12.4	−29.5	S 13 58.0	−14.7
04	47 42.9	−29.5	S 13 43.3	−14.7
05	62 13.4	−29.4	S 13 28.6	−14.8
06	76 44.0	−29.5	S 13 13.8	−14.8
07	91 14.5	−29.3	S 12 59.0	−15.0
08	105 45.2	−29.3	S 12 44.0	−15.0
09	120 15.9	−29.3	S 12 29.0	−15.1
10	134 46.6	−29.3	S 12 13.9	−15.2
11	149 17.3	−29.2	S 11 58.7	−15.2
12	163 48.1	−29.1	S 11 43.5	−15.3
13	178 19.0	−29.2	S 11 28.2	−15.4
14	192 49.8	−29.1	S 11 12.8	−15.4
15	207 20.7	−29.0	S 10 57.4	−15.5
16	221 51.7	−29.1	S 10 41.9	−15.6
17	236 22.6	−29.0	S 10 26.3	−15.6
18	250 53.6	−28.9	S 10 10.7	−15.7
19	265 24.7	−29.0	S 09 55.0	−15.7
20	279 55.7	−28.9	S 09 39.3	−15.8
21	294 26.8	−28.8	S 09 23.5	−15.9
22	308 58.0	−28.9	S 09 07.6	−15.9
23	323 29.1	−28.8	S 08 51.7	−16.0

UT	02	06	10	14	18	22
SD	15′8	15′9	15′9	15′9	15′9	15′9
HP	58′1	58′2	58′3	58′4	58′4	58′5
SHA	030°	028°	026°	024°	021°	019°

Greenwich Culmination Time: 00:42

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	136 47.7	+01.1	S 00 17.2	+00.6
01	151 48.8	+01.0	S 00 17.8	+00.7
02	166 49.8	+01.0	S 00 18.5	+00.6
03	181 50.8	+01.1	S 00 19.1	+00.7
04	196 51.9	+01.0	S 00 19.8	+00.6
05	211 52.9	+01.1	S 00 20.4	+00.7
06	226 54.0	+01.0	S 00 21.1	+00.6
07	241 55.0	+01.0	S 00 21.7	+00.7
08	256 56.0	+01.1	S 00 22.4	+00.6
09	271 57.1	+01.0	S 00 23.0	+00.7
10	286 58.1	+01.1	S 00 23.7	+00.6
11	301 59.2	+01.0	S 00 24.3	+00.7
12	317 00.2	+01.0	S 00 25.0	+00.6
13	332 01.2	+01.1	S 00 25.6	+00.7
14	347 02.3	+01.0	S 00 26.3	+00.6
15	2 03.3	+01.1	S 00 26.9	+00.7
16	17 04.4	+01.0	S 00 27.6	+00.6
17	32 05.4	+01.0	S 00 28.2	+00.7
18	47 06.4	+01.1	S 00 28.9	+00.6
19	62 07.5	+01.0	S 00 29.5	+00.7
20	77 08.5	+01.1	S 00 30.2	+00.6
21	92 09.6	+01.0	S 00 30.8	+00.7
22	107 10.6	+01.0	S 00 31.5	+00.6
23	122 11.6	+01.1	S 00 32.1	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	178°	178°	178°	178°	178°	178°

Greenwich Culmination Time: 14:51

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	213 57.5	+02.0	N 22 40.6	−00.1
01	228 59.5	+01.9	N 22 40.5	+00.0
02	244 01.4	+01.9	N 22 40.5	−00.1
03	259 03.3	+01.9	N 22 40.4	+00.0
04	274 05.2	+01.9	N 22 40.4	−00.1
05	289 07.1	+01.9	N 22 40.3	+00.0
06	304 09.0	+01.9	N 22 40.3	−00.1
07	319 10.9	+01.9	N 22 40.2	+00.0
08	334 12.8	+01.9	N 22 40.2	−00.1
09	349 14.7	+01.9	N 22 40.1	+00.0
10	4 16.6	+01.9	N 22 40.1	−00.1
11	19 18.5	+01.9	N 22 40.0	+00.0
12	34 20.4	+02.0	N 22 40.0	−00.1
13	49 22.4	+01.9	N 22 39.9	+00.0
14	64 24.3	+01.9	N 22 39.9	−00.1
15	79 26.2	+01.9	N 22 39.8	+00.0
16	94 28.1	+01.9	N 22 39.8	−00.1
17	109 30.0	+01.9	N 22 39.7	+00.0
18	124 31.9	+01.9	N 22 39.7	−00.1
19	139 33.8	+01.9	N 22 39.6	+00.0
20	154 35.7	+01.9	N 22 39.6	−00.1
21	169 37.6	+01.9	N 22 39.5	+00.0
22	184 39.5	+02.0	N 22 39.5	−00.1
23	199 41.5	+01.9	N 22 39.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	255°	255°	255°	255°	255°	255°

Greenwich Culmination Time: 09:42

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	316 34.7	+02.6	S 01 41.7	+00.0
01	331 37.3	+02.5	S 01 41.7	+00.1
02	346 39.8	+02.6	S 01 41.8	+00.0
03	1 42.4	+02.6	S 01 41.8	+00.1
04	16 45.0	+02.5	S 01 41.9	+00.0
05	31 47.5	+02.6	S 01 41.9	+00.1
06	46 50.1	+02.5	S 01 42.0	+00.1
07	61 52.6	+02.6	S 01 42.1	+00.0
08	76 55.2	+02.6	S 01 42.1	+00.1
09	91 57.8	+02.5	S 01 42.2	+00.0
10	107 00.3	+02.6	S 01 42.2	+00.1
11	122 02.9	+02.6	S 01 42.3	+00.0
12	137 05.5	+02.5	S 01 42.3	+00.1
13	152 08.0	+02.6	S 01 42.4	+00.0
14	167 10.6	+02.5	S 01 42.4	+00.1
15	182 13.1	+02.6	S 01 42.5	+00.0
16	197 15.7	+02.6	S 01 42.5	+00.1
17	212 18.3	+02.5	S 01 42.6	+00.0
18	227 20.8	+02.6	S 01 42.6	+00.1
19	242 23.4	+02.6	S 01 42.7	+00.0
20	257 26.0	+02.5	S 01 42.7	+00.1
21	272 28.5	+02.6	S 01 42.8	+00.1
22	287 31.1	+02.6	S 01 42.9	+00.0
23	302 33.7	+02.5	S 01 42.9	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:53

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2025 August 11 Monday

(day 223 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 41.0	+00.1	N 15 15.1	−00.8
01	193 41.1	+00.1	N 15 14.3	−00.7
02	208 41.2	+00.1	N 15 13.6	−00.8
03	223 41.3	+00.1	N 15 12.8	−00.7
04	238 41.4	+00.1	N 15 12.1	−00.8
05	253 41.5	+00.1	N 15 11.3	−00.7
06	268 41.6	+00.1	N 15 10.6	−00.7
07	283 41.7	+00.1	N 15 09.9	−00.8
08	298 41.8	+00.1	N 15 09.1	−00.7
09	313 41.9	+00.1	N 15 08.4	−00.8
10	328 42.0	+00.1	N 15 07.6	−00.7
11	343 42.1	+00.1	N 15 06.9	−00.8
12	358 42.2	+00.1	N 15 06.1	−00.7
13	13 42.3	+00.1	N 15 05.4	−00.8
14	28 42.4	+00.1	N 15 04.6	−00.7
15	43 42.5	+00.1	N 15 03.9	−00.8
16	58 42.6	+00.1	N 15 03.1	−00.7
17	73 42.7	+00.1	N 15 02.4	−00.8
18	88 42.8	+00.1	N 15 01.6	−00.7
19	103 42.9	+00.1	N 15 00.9	−00.8
20	118 43.0	+00.1	N 15 00.1	−00.7
21	133 43.1	+00.2	N 14 59.4	−00.8
22	148 43.3	+00.1	N 14 58.6	−00.7
23	163 43.4	+00.1	N 14 57.9	−00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	219°	219°	219°	218°	218°	218°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	216 06.1	−00.7	N 21 51.1	−00.1
01	231 05.4	−00.7	N 21 51.0	−00.2
02	246 04.7	−00.7	N 21 50.8	−00.1
03	261 04.0	−00.7	N 21 50.7	−00.2
04	276 03.3	−00.6	N 21 50.5	−00.1
05	291 02.7	−00.7	N 21 50.4	−00.1
06	306 02.0	−00.7	N 21 50.3	−00.2
07	321 01.3	−00.7	N 21 50.1	−00.1
08	336 00.6	−00.7	N 21 50.0	−00.2
09	350 59.9	−00.7	N 21 49.8	−00.1
10	5 59.2	−00.7	N 21 49.7	−00.2
11	20 58.5	−00.7	N 21 49.5	−00.1
12	35 57.8	−00.7	N 21 49.4	−00.2
13	50 57.1	−00.7	N 21 49.2	−00.1
14	65 56.4	−00.7	N 21 49.1	−00.2
15	80 55.7	−00.7	N 21 48.9	−00.2
16	95 55.0	−00.7	N 21 48.7	−00.1
17	110 54.3	−00.7	N 21 48.6	−00.2
18	125 53.6	−00.7	N 21 48.4	−00.1
19	140 52.9	−00.7	N 21 48.3	−00.2
20	155 52.2	−00.7	N 21 48.1	−00.2
21	170 51.5	−00.7	N 21 47.9	−00.1
22	185 50.8	−00.7	N 21 47.8	−00.2
23	200 50.1	−00.7	N 21 47.6	−00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	256°	256°	256°	256°	255°	255°

Greenwich Culmination Time: 09:36

Moon

A: 57%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	338 00.3	−28.8	S 08 35.7	−16.0
01	352 31.5	−28.8	S 08 19.7	−16.1
02	7 02.7	−28.7	S 08 03.6	−16.1
03	21 34.0	−28.7	S 07 47.5	−16.1
04	36 05.3	−28.8	S 07 31.4	−16.3
05	50 36.5	−28.6	S 07 15.1	−16.2
06	65 07.9	−28.7	S 06 58.9	−16.3
07	79 39.2	−28.6	S 06 42.6	−16.3
08	94 10.6	−28.7	S 06 26.3	−16.4
09	108 41.9	−28.6	S 06 09.9	−16.4
10	123 13.3	−28.6	S 05 53.5	−16.5
11	137 44.7	−28.5	S 05 37.0	−16.5
12	152 16.2	−28.6	S 05 20.5	−16.5
13	166 47.6	−28.6	S 05 04.0	−16.5
14	181 19.0	−28.5	S 04 47.5	−16.6
15	195 50.5	−28.5	S 04 30.9	−16.6
16	210 22.0	−28.6	S 04 14.3	−16.7
17	224 53.4	−28.5	S 03 57.6	−16.7
18	239 24.9	−28.5	S 03 40.9	−16.7
19	253 56.4	−28.5	S 03 24.2	−16.7
20	268 27.9	−28.5	S 03 07.5	−16.7
21	282 59.4	−28.5	S 02 50.8	−16.8
22	297 30.9	−28.5	S 02 34.0	−16.8
23	312 02.4	−28.5	S 02 17.2	−16.8

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	58′6	58′7	58′7	58′8	58′8	58′9
SHA	017°	015°	013°	011°	009°	007°

Greenwich Culmination Time: 01:30

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	137 12.7	+01.0	S 00 32.8	+00.6
01	152 13.7	+01.1	S 00 33.4	+00.7
02	167 14.8	+01.0	S 00 34.1	+00.6
03	182 15.8	+01.0	S 00 34.7	+00.7
04	197 16.8	+01.1	S 00 35.4	+00.6
05	212 17.9	+01.0	S 00 36.0	+00.7
06	227 18.9	+01.0	S 00 36.7	+00.6
07	242 19.9	+01.1	S 00 37.3	+00.7
08	257 21.0	+01.0	S 00 38.0	+00.6
09	272 22.0	+01.1	S 00 38.6	+00.7
10	287 23.1	+01.0	S 00 39.3	+00.6
11	302 24.1	+01.0	S 00 39.9	+00.7
12	317 25.1	+01.1	S 00 40.6	+00.6
13	332 26.2	+01.0	S 00 41.2	+00.7
14	347 27.2	+01.0	S 00 41.9	+00.6
15	2 28.2	+01.1	S 00 42.5	+00.7
16	17 29.3	+01.0	S 00 43.2	+00.6
17	32 30.3	+01.0	S 00 43.8	+00.7
18	47 31.3	+01.1	S 00 44.5	+00.6
19	62 32.4	+01.0	S 00 45.1	+00.7
20	77 33.4	+01.1	S 00 45.8	+00.6
21	92 34.5	+01.0	S 00 46.4	+00.7
22	107 35.5	+01.0	S 00 47.1	+00.6
23	122 36.5	+01.1	S 00 47.7	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	177°	177°	177°	177°	177°	177°

Greenwich Culmination Time: 14:50

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	214 43.4	+01.9	N 22 39.4	−00.1
01	229 45.3	+01.9	N 22 39.3	+00.0
02	244 47.2	+01.9	N 22 39.3	+00.0
03	259 49.1	+01.9	N 22 39.3	−00.1
04	274 51.0	+01.9	N 22 39.2	+00.0
05	289 52.9	+01.9	N 22 39.2	−00.1
06	304 54.8	+01.9	N 22 39.1	+00.0
07	319 56.7	+01.9	N 22 39.1	−00.1
08	334 58.6	+02.0	N 22 39.0	+00.0
09	350 00.6	+01.9	N 22 39.0	−00.1
10	5 02.5	+01.9	N 22 38.9	+00.0
11	20 04.4	+01.9	N 22 38.9	−00.1
12	35 06.3	+01.9	N 22 38.8	+00.0
13	50 08.2	+01.9	N 22 38.8	−00.1
14	65 10.1	+01.9	N 22 38.7	+00.0
15	80 12.0	+01.9	N 22 38.7	−00.1
16	95 13.9	+02.0	N 22 38.6	+00.0
17	110 15.9	+01.9	N 22 38.6	−00.1
18	125 17.8	+01.9	N 22 38.5	+00.0
19	140 19.7	+01.9	N 22 38.5	−00.1
20	155 21.6	+01.9	N 22 38.4	+00.0
21	170 23.5	+01.9	N 22 38.4	−00.1
22	185 25.4	+01.9	N 22 38.3	+00.0
23	200 27.3	+01.9	N 22 38.3	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	255°	255°	255°	255°	255°	255°

Greenwich Culmination Time: 09:39

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	317 36.2	+02.6	S 01 43.0	+00.0
01	332 38.8	+02.6	S 01 43.0	+00.1
02	347 41.4	+02.5	S 01 43.1	+00.0
03	2 43.9	+02.6	S 01 43.1	+00.1
04	17 46.5	+02.6	S 01 43.2	+00.0
05	32 49.1	+02.5	S 01 43.2	+00.1
06	47 51.6	+02.6	S 01 43.3	+00.0
07	62 54.2	+02.6	S 01 43.3	+00.1
08	77 56.8	+02.5	S 01 43.4	+00.1
09	92 59.3	+02.6	S 01 43.5	+00.0
10	108 01.9	+02.6	S 01 43.5	+00.1
11	123 04.5	+02.5	S 01 43.6	+00.0
12	138 07.0	+02.6	S 01 43.6	+00.1
13	153 09.6	+02.6	S 01 43.7	+00.0
14	168 12.2	+02.5	S 01 43.7	+00.1
15	183 14.7	+02.6	S 01 43.8	+00.0
16	198 17.3	+02.6	S 01 43.8	+00.1
17	213 19.9	+02.5	S 01 43.9	+00.0
18	228 22.4	+02.6	S 01 43.9	+00.1
19	243 25.0	+02.6	S 01 44.0	+00.1
20	258 27.6	+02.5	S 01 44.1	+00.0
21	273 30.1	+02.6	S 01 44.1	+00.1
22	288 32.7	+02.6	S 01 44.2	+00.0
23	303 35.3	+02.5	S 01 44.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:49

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2025 August 12 Tuesday

(day 224 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 43.5	+00.1	N 14 57.1	-00.7
01	193 43.6	+00.1	N 14 56.4	-00.8
02	208 43.7	+00.1	N 14 55.6	-00.7
03	223 43.8	+00.1	N 14 54.9	-00.8
04	238 43.9	+00.1	N 14 54.1	-00.7
05	253 44.0	+00.1	N 14 53.4	-00.8
06	268 44.1	+00.1	N 14 52.6	-00.7
07	283 44.2	+00.1	N 14 51.9	-00.8
08	298 44.3	+00.1	N 14 51.1	-00.7
09	313 44.4	+00.1	N 14 50.4	-00.8
10	328 44.5	+00.2	N 14 49.6	-00.8
11	343 44.7	+00.1	N 14 48.8	-00.7
12	358 44.8	+00.1	N 14 48.1	-00.8
13	13 44.9	+00.1	N 14 47.3	-00.7
14	28 45.0	+00.1	N 14 46.6	-00.8
15	43 45.1	+00.1	N 14 45.8	-00.7
16	58 45.2	+00.1	N 14 45.1	-00.8
17	73 45.3	+00.1	N 14 44.3	-00.8
18	88 45.4	+00.1	N 14 43.5	-00.7
19	103 45.5	+00.1	N 14 42.8	-00.8
20	118 45.6	+00.2	N 14 42.0	-00.7
21	133 45.8	+00.1	N 14 41.3	-00.8
22	148 45.9	+00.1	N 14 40.5	-00.8
23	163 46.0	+00.1	N 14 39.7	-00.7

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	218°	218°	218°	217°	217°	217°

Greenwich Culmination Time: 12:05

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	215 49.4	-00.7	N 21 47.5	-00.2
01	230 48.7	-00.7	N 21 47.3	-00.2
02	245 48.0	-00.6	N 21 47.1	-00.2
03	260 47.4	-00.7	N 21 46.9	-00.1
04	275 46.7	-00.7	N 21 46.8	-00.2
05	290 46.0	-00.7	N 21 46.6	-00.2
06	305 45.3	-00.7	N 21 46.4	-00.1
07	320 44.6	-00.7	N 21 46.3	-00.2
08	335 43.9	-00.7	N 21 46.1	-00.2
09	350 43.2	-00.7	N 21 45.9	-00.2
10	5 42.5	-00.7	N 21 45.7	-00.1
11	20 41.8	-00.7	N 21 45.6	-00.2
12	35 41.1	-00.7	N 21 45.4	-00.2
13	50 40.4	-00.7	N 21 45.2	-00.2
14	65 39.7	-00.7	N 21 45.0	-00.1
15	80 39.0	-00.7	N 21 44.9	-00.2
16	95 38.3	-00.7	N 21 44.7	-00.2
17	110 37.6	-00.7	N 21 44.5	-00.2
18	125 36.9	-00.7	N 21 44.3	-00.2
19	140 36.2	-00.7	N 21 44.1	-00.2
20	155 35.5	-00.7	N 21 43.9	-00.2
21	170 34.8	-00.7	N 21 43.7	-00.1
22	185 34.1	-00.7	N 21 43.6	-00.2
23	200 33.4	-00.7	N 21 43.4	-00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	255°	255°	255°	254°	254°	254°

Greenwich Culmination Time: 09:37

Moon

A: 60%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	326 33.9	-28.5	S 02 00.4	-16.8
01	341 05.4	-28.5	S 01 43.6	-16.8
02	355 36.9	-28.5	S 01 26.8	-16.9
03	10 08.4	-28.5	S 01 09.9	-16.8
04	24 39.9	-28.5	S 00 53.1	-16.9
05	39 11.4	-28.6	S 00 36.2	-16.9
06	53 42.8	-28.5	S 00 19.3	-16.8
07	68 14.3	-28.5	S 00 02.5	-16.9
08	82 45.8	-28.6	N 00 14.4	+16.9
09	97 17.2	-28.6	N 00 31.3	+16.9
10	111 48.6	-28.6	N 00 48.2	+16.9
11	126 20.0	-28.5	N 01 05.1	+16.9
12	140 51.5	-28.7	N 01 22.0	+16.9
13	155 22.8	-28.6	N 01 38.9	+16.9
14	169 54.2	-28.6	N 01 55.8	+16.9
15	184 25.6	-28.7	N 02 12.7	+16.9
16	198 56.9	-28.7	N 02 29.6	+16.8
17	213 28.2	-28.7	N 02 46.4	+16.9
18	227 59.5	-28.7	N 03 03.3	+16.9
19	242 30.8	-28.8	N 03 20.2	+16.8
20	257 02.0	-28.8	N 03 37.0	+16.8
21	271 33.2	-28.8	N 03 53.8	+16.8
22	286 04.4	-28.9	N 04 10.6	+16.8
23	300 35.5	-28.8	N 04 27.4	+16.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	59′0	59′0	59′1	59′1	59′1	59′2
SHA	005°	003°	001°	359°	357°	354°

Greenwich Culmination Time: 02:18

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	137 37.6	+01.0	S 00 48.4	+00.6
01	152 38.6	+01.0	S 00 49.0	+00.7
02	167 39.6	+01.1	S 00 49.7	+00.6
03	182 40.7	+01.0	S 00 50.3	+00.7
04	197 41.7	+01.0	S 00 51.0	+00.6
05	212 42.7	+01.1	S 00 51.6	+00.7
06	227 43.8	+01.0	S 00 52.3	+00.6
07	242 44.8	+01.0	S 00 52.9	+00.7
08	257 45.8	+01.1	S 00 53.6	+00.6
09	272 46.9	+01.0	S 00 54.2	+00.7
10	287 47.9	+01.1	S 00 54.9	+00.6
11	302 49.0	+01.0	S 00 55.5	+00.7
12	317 50.0	+01.0	S 00 56.2	+00.6
13	332 51.0	+01.1	S 00 56.8	+00.7
14	347 52.1	+01.0	S 00 57.5	+00.6
15	2 53.1	+01.0	S 00 58.1	+00.7
16	17 54.1	+01.1	S 00 58.8	+00.6
17	32 55.2	+01.0	S 00 59.4	+00.7
18	47 56.2	+01.0	S 01 00.1	+00.6
19	62 57.2	+01.1	S 01 00.7	+00.7
20	77 58.3	+01.0	S 01 01.4	+00.6
21	92 59.3	+01.0	S 01 02.0	+00.7
22	108 00.3	+01.1	S 01 02.7	+00.6
23	123 01.4	+01.0	S 01 03.3	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	177°	177°	177°	177°	176°	176°

Greenwich Culmination Time: 14:48

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	215 29.2	+02.0	N 22 38.2	+00.0
01	230 31.2	+01.9	N 22 38.2	-00.1
02	245 33.1	+01.9	N 22 38.1	+00.0
03	260 35.0	+01.9	N 22 38.1	-00.1
04	275 36.9	+01.9	N 22 38.0	+00.0
05	290 38.8	+01.9	N 22 38.0	-00.1
06	305 40.7	+01.9	N 22 37.9	+00.0
07	320 42.6	+02.0	N 22 37.9	-00.1
08	335 44.6	+01.9	N 22 37.8	+00.0
09	350 46.5	+01.9	N 22 37.8	-00.1
10	5 48.4	+01.9	N 22 37.7	+00.0
11	20 50.3	+01.9	N 22 37.7	-00.1
12	35 52.2	+01.9	N 22 37.6	+00.0
13	50 54.1	+01.9	N 22 37.6	-00.1
14	65 56.0	+02.0	N 22 37.5	+00.0
15	80 58.0	+01.9	N 22 37.5	-00.1
16	95 59.9	+01.9	N 22 37.4	+00.0
17	111 01.8	+01.9	N 22 37.4	-00.1
18	126 03.7	+01.9	N 22 37.3	+00.0
19	141 05.6	+01.9	N 22 37.3	-00.1
20	156 07.5	+01.9	N 22 37.2	+00.0
21	171 09.4	+02.0	N 22 37.2	-00.1
22	186 11.4	+01.9	N 22 37.1	+00.0
23	201 13.3	+01.9	N 22 37.1	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	255°	255°	255°	255°	255°	255°

Greenwich Culmination Time: 09:36

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	318 37.8	+02.6	S 01 44.3	+00.0
01	333 40.4	+02.6	S 01 44.3	+00.1
02	348 43.0	+02.5	S 01 44.4	+00.0
03	3 45.5	+02.6	S 01 44.4	+00.1
04	18 48.1	+02.6	S 01 44.5	+00.1
05	33 50.7	+02.5	S 01 44.6	+00.0
06	48 53.2	+02.6	S 01 44.6	+00.1
07	63 55.8	+02.6	S 01 44.7	+00.0
08	78 58.4	+02.6	S 01 44.7	+00.1
09	94 01.0	+02.5	S 01 44.8	+00.0
10	109 03.5	+02.6	S 01 44.8	+00.1
11	124 06.1	+02.6	S 01 44.9	+00.0
12	139 08.7	+02.5	S 01 44.9	+00.1
13	154 11.2	+02.6	S 01 45.0	+00.1
14	169 13.8	+02.6	S 01 45.1	+00.0
15	184 16.4	+02.5	S 01 45.1	+00.1
16	199 18.9	+02.6	S 01 45.2	+00.0
17	214 21.5	+02.6	S 01 45.2	+00.1
18	229 24.1	+02.6	S 01 45.3	+00.0
19	244 26.7	+02.5	S 01 45.3	+00.1
20	259 29.2	+02.6	S 01 45.4	+00.0
21	274 31.8	+02.6	S 01 45.4	+00.1
22	289 34.4	+02.5	S 01 45.5	+00.1
23	304 36.9	+02.6	S 01 45.6	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:45

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2025 August 13 Wednesday

(day 225 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 46.1	+00.1	N 14 39.0	−00.8
01	193 46.2	+00.1	N 14 38.2	−00.7
02	208 46.3	+00.1	N 14 37.5	−00.8
03	223 46.4	+00.1	N 14 36.7	−00.8
04	238 46.5	+00.2	N 14 35.9	−00.7
05	253 46.7	+00.1	N 14 35.2	−00.8
06	268 46.8	+00.1	N 14 34.4	−00.8
07	283 46.9	+00.1	N 14 33.6	−00.7
08	298 47.0	+00.1	N 14 32.9	−00.8
09	313 47.1	+00.1	N 14 32.1	−00.7
10	328 47.2	+00.1	N 14 31.4	−00.8
11	343 47.3	+00.2	N 14 30.6	−00.8
12	358 47.5	+00.1	N 14 29.8	−00.7
13	13 47.6	+00.1	N 14 29.1	−00.8
14	28 47.7	+00.1	N 14 28.3	−00.8
15	43 47.8	+00.1	N 14 27.5	−00.7
16	58 47.9	+00.1	N 14 26.8	−00.8
17	73 48.0	+00.1	N 14 26.0	−00.8
18	88 48.1	+00.2	N 14 25.2	−00.8
19	103 48.3	+00.1	N 14 24.4	−00.7
20	118 48.4	+00.1	N 14 23.7	−00.8
21	133 48.5	+00.1	N 14 22.9	−00.8
22	148 48.6	+00.1	N 14 22.1	−00.7
23	163 48.7	+00.2	N 14 21.4	−00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	217°	217°	217°	217°	216°	216°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	215 32.7	−00.7	N 21 43.2	−00.2
01	230 32.0	−00.7	N 21 43.0	−00.2
02	245 31.3	−00.7	N 21 42.8	−00.2
03	260 30.6	−00.7	N 21 42.6	−00.2
04	275 29.9	−00.7	N 21 42.4	−00.2
05	290 29.2	−00.7	N 21 42.2	−00.2
06	305 28.5	−00.7	N 21 42.0	−00.2
07	320 27.8	−00.7	N 21 41.8	−00.2
08	335 27.1	−00.6	N 21 41.6	−00.2
09	350 26.5	−00.7	N 21 41.4	−00.2
10	5 25.8	−00.7	N 21 41.2	−00.2
11	20 25.1	−00.7	N 21 41.0	−00.2
12	35 24.4	−00.7	N 21 40.8	−00.2
13	50 23.7	−00.7	N 21 40.6	−00.2
14	65 23.0	−00.7	N 21 40.4	−00.2
15	80 22.3	−00.7	N 21 40.2	−00.2
16	95 21.6	−00.7	N 21 40.0	−00.2
17	110 20.9	−00.7	N 21 39.8	−00.2
18	125 20.2	−00.7	N 21 39.6	−00.2
19	140 19.5	−00.7	N 21 39.4	−00.2
20	155 18.8	−00.7	N 21 39.2	−00.2
21	170 18.1	−00.7	N 21 39.0	−00.3
22	185 17.4	−00.7	N 21 38.7	−00.2
23	200 16.7	−00.7	N 21 38.5	−00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	254°	254°	253°	253°	253°	253°

Greenwich Culmination Time: 09:38

Moon

A: 63%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	315 06.7	−28.9	N 04 44.2	+16.8
01	329 37.8	−29.0	N 05 01.0	+16.7
02	344 08.8	−29.0	N 05 17.7	+16.7
03	358 39.8	−29.0	N 05 34.4	+16.7
04	13 10.8	−29.0	N 05 51.1	+16.7
05	27 41.8	−29.1	N 06 07.8	+16.6
06	42 12.7	−29.1	N 06 24.4	+16.6
07	56 43.6	−29.2	N 06 41.0	+16.6
08	71 14.4	−29.2	N 06 57.6	+16.5
09	85 45.2	−29.2	N 07 14.1	+16.5
10	100 16.0	−29.3	N 07 30.6	+16.5
11	114 46.7	−29.4	N 07 47.1	+16.4
12	129 17.3	−29.4	N 08 03.5	+16.4
13	143 47.9	−29.4	N 08 19.9	+16.4
14	158 18.5	−29.5	N 08 36.3	+16.3
15	172 49.0	−29.5	N 08 52.6	+16.3
16	187 19.5	−29.6	N 09 08.9	+16.2
17	201 49.9	−29.6	N 09 25.1	+16.2
18	216 20.3	−29.7	N 09 41.3	+16.1
19	230 50.6	−29.8	N 09 57.4	+16.1
20	245 20.8	−29.8	N 10 13.5	+16.0
21	259 51.0	−29.8	N 10 29.5	+16.0
22	274 21.2	−30.0	N 10 45.5	+15.9
23	288 51.2	−29.9	N 11 01.4	+15.9

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′2	16′2	16′2
HP	59′2	59′2	59′3	59′3	59′3	59′3
SHA	352°	350°	348°	346°	344°	342°

Greenwich Culmination Time: 03:05

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	138 02.4	+01.0	S 01 04.0	+00.6
01	153 03.4	+01.1	S 01 04.6	+00.7
02	168 04.5	+01.0	S 01 05.3	+00.6
03	183 05.5	+01.0	S 01 05.9	+00.7
04	198 06.5	+01.1	S 01 06.6	+00.6
05	213 07.6	+01.0	S 01 07.2	+00.7
06	228 08.6	+01.0	S 01 07.9	+00.6
07	243 09.6	+01.0	S 01 08.5	+00.7
08	258 10.6	+01.1	S 01 09.2	+00.6
09	273 11.7	+01.0	S 01 09.8	+00.7
10	288 12.7	+01.0	S 01 10.5	+00.6
11	303 13.7	+01.1	S 01 11.1	+00.7
12	318 14.8	+01.0	S 01 11.8	+00.6
13	333 15.8	+01.0	S 01 12.4	+00.7
14	348 16.8	+01.1	S 01 13.1	+00.6
15	3 17.9	+01.0	S 01 13.7	+00.7
16	18 18.9	+01.0	S 01 14.4	+00.6
17	33 19.9	+01.1	S 01 15.0	+00.7
18	48 21.0	+01.0	S 01 15.7	+00.7
19	63 22.0	+01.0	S 01 16.4	+00.6
20	78 23.0	+01.1	S 01 17.0	+00.7
21	93 24.1	+01.0	S 01 17.7	+00.6
22	108 25.1	+01.0	S 01 18.3	+00.7
23	123 26.1	+01.0	S 01 19.0	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	176°	176°	176°	176°	176°	176°

Greenwich Culmination Time: 14:46

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	216 15.2	+01.9	N 22 37.0	+00.0
01	231 17.1	+01.9	N 22 37.0	−00.1
02	246 19.0	+01.9	N 22 36.9	+00.0
03	261 20.9	+02.0	N 22 36.9	−00.1
04	276 22.9	+01.9	N 22 36.8	+00.0
05	291 24.8	+01.9	N 22 36.8	−00.1
06	306 26.7	+01.9	N 22 36.7	+00.0
07	321 28.6	+01.9	N 22 36.7	−00.1
08	336 30.5	+01.9	N 22 36.6	+00.0
09	351 32.4	+02.0	N 22 36.6	−00.1
10	6 34.4	+01.9	N 22 36.5	+00.0
11	21 36.3	+01.9	N 22 36.5	−00.1
12	36 38.2	+01.9	N 22 36.4	+00.0
13	51 40.1	+01.9	N 22 36.4	−00.1
14	66 42.0	+02.0	N 22 36.3	+00.0
15	81 44.0	+01.9	N 22 36.3	−00.1
16	96 45.9	+01.9	N 22 36.2	+00.0
17	111 47.8	+01.9	N 22 36.2	−00.1
18	126 49.7	+01.9	N 22 36.1	+00.0
19	141 51.6	+01.9	N 22 36.1	−00.1
20	156 53.5	+02.0	N 22 36.0	+00.0
21	171 55.5	+01.9	N 22 36.0	−00.1
22	186 57.4	+01.9	N 22 35.9	+00.0
23	201 59.3	+01.9	N 22 35.9	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	255°	255°	254°	254°	254°	254°

Greenwich Culmination Time: 09:33

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	319 39.5	+02.6	S 01 45.6	+00.1
01	334 42.1	+02.6	S 01 45.7	+00.0
02	349 44.7	+02.5	S 01 45.7	+00.1
03	4 47.2	+02.6	S 01 45.8	+00.0
04	19 49.8	+02.6	S 01 45.8	+00.1
05	34 52.4	+02.5	S 01 45.9	+00.1
06	49 54.9	+02.6	S 01 46.0	+00.0
07	64 57.5	+02.6	S 01 46.0	+00.1
08	80 00.1	+02.6	S 01 46.1	+00.0
09	95 02.7	+02.5	S 01 46.1	+00.1
10	110 05.2	+02.6	S 01 46.2	+00.0
11	125 07.8	+02.6	S 01 46.2	+00.1
12	140 10.4	+02.6	S 01 46.3	+00.1
13	155 13.0	+02.5	S 01 46.4	+00.0
14	170 15.5	+02.6	S 01 46.4	+00.1
15	185 18.1	+02.6	S 01 46.5	+00.0
16	200 20.7	+02.6	S 01 46.5	+00.1
17	215 23.3	+02.5	S 01 46.6	+00.0
18	230 25.8	+02.6	S 01 46.6	+00.1
19	245 28.4	+02.6	S 01 46.7	+00.1
20	260 31.0	+02.6	S 01 46.8	+00.0
21	275 33.6	+02.5	S 01 46.8	+00.1
22	290 36.1	+02.6	S 01 46.9	+00.0
23	305 38.7	+02.6	S 01 46.9	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:40

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2025 August 14 Thursday

(day 226 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 48.9	+00.1	N 14 20.6	-00.8
01	193 49.0	+00.1	N 14 19.8	-00.7
02	208 49.1	+00.1	N 14 19.1	-00.8
03	223 49.2	+00.1	N 14 18.3	-00.8
04	238 49.3	+00.1	N 14 17.5	-00.8
05	253 49.4	+00.2	N 14 16.7	-00.7
06	268 49.6	+00.1	N 14 16.0	-00.8
07	283 49.7	+00.1	N 14 15.2	-00.8
08	298 49.8	+00.1	N 14 14.4	-00.8
09	313 49.9	+00.1	N 14 13.6	-00.7
10	328 50.0	+00.2	N 14 12.9	-00.8
11	343 50.2	+00.1	N 14 12.1	-00.8
12	358 50.3	+00.1	N 14 11.3	-00.8
13	13 50.4	+00.1	N 14 10.5	-00.7
14	28 50.5	+00.1	N 14 09.8	-00.8
15	43 50.6	+00.2	N 14 09.0	-00.8
16	58 50.8	+00.1	N 14 08.2	-00.8
17	73 50.9	+00.1	N 14 07.4	-00.7
18	88 51.0	+00.1	N 14 06.7	-00.8
19	103 51.1	+00.1	N 14 05.9	-00.8
20	118 51.2	+00.2	N 14 05.1	-00.8
21	133 51.4	+00.1	N 14 04.3	-00.8
22	148 51.5	+00.1	N 14 03.5	-00.7
23	163 51.6	+00.1	N 14 02.8	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	216°	216°	216°	216°	215°	215°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	215 16.0	-00.7	N 21 38.3	-00.2
01	230 15.3	-00.7	N 21 38.1	-00.2
02	245 14.6	-00.7	N 21 37.9	-00.2
03	260 13.9	-00.7	N 21 37.7	-00.3
04	275 13.2	-00.7	N 21 37.4	-00.2
05	290 12.5	-00.7	N 21 37.2	-00.2
06	305 11.8	-00.7	N 21 37.0	-00.2
07	320 11.1	-00.7	N 21 36.8	-00.2
08	335 10.4	-00.7	N 21 36.6	-00.3
09	350 09.7	-00.7	N 21 36.3	-00.2
10	5 09.0	-00.7	N 21 36.1	-00.2
11	20 08.3	-00.7	N 21 35.9	-00.3
12	35 07.6	-00.7	N 21 35.6	-00.2
13	50 06.9	-00.7	N 21 35.4	-00.2
14	65 06.2	-00.7	N 21 35.2	-00.2
15	80 05.5	-00.7	N 21 35.0	-00.3
16	95 04.8	-00.7	N 21 34.7	-00.2
17	110 04.1	-00.7	N 21 34.5	-00.2
18	125 03.4	-00.7	N 21 34.3	-00.3
19	140 02.7	-00.7	N 21 34.0	-00.2
20	155 02.0	-00.7	N 21 33.8	-00.2
21	170 01.3	-00.6	N 21 33.6	-00.3
22	185 00.7	-00.7	N 21 33.3	-00.2
23	199 60.0	-00.7	N 21 33.1	-00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	252°	252°	252°	252°	252°	251°

Greenwich Culmination Time: 09:39

Moon

A: 67%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	303 21.3	-30.1	N 11 17.3	+15.8
01	317 51.2	-30.1	N 11 33.1	+15.7
02	332 21.1	-30.2	N 11 48.8	+15.7
03	346 50.9	-30.2	N 12 04.5	+15.6
04	1 20.7	-30.3	N 12 20.1	+15.6
05	15 50.4	-30.4	N 12 35.7	+15.5
06	30 20.0	-30.4	N 12 51.2	+15.4
07	44 49.6	-30.5	N 13 06.6	+15.3
08	59 19.1	-30.6	N 13 21.9	+15.3
09	73 48.5	-30.6	N 13 37.2	+15.2
10	88 17.9	-30.7	N 13 52.4	+15.2
11	102 47.2	-30.8	N 14 07.6	+15.0
12	117 16.4	-30.9	N 14 22.6	+15.0
13	131 45.5	-30.9	N 14 37.6	+14.9
14	146 14.6	-31.0	N 14 52.5	+14.8
15	160 43.6	-31.1	N 15 07.3	+14.8
16	175 12.5	-31.2	N 15 22.1	+14.6
17	189 41.3	-31.2	N 15 36.7	+14.6
18	204 10.1	-31.4	N 15 51.3	+14.5
19	218 38.7	-31.4	N 16 05.8	+14.4
20	233 07.3	-31.5	N 16 20.2	+14.3
21	247 35.8	-31.5	N 16 34.5	+14.2
22	262 04.3	-31.7	N 16 48.7	+14.1
23	276 32.6	-31.7	N 17 02.8	+14.0

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	59′3	59′3	59′3	59′3	59′3	59′3
SHA	340°	337°	335°	333°	331°	328°

Greenwich Culmination Time: 03:54

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	138 27.1	+01.1	S 01 19.6	+00.7
01	153 28.2	+01.0	S 01 20.3	+00.6
02	168 29.2	+01.0	S 01 20.9	+00.7
03	183 30.2	+01.1	S 01 21.6	+00.6
04	198 31.3	+01.0	S 01 22.2	+00.7
05	213 32.3	+01.0	S 01 22.9	+00.6
06	228 33.3	+01.1	S 01 23.5	+00.7
07	243 34.4	+01.0	S 01 24.2	+00.6
08	258 35.4	+01.0	S 01 24.8	+00.7
09	273 36.4	+01.0	S 01 25.5	+00.6
10	288 37.4	+01.1	S 01 26.1	+00.7
11	303 38.5	+01.0	S 01 26.8	+00.6
12	318 39.5	+01.0	S 01 27.4	+00.7
13	333 40.5	+01.1	S 01 28.1	+00.6
14	348 41.6	+01.0	S 01 28.7	+00.7
15	3 42.6	+01.0	S 01 29.4	+00.6
16	18 43.6	+01.0	S 01 30.0	+00.7
17	33 44.6	+01.1	S 01 30.7	+00.6
18	48 45.7	+01.0	S 01 31.3	+00.7
19	63 46.7	+01.0	S 01 32.0	+00.6
20	78 47.7	+01.0	S 01 32.6	+00.7
21	93 48.7	+01.1	S 01 33.3	+00.7
22	108 49.8	+01.0	S 01 34.0	+00.6
23	123 50.8	+01.0	S 01 34.6	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	176°	176°	176°	175°	175°	175°

Greenwich Culmination Time: 14:45

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	217 01.2	+01.9	N 22 35.8	+00.0
01	232 03.1	+02.0	N 22 35.8	-00.1
02	247 05.1	+01.9	N 22 35.7	+00.0
03	262 07.0	+01.9	N 22 35.7	-00.1
04	277 08.9	+01.9	N 22 35.6	+00.0
05	292 10.8	+01.9	N 22 35.6	-00.1
06	307 12.7	+02.0	N 22 35.5	+00.0
07	322 14.7	+01.9	N 22 35.5	-00.1
08	337 16.6	+01.9	N 22 35.4	+00.0
09	352 18.5	+01.9	N 22 35.4	-00.1
10	7 20.4	+01.9	N 22 35.3	+00.0
11	22 22.3	+02.0	N 22 35.3	-00.1
12	37 24.3	+01.9	N 22 35.2	+00.0
13	52 26.2	+01.9	N 22 35.2	-00.1
14	67 28.1	+01.9	N 22 35.1	+00.0
15	82 30.0	+01.9	N 22 35.1	-00.1
16	97 31.9	+02.0	N 22 35.0	+00.0
17	112 33.9	+01.9	N 22 35.0	-00.1
18	127 35.8	+01.9	N 22 34.9	+00.0
19	142 37.7	+01.9	N 22 34.9	-00.1
20	157 39.6	+01.9	N 22 34.8	+00.0
21	172 41.5	+02.0	N 22 34.8	-00.1
22	187 43.5	+01.9	N 22 34.7	+00.0
23	202 45.4	+01.9	N 22 34.7	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	254°	254°	254°	254°	254°	254°

Greenwich Culmination Time: 09:30

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	320 41.3	+02.5	S 01 47.0	+00.0
01	335 43.8	+02.6	S 01 47.0	+00.1
02	350 46.4	+02.6	S 01 47.1	+00.1
03	5 49.0	+02.6	S 01 47.2	+00.0
04	20 51.6	+02.5	S 01 47.2	+00.1
05	35 54.1	+02.6	S 01 47.3	+00.0
06	50 56.7	+02.6	S 01 47.3	+00.1
07	65 59.3	+02.6	S 01 47.4	+00.0
08	81 01.9	+02.6	S 01 47.4	+00.1
09	96 04.5	+02.5	S 01 47.5	+00.1
10	111 07.0	+02.6	S 01 47.6	+00.0
11	126 09.6	+02.6	S 01 47.6	+00.1
12	141 12.2	+02.6	S 01 47.7	+00.0
13	156 14.8	+02.5	S 01 47.7	+00.1
14	171 17.3	+02.6	S 01 47.8	+00.1
15	186 19.9	+02.6	S 01 47.9	+00.0
16	201 22.5	+02.6	S 01 47.9	+00.1
17	216 25.1	+02.5	S 01 48.0	+00.0
18	231 27.6	+02.6	S 01 48.0	+00.1
19	246 30.2	+02.6	S 01 48.1	+00.1
20	261 32.8	+02.6	S 01 48.2	+00.0
21	276 35.4	+02.5	S 01 48.2	+00.1
22	291 37.9	+02.6	S 01 48.3	+00.0
23	306 40.5	+02.6	S 01 48.3	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:36

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2025 August 15 Friday

(day 227 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 51.7	+00.2	N 14 02.0	−00.8
01	193 51.9	+00.1	N 14 01.2	−00.8
02	208 52.0	+00.1	N 14 00.4	−00.8
03	223 52.1	+00.1	N 13 59.6	−00.7
04	238 52.2	+00.2	N 13 58.9	−00.8
05	253 52.4	+00.1	N 13 58.1	−00.8
06	268 52.5	+00.1	N 13 57.3	−00.8
07	283 52.6	+00.1	N 13 56.5	−00.8
08	298 52.7	+00.2	N 13 55.7	−00.8
09	313 52.9	+00.1	N 13 54.9	−00.7
10	328 53.0	+00.1	N 13 54.2	−00.8
11	343 53.1	+00.1	N 13 53.4	−00.8
12	358 53.2	+00.2	N 13 52.6	−00.8
13	13 53.4	+00.1	N 13 51.8	−00.8
14	28 53.5	+00.1	N 13 51.0	−00.8
15	43 53.6	+00.1	N 13 50.2	−00.8
16	58 53.7	+00.2	N 13 49.4	−00.7
17	73 53.9	+00.1	N 13 48.7	−00.8
18	88 54.0	+00.1	N 13 47.9	−00.8
19	103 54.1	+00.1	N 13 47.1	−00.8
20	118 54.2	+00.2	N 13 46.3	−00.8
21	133 54.4	+00.1	N 13 45.5	−00.8
22	148 54.5	+00.1	N 13 44.7	−00.8
23	163 54.6	+00.2	N 13 43.9	−00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	215°	215°	215°	215°	215°	214°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	214 59.3	−00.7	N 21 32.8	−00.2
01	229 58.6	−00.7	N 21 32.6	−00.2
02	244 57.9	−00.7	N 21 32.4	−00.3
03	259 57.2	−00.7	N 21 32.1	−00.2
04	274 56.5	−00.7	N 21 31.9	−00.3
05	289 55.8	−00.7	N 21 31.6	−00.2
06	304 55.1	−00.7	N 21 31.4	−00.3
07	319 54.4	−00.7	N 21 31.1	−00.2
08	334 53.7	−00.7	N 21 30.9	−00.3
09	349 53.0	−00.7	N 21 30.6	−00.2
10	4 52.3	−00.7	N 21 30.4	−00.3
11	19 51.6	−00.7	N 21 30.1	−00.2
12	34 50.9	−00.7	N 21 29.9	−00.3
13	49 50.2	−00.7	N 21 29.6	−00.2
14	64 49.5	−00.7	N 21 29.4	−00.3
15	79 48.8	−00.7	N 21 29.1	−00.2
16	94 48.1	−00.7	N 21 28.9	−00.3
17	109 47.4	−00.7	N 21 28.6	−00.3
18	124 46.7	−00.7	N 21 28.3	−00.2
19	139 46.0	−00.7	N 21 28.1	−00.3
20	154 45.3	−00.7	N 21 27.8	−00.2
21	169 44.6	−00.7	N 21 27.6	−00.3
22	184 43.9	−00.7	N 21 27.3	−00.3
23	199 43.2	−00.7	N 21 27.0	−00.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	251°	251°	251°	251°	250°	250°

Greenwich Culmination Time: 09:40

Moon

A: 70%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	291 00.9	−31.8	N 17 16.8	+13.9
01	305 29.1	−31.9	N 17 30.7	+13.8
02	319 57.2	−32.0	N 17 44.5	+13.8
03	334 25.2	−32.1	N 17 58.3	+13.6
04	348 53.1	−32.2	N 18 11.9	+13.5
05	3 20.9	−32.2	N 18 25.4	+13.4
06	17 48.7	−32.4	N 18 38.8	+13.3
07	32 16.3	−32.4	N 18 52.1	+13.2
08	46 43.9	−32.5	N 19 05.3	+13.1
09	61 11.4	−32.6	N 19 18.4	+12.9
10	75 38.8	−32.7	N 19 31.3	+12.9
11	90 06.1	−32.8	N 19 44.2	+12.7
12	104 33.3	−32.8	N 19 56.9	+12.6
13	119 00.5	−33.0	N 20 09.5	+12.5
14	133 27.5	−33.1	N 20 22.0	+12.4
15	147 54.4	−33.1	N 20 34.4	+12.2
16	162 21.3	−33.2	N 20 46.6	+12.2
17	176 48.1	−33.4	N 20 58.8	+12.0
18	191 14.7	−33.4	N 21 10.8	+11.9
19	205 41.3	−33.5	N 21 22.7	+11.7
20	220 07.8	−33.6	N 21 34.4	+11.6
21	234 34.2	−33.7	N 21 46.0	+11.5
22	249 00.5	−33.8	N 21 57.5	+11.4
23	263 26.7	−33.8	N 22 08.9	+11.2

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	59′3	59′3	59′3	59′3	59′3	59′3
SHA	326°	324°	322°	319°	317°	314°

Greenwich Culmination Time: 04:46

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	138 51.8	+01.1	S 01 35.3	+00.6
01	153 52.9	+01.0	S 01 35.9	+00.7
02	168 53.9	+01.0	S 01 36.6	+00.6
03	183 54.9	+01.0	S 01 37.2	+00.7
04	198 55.9	+01.1	S 01 37.9	+00.6
05	213 57.0	+01.0	S 01 38.5	+00.7
06	228 58.0	+01.0	S 01 39.2	+00.6
07	243 59.0	+01.0	S 01 39.8	+00.7
08	259 00.0	+01.1	S 01 40.5	+00.6
09	274 01.1	+01.0	S 01 41.1	+00.7
10	289 02.1	+01.0	S 01 41.8	+00.6
11	304 03.1	+01.0	S 01 42.4	+00.7
12	319 04.1	+01.1	S 01 43.1	+00.6
13	334 05.2	+01.0	S 01 43.7	+00.7
14	349 06.2	+01.0	S 01 44.4	+00.6
15	4 07.2	+01.0	S 01 45.0	+00.7
16	19 08.2	+01.1	S 01 45.7	+00.6
17	34 09.3	+01.0	S 01 46.3	+00.7
18	49 10.3	+01.0	S 01 47.0	+00.7
19	64 11.3	+01.0	S 01 47.7	+00.6
20	79 12.3	+01.1	S 01 48.3	+00.7
21	94 13.4	+01.0	S 01 49.0	+00.6
22	109 14.4	+01.0	S 01 49.6	+00.7
23	124 15.4	+01.0	S 01 50.3	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	175°	175°	175°	175°	175°	175°

Greenwich Culmination Time: 14:43

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	217 47.3	+01.9	N 22 34.6	+00.0
01	232 49.2	+02.0	N 22 34.6	−00.1
02	247 51.2	+01.9	N 22 34.5	+00.0
03	262 53.1	+01.9	N 22 34.5	−00.1
04	277 55.0	+01.9	N 22 34.4	+00.0
05	292 56.9	+01.9	N 22 34.4	−00.1
06	307 58.8	+02.0	N 22 34.3	+00.0
07	323 00.8	+01.9	N 22 34.3	−00.1
08	338 02.7	+01.9	N 22 34.2	−00.1
09	353 04.6	+01.9	N 22 34.1	+00.0
10	8 06.5	+02.0	N 22 34.1	−00.1
11	23 08.5	+01.9	N 22 34.0	+00.0
12	38 10.4	+01.9	N 22 34.0	−00.1
13	53 12.3	+01.9	N 22 33.9	+00.0
14	68 14.2	+01.9	N 22 33.9	−00.1
15	83 16.1	+02.0	N 22 33.8	+00.0
16	98 18.1	+01.9	N 22 33.8	−00.1
17	113 20.0	+01.9	N 22 33.7	+00.0
18	128 21.9	+01.9	N 22 33.7	−00.1
19	143 23.8	+02.0	N 22 33.6	+00.0
20	158 25.8	+01.9	N 22 33.6	−00.1
21	173 27.7	+01.9	N 22 33.5	+00.0
22	188 29.6	+01.9	N 22 33.5	−00.1
23	203 31.5	+02.0	N 22 33.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	254°	254°	254°	254°	254°	254°

Greenwich Culmination Time: 09:27

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	321 43.1	+02.6	S 01 48.4	+00.0
01	336 45.7	+02.6	S 01 48.4	+00.1
02	351 48.3	+02.5	S 01 48.5	+00.1
03	6 50.8	+02.6	S 01 48.6	+00.0
04	21 53.4	+02.6	S 01 48.6	+00.1
05	36 56.0	+02.6	S 01 48.7	+00.0
06	51 58.6	+02.6	S 01 48.7	+00.1
07	67 01.2	+02.5	S 01 48.8	+00.1
08	82 03.7	+02.6	S 01 48.9	+00.0
09	97 06.3	+02.6	S 01 48.9	+00.1
10	112 08.9	+02.6	S 01 49.0	+00.0
11	127 11.5	+02.5	S 01 49.0	+00.1
12	142 14.0	+02.6	S 01 49.1	+00.1
13	157 16.6	+02.6	S 01 49.2	+00.0
14	172 19.2	+02.6	S 01 49.2	+00.1
15	187 21.8	+02.6	S 01 49.3	+00.0
16	202 24.4	+02.5	S 01 49.3	+00.1
17	217 26.9	+02.6	S 01 49.4	+00.1
18	232 29.5	+02.6	S 01 49.5	+00.0
19	247 32.1	+02.6	S 01 49.5	+00.1
20	262 34.7	+02.6	S 01 49.6	+00.0
21	277 37.3	+02.5	S 01 49.6	+00.1
22	292 39.8	+02.6	S 01 49.7	+00.1
23	307 42.4	+02.6	S 01 49.8	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:32

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2025 August 16 Saturday

(day 228 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	178 54.8	+00.1	N 13 43.1	-00.8
01	193 54.9	+00.1	N 13 42.3	-00.7
02	208 55.0	+00.1	N 13 41.6	-00.8
03	223 55.1	+00.2	N 13 40.8	-00.8
04	238 55.3	+00.1	N 13 40.0	-00.8
05	253 55.4	+00.1	N 13 39.2	-00.8
06	268 55.5	+00.2	N 13 38.4	-00.8
07	283 55.7	+00.1	N 13 37.6	-00.8
08	298 55.8	+00.1	N 13 36.8	-00.8
09	313 55.9	+00.2	N 13 36.0	-00.8
10	328 56.1	+00.1	N 13 35.2	-00.8
11	343 56.2	+00.1	N 13 34.4	-00.8
12	358 56.3	+00.1	N 13 33.6	-00.8
13	13 56.4	+00.2	N 13 32.8	-00.8
14	28 56.6	+00.1	N 13 32.0	-00.8
15	43 56.7	+00.1	N 13 31.2	-00.7
16	58 56.8	+00.2	N 13 30.5	-00.8
17	73 57.0	+00.1	N 13 29.7	-00.8
18	88 57.1	+00.1	N 13 28.9	-00.8
19	103 57.2	+00.2	N 13 28.1	-00.8
20	118 57.4	+00.1	N 13 27.3	-00.8
21	133 57.5	+00.1	N 13 26.5	-00.8
22	148 57.6	+00.2	N 13 25.7	-00.8
23	163 57.8	+00.1	N 13 24.9	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	214°	214°	214°	214°	214°	213°

Greenwich Culmination Time: 12:04

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	214 42.5	-00.7	N 21 26.8	-00.3
01	229 41.8	-00.7	N 21 26.5	-00.3
02	244 41.1	-00.7	N 21 26.2	-00.2
03	259 40.4	-00.7	N 21 26.0	-00.3
04	274 39.7	-00.7	N 21 25.7	-00.3
05	289 39.0	-00.7	N 21 25.4	-00.3
06	304 38.3	-00.6	N 21 25.1	-00.2
07	319 37.7	-00.7	N 21 24.9	-00.3
08	334 37.0	-00.7	N 21 24.6	-00.3
09	349 36.3	-00.7	N 21 24.3	-00.2
10	4 35.6	-00.7	N 21 24.1	-00.3
11	19 34.9	-00.7	N 21 23.8	-00.3
12	34 34.2	-00.7	N 21 23.5	-00.3
13	49 33.5	-00.7	N 21 23.2	-00.3
14	64 32.8	-00.7	N 21 22.9	-00.2
15	79 32.1	-00.7	N 21 22.7	-00.3
16	94 31.4	-00.7	N 21 22.4	-00.3
17	109 30.7	-00.7	N 21 22.1	-00.3
18	124 30.0	-00.7	N 21 21.8	-00.3
19	139 29.3	-00.7	N 21 21.5	-00.3
20	154 28.6	-00.7	N 21 21.2	-00.2
21	169 27.9	-00.7	N 21 21.0	-00.3
22	184 27.2	-00.7	N 21 20.7	-00.3
23	199 26.5	-00.7	N 21 20.4	-00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	250°	250°	250°	249°	249°	249°

Greenwich Culmination Time: 09:41

Moon

A: 74%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	277 52.9	-34.0	N 22 20.1	+11.0
01	292 18.9	-34.1	N 22 31.1	+11.0
02	306 44.8	-34.1	N 22 42.1	+10.8
03	321 10.7	-34.2	N 22 52.9	+10.6
04	335 36.5	-34.4	N 23 03.5	+10.5
05	350 02.1	-34.4	N 23 14.0	+10.4
06	4 27.7	-34.5	N 23 24.4	+10.2
07	18 53.2	-34.6	N 23 34.6	+10.1
08	33 18.6	-34.7	N 23 44.7	+09.9
09	47 43.9	-34.7	N 23 54.6	+09.8
10	62 09.2	-34.9	N 24 04.4	+09.6
11	76 34.3	-34.9	N 24 14.0	+09.5
12	90 59.4	-35.1	N 24 23.5	+09.3
13	105 24.3	-35.1	N 24 32.8	+09.2
14	119 49.2	-35.2	N 24 42.0	+09.0
15	134 14.0	-35.2	N 24 51.0	+08.8
16	148 38.8	-35.4	N 24 59.8	+08.7
17	163 03.4	-35.4	N 25 08.5	+08.5
18	177 28.0	-35.6	N 25 17.0	+08.3
19	191 52.4	-35.5	N 25 25.3	+08.2
20	206 16.9	-35.7	N 25 33.5	+08.0
21	220 41.2	-35.8	N 25 41.5	+07.9
22	235 05.4	-35.8	N 25 49.4	+07.7
23	249 29.6	-35.9	N 25 57.1	+07.5

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	59′3	59′2	59′2	59′2	59′2	59′1
SHA	312°	310°	307°	305°	302°	300°

Greenwich Culmination Time: 05:41

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	139 16.4	+01.1	S 01 50.9	+00.7
01	154 17.5	+01.0	S 01 51.6	+00.6
02	169 18.5	+01.0	S 01 52.2	+00.7
03	184 19.5	+01.0	S 01 52.9	+00.6
04	199 20.5	+01.1	S 01 53.5	+00.7
05	214 21.6	+01.0	S 01 54.2	+00.6
06	229 22.6	+01.0	S 01 54.8	+00.7
07	244 23.6	+01.0	S 01 55.5	+00.6
08	259 24.6	+01.1	S 01 56.1	+00.7
09	274 25.7	+01.0	S 01 56.8	+00.6
10	289 26.7	+01.0	S 01 57.4	+00.7
11	304 27.7	+01.0	S 01 58.1	+00.7
12	319 28.7	+01.0	S 01 58.8	+00.6
13	334 29.7	+01.1	S 01 59.4	+00.7
14	349 30.8	+01.0	S 02 00.1	+00.6
15	4 31.8	+01.0	S 02 00.7	+00.7
16	19 32.8	+01.0	S 02 01.4	+00.6
17	34 33.8	+01.1	S 02 02.0	+00.7
18	49 34.9	+01.0	S 02 02.7	+00.6
19	64 35.9	+01.0	S 02 03.3	+00.7
20	79 36.9	+01.0	S 02 04.0	+00.6
21	94 37.9	+01.0	S 02 04.6	+00.7
22	109 38.9	+01.1	S 02 05.3	+00.6
23	124 40.0	+01.0	S 02 05.9	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	175°	174°	174°	174°	174°	174°

Greenwich Culmination Time: 14:41

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	218 33.5	+01.9	N 22 33.4	-00.1
01	233 35.4	+01.9	N 22 33.3	+00.0
02	248 37.3	+01.9	N 22 33.3	-00.1
03	263 39.2	+02.0	N 22 33.2	+00.0
04	278 41.2	+01.9	N 22 33.2	-00.1
05	293 43.1	+01.9	N 22 33.1	+00.0
06	308 45.0	+01.9	N 22 33.1	-00.1
07	323 46.9	+02.0	N 22 33.0	+00.0
08	338 48.9	+01.9	N 22 33.0	-00.1
09	353 50.8	+01.9	N 22 32.9	+00.0
10	8 52.7	+01.9	N 22 32.9	-00.1
11	23 54.6	+02.0	N 22 32.8	+00.0
12	38 56.6	+01.9	N 22 32.8	-00.1
13	53 58.5	+01.9	N 22 32.7	+00.0
14	69 00.4	+02.0	N 22 32.7	-00.1
15	84 02.4	+01.9	N 22 32.6	+00.0
16	99 04.3	+01.9	N 22 32.6	-00.1
17	114 06.2	+01.9	N 22 32.5	+00.0
18	129 08.1	+02.0	N 22 32.5	-00.1
19	144 10.1	+01.9	N 22 32.4	+00.0
20	159 12.0	+01.9	N 22 32.4	-00.1
21	174 13.9	+01.9	N 22 32.3	-00.1
22	189 15.8	+02.0	N 22 32.2	+00.0
23	204 17.8	+01.9	N 22 32.2	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	254°	254°	254°	254°	254°	254°

Greenwich Culmination Time: 09:24

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	322 45.0	+02.6	S 01 49.8	+00.1
01	337 47.6	+02.6	S 01 49.9	+00.0
02	352 50.2	+02.6	S 01 49.9	+00.1
03	7 52.8	+02.5	S 01 50.0	+00.1
04	22 55.3	+02.6	S 01 50.1	+00.0
05	37 57.9	+02.6	S 01 50.1	+00.1
06	53 00.5	+02.6	S 01 50.2	+00.0
07	68 03.1	+02.6	S 01 50.2	+00.1
08	83 05.7	+02.5	S 01 50.3	+00.1
09	98 08.2	+02.6	S 01 50.4	+00.0
10	113 10.8	+02.6	S 01 50.4	+00.1
11	128 13.4	+02.6	S 01 50.5	+00.0
12	143 16.0	+02.6	S 01 50.5	+00.1
13	158 18.6	+02.6	S 01 50.6	+00.1
14	173 21.2	+02.5	S 01 50.7	+00.0
15	188 23.7	+02.6	S 01 50.7	+00.1
16	203 26.3	+02.6	S 01 50.8	+00.0
17	218 28.9	+02.6	S 01 50.8	+00.1
18	233 31.5	+02.6	S 01 50.9	+00.1
19	248 34.1	+02.6	S 01 51.0	+00.0
20	263 36.7	+02.5	S 01 51.0	+00.1
21	278 39.2	+02.6	S 01 51.1	+00.0
22	293 41.8	+02.6	S 01 51.1	+00.1
23	308 44.4	+02.6	S 01 51.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:28

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 17 Sunday

(day 229 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	178 57.9	+00.1	N 13 24.1	-00.8
01	193 58.0	+00.2	N 13 23.3	-00.8
02	208 58.2	+00.1	N 13 22.5	-00.8
03	223 58.3	+00.1	N 13 21.7	-00.8
04	238 58.4	+00.2	N 13 20.9	-00.8
05	253 58.6	+00.1	N 13 20.1	-00.8
06	268 58.7	+00.1	N 13 19.3	-00.8
07	283 58.8	+00.2	N 13 18.5	-00.8
08	298 59.0	+00.1	N 13 17.7	-00.8
09	313 59.1	+00.1	N 13 16.9	-00.8
10	328 59.2	+00.2	N 13 16.1	-00.8
11	343 59.4	+00.1	N 13 15.3	-00.8
12	358 59.5	+00.2	N 13 14.5	-00.8
13	13 59.7	+00.1	N 13 13.7	-00.8
14	28 59.8	+00.1	N 13 12.9	-00.8
15	43 59.9	+00.2	N 13 12.1	-00.9
16	59 00.1	+00.1	N 13 11.2	-00.8
17	74 00.2	+00.1	N 13 10.4	-00.8
18	89 00.3	+00.2	N 13 09.6	-00.8
19	104 00.5	+00.1	N 13 08.8	-00.8
20	119 00.6	+00.2	N 13 08.0	-00.8
21	134 00.8	+00.1	N 13 07.2	-00.8
22	149 00.9	+00.1	N 13 06.4	-00.8
23	164 01.0	+00.2	N 13 05.6	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	213°	213°	213°	213°	213°	212°

Greenwich Culmination Time: 12:04

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	214 25.8	-00.7	N 21 20.1	-00.3
01	229 25.1	-00.7	N 21 19.8	-00.3
02	244 24.4	-00.7	N 21 19.5	-00.3
03	259 23.7	-00.7	N 21 19.2	-00.3
04	274 23.0	-00.7	N 21 18.9	-00.3
05	289 22.3	-00.7	N 21 18.6	-00.3
06	304 21.6	-00.6	N 21 18.3	-00.3
07	319 21.0	-00.7	N 21 18.0	-00.3
08	334 20.3	-00.7	N 21 17.7	-00.3
09	349 19.6	-00.7	N 21 17.4	-00.3
10	4 18.9	-00.7	N 21 17.1	-00.3
11	19 18.2	-00.7	N 21 16.8	-00.3
12	34 17.5	-00.7	N 21 16.5	-00.3
13	49 16.8	-00.7	N 21 16.2	-00.3
14	64 16.1	-00.7	N 21 15.9	-00.3
15	79 15.4	-00.7	N 21 15.6	-00.3
16	94 14.7	-00.7	N 21 15.3	-00.3
17	109 14.0	-00.7	N 21 15.0	-00.3
18	124 13.3	-00.7	N 21 14.7	-00.3
19	139 12.6	-00.7	N 21 14.4	-00.3
20	154 11.9	-00.7	N 21 14.1	-00.3
21	169 11.2	-00.7	N 21 13.8	-00.4
22	184 10.5	-00.7	N 21 13.4	-00.3
23	199 09.8	-00.7	N 21 13.1	-00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	249°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 09:42

Moon

A: 78%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	263 53.7	-36.0	N 26 04.6	+07.3
01	278 17.7	-36.0	N 26 11.9	+07.2
02	292 41.7	-36.1	N 26 19.1	+07.0
03	307 05.6	-36.2	N 26 26.1	+06.8
04	321 29.4	-36.2	N 26 32.9	+06.6
05	335 53.2	-36.3	N 26 39.5	+06.5
06	350 16.9	-36.4	N 26 46.0	+06.3
07	4 40.5	-36.4	N 26 52.3	+06.1
08	19 04.1	-36.5	N 26 58.4	+05.9
09	33 27.6	-36.6	N 27 04.3	+05.8
10	47 51.0	-36.6	N 27 10.1	+05.6
11	62 14.4	-36.6	N 27 15.7	+05.4
12	76 37.8	-36.7	N 27 21.1	+05.2
13	91 01.1	-36.8	N 27 26.3	+05.0
14	105 24.3	-36.8	N 27 31.3	+04.8
15	119 47.5	-36.8	N 27 36.1	+04.7
16	134 10.7	-36.9	N 27 40.8	+04.4
17	148 33.8	-37.0	N 27 45.2	+04.3
18	162 56.8	-36.9	N 27 49.5	+04.1
19	177 19.9	-37.0	N 27 53.6	+03.9
20	191 42.9	-37.1	N 27 57.5	+03.7
21	206 05.8	-37.1	N 28 01.2	+03.5
22	220 28.7	-37.1	N 28 04.7	+03.3
23	234 51.6	-37.1	N 28 08.0	+03.2

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	59′1	59′1	59′0	59′0	59′0	58′9
SHA	297°	294°	292°	289°	287°	284°

Greenwich Culmination Time: 06:40

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	139 41.0	+01.0	S 02 06.6	+00.6
01	154 42.0	+01.0	S 02 07.2	+00.7
02	169 43.0	+01.1	S 02 07.9	+00.6
03	184 44.1	+01.0	S 02 08.5	+00.7
04	199 45.1	+01.0	S 02 09.2	+00.7
05	214 46.1	+01.0	S 02 09.9	+00.6
06	229 47.1	+01.0	S 02 10.5	+00.7
07	244 48.1	+01.1	S 02 11.2	+00.6
08	259 49.2	+01.0	S 02 11.8	+00.7
09	274 50.2	+01.0	S 02 12.5	+00.6
10	289 51.2	+01.0	S 02 13.1	+00.7
11	304 52.2	+01.0	S 02 13.8	+00.6
12	319 53.2	+01.1	S 02 14.4	+00.7
13	334 54.3	+01.0	S 02 15.1	+00.6
14	349 55.3	+01.0	S 02 15.7	+00.7
15	4 56.3	+01.0	S 02 16.4	+00.6
16	19 57.3	+01.0	S 02 17.0	+00.7
17	34 58.3	+01.0	S 02 17.7	+00.7
18	49 59.3	+01.1	S 02 18.4	+00.6
19	65 00.4	+01.0	S 02 19.0	+00.7
20	80 01.4	+01.0	S 02 19.7	+00.6
21	95 02.4	+01.0	S 02 20.3	+00.7
22	110 03.4	+01.0	S 02 21.0	+00.6
23	125 04.4	+01.1	S 02 21.6	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	174°	174°	174°	174°	174°	174°

Greenwich Culmination Time: 14:40

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	219 19.7	+01.9	N 22 32.1	+00.0
01	234 21.6	+02.0	N 22 32.1	-00.1
02	249 23.6	+01.9	N 22 32.0	+00.0
03	264 25.5	+01.9	N 22 32.0	-00.1
04	279 27.4	+01.9	N 22 31.9	+00.0
05	294 29.3	+02.0	N 22 31.9	-00.1
06	309 31.3	+01.9	N 22 31.8	+00.0
07	324 33.2	+01.9	N 22 31.8	-00.1
08	339 35.1	+02.0	N 22 31.7	+00.0
09	354 37.1	+01.9	N 22 31.7	-00.1
10	9 39.0	+01.9	N 22 31.6	+00.0
11	24 40.9	+01.9	N 22 31.6	-00.1
12	39 42.8	+02.0	N 22 31.5	+00.0
13	54 44.8	+01.9	N 22 31.5	-00.1
14	69 46.7	+01.9	N 22 31.4	+00.0
15	84 48.6	+02.0	N 22 31.4	-00.1
16	99 50.6	+01.9	N 22 31.3	+00.0
17	114 52.5	+01.9	N 22 31.3	-00.1
18	129 54.4	+02.0	N 22 31.2	+00.0
19	144 56.4	+01.9	N 22 31.2	-00.1
20	159 58.3	+01.9	N 22 31.1	+00.0
21	175 00.2	+01.9	N 22 31.1	-00.1
22	190 02.1	+02.0	N 22 31.0	+00.0
23	205 04.1	+01.9	N 22 31.0	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	254°	254°	254°	254°	254°	254°

Greenwich Culmination Time: 09:21

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	323 47.0	+02.6	S 01 51.3	+00.0
01	338 49.6	+02.6	S 01 51.3	+00.1
02	353 52.2	+02.5	S 01 51.4	+00.1
03	8 54.7	+02.6	S 01 51.5	+00.0
04	23 57.3	+02.6	S 01 51.5	+00.1
05	38 59.9	+02.6	S 01 51.6	+00.0
06	54 02.5	+02.6	S 01 51.6	+00.1
07	69 05.1	+02.6	S 01 51.7	+00.1
08	84 07.7	+02.5	S 01 51.8	+00.0
09	99 10.2	+02.6	S 01 51.8	+00.1
10	114 12.8	+02.6	S 01 51.9	+00.0
11	129 15.4	+02.6	S 01 51.9	+00.1
12	144 18.0	+02.6	S 01 52.0	+00.1
13	159 20.6	+02.6	S 01 52.1	+00.0
14	174 23.2	+02.6	S 01 52.1	+00.1
15	189 25.8	+02.5	S 01 52.2	+00.1
16	204 28.3	+02.6	S 01 52.3	+00.0
17	219 30.9	+02.6	S 01 52.3	+00.1
18	234 33.5	+02.6	S 01 52.4	+00.0
19	249 36.1	+02.6	S 01 52.4	+00.1
20	264 38.7	+02.6	S 01 52.5	+00.1
21	279 41.3	+02.6	S 01 52.6	+00.0
22	294 43.9	+02.5	S 01 52.6	+00.1
23	309 46.4	+02.6	S 01 52.7	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:24

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2025 August 18 Monday

(day 230 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 01.2	+00.1	N 13 04.8	-00.8
01	194 01.3	+00.1	N 13 04.0	-00.8
02	209 01.4	+00.2	N 13 03.2	-00.8
03	224 01.6	+00.1	N 13 02.4	-00.8
04	239 01.7	+00.2	N 13 01.6	-00.8
05	254 01.9	+00.1	N 13 00.8	-00.9
06	269 02.0	+00.1	N 12 59.9	-00.8
07	284 02.1	+00.2	N 12 59.1	-00.8
08	299 02.3	+00.1	N 12 58.3	-00.8
09	314 02.4	+00.2	N 12 57.5	-00.8
10	329 02.6	+00.1	N 12 56.7	-00.8
11	344 02.7	+00.1	N 12 55.9	-00.8
12	359 02.8	+00.2	N 12 55.1	-00.8
13	14 03.0	+00.1	N 12 54.3	-00.8
14	29 03.1	+00.2	N 12 53.5	-00.9
15	44 03.3	+00.1	N 12 52.6	-00.8
16	59 03.4	+00.2	N 12 51.8	-00.8
17	74 03.6	+00.1	N 12 51.0	-00.8
18	89 03.7	+00.1	N 12 50.2	-00.8
19	104 03.8	+00.2	N 12 49.4	-00.8
20	119 04.0	+00.1	N 12 48.6	-00.8
21	134 04.1	+00.2	N 12 47.8	-00.9
22	149 04.3	+00.1	N 12 46.9	-00.8
23	164 04.4	+00.2	N 12 46.1	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	212°	212°	212°	212°	212°	212°

Greenwich Culmination Time: 12:03

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	214 09.1	-00.7	N 21 12.8	-00.3
01	229 08.4	-00.6	N 21 12.5	-00.3
02	244 07.8	-00.7	N 21 12.2	-00.3
03	259 07.1	-00.7	N 21 11.9	-00.4
04	274 06.4	-00.7	N 21 11.5	-00.3
05	289 05.7	-00.7	N 21 11.2	-00.3
06	304 05.0	-00.7	N 21 10.9	-00.3
07	319 04.3	-00.7	N 21 10.6	-00.3
08	334 03.6	-00.7	N 21 10.3	-00.4
09	349 02.9	-00.7	N 21 09.9	-00.3
10	4 02.2	-00.7	N 21 09.6	-00.3
11	19 01.5	-00.7	N 21 09.3	-00.3
12	34 00.8	-00.7	N 21 09.0	-00.4
13	49 00.1	-00.7	N 21 08.6	-00.3
14	63 59.4	-00.7	N 21 08.3	-00.3
15	78 58.7	-00.7	N 21 08.0	-00.4
16	93 58.0	-00.6	N 21 07.6	-00.3
17	108 57.4	-00.7	N 21 07.3	-00.3
18	123 56.7	-00.7	N 21 07.0	-00.4
19	138 56.0	-00.7	N 21 06.6	-00.3
20	153 55.3	-00.7	N 21 06.3	-00.3
21	168 54.6	-00.7	N 21 06.0	-00.4
22	183 53.9	-00.7	N 21 05.6	-00.3
23	198 53.2	-00.7	N 21 05.3	-00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	247°	247°	247°	247°	247°	246°

Greenwich Culmination Time: 09:43

Moon

A: 82%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	249 14.5	-37.2	N 28 11.2	+02.9
01	263 37.3	-37.1	N 28 14.1	+02.8
02	278 00.2	-37.2	N 28 16.9	+02.5
03	292 23.0	-37.3	N 28 19.4	+02.4
04	306 45.7	-37.2	N 28 21.8	+02.2
05	321 08.5	-37.2	N 28 24.0	+02.0
06	335 31.3	-37.3	N 28 26.0	+01.8
07	349 54.0	-37.3	N 28 27.8	+01.6
08	4 16.7	-37.2	N 28 29.4	+01.4
09	18 39.5	-37.3	N 28 30.8	+01.2
10	33 02.2	-37.3	N 28 32.0	+01.0
11	47 24.9	-37.2	N 28 33.0	+00.9
12	61 47.7	-37.3	N 28 33.9	+00.6
13	76 10.4	-37.3	N 28 34.5	+00.4
14	90 33.1	-37.2	N 28 34.9	+00.3
15	104 55.9	-37.3	N 28 35.2	+00.0
16	119 18.6	-37.2	N 28 35.2	-00.1
17	133 41.4	-37.2	N 28 35.1	-00.3
18	148 04.2	-37.2	N 28 34.8	-00.5
19	162 27.0	-37.1	N 28 34.3	-00.8
20	176 49.9	-37.1	N 28 33.5	-00.9
21	191 12.8	-37.2	N 28 32.6	-01.1
22	205 35.6	-37.0	N 28 31.5	-01.2
23	219 58.6	-37.1	N 28 30.3	-01.5

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	58′9	58′8	58′8	58′7	58′7	58′6
SHA	281°	279°	276°	273°	271°	268°

Greenwich Culmination Time: 07:42

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	140 05.5	+01.0	S 02 22.3	+00.6
01	155 06.5	+01.0	S 02 22.9	+00.7
02	170 07.5	+01.0	S 02 23.6	+00.6
03	185 08.5	+01.0	S 02 24.2	+00.7
04	200 09.5	+01.0	S 02 24.9	+00.6
05	215 10.5	+01.1	S 02 25.5	+00.7
06	230 11.6	+01.0	S 02 26.2	+00.6
07	245 12.6	+01.0	S 02 26.8	+00.7
08	260 13.6	+01.0	S 02 27.5	+00.7
09	275 14.6	+01.0	S 02 28.2	+00.6
10	290 15.6	+01.0	S 02 28.8	+00.7
11	305 16.6	+01.1	S 02 29.5	+00.6
12	320 17.7	+01.0	S 02 30.1	+00.7
13	335 18.7	+01.0	S 02 30.8	+00.6
14	350 19.7	+01.0	S 02 31.4	+00.7
15	5 20.7	+01.0	S 02 32.1	+00.6
16	20 21.7	+01.0	S 02 32.7	+00.7
17	35 22.7	+01.1	S 02 33.4	+00.6
18	50 23.8	+01.0	S 02 34.0	+00.7
19	65 24.8	+01.0	S 02 34.7	+00.6
20	80 25.8	+01.0	S 02 35.3	+00.7
21	95 26.8	+01.0	S 02 36.0	+00.7
22	110 27.8	+01.0	S 02 36.7	+00.6
23	125 28.8	+01.0	S 02 37.3	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	173°	173°	173°	173°	173°	173°

Greenwich Culmination Time: 14:38

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	220 06.0	+01.9	N 22 30.9	-00.1
01	235 07.9	+02.0	N 22 30.8	+00.0
02	250 09.9	+01.9	N 22 30.8	-00.1
03	265 11.8	+01.9	N 22 30.7	+00.0
04	280 13.7	+02.0	N 22 30.7	-00.1
05	295 15.7	+01.9	N 22 30.6	+00.0
06	310 17.6	+01.9	N 22 30.6	-00.1
07	325 19.5	+02.0	N 22 30.5	+00.0
08	340 21.5	+01.9	N 22 30.5	-00.1
09	355 23.4	+01.9	N 22 30.4	+00.0
10	10 25.3	+02.0	N 22 30.4	-00.1
11	25 27.3	+01.9	N 22 30.3	+00.0
12	40 29.2	+01.9	N 22 30.3	-00.1
13	55 31.1	+02.0	N 22 30.2	+00.0
14	70 33.1	+01.9	N 22 30.2	-00.1
15	85 35.0	+01.9	N 22 30.1	+00.0
16	100 36.9	+02.0	N 22 30.1	-00.1
17	115 38.9	+01.9	N 22 30.0	+00.0
18	130 40.8	+01.9	N 22 30.0	-00.1
19	145 42.7	+02.0	N 22 29.9	+00.0
20	160 44.7	+01.9	N 22 29.9	-00.1
21	175 46.6	+01.9	N 22 29.8	+00.0
22	190 48.5	+02.0	N 22 29.8	-00.1
23	205 50.5	+01.9	N 22 29.7	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	253°	253°	253°	253°	253°	253°

Greenwich Culmination Time: 09:18

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	324 49.0	+02.6	S 01 52.7	+00.1
01	339 51.6	+02.6	S 01 52.8	+00.1
02	354 54.2	+02.6	S 01 52.9	+00.0
03	9 56.8	+02.6	S 01 52.9	+00.1
04	24 59.4	+02.6	S 01 53.0	+00.1
05	40 02.0	+02.6	S 01 53.1	+00.0
06	55 04.6	+02.5	S 01 53.1	+00.1
07	70 07.1	+02.6	S 01 53.2	+00.0
08	85 09.7	+02.6	S 01 53.2	+00.1
09	100 12.3	+02.6	S 01 53.3	+00.1
10	115 14.9	+02.6	S 01 53.4	+00.0
11	130 17.5	+02.6	S 01 53.4	+00.1
12	145 20.1	+02.6	S 01 53.5	+00.1
13	160 22.7	+02.6	S 01 53.6	+00.0
14	175 25.3	+02.6	S 01 53.6	+00.1
15	190 27.9	+02.5	S 01 53.7	+00.0
16	205 30.4	+02.6	S 01 53.7	+00.1
17	220 33.0	+02.6	S 01 53.8	+00.1
18	235 35.6	+02.6	S 01 53.9	+00.0
19	250 38.2	+02.6	S 01 53.9	+00.1
20	265 40.8	+02.6	S 01 54.0	+00.1
21	280 43.4	+02.6	S 01 54.1	+00.0
22	295 46.0	+02.6	S 01 54.1	+00.1
23	310 48.6	+02.6	S 01 54.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:20

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 19 Tuesday

(day 231 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 04.6	+00.1	N 12 45.3	-00.8
01	194 04.7	+00.1	N 12 44.5	-00.8
02	209 04.8	+00.2	N 12 43.7	-00.8
03	224 05.0	+00.1	N 12 42.9	-00.9
04	239 05.1	+00.2	N 12 42.0	-00.8
05	254 05.3	+00.1	N 12 41.2	-00.8
06	269 05.4	+00.2	N 12 40.4	-00.8
07	284 05.6	+00.1	N 12 39.6	-00.8
08	299 05.7	+00.2	N 12 38.8	-00.9
09	314 05.9	+00.1	N 12 37.9	-00.8
10	329 06.0	+00.1	N 12 37.1	-00.8
11	344 06.1	+00.2	N 12 36.3	-00.8
12	359 06.3	+00.1	N 12 35.5	-00.8
13	14 06.4	+00.2	N 12 34.7	-00.9
14	29 06.6	+00.1	N 12 33.8	-00.8
15	44 06.7	+00.2	N 12 33.0	-00.8
16	59 06.9	+00.1	N 12 32.2	-00.8
17	74 07.0	+00.2	N 12 31.4	-00.8
18	89 07.2	+00.1	N 12 30.6	-00.9
19	104 07.3	+00.2	N 12 29.7	-00.8
20	119 07.5	+00.1	N 12 28.9	-00.8
21	134 07.6	+00.2	N 12 28.1	-00.8
22	149 07.8	+00.1	N 12 27.3	-00.9
23	164 07.9	+00.2	N 12 26.4	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	211°	211°	211°	211°	211°	211°

Greenwich Culmination Time: 12:03

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	213 52.5	-00.7	N 21 04.9	-00.3
01	228 51.8	-00.7	N 21 04.6	-00.3
02	243 51.1	-00.7	N 21 04.3	-00.4
03	258 50.4	-00.7	N 21 03.9	-00.3
04	273 49.7	-00.7	N 21 03.6	-00.4
05	288 49.0	-00.6	N 21 03.2	-00.3
06	303 48.4	-00.7	N 21 02.9	-00.4
07	318 47.7	-00.7	N 21 02.5	-00.3
08	333 47.0	-00.7	N 21 02.2	-00.4
09	348 46.3	-00.7	N 21 01.8	-00.3
10	3 45.6	-00.7	N 21 01.5	-00.4
11	18 44.9	-00.7	N 21 01.1	-00.3
12	33 44.2	-00.7	N 21 00.8	-00.4
13	48 43.5	-00.7	N 21 00.4	-00.3
14	63 42.8	-00.7	N 21 00.1	-00.4
15	78 42.1	-00.7	N 20 59.7	-00.3
16	93 41.4	-00.6	N 20 59.4	-00.4
17	108 40.8	-00.7	N 20 59.0	-00.4
18	123 40.1	-00.7	N 20 58.6	-00.3
19	138 39.4	-00.7	N 20 58.3	-00.4
20	153 38.7	-00.7	N 20 57.9	-00.3
21	168 38.0	-00.7	N 20 57.6	-00.4
22	183 37.3	-00.7	N 20 57.2	-00.4
23	198 36.6	-00.7	N 20 56.8	-00.3

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	246°	246°	246°	246°	245°	245°

Greenwich Culmination Time: 09:44

Moon

A: 86%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	234 21.5	-37.0	N 28 28.8	-01.7
01	248 44.5	-36.9	N 28 27.1	-01.8
02	263 07.6	-37.0	N 28 25.3	-02.1
03	277 30.6	-36.9	N 28 23.2	-02.2
04	291 53.7	-36.8	N 28 21.0	-02.4
05	306 16.9	-36.8	N 28 18.6	-02.6
06	320 40.1	-36.7	N 28 16.0	-02.8
07	335 03.4	-36.7	N 28 13.2	-03.0
08	349 26.7	-36.7	N 28 10.2	-03.2
09	3 50.0	-36.5	N 28 07.0	-03.3
10	18 13.5	-36.6	N 28 03.7	-03.5
11	32 36.9	-36.4	N 28 00.2	-03.7
12	47 00.5	-36.4	N 27 56.5	-03.9
13	61 24.1	-36.4	N 27 52.6	-04.1
14	75 47.7	-36.2	N 27 48.5	-04.2
15	90 11.5	-36.2	N 27 44.3	-04.4
16	104 35.3	-36.2	N 27 39.9	-04.6
17	118 59.1	-36.0	N 27 35.3	-04.8
18	133 23.1	-36.0	N 27 30.5	-05.0
19	147 47.1	-35.9	N 27 25.5	-05.1
20	162 11.2	-35.8	N 27 20.4	-05.3
21	176 35.4	-35.7	N 27 15.1	-05.4
22	190 59.7	-35.7	N 27 09.7	-05.7
23	205 24.0	-35.6	N 27 04.0	-05.8

UT	02	06	10	14	18	22
SD	16′0	15′9	15′9	15′9	15′9	15′9
HP	58′6	58′5	58′5	58′4	58′3	58′3
SHA	265°	263°	260°	258°	255°	252°

Greenwich Culmination Time: 08:44

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	140 29.8	+01.1	S 02 38.0	+00.6
01	155 30.9	+01.0	S 02 38.6	+00.7
02	170 31.9	+01.0	S 02 39.3	+00.6
03	185 32.9	+01.0	S 02 39.9	+00.7
04	200 33.9	+01.0	S 02 40.6	+00.6
05	215 34.9	+01.0	S 02 41.2	+00.7
06	230 35.9	+01.0	S 02 41.9	+00.6
07	245 36.9	+01.1	S 02 42.5	+00.7
08	260 38.0	+01.0	S 02 43.2	+00.6
09	275 39.0	+01.0	S 02 43.8	+00.7
10	290 40.0	+01.0	S 02 44.5	+00.7
11	305 41.0	+01.0	S 02 45.2	+00.6
12	320 42.0	+01.0	S 02 45.8	+00.7
13	335 43.0	+01.0	S 02 46.5	+00.6
14	350 44.0	+01.1	S 02 47.1	+00.7
15	5 45.1	+01.0	S 02 47.8	+00.6
16	20 46.1	+01.0	S 02 48.4	+00.7
17	35 47.1	+01.0	S 02 49.1	+00.6
18	50 48.1	+01.0	S 02 49.7	+00.7
19	65 49.1	+01.0	S 02 50.4	+00.6
20	80 50.1	+01.0	S 02 51.0	+00.7
21	95 51.1	+01.0	S 02 51.7	+00.6
22	110 52.1	+01.0	S 02 52.3	+00.7
23	125 53.1	+01.1	S 02 53.0	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	173°	173°	173°	173°	172°	172°

Greenwich Culmination Time: 14:37

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	220 52.4	+01.9	N 22 29.6	+00.0
01	235 54.3	+02.0	N 22 29.6	-00.1
02	250 56.3	+01.9	N 22 29.5	+00.0
03	265 58.2	+01.9	N 22 29.5	-00.1
04	281 00.1	+02.0	N 22 29.4	+00.0
05	296 02.1	+01.9	N 22 29.4	-00.1
06	311 04.0	+01.9	N 22 29.3	+00.0
07	326 05.9	+02.0	N 22 29.3	-00.1
08	341 07.9	+01.9	N 22 29.2	+00.0
09	356 09.8	+01.9	N 22 29.2	-00.1
10	11 11.7	+02.0	N 22 29.1	+00.0
11	26 13.7	+01.9	N 22 29.1	-00.1
12	41 15.6	+02.0	N 22 29.0	+00.0
13	56 17.6	+01.9	N 22 29.0	-00.1
14	71 19.5	+01.9	N 22 28.9	+00.0
15	86 21.4	+02.0	N 22 28.9	-00.1
16	101 23.4	+01.9	N 22 28.8	+00.0
17	116 25.3	+01.9	N 22 28.8	-00.1
18	131 27.2	+02.0	N 22 28.7	-00.1
19	146 29.2	+01.9	N 22 28.6	+00.0
20	161 31.1	+01.9	N 22 28.6	-00.1
21	176 33.0	+02.0	N 22 28.5	+00.0
22	191 35.0	+01.9	N 22 28.5	-00.1
23	206 36.9	+02.0	N 22 28.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	253°	253°	253°	253°	253°	253°

Greenwich Culmination Time: 09:15

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	325 51.2	+02.5	S 01 54.3	+00.0
01	340 53.7	+02.6	S 01 54.3	+00.1
02	355 56.3	+02.6	S 01 54.4	+00.0
03	10 58.9	+02.6	S 01 54.4	+00.1
04	26 01.5	+02.6	S 01 54.5	+00.1
05	41 04.1	+02.6	S 01 54.6	+00.0
06	56 06.7	+02.6	S 01 54.6	+00.1
07	71 09.3	+02.6	S 01 54.7	+00.1
08	86 11.9	+02.6	S 01 54.8	+00.0
09	101 14.5	+02.6	S 01 54.8	+00.1
10	116 17.1	+02.5	S 01 54.9	+00.1
11	131 19.6	+02.6	S 01 55.0	+00.0
12	146 22.2	+02.6	S 01 55.0	+00.1
13	161 24.8	+02.6	S 01 55.1	+00.0
14	176 27.4	+02.6	S 01 55.1	+00.1
15	191 30.0	+02.6	S 01 55.2	+00.1
16	206 32.6	+02.6	S 01 55.3	+00.0
17	221 35.2	+02.6	S 01 55.3	+00.1
18	236 37.8	+02.6	S 01 55.4	+00.1
19	251 40.4	+02.6	S 01 55.5	+00.0
20	266 43.0	+02.6	S 01 55.5	+00.1
21	281 45.6	+02.6	S 01 55.6	+00.1
22	296 48.2	+02.5	S 01 55.7	+00.0
23	311 50.7	+02.6	S 01 55.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:16

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2025 August 20 Wednesday (day 232 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	179 08.1	+00.1	N 12 25.6	-00.8
01	194 08.2	+00.2	N 12 24.8	-00.8
02	209 08.4	+00.1	N 12 24.0	-00.9
03	224 08.5	+00.2	N 12 23.1	-00.8
04	239 08.7	+00.1	N 12 22.3	-00.8
05	254 08.8	+00.2	N 12 21.5	-00.8
06	269 09.0	+00.1	N 12 20.7	-00.9
07	284 09.1	+00.2	N 12 19.8	-00.8
08	299 09.3	+00.1	N 12 19.0	-00.8
09	314 09.4	+00.2	N 12 18.2	-00.8
10	329 09.6	+00.1	N 12 17.4	-00.9
11	344 09.7	+00.2	N 12 16.5	-00.8
12	359 09.9	+00.1	N 12 15.7	-00.8
13	14 10.0	+00.2	N 12 14.9	-00.9
14	29 10.2	+00.1	N 12 14.0	-00.8
15	44 10.3	+00.2	N 12 13.2	-00.8
16	59 10.5	+00.1	N 12 12.4	-00.8
17	74 10.6	+00.2	N 12 11.6	-00.9
18	89 10.8	+00.1	N 12 10.7	-00.8
19	104 10.9	+00.2	N 12 09.9	-00.8
20	119 11.1	+00.1	N 12 09.1	-00.9
21	134 11.2	+00.2	N 12 08.2	-00.8
22	149 11.4	+00.1	N 12 07.4	-00.8
23	164 11.5	+00.2	N 12 06.6	-00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	210°	210°	210°	210°	210°	210°

Greenwich Culmination Time: 12:03

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	213 35.9	-00.7	N 20 56.5	-00.4
01	228 35.2	-00.7	N 20 56.1	-00.4
02	243 34.5	-00.6	N 20 55.7	-00.3
03	258 33.9	-00.7	N 20 55.4	-00.4
04	273 33.2	-00.7	N 20 55.0	-00.4
05	288 32.5	-00.7	N 20 54.6	-00.3
06	303 31.8	-00.7	N 20 54.3	-00.4
07	318 31.1	-00.7	N 20 53.9	-00.4
08	333 30.4	-00.7	N 20 53.5	-00.3
09	348 29.7	-00.7	N 20 53.2	-00.4
10	3 29.0	-00.7	N 20 52.8	-00.4
11	18 28.3	-00.6	N 20 52.4	-00.4
12	33 27.7	-00.7	N 20 52.0	-00.4
13	48 27.0	-00.7	N 20 51.6	-00.3
14	63 26.3	-00.7	N 20 51.3	-00.4
15	78 25.6	-00.7	N 20 50.9	-00.4
16	93 24.9	-00.7	N 20 50.5	-00.4
17	108 24.2	-00.7	N 20 50.1	-00.4
18	123 23.5	-00.7	N 20 49.7	-00.3
19	138 22.8	-00.6	N 20 49.4	-00.4
20	153 22.2	-00.7	N 20 49.0	-00.4
21	168 21.5	-00.7	N 20 48.6	-00.4
22	183 20.8	-00.7	N 20 48.2	-00.4
23	198 20.1	-00.7	N 20 47.8	-00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	245°	245°	244°	244°	244°	244°

Greenwich Culmination Time: 09:46

Moon

A: 90%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	219 48.4	-35.5	N 26 58.2	-06.0
01	234 12.9	-35.4	N 26 52.2	-06.1
02	248 37.5	-35.3	N 26 46.1	-06.3
03	263 02.2	-35.2	N 26 39.8	-06.4
04	277 27.0	-35.2	N 26 33.4	-06.7
05	291 51.8	-35.0	N 26 26.7	-06.8
06	306 16.8	-34.9	N 26 19.9	-06.9
07	320 41.9	-34.9	N 26 13.0	-07.1
08	335 07.0	-34.8	N 26 05.9	-07.2
09	349 32.2	-34.6	N 25 58.7	-07.5
10	3 57.6	-34.6	N 25 51.2	-07.5
11	18 23.0	-34.4	N 25 43.7	-07.7
12	32 48.6	-34.4	N 25 36.0	-07.9
13	47 14.2	-34.3	N 25 28.1	-08.0
14	61 39.9	-34.1	N 25 20.1	-08.2
15	76 05.8	-34.1	N 25 11.9	-08.3
16	90 31.7	-33.9	N 25 03.6	-08.4
17	104 57.8	-33.9	N 24 55.2	-08.6
18	119 23.9	-33.7	N 24 46.6	-08.7
19	133 50.2	-33.6	N 24 37.9	-08.9
20	148 16.6	-33.6	N 24 29.0	-09.0
21	162 43.0	-33.4	N 24 20.0	-09.2
22	177 09.6	-33.3	N 24 10.8	-09.2
23	191 36.3	-33.2	N 24 01.6	-09.5

UT	02	06	10	14	18	22
SD	15′9	15′8	15′8	15′8	15′8	15′8
HP	58′2	58′1	58′1	58′0	57′9	57′8
SHA	250°	247°	245°	243°	240°	238°

Greenwich Culmination Time: 09:43

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	140 54.2	+01.0	S 02 53.7	+00.6
01	155 55.2	+01.0	S 02 54.3	+00.7
02	170 56.2	+01.0	S 02 55.0	+00.6
03	185 57.2	+01.0	S 02 55.6	+00.7
04	200 58.2	+01.0	S 02 56.3	+00.6
05	215 59.2	+01.0	S 02 56.9	+00.7
06	231 00.2	+01.0	S 02 57.6	+00.6
07	246 01.2	+01.0	S 02 58.2	+00.7
08	261 02.2	+01.1	S 02 58.9	+00.6
09	276 03.3	+01.0	S 02 59.5	+00.7
10	291 04.3	+01.0	S 03 00.2	+00.7
11	306 05.3	+01.0	S 03 00.9	+00.6
12	321 06.3	+01.0	S 03 01.5	+00.7
13	336 07.3	+01.0	S 03 02.2	+00.6
14	351 08.3	+01.0	S 03 02.8	+00.7
15	6 09.3	+01.0	S 03 03.5	+00.6
16	21 10.3	+01.0	S 03 04.1	+00.7
17	36 11.3	+01.0	S 03 04.8	+00.6
18	51 12.3	+01.1	S 03 05.4	+00.7
19	66 13.4	+01.0	S 03 06.1	+00.6
20	81 14.4	+01.0	S 03 06.7	+00.7
21	96 15.4	+01.0	S 03 07.4	+00.6
22	111 16.4	+01.0	S 03 08.0	+00.7
23	126 17.4	+01.0	S 03 08.7	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	172°	172°	172°	172°	172°	172°

Greenwich Culmination Time: 14:35

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	221 38.9	+01.9	N 22 28.4	-00.1
01	236 40.8	+01.9	N 22 28.3	+00.0
02	251 42.7	+02.0	N 22 28.3	-00.1
03	266 44.7	+01.9	N 22 28.2	+00.0
04	281 46.6	+02.0	N 22 28.2	-00.1
05	296 48.6	+01.9	N 22 28.1	+00.0
06	311 50.5	+01.9	N 22 28.1	-00.1
07	326 52.4	+02.0	N 22 28.0	+00.0
08	341 54.4	+01.9	N 22 28.0	-00.1
09	356 56.3	+01.9	N 22 27.9	+00.0
10	11 58.2	+02.0	N 22 27.9	-00.1
11	27 00.2	+01.9	N 22 27.8	+00.0
12	42 02.1	+02.0	N 22 27.8	-00.1
13	57 04.1	+01.9	N 22 27.7	-00.1
14	72 06.0	+01.9	N 22 27.6	+00.0
15	87 07.9	+02.0	N 22 27.6	-00.1
16	102 09.9	+01.9	N 22 27.5	+00.0
17	117 11.8	+02.0	N 22 27.5	-00.1
18	132 13.8	+01.9	N 22 27.4	+00.0
19	147 15.7	+01.9	N 22 27.4	-00.1
20	162 17.6	+02.0	N 22 27.3	+00.0
21	177 19.6	+01.9	N 22 27.3	-00.1
22	192 21.5	+02.0	N 22 27.2	+00.0
23	207 23.5	+01.9	N 22 27.2	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	253°	253°	253°	253°	253°	253°

Greenwich Culmination Time: 09:12

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	326 53.3	+02.6	S 01 55.8	+00.1
01	341 55.9	+02.6	S 01 55.9	+00.0
02	356 58.5	+02.6	S 01 55.9	+00.1
03	12 01.1	+02.6	S 01 56.0	+00.0
04	27 03.7	+02.6	S 01 56.0	+00.1
05	42 06.3	+02.6	S 01 56.1	+00.1
06	57 08.9	+02.6	S 01 56.2	+00.0
07	72 11.5	+02.6	S 01 56.2	+00.1
08	87 14.1	+02.6	S 01 56.3	+00.1
09	102 16.7	+02.6	S 01 56.4	+00.0
10	117 19.3	+02.6	S 01 56.4	+00.1
11	132 21.9	+02.6	S 01 56.5	+00.1
12	147 24.5	+02.5	S 01 56.6	+00.0
13	162 27.0	+02.6	S 01 56.6	+00.1
14	177 29.6	+02.6	S 01 56.7	+00.1
15	192 32.2	+02.6	S 01 56.8	+00.0
16	207 34.8	+02.6	S 01 56.8	+00.1
17	222 37.4	+02.6	S 01 56.9	+00.1
18	237 40.0	+02.6	S 01 57.0	+00.0
19	252 42.6	+02.6	S 01 57.0	+00.1
20	267 45.2	+02.6	S 01 57.1	+00.0
21	282 47.8	+02.6	S 01 57.1	+00.1
22	297 50.4	+02.6	S 01 57.2	+00.1
23	312 53.0	+02.6	S 01 57.3	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:12

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 21 Thursday

(day 233 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 11.7	+00.1	N 12 05.7	-00.8
01	194 11.8	+00.2	N 12 04.9	-00.8
02	209 12.0	+00.1	N 12 04.1	-00.9
03	224 12.1	+00.2	N 12 03.2	-00.8
04	239 12.3	+00.1	N 12 02.4	-00.8
05	254 12.4	+00.2	N 12 01.6	-00.9
06	269 12.6	+00.2	N 12 00.7	-00.8
07	284 12.8	+00.1	N 11 59.9	-00.8
08	299 12.9	+00.2	N 11 59.1	-00.9
09	314 13.1	+00.1	N 11 58.2	-00.8
10	329 13.2	+00.2	N 11 57.4	-00.8
11	344 13.4	+00.1	N 11 56.6	-00.9
12	359 13.5	+00.2	N 11 55.7	-00.8
13	14 13.7	+00.1	N 11 54.9	-00.9
14	29 13.8	+00.2	N 11 54.0	-00.8
15	44 14.0	+00.2	N 11 53.2	-00.8
16	59 14.2	+00.1	N 11 52.4	-00.9
17	74 14.3	+00.2	N 11 51.5	-00.8
18	89 14.5	+00.1	N 11 50.7	-00.8
19	104 14.6	+00.2	N 11 49.9	-00.9
20	119 14.8	+00.1	N 11 49.0	-00.8
21	134 14.9	+00.2	N 11 48.2	-00.9
22	149 15.1	+00.2	N 11 47.3	-00.8
23	164 15.3	+00.1	N 11 46.5	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	210°	209°	209°	209°	209°	209°

Greenwich Culmination Time: 12:03

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	213 19.4	-00.7	N 20 47.4	-00.4
01	228 18.7	-00.7	N 20 47.0	-00.4
02	243 18.0	-00.7	N 20 46.6	-00.4
03	258 17.3	-00.6	N 20 46.2	-00.3
04	273 16.7	-00.7	N 20 45.9	-00.4
05	288 16.0	-00.7	N 20 45.5	-00.4
06	303 15.3	-00.7	N 20 45.1	-00.4
07	318 14.6	-00.7	N 20 44.7	-00.4
08	333 13.9	-00.7	N 20 44.3	-00.4
09	348 13.2	-00.7	N 20 43.9	-00.4
10	3 12.5	-00.6	N 20 43.5	-00.4
11	18 11.9	-00.7	N 20 43.1	-00.4
12	33 11.2	-00.7	N 20 42.7	-00.4
13	48 10.5	-00.7	N 20 42.3	-00.4
14	63 09.8	-00.7	N 20 41.9	-00.4
15	78 09.1	-00.7	N 20 41.5	-00.4
16	93 08.4	-00.7	N 20 41.1	-00.4
17	108 07.7	-00.6	N 20 40.7	-00.5
18	123 07.1	-00.7	N 20 40.2	-00.4
19	138 06.4	-00.7	N 20 39.8	-00.4
20	153 05.7	-00.7	N 20 39.4	-00.4
21	168 05.0	-00.7	N 20 39.0	-00.4
22	183 04.3	-00.7	N 20 38.6	-00.4
23	198 03.6	-00.6	N 20 38.2	-00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	244°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 09:47

Moon

A: 94%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	206 03.1	-33.1	N 23 52.1	-09.5
01	220 30.0	-33.0	N 23 42.6	-09.7
02	234 57.0	-32.9	N 23 32.9	-09.8
03	249 24.1	-32.7	N 23 23.1	-09.9
04	263 51.4	-32.7	N 23 13.2	-10.0
05	278 18.7	-32.5	N 23 03.2	-10.2
06	292 46.2	-32.5	N 22 53.0	-10.3
07	307 13.7	-32.3	N 22 42.7	-10.4
08	321 41.4	-32.2	N 22 32.3	-10.5
09	336 09.2	-32.1	N 22 21.8	-10.7
10	350 37.1	-32.0	N 22 11.1	-10.7
11	5 05.1	-31.9	N 22 00.4	-10.9
12	19 33.2	-31.8	N 21 49.5	-11.0
13	34 01.4	-31.6	N 21 38.5	-11.1
14	48 29.8	-31.6	N 21 27.4	-11.2
15	62 58.2	-31.4	N 21 16.2	-11.3
16	77 26.8	-31.4	N 21 04.9	-11.4
17	91 55.4	-31.2	N 20 53.5	-11.5
18	106 24.2	-31.1	N 20 42.0	-11.6
19	120 53.1	-31.0	N 20 30.4	-11.7
20	135 22.1	-30.9	N 20 18.7	-11.9
21	149 51.2	-30.8	N 20 06.8	-11.9
22	164 20.4	-30.7	N 19 54.9	-12.0
23	178 49.7	-30.6	N 19 42.9	-12.1

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′7	15′6	15′6
HP	57′8	57′7	57′6	57′5	57′4	57′4
SHA	235°	233°	231°	228°	226°	224°

Greenwich Culmination Time: 10:38

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	141 18.4	+01.0	S 03 09.4	+00.6
01	156 19.4	+01.0	S 03 10.0	+00.7
02	171 20.4	+01.0	S 03 10.7	+00.6
03	186 21.4	+01.0	S 03 11.3	+00.7
04	201 22.4	+01.0	S 03 12.0	+00.6
05	216 23.4	+01.0	S 03 12.6	+00.7
06	231 24.4	+01.0	S 03 13.3	+00.6
07	246 25.4	+01.1	S 03 13.9	+00.7
08	261 26.5	+01.0	S 03 14.6	+00.6
09	276 27.5	+01.0	S 03 15.2	+00.7
10	291 28.5	+01.0	S 03 15.9	+00.7
11	306 29.5	+01.0	S 03 16.6	+00.6
12	321 30.5	+01.0	S 03 17.2	+00.7
13	336 31.5	+01.0	S 03 17.9	+00.6
14	351 32.5	+01.0	S 03 18.5	+00.7
15	6 33.5	+01.0	S 03 19.2	+00.6
16	21 34.5	+01.0	S 03 19.8	+00.7
17	36 35.5	+01.0	S 03 20.5	+00.6
18	51 36.5	+01.0	S 03 21.1	+00.7
19	66 37.5	+01.0	S 03 21.8	+00.6
20	81 38.5	+01.0	S 03 22.4	+00.7
21	96 39.5	+01.0	S 03 23.1	+00.7
22	111 40.5	+01.0	S 03 23.8	+00.6
23	126 41.5	+01.0	S 03 24.4	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	172°	172°	171°	171°	171°	171°

Greenwich Culmination Time: 14:33

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	222 25.4	+01.9	N 22 27.1	+00.0
01	237 27.3	+02.0	N 22 27.1	-00.1
02	252 29.3	+01.9	N 22 27.0	+00.0
03	267 31.2	+02.0	N 22 27.0	-00.1
04	282 33.2	+01.9	N 22 26.9	+00.0
05	297 35.1	+02.0	N 22 26.9	-00.1
06	312 37.1	+01.9	N 22 26.8	-00.1
07	327 39.0	+01.9	N 22 26.7	+00.0
08	342 40.9	+02.0	N 22 26.7	-00.1
09	357 42.9	+01.9	N 22 26.6	+00.0
10	12 44.8	+02.0	N 22 26.6	-00.1
11	27 46.8	+01.9	N 22 26.5	+00.0
12	42 48.7	+02.0	N 22 26.5	-00.1
13	57 50.7	+01.9	N 22 26.4	+00.0
14	72 52.6	+01.9	N 22 26.4	-00.1
15	87 54.5	+02.0	N 22 26.3	+00.0
16	102 56.5	+01.9	N 22 26.3	-00.1
17	117 58.4	+02.0	N 22 26.2	+00.0
18	133 00.4	+01.9	N 22 26.2	-00.1
19	148 02.3	+02.0	N 22 26.1	+00.0
20	163 04.3	+01.9	N 22 26.1	-00.1
21	178 06.2	+01.9	N 22 26.0	-00.1
22	193 08.1	+02.0	N 22 25.9	+00.0
23	208 10.1	+01.9	N 22 25.9	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	253°	253°	253°	253°	253°	253°

Greenwich Culmination Time: 09:09

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	327 55.6	+02.6	S 01 57.3	+00.1
01	342 58.2	+02.6	S 01 57.4	+00.1
02	358 00.8	+02.6	S 01 57.5	+00.0
03	13 03.4	+02.6	S 01 57.5	+00.1
04	28 06.0	+02.6	S 01 57.6	+00.1
05	43 08.6	+02.6	S 01 57.7	+00.0
06	58 11.2	+02.6	S 01 57.7	+00.1
07	73 13.8	+02.6	S 01 57.8	+00.1
08	88 16.4	+02.6	S 01 57.9	+00.0
09	103 19.0	+02.5	S 01 57.9	+00.1
10	118 21.5	+02.6	S 01 58.0	+00.1
11	133 24.1	+02.6	S 01 58.1	+00.0
12	148 26.7	+02.6	S 01 58.1	+00.1
13	163 29.3	+02.6	S 01 58.2	+00.1
14	178 31.9	+02.6	S 01 58.3	+00.0
15	193 34.5	+02.6	S 01 58.3	+00.1
16	208 37.1	+02.6	S 01 58.4	+00.1
17	223 39.7	+02.6	S 01 58.5	+00.0
18	238 42.3	+02.6	S 01 58.5	+00.1
19	253 44.9	+02.6	S 01 58.6	+00.1
20	268 47.5	+02.6	S 01 58.7	+00.0
21	283 50.1	+02.6	S 01 58.7	+00.1
22	298 52.7	+02.6	S 01 58.8	+00.1
23	313 55.3	+02.6	S 01 58.9	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:07

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2025 August 22 Friday

(day 234 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 15.4	+00.2	N 11 45.7	-00.9
01	194 15.6	+00.1	N 11 44.8	-00.8
02	209 15.7	+00.2	N 11 44.0	-00.9
03	224 15.9	+00.1	N 11 43.1	-00.8
04	239 16.0	+00.2	N 11 42.3	-00.9
05	254 16.2	+00.2	N 11 41.4	-00.8
06	269 16.4	+00.1	N 11 40.6	-00.8
07	284 16.5	+00.2	N 11 39.8	-00.9
08	299 16.7	+00.1	N 11 38.9	-00.8
09	314 16.8	+00.2	N 11 38.1	-00.9
10	329 17.0	+00.2	N 11 37.2	-00.8
11	344 17.2	+00.1	N 11 36.4	-00.9
12	359 17.3	+00.2	N 11 35.5	-00.8
13	14 17.5	+00.1	N 11 34.7	-00.8
14	29 17.6	+00.2	N 11 33.9	-00.9
15	44 17.8	+00.2	N 11 33.0	-00.8
16	59 18.0	+00.1	N 11 32.2	-00.9
17	74 18.1	+00.2	N 11 31.3	-00.8
18	89 18.3	+00.2	N 11 30.5	-00.9
19	104 18.5	+00.1	N 11 29.6	-00.8
20	119 18.6	+00.2	N 11 28.8	-00.9
21	134 18.8	+00.1	N 11 27.9	-00.8
22	149 18.9	+00.2	N 11 27.1	-00.9
23	164 19.1	+00.2	N 11 26.2	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	209°	208°	208°	208°	208°	208°

Greenwich Culmination Time: 12:02

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	213 03.0	-00.7	N 20 37.8	-00.4
01	228 02.3	-00.7	N 20 37.4	-00.4
02	243 01.6	-00.7	N 20 37.0	-00.5
03	258 00.9	-00.7	N 20 36.5	-00.4
04	273 00.2	-00.7	N 20 36.1	-00.4
05	287 59.5	-00.6	N 20 35.7	-00.4
06	302 58.9	-00.7	N 20 35.3	-00.4
07	317 58.2	-00.7	N 20 34.9	-00.5
08	332 57.5	-00.7	N 20 34.4	-00.4
09	347 56.8	-00.7	N 20 34.0	-00.4
10	2 56.1	-00.6	N 20 33.6	-00.4
11	17 55.5	-00.7	N 20 33.2	-00.5
12	32 54.8	-00.7	N 20 32.7	-00.4
13	47 54.1	-00.7	N 20 32.3	-00.4
14	62 53.4	-00.7	N 20 31.9	-00.4
15	77 52.7	-00.7	N 20 31.5	-00.5
16	92 52.0	-00.6	N 20 31.0	-00.4
17	107 51.4	-00.7	N 20 30.6	-00.4
18	122 50.7	-00.7	N 20 30.2	-00.5
19	137 50.0	-00.7	N 20 29.7	-00.4
20	152 49.3	-00.7	N 20 29.3	-00.4
21	167 48.6	-00.6	N 20 28.9	-00.5
22	182 48.0	-00.7	N 20 28.4	-00.4
23	197 47.3	-00.7	N 20 28.0	-00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	242°	242°	242°	242°	242°	241°

Greenwich Culmination Time: 09:48

Moon

A: 97%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	193 19.1	-30.5	N 19 30.8	-12.1
01	207 48.6	-30.3	N 19 18.7	-12.3
02	222 18.3	-30.3	N 19 06.4	-12.4
03	236 48.0	-30.2	N 18 54.0	-12.4
04	251 17.8	-30.0	N 18 41.6	-12.6
05	265 47.8	-30.0	N 18 29.0	-12.6
06	280 17.8	-29.8	N 18 16.4	-12.7
07	294 48.0	-29.8	N 18 03.7	-12.7
08	309 18.2	-29.6	N 17 51.0	-12.9
09	323 48.6	-29.5	N 17 38.1	-12.9
10	338 19.1	-29.5	N 17 25.2	-13.0
11	352 49.6	-29.3	N 17 12.2	-13.1
12	7 20.3	-29.3	N 16 59.1	-13.2
13	21 51.0	-29.1	N 16 45.9	-13.2
14	36 21.9	-29.1	N 16 32.7	-13.3
15	50 52.8	-28.9	N 16 19.4	-13.3
16	65 23.9	-28.9	N 16 06.1	-13.5
17	79 55.0	-28.8	N 15 52.6	-13.5
18	94 26.2	-28.6	N 15 39.1	-13.5
19	108 57.6	-28.6	N 15 25.6	-13.6
20	123 29.0	-28.5	N 15 12.0	-13.7
21	138 00.5	-28.4	N 14 58.3	-13.7
22	152 32.1	-28.3	N 14 44.6	-13.8
23	167 03.8	-28.2	N 14 30.8	-13.9

UT	02	06	10	14	18	22
SD	15′6	15′6	15′6	15′5	15′5	15′5
HP	57′3	57′2	57′1	57′0	56′9	56′8
SHA	222°	219°	217°	215°	213°	211°

Greenwich Culmination Time: 11:29

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	141 42.5	+01.1	S 03 25.1	+00.6
01	156 43.6	+01.0	S 03 25.7	+00.7
02	171 44.6	+01.0	S 03 26.4	+00.6
03	186 45.6	+01.0	S 03 27.0	+00.7
04	201 46.6	+01.0	S 03 27.7	+00.6
05	216 47.6	+01.0	S 03 28.3	+00.7
06	231 48.6	+01.0	S 03 29.0	+00.6
07	246 49.6	+01.0	S 03 29.6	+00.7
08	261 50.6	+01.0	S 03 30.3	+00.6
09	276 51.6	+01.0	S 03 30.9	+00.7
10	291 52.6	+01.0	S 03 31.6	+00.7
11	306 53.6	+01.0	S 03 32.3	+00.6
12	321 54.6	+01.0	S 03 32.9	+00.7
13	336 55.6	+01.0	S 03 33.6	+00.6
14	351 56.6	+01.0	S 03 34.2	+00.7
15	6 57.6	+01.0	S 03 34.9	+00.6
16	21 58.6	+01.0	S 03 35.5	+00.7
17	36 59.6	+01.0	S 03 36.2	+00.6
18	52 00.6	+01.0	S 03 36.8	+00.7
19	67 01.6	+01.0	S 03 37.5	+00.6
20	82 02.6	+01.0	S 03 38.1	+00.7
21	97 03.6	+01.0	S 03 38.8	+00.7
22	112 04.6	+01.0	S 03 39.5	+00.6
23	127 05.6	+01.0	S 03 40.1	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	171°	171°	171°	171°	171°	171°

Greenwich Culmination Time: 14:32

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	223 12.0	+02.0	N 22 25.8	+00.0
01	238 14.0	+01.9	N 22 25.8	-00.1
02	253 15.9	+02.0	N 22 25.7	+00.0
03	268 17.9	+01.9	N 22 25.7	-00.1
04	283 19.8	+02.0	N 22 25.6	+00.0
05	298 21.8	+01.9	N 22 25.6	-00.1
06	313 23.7	+01.9	N 22 25.5	+00.0
07	328 25.6	+02.0	N 22 25.5	-00.1
08	343 27.6	+01.9	N 22 25.4	+00.0
09	358 29.5	+02.0	N 22 25.4	-00.1
10	13 31.5	+01.9	N 22 25.3	+00.0
11	28 33.4	+02.0	N 22 25.3	-00.1
12	43 35.4	+01.9	N 22 25.2	-00.1
13	58 37.3	+02.0	N 22 25.1	+00.0
14	73 39.3	+01.9	N 22 25.1	-00.1
15	88 41.2	+02.0	N 22 25.0	+00.0
16	103 43.2	+01.9	N 22 25.0	-00.1
17	118 45.1	+02.0	N 22 24.9	+00.0
18	133 47.1	+01.9	N 22 24.9	-00.1
19	148 49.0	+02.0	N 22 24.8	+00.0
20	163 51.0	+01.9	N 22 24.8	-00.1
21	178 52.9	+01.9	N 22 24.7	+00.0
22	193 54.8	+02.0	N 22 24.7	-00.1
23	208 56.8	+01.9	N 22 24.6	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	253°	253°	253°	253°	252°	252°

Greenwich Culmination Time: 09:06

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	328 57.9	+02.6	S 01 58.9	+00.1
01	344 00.5	+02.6	S 01 59.0	+00.1
02	359 03.1	+02.6	S 01 59.1	+00.0
03	14 05.7	+02.6	S 01 59.1	+00.1
04	29 08.3	+02.6	S 01 59.2	+00.1
05	44 10.9	+02.6	S 01 59.3	+00.0
06	59 13.5	+02.6	S 01 59.3	+00.1
07	74 16.1	+02.6	S 01 59.4	+00.1
08	89 18.7	+02.6	S 01 59.5	+00.0
09	104 21.3	+02.6	S 01 59.5	+00.1
10	119 23.9	+02.6	S 01 59.6	+00.1
11	134 26.5	+02.6	S 01 59.7	+00.0
12	149 29.1	+02.6	S 01 59.7	+00.1
13	164 31.7	+02.6	S 01 59.8	+00.1
14	179 34.3	+02.6	S 01 59.9	+00.0
15	194 36.9	+02.6	S 01 59.9	+00.1
16	209 39.5	+02.6	S 01 60.0	+00.1
17	224 42.1	+02.6	S 02 00.1	+00.0
18	239 44.7	+02.6	S 02 00.1	+00.1
19	254 47.3	+02.6	S 02 00.2	+00.1
20	269 49.9	+02.6	S 02 00.3	+00.0
21	284 52.5	+02.6	S 02 00.3	+00.1
22	299 55.1	+02.6	S 02 00.4	+00.1
23	314 57.7	+02.6	S 02 00.5	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	358°	358°

Greenwich Culmination Time: 02:03

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 23 Saturday

(day 235 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	179 19.3	+00.1	N 11 25.4	-00.9
01	194 19.4	+00.2	N 11 24.5	-00.8
02	209 19.6	+00.2	N 11 23.7	-00.9
03	224 19.8	+00.1	N 11 22.8	-00.8
04	239 19.9	+00.2	N 11 22.0	-00.9
05	254 20.1	+00.1	N 11 21.1	-00.8
06	269 20.2	+00.2	N 11 20.3	-00.9
07	284 20.4	+00.2	N 11 19.4	-00.8
08	299 20.6	+00.1	N 11 18.6	-00.9
09	314 20.7	+00.2	N 11 17.7	-00.8
10	329 20.9	+00.2	N 11 16.9	-00.9
11	344 21.1	+00.1	N 11 16.0	-00.8
12	359 21.2	+00.2	N 11 15.2	-00.9
13	14 21.4	+00.2	N 11 14.3	-00.8
14	29 21.6	+00.1	N 11 13.5	-00.9
15	44 21.7	+00.2	N 11 12.6	-00.8
16	59 21.9	+00.2	N 11 11.8	-00.9
17	74 22.1	+00.1	N 11 10.9	-00.8
18	89 22.2	+00.2	N 11 10.1	-00.9
19	104 22.4	+00.2	N 11 09.2	-00.8
20	119 22.6	+00.1	N 11 08.4	-00.9
21	134 22.7	+00.2	N 11 07.5	-00.8
22	149 22.9	+00.2	N 11 06.7	-00.9
23	164 23.1	+00.1	N 11 05.8	-00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	208°	208°	207°	207°	207°	207°

Greenwich Culmination Time: 12:02

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	212 46.6	-00.7	N 20 27.6	-00.5
01	227 45.9	-00.7	N 20 27.1	-00.4
02	242 45.2	-00.6	N 20 26.7	-00.5
03	257 44.6	-00.7	N 20 26.2	-00.4
04	272 43.9	-00.7	N 20 25.8	-00.4
05	287 43.2	-00.7	N 20 25.4	-00.5
06	302 42.5	-00.6	N 20 24.9	-00.4
07	317 41.9	-00.7	N 20 24.5	-00.5
08	332 41.2	-00.7	N 20 24.0	-00.4
09	347 40.5	-00.7	N 20 23.6	-00.5
10	2 39.8	-00.7	N 20 23.1	-00.4
11	17 39.1	-00.6	N 20 22.7	-00.5
12	32 38.5	-00.7	N 20 22.2	-00.4
13	47 37.8	-00.7	N 20 21.8	-00.5
14	62 37.1	-00.7	N 20 21.3	-00.4
15	77 36.4	-00.6	N 20 20.9	-00.5
16	92 35.8	-00.7	N 20 20.4	-00.4
17	107 35.1	-00.7	N 20 20.0	-00.5
18	122 34.4	-00.7	N 20 19.5	-00.5
19	137 33.7	-00.7	N 20 19.0	-00.4
20	152 33.0	-00.6	N 20 18.6	-00.5
21	167 32.4	-00.7	N 20 18.1	-00.4
22	182 31.7	-00.7	N 20 17.7	-00.5
23	197 31.0	-00.7	N 20 17.2	-00.4

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	241°	241°	241°	241°	240°	240°

Greenwich Culmination Time: 09:49

Moon

A: 00%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	181 35.6	-28.1	N 14 16.9	-13.9
01	196 07.5	-28.1	N 14 03.0	-13.9
02	210 39.4	-27.9	N 13 49.1	-14.0
03	225 11.5	-27.9	N 13 35.1	-14.1
04	239 43.6	-27.8	N 13 21.0	-14.1
05	254 15.8	-27.7	N 13 06.9	-14.1
06	268 48.1	-27.6	N 12 52.8	-14.2
07	283 20.5	-27.6	N 12 38.6	-14.3
08	297 52.9	-27.5	N 12 24.3	-14.2
09	312 25.4	-27.3	N 12 10.1	-14.4
10	326 58.1	-27.4	N 11 55.7	-14.3
11	341 30.7	-27.2	N 11 41.4	-14.4
12	356 03.5	-27.1	N 11 27.0	-14.5
13	10 36.4	-27.1	N 11 12.5	-14.5
14	25 09.3	-27.0	N 10 58.0	-14.5
15	39 42.3	-27.0	N 10 43.5	-14.5
16	54 15.3	-26.8	N 10 29.0	-14.6
17	68 48.5	-26.8	N 10 14.4	-14.6
18	83 21.7	-26.8	N 09 59.8	-14.7
19	97 54.9	-26.6	N 09 45.1	-14.6
20	112 28.3	-26.6	N 09 30.5	-14.7
21	127 01.7	-26.5	N 09 15.8	-14.7
22	141 35.2	-26.5	N 09 01.1	-14.8
23	156 08.7	-26.4	N 08 46.3	-14.8

UT	02	06	10	14	18	22
SD	15′5	15′4	15′4	15′4	15′4	15′3
HP	56′7	56′6	56′5	56′4	56′3	56′3
SHA	209°	207°	205°	203°	201°	199°

Greenwich Culmination Time: 12:16

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	142 06.6	+01.0	S 03 40.8	+00.6
01	157 07.6	+01.0	S 03 41.4	+00.7
02	172 08.6	+01.0	S 03 42.1	+00.6
03	187 09.6	+01.0	S 03 42.7	+00.7
04	202 10.6	+01.0	S 03 43.4	+00.6
05	217 11.6	+01.0	S 03 44.0	+00.7
06	232 12.6	+01.0	S 03 44.7	+00.6
07	247 13.6	+01.0	S 03 45.3	+00.7
08	262 14.6	+01.0	S 03 46.0	+00.7
09	277 15.6	+01.0	S 03 46.7	+00.6
10	292 16.6	+01.0	S 03 47.3	+00.7
11	307 17.6	+01.0	S 03 48.0	+00.6
12	322 18.6	+01.0	S 03 48.6	+00.7
13	337 19.6	+01.0	S 03 49.3	+00.6
14	352 20.6	+01.0	S 03 49.9	+00.7
15	7 21.6	+01.0	S 03 50.6	+00.6
16	22 22.6	+01.0	S 03 51.2	+00.7
17	37 23.6	+01.0	S 03 51.9	+00.6
18	52 24.6	+01.0	S 03 52.5	+00.7
19	67 25.6	+01.0	S 03 53.2	+00.6
20	82 26.6	+01.0	S 03 53.8	+00.7
21	97 27.6	+01.0	S 03 54.5	+00.7
22	112 28.6	+01.0	S 03 55.2	+00.6
23	127 29.6	+01.0	S 03 55.8	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	171°	170°	170°	170°	170°	170°

Greenwich Culmination Time: 14:30

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	223 58.7	+02.0	N 22 24.6	-00.1
01	239 00.7	+01.9	N 22 24.5	-00.1
02	254 02.6	+02.0	N 22 24.4	+00.0
03	269 04.6	+01.9	N 22 24.4	-00.1
04	284 06.5	+02.0	N 22 24.3	+00.0
05	299 08.5	+01.9	N 22 24.3	-00.1
06	314 10.4	+02.0	N 22 24.2	+00.0
07	329 12.4	+01.9	N 22 24.2	-00.1
08	344 14.3	+02.0	N 22 24.1	+00.0
09	359 16.3	+01.9	N 22 24.1	-00.1
10	14 18.2	+02.0	N 22 24.0	+00.0
11	29 20.2	+01.9	N 22 24.0	-00.1
12	44 22.1	+02.0	N 22 23.9	+00.0
13	59 24.1	+01.9	N 22 23.9	-00.1
14	74 26.0	+02.0	N 22 23.8	+00.0
15	89 28.0	+01.9	N 22 23.8	-00.1
16	104 29.9	+02.0	N 22 23.7	-00.1
17	119 31.9	+01.9	N 22 23.6	+00.0
18	134 33.8	+02.0	N 22 23.6	-00.1
19	149 35.8	+01.9	N 22 23.5	+00.0
20	164 37.7	+02.0	N 22 23.5	-00.1
21	179 39.7	+01.9	N 22 23.4	+00.0
22	194 41.6	+02.0	N 22 23.4	-00.1
23	209 43.6	+01.9	N 22 23.3	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	252°	252°	252°	252°	252°	252°

Greenwich Culmination Time: 09:02

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	330 00.3	+02.6	S 02 00.5	+00.1
01	345 02.9	+02.6	S 02 00.6	+00.1
02	0 05.5	+02.6	S 02 00.7	+00.0
03	15 08.1	+02.6	S 02 00.7	+00.1
04	30 10.7	+02.6	S 02 00.8	+00.1
05	45 13.3	+02.6	S 02 00.9	+00.0
06	60 15.9	+02.6	S 02 00.9	+00.1
07	75 18.5	+02.6	S 02 01.0	+00.1
08	90 21.1	+02.6	S 02 01.1	+00.0
09	105 23.7	+02.6	S 02 01.1	+00.1
10	120 26.3	+02.6	S 02 01.2	+00.1
11	135 28.9	+02.6	S 02 01.3	+00.0
12	150 31.5	+02.6	S 02 01.3	+00.1
13	165 34.1	+02.6	S 02 01.4	+00.1
14	180 36.7	+02.6	S 02 01.5	+00.0
15	195 39.3	+02.6	S 02 01.5	+00.1
16	210 41.9	+02.6	S 02 01.6	+00.1
17	225 44.5	+02.6	S 02 01.7	+00.1
18	240 47.1	+02.6	S 02 01.8	+00.0
19	255 49.7	+02.6	S 02 01.8	+00.1
20	270 52.3	+02.6	S 02 01.9	+00.1
21	285 54.9	+02.6	S 02 02.0	+00.0
22	300 57.5	+02.6	S 02 02.0	+00.1
23	316 00.1	+02.6	S 02 02.1	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	358°	358°	358°	358°	359°	359°

Greenwich Culmination Time: 01:59

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2025 August 24 Sunday

(day 236 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 23.2	+00.2	N 11 04.9	-00.8
01	194 23.4	+00.2	N 11 04.1	-00.9
02	209 23.6	+00.1	N 11 03.2	-00.8
03	224 23.7	+00.2	N 11 02.4	-00.9
04	239 23.9	+00.2	N 11 01.5	-00.8
05	254 24.1	+00.1	N 11 00.7	-00.9
06	269 24.2	+00.2	N 10 59.8	-00.9
07	284 24.4	+00.2	N 10 58.9	-00.8
08	299 24.6	+00.1	N 10 58.1	-00.9
09	314 24.7	+00.2	N 10 57.2	-00.8
10	329 24.9	+00.2	N 10 56.4	-00.9
11	344 25.1	+00.1	N 10 55.5	-00.8
12	359 25.2	+00.2	N 10 54.7	-00.9
13	14 25.4	+00.2	N 10 53.8	-00.9
14	29 25.6	+00.1	N 10 52.9	-00.8
15	44 25.7	+00.2	N 10 52.1	-00.9
16	59 25.9	+00.2	N 10 51.2	-00.8
17	74 26.1	+00.2	N 10 50.4	-00.9
18	89 26.3	+00.1	N 10 49.5	-00.9
19	104 26.4	+00.2	N 10 48.6	-00.8
20	119 26.6	+00.2	N 10 47.8	-00.9
21	134 26.8	+00.1	N 10 46.9	-00.9
22	149 26.9	+00.2	N 10 46.0	-00.8
23	164 27.1	+00.2	N 10 45.2	-00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	207°	207°	206°	206°	206°	206°

Greenwich Culmination Time: 12:02

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	212 30.3	-00.6	N 20 16.8	-00.5
01	227 29.7	-00.7	N 20 16.3	-00.5
02	242 29.0	-00.7	N 20 15.8	-00.4
03	257 28.3	-00.7	N 20 15.4	-00.5
04	272 27.6	-00.6	N 20 14.9	-00.5
05	287 27.0	-00.7	N 20 14.4	-00.4
06	302 26.3	-00.7	N 20 14.0	-00.5
07	317 25.6	-00.6	N 20 13.5	-00.5
08	332 25.0	-00.7	N 20 13.0	-00.4
09	347 24.3	-00.7	N 20 12.6	-00.5
10	2 23.6	-00.7	N 20 12.1	-00.5
11	17 22.9	-00.6	N 20 11.6	-00.5
12	32 22.3	-00.7	N 20 11.1	-00.4
13	47 21.6	-00.7	N 20 10.7	-00.5
14	62 20.9	-00.7	N 20 10.2	-00.5
15	77 20.2	-00.6	N 20 09.7	-00.5
16	92 19.6	-00.7	N 20 09.2	-00.5
17	107 18.9	-00.7	N 20 08.7	-00.4
18	122 18.2	-00.7	N 20 08.3	-00.5
19	137 17.5	-00.6	N 20 07.8	-00.5
20	152 16.9	-00.7	N 20 07.3	-00.5
21	167 16.2	-00.7	N 20 06.8	-00.5
22	182 15.5	-00.6	N 20 06.3	-00.4
23	197 14.9	-00.7	N 20 05.9	-00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	240°	240°	239°	239°	239°	239°

Greenwich Culmination Time: 09:50

Moon

A: 03%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	170 42.3	-26.4	N 08 31.5	-14.8
01	185 15.9	-26.2	N 08 16.7	-14.8
02	199 49.7	-26.2	N 08 01.9	-14.8
03	214 23.5	-26.2	N 07 47.1	-14.9
04	228 57.3	-26.1	N 07 32.2	-14.9
05	243 31.2	-26.1	N 07 17.3	-14.9
06	258 05.1	-25.9	N 07 02.4	-14.9
07	272 39.2	-26.0	N 06 47.5	-14.9
08	287 13.2	-25.9	N 06 32.6	-14.9
09	301 47.3	-25.8	N 06 17.7	-15.0
10	316 21.5	-25.8	N 06 02.7	-14.9
11	330 55.7	-25.7	N 05 47.8	-15.0
12	345 30.0	-25.7	N 05 32.8	-15.0
13	0 04.3	-25.6	N 05 17.8	-15.0
14	14 38.7	-25.6	N 05 02.8	-15.0
15	29 13.1	-25.6	N 04 47.8	-15.0
16	43 47.5	-25.5	N 04 32.8	-15.0
17	58 22.0	-25.4	N 04 17.8	-15.0
18	72 56.6	-25.5	N 04 02.8	-15.0
19	87 31.1	-25.3	N 03 47.8	-15.1
20	102 05.8	-25.4	N 03 32.7	-15.0
21	116 40.4	-25.3	N 03 17.7	-15.0
22	131 15.1	-25.2	N 03 02.7	-15.0
23	145 49.9	-25.3	N 02 47.7	-15.0

UT	02	06	10	14	18	22
SD	15′3	15′3	15′2	15′2	15′2	15′2
HP	56′2	56′1	56′0	55′9	55′8	55′7
SHA	197°	195°	193°	192°	190°	188°

Greenwich Culmination Time: 12:59

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	142 30.6	+01.0	S 03 56.5	+00.6
01	157 31.6	+01.0	S 03 57.1	+00.7
02	172 32.6	+01.0	S 03 57.8	+00.6
03	187 33.6	+01.0	S 03 58.4	+00.7
04	202 34.6	+01.0	S 03 59.1	+00.6
05	217 35.6	+01.0	S 03 59.7	+00.7
06	232 36.6	+01.0	S 04 00.4	+00.6
07	247 37.6	+01.0	S 04 01.0	+00.7
08	262 38.6	+01.0	S 04 01.7	+00.7
09	277 39.6	+01.0	S 04 02.4	+00.6
10	292 40.6	+01.0	S 04 03.0	+00.7
11	307 41.6	+01.0	S 04 03.7	+00.6
12	322 42.6	+01.0	S 04 04.3	+00.7
13	337 43.6	+01.0	S 04 05.0	+00.6
14	352 44.6	+01.0	S 04 05.6	+00.7
15	7 45.6	+01.0	S 04 06.3	+00.6
16	22 46.6	+01.0	S 04 06.9	+00.7
17	37 47.6	+00.9	S 04 07.6	+00.6
18	52 48.5	+01.0	S 04 08.2	+00.7
19	67 49.5	+01.0	S 04 08.9	+00.6
20	82 50.5	+01.0	S 04 09.5	+00.7
21	97 51.5	+01.0	S 04 10.2	+00.7
22	112 52.5	+01.0	S 04 10.9	+00.6
23	127 53.5	+01.0	S 04 11.5	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	170°	170°	170°	170°	170°	169°

Greenwich Culmination Time: 14:28

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	224 45.5	+02.0	N 22 23.3	-00.1
01	239 47.5	+01.9	N 22 23.2	+00.0
02	254 49.4	+02.0	N 22 23.2	-00.1
03	269 51.4	+01.9	N 22 23.1	+00.0
04	284 53.3	+02.0	N 22 23.1	-00.1
05	299 55.3	+02.0	N 22 23.0	-00.1
06	314 57.3	+01.9	N 22 22.9	+00.0
07	329 59.2	+02.0	N 22 22.9	-00.1
08	345 01.2	+01.9	N 22 22.8	+00.0
09	0 03.1	+02.0	N 22 22.8	-00.1
10	15 05.1	+01.9	N 22 22.7	+00.0
11	30 07.0	+02.0	N 22 22.7	-00.1
12	45 09.0	+01.9	N 22 22.6	+00.0
13	60 10.9	+02.0	N 22 22.6	-00.1
14	75 12.9	+01.9	N 22 22.5	+00.0
15	90 14.8	+02.0	N 22 22.5	-00.1
16	105 16.8	+01.9	N 22 22.4	-00.1
17	120 18.7	+02.0	N 22 22.3	+00.0
18	135 20.7	+01.9	N 22 22.3	-00.1
19	150 22.6	+02.0	N 22 22.2	+00.0
20	165 24.6	+02.0	N 22 22.2	-00.1
21	180 26.6	+01.9	N 22 22.1	+00.0
22	195 28.5	+02.0	N 22 22.1	-00.1
23	210 30.5	+01.9	N 22 22.0	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	252°	252°	252°	252°	252°	252°

Greenwich Culmination Time: 08:59

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	331 02.7	+02.6	S 02 02.2	+00.0
01	346 05.3	+02.6	S 02 02.2	+00.1
02	1 07.9	+02.6	S 02 02.3	+00.1
03	16 10.5	+02.6	S 02 02.4	+00.0
04	31 13.1	+02.6	S 02 02.4	+00.1
05	46 15.7	+02.7	S 02 02.5	+00.1
06	61 18.4	+02.6	S 02 02.6	+00.0
07	76 21.0	+02.6	S 02 02.6	+00.1
08	91 23.6	+02.6	S 02 02.7	+00.1
09	106 26.2	+02.6	S 02 02.8	+00.0
10	121 28.8	+02.6	S 02 02.8	+00.1
11	136 31.4	+02.6	S 02 02.9	+00.1
12	151 34.0	+02.6	S 02 03.0	+00.1
13	166 36.6	+02.6	S 02 03.1	+00.0
14	181 39.2	+02.6	S 02 03.1	+00.1
15	196 41.8	+02.6	S 02 03.2	+00.1
16	211 44.4	+02.6	S 02 03.3	+00.0
17	226 47.0	+02.6	S 02 03.3	+00.1
18	241 49.6	+02.6	S 02 03.4	+00.1
19	256 52.2	+02.6	S 02 03.5	+00.0
20	271 54.8	+02.6	S 02 03.5	+00.1
21	286 57.4	+02.6	S 02 03.6	+00.1
22	302 00.0	+02.6	S 02 03.7	+00.0
23	317 02.6	+02.6	S 02 03.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:55

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 August 25 Monday

(day 237 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 27.3	+00.2	N 10 44.3	−00.8
01	194 27.5	+00.1	N 10 43.5	−00.9
02	209 27.6	+00.2	N 10 42.6	−00.9
03	224 27.8	+00.2	N 10 41.7	−00.8
04	239 28.0	+00.1	N 10 40.9	−00.9
05	254 28.1	+00.2	N 10 40.0	−00.9
06	269 28.3	+00.2	N 10 39.1	−00.8
07	284 28.5	+00.2	N 10 38.3	−00.9
08	299 28.7	+00.1	N 10 37.4	−00.9
09	314 28.8	+00.2	N 10 36.5	−00.8
10	329 29.0	+00.2	N 10 35.7	−00.9
11	344 29.2	+00.2	N 10 34.8	−00.9
12	359 29.4	+00.1	N 10 33.9	−00.8
13	14 29.5	+00.2	N 10 33.1	−00.9
14	29 29.7	+00.2	N 10 32.2	−00.9
15	44 29.9	+00.1	N 10 31.3	−00.8
16	59 30.0	+00.2	N 10 30.5	−00.9
17	74 30.2	+00.2	N 10 29.6	−00.9
18	89 30.4	+00.2	N 10 28.7	−00.8
19	104 30.6	+00.1	N 10 27.9	−00.9
20	119 30.7	+00.2	N 10 27.0	−00.9
21	134 30.9	+00.2	N 10 26.1	−00.8
22	149 31.1	+00.2	N 10 25.3	−00.9
23	164 31.3	+00.1	N 10 24.4	−00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	206°	206°	206°	205°	205°	205°

Greenwich Culmination Time: 12:02

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	212 14.2	−00.7	N 20 05.4	−00.5
01	227 13.5	−00.6	N 20 04.9	−00.5
02	242 12.9	−00.7	N 20 04.4	−00.5
03	257 12.2	−00.7	N 20 03.9	−00.5
04	272 11.5	−00.7	N 20 03.4	−00.5
05	287 10.8	−00.6	N 20 02.9	−00.5
06	302 10.2	−00.7	N 20 02.4	−00.5
07	317 09.5	−00.7	N 20 01.9	−00.4
08	332 08.8	−00.6	N 20 01.5	−00.5
09	347 08.2	−00.7	N 20 01.0	−00.5
10	2 07.5	−00.7	N 20 00.5	−00.5
11	17 06.8	−00.6	N 19 60.0	−00.5
12	32 06.2	−00.7	N 19 59.5	−00.5
13	47 05.5	−00.7	N 19 59.0	−00.5
14	62 04.8	−00.6	N 19 58.5	−00.5
15	77 04.2	−00.7	N 19 58.0	−00.5
16	92 03.5	−00.7	N 19 57.5	−00.5
17	107 02.8	−00.6	N 19 57.0	−00.5
18	122 02.2	−00.7	N 19 56.5	−00.5
19	137 01.5	−00.7	N 19 56.0	−00.5
20	152 00.8	−00.6	N 19 55.5	−00.6
21	167 00.2	−00.7	N 19 54.9	−00.5
22	181 59.5	−00.7	N 19 54.4	−00.5
23	196 58.8	−00.6	N 19 53.9	−00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	239°	238°	238°	238°	238°	238°

Greenwich Culmination Time: 09:51

Moon

A: 06%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	160 24.6	−25.2	N 02 32.7	−15.0
01	174 59.4	−25.1	N 02 17.7	−15.1
02	189 34.3	−25.1	N 02 02.6	−15.0
03	204 09.2	−25.1	N 01 47.6	−15.0
04	218 44.1	−25.1	N 01 32.6	−14.9
05	233 19.0	−25.0	N 01 17.7	−15.0
06	247 54.0	−25.1	N 01 02.7	−15.0
07	262 28.9	−24.9	N 00 47.7	−15.0
08	277 04.0	−25.0	N 00 32.7	−14.9
09	291 39.0	−24.9	N 00 17.8	−15.0
10	306 14.1	−24.9	N 00 02.8	−14.9
11	320 49.2	−24.9	S 00 12.1	+14.9
12	335 24.3	−24.9	S 00 27.0	+14.9
13	349 59.4	−24.8	S 00 41.9	+14.9
14	4 34.6	−24.9	S 00 56.8	+14.9
15	19 09.7	−24.8	S 01 11.7	+14.9
16	33 44.9	−24.8	S 01 26.6	+14.8
17	48 20.1	−24.8	S 01 41.4	+14.8
18	62 55.3	−24.7	S 01 56.2	+14.8
19	77 30.6	−24.8	S 02 11.0	+14.8
20	92 05.8	−24.7	S 02 25.8	+14.8
21	106 41.1	−24.7	S 02 40.6	+14.7
22	121 16.4	−24.8	S 02 55.3	+14.7
23	135 51.6	−24.7	S 03 10.0	+14.7

UT	02	06	10	14	18	22
SD	15′2	15′1	15′1	15′1	15′1	15′0
HP	55′6	55′5	55′4	55′3	55′3	55′2
SHA	186°	184°	182°	180°	179°	177°

Greenwich Culmination Time: 13:41

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	142 54.5	+01.0	S 04 12.2	+00.6
01	157 55.5	+01.0	S 04 12.8	+00.7
02	172 56.5	+01.0	S 04 13.5	+00.6
03	187 57.5	+01.0	S 04 14.1	+00.7
04	202 58.5	+01.0	S 04 14.8	+00.6
05	217 59.5	+01.0	S 04 15.4	+00.7
06	233 00.5	+01.0	S 04 16.1	+00.6
07	248 01.5	+01.0	S 04 16.7	+00.7
08	263 02.5	+01.0	S 04 17.4	+00.6
09	278 03.5	+01.0	S 04 18.0	+00.7
10	293 04.5	+00.9	S 04 18.7	+00.7
11	308 05.4	+01.0	S 04 19.4	+00.6
12	323 06.4	+01.0	S 04 20.0	+00.7
13	338 07.4	+01.0	S 04 20.7	+00.6
14	353 08.4	+01.0	S 04 21.3	+00.7
15	8 09.4	+01.0	S 04 22.0	+00.6
16	23 10.4	+01.0	S 04 22.6	+00.7
17	38 11.4	+01.0	S 04 23.3	+00.6
18	53 12.4	+01.0	S 04 23.9	+00.7
19	68 13.4	+01.0	S 04 24.6	+00.6
20	83 14.4	+01.0	S 04 25.2	+00.7
21	98 15.4	+01.0	S 04 25.9	+00.6
22	113 16.4	+00.9	S 04 26.5	+00.7
23	128 17.3	+01.0	S 04 27.2	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	169°	169°	169°	169°	169°	169°

Greenwich Culmination Time: 14:27

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	225 32.4	+02.0	N 22 22.0	−00.1
01	240 34.4	+01.9	N 22 21.9	+00.0
02	255 36.3	+02.0	N 22 21.9	−00.1
03	270 38.3	+01.9	N 22 21.8	+00.0
04	285 40.2	+02.0	N 22 21.8	−00.1
05	300 42.2	+02.0	N 22 21.7	−00.1
06	315 44.2	+01.9	N 22 21.6	+00.0
07	330 46.1	+02.0	N 22 21.6	−00.1
08	345 48.1	+01.9	N 22 21.5	+00.0
09	0 50.0	+02.0	N 22 21.5	−00.1
10	15 52.0	+01.9	N 22 21.4	+00.0
11	30 53.9	+02.0	N 22 21.4	−00.1
12	45 55.9	+02.0	N 22 21.3	+00.0
13	60 57.9	+01.9	N 22 21.3	−00.1
14	75 59.8	+02.0	N 22 21.2	+00.0
15	91 01.8	+01.9	N 22 21.2	−00.1
16	106 03.7	+02.0	N 22 21.1	−00.1
17	121 05.7	+01.9	N 22 21.0	+00.0
18	136 07.6	+02.0	N 22 21.0	−00.1
19	151 09.6	+02.0	N 22 20.9	+00.0
20	166 11.6	+01.9	N 22 20.9	−00.1
21	181 13.5	+02.0	N 22 20.8	+00.0
22	196 15.5	+01.9	N 22 20.8	−00.1
23	211 17.4	+02.0	N 22 20.7	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	252°	252°	252°	252°	252°	252°

Greenwich Culmination Time: 08:56

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	332 05.2	+02.6	S 02 03.8	+00.1
01	347 07.8	+02.6	S 02 03.9	+00.1
02	2 10.4	+02.7	S 02 04.0	+00.0
03	17 13.1	+02.6	S 02 04.0	+00.1
04	32 15.7	+02.6	S 02 04.1	+00.1
05	47 18.3	+02.6	S 02 04.2	+00.0
06	62 20.9	+02.6	S 02 04.2	+00.1
07	77 23.5	+02.6	S 02 04.3	+00.1
08	92 26.1	+02.6	S 02 04.4	+00.0
09	107 28.7	+02.6	S 02 04.4	+00.1
10	122 31.3	+02.6	S 02 04.5	+00.1
11	137 33.9	+02.6	S 02 04.6	+00.0
12	152 36.5	+02.6	S 02 04.6	+00.1
13	167 39.1	+02.6	S 02 04.7	+00.1
14	182 41.7	+02.6	S 02 04.8	+00.1
15	197 44.3	+02.6	S 02 04.9	+00.0
16	212 46.9	+02.6	S 02 04.9	+00.1
17	227 49.5	+02.7	S 02 05.0	+00.1
18	242 52.2	+02.6	S 02 05.1	+00.0
19	257 54.8	+02.6	S 02 05.1	+00.1
20	272 57.4	+02.6	S 02 05.2	+00.1
21	287 60.0	+02.6	S 02 05.3	+00.0
22	303 02.6	+02.6	S 02 05.3	+00.1
23	318 05.2	+02.6	S 02 05.4	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:51

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2025 August 26 Tuesday

(day 238 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 31.4	+00.2	N 10 23.5	-00.8
01	194 31.6	+00.2	N 10 22.7	-00.9
02	209 31.8	+00.2	N 10 21.8	-00.9
03	224 32.0	+00.2	N 10 20.9	-00.9
04	239 32.2	+00.1	N 10 20.0	-00.8
05	254 32.3	+00.2	N 10 19.2	-00.9
06	269 32.5	+00.2	N 10 18.3	-00.9
07	284 32.7	+00.2	N 10 17.4	-00.8
08	299 32.9	+00.1	N 10 16.6	-00.9
09	314 33.0	+00.2	N 10 15.7	-00.9
10	329 33.2	+00.2	N 10 14.8	-00.9
11	344 33.4	+00.2	N 10 13.9	-00.8
12	359 33.6	+00.1	N 10 13.1	-00.9
13	14 33.7	+00.2	N 10 12.2	-00.9
14	29 33.9	+00.2	N 10 11.3	-00.9
15	44 34.1	+00.2	N 10 10.4	-00.8
16	59 34.3	+00.2	N 10 09.6	-00.9
17	74 34.5	+00.1	N 10 08.7	-00.9
18	89 34.6	+00.2	N 10 07.8	-00.9
19	104 34.8	+00.2	N 10 06.9	-00.8
20	119 35.0	+00.2	N 10 06.1	-00.9
21	134 35.2	+00.2	N 10 05.2	-00.9
22	149 35.4	+00.1	N 10 04.3	-00.9
23	164 35.5	+00.2	N 10 03.4	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	205°	205°	205°	204°	204°	204°

Greenwich Culmination Time: 12:01

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	211 58.2	-00.7	N 19 53.4	-00.5
01	226 57.5	-00.7	N 19 52.9	-00.5
02	241 56.8	-00.6	N 19 52.4	-00.5
03	256 56.2	-00.7	N 19 51.9	-00.5
04	271 55.5	-00.7	N 19 51.4	-00.5
05	286 54.8	-00.6	N 19 50.9	-00.6
06	301 54.2	-00.7	N 19 50.3	-00.5
07	316 53.5	-00.7	N 19 49.8	-00.5
08	331 52.8	-00.6	N 19 49.3	-00.5
09	346 52.2	-00.7	N 19 48.8	-00.5
10	1 51.5	-00.7	N 19 48.3	-00.5
11	16 50.8	-00.6	N 19 47.8	-00.6
12	31 50.2	-00.7	N 19 47.2	-00.5
13	46 49.5	-00.6	N 19 46.7	-00.5
14	61 48.9	-00.7	N 19 46.2	-00.5
15	76 48.2	-00.7	N 19 45.7	-00.6
16	91 47.5	-00.6	N 19 45.1	-00.5
17	106 46.9	-00.7	N 19 44.6	-00.5
18	121 46.2	-00.7	N 19 44.1	-00.5
19	136 45.5	-00.6	N 19 43.6	-00.6
20	151 44.9	-00.7	N 19 43.0	-00.5
21	166 44.2	-00.6	N 19 42.5	-00.5
22	181 43.6	-00.7	N 19 42.0	-00.6
23	196 42.9	-00.7	N 19 41.4	-00.5

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	237°	237°	237°	237°	237°	236°

Greenwich Culmination Time: 09:52

Moon

A: 09%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	150 26.9	-24.7	S 03 24.7	+14.7
01	165 02.2	-24.7	S 03 39.4	+14.6
02	179 37.5	-24.7	S 03 54.0	+14.7
03	194 12.8	-24.6	S 04 08.7	+14.6
04	208 48.2	-24.7	S 04 23.3	+14.5
05	223 23.5	-24.7	S 04 37.8	+14.6
06	237 58.8	-24.7	S 04 52.4	+14.5
07	252 34.1	-24.7	S 05 06.9	+14.4
08	267 09.4	-24.6	S 05 21.3	+14.5
09	281 44.8	-24.7	S 05 35.8	+14.4
10	296 20.1	-24.7	S 05 50.2	+14.4
11	310 55.4	-24.7	S 06 04.6	+14.3
12	325 30.7	-24.7	S 06 18.9	+14.3
13	340 06.0	-24.7	S 06 33.2	+14.3
14	354 41.3	-24.7	S 06 47.5	+14.3
15	9 16.6	-24.7	S 07 01.8	+14.2
16	23 51.9	-24.7	S 07 16.0	+14.1
17	38 27.2	-24.8	S 07 30.1	+14.2
18	53 02.4	-24.7	S 07 44.3	+14.1
19	67 37.7	-24.8	S 07 58.4	+14.0
20	82 12.9	-24.7	S 08 12.4	+14.0
21	96 48.2	-24.8	S 08 26.4	+14.0
22	111 23.4	-24.8	S 08 40.4	+14.0
23	125 58.6	-24.8	S 08 54.4	+13.8

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	15′0	14′9	14′9
HP	55′1	55′0	55′0	54′9	54′8	54′7
SHA	175°	173°	171°	170°	168°	166°

Greenwich Culmination Time: 14:21

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	143 18.3	+01.0	S 04 27.9	+00.6
01	158 19.3	+01.0	S 04 28.5	+00.7
02	173 20.3	+01.0	S 04 29.2	+00.6
03	188 21.3	+01.0	S 04 29.8	+00.7
04	203 22.3	+01.0	S 04 30.5	+00.6
05	218 23.3	+01.0	S 04 31.1	+00.7
06	233 24.3	+01.0	S 04 31.8	+00.6
07	248 25.3	+01.0	S 04 32.4	+00.7
08	263 26.3	+00.9	S 04 33.1	+00.6
09	278 27.2	+01.0	S 04 33.7	+00.7
10	293 28.2	+01.0	S 04 34.4	+00.6
11	308 29.2	+01.0	S 04 35.0	+00.7
12	323 30.2	+01.0	S 04 35.7	+00.7
13	338 31.2	+01.0	S 04 36.4	+00.6
14	353 32.2	+01.0	S 04 37.0	+00.7
15	8 33.2	+01.0	S 04 37.7	+00.6
16	23 34.2	+01.0	S 04 38.3	+00.7
17	38 35.2	+00.9	S 04 39.0	+00.6
18	53 36.1	+01.0	S 04 39.6	+00.7
19	68 37.1	+01.0	S 04 40.3	+00.6
20	83 38.1	+01.0	S 04 40.9	+00.7
21	98 39.1	+01.0	S 04 41.6	+00.6
22	113 40.1	+01.0	S 04 42.2	+00.7
23	128 41.1	+01.0	S 04 42.9	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	169°	169°	169°	168°	168°	168°

Greenwich Culmination Time: 14:25

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	226 19.4	+02.0	N 22 20.7	-00.1
01	241 21.4	+01.9	N 22 20.6	+00.0
02	256 23.3	+02.0	N 22 20.6	-00.1
03	271 25.3	+01.9	N 22 20.5	+00.0
04	286 27.2	+02.0	N 22 20.5	-00.1
05	301 29.2	+02.0	N 22 20.4	-00.1
06	316 31.2	+01.9	N 22 20.3	+00.0
07	331 33.1	+02.0	N 22 20.3	-00.1
08	346 35.1	+01.9	N 22 20.2	+00.0
09	1 37.0	+02.0	N 22 20.2	-00.1
10	16 39.0	+02.0	N 22 20.1	+00.0
11	31 41.0	+01.9	N 22 20.1	-00.1
12	46 42.9	+02.0	N 22 20.0	+00.0
13	61 44.9	+01.9	N 22 20.0	-00.1
14	76 46.8	+02.0	N 22 19.9	+00.0
15	91 48.8	+02.0	N 22 19.9	-00.1
16	106 50.8	+01.9	N 22 19.8	-00.1
17	121 52.7	+02.0	N 22 19.7	+00.0
18	136 54.7	+01.9	N 22 19.7	-00.1
19	151 56.6	+02.0	N 22 19.6	+00.0
20	166 58.6	+02.0	N 22 19.6	-00.1
21	182 00.6	+01.9	N 22 19.5	+00.0
22	197 02.5	+02.0	N 22 19.5	-00.1
23	212 04.5	+02.0	N 22 19.4	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	252°	252°	252°	252°	252°	252°

Greenwich Culmination Time: 08:53

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	333 07.8	+02.6	S 02 05.5	+00.1
01	348 10.4	+02.6	S 02 05.6	+00.0
02	3 13.0	+02.6	S 02 05.6	+00.1
03	18 15.6	+02.6	S 02 05.7	+00.1
04	33 18.2	+02.6	S 02 05.8	+00.0
05	48 20.8	+02.6	S 02 05.8	+00.1
06	63 23.4	+02.7	S 02 05.9	+00.1
07	78 26.1	+02.6	S 02 06.0	+00.0
08	93 28.7	+02.6	S 02 06.0	+00.1
09	108 31.3	+02.6	S 02 06.1	+00.1
10	123 33.9	+02.6	S 02 06.2	+00.1
11	138 36.5	+02.6	S 02 06.3	+00.0
12	153 39.1	+02.6	S 02 06.3	+00.1
13	168 41.7	+02.6	S 02 06.4	+00.1
14	183 44.3	+02.6	S 02 06.5	+00.0
15	198 46.9	+02.6	S 02 06.5	+00.1
16	213 49.5	+02.6	S 02 06.6	+00.1
17	228 52.1	+02.7	S 02 06.7	+00.1
18	243 54.8	+02.6	S 02 06.8	+00.0
19	258 57.4	+02.6	S 02 06.8	+00.1
20	273 60.0	+02.6	S 02 06.9	+00.1
21	289 02.6	+02.6	S 02 07.0	+00.0
22	304 05.2	+02.6	S 02 07.0	+00.1
23	319 07.8	+02.6	S 02 07.1	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:47

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2025 August 27 Wednesday (day 239 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	179 35.7	+00.2	N 10 02.6	-00.9
01	194 35.9	+00.2	N 10 01.7	-00.9
02	209 36.1	+00.2	N 10 00.8	-00.9
03	224 36.3	+00.1	N 09 59.9	-00.8
04	239 36.4	+00.2	N 09 59.1	-00.9
05	254 36.6	+00.2	N 09 58.2	-00.9
06	269 36.8	+00.2	N 09 57.3	-00.9
07	284 37.0	+00.2	N 09 56.4	-00.8
08	299 37.2	+00.1	N 09 55.6	-00.9
09	314 37.3	+00.2	N 09 54.7	-00.9
10	329 37.5	+00.2	N 09 53.8	-00.9
11	344 37.7	+00.2	N 09 52.9	-00.9
12	359 37.9	+00.2	N 09 52.0	-00.8
13	14 38.1	+00.2	N 09 51.2	-00.9
14	29 38.3	+00.1	N 09 50.3	-00.9
15	44 38.4	+00.2	N 09 49.4	-00.9
16	59 38.6	+00.2	N 09 48.5	-00.9
17	74 38.8	+00.2	N 09 47.6	-00.8
18	89 39.0	+00.2	N 09 46.8	-00.9
19	104 39.2	+00.1	N 09 45.9	-00.9
20	119 39.3	+00.2	N 09 45.0	-00.9
21	134 39.5	+00.2	N 09 44.1	-00.9
22	149 39.7	+00.2	N 09 43.2	-00.9
23	164 39.9	+00.2	N 09 42.3	-00.8

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	204°	204°	204°	204°	203°	203°

Greenwich Culmination Time: 12:01

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	211 42.2	-00.6	N 19 40.9	-00.5
01	226 41.6	-00.7	N 19 40.4	-00.6
02	241 40.9	-00.6	N 19 39.8	-00.5
03	256 40.3	-00.7	N 19 39.3	-00.5
04	271 39.6	-00.7	N 19 38.8	-00.6
05	286 38.9	-00.6	N 19 38.2	-00.5
06	301 38.3	-00.7	N 19 37.7	-00.6
07	316 37.6	-00.6	N 19 37.1	-00.5
08	331 37.0	-00.7	N 19 36.6	-00.5
09	346 36.3	-00.7	N 19 36.1	-00.6
10	1 35.6	-00.6	N 19 35.5	-00.5
11	16 35.0	-00.7	N 19 35.0	-00.6
12	31 34.3	-00.6	N 19 34.4	-00.5
13	46 33.7	-00.7	N 19 33.9	-00.6
14	61 33.0	-00.6	N 19 33.3	-00.5
15	76 32.4	-00.7	N 19 32.8	-00.5
16	91 31.7	-00.7	N 19 32.3	-00.6
17	106 31.0	-00.6	N 19 31.7	-00.5
18	121 30.4	-00.7	N 19 31.2	-00.6
19	136 29.7	-00.6	N 19 30.6	-00.6
20	151 29.1	-00.7	N 19 30.0	-00.5
21	166 28.4	-00.6	N 19 29.5	-00.6
22	181 27.8	-00.7	N 19 28.9	-00.5
23	196 27.1	-00.6	N 19 28.4	-00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	236°	236°	236°	235°	235°	235°

Greenwich Culmination Time: 09:53

Moon

A: 12%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	140 33.8	-24.9	S 09 08.2	+13.9
01	155 08.9	-24.8	S 09 22.1	+13.8
02	169 44.1	-24.9	S 09 35.9	+13.8
03	184 19.2	-24.9	S 09 49.7	+13.7
04	198 54.3	-24.9	S 10 03.4	+13.6
05	213 29.4	-24.9	S 10 17.0	+13.7
06	228 04.5	-25.0	S 10 30.7	+13.5
07	242 39.5	-25.0	S 10 44.2	+13.6
08	257 14.5	-25.0	S 10 57.8	+13.4
09	271 49.5	-25.0	S 11 11.2	+13.5
10	286 24.5	-25.0	S 11 24.7	+13.3
11	300 59.5	-25.1	S 11 38.0	+13.4
12	315 34.4	-25.2	S 11 51.4	+13.2
13	330 09.2	-25.1	S 12 04.6	+13.3
14	344 44.1	-25.2	S 12 17.9	+13.1
15	359 18.9	-25.2	S 12 31.0	+13.1
16	13 53.7	-25.2	S 12 44.1	+13.1
17	28 28.5	-25.3	S 12 57.2	+13.0
18	43 03.2	-25.3	S 13 10.2	+12.9
19	57 37.9	-25.4	S 13 23.1	+12.9
20	72 12.5	-25.3	S 13 36.0	+12.9
21	86 47.2	-25.4	S 13 48.9	+12.7
22	101 21.8	-25.5	S 14 01.6	+12.7
23	115 56.3	-25.5	S 14 14.3	+12.7

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′9	14′8	14′8
HP	54′7	54′6	54′6	54′5	54′5	54′4
SHA	164°	162°	161°	159°	157°	155°

Greenwich Culmination Time: 15:02

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	143 42.1	+01.0	S 04 43.5	+00.7
01	158 43.1	+00.9	S 04 44.2	+00.6
02	173 44.0	+01.0	S 04 44.8	+00.7
03	188 45.0	+01.0	S 04 45.5	+00.7
04	203 46.0	+01.0	S 04 46.2	+00.6
05	218 47.0	+01.0	S 04 46.8	+00.7
06	233 48.0	+01.0	S 04 47.5	+00.6
07	248 49.0	+01.0	S 04 48.1	+00.7
08	263 50.0	+01.0	S 04 48.8	+00.6
09	278 51.0	+00.9	S 04 49.4	+00.7
10	293 51.9	+01.0	S 04 50.1	+00.6
11	308 52.9	+01.0	S 04 50.7	+00.7
12	323 53.9	+01.0	S 04 51.4	+00.6
13	338 54.9	+01.0	S 04 52.0	+00.7
14	353 55.9	+01.0	S 04 52.7	+00.6
15	8 56.9	+00.9	S 04 53.3	+00.7
16	23 57.8	+01.0	S 04 54.0	+00.6
17	38 58.8	+01.0	S 04 54.6	+00.7
18	53 59.8	+01.0	S 04 55.3	+00.7
19	69 00.8	+01.0	S 04 56.0	+00.6
20	84 01.8	+01.0	S 04 56.6	+00.7
21	99 02.8	+01.0	S 04 57.3	+00.6
22	114 03.8	+00.9	S 04 57.9	+00.7
23	129 04.7	+01.0	S 04 58.6	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	168°	168°	168°	168°	168°	168°

Greenwich Culmination Time: 14:24

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	227 06.5	+01.9	N 22 19.4	-00.1
01	242 08.4	+02.0	N 22 19.3	+00.0
02	257 10.4	+02.0	N 22 19.3	-00.1
03	272 12.4	+01.9	N 22 19.2	-00.1
04	287 14.3	+02.0	N 22 19.1	+00.0
05	302 16.3	+01.9	N 22 19.1	-00.1
06	317 18.2	+02.0	N 22 19.0	+00.0
07	332 20.2	+02.0	N 22 19.0	-00.1
08	347 22.2	+01.9	N 22 18.9	+00.0
09	2 24.1	+02.0	N 22 18.9	-00.1
10	17 26.1	+02.0	N 22 18.8	+00.0
11	32 28.1	+01.9	N 22 18.8	-00.1
12	47 30.0	+02.0	N 22 18.7	+00.0
13	62 32.0	+02.0	N 22 18.7	-00.1
14	77 34.0	+01.9	N 22 18.6	-00.1
15	92 35.9	+02.0	N 22 18.5	+00.0
16	107 37.9	+02.0	N 22 18.5	-00.1
17	122 39.9	+01.9	N 22 18.4	+00.0
18	137 41.8	+02.0	N 22 18.4	-00.1
19	152 43.8	+02.0	N 22 18.3	+00.0
20	167 45.8	+01.9	N 22 18.3	-00.1
21	182 47.7	+02.0	N 22 18.2	+00.0
22	197 49.7	+02.0	N 22 18.2	-00.1
23	212 51.7	+01.9	N 22 18.1	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	252°	252°	252°	252°	251°	251°

Greenwich Culmination Time: 08:50

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	334 10.4	+02.6	S 02 07.2	+00.0
01	349 13.0	+02.6	S 02 07.2	+00.1
02	4 15.6	+02.6	S 02 07.3	+00.1
03	19 18.2	+02.7	S 02 07.4	+00.1
04	34 20.9	+02.6	S 02 07.5	+00.0
05	49 23.5	+02.6	S 02 07.5	+00.1
06	64 26.1	+02.6	S 02 07.6	+00.1
07	79 28.7	+02.6	S 02 07.7	+00.0
08	94 31.3	+02.6	S 02 07.7	+00.1
09	109 33.9	+02.6	S 02 07.8	+00.1
10	124 36.5	+02.6	S 02 07.9	+00.1
11	139 39.1	+02.6	S 02 08.0	+00.0
12	154 41.7	+02.7	S 02 08.0	+00.1
13	169 44.4	+02.6	S 02 08.1	+00.1
14	184 47.0	+02.6	S 02 08.2	+00.0
15	199 49.6	+02.6	S 02 08.2	+00.1
16	214 52.2	+02.6	S 02 08.3	+00.1
17	229 54.8	+02.6	S 02 08.4	+00.1
18	244 57.4	+02.6	S 02 08.5	+00.0
19	260 00.0	+02.6	S 02 08.5	+00.1
20	275 02.6	+02.6	S 02 08.6	+00.1
21	290 05.2	+02.7	S 02 08.7	+00.0
22	305 07.9	+02.6	S 02 08.7	+00.1
23	320 10.5	+02.6	S 02 08.8	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:43

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2025 August 28 Thursday

(day 240 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 40.1	+00.2	N 09 41.5	−00.9
01	194 40.3	+00.2	N 09 40.6	−00.9
02	209 40.5	+00.1	N 09 39.7	−00.9
03	224 40.6	+00.2	N 09 38.8	−00.9
04	239 40.8	+00.2	N 09 37.9	−00.9
05	254 41.0	+00.2	N 09 37.0	−00.8
06	269 41.2	+00.2	N 09 36.2	−00.9
07	284 41.4	+00.2	N 09 35.3	−00.9
08	299 41.6	+00.1	N 09 34.4	−00.9
09	314 41.7	+00.2	N 09 33.5	−00.9
10	329 41.9	+00.2	N 09 32.6	−00.9
11	344 42.1	+00.2	N 09 31.7	−00.9
12	359 42.3	+00.2	N 09 30.8	−00.8
13	14 42.5	+00.2	N 09 30.0	−00.9
14	29 42.7	+00.2	N 09 29.1	−00.9
15	44 42.9	+00.1	N 09 28.2	−00.9
16	59 43.0	+00.2	N 09 27.3	−00.9
17	74 43.2	+00.2	N 09 26.4	−00.9
18	89 43.4	+00.2	N 09 25.5	−00.9
19	104 43.6	+00.2	N 09 24.6	−00.9
20	119 43.8	+00.2	N 09 23.7	−00.8
21	134 44.0	+00.2	N 09 22.9	−00.9
22	149 44.2	+00.2	N 09 22.0	−00.9
23	164 44.4	+00.1	N 09 21.1	−00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	203°	203°	203°	203°	203°	202°

Greenwich Culmination Time: 12:01

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	211 26.5	−00.7	N 19 27.8	−00.5
01	226 25.8	−00.7	N 19 27.3	−00.6
02	241 25.1	−00.6	N 19 26.7	−00.5
03	256 24.5	−00.7	N 19 26.2	−00.6
04	271 23.8	−00.6	N 19 25.6	−00.6
05	286 23.2	−00.7	N 19 25.0	−00.5
06	301 22.5	−00.6	N 19 24.5	−00.6
07	316 21.9	−00.7	N 19 23.9	−00.6
08	331 21.2	−00.6	N 19 23.3	−00.5
09	346 20.6	−00.7	N 19 22.8	−00.6
10	1 19.9	−00.6	N 19 22.2	−00.5
11	16 19.3	−00.7	N 19 21.7	−00.6
12	31 18.6	−00.6	N 19 21.1	−00.6
13	46 18.0	−00.7	N 19 20.5	−00.6
14	61 17.3	−00.6	N 19 19.9	−00.5
15	76 16.7	−00.7	N 19 19.4	−00.6
16	91 16.0	−00.6	N 19 18.8	−00.6
17	106 15.4	−00.7	N 19 18.2	−00.5
18	121 14.7	−00.6	N 19 17.7	−00.6
19	136 14.1	−00.7	N 19 17.1	−00.6
20	151 13.4	−00.6	N 19 16.5	−00.6
21	166 12.8	−00.7	N 19 15.9	−00.5
22	181 12.1	−00.6	N 19 15.4	−00.6
23	196 11.5	−00.7	N 19 14.8	−00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	235°	235°	234°	234°	234°	234°

Greenwich Culmination Time: 09:54

Moon

A: 15%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	130 30.8	−25.5	S 14 27.0	+12.6
01	145 05.3	−25.6	S 14 39.6	+12.5
02	159 39.7	−25.6	S 14 52.1	+12.5
03	174 14.1	−25.7	S 15 04.6	+12.4
04	188 48.4	−25.7	S 15 17.0	+12.3
05	203 22.7	−25.7	S 15 29.3	+12.3
06	217 57.0	−25.8	S 15 41.6	+12.2
07	232 31.2	−25.9	S 15 53.8	+12.2
08	247 05.3	−25.8	S 16 06.0	+12.0
09	261 39.5	−26.0	S 16 18.0	+12.0
10	276 13.5	−25.9	S 16 30.0	+12.0
11	290 47.6	−26.1	S 16 42.0	+11.8
12	305 21.5	−26.0	S 16 53.8	+11.8
13	319 55.5	−26.2	S 17 05.6	+11.8
14	334 29.3	−26.1	S 17 17.4	+11.6
15	349 03.2	−26.3	S 17 29.0	+11.6
16	3 36.9	−26.3	S 17 40.6	+11.5
17	18 10.6	−26.3	S 17 52.1	+11.5
18	32 44.3	−26.4	S 18 03.6	+11.3
19	47 17.9	−26.4	S 18 14.9	+11.3
20	61 51.5	−26.5	S 18 26.2	+11.2
21	76 25.0	−26.6	S 18 37.4	+11.2
22	90 58.4	−26.6	S 18 48.6	+11.0
23	105 31.8	−26.6	S 18 59.6	+11.0

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′4	54′3	54′3	54′3	54′2	54′2
SHA	153°	151°	149°	147°	146°	144°

Greenwich Culmination Time: 15:45

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	144 05.7	+01.0	S 04 59.2	+00.7
01	159 06.7	+01.0	S 04 59.9	+00.6
02	174 07.7	+01.0	S 05 00.5	+00.7
03	189 08.7	+01.0	S 05 01.2	+00.6
04	204 09.7	+00.9	S 05 01.8	+00.7
05	219 10.6	+01.0	S 05 02.5	+00.6
06	234 11.6	+01.0	S 05 03.1	+00.7
07	249 12.6	+01.0	S 05 03.8	+00.6
08	264 13.6	+01.0	S 05 04.4	+00.7
09	279 14.6	+00.9	S 05 05.1	+00.6
10	294 15.5	+01.0	S 05 05.7	+00.7
11	309 16.5	+01.0	S 05 06.4	+00.7
12	324 17.5	+01.0	S 05 07.1	+00.6
13	339 18.5	+01.0	S 05 07.7	+00.7
14	354 19.5	+01.0	S 05 08.4	+00.6
15	9 20.5	+00.9	S 05 09.0	+00.7
16	24 21.4	+01.0	S 05 09.7	+00.6
17	39 22.4	+01.0	S 05 10.3	+00.7
18	54 23.4	+01.0	S 05 11.0	+00.6
19	69 24.4	+01.0	S 05 11.6	+00.7
20	84 25.4	+00.9	S 05 12.3	+00.6
21	99 26.3	+01.0	S 05 12.9	+00.7
22	114 27.3	+01.0	S 05 13.6	+00.6
23	129 28.3	+01.0	S 05 14.2	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	168°	167°	167°	167°	167°	167°

Greenwich Culmination Time: 14:22

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	227 53.6	+02.0	N 22 18.1	−00.1
01	242 55.6	+02.0	N 22 18.0	−00.1
02	257 57.6	+01.9	N 22 17.9	+00.0
03	272 59.5	+02.0	N 22 17.9	−00.1
04	288 01.5	+02.0	N 22 17.8	+00.0
05	303 03.5	+01.9	N 22 17.8	−00.1
06	318 05.4	+02.0	N 22 17.7	+00.0
07	333 07.4	+02.0	N 22 17.7	−00.1
08	348 09.4	+01.9	N 22 17.6	+00.0
09	3 11.3	+02.0	N 22 17.6	−00.1
10	18 13.3	+02.0	N 22 17.5	−00.1
11	33 15.3	+01.9	N 22 17.4	+00.0
12	48 17.2	+02.0	N 22 17.4	−00.1
13	63 19.2	+02.0	N 22 17.3	+00.0
14	78 21.2	+01.9	N 22 17.3	−00.1
15	93 23.1	+02.0	N 22 17.2	+00.0
16	108 25.1	+02.0	N 22 17.2	−00.1
17	123 27.1	+01.9	N 22 17.1	+00.0
18	138 29.0	+02.0	N 22 17.1	−00.1
19	153 31.0	+02.0	N 22 17.0	+00.0
20	168 33.0	+02.0	N 22 17.0	−00.1
21	183 35.0	+01.9	N 22 16.9	−00.1
22	198 36.9	+02.0	N 22 16.8	+00.0
23	213 38.9	+02.0	N 22 16.8	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	251°	251°	251°	251°	251°	251°

Greenwich Culmination Time: 08:47

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	335 13.1	+02.6	S 02 08.9	+00.1
01	350 15.7	+02.6	S 02 09.0	+00.0
02	5 18.3	+02.6	S 02 09.0	+00.1
03	20 20.9	+02.6	S 02 09.1	+00.1
04	35 23.5	+02.7	S 02 09.2	+00.0
05	50 26.2	+02.6	S 02 09.2	+00.1
06	65 28.8	+02.6	S 02 09.3	+00.1
07	80 31.4	+02.6	S 02 09.4	+00.1
08	95 34.0	+02.6	S 02 09.5	+00.0
09	110 36.6	+02.6	S 02 09.5	+00.1
10	125 39.2	+02.6	S 02 09.6	+00.1
11	140 41.8	+02.6	S 02 09.7	+00.0
12	155 44.4	+02.7	S 02 09.7	+00.1
13	170 47.1	+02.6	S 02 09.8	+00.1
14	185 49.7	+02.6	S 02 09.9	+00.1
15	200 52.3	+02.6	S 02 10.0	+00.0
16	215 54.9	+02.6	S 02 10.0	+00.1
17	230 57.5	+02.6	S 02 10.1	+00.1
18	246 00.1	+02.6	S 02 10.2	+00.1
19	261 02.7	+02.7	S 02 10.3	+00.0
20	276 05.4	+02.6	S 02 10.3	+00.1
21	291 08.0	+02.6	S 02 10.4	+00.1
22	306 10.6	+02.6	S 02 10.5	+00.0
23	321 13.2	+02.6	S 02 10.5	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:38

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2025 August 29 Friday

(day 241 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 44.5	+00.2	N 09 20.2	−00.9
01	194 44.7	+00.2	N 09 19.3	−00.9
02	209 44.9	+00.2	N 09 18.4	−00.9
03	224 45.1	+00.2	N 09 17.5	−00.9
04	239 45.3	+00.2	N 09 16.6	−00.9
05	254 45.5	+00.2	N 09 15.7	−00.8
06	269 45.7	+00.2	N 09 14.9	−00.9
07	284 45.9	+00.1	N 09 14.0	−00.9
08	299 46.0	+00.2	N 09 13.1	−00.9
09	314 46.2	+00.2	N 09 12.2	−00.9
10	329 46.4	+00.2	N 09 11.3	−00.9
11	344 46.6	+00.2	N 09 10.4	−00.9
12	359 46.8	+00.2	N 09 09.5	−00.9
13	14 47.0	+00.2	N 09 08.6	−00.9
14	29 47.2	+00.2	N 09 07.7	−00.9
15	44 47.4	+00.2	N 09 06.8	−00.9
16	59 47.6	+00.2	N 09 05.9	−00.9
17	74 47.8	+00.1	N 09 05.0	−00.9
18	89 47.9	+00.2	N 09 04.1	−00.8
19	104 48.1	+00.2	N 09 03.3	−00.9
20	119 48.3	+00.2	N 09 02.4	−00.9
21	134 48.5	+00.2	N 09 01.5	−00.9
22	149 48.7	+00.2	N 09 00.6	−00.9
23	164 48.9	+00.2	N 08 59.7	−00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	202°	202°	202°	202°	202°	201°

Greenwich Culmination Time: 12:00

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	211 10.8	−00.6	N 19 14.2	−00.6
01	226 10.2	−00.7	N 19 13.6	−00.6
02	241 09.5	−00.6	N 19 13.0	−00.5
03	256 08.9	−00.7	N 19 12.5	−00.6
04	271 08.2	−00.6	N 19 11.9	−00.6
05	286 07.6	−00.7	N 19 11.3	−00.6
06	301 06.9	−00.6	N 19 10.7	−00.6
07	316 06.3	−00.7	N 19 10.1	−00.6
08	331 05.6	−00.6	N 19 09.5	−00.5
09	346 05.0	−00.7	N 19 09.0	−00.6
10	1 04.3	−00.6	N 19 08.4	−00.6
11	16 03.7	−00.7	N 19 07.8	−00.6
12	31 03.0	−00.6	N 19 07.2	−00.6
13	46 02.4	−00.7	N 19 06.6	−00.6
14	61 01.7	−00.6	N 19 06.0	−00.6
15	76 01.1	−00.6	N 19 05.4	−00.6
16	91 00.5	−00.7	N 19 04.8	−00.6
17	105 59.8	−00.6	N 19 04.2	−00.6
18	120 59.2	−00.7	N 19 03.6	−00.6
19	135 58.5	−00.6	N 19 03.0	−00.6
20	150 57.9	−00.7	N 19 02.4	−00.6
21	165 57.2	−00.6	N 19 01.8	−00.6
22	180 56.6	−00.7	N 19 01.2	−00.6
23	195 55.9	−00.6	N 19 00.6	−00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	234°	233°	233°	233°	233°	233°

Greenwich Culmination Time: 09:55

Moon

A: 18%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	120 05.2	−26.8	S 19 10.6	+10.9
01	134 38.4	−26.8	S 19 21.5	+10.9
02	149 11.6	−26.8	S 19 32.4	+10.7
03	163 44.8	−26.9	S 19 43.1	+10.7
04	178 17.9	−27.0	S 19 53.8	+10.5
05	192 50.9	−27.0	S 20 04.3	+10.5
06	207 23.9	−27.1	S 20 14.8	+10.4
07	221 56.8	−27.1	S 20 25.2	+10.4
08	236 29.7	−27.2	S 20 35.6	+10.2
09	251 02.5	−27.3	S 20 45.8	+10.2
10	265 35.2	−27.3	S 20 56.0	+10.0
11	280 07.9	−27.4	S 21 06.0	+10.0
12	294 40.5	−27.5	S 21 16.0	+09.9
13	309 13.0	−27.5	S 21 25.9	+09.8
14	323 45.5	−27.6	S 21 35.7	+09.7
15	338 17.9	−27.7	S 21 45.4	+09.6
16	352 50.2	−27.7	S 21 55.0	+09.5
17	7 22.5	−27.8	S 22 04.5	+09.5
18	21 54.7	−27.9	S 22 14.0	+09.3
19	36 26.8	−27.9	S 22 23.3	+09.3
20	50 58.9	−28.0	S 22 32.6	+09.1
21	65 30.9	−28.1	S 22 41.7	+09.1
22	80 02.8	−28.1	S 22 50.8	+08.9
23	94 34.7	−28.2	S 22 59.7	+08.9

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′2	54′2	54′2	54′2	54′2	54′2
SHA	142°	140°	138°	136°	134°	132°

Greenwich Culmination Time: 16:29

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	144 29.3	+01.0	S 05 14.9	+00.6
01	159 30.3	+00.9	S 05 15.5	+00.7
02	174 31.2	+01.0	S 05 16.2	+00.6
03	189 32.2	+01.0	S 05 16.8	+00.7
04	204 33.2	+01.0	S 05 17.5	+00.6
05	219 34.2	+01.0	S 05 18.1	+00.7
06	234 35.2	+00.9	S 05 18.8	+00.7
07	249 36.1	+01.0	S 05 19.5	+00.6
08	264 37.1	+01.0	S 05 20.1	+00.7
09	279 38.1	+01.0	S 05 20.8	+00.6
10	294 39.1	+00.9	S 05 21.4	+00.7
11	309 40.0	+01.0	S 05 22.1	+00.6
12	324 41.0	+01.0	S 05 22.7	+00.7
13	339 42.0	+01.0	S 05 23.4	+00.6
14	354 43.0	+01.0	S 05 24.0	+00.7
15	9 44.0	+00.9	S 05 24.7	+00.6
16	24 44.9	+01.0	S 05 25.3	+00.7
17	39 45.9	+01.0	S 05 26.0	+00.6
18	54 46.9	+01.0	S 05 26.6	+00.7
19	69 47.9	+00.9	S 05 27.3	+00.6
20	84 48.8	+01.0	S 05 27.9	+00.7
21	99 49.8	+01.0	S 05 28.6	+00.6
22	114 50.8	+01.0	S 05 29.2	+00.7
23	129 51.8	+01.0	S 05 29.9	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	167°	167°	167°	167°	167°	166°

Greenwich Culmination Time: 14:21

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	228 40.9	+01.9	N 22 16.7	+00.0
01	243 42.8	+02.0	N 22 16.7	−00.1
02	258 44.8	+02.0	N 22 16.6	+00.0
03	273 46.8	+02.0	N 22 16.6	−00.1
04	288 48.8	+01.9	N 22 16.5	+00.0
05	303 50.7	+02.0	N 22 16.5	−00.1
06	318 52.7	+02.0	N 22 16.4	+00.0
07	333 54.7	+01.9	N 22 16.4	−00.1
08	348 56.6	+02.0	N 22 16.3	−00.1
09	3 58.6	+02.0	N 22 16.2	+00.0
10	19 00.6	+02.0	N 22 16.2	−00.1
11	34 02.6	+01.9	N 22 16.1	+00.0
12	49 04.5	+02.0	N 22 16.1	−00.1
13	64 06.5	+02.0	N 22 16.0	+00.0
14	79 08.5	+01.9	N 22 16.0	−00.1
15	94 10.4	+02.0	N 22 15.9	+00.0
16	109 12.4	+02.0	N 22 15.9	−00.1
17	124 14.4	+02.0	N 22 15.8	−00.1
18	139 16.4	+01.9	N 22 15.7	+00.0
19	154 18.3	+02.0	N 22 15.7	−00.1
20	169 20.3	+02.0	N 22 15.6	+00.0
21	184 22.3	+02.0	N 22 15.6	−00.1
22	199 24.3	+01.9	N 22 15.5	+00.0
23	214 26.2	+02.0	N 22 15.5	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	251°	251°	251°	251°	251°	251°

Greenwich Culmination Time: 08:44

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	336 15.8	+02.6	S 02 10.6	+00.1
01	351 18.4	+02.6	S 02 10.7	+00.1
02	6 21.0	+02.7	S 02 10.8	+00.0
03	21 23.7	+02.6	S 02 10.8	+00.1
04	36 26.3	+02.6	S 02 10.9	+00.1
05	51 28.9	+02.6	S 02 11.0	+00.0
06	66 31.5	+02.6	S 02 11.0	+00.1
07	81 34.1	+02.6	S 02 11.1	+00.1
08	96 36.7	+02.6	S 02 11.2	+00.1
09	111 39.3	+02.7	S 02 11.3	+00.0
10	126 42.0	+02.6	S 02 11.3	+00.1
11	141 44.6	+02.6	S 02 11.4	+00.1
12	156 47.2	+02.6	S 02 11.5	+00.1
13	171 49.8	+02.6	S 02 11.6	+00.0
14	186 52.4	+02.6	S 02 11.6	+00.1
15	201 55.0	+02.7	S 02 11.7	+00.1
16	216 57.7	+02.6	S 02 11.8	+00.0
17	232 00.3	+02.6	S 02 11.8	+00.1
18	247 02.9	+02.6	S 02 11.9	+00.1
19	262 05.5	+02.6	S 02 12.0	+00.1
20	277 08.1	+02.6	S 02 12.1	+00.0
21	292 10.7	+02.7	S 02 12.1	+00.1
22	307 13.4	+02.6	S 02 12.2	+00.1
23	322 16.0	+02.6	S 02 12.3	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:34

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2025 August 30 Saturday

(day 242 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 49.1	+00.2	N 08 58.8	−00.9
01	194 49.3	+00.2	N 08 57.9	−00.9
02	209 49.5	+00.2	N 08 57.0	−00.9
03	224 49.7	+00.2	N 08 56.1	−00.9
04	239 49.9	+00.2	N 08 55.2	−00.9
05	254 50.1	+00.1	N 08 54.3	−00.9
06	269 50.2	+00.2	N 08 53.4	−00.9
07	284 50.4	+00.2	N 08 52.5	−00.9
08	299 50.6	+00.2	N 08 51.6	−00.9
09	314 50.8	+00.2	N 08 50.7	−00.9
10	329 51.0	+00.2	N 08 49.8	−00.9
11	344 51.2	+00.2	N 08 48.9	−00.9
12	359 51.4	+00.2	N 08 48.0	−00.9
13	14 51.6	+00.2	N 08 47.1	−00.9
14	29 51.8	+00.2	N 08 46.2	−00.9
15	44 52.0	+00.2	N 08 45.3	−00.9
16	59 52.2	+00.2	N 08 44.4	−00.9
17	74 52.4	+00.2	N 08 43.5	−00.9
18	89 52.6	+00.2	N 08 42.6	−00.9
19	104 52.8	+00.2	N 08 41.7	−00.9
20	119 53.0	+00.1	N 08 40.8	−00.9
21	134 53.1	+00.2	N 08 39.9	−00.9
22	149 53.3	+00.2	N 08 39.0	−00.9
23	164 53.5	+00.2	N 08 38.1	−00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	201°	201°	201°	201°	201°	201°

Greenwich Culmination Time: 12:00

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	210 55.3	−00.6	N 19 00.0	−00.6
01	225 54.7	−00.7	N 18 59.4	−00.6
02	240 54.0	−00.6	N 18 58.8	−00.6
03	255 53.4	−00.7	N 18 58.2	−00.6
04	270 52.7	−00.6	N 18 57.6	−00.6
05	285 52.1	−00.7	N 18 57.0	−00.6
06	300 51.4	−00.6	N 18 56.4	−00.6
07	315 50.8	−00.6	N 18 55.8	−00.6
08	330 50.2	−00.7	N 18 55.2	−00.6
09	345 49.5	−00.6	N 18 54.6	−00.6
10	0 48.9	−00.7	N 18 54.0	−00.6
11	15 48.2	−00.6	N 18 53.4	−00.7
12	30 47.6	−00.6	N 18 52.7	−00.6
13	45 47.0	−00.7	N 18 52.1	−00.6
14	60 46.3	−00.6	N 18 51.5	−00.6
15	75 45.7	−00.7	N 18 50.9	−00.6
16	90 45.0	−00.6	N 18 50.3	−00.6
17	105 44.4	−00.6	N 18 49.7	−00.7
18	120 43.8	−00.7	N 18 49.0	−00.6
19	135 43.1	−00.6	N 18 48.4	−00.6
20	150 42.5	−00.6	N 18 47.8	−00.6
21	165 41.9	−00.7	N 18 47.2	−00.6
22	180 41.2	−00.6	N 18 46.6	−00.7
23	195 40.6	−00.7	N 18 45.9	−00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	232°	232°	232°	232°	232°	231°

Greenwich Culmination Time: 09:56

Moon

A: 21%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	109 06.5	−28.3	S 23 08.6	+08.7
01	123 38.2	−28.3	S 23 17.3	+08.7
02	138 09.9	−28.4	S 23 26.0	+08.6
03	152 41.5	−28.5	S 23 34.6	+08.4
04	167 13.0	−28.5	S 23 43.0	+08.4
05	181 44.5	−28.7	S 23 51.4	+08.2
06	196 15.8	−28.6	S 23 59.6	+08.2
07	210 47.2	−28.8	S 24 07.8	+08.0
08	225 18.4	−28.8	S 24 15.8	+08.0
09	239 49.6	−28.9	S 24 23.8	+07.8
10	254 20.7	−29.0	S 24 31.6	+07.7
11	268 51.7	−29.0	S 24 39.3	+07.7
12	283 22.7	−29.1	S 24 47.0	+07.5
13	297 53.6	−29.2	S 24 54.5	+07.4
14	312 24.4	−29.3	S 25 01.9	+07.3
15	326 55.1	−29.3	S 25 09.2	+07.2
16	341 25.8	−29.4	S 25 16.4	+07.0
17	355 56.4	−29.4	S 25 23.4	+07.0
18	10 27.0	−29.6	S 25 30.4	+06.8
19	24 57.4	−29.6	S 25 37.2	+06.8
20	39 27.8	−29.6	S 25 44.0	+06.6
21	53 58.2	−29.8	S 25 50.6	+06.5
22	68 28.4	−29.8	S 25 57.1	+06.4
23	82 58.6	−29.8	S 26 03.5	+06.2

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′2	54′2	54′2	54′2	54′3	54′3
SHA	130°	128°	125°	123°	121°	119°

Greenwich Culmination Time: 17:16

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	144 52.8	+00.9	S 05 30.5	+00.7
01	159 53.7	+01.0	S 05 31.2	+00.6
02	174 54.7	+01.0	S 05 31.8	+00.7
03	189 55.7	+01.0	S 05 32.5	+00.6
04	204 56.7	+00.9	S 05 33.1	+00.7
05	219 57.6	+01.0	S 05 33.8	+00.7
06	234 58.6	+01.0	S 05 34.5	+00.6
07	249 59.6	+01.0	S 05 35.1	+00.7
08	265 00.6	+00.9	S 05 35.8	+00.6
09	280 01.5	+01.0	S 05 36.4	+00.7
10	295 02.5	+01.0	S 05 37.1	+00.6
11	310 03.5	+01.0	S 05 37.7	+00.7
12	325 04.5	+00.9	S 05 38.4	+00.6
13	340 05.4	+01.0	S 05 39.0	+00.7
14	355 06.4	+01.0	S 05 39.7	+00.6
15	10 07.4	+00.9	S 05 40.3	+00.7
16	25 08.3	+01.0	S 05 41.0	+00.6
17	40 09.3	+01.0	S 05 41.6	+00.7
18	55 10.3	+01.0	S 05 42.3	+00.6
19	70 11.3	+00.9	S 05 42.9	+00.7
20	85 12.2	+01.0	S 05 43.6	+00.6
21	100 13.2	+01.0	S 05 44.2	+00.7
22	115 14.2	+01.0	S 05 44.9	+00.6
23	130 15.2	+00.9	S 05 45.5	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	166°	166°	166°	166°	166°	166°

Greenwich Culmination Time: 14:19

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	229 28.2	+02.0	N 22 15.4	+00.0
01	244 30.2	+02.0	N 22 15.4	−00.1
02	259 32.2	+01.9	N 22 15.3	+00.0
03	274 34.1	+02.0	N 22 15.3	−00.1
04	289 36.1	+02.0	N 22 15.2	−00.1
05	304 38.1	+02.0	N 22 15.1	+00.0
06	319 40.1	+01.9	N 22 15.1	−00.1
07	334 42.0	+02.0	N 22 15.0	+00.0
08	349 44.0	+02.0	N 22 15.0	−00.1
09	4 46.0	+02.0	N 22 14.9	+00.0
10	19 48.0	+01.9	N 22 14.9	−00.1
11	34 49.9	+02.0	N 22 14.8	+00.0
12	49 51.9	+02.0	N 22 14.8	−00.1
13	64 53.9	+02.0	N 22 14.7	−00.1
14	79 55.9	+02.0	N 22 14.6	+00.0
15	94 57.9	+01.9	N 22 14.6	−00.1
16	109 59.8	+02.0	N 22 14.5	+00.0
17	125 01.8	+02.0	N 22 14.5	−00.1
18	140 03.8	+02.0	N 22 14.4	+00.0
19	155 05.8	+01.9	N 22 14.4	−00.1
20	170 07.7	+02.0	N 22 14.3	+00.0
21	185 09.7	+02.0	N 22 14.3	−00.1
22	200 11.7	+02.0	N 22 14.2	+00.0
23	215 13.7	+02.0	N 22 14.2	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	251°	251°	251°	251°	251°	251°

Greenwich Culmination Time: 08:40

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	337 18.6	+02.6	S 02 12.4	+00.0
01	352 21.2	+02.6	S 02 12.4	+00.1
02	7 23.8	+02.6	S 02 12.5	+00.1
03	22 26.4	+02.7	S 02 12.6	+00.1
04	37 29.1	+02.6	S 02 12.7	+00.0
05	52 31.7	+02.6	S 02 12.7	+00.1
06	67 34.3	+02.6	S 02 12.8	+00.1
07	82 36.9	+02.6	S 02 12.9	+00.0
08	97 39.5	+02.6	S 02 12.9	+00.1
09	112 42.1	+02.7	S 02 13.0	+00.1
10	127 44.8	+02.6	S 02 13.1	+00.1
11	142 47.4	+02.6	S 02 13.2	+00.0
12	157 50.0	+02.6	S 02 13.2	+00.1
13	172 52.6	+02.6	S 02 13.3	+00.1
14	187 55.2	+02.7	S 02 13.4	+00.1
15	202 57.9	+02.6	S 02 13.5	+00.0
16	218 00.5	+02.6	S 02 13.5	+00.1
17	233 03.1	+02.6	S 02 13.6	+00.1
18	248 05.7	+02.6	S 02 13.7	+00.1
19	263 08.3	+02.6	S 02 13.8	+00.0
20	278 10.9	+02.7	S 02 13.8	+00.1
21	293 13.6	+02.6	S 02 13.9	+00.1
22	308 16.2	+02.6	S 02 14.0	+00.0
23	323 18.8	+02.6	S 02 14.0	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:30

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2025 August 31 Sunday

(day 243 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	179 53.7	+00.2	N 08 37.2	-00.9
01	194 53.9	+00.2	N 08 36.3	-00.9
02	209 54.1	+00.2	N 08 35.4	-00.9
03	224 54.3	+00.2	N 08 34.5	-00.9
04	239 54.5	+00.2	N 08 33.6	-00.9
05	254 54.7	+00.2	N 08 32.7	-00.9
06	269 54.9	+00.2	N 08 31.8	-00.9
07	284 55.1	+00.2	N 08 30.9	-00.9
08	299 55.3	+00.2	N 08 30.0	-00.9
09	314 55.5	+00.2	N 08 29.1	-00.9
10	329 55.7	+00.2	N 08 28.2	-00.9
11	344 55.9	+00.2	N 08 27.3	-00.9
12	359 56.1	+00.2	N 08 26.4	-00.9
13	14 56.3	+00.2	N 08 25.5	-00.9
14	29 56.5	+00.2	N 08 24.6	-00.9
15	44 56.7	+00.2	N 08 23.7	-00.9
16	59 56.9	+00.2	N 08 22.8	-00.9
17	74 57.1	+00.2	N 08 21.9	-00.9
18	89 57.3	+00.2	N 08 21.0	-00.9
19	104 57.5	+00.2	N 08 20.1	-00.9
20	119 57.7	+00.2	N 08 19.2	-00.9
21	134 57.9	+00.2	N 08 18.3	-01.0
22	149 58.1	+00.2	N 08 17.3	-00.9
23	164 58.3	+00.1	N 08 16.4	-00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′8	15′8
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	200°	200°	200°	200°	200°	200°

Greenwich Culmination Time: 12:00

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	210 39.9	-00.6	N 18 45.3	-00.6
01	225 39.3	-00.6	N 18 44.7	-00.6
02	240 38.7	-00.7	N 18 44.1	-00.7
03	255 38.0	-00.6	N 18 43.4	-00.6
04	270 37.4	-00.6	N 18 42.8	-00.6
05	285 36.8	-00.7	N 18 42.2	-00.6
06	300 36.1	-00.6	N 18 41.6	-00.7
07	315 35.5	-00.6	N 18 40.9	-00.6
08	330 34.9	-00.7	N 18 40.3	-00.6
09	345 34.2	-00.6	N 18 39.7	-00.7
10	0 33.6	-00.6	N 18 39.0	-00.6
11	15 33.0	-00.7	N 18 38.4	-00.6
12	30 32.3	-00.6	N 18 37.8	-00.7
13	45 31.7	-00.6	N 18 37.1	-00.6
14	60 31.1	-00.7	N 18 36.5	-00.7
15	75 30.4	-00.6	N 18 35.8	-00.6
16	90 29.8	-00.6	N 18 35.2	-00.6
17	105 29.2	-00.7	N 18 34.6	-00.7
18	120 28.5	-00.6	N 18 33.9	-00.6
19	135 27.9	-00.6	N 18 33.3	-00.7
20	150 27.3	-00.7	N 18 32.6	-00.6
21	165 26.6	-00.6	N 18 32.0	-00.6
22	180 26.0	-00.6	N 18 31.4	-00.7
23	195 25.4	-00.6	N 18 30.7	-00.6

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	231°	231°	231°	231°	230°	230°

Greenwich Culmination Time: 09:57

Moon

A: 24%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	97 28.8	-30.0	S 26 09.7	+06.2
01	111 58.8	-30.0	S 26 15.9	+06.0
02	126 28.8	-30.1	S 26 21.9	+05.9
03	140 58.7	-30.1	S 26 27.8	+05.8
04	155 28.6	-30.3	S 26 33.6	+05.6
05	169 58.3	-30.2	S 26 39.2	+05.6
06	184 28.1	-30.4	S 26 44.8	+05.4
07	198 57.7	-30.4	S 26 50.2	+05.3
08	213 27.3	-30.5	S 26 55.5	+05.2
09	227 56.8	-30.5	S 27 00.7	+05.0
10	242 26.3	-30.6	S 27 05.7	+04.9
11	256 55.7	-30.7	S 27 10.6	+04.8
12	271 25.0	-30.7	S 27 15.4	+04.7
13	285 54.3	-30.8	S 27 20.1	+04.5
14	300 23.5	-30.9	S 27 24.6	+04.4
15	314 52.6	-30.9	S 27 29.0	+04.3
16	329 21.7	-31.0	S 27 33.3	+04.1
17	343 50.7	-31.1	S 27 37.4	+04.0
18	358 19.6	-31.1	S 27 41.4	+03.9
19	12 48.5	-31.1	S 27 45.3	+03.8
20	27 17.4	-31.2	S 27 49.1	+03.6
21	41 46.2	-31.3	S 27 52.7	+03.4
22	56 14.9	-31.4	S 27 56.1	+03.4
23	70 43.5	-31.4	S 27 59.5	+03.2

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′9	14′9
HP	54′4	54′4	54′4	54′5	54′6	54′6
SHA	117°	115°	113°	110°	108°	106°

Greenwich Culmination Time: 18:06

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	145 16.1	+01.0	S 05 46.2	+00.6
01	160 17.1	+01.0	S 05 46.8	+00.7
02	175 18.1	+00.9	S 05 47.5	+00.6
03	190 19.0	+01.0	S 05 48.1	+00.7
04	205 20.0	+01.0	S 05 48.8	+00.6
05	220 21.0	+01.0	S 05 49.4	+00.7
06	235 22.0	+00.9	S 05 50.1	+00.6
07	250 22.9	+01.0	S 05 50.7	+00.7
08	265 23.9	+01.0	S 05 51.4	+00.6
09	280 24.9	+00.9	S 05 52.0	+00.7
10	295 25.8	+01.0	S 05 52.7	+00.6
11	310 26.8	+01.0	S 05 53.3	+00.7
12	325 27.8	+01.0	S 05 54.0	+00.6
13	340 28.8	+00.9	S 05 54.6	+00.7
14	355 29.7	+01.0	S 05 55.3	+00.6
15	10 30.7	+01.0	S 05 55.9	+00.7
16	25 31.7	+00.9	S 05 56.6	+00.6
17	40 32.6	+01.0	S 05 57.2	+00.7
18	55 33.6	+01.0	S 05 57.9	+00.6
19	70 34.6	+00.9	S 05 58.5	+00.7
20	85 35.5	+01.0	S 05 59.2	+00.7
21	100 36.5	+01.0	S 05 59.9	+00.6
22	115 37.5	+00.9	S 06 00.5	+00.7
23	130 38.4	+01.0	S 06 01.2	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	166°	166°	166°	165°	165°	165°

Greenwich Culmination Time: 14:17

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	230 15.7	+01.9	N 22 14.1	-00.1
01	245 17.6	+02.0	N 22 14.0	+00.0
02	260 19.6	+02.0	N 22 14.0	-00.1
03	275 21.6	+02.0	N 22 13.9	+00.0
04	290 23.6	+01.9	N 22 13.9	-00.1
05	305 25.5	+02.0	N 22 13.8	+00.0
06	320 27.5	+02.0	N 22 13.8	-00.1
07	335 29.5	+02.0	N 22 13.7	+00.0
08	350 31.5	+02.0	N 22 13.7	-00.1
09	5 33.5	+01.9	N 22 13.6	-00.1
10	20 35.4	+02.0	N 22 13.5	+00.0
11	35 37.4	+02.0	N 22 13.5	-00.1
12	50 39.4	+02.0	N 22 13.4	+00.0
13	65 41.4	+02.0	N 22 13.4	-00.1
14	80 43.4	+02.0	N 22 13.3	+00.0
15	95 45.4	+01.9	N 22 13.3	-00.1
16	110 47.3	+02.0	N 22 13.2	+00.0
17	125 49.3	+02.0	N 22 13.2	-00.1
18	140 51.3	+02.0	N 22 13.1	+00.0
19	155 53.3	+02.0	N 22 13.1	-00.1
20	170 55.3	+01.9	N 22 13.0	-00.1
21	185 57.2	+02.0	N 22 12.9	+00.0
22	200 59.2	+02.0	N 22 12.9	-00.1
23	216 01.2	+02.0	N 22 12.8	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	251°	251°	251°	251°	251°	251°

Greenwich Culmination Time: 08:37

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	338 21.4	+02.6	S 02 14.1	+00.1
01	353 24.0	+02.7	S 02 14.2	+00.1
02	8 26.7	+02.6	S 02 14.3	+00.0
03	23 29.3	+02.6	S 02 14.3	+00.1
04	38 31.9	+02.6	S 02 14.4	+00.1
05	53 34.5	+02.6	S 02 14.5	+00.1
06	68 37.1	+02.6	S 02 14.6	+00.0
07	83 39.7	+02.7	S 02 14.6	+00.1
08	98 42.4	+02.6	S 02 14.7	+00.1
09	113 45.0	+02.6	S 02 14.8	+00.1
10	128 47.6	+02.6	S 02 14.9	+00.0
11	143 50.2	+02.6	S 02 14.9	+00.1
12	158 52.8	+02.7	S 02 15.0	+00.1
13	173 55.5	+02.6	S 02 15.1	+00.1
14	188 58.1	+02.6	S 02 15.2	+00.0
15	204 00.7	+02.6	S 02 15.2	+00.1
16	219 03.3	+02.6	S 02 15.3	+00.1
17	234 05.9	+02.7	S 02 15.4	+00.1
18	249 08.6	+02.6	S 02 15.5	+00.0
19	264 11.2	+02.6	S 02 15.5	+00.1
20	279 13.8	+02.6	S 02 15.6	+00.1
21	294 16.4	+02.6	S 02 15.7	+00.0
22	309 19.0	+02.7	S 02 15.7	+00.1
23	324 21.7	+02.6	S 02 15.8	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:26

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 1 Monday

(day 244 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 58.4	+00.2	N 08 15.5	-00.9
01	194 58.6	+00.2	N 08 14.6	-00.9
02	209 58.8	+00.2	N 08 13.7	-00.9
03	224 59.0	+00.2	N 08 12.8	-00.9
04	239 59.2	+00.2	N 08 11.9	-00.9
05	254 59.4	+00.2	N 08 11.0	-00.9
06	269 59.6	+00.2	N 08 10.1	-00.9
07	284 59.8	+00.2	N 08 09.2	-00.9
08	300 00.0	+00.2	N 08 08.3	-00.9
09	315 00.2	+00.2	N 08 07.4	-00.9
10	330 00.4	+00.2	N 08 06.5	-01.0
11	345 00.6	+00.2	N 08 05.5	-00.9
12	0 00.8	+00.2	N 08 04.6	-00.9
13	15 01.0	+00.2	N 08 03.7	-00.9
14	30 01.2	+00.2	N 08 02.8	-00.9
15	45 01.4	+00.2	N 08 01.9	-00.9
16	60 01.6	+00.2	N 08 01.0	-00.9
17	75 01.8	+00.2	N 08 00.1	-00.9
18	90 02.0	+00.2	N 07 59.2	-00.9
19	105 02.2	+00.2	N 07 58.3	-00.9
20	120 02.4	+00.2	N 07 57.4	-01.0
21	135 02.6	+00.2	N 07 56.4	-00.9
22	150 02.8	+00.2	N 07 55.5	-00.9
23	165 03.0	+00.2	N 07 54.6	-00.9

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′8	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	199°	199°	199°	199°	199°	199°

Greenwich Culmination Time: 11:59

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	210 24.8	-00.7	N 18 30.1	-00.7
01	225 24.1	-00.6	N 18 29.4	-00.6
02	240 23.5	-00.6	N 18 28.8	-00.7
03	255 22.9	-00.7	N 18 28.1	-00.6
04	270 22.2	-00.6	N 18 27.5	-00.7
05	285 21.6	-00.6	N 18 26.8	-00.6
06	300 21.0	-00.7	N 18 26.2	-00.7
07	315 20.3	-00.6	N 18 25.5	-00.6
08	330 19.7	-00.6	N 18 24.9	-00.7
09	345 19.1	-00.6	N 18 24.2	-00.6
10	0 18.5	-00.7	N 18 23.6	-00.7
11	15 17.8	-00.6	N 18 22.9	-00.7
12	30 17.2	-00.6	N 18 22.2	-00.6
13	45 16.6	-00.6	N 18 21.6	-00.7
14	60 16.0	-00.7	N 18 20.9	-00.6
15	75 15.3	-00.6	N 18 20.3	-00.7
16	90 14.7	-00.6	N 18 19.6	-00.7
17	105 14.1	-00.6	N 18 18.9	-00.6
18	120 13.5	-00.7	N 18 18.3	-00.7
19	135 12.8	-00.6	N 18 17.6	-00.6
20	150 12.2	-00.6	N 18 17.0	-00.7
21	165 11.6	-00.6	N 18 16.3	-00.7
22	180 11.0	-00.7	N 18 15.6	-00.6
23	195 10.3	-00.6	N 18 15.0	-00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	230°	230°	229°	229°	229°	229°

Greenwich Culmination Time: 09:58

Moon

A: 28%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	85 12.1	-31.4	S 28 02.7	+03.1
01	99 40.7	-31.5	S 28 05.8	+02.9
02	114 09.2	-31.5	S 28 08.7	+02.8
03	128 37.7	-31.6	S 28 11.5	+02.6
04	143 06.1	-31.7	S 28 14.1	+02.5
05	157 34.4	-31.7	S 28 16.6	+02.4
06	172 02.7	-31.7	S 28 19.0	+02.3
07	186 31.0	-31.8	S 28 21.3	+02.1
08	200 59.2	-31.9	S 28 23.4	+01.9
09	215 27.3	-31.9	S 28 25.3	+01.8
10	229 55.4	-31.9	S 28 27.1	+01.7
11	244 23.5	-32.0	S 28 28.8	+01.5
12	258 51.5	-32.0	S 28 30.3	+01.4
13	273 19.5	-32.1	S 28 31.7	+01.2
14	287 47.4	-32.1	S 28 32.9	+01.1
15	302 15.3	-32.1	S 28 34.0	+01.0
16	316 43.2	-32.2	S 28 35.0	+00.8
17	331 11.0	-32.2	S 28 35.8	+00.6
18	345 38.8	-32.3	S 28 36.4	+00.5
19	0 06.5	-32.3	S 28 36.9	+00.4
20	14 34.2	-32.3	S 28 37.3	+00.2
21	29 01.9	-32.3	S 28 37.5	+00.1
22	43 29.6	-32.4	S 28 37.6	-00.1
23	57 57.2	-32.4	S 28 37.5	-00.3

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	15′0	15′0	15′0
HP	54′7	54′8	54′8	54′9	55′0	55′1
SHA	104°	101°	099°	097°	094°	092°

Greenwich Culmination Time: 18:59

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	145 39.4	+01.0	S 06 01.8	+00.7
01	160 40.4	+01.0	S 06 02.5	+00.6
02	175 41.4	+00.9	S 06 03.1	+00.7
03	190 42.3	+01.0	S 06 03.8	+00.6
04	205 43.3	+01.0	S 06 04.4	+00.7
05	220 44.3	+00.9	S 06 05.1	+00.6
06	235 45.2	+01.0	S 06 05.7	+00.7
07	250 46.2	+01.0	S 06 06.4	+00.6
08	265 47.2	+00.9	S 06 07.0	+00.7
09	280 48.1	+01.0	S 06 07.7	+00.6
10	295 49.1	+01.0	S 06 08.3	+00.7
11	310 50.1	+00.9	S 06 09.0	+00.6
12	325 51.0	+01.0	S 06 09.6	+00.7
13	340 52.0	+01.0	S 06 10.3	+00.6
14	355 53.0	+00.9	S 06 10.9	+00.7
15	10 53.9	+01.0	S 06 11.6	+00.6
16	25 54.9	+01.0	S 06 12.2	+00.7
17	40 55.9	+00.9	S 06 12.9	+00.6
18	55 56.8	+01.0	S 06 13.5	+00.7
19	70 57.8	+01.0	S 06 14.2	+00.6
20	85 58.8	+00.9	S 06 14.8	+00.7
21	100 59.7	+01.0	S 06 15.5	+00.6
22	116 00.7	+00.9	S 06 16.1	+00.7
23	131 01.6	+01.0	S 06 16.8	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	165°	165°	165°	165°	165°	165°

Greenwich Culmination Time: 14:16

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	231 03.2	+02.0	N 22 12.8	-00.1
01	246 05.2	+02.0	N 22 12.7	+00.0
02	261 07.2	+01.9	N 22 12.7	-00.1
03	276 09.1	+02.0	N 22 12.6	+00.0
04	291 11.1	+02.0	N 22 12.6	-00.1
05	306 13.1	+02.0	N 22 12.5	-00.1
06	321 15.1	+02.0	N 22 12.4	+00.0
07	336 17.1	+02.0	N 22 12.4	-00.1
08	351 19.1	+01.9	N 22 12.3	+00.0
09	6 21.0	+02.0	N 22 12.3	-00.1
10	21 23.0	+02.0	N 22 12.2	+00.0
11	36 25.0	+02.0	N 22 12.2	-00.1
12	51 27.0	+02.0	N 22 12.1	+00.0
13	66 29.0	+02.0	N 22 12.1	-00.1
14	81 31.0	+02.0	N 22 12.0	+00.0
15	96 33.0	+01.9	N 22 12.0	-00.1
16	111 34.9	+02.0	N 22 11.9	-00.1
17	126 36.9	+02.0	N 22 11.8	+00.0
18	141 38.9	+02.0	N 22 11.8	-00.1
19	156 40.9	+02.0	N 22 11.7	+00.0
20	171 42.9	+02.0	N 22 11.7	-00.1
21	186 44.9	+02.0	N 22 11.6	+00.0
22	201 46.9	+01.9	N 22 11.6	-00.1
23	216 48.8	+02.0	N 22 11.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	251°	251°	251°	251°	250°	250°

Greenwich Culmination Time: 08:34

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	339 24.3	+02.6	S 02 15.9	+00.1
01	354 26.9	+02.6	S 02 16.0	+00.0
02	9 29.5	+02.7	S 02 16.0	+00.1
03	24 32.2	+02.6	S 02 16.1	+00.1
04	39 34.8	+02.6	S 02 16.2	+00.1
05	54 37.4	+02.6	S 02 16.3	+00.0
06	69 40.0	+02.6	S 02 16.3	+00.1
07	84 42.6	+02.7	S 02 16.4	+00.1
08	99 45.3	+02.6	S 02 16.5	+00.1
09	114 47.9	+02.6	S 02 16.6	+00.0
10	129 50.5	+02.6	S 02 16.6	+00.1
11	144 53.1	+02.6	S 02 16.7	+00.1
12	159 55.7	+02.7	S 02 16.8	+00.1
13	174 58.4	+02.6	S 02 16.9	+00.0
14	190 01.0	+02.6	S 02 16.9	+00.1
15	205 03.6	+02.6	S 02 17.0	+00.1
16	220 06.2	+02.7	S 02 17.1	+00.1
17	235 08.9	+02.6	S 02 17.2	+00.0
18	250 11.5	+02.6	S 02 17.2	+00.1
19	265 14.1	+02.6	S 02 17.3	+00.1
20	280 16.7	+02.6	S 02 17.4	+00.1
21	295 19.3	+02.7	S 02 17.5	+00.0
22	310 22.0	+02.6	S 02 17.5	+00.1
23	325 24.6	+02.6	S 02 17.6	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:22

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 2 Tuesday

(day 245 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 03.2	+00.2	N 07 53.7	-00.9
01	195 03.4	+00.3	N 07 52.8	-00.9
02	210 03.7	+00.2	N 07 51.9	-00.9
03	225 03.9	+00.2	N 07 51.0	-00.9
04	240 04.1	+00.2	N 07 50.1	-01.0
05	255 04.3	+00.2	N 07 49.1	-00.9
06	270 04.5	+00.2	N 07 48.2	-00.9
07	285 04.7	+00.2	N 07 47.3	-00.9
08	300 04.9	+00.2	N 07 46.4	-00.9
09	315 05.1	+00.2	N 07 45.5	-00.9
10	330 05.3	+00.2	N 07 44.6	-00.9
11	345 05.5	+00.2	N 07 43.7	-00.9
12	0 05.7	+00.2	N 07 42.8	-01.0
13	15 05.9	+00.2	N 07 41.8	-00.9
14	30 06.1	+00.2	N 07 40.9	-00.9
15	45 06.3	+00.2	N 07 40.0	-00.9
16	60 06.5	+00.2	N 07 39.1	-00.9
17	75 06.7	+00.2	N 07 38.2	-00.9
18	90 06.9	+00.2	N 07 37.3	-01.0
19	105 07.1	+00.2	N 07 36.3	-00.9
20	120 07.3	+00.2	N 07 35.4	-00.9
21	135 07.5	+00.2	N 07 34.5	-00.9
22	150 07.7	+00.2	N 07 33.6	-00.9
23	165 07.9	+00.2	N 07 32.7	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	199°	198°	198°	198°	198°	198°

Greenwich Culmination Time: 11:59

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	210 09.7	-00.6	N 18 14.3	-00.7
01	225 09.1	-00.6	N 18 13.6	-00.6
02	240 08.5	-00.7	N 18 13.0	-00.7
03	255 07.8	-00.6	N 18 12.3	-00.7
04	270 07.2	-00.6	N 18 11.6	-00.7
05	285 06.6	-00.6	N 18 10.9	-00.6
06	300 06.0	-00.6	N 18 10.3	-00.7
07	315 05.4	-00.7	N 18 09.6	-00.7
08	330 04.7	-00.6	N 18 08.9	-00.7
09	345 04.1	-00.6	N 18 08.2	-00.6
10	0 03.5	-00.6	N 18 07.6	-00.7
11	15 02.9	-00.6	N 18 06.9	-00.7
12	30 02.3	-00.7	N 18 06.2	-00.7
13	45 01.6	-00.6	N 18 05.5	-00.7
14	60 01.0	-00.6	N 18 04.8	-00.6
15	75 00.4	-00.6	N 18 04.2	-00.7
16	89 59.8	-00.6	N 18 03.5	-00.7
17	104 59.2	-00.7	N 18 02.8	-00.7
18	119 58.5	-00.6	N 18 02.1	-00.7
19	134 57.9	-00.6	N 18 01.4	-00.7
20	149 57.3	-00.6	N 18 00.7	-00.6
21	164 56.7	-00.6	N 18 00.1	-00.7
22	179 56.1	-00.6	N 17 59.4	-00.7
23	194 55.5	-00.7	N 17 58.7	-00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	229°	228°	228°	228°	228°	228°

Greenwich Culmination Time: 09:59

Moon

A: 31%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	72 24.8	-32.5	S 28 37.2	-00.3
01	86 52.3	-32.4	S 28 36.9	-00.6
02	101 19.9	-32.5	S 28 36.3	-00.7
03	115 47.4	-32.5	S 28 35.6	-00.8
04	130 14.9	-32.6	S 28 34.8	-01.0
05	144 42.3	-32.5	S 28 33.8	-01.1
06	159 09.8	-32.6	S 28 32.7	-01.3
07	173 37.2	-32.6	S 28 31.4	-01.4
08	188 04.6	-32.6	S 28 30.0	-01.6
09	202 32.0	-32.6	S 28 28.4	-01.7
10	216 59.4	-32.7	S 28 26.7	-01.9
11	231 26.7	-32.6	S 28 24.8	-02.1
12	245 54.1	-32.7	S 28 22.7	-02.2
13	260 21.4	-32.7	S 28 20.5	-02.3
14	274 48.7	-32.7	S 28 18.2	-02.5
15	289 16.0	-32.7	S 28 15.7	-02.7
16	303 43.3	-32.7	S 28 13.0	-02.8
17	318 10.6	-32.7	S 28 10.2	-02.9
18	332 37.9	-32.7	S 28 07.3	-03.1
19	347 05.2	-32.7	S 28 04.2	-03.3
20	1 32.5	-32.7	S 28 00.9	-03.4
21	15 59.8	-32.7	S 27 57.5	-03.6
22	30 27.1	-32.8	S 27 53.9	-03.7
23	44 54.3	-32.7	S 27 50.2	-03.9

UT	02	06	10	14	18	22
SD	15′0	15′1	15′1	15′1	15′1	15′2
HP	55′2	55′3	55′4	55′5	55′6	55′7
SHA	090°	088°	085°	083°	080°	078°

Greenwich Culmination Time: 19:53

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	146 02.6	+01.0	S 06 17.4	+00.7
01	161 03.6	+00.9	S 06 18.1	+00.6
02	176 04.5	+01.0	S 06 18.7	+00.7
03	191 05.5	+01.0	S 06 19.4	+00.6
04	206 06.5	+00.9	S 06 20.0	+00.7
05	221 07.4	+01.0	S 06 20.7	+00.6
06	236 08.4	+01.0	S 06 21.3	+00.7
07	251 09.4	+00.9	S 06 22.0	+00.6
08	266 10.3	+01.0	S 06 22.6	+00.7
09	281 11.3	+00.9	S 06 23.3	+00.6
10	296 12.2	+01.0	S 06 23.9	+00.7
11	311 13.2	+01.0	S 06 24.6	+00.6
12	326 14.2	+00.9	S 06 25.2	+00.7
13	341 15.1	+01.0	S 06 25.9	+00.6
14	356 16.1	+01.0	S 06 26.5	+00.6
15	11 17.1	+00.9	S 06 27.1	+00.7
16	26 18.0	+01.0	S 06 27.8	+00.6
17	41 19.0	+00.9	S 06 28.4	+00.7
18	56 19.9	+01.0	S 06 29.1	+00.6
19	71 20.9	+01.0	S 06 29.7	+00.7
20	86 21.9	+00.9	S 06 30.4	+00.6
21	101 22.8	+01.0	S 06 31.0	+00.7
22	116 23.8	+01.0	S 06 31.7	+00.6
23	131 24.8	+00.9	S 06 32.3	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	165°	164°	164°	164°	164°	164°

Greenwich Culmination Time: 14:14

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	231 50.8	+02.0	N 22 11.5	-00.1
01	246 52.8	+02.0	N 22 11.4	-00.1
02	261 54.8	+02.0	N 22 11.3	+00.0
03	276 56.8	+02.0	N 22 11.3	-00.1
04	291 58.8	+02.0	N 22 11.2	+00.0
05	307 00.8	+02.0	N 22 11.2	-00.1
06	322 02.8	+01.9	N 22 11.1	+00.0
07	337 04.7	+02.0	N 22 11.1	-00.1
08	352 06.7	+02.0	N 22 11.0	+00.0
09	7 08.7	+02.0	N 22 11.0	-00.1
10	22 10.7	+02.0	N 22 10.9	-00.1
11	37 12.7	+02.0	N 22 10.8	+00.0
12	52 14.7	+02.0	N 22 10.8	-00.1
13	67 16.7	+02.0	N 22 10.7	+00.0
14	82 18.7	+02.0	N 22 10.7	-00.1
15	97 20.7	+01.9	N 22 10.6	+00.0
16	112 22.6	+02.0	N 22 10.6	-00.1
17	127 24.6	+02.0	N 22 10.5	+00.0
18	142 26.6	+02.0	N 22 10.5	-00.1
19	157 28.6	+02.0	N 22 10.4	+00.0
20	172 30.6	+02.0	N 22 10.4	-00.1
21	187 32.6	+02.0	N 22 10.3	-00.1
22	202 34.6	+02.0	N 22 10.2	+00.0
23	217 36.6	+02.0	N 22 10.2	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	250°	250°	250°	250°	250°	250°

Greenwich Culmination Time: 08:31

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	340 27.2	+02.6	S 02 17.7	+00.1
01	355 29.8	+02.7	S 02 17.8	+00.0
02	10 32.5	+02.6	S 02 17.8	+00.1
03	25 35.1	+02.6	S 02 17.9	+00.1
04	40 37.7	+02.6	S 02 18.0	+00.1
05	55 40.3	+02.6	S 02 18.1	+00.0
06	70 42.9	+02.7	S 02 18.1	+00.1
07	85 45.6	+02.6	S 02 18.2	+00.1
08	100 48.2	+02.6	S 02 18.3	+00.1
09	115 50.8	+02.6	S 02 18.4	+00.0
10	130 53.4	+02.7	S 02 18.4	+00.1
11	145 56.1	+02.6	S 02 18.5	+00.1
12	160 58.7	+02.6	S 02 18.6	+00.1
13	176 01.3	+02.6	S 02 18.7	+00.0
14	191 03.9	+02.7	S 02 18.7	+00.1
15	206 06.6	+02.6	S 02 18.8	+00.1
16	221 09.2	+02.6	S 02 18.9	+00.1
17	236 11.8	+02.6	S 02 19.0	+00.0
18	251 14.4	+02.6	S 02 19.0	+00.1
19	266 17.0	+02.7	S 02 19.1	+00.1
20	281 19.7	+02.6	S 02 19.2	+00.1
21	296 22.3	+02.6	S 02 19.3	+00.0
22	311 24.9	+02.6	S 02 19.3	+00.1
23	326 27.5	+02.7	S 02 19.4	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:17

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 3 Wednesday (day 246 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 08.1	+00.2	N 07 31.8	-01.0
01	195 08.3	+00.2	N 07 30.8	-00.9
02	210 08.5	+00.2	N 07 29.9	-00.9
03	225 08.7	+00.2	N 07 29.0	-00.9
04	240 08.9	+00.2	N 07 28.1	-00.9
05	255 09.1	+00.2	N 07 27.2	-00.9
06	270 09.3	+00.3	N 07 26.3	-01.0
07	285 09.6	+00.2	N 07 25.3	-00.9
08	300 09.8	+00.2	N 07 24.4	-00.9
09	315 10.0	+00.2	N 07 23.5	-00.9
10	330 10.2	+00.2	N 07 22.6	-00.9
11	345 10.4	+00.2	N 07 21.7	-01.0
12	0 10.6	+00.2	N 07 20.7	-00.9
13	15 10.8	+00.2	N 07 19.8	-00.9
14	30 11.0	+00.2	N 07 18.9	-00.9
15	45 11.2	+00.2	N 07 18.0	-00.9
16	60 11.4	+00.2	N 07 17.1	-01.0
17	75 11.6	+00.2	N 07 16.1	-00.9
18	90 11.8	+00.2	N 07 15.2	-00.9
19	105 12.0	+00.2	N 07 14.3	-00.9
20	120 12.2	+00.2	N 07 13.4	-00.9
21	135 12.4	+00.2	N 07 12.5	-01.0
22	150 12.6	+00.3	N 07 11.5	-00.9
23	165 12.9	+00.2	N 07 10.6	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	198°	198°	197°	197°	197°	197°

Greenwich Culmination Time: 11:59

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	209 54.8	-00.6	N 17 58.0	-00.7
01	224 54.2	-00.6	N 17 57.3	-00.7
02	239 53.6	-00.6	N 17 56.6	-00.7
03	254 53.0	-00.6	N 17 55.9	-00.7
04	269 52.4	-00.6	N 17 55.2	-00.7
05	284 51.8	-00.6	N 17 54.5	-00.7
06	299 51.2	-00.7	N 17 53.8	-00.7
07	314 50.5	-00.6	N 17 53.1	-00.6
08	329 49.9	-00.6	N 17 52.5	-00.7
09	344 49.3	-00.6	N 17 51.8	-00.7
10	359 48.7	-00.6	N 17 51.1	-00.7
11	14 48.1	-00.6	N 17 50.4	-00.7
12	29 47.5	-00.6	N 17 49.7	-00.7
13	44 46.9	-00.7	N 17 49.0	-00.7
14	59 46.2	-00.6	N 17 48.3	-00.7
15	74 45.6	-00.6	N 17 47.6	-00.8
16	89 45.0	-00.6	N 17 46.8	-00.7
17	104 44.4	-00.6	N 17 46.1	-00.7
18	119 43.8	-00.6	N 17 45.4	-00.7
19	134 43.2	-00.6	N 17 44.7	-00.7
20	149 42.6	-00.6	N 17 44.0	-00.7
21	164 42.0	-00.6	N 17 43.3	-00.7
22	179 41.4	-00.7	N 17 42.6	-00.7
23	194 40.7	-00.6	N 17 41.9	-00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	227°	227°	227°	227°	227°	226°

Greenwich Culmination Time: 10:00

Moon

A: 35%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	59 21.6	-32.7	S 27 46.3	-04.0
01	73 48.9	-32.7	S 27 42.3	-04.2
02	88 16.2	-32.7	S 27 38.1	-04.3
03	102 43.5	-32.7	S 27 33.8	-04.5
04	117 10.8	-32.6	S 27 29.3	-04.6
05	131 38.2	-32.7	S 27 24.7	-04.8
06	146 05.5	-32.7	S 27 19.9	-05.0
07	160 32.8	-32.6	S 27 14.9	-05.1
08	175 00.2	-32.6	S 27 09.8	-05.2
09	189 27.6	-32.7	S 27 04.6	-05.4
10	203 54.9	-32.6	S 26 59.2	-05.6
11	218 22.3	-32.5	S 26 53.6	-05.7
12	232 49.8	-32.6	S 26 47.9	-05.8
13	247 17.2	-32.5	S 26 42.1	-06.0
14	261 44.7	-32.6	S 26 36.1	-06.2
15	276 12.1	-32.5	S 26 29.9	-06.2
16	290 39.6	-32.5	S 26 23.7	-06.5
17	305 07.1	-32.4	S 26 17.2	-06.6
18	319 34.7	-32.4	S 26 10.6	-06.7
19	334 02.3	-32.4	S 26 03.9	-06.9
20	348 29.9	-32.4	S 25 57.0	-07.1
21	2 57.5	-32.4	S 25 49.9	-07.2
22	17 25.1	-32.3	S 25 42.7	-07.3
23	31 52.8	-32.3	S 25 35.4	-07.5

UT	02	06	10	14	18	22
SD	15′2	15′2	15′3	15′3	15′3	15′4
HP	55′8	55′9	56′0	56′2	56′3	56′4
SHA	076°	073°	071°	069°	066°	064°

Greenwich Culmination Time: 20:47

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	146 25.7	+01.0	S 06 33.0	+00.6
01	161 26.7	+00.9	S 06 33.6	+00.7
02	176 27.6	+01.0	S 06 34.3	+00.6
03	191 28.6	+01.0	S 06 34.9	+00.7
04	206 29.6	+00.9	S 06 35.6	+00.6
05	221 30.5	+01.0	S 06 36.2	+00.7
06	236 31.5	+00.9	S 06 36.9	+00.6
07	251 32.4	+01.0	S 06 37.5	+00.7
08	266 33.4	+00.9	S 06 38.2	+00.6
09	281 34.3	+01.0	S 06 38.8	+00.7
10	296 35.3	+01.0	S 06 39.5	+00.6
11	311 36.3	+00.9	S 06 40.1	+00.7
12	326 37.2	+01.0	S 06 40.8	+00.6
13	341 38.2	+00.9	S 06 41.4	+00.7
14	356 39.1	+01.0	S 06 42.1	+00.6
15	11 40.1	+01.0	S 06 42.7	+00.7
16	26 41.1	+00.9	S 06 43.4	+00.6
17	41 42.0	+01.0	S 06 44.0	+00.7
18	56 43.0	+00.9	S 06 44.7	+00.6
19	71 43.9	+01.0	S 06 45.3	+00.7
20	86 44.9	+00.9	S 06 46.0	+00.6
21	101 45.8	+01.0	S 06 46.6	+00.7
22	116 46.8	+01.0	S 06 47.3	+00.6
23	131 47.8	+00.9	S 06 47.9	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	164°	164°	164°	164°	164°	163°

Greenwich Culmination Time: 14:13

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	232 38.6	+02.0	N 22 10.1	+00.0
01	247 40.6	+02.0	N 22 10.1	-00.1
02	262 42.6	+01.9	N 22 10.0	+00.0
03	277 44.5	+02.0	N 22 10.0	-00.1
04	292 46.5	+02.0	N 22 09.9	+00.0
05	307 48.5	+02.0	N 22 09.9	-00.1
06	322 50.5	+02.0	N 22 09.8	-00.1
07	337 52.5	+02.0	N 22 09.7	+00.0
08	352 54.5	+02.0	N 22 09.7	-00.1
09	7 56.5	+02.0	N 22 09.6	+00.0
10	22 58.5	+02.0	N 22 09.6	-00.1
11	38 00.5	+02.0	N 22 09.5	+00.0
12	53 02.5	+02.0	N 22 09.5	-00.1
13	68 04.5	+02.0	N 22 09.4	+00.0
14	83 06.5	+02.0	N 22 09.4	-00.1
15	98 08.5	+02.0	N 22 09.3	-00.1
16	113 10.5	+02.0	N 22 09.2	+00.0
17	128 12.5	+01.9	N 22 09.2	-00.1
18	143 14.4	+02.0	N 22 09.1	+00.0
19	158 16.4	+02.0	N 22 09.1	-00.1
20	173 18.4	+02.0	N 22 09.0	+00.0
21	188 20.4	+02.0	N 22 09.0	-00.1
22	203 22.4	+02.0	N 22 08.9	+00.0
23	218 24.4	+02.0	N 22 08.9	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	250°	250°	250°	250°	250°	250°

Greenwich Culmination Time: 08:28

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	341 30.2	+02.6	S 02 19.5	+00.1
01	356 32.8	+02.6	S 02 19.6	+00.0
02	11 35.4	+02.6	S 02 19.6	+00.1
03	26 38.0	+02.7	S 02 19.7	+00.1
04	41 40.7	+02.6	S 02 19.8	+00.1
05	56 43.3	+02.6	S 02 19.9	+00.0
06	71 45.9	+02.6	S 02 19.9	+00.1
07	86 48.5	+02.7	S 02 20.0	+00.1
08	101 51.2	+02.6	S 02 20.1	+00.1
09	116 53.8	+02.6	S 02 20.2	+00.0
10	131 56.4	+02.6	S 02 20.2	+00.1
11	146 59.0	+02.7	S 02 20.3	+00.1
12	162 01.7	+02.6	S 02 20.4	+00.1
13	177 04.3	+02.6	S 02 20.5	+00.0
14	192 06.9	+02.6	S 02 20.5	+00.1
15	207 09.5	+02.7	S 02 20.6	+00.1
16	222 12.2	+02.6	S 02 20.7	+00.1
17	237 14.8	+02.6	S 02 20.8	+00.1
18	252 17.4	+02.6	S 02 20.9	+00.0
19	267 20.0	+02.7	S 02 20.9	+00.1
20	282 22.7	+02.6	S 02 21.0	+00.1
21	297 25.3	+02.6	S 02 21.1	+00.1
22	312 27.9	+02.6	S 02 21.2	+00.0
23	327 30.5	+02.7	S 02 21.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:13

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2025 September 4 Thursday

(day 247 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 13.1	+00.2	N 07 09.7	-00.9
01	195 13.3	+00.2	N 07 08.8	-00.9
02	210 13.5	+00.2	N 07 07.9	-01.0
03	225 13.7	+00.2	N 07 06.9	-00.9
04	240 13.9	+00.2	N 07 06.0	-00.9
05	255 14.1	+00.2	N 07 05.1	-00.9
06	270 14.3	+00.2	N 07 04.2	-01.0
07	285 14.5	+00.2	N 07 03.2	-00.9
08	300 14.7	+00.2	N 07 02.3	-00.9
09	315 14.9	+00.2	N 07 01.4	-00.9
10	330 15.1	+00.2	N 07 00.5	-01.0
11	345 15.3	+00.3	N 06 59.5	-00.9
12	0 15.6	+00.2	N 06 58.6	-00.9
13	15 15.8	+00.2	N 06 57.7	-00.9
14	30 16.0	+00.2	N 06 56.8	-00.9
15	45 16.2	+00.2	N 06 55.9	-01.0
16	60 16.4	+00.2	N 06 54.9	-00.9
17	75 16.6	+00.2	N 06 54.0	-00.9
18	90 16.8	+00.2	N 06 53.1	-01.0
19	105 17.0	+00.2	N 06 52.1	-00.9
20	120 17.2	+00.2	N 06 51.2	-00.9
21	135 17.4	+00.2	N 06 50.3	-00.9
22	150 17.6	+00.3	N 06 49.4	-01.0
23	165 17.9	+00.2	N 06 48.4	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	197°	197°	196°	196°	196°	196°

Greenwich Culmination Time: 11:58

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	209 40.1	-00.6	N 17 41.2	-00.7
01	224 39.5	-00.6	N 17 40.5	-00.7
02	239 38.9	-00.6	N 17 39.8	-00.7
03	254 38.3	-00.6	N 17 39.1	-00.8
04	269 37.7	-00.6	N 17 38.3	-00.7
05	284 37.1	-00.6	N 17 37.6	-00.7
06	299 36.5	-00.6	N 17 36.9	-00.7
07	314 35.9	-00.6	N 17 36.2	-00.7
08	329 35.3	-00.6	N 17 35.5	-00.7
09	344 34.7	-00.6	N 17 34.8	-00.8
10	359 34.1	-00.6	N 17 34.0	-00.7
11	14 33.5	-00.6	N 17 33.3	-00.7
12	29 32.9	-00.7	N 17 32.6	-00.7
13	44 32.2	-00.6	N 17 31.9	-00.7
14	59 31.6	-00.6	N 17 31.2	-00.8
15	74 31.0	-00.6	N 17 30.4	-00.7
16	89 30.4	-00.6	N 17 29.7	-00.7
17	104 29.8	-00.6	N 17 29.0	-00.7
18	119 29.2	-00.6	N 17 28.3	-00.8
19	134 28.6	-00.6	N 17 27.5	-00.7
20	149 28.0	-00.6	N 17 26.8	-00.7
21	164 27.4	-00.6	N 17 26.1	-00.8
22	179 26.8	-00.6	N 17 25.3	-00.7
23	194 26.2	-00.6	N 17 24.6	-00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	226°	226°	226°	226°	225°	225°

Greenwich Culmination Time: 10:01

Moon

A: 38%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	46 20.5	-32.3	S 25 27.9	-07.6
01	60 48.2	-32.2	S 25 20.3	-07.8
02	75 16.0	-32.2	S 25 12.5	-07.9
03	89 43.8	-32.2	S 25 04.6	-08.0
04	104 11.6	-32.1	S 24 56.6	-08.2
05	118 39.5	-32.1	S 24 48.4	-08.4
06	133 07.4	-32.1	S 24 40.0	-08.5
07	147 35.3	-32.0	S 24 31.5	-08.6
08	162 03.3	-32.0	S 24 22.9	-08.8
09	176 31.3	-31.9	S 24 14.1	-08.9
10	190 59.4	-31.9	S 24 05.2	-09.0
11	205 27.5	-31.9	S 23 56.2	-09.2
12	219 55.6	-31.9	S 23 47.0	-09.3
13	234 23.7	-31.8	S 23 37.7	-09.5
14	248 51.9	-31.7	S 23 28.2	-09.6
15	263 20.2	-31.8	S 23 18.6	-09.7
16	277 48.4	-31.6	S 23 08.9	-09.9
17	292 16.8	-31.7	S 22 59.0	-10.0
18	306 45.1	-31.6	S 22 49.0	-10.1
19	321 13.5	-31.5	S 22 38.9	-10.3
20	335 42.0	-31.6	S 22 28.6	-10.4
21	350 10.4	-31.4	S 22 18.2	-10.5
22	4 39.0	-31.5	S 22 07.7	-10.7
23	19 07.5	-31.3	S 21 57.0	-10.8

UT	02	06	10	14	18	22
SD	15′4	15′4	15′5	15′5	15′6	15′6
HP	56′6	56′7	56′8	56′9	57′1	57′2
SHA	062°	060°	057°	055°	053°	050°

Greenwich Culmination Time: 21:40

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	146 48.7	+01.0	S 06 48.6	+00.6
01	161 49.7	+00.9	S 06 49.2	+00.6
02	176 50.6	+01.0	S 06 49.8	+00.7
03	191 51.6	+00.9	S 06 50.5	+00.6
04	206 52.5	+01.0	S 06 51.1	+00.7
05	221 53.5	+01.0	S 06 51.8	+00.6
06	236 54.5	+00.9	S 06 52.4	+00.7
07	251 55.4	+01.0	S 06 53.1	+00.6
08	266 56.4	+00.9	S 06 53.7	+00.7
09	281 57.3	+01.0	S 06 54.4	+00.6
10	296 58.3	+00.9	S 06 55.0	+00.7
11	311 59.2	+01.0	S 06 55.7	+00.6
12	327 00.2	+00.9	S 06 56.3	+00.7
13	342 01.1	+01.0	S 06 57.0	+00.6
14	357 02.1	+00.9	S 06 57.6	+00.7
15	12 03.0	+01.0	S 06 58.3	+00.6
16	27 04.0	+01.0	S 06 58.9	+00.7
17	42 05.0	+00.9	S 06 59.6	+00.6
18	57 05.9	+01.0	S 07 00.2	+00.7
19	72 06.9	+00.9	S 07 00.9	+00.6
20	87 07.8	+01.0	S 07 01.5	+00.6
21	102 08.8	+00.9	S 07 02.1	+00.7
22	117 09.7	+01.0	S 07 02.8	+00.6
23	132 10.7	+00.9	S 07 03.4	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	163°	163°	163°	163°	163°	163°

Greenwich Culmination Time: 14:11

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	233 26.4	+02.0	N 22 08.8	+00.0
01	248 28.4	+02.0	N 22 08.8	-00.1
02	263 30.4	+02.0	N 22 08.7	-00.1
03	278 32.4	+02.0	N 22 08.6	+00.0
04	293 34.4	+02.0	N 22 08.6	-00.1
05	308 36.4	+02.0	N 22 08.5	+00.0
06	323 38.4	+02.0	N 22 08.5	-00.1
07	338 40.4	+02.0	N 22 08.4	+00.0
08	353 42.4	+02.0	N 22 08.4	-00.1
09	8 44.4	+02.0	N 22 08.3	+00.0
10	23 46.4	+02.0	N 22 08.3	-00.1
11	38 48.4	+02.0	N 22 08.2	-00.1
12	53 50.4	+02.0	N 22 08.1	+00.0
13	68 52.4	+02.0	N 22 08.1	-00.1
14	83 54.4	+02.0	N 22 08.0	+00.0
15	98 56.4	+02.0	N 22 08.0	-00.1
16	113 58.4	+02.0	N 22 07.9	+00.0
17	129 00.4	+02.0	N 22 07.9	-00.1
18	144 02.4	+02.0	N 22 07.8	+00.0
19	159 04.4	+02.0	N 22 07.8	-00.1
20	174 06.4	+02.0	N 22 07.7	+00.0
21	189 08.4	+02.0	N 22 07.7	-00.1
22	204 10.4	+02.0	N 22 07.6	-00.1
23	219 12.4	+02.0	N 22 07.5	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	250°	250°	250°	250°	250°	250°

Greenwich Culmination Time: 08:25

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	342 33.2	+02.6	S 02 21.3	+00.1
01	357 35.8	+02.6	S 02 21.4	+00.1
02	12 38.4	+02.7	S 02 21.5	+00.0
03	27 41.1	+02.6	S 02 21.5	+00.1
04	42 43.7	+02.6	S 02 21.6	+00.1
05	57 46.3	+02.6	S 02 21.7	+00.1
06	72 48.9	+02.7	S 02 21.8	+00.0
07	87 51.6	+02.6	S 02 21.8	+00.1
08	102 54.2	+02.6	S 02 21.9	+00.1
09	117 56.8	+02.6	S 02 22.0	+00.1
10	132 59.4	+02.7	S 02 22.1	+00.0
11	148 02.1	+02.6	S 02 22.1	+00.1
12	163 04.7	+02.6	S 02 22.2	+00.1
13	178 07.3	+02.6	S 02 22.3	+00.1
14	193 09.9	+02.7	S 02 22.4	+00.0
15	208 12.6	+02.6	S 02 22.4	+00.1
16	223 15.2	+02.6	S 02 22.5	+00.1
17	238 17.8	+02.7	S 02 22.6	+00.1
18	253 20.5	+02.6	S 02 22.7	+00.1
19	268 23.1	+02.6	S 02 22.8	+00.0
20	283 25.7	+02.6	S 02 22.8	+00.1
21	298 28.3	+02.7	S 02 22.9	+00.1
22	313 31.0	+02.6	S 02 23.0	+00.1
23	328 33.6	+02.6	S 02 23.1	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:09

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 5 Friday

(day 248 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 18.1	+00.2	N 06 47.5	-00.9
01	195 18.3	+00.2	N 06 46.6	-00.9
02	210 18.5	+00.2	N 06 45.7	-01.0
03	225 18.7	+00.2	N 06 44.7	-00.9
04	240 18.9	+00.2	N 06 43.8	-00.9
05	255 19.1	+00.2	N 06 42.9	-00.9
06	270 19.3	+00.2	N 06 42.0	-01.0
07	285 19.5	+00.2	N 06 41.0	-00.9
08	300 19.7	+00.3	N 06 40.1	-00.9
09	315 20.0	+00.2	N 06 39.2	-01.0
10	330 20.2	+00.2	N 06 38.2	-00.9
11	345 20.4	+00.2	N 06 37.3	-00.9
12	0 20.6	+00.2	N 06 36.4	-00.9
13	15 20.8	+00.2	N 06 35.5	-01.0
14	30 21.0	+00.2	N 06 34.5	-00.9
15	45 21.2	+00.2	N 06 33.6	-00.9
16	60 21.4	+00.2	N 06 32.7	-01.0
17	75 21.6	+00.3	N 06 31.7	-00.9
18	90 21.9	+00.2	N 06 30.8	-00.9
19	105 22.1	+00.2	N 06 29.9	-00.9
20	120 22.3	+00.2	N 06 29.0	-01.0
21	135 22.5	+00.2	N 06 28.0	-00.9
22	150 22.7	+00.2	N 06 27.1	-00.9
23	165 22.9	+00.2	N 06 26.2	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	196°	196°	196°	195°	195°	195°

Greenwich Culmination Time: 11:58

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	209 25.6	-00.6	N 17 23.9	-00.7
01	224 25.0	-00.6	N 17 23.2	-00.8
02	239 24.4	-00.6	N 17 22.4	-00.7
03	254 23.8	-00.6	N 17 21.7	-00.8
04	269 23.2	-00.6	N 17 20.9	-00.7
05	284 22.6	-00.6	N 17 20.2	-00.7
06	299 22.0	-00.6	N 17 19.5	-00.8
07	314 21.4	-00.6	N 17 18.7	-00.7
08	329 20.8	-00.6	N 17 18.0	-00.7
09	344 20.2	-00.6	N 17 17.3	-00.8
10	359 19.6	-00.6	N 17 16.5	-00.7
11	14 19.0	-00.6	N 17 15.8	-00.8
12	29 18.4	-00.6	N 17 15.0	-00.7
13	44 17.8	-00.6	N 17 14.3	-00.7
14	59 17.2	-00.6	N 17 13.6	-00.8
15	74 16.6	-00.6	N 17 12.8	-00.7
16	89 16.0	-00.6	N 17 12.1	-00.8
17	104 15.4	-00.6	N 17 11.3	-00.7
18	119 14.8	-00.6	N 17 10.6	-00.8
19	134 14.2	-00.6	N 17 09.8	-00.7
20	149 13.6	-00.6	N 17 09.1	-00.8
21	164 13.0	-00.6	N 17 08.3	-00.7
22	179 12.4	-00.5	N 17 07.6	-00.8
23	194 11.9	-00.6	N 17 06.8	-00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	225°	225°	225°	224°	224°	224°

Greenwich Culmination Time: 10:02

Moon

A: 42%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	33 36.2	-31.4	S 21 46.2	-10.9
01	48 04.8	-31.3	S 21 35.3	-11.1
02	62 33.5	-31.3	S 21 24.2	-11.1
03	77 02.2	-31.2	S 21 13.1	-11.3
04	91 31.0	-31.1	S 21 01.8	-11.5
05	105 59.9	-31.2	S 20 50.3	-11.5
06	120 28.7	-31.0	S 20 38.8	-11.7
07	134 57.7	-31.1	S 20 27.1	-11.8
08	149 26.6	-31.0	S 20 15.3	-11.9
09	163 55.6	-30.9	S 20 03.4	-12.0
10	178 24.7	-30.9	S 19 51.4	-12.2
11	192 53.8	-30.9	S 19 39.2	-12.2
12	207 22.9	-30.8	S 19 27.0	-12.4
13	221 52.1	-30.8	S 19 14.6	-12.5
14	236 21.3	-30.7	S 19 02.1	-12.6
15	250 50.6	-30.7	S 18 49.5	-12.8
16	265 19.9	-30.7	S 18 36.7	-12.8
17	279 49.2	-30.6	S 18 23.9	-13.0
18	294 18.6	-30.5	S 18 10.9	-13.0
19	308 48.1	-30.6	S 17 57.9	-13.2
20	323 17.5	-30.4	S 17 44.7	-13.3
21	337 47.1	-30.5	S 17 31.4	-13.3
22	352 16.6	-30.4	S 17 18.1	-13.5
23	6 46.2	-30.3	S 17 04.6	-13.6

UT	02	06	10	14	18	22
SD	15′6	15′7	15′7	15′7	15′8	15′8
HP	57′4	57′5	57′6	57′8	57′9	58′0
SHA	048°	046°	044°	041°	039°	037°

Greenwich Culmination Time: 22:31

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	147 11.6	+01.0	S 07 04.1	+00.6
01	162 12.6	+00.9	S 07 04.7	+00.7
02	177 13.5	+01.0	S 07 05.4	+00.6
03	192 14.5	+00.9	S 07 06.0	+00.7
04	207 15.4	+01.0	S 07 06.7	+00.6
05	222 16.4	+00.9	S 07 07.3	+00.7
06	237 17.3	+01.0	S 07 08.0	+00.6
07	252 18.3	+00.9	S 07 08.6	+00.7
08	267 19.2	+01.0	S 07 09.3	+00.6
09	282 20.2	+00.9	S 07 09.9	+00.7
10	297 21.1	+01.0	S 07 10.6	+00.6
11	312 22.1	+00.9	S 07 11.2	+00.6
12	327 23.0	+01.0	S 07 11.8	+00.7
13	342 24.0	+00.9	S 07 12.5	+00.6
14	357 24.9	+01.0	S 07 13.1	+00.7
15	12 25.9	+00.9	S 07 13.8	+00.6
16	27 26.8	+01.0	S 07 14.4	+00.7
17	42 27.8	+00.9	S 07 15.1	+00.6
18	57 28.7	+01.0	S 07 15.7	+00.7
19	72 29.7	+00.9	S 07 16.4	+00.6
20	87 30.6	+01.0	S 07 17.0	+00.7
21	102 31.6	+00.9	S 07 17.7	+00.6
22	117 32.5	+01.0	S 07 18.3	+00.7
23	132 33.5	+00.9	S 07 19.0	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	163°	163°	163°	162°	162°	162°

Greenwich Culmination Time: 14:10

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	234 14.4	+02.0	N 22 07.5	-00.1
01	249 16.4	+02.0	N 22 07.4	+00.0
02	264 18.4	+02.0	N 22 07.4	-00.1
03	279 20.4	+02.0	N 22 07.3	+00.0
04	294 22.4	+02.0	N 22 07.3	-00.1
05	309 24.4	+02.0	N 22 07.2	+00.0
06	324 26.4	+02.0	N 22 07.2	-00.1
07	339 28.4	+02.0	N 22 07.1	-00.1
08	354 30.4	+02.0	N 22 07.0	+00.0
09	9 32.4	+02.0	N 22 07.0	-00.1
10	24 34.4	+02.0	N 22 06.9	+00.0
11	39 36.4	+02.0	N 22 06.9	-00.1
12	54 38.4	+02.0	N 22 06.8	+00.0
13	69 40.4	+02.0	N 22 06.8	-00.1
14	84 42.4	+02.0	N 22 06.7	+00.0
15	99 44.4	+02.0	N 22 06.7	-00.1
16	114 46.4	+02.0	N 22 06.6	-00.1
17	129 48.4	+02.0	N 22 06.5	+00.0
18	144 50.4	+02.0	N 22 06.5	-00.1
19	159 52.4	+02.0	N 22 06.4	+00.0
20	174 54.4	+02.0	N 22 06.4	-00.1
21	189 56.4	+02.0	N 22 06.3	+00.0
22	204 58.4	+02.0	N 22 06.3	-00.1
23	220 00.4	+02.0	N 22 06.2	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	250°	250°	250°	250°	250°	250°

Greenwich Culmination Time: 08:21

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	343 36.2	+02.6	S 02 23.1	+00.1
01	358 38.8	+02.7	S 02 23.2	+00.1
02	13 41.5	+02.6	S 02 23.3	+00.1
03	28 44.1	+02.6	S 02 23.4	+00.0
04	43 46.7	+02.7	S 02 23.4	+00.1
05	58 49.4	+02.6	S 02 23.5	+00.1
06	73 52.0	+02.6	S 02 23.6	+00.1
07	88 54.6	+02.6	S 02 23.7	+00.0
08	103 57.2	+02.7	S 02 23.7	+00.1
09	118 59.9	+02.6	S 02 23.8	+00.1
10	134 02.5	+02.6	S 02 23.9	+00.1
11	149 05.1	+02.7	S 02 24.0	+00.1
12	164 07.8	+02.6	S 02 24.1	+00.0
13	179 10.4	+02.6	S 02 24.1	+00.1
14	194 13.0	+02.6	S 02 24.2	+00.1
15	209 15.6	+02.7	S 02 24.3	+00.1
16	224 18.3	+02.6	S 02 24.4	+00.0
17	239 20.9	+02.6	S 02 24.4	+00.1
18	254 23.5	+02.7	S 02 24.5	+00.1
19	269 26.2	+02.6	S 02 24.6	+00.1
20	284 28.8	+02.6	S 02 24.7	+00.0
21	299 31.4	+02.6	S 02 24.7	+00.1
22	314 34.0	+02.7	S 02 24.8	+00.1
23	329 36.7	+02.6	S 02 24.9	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:05

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2025 September 6 Saturday

(day 249 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	180 23.1	+00.2	N 06 25.2	-00.9
01	195 23.3	+00.3	N 06 24.3	-00.9
02	210 23.6	+00.2	N 06 23.4	-01.0
03	225 23.8	+00.2	N 06 22.4	-00.9
04	240 24.0	+00.2	N 06 21.5	-00.9
05	255 24.2	+00.2	N 06 20.6	-01.0
06	270 24.4	+00.2	N 06 19.6	-00.9
07	285 24.6	+00.2	N 06 18.7	-00.9
08	300 24.8	+00.2	N 06 17.8	-01.0
09	315 25.0	+00.3	N 06 16.8	-00.9
10	330 25.3	+00.2	N 06 15.9	-00.9
11	345 25.5	+00.2	N 06 15.0	-01.0
12	0 25.7	+00.2	N 06 14.0	-00.9
13	15 25.9	+00.2	N 06 13.1	-00.9
14	30 26.1	+00.2	N 06 12.2	-01.0
15	45 26.3	+00.2	N 06 11.2	-00.9
16	60 26.5	+00.3	N 06 10.3	-00.9
17	75 26.8	+00.2	N 06 09.4	-01.0
18	90 27.0	+00.2	N 06 08.4	-00.9
19	105 27.2	+00.2	N 06 07.5	-00.9
20	120 27.4	+00.2	N 06 06.6	-01.0
21	135 27.6	+00.2	N 06 05.6	-00.9
22	150 27.8	+00.2	N 06 04.7	-00.9
23	165 28.0	+00.3	N 06 03.8	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	195°	195°	195°	195°	194°	194°

Greenwich Culmination Time: 11:58

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	209 11.3	-00.6	N 17 06.1	-00.8
01	224 10.7	-00.6	N 17 05.3	-00.7
02	239 10.1	-00.6	N 17 04.6	-00.8
03	254 09.5	-00.6	N 17 03.8	-00.7
04	269 08.9	-00.6	N 17 03.1	-00.8
05	284 08.3	-00.6	N 17 02.3	-00.7
06	299 07.7	-00.6	N 17 01.6	-00.8
07	314 07.1	-00.6	N 17 00.8	-00.8
08	329 06.5	-00.6	N 17 00.0	-00.7
09	344 05.9	-00.6	N 16 59.3	-00.8
10	359 05.3	-00.6	N 16 58.5	-00.7
11	14 04.7	-00.6	N 16 57.8	-00.8
12	29 04.1	-00.5	N 16 57.0	-00.8
13	44 03.6	-00.6	N 16 56.2	-00.7
14	59 03.0	-00.6	N 16 55.5	-00.8
15	74 02.4	-00.6	N 16 54.7	-00.8
16	89 01.8	-00.6	N 16 53.9	-00.7
17	104 01.2	-00.6	N 16 53.2	-00.8
18	119 00.6	-00.6	N 16 52.4	-00.8
19	134 00.0	-00.6	N 16 51.6	-00.7
20	148 59.4	-00.6	N 16 50.9	-00.8
21	163 58.8	-00.5	N 16 50.1	-00.8
22	178 58.3	-00.6	N 16 49.3	-00.7
23	193 57.7	-00.6	N 16 48.6	-00.8

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	224°	224°	223°	223°	223°	223°

Greenwich Culmination Time: 10:03

Moon

A: 45%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	21 15.9	-30.3	S 16 51.0	-13.7
01	35 45.6	-30.3	S 16 37.3	-13.8
02	50 15.3	-30.2	S 16 23.5	-13.9
03	64 45.1	-30.2	S 16 09.6	-14.0
04	79 14.9	-30.2	S 15 55.6	-14.1
05	93 44.7	-30.1	S 15 41.5	-14.2
06	108 14.6	-30.1	S 15 27.3	-14.3
07	122 44.5	-30.0	S 15 13.0	-14.4
08	137 14.5	-30.0	S 14 58.6	-14.4
09	151 44.5	-30.0	S 14 44.2	-14.6
10	166 14.5	-29.9	S 14 29.6	-14.6
11	180 44.6	-29.9	S 14 15.0	-14.8
12	195 14.7	-29.9	S 14 00.2	-14.8
13	209 44.8	-29.8	S 13 45.4	-14.9
14	224 15.0	-29.8	S 13 30.5	-15.0
15	238 45.2	-29.8	S 13 15.5	-15.1
16	253 15.4	-29.7	S 13 00.4	-15.2
17	267 45.7	-29.7	S 12 45.2	-15.2
18	282 16.0	-29.7	S 12 30.0	-15.4
19	296 46.3	-29.6	S 12 14.6	-15.4
20	311 16.7	-29.7	S 11 59.2	-15.5
21	325 47.0	-29.5	S 11 43.7	-15.5
22	340 17.5	-29.6	S 11 28.2	-15.6
23	354 47.9	-29.5	S 11 12.6	-15.7

UT	02	06	10	14	18	22
SD	15′8	15′9	15′9	15′9	16′0	16′0
HP	58′1	58′3	58′4	58′5	58′6	58′8
SHA	035°	033°	030°	028°	026°	024°

Greenwich Culmination Time: 23:21

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	147 34.4	+01.0	S 07 19.6	+00.6
01	162 35.4	+00.9	S 07 20.2	+00.7
02	177 36.3	+01.0	S 07 20.9	+00.6
03	192 37.3	+00.9	S 07 21.5	+00.7
04	207 38.2	+01.0	S 07 22.2	+00.6
05	222 39.2	+00.9	S 07 22.8	+00.7
06	237 40.1	+01.0	S 07 23.5	+00.6
07	252 41.1	+00.9	S 07 24.1	+00.7
08	267 42.0	+01.0	S 07 24.8	+00.6
09	282 43.0	+00.9	S 07 25.4	+00.7
10	297 43.9	+00.9	S 07 26.1	+00.6
11	312 44.8	+01.0	S 07 26.7	+00.6
12	327 45.8	+00.9	S 07 27.3	+00.7
13	342 46.7	+01.0	S 07 28.0	+00.6
14	357 47.7	+00.9	S 07 28.6	+00.7
15	12 48.6	+01.0	S 07 29.3	+00.6
16	27 49.6	+00.9	S 07 29.9	+00.7
17	42 50.5	+01.0	S 07 30.6	+00.6
18	57 51.5	+00.9	S 07 31.2	+00.7
19	72 52.4	+01.0	S 07 31.9	+00.6
20	87 53.4	+00.9	S 07 32.5	+00.6
21	102 54.3	+00.9	S 07 33.1	+00.7
22	117 55.2	+01.0	S 07 33.8	+00.6
23	132 56.2	+00.9	S 07 34.4	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	162°	162°	162°	162°	162°	162°

Greenwich Culmination Time: 14:08

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	235 02.4	+02.0	N 22 06.2	-00.1
01	250 04.4	+02.0	N 22 06.1	+00.0
02	265 06.4	+02.0	N 22 06.1	-00.1
03	280 08.4	+02.0	N 22 06.0	-00.1
04	295 10.4	+02.0	N 22 05.9	+00.0
05	310 12.4	+02.0	N 22 05.9	-00.1
06	325 14.4	+02.1	N 22 05.8	+00.0
07	340 16.5	+02.0	N 22 05.8	-00.1
08	355 18.5	+02.0	N 22 05.7	+00.0
09	10 20.5	+02.0	N 22 05.7	-00.1
10	25 22.5	+02.0	N 22 05.6	+00.0
11	40 24.5	+02.0	N 22 05.6	-00.1
12	55 26.5	+02.0	N 22 05.5	-00.1
13	70 28.5	+02.0	N 22 05.4	+00.0
14	85 30.5	+02.0	N 22 05.4	-00.1
15	100 32.5	+02.0	N 22 05.3	+00.0
16	115 34.5	+02.0	N 22 05.3	-00.1
17	130 36.5	+02.0	N 22 05.2	+00.0
18	145 38.5	+02.0	N 22 05.2	-00.1
19	160 40.5	+02.0	N 22 05.1	+00.0
20	175 42.5	+02.1	N 22 05.1	-00.1
21	190 44.6	+02.0	N 22 05.0	+00.0
22	205 46.6	+02.0	N 22 05.0	-00.1
23	220 48.6	+02.0	N 22 04.9	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	250°	250°	250°	250°	250°	250°

Greenwich Culmination Time: 08:18

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	344 39.3	+02.6	S 02 25.0	+00.1
01	359 41.9	+02.7	S 02 25.1	+00.0
02	14 44.6	+02.6	S 02 25.1	+00.1
03	29 47.2	+02.6	S 02 25.2	+00.1
04	44 49.8	+02.6	S 02 25.3	+00.1
05	59 52.4	+02.7	S 02 25.4	+00.0
06	74 55.1	+02.6	S 02 25.4	+00.1
07	89 57.7	+02.6	S 02 25.5	+00.1
08	105 00.3	+02.7	S 02 25.6	+00.1
09	120 03.0	+02.6	S 02 25.7	+00.0
10	135 05.6	+02.6	S 02 25.7	+00.1
11	150 08.2	+02.6	S 02 25.8	+00.1
12	165 10.8	+02.7	S 02 25.9	+00.1
13	180 13.5	+02.6	S 02 26.0	+00.1
14	195 16.1	+02.6	S 02 26.1	+00.0
15	210 18.7	+02.7	S 02 26.1	+00.1
16	225 21.4	+02.6	S 02 26.2	+00.1
17	240 24.0	+02.6	S 02 26.3	+00.1
18	255 26.6	+02.7	S 02 26.4	+00.0
19	270 29.3	+02.6	S 02 26.4	+00.1
20	285 31.9	+02.6	S 02 26.5	+00.1
21	300 34.5	+02.7	S 02 26.6	+00.1
22	315 37.2	+02.6	S 02 26.7	+00.0
23	330 39.8	+02.6	S 02 26.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 01:01

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 7 Sunday

(day 250 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 28.3	+00.2	N 06 02.8	-00.9
01	195 28.5	+00.2	N 06 01.9	-00.9
02	210 28.7	+00.2	N 06 01.0	-01.0
03	225 28.9	+00.2	N 06 00.0	-00.9
04	240 29.1	+00.2	N 05 59.1	-00.9
05	255 29.3	+00.2	N 05 58.2	-01.0
06	270 29.5	+00.3	N 05 57.2	-00.9
07	285 29.8	+00.2	N 05 56.3	-00.9
08	300 30.0	+00.2	N 05 55.4	-01.0
09	315 30.2	+00.2	N 05 54.4	-00.9
10	330 30.4	+00.2	N 05 53.5	-01.0
11	345 30.6	+00.2	N 05 52.5	-00.9
12	0 30.8	+00.2	N 05 51.6	-00.9
13	15 31.0	+00.3	N 05 50.7	-01.0
14	30 31.3	+00.2	N 05 49.7	-00.9
15	45 31.5	+00.2	N 05 48.8	-00.9
16	60 31.7	+00.2	N 05 47.9	-01.0
17	75 31.9	+00.2	N 05 46.9	-00.9
18	90 32.1	+00.2	N 05 46.0	-01.0
19	105 32.3	+00.3	N 05 45.0	-00.9
20	120 32.6	+00.2	N 05 44.1	-00.9
21	135 32.8	+00.2	N 05 43.2	-01.0
22	150 33.0	+00.2	N 05 42.2	-00.9
23	165 33.2	+00.2	N 05 41.3	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	194°	194°	194°	194°	193°	193°

Greenwich Culmination Time: 11:57

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	208 57.1	-00.6	N 16 47.8	-00.8
01	223 56.5	-00.6	N 16 47.0	-00.8
02	238 55.9	-00.6	N 16 46.2	-00.7
03	253 55.3	-00.6	N 16 45.5	-00.8
04	268 54.7	-00.5	N 16 44.7	-00.8
05	283 54.2	-00.6	N 16 43.9	-00.8
06	298 53.6	-00.6	N 16 43.1	-00.7
07	313 53.0	-00.6	N 16 42.4	-00.8
08	328 52.4	-00.6	N 16 41.6	-00.8
09	343 51.8	-00.6	N 16 40.8	-00.8
10	358 51.2	-00.6	N 16 40.0	-00.8
11	13 50.6	-00.5	N 16 39.2	-00.7
12	28 50.1	-00.6	N 16 38.5	-00.8
13	43 49.5	-00.6	N 16 37.7	-00.8
14	58 48.9	-00.6	N 16 36.9	-00.8
15	73 48.3	-00.6	N 16 36.1	-00.8
16	88 47.7	-00.6	N 16 35.3	-00.8
17	103 47.1	-00.5	N 16 34.5	-00.7
18	118 46.6	-00.6	N 16 33.8	-00.8
19	133 46.0	-00.6	N 16 33.0	-00.8
20	148 45.4	-00.6	N 16 32.2	-00.8
21	163 44.8	-00.6	N 16 31.4	-00.8
22	178 44.2	-00.5	N 16 30.6	-00.8
23	193 43.7	-00.6	N 16 29.8	-00.8

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	223°	222°	222°	222°	222°	222°

Greenwich Culmination Time: 10:04

Moon

A: 49%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	9 18.4	-29.6	S 10 56.9	-15.8
01	23 48.8	-29.4	S 10 41.1	-15.9
02	38 19.4	-29.5	S 10 25.2	-15.9
03	52 49.9	-29.5	S 10 09.3	-16.0
04	67 20.4	-29.4	S 09 53.3	-16.0
05	81 51.0	-29.4	S 09 37.3	-16.1
06	96 21.6	-29.3	S 09 21.2	-16.2
07	110 52.3	-29.4	S 09 05.0	-16.2
08	125 22.9	-29.3	S 08 48.8	-16.3
09	139 53.6	-29.4	S 08 32.5	-16.4
10	154 24.2	-29.3	S 08 16.1	-16.4
11	168 54.9	-29.3	S 07 59.7	-16.4
12	183 25.6	-29.3	S 07 43.3	-16.5
13	197 56.3	-29.2	S 07 26.8	-16.6
14	212 27.1	-29.3	S 07 10.2	-16.6
15	226 57.8	-29.2	S 06 53.6	-16.7
16	241 28.6	-29.3	S 06 36.9	-16.7
17	255 59.3	-29.2	S 06 20.2	-16.7
18	270 30.1	-29.2	S 06 03.5	-16.8
19	285 00.9	-29.2	S 05 46.7	-16.9
20	299 31.7	-29.2	S 05 29.8	-16.9
21	314 02.5	-29.2	S 05 12.9	-16.9
22	328 33.3	-29.2	S 04 56.0	-17.0
23	343 04.1	-29.2	S 04 39.0	-17.0

UT	02	06	10	14	18	22
SD	16′0	16′1	16′1	16′1	16′2	16′2
HP	58′9	59′0	59′1	59′2	59′3	59′4
SHA	022°	020°	018°	016°	013°	011°

Greenwich Culmination Time: -1:00

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	147 57.1	+01.0	S 07 35.1	+00.6
01	162 58.1	+00.9	S 07 35.7	+00.7
02	177 59.0	+01.0	S 07 36.4	+00.6
03	192 60.0	+00.9	S 07 37.0	+00.7
04	208 00.9	+01.0	S 07 37.7	+00.6
05	223 01.9	+00.9	S 07 38.3	+00.6
06	238 02.8	+00.9	S 07 38.9	+00.7
07	253 03.7	+01.0	S 07 39.6	+00.6
08	268 04.7	+00.9	S 07 40.2	+00.7
09	283 05.6	+01.0	S 07 40.9	+00.6
10	298 06.6	+00.9	S 07 41.5	+00.7
11	313 07.5	+01.0	S 07 42.2	+00.6
12	328 08.5	+00.9	S 07 42.8	+00.6
13	343 09.4	+00.9	S 07 43.4	+00.7
14	358 10.3	+01.0	S 07 44.1	+00.6
15	13 11.3	+00.9	S 07 44.7	+00.7
16	28 12.2	+01.0	S 07 45.4	+00.6
17	43 13.2	+00.9	S 07 46.0	+00.7
18	58 14.1	+00.9	S 07 46.7	+00.6
19	73 15.0	+01.0	S 07 47.3	+00.7
20	88 16.0	+00.9	S 07 48.0	+00.6
21	103 16.9	+01.0	S 07 48.6	+00.6
22	118 17.9	+00.9	S 07 49.2	+00.7
23	133 18.8	+00.9	S 07 49.9	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	162°	161°	161°	161°	161°	161°

Greenwich Culmination Time: 14:07

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	235 50.6	+02.0	N 22 04.8	+00.0
01	250 52.6	+02.0	N 22 04.8	-00.1
02	265 54.6	+02.0	N 22 04.7	+00.0
03	280 56.6	+02.0	N 22 04.7	-00.1
04	295 58.6	+02.0	N 22 04.6	+00.0
05	311 00.6	+02.0	N 22 04.6	-00.1
06	326 02.6	+02.0	N 22 04.5	+00.0
07	341 04.6	+02.1	N 22 04.5	-00.1
08	356 06.7	+02.0	N 22 04.4	-00.1
09	11 08.7	+02.0	N 22 04.3	+00.0
10	26 10.7	+02.0	N 22 04.3	-00.1
11	41 12.7	+02.0	N 22 04.2	+00.0
12	56 14.7	+02.0	N 22 04.2	-00.1
13	71 16.7	+02.0	N 22 04.1	+00.0
14	86 18.7	+02.0	N 22 04.1	-00.1
15	101 20.7	+02.0	N 22 04.0	+00.0
16	116 22.7	+02.1	N 22 04.0	-00.1
17	131 24.8	+02.0	N 22 03.9	+00.0
18	146 26.8	+02.0	N 22 03.9	-00.1
19	161 28.8	+02.0	N 22 03.8	-00.1
20	176 30.8	+02.0	N 22 03.7	+00.0
21	191 32.8	+02.0	N 22 03.7	-00.1
22	206 34.8	+02.0	N 22 03.6	+00.0
23	221 36.8	+02.0	N 22 03.6	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	250°	249°	249°	249°	249°	249°

Greenwich Culmination Time: 08:15

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	345 42.4	+02.6	S 02 26.8	+00.1
01	0 45.0	+02.7	S 02 26.9	+00.1
02	15 47.7	+02.6	S 02 27.0	+00.1
03	30 50.3	+02.6	S 02 27.1	+00.0
04	45 52.9	+02.7	S 02 27.1	+00.1
05	60 55.6	+02.6	S 02 27.2	+00.1
06	75 58.2	+02.6	S 02 27.3	+00.1
07	91 00.8	+02.7	S 02 27.4	+00.0
08	106 03.5	+02.6	S 02 27.4	+00.1
09	121 06.1	+02.6	S 02 27.5	+00.1
10	136 08.7	+02.7	S 02 27.6	+00.1
11	151 11.4	+02.6	S 02 27.7	+00.1
12	166 14.0	+02.6	S 02 27.8	+00.0
13	181 16.6	+02.6	S 02 27.8	+00.1
14	196 19.2	+02.7	S 02 27.9	+00.1
15	211 21.9	+02.6	S 02 28.0	+00.1
16	226 24.5	+02.6	S 02 28.1	+00.0
17	241 27.1	+02.7	S 02 28.1	+00.1
18	256 29.8	+02.6	S 02 28.2	+00.1
19	271 32.4	+02.6	S 02 28.3	+00.1
20	286 35.0	+02.7	S 02 28.4	+00.1
21	301 37.7	+02.6	S 02 28.5	+00.0
22	316 40.3	+02.6	S 02 28.5	+00.1
23	331 42.9	+02.7	S 02 28.6	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	359°

Greenwich Culmination Time: 00:57

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2025 September 8 Monday

(day 251 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	180 33.4	+00.2	N 05 40.3	-00.9
01	195 33.6	+00.3	N 05 39.4	-00.9
02	210 33.9	+00.2	N 05 38.5	-01.0
03	225 34.1	+00.2	N 05 37.5	-00.9
04	240 34.3	+00.2	N 05 36.6	-01.0
05	255 34.5	+00.2	N 05 35.6	-00.9
06	270 34.7	+00.2	N 05 34.7	-00.9
07	285 34.9	+00.3	N 05 33.8	-01.0
08	300 35.2	+00.2	N 05 32.8	-00.9
09	315 35.4	+00.2	N 05 31.9	-01.0
10	330 35.6	+00.2	N 05 30.9	-00.9
11	345 35.8	+00.2	N 05 30.0	-00.9
12	0 36.0	+00.2	N 05 29.1	-01.0
13	15 36.2	+00.3	N 05 28.1	-00.9
14	30 36.5	+00.2	N 05 27.2	-01.0
15	45 36.7	+00.2	N 05 26.2	-00.9
16	60 36.9	+00.2	N 05 25.3	-00.9
17	75 37.1	+00.2	N 05 24.4	-01.0
18	90 37.3	+00.2	N 05 23.4	-00.9
19	105 37.5	+00.3	N 05 22.5	-01.0
20	120 37.8	+00.2	N 05 21.5	-00.9
21	135 38.0	+00.2	N 05 20.6	-01.0
22	150 38.2	+00.2	N 05 19.6	-00.9
23	165 38.4	+00.2	N 05 18.7	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	193°	193°	193°	193°	193°	192°

Greenwich Culmination Time: 11:57

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	208 43.1	-00.6	N 16 29.0	-00.8
01	223 42.5	-00.6	N 16 28.2	-00.8
02	238 41.9	-00.6	N 16 27.4	-00.8
03	253 41.3	-00.5	N 16 26.6	-00.8
04	268 40.8	-00.6	N 16 25.8	-00.8
05	283 40.2	-00.6	N 16 25.0	-00.8
06	298 39.6	-00.6	N 16 24.2	-00.7
07	313 39.0	-00.5	N 16 23.5	-00.8
08	328 38.5	-00.6	N 16 22.7	-00.8
09	343 37.9	-00.6	N 16 21.9	-00.8
10	358 37.3	-00.6	N 16 21.1	-00.8
11	13 36.7	-00.5	N 16 20.3	-00.8
12	28 36.2	-00.6	N 16 19.5	-00.8
13	43 35.6	-00.6	N 16 18.7	-00.9
14	58 35.0	-00.6	N 16 17.8	-00.8
15	73 34.4	-00.5	N 16 17.0	-00.8
16	88 33.9	-00.6	N 16 16.2	-00.8
17	103 33.3	-00.6	N 16 15.4	-00.8
18	118 32.7	-00.6	N 16 14.6	-00.8
19	133 32.1	-00.5	N 16 13.8	-00.8
20	148 31.6	-00.6	N 16 13.0	-00.8
21	163 31.0	-00.6	N 16 12.2	-00.8
22	178 30.4	-00.6	N 16 11.4	-00.8
23	193 29.8	-00.5	N 16 10.6	-00.8

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	221°	221°	221°	221°	220°	220°

Greenwich Culmination Time: 10:05

Moon

A: 52%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	357 34.9	-29.2	S 04 22.0	-17.0
01	12 05.7	-29.2	S 04 05.0	-17.1
02	26 36.5	-29.2	S 03 47.9	-17.0
03	41 07.3	-29.2	S 03 30.9	-17.2
04	55 38.1	-29.2	S 03 13.7	-17.1
05	70 08.9	-29.2	S 02 56.6	-17.2
06	84 39.7	-29.2	S 02 39.4	-17.2
07	99 10.5	-29.3	S 02 22.2	-17.2
08	113 41.2	-29.2	S 02 05.0	-17.3
09	128 12.0	-29.2	S 01 47.7	-17.3
10	142 42.8	-29.3	S 01 30.4	-17.2
11	157 13.5	-29.2	S 01 13.2	-17.3
12	171 44.3	-29.3	S 00 55.9	-17.4
13	186 15.0	-29.3	S 00 38.5	-17.3
14	200 45.7	-29.3	S 00 21.2	-17.3
15	215 16.4	-29.3	S 00 03.9	-17.4
16	229 47.1	-29.3	N 00 13.5	+17.3
17	244 17.8	-29.4	N 00 30.8	+17.4
18	258 48.4	-29.4	N 00 48.2	+17.4
19	273 19.0	-29.4	N 01 05.6	+17.3
20	287 49.6	-29.4	N 01 22.9	+17.4
21	302 20.2	-29.4	N 01 40.3	+17.4
22	316 50.8	-29.5	N 01 57.7	+17.4
23	331 21.3	-29.5	N 02 15.1	+17.3

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′3	16′3	16′3
HP	59′5	59′5	59′6	59′7	59′8	59′8
SHA	009°	007°	005°	003°	001°	359°

Greenwich Culmination Time: 00:09

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	148 19.7	+01.0	S 07 50.5	+00.7
01	163 20.7	+00.9	S 07 51.2	+00.6
02	178 21.6	+01.0	S 07 51.8	+00.7
03	193 22.6	+00.9	S 07 52.5	+00.6
04	208 23.5	+00.9	S 07 53.1	+00.6
05	223 24.4	+01.0	S 07 53.7	+00.7
06	238 25.4	+00.9	S 07 54.4	+00.6
07	253 26.3	+01.0	S 07 55.0	+00.7
08	268 27.3	+00.9	S 07 55.7	+00.6
09	283 28.2	+00.9	S 07 56.3	+00.7
10	298 29.1	+01.0	S 07 57.0	+00.6
11	313 30.1	+00.9	S 07 57.6	+00.6
12	328 31.0	+00.9	S 07 58.2	+00.7
13	343 31.9	+01.0	S 07 58.9	+00.6
14	358 32.9	+00.9	S 07 59.5	+00.7
15	13 33.8	+01.0	S 08 00.2	+00.6
16	28 34.8	+00.9	S 08 00.8	+00.7
17	43 35.7	+00.9	S 08 01.5	+00.6
18	58 36.6	+01.0	S 08 02.1	+00.6
19	73 37.6	+00.9	S 08 02.7	+00.7
20	88 38.5	+00.9	S 08 03.4	+00.6
21	103 39.4	+01.0	S 08 04.0	+00.7
22	118 40.4	+00.9	S 08 04.7	+00.6
23	133 41.3	+00.9	S 08 05.3	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	161°	161°	161°	161°	161°	160°

Greenwich Culmination Time: 14:05

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	236 38.8	+02.1	N 22 03.5	+00.0
01	251 40.9	+02.0	N 22 03.5	-00.1
02	266 42.9	+02.0	N 22 03.4	+00.0
03	281 44.9	+02.0	N 22 03.4	-00.1
04	296 46.9	+02.0	N 22 03.3	+00.0
05	311 48.9	+02.0	N 22 03.3	-00.1
06	326 50.9	+02.0	N 22 03.2	-00.1
07	341 52.9	+02.1	N 22 03.1	+00.0
08	356 55.0	+02.0	N 22 03.1	-00.1
09	11 57.0	+02.0	N 22 03.0	+00.0
10	26 59.0	+02.0	N 22 03.0	-00.1
11	42 01.0	+02.0	N 22 02.9	+00.0
12	57 03.0	+02.0	N 22 02.9	-00.1
13	72 05.0	+02.1	N 22 02.8	+00.0
14	87 07.1	+02.0	N 22 02.8	-00.1
15	102 09.1	+02.0	N 22 02.7	-00.1
16	117 11.1	+02.0	N 22 02.6	+00.0
17	132 13.1	+02.0	N 22 02.6	-00.1
18	147 15.1	+02.0	N 22 02.5	+00.0
19	162 17.1	+02.1	N 22 02.5	-00.1
20	177 19.2	+02.0	N 22 02.4	+00.0
21	192 21.2	+02.0	N 22 02.4	-00.1
22	207 23.2	+02.0	N 22 02.3	+00.0
23	222 25.2	+02.0	N 22 02.3	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	249°	249°	249°	249°	249°	249°

Greenwich Culmination Time: 08:12

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	346 45.6	+02.6	S 02 28.7	+00.1
01	1 48.2	+02.6	S 02 28.8	+00.0
02	16 50.8	+02.7	S 02 28.8	+00.1
03	31 53.5	+02.6	S 02 28.9	+00.1
04	46 56.1	+02.6	S 02 29.0	+00.1
05	61 58.7	+02.7	S 02 29.1	+00.1
06	77 01.4	+02.6	S 02 29.2	+00.0
07	92 04.0	+02.6	S 02 29.2	+00.1
08	107 06.6	+02.7	S 02 29.3	+00.1
09	122 09.3	+02.6	S 02 29.4	+00.1
10	137 11.9	+02.6	S 02 29.5	+00.0
11	152 14.5	+02.6	S 02 29.5	+00.1
12	167 17.1	+02.7	S 02 29.6	+00.1
13	182 19.8	+02.6	S 02 29.7	+00.1
14	197 22.4	+02.6	S 02 29.8	+00.1
15	212 25.0	+02.7	S 02 29.9	+00.0
16	227 27.7	+02.6	S 02 29.9	+00.1
17	242 30.3	+02.6	S 02 30.0	+00.1
18	257 32.9	+02.7	S 02 30.1	+00.1
19	272 35.6	+02.6	S 02 30.2	+00.0
20	287 38.2	+02.6	S 02 30.2	+00.1
21	302 40.8	+02.7	S 02 30.3	+00.1
22	317 43.5	+02.6	S 02 30.4	+00.1
23	332 46.1	+02.6	S 02 30.5	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	359°	359°	359°	359°	359°	360°

Greenwich Culmination Time: 00:52

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2025 September 9 Tuesday

(day 252 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 38.6	+00.2	N 05 17.8	-01.0
01	195 38.8	+00.3	N 05 16.8	-00.9
02	210 39.1	+00.2	N 05 15.9	-01.0
03	225 39.3	+00.2	N 05 14.9	-00.9
04	240 39.5	+00.2	N 05 14.0	-01.0
05	255 39.7	+00.2	N 05 13.0	-00.9
06	270 39.9	+00.3	N 05 12.1	-00.9
07	285 40.2	+00.2	N 05 11.2	-01.0
08	300 40.4	+00.2	N 05 10.2	-00.9
09	315 40.6	+00.2	N 05 09.3	-01.0
10	330 40.8	+00.2	N 05 08.3	-00.9
11	345 41.0	+00.2	N 05 07.4	-01.0
12	0 41.2	+00.3	N 05 06.4	-00.9
13	15 41.5	+00.2	N 05 05.5	-01.0
14	30 41.7	+00.2	N 05 04.5	-00.9
15	45 41.9	+00.2	N 05 03.6	-00.9
16	60 42.1	+00.2	N 05 02.7	-01.0
17	75 42.3	+00.3	N 05 01.7	-00.9
18	90 42.6	+00.2	N 05 00.8	-01.0
19	105 42.8	+00.2	N 04 59.8	-00.9
20	120 43.0	+00.2	N 04 58.9	-01.0
21	135 43.2	+00.2	N 04 57.9	-00.9
22	150 43.4	+00.3	N 04 57.0	-01.0
23	165 43.7	+00.2	N 04 56.0	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	192°	192°	192°	192°	192°	192°

Greenwich Culmination Time: 11:57

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	208 29.3	-00.6	N 16 09.8	-00.8
01	223 28.7	-00.6	N 16 09.0	-00.9
02	238 28.1	-00.5	N 16 08.1	-00.8
03	253 27.6	-00.6	N 16 07.3	-00.8
04	268 27.0	-00.6	N 16 06.5	-00.8
05	283 26.4	-00.6	N 16 05.7	-00.8
06	298 25.8	-00.5	N 16 04.9	-00.8
07	313 25.3	-00.6	N 16 04.1	-00.8
08	328 24.7	-00.6	N 16 03.3	-00.9
09	343 24.1	-00.5	N 16 02.4	-00.8
10	358 23.6	-00.6	N 16 01.6	-00.8
11	13 23.0	-00.6	N 16 00.8	-00.8
12	28 22.4	-00.5	N 15 60.0	-00.8
13	43 21.9	-00.6	N 15 59.2	-00.9
14	58 21.3	-00.6	N 15 58.3	-00.8
15	73 20.7	-00.5	N 15 57.5	-00.8
16	88 20.2	-00.6	N 15 56.7	-00.8
17	103 19.6	-00.6	N 15 55.9	-00.9
18	118 19.0	-00.5	N 15 55.0	-00.8
19	133 18.5	-00.6	N 15 54.2	-00.8
20	148 17.9	-00.6	N 15 53.4	-00.8
21	163 17.3	-00.5	N 15 52.6	-00.9
22	178 16.8	-00.6	N 15 51.7	-00.8
23	193 16.2	-00.6	N 15 50.9	-00.8

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	220°	220°	220°	219°	219°	219°

Greenwich Culmination Time: 10:06

Moon

A: 55%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	345 51.8	-29.5	N 02 32.4	+17.4
01	0 22.3	-29.6	N 02 49.8	+17.3
02	14 52.7	-29.5	N 03 07.1	+17.4
03	29 23.2	-29.6	N 03 24.5	+17.3
04	43 53.6	-29.7	N 03 41.8	+17.3
05	58 23.9	-29.7	N 03 59.1	+17.3
06	72 54.2	-29.7	N 04 16.4	+17.3
07	87 24.5	-29.7	N 04 33.7	+17.3
08	101 54.8	-29.8	N 04 51.0	+17.2
09	116 25.0	-29.8	N 05 08.2	+17.2
10	130 55.2	-29.9	N 05 25.4	+17.2
11	145 25.3	-29.9	N 05 42.6	+17.2
12	159 55.4	-29.9	N 05 59.8	+17.2
13	174 25.5	-30.0	N 06 17.0	+17.1
14	188 55.5	-30.0	N 06 34.1	+17.1
15	203 25.5	-30.1	N 06 51.2	+17.0
16	217 55.4	-30.1	N 07 08.2	+17.0
17	232 25.3	-30.2	N 07 25.2	+17.0
18	246 55.1	-30.2	N 07 42.2	+17.0
19	261 24.9	-30.3	N 07 59.2	+16.9
20	275 54.6	-30.3	N 08 16.1	+16.8
21	290 24.3	-30.4	N 08 32.9	+16.8
22	304 53.9	-30.4	N 08 49.7	+16.8
23	319 23.5	-30.5	N 09 06.5	+16.7

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′4	16′4
HP	59′9	59′9	60′0	60′0	60′0	60′0
SHA	356°	354°	352°	350°	348°	346°

Greenwich Culmination Time: 00:58

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	148 42.2	+01.0	S 08 05.9	+00.7
01	163 43.2	+00.9	S 08 06.6	+00.6
02	178 44.1	+00.9	S 08 07.2	+00.7
03	193 45.0	+01.0	S 08 07.9	+00.6
04	208 46.0	+00.9	S 08 08.5	+00.7
05	223 46.9	+00.9	S 08 09.2	+00.6
06	238 47.8	+01.0	S 08 09.8	+00.6
07	253 48.8	+00.9	S 08 10.4	+00.7
08	268 49.7	+00.9	S 08 11.1	+00.6
09	283 50.6	+01.0	S 08 11.7	+00.7
10	298 51.6	+00.9	S 08 12.4	+00.6
11	313 52.5	+01.0	S 08 13.0	+00.6
12	328 53.5	+00.9	S 08 13.6	+00.7
13	343 54.4	+00.9	S 08 14.3	+00.6
14	358 55.3	+00.9	S 08 14.9	+00.7
15	13 56.2	+01.0	S 08 15.6	+00.6
16	28 57.2	+00.9	S 08 16.2	+00.6
17	43 58.1	+00.9	S 08 16.8	+00.7
18	58 59.0	+01.0	S 08 17.5	+00.6
19	73 60.0	+00.9	S 08 18.1	+00.7
20	89 00.9	+00.9	S 08 18.8	+00.6
21	104 01.8	+01.0	S 08 19.4	+00.6
22	119 02.8	+00.9	S 08 20.0	+00.7
23	134 03.7	+00.9	S 08 20.7	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	160°	160°	160°	160°	160°	160°

Greenwich Culmination Time: 14:04

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	237 27.2	+02.0	N 22 02.2	+00.0
01	252 29.2	+02.1	N 22 02.2	-00.1
02	267 31.3	+02.0	N 22 02.1	-00.1
03	282 33.3	+02.0	N 22 02.0	+00.0
04	297 35.3	+02.0	N 22 02.0	-00.1
05	312 37.3	+02.0	N 22 01.9	+00.0
06	327 39.3	+02.1	N 22 01.9	-00.1
07	342 41.4	+02.0	N 22 01.8	+00.0
08	357 43.4	+02.0	N 22 01.8	-00.1
09	12 45.4	+02.0	N 22 01.7	+00.0
10	27 47.4	+02.0	N 22 01.7	-00.1
11	42 49.4	+02.1	N 22 01.6	+00.0
12	57 51.5	+02.0	N 22 01.6	-00.1
13	72 53.5	+02.0	N 22 01.5	-00.1
14	87 55.5	+02.0	N 22 01.4	+00.0
15	102 57.5	+02.0	N 22 01.4	-00.1
16	117 59.5	+02.1	N 22 01.3	+00.0
17	133 01.6	+02.0	N 22 01.3	-00.1
18	148 03.6	+02.0	N 22 01.2	+00.0
19	163 05.6	+02.0	N 22 01.2	-00.1
20	178 07.6	+02.1	N 22 01.1	+00.0
21	193 09.7	+02.0	N 22 01.1	-00.1
22	208 11.7	+02.0	N 22 01.0	+00.0
23	223 13.7	+02.0	N 22 01.0	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	249°	249°	249°	249°	249°	249°

Greenwich Culmination Time: 08:09

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	347 48.7	+02.7	S 02 30.6	+00.0
01	2 51.4	+02.6	S 02 30.6	+00.1
02	17 54.0	+02.6	S 02 30.7	+00.1
03	32 56.6	+02.7	S 02 30.8	+00.1
04	47 59.3	+02.6	S 02 30.9	+00.0
05	63 01.9	+02.6	S 02 30.9	+00.1
06	78 04.5	+02.7	S 02 31.0	+00.1
07	93 07.2	+02.6	S 02 31.1	+00.1
08	108 09.8	+02.6	S 02 31.2	+00.1
09	123 12.4	+02.7	S 02 31.3	+00.0
10	138 15.1	+02.6	S 02 31.3	+00.1
11	153 17.7	+02.6	S 02 31.4	+00.1
12	168 20.3	+02.7	S 02 31.5	+00.1
13	183 23.0	+02.6	S 02 31.6	+00.0
14	198 25.6	+02.6	S 02 31.6	+00.1
15	213 28.2	+02.7	S 02 31.7	+00.1
16	228 30.9	+02.6	S 02 31.8	+00.1
17	243 33.5	+02.6	S 02 31.9	+00.1
18	258 36.1	+02.7	S 02 32.0	+00.0
19	273 38.8	+02.6	S 02 32.0	+00.1
20	288 41.4	+02.6	S 02 32.1	+00.1
21	303 44.0	+02.7	S 02 32.2	+00.1
22	318 46.7	+02.6	S 02 32.3	+00.1
23	333 49.3	+02.7	S 02 32.4	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:48

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2025 September 10 Wednesday (day 253 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 43.9	+00.2	N 04 55.1	-01.0
01	195 44.1	+00.2	N 04 54.1	-00.9
02	210 44.3	+00.2	N 04 53.2	-01.0
03	225 44.5	+00.3	N 04 52.2	-00.9
04	240 44.8	+00.2	N 04 51.3	-01.0
05	255 45.0	+00.2	N 04 50.3	-00.9
06	270 45.2	+00.2	N 04 49.4	-00.9
07	285 45.4	+00.2	N 04 48.5	-01.0
08	300 45.6	+00.3	N 04 47.5	-00.9
09	315 45.9	+00.2	N 04 46.6	-01.0
10	330 46.1	+00.2	N 04 45.6	-00.9
11	345 46.3	+00.2	N 04 44.7	-01.0
12	0 46.5	+00.2	N 04 43.7	-00.9
13	15 46.7	+00.3	N 04 42.8	-01.0
14	30 47.0	+00.2	N 04 41.8	-00.9
15	45 47.2	+00.2	N 04 40.9	-01.0
16	60 47.4	+00.2	N 04 39.9	-00.9
17	75 47.6	+00.2	N 04 39.0	-01.0
18	90 47.8	+00.3	N 04 38.0	-00.9
19	105 48.1	+00.2	N 04 37.1	-01.0
20	120 48.3	+00.2	N 04 36.1	-00.9
21	135 48.5	+00.2	N 04 35.2	-01.0
22	150 48.7	+00.2	N 04 34.2	-00.9
23	165 48.9	+00.3	N 04 33.3	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	191°	191°	191°	191°	191°	191°

Greenwich Culmination Time: 11:56

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	208 15.6	-00.5	N 15 50.1	-00.9
01	223 15.1	-00.6	N 15 49.2	-00.8
02	238 14.5	-00.6	N 15 48.4	-00.8
03	253 13.9	-00.5	N 15 47.6	-00.9
04	268 13.4	-00.6	N 15 46.7	-00.8
05	283 12.8	-00.5	N 15 45.9	-00.8
06	298 12.3	-00.6	N 15 45.1	-00.9
07	313 11.7	-00.6	N 15 44.2	-00.8
08	328 11.1	-00.5	N 15 43.4	-00.8
09	343 10.6	-00.6	N 15 42.6	-00.9
10	358 10.0	-00.6	N 15 41.7	-00.8
11	13 09.4	-00.5	N 15 40.9	-00.9
12	28 08.9	-00.6	N 15 40.0	-00.8
13	43 08.3	-00.5	N 15 39.2	-00.8
14	58 07.8	-00.6	N 15 38.4	-00.9
15	73 07.2	-00.6	N 15 37.5	-00.8
16	88 06.6	-00.5	N 15 36.7	-00.9
17	103 06.1	-00.6	N 15 35.8	-00.8
18	118 05.5	-00.5	N 15 35.0	-00.9
19	133 05.0	-00.6	N 15 34.1	-00.8
20	148 04.4	-00.5	N 15 33.3	-00.8
21	163 03.9	-00.6	N 15 32.5	-00.9
22	178 03.3	-00.6	N 15 31.6	-00.8
23	193 02.7	-00.5	N 15 30.8	-00.9

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	219°	219°	218°	218°	218°	218°

Greenwich Culmination Time: 10:07

Moon

A: 59%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	333 53.0	-30.5	N 09 23.2	+16.7
01	348 22.5	-30.6	N 09 39.9	+16.6
02	2 51.9	-30.7	N 09 56.5	+16.6
03	17 21.2	-30.7	N 10 13.1	+16.5
04	31 50.5	-30.8	N 10 29.6	+16.5
05	46 19.7	-30.8	N 10 46.1	+16.4
06	60 48.9	-30.9	N 11 02.5	+16.3
07	75 18.0	-31.0	N 11 18.8	+16.3
08	89 47.0	-31.0	N 11 35.1	+16.2
09	104 16.0	-31.1	N 11 51.3	+16.2
10	118 44.9	-31.1	N 12 07.5	+16.0
11	133 13.8	-31.2	N 12 23.5	+16.0
12	147 42.6	-31.3	N 12 39.5	+16.0
13	162 11.3	-31.4	N 12 55.5	+15.8
14	176 39.9	-31.4	N 13 11.3	+15.8
15	191 08.5	-31.5	N 13 27.1	+15.7
16	205 37.0	-31.6	N 13 42.8	+15.7
17	220 05.4	-31.6	N 13 58.5	+15.5
18	234 33.8	-31.8	N 14 14.0	+15.5
19	249 02.0	-31.7	N 14 29.5	+15.4
20	263 30.3	-31.9	N 14 44.9	+15.3
21	277 58.4	-32.0	N 15 00.2	+15.2
22	292 26.4	-32.0	N 15 15.4	+15.1
23	306 54.4	-32.1	N 15 30.5	+15.0

UT	02	06	10	14	18	22
SD	16′4	16′4	16′4	16′4	16′4	16′4
HP	60′1	60′1	60′1	60′1	60′1	60′1
SHA	343°	341°	339°	337°	335°	332°

Greenwich Culmination Time: 01:48

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	149 04.6	+01.0	S 08 21.3	+00.7
01	164 05.6	+00.9	S 08 22.0	+00.6
02	179 06.5	+00.9	S 08 22.6	+00.7
03	194 07.4	+01.0	S 08 23.3	+00.6
04	209 08.4	+00.9	S 08 23.9	+00.6
05	224 09.3	+00.9	S 08 24.5	+00.7
06	239 10.2	+00.9	S 08 25.2	+00.6
07	254 11.1	+01.0	S 08 25.8	+00.6
08	269 12.1	+00.9	S 08 26.4	+00.7
09	284 13.0	+00.9	S 08 27.1	+00.6
10	299 13.9	+01.0	S 08 27.7	+00.7
11	314 14.9	+00.9	S 08 28.4	+00.6
12	329 15.8	+00.9	S 08 29.0	+00.6
13	344 16.7	+00.9	S 08 29.6	+00.7
14	359 17.6	+01.0	S 08 30.3	+00.6
15	14 18.6	+00.9	S 08 30.9	+00.7
16	29 19.5	+00.9	S 08 31.6	+00.6
17	44 20.4	+01.0	S 08 32.2	+00.6
18	59 21.4	+00.9	S 08 32.8	+00.7
19	74 22.3	+00.9	S 08 33.5	+00.6
20	89 23.2	+00.9	S 08 34.1	+00.7
21	104 24.1	+01.0	S 08 34.8	+00.6
22	119 25.1	+00.9	S 08 35.4	+00.6
23	134 26.0	+00.9	S 08 36.0	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	160°	160°	160°	159°	159°	159°

Greenwich Culmination Time: 14:02

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	238 15.7	+02.0	N 22 00.9	-00.1
01	253 17.7	+02.1	N 22 00.8	+00.0
02	268 19.8	+02.0	N 22 00.8	-00.1
03	283 21.8	+02.0	N 22 00.7	+00.0
04	298 23.8	+02.0	N 22 00.7	-00.1
05	313 25.8	+02.1	N 22 00.6	+00.0
06	328 27.9	+02.0	N 22 00.6	-00.1
07	343 29.9	+02.0	N 22 00.5	+00.0
08	358 31.9	+02.0	N 22 00.5	-00.1
09	13 33.9	+02.1	N 22 00.4	+00.0
10	28 36.0	+02.0	N 22 00.4	-00.1
11	43 38.0	+02.0	N 22 00.3	-00.1
12	58 40.0	+02.0	N 22 00.2	+00.0
13	73 42.0	+02.1	N 22 00.2	-00.1
14	88 44.1	+02.0	N 22 00.1	+00.0
15	103 46.1	+02.0	N 22 00.1	-00.1
16	118 48.1	+02.0	N 22 00.0	+00.0
17	133 50.1	+02.1	N 21 60.0	-00.1
18	148 52.2	+02.0	N 21 59.9	+00.0
19	163 54.2	+02.0	N 21 59.9	-00.1
20	178 56.2	+02.0	N 21 59.8	+00.0
21	193 58.2	+02.1	N 21 59.8	-00.1
22	209 00.3	+02.0	N 21 59.7	-00.1
23	224 02.3	+02.0	N 21 59.6	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	249°	249°	249°	249°	249°	249°

Greenwich Culmination Time: 08:05

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	348 52.0	+02.6	S 02 32.4	+00.1
01	3 54.6	+02.6	S 02 32.5	+00.1
02	18 57.2	+02.7	S 02 32.6	+00.1
03	33 59.9	+02.6	S 02 32.7	+00.0
04	49 02.5	+02.6	S 02 32.7	+00.1
05	64 05.1	+02.7	S 02 32.8	+00.1
06	79 07.8	+02.6	S 02 32.9	+00.1
07	94 10.4	+02.6	S 02 33.0	+00.1
08	109 13.0	+02.7	S 02 33.1	+00.0
09	124 15.7	+02.6	S 02 33.1	+00.1
10	139 18.3	+02.6	S 02 33.2	+00.1
11	154 20.9	+02.7	S 02 33.3	+00.1
12	169 23.6	+02.6	S 02 33.4	+00.0
13	184 26.2	+02.6	S 02 33.4	+00.1
14	199 28.8	+02.7	S 02 33.5	+00.1
15	214 31.5	+02.6	S 02 33.6	+00.1
16	229 34.1	+02.6	S 02 33.7	+00.1
17	244 36.7	+02.7	S 02 33.8	+00.0
18	259 39.4	+02.6	S 02 33.8	+00.1
19	274 42.0	+02.6	S 02 33.9	+00.1
20	289 44.6	+02.7	S 02 34.0	+00.1
21	304 47.3	+02.6	S 02 34.1	+00.1
22	319 49.9	+02.7	S 02 34.2	+00.0
23	334 52.6	+02.6	S 02 34.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:44

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2025 September 11 Thursday

(day 254 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 49.2	+00.2	N 04 32.3	-00.9
01	195 49.4	+00.2	N 04 31.4	-01.0
02	210 49.6	+00.2	N 04 30.4	-00.9
03	225 49.8	+00.2	N 04 29.5	-01.0
04	240 50.0	+00.3	N 04 28.5	-00.9
05	255 50.3	+00.2	N 04 27.6	-01.0
06	270 50.5	+00.2	N 04 26.6	-00.9
07	285 50.7	+00.2	N 04 25.7	-01.0
08	300 50.9	+00.2	N 04 24.7	-00.9
09	315 51.1	+00.3	N 04 23.8	-01.0
10	330 51.4	+00.2	N 04 22.8	-00.9
11	345 51.6	+00.2	N 04 21.9	-01.0
12	0 51.8	+00.2	N 04 20.9	-00.9
13	15 52.0	+00.2	N 04 20.0	-01.0
14	30 52.2	+00.3	N 04 19.0	-00.9
15	45 52.5	+00.2	N 04 18.1	-01.0
16	60 52.7	+00.2	N 04 17.1	-01.0
17	75 52.9	+00.2	N 04 16.1	-00.9
18	90 53.1	+00.3	N 04 15.2	-01.0
19	105 53.4	+00.2	N 04 14.2	-00.9
20	120 53.6	+00.2	N 04 13.3	-01.0
21	135 53.8	+00.2	N 04 12.3	-00.9
22	150 54.0	+00.2	N 04 11.4	-01.0
23	165 54.2	+00.3	N 04 10.4	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	190°	190°	190°	190°	190°	190°

Greenwich Culmination Time: 11:56

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	208 02.2	-00.6	N 15 29.9	-00.8
01	223 01.6	-00.5	N 15 29.1	-00.9
02	238 01.1	-00.6	N 15 28.2	-00.8
03	253 00.5	-00.5	N 15 27.4	-00.9
04	267 60.0	-00.6	N 15 26.5	-00.8
05	282 59.4	-00.6	N 15 25.7	-00.9
06	297 58.8	-00.5	N 15 24.8	-00.9
07	312 58.3	-00.6	N 15 23.9	-00.8
08	327 57.7	-00.5	N 15 23.1	-00.9
09	342 57.2	-00.6	N 15 22.2	-00.8
10	357 56.6	-00.5	N 15 21.4	-00.9
11	12 56.1	-00.6	N 15 20.5	-00.8
12	27 55.5	-00.5	N 15 19.7	-00.9
13	42 55.0	-00.6	N 15 18.8	-00.9
14	57 54.4	-00.5	N 15 17.9	-00.8
15	72 53.9	-00.6	N 15 17.1	-00.9
16	87 53.3	-00.5	N 15 16.2	-00.8
17	102 52.8	-00.6	N 15 15.4	-00.9
18	117 52.2	-00.5	N 15 14.5	-00.9
19	132 51.7	-00.6	N 15 13.6	-00.8
20	147 51.1	-00.5	N 15 12.8	-00.9
21	162 50.6	-00.6	N 15 11.9	-00.9
22	177 50.0	-00.5	N 15 11.0	-00.8
23	192 49.5	-00.6	N 15 10.2	-00.9

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	218°	217°	217°	217°	217°	217°

Greenwich Culmination Time: 10:08

Moon

A: 62%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	321 22.3	-32.1	N 15 45.5	+14.9
01	335 50.2	-32.3	N 16 00.4	+14.9
02	350 17.9	-32.3	N 16 15.3	+14.7
03	4 45.6	-32.4	N 16 30.0	+14.6
04	19 13.2	-32.5	N 16 44.6	+14.6
05	33 40.7	-32.6	N 16 59.2	+14.4
06	48 08.1	-32.7	N 17 13.6	+14.3
07	62 35.4	-32.7	N 17 27.9	+14.3
08	77 02.7	-32.8	N 17 42.2	+14.1
09	91 29.9	-32.9	N 17 56.3	+14.0
10	105 57.0	-33.0	N 18 10.3	+13.9
11	120 24.0	-33.1	N 18 24.2	+13.7
12	134 50.9	-33.1	N 18 37.9	+13.7
13	149 17.8	-33.3	N 18 51.6	+13.5
14	163 44.5	-33.3	N 19 05.1	+13.4
15	178 11.2	-33.4	N 19 18.5	+13.3
16	192 37.8	-33.5	N 19 31.8	+13.2
17	207 04.3	-33.5	N 19 45.0	+13.1
18	221 30.8	-33.7	N 19 58.1	+12.9
19	235 57.1	-33.8	N 20 11.0	+12.8
20	250 23.3	-33.8	N 20 23.8	+12.7
21	264 49.5	-33.9	N 20 36.5	+12.5
22	279 15.6	-34.0	N 20 49.0	+12.4
23	293 41.6	-34.1	N 21 01.4	+12.3

UT	02	06	10	14	18	22
SD	16′4	16′4	16′3	16′3	16′3	16′3
HP	60′0	60′0	60′0	60′0	59′9	59′9
SHA	330°	328°	325°	323°	321°	318°

Greenwich Culmination Time: 02:40

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	149 26.9	+00.9	S 08 36.7	+00.6
01	164 27.8	+01.0	S 08 37.3	+00.7
02	179 28.8	+00.9	S 08 38.0	+00.6
03	194 29.7	+00.9	S 08 38.6	+00.6
04	209 30.6	+00.9	S 08 39.2	+00.7
05	224 31.5	+01.0	S 08 39.9	+00.6
06	239 32.5	+00.9	S 08 40.5	+00.6
07	254 33.4	+00.9	S 08 41.1	+00.7
08	269 34.3	+00.9	S 08 41.8	+00.6
09	284 35.2	+01.0	S 08 42.4	+00.7
10	299 36.2	+00.9	S 08 43.1	+00.6
11	314 37.1	+00.9	S 08 43.7	+00.6
12	329 38.0	+00.9	S 08 44.3	+00.7
13	344 38.9	+01.0	S 08 45.0	+00.6
14	359 39.9	+00.9	S 08 45.6	+00.7
15	14 40.8	+00.9	S 08 46.3	+00.6
16	29 41.7	+00.9	S 08 46.9	+00.6
17	44 42.6	+01.0	S 08 47.5	+00.7
18	59 43.6	+00.9	S 08 48.2	+00.6
19	74 44.5	+00.9	S 08 48.8	+00.6
20	89 45.4	+00.9	S 08 49.4	+00.7
21	104 46.3	+00.9	S 08 50.1	+00.6
22	119 47.2	+01.0	S 08 50.7	+00.7
23	134 48.2	+00.9	S 08 51.4	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	159°	159°	159°	159°	159°	159°

Greenwich Culmination Time: 14:01

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	239 04.3	+02.1	N 21 59.6	-00.1
01	254 06.4	+02.0	N 21 59.5	+00.0
02	269 08.4	+02.0	N 21 59.5	-00.1
03	284 10.4	+02.0	N 21 59.4	+00.0
04	299 12.4	+02.1	N 21 59.4	-00.1
05	314 14.5	+02.0	N 21 59.3	+00.0
06	329 16.5	+02.0	N 21 59.3	-00.1
07	344 18.5	+02.1	N 21 59.2	+00.0
08	359 20.6	+02.0	N 21 59.2	-00.1
09	14 22.6	+02.0	N 21 59.1	-00.1
10	29 24.6	+02.0	N 21 59.0	+00.0
11	44 26.6	+02.1	N 21 59.0	-00.1
12	59 28.7	+02.0	N 21 58.9	+00.0
13	74 30.7	+02.0	N 21 58.9	-00.1
14	89 32.7	+02.1	N 21 58.8	+00.0
15	104 34.8	+02.0	N 21 58.8	-00.1
16	119 36.8	+02.0	N 21 58.7	+00.0
17	134 38.8	+02.1	N 21 58.7	-00.1
18	149 40.9	+02.0	N 21 58.6	+00.0
19	164 42.9	+02.0	N 21 58.6	-00.1
20	179 44.9	+02.0	N 21 58.5	-00.1
21	194 46.9	+02.1	N 21 58.4	+00.0
22	209 49.0	+02.0	N 21 58.4	-00.1
23	224 51.0	+02.0	N 21 58.3	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	249°	249°	249°	249°	249°	249°

Greenwich Culmination Time: 08:02

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	349 55.2	+02.6	S 02 34.3	+00.1
01	4 57.8	+02.7	S 02 34.4	+00.1
02	20 00.5	+02.6	S 02 34.5	+00.0
03	35 03.1	+02.6	S 02 34.5	+00.1
04	50 05.7	+02.7	S 02 34.6	+00.1
05	65 08.4	+02.6	S 02 34.7	+00.1
06	80 11.0	+02.6	S 02 34.8	+00.1
07	95 13.6	+02.7	S 02 34.9	+00.0
08	110 16.3	+02.6	S 02 34.9	+00.1
09	125 18.9	+02.6	S 02 35.0	+00.1
10	140 21.5	+02.7	S 02 35.1	+00.1
11	155 24.2	+02.6	S 02 35.2	+00.1
12	170 26.8	+02.7	S 02 35.3	+00.0
13	185 29.5	+02.6	S 02 35.3	+00.1
14	200 32.1	+02.6	S 02 35.4	+00.1
15	215 34.7	+02.7	S 02 35.5	+00.1
16	230 37.4	+02.6	S 02 35.6	+00.0
17	245 40.0	+02.6	S 02 35.6	+00.1
18	260 42.6	+02.7	S 02 35.7	+00.1
19	275 45.3	+02.6	S 02 35.8	+00.1
20	290 47.9	+02.6	S 02 35.9	+00.1
21	305 50.5	+02.7	S 02 36.0	+00.0
22	320 53.2	+02.6	S 02 36.0	+00.1
23	335 55.8	+02.7	S 02 36.1	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:40

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2025 September 12 Friday

(day 255 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 54.5	+00.2	N 04 09.5	-01.0
01	195 54.7	+00.2	N 04 08.5	-00.9
02	210 54.9	+00.2	N 04 07.6	-01.0
03	225 55.1	+00.2	N 04 06.6	-00.9
04	240 55.3	+00.3	N 04 05.7	-01.0
05	255 55.6	+00.2	N 04 04.7	-00.9
06	270 55.8	+00.2	N 04 03.8	-01.0
07	285 56.0	+00.2	N 04 02.8	-01.0
08	300 56.2	+00.3	N 04 01.8	-00.9
09	315 56.5	+00.2	N 04 00.9	-01.0
10	330 56.7	+00.2	N 03 59.9	-00.9
11	345 56.9	+00.2	N 03 59.0	-01.0
12	0 57.1	+00.2	N 03 58.0	-00.9
13	15 57.3	+00.3	N 03 57.1	-01.0
14	30 57.6	+00.2	N 03 56.1	-00.9
15	45 57.8	+00.2	N 03 55.2	-01.0
16	60 58.0	+00.2	N 03 54.2	-01.0
17	75 58.2	+00.3	N 03 53.2	-00.9
18	90 58.5	+00.2	N 03 52.3	-01.0
19	105 58.7	+00.2	N 03 51.3	-00.9
20	120 58.9	+00.2	N 03 50.4	-01.0
21	135 59.1	+00.2	N 03 49.4	-00.9
22	150 59.3	+00.3	N 03 48.5	-01.0
23	165 59.6	+00.2	N 03 47.5	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	190°	189°	189°	189°	189°	189°

Greenwich Culmination Time: 11:56

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	207 48.9	-00.5	N 15 09.3	-00.9
01	222 48.4	-00.6	N 15 08.4	-00.8
02	237 47.8	-00.5	N 15 07.6	-00.9
03	252 47.3	-00.6	N 15 06.7	-00.9
04	267 46.7	-00.5	N 15 05.8	-00.8
05	282 46.2	-00.6	N 15 05.0	-00.9
06	297 45.6	-00.5	N 15 04.1	-00.9
07	312 45.1	-00.6	N 15 03.2	-00.9
08	327 44.5	-00.5	N 15 02.3	-00.8
09	342 44.0	-00.6	N 15 01.5	-00.9
10	357 43.4	-00.5	N 15 00.6	-00.9
11	12 42.9	-00.6	N 14 59.7	-00.9
12	27 42.3	-00.5	N 14 58.8	-00.8
13	42 41.8	-00.5	N 14 58.0	-00.9
14	57 41.3	-00.6	N 14 57.1	-00.9
15	72 40.7	-00.5	N 14 56.2	-00.9
16	87 40.2	-00.6	N 14 55.3	-00.9
17	102 39.6	-00.5	N 14 54.4	-00.8
18	117 39.1	-00.6	N 14 53.6	-00.9
19	132 38.5	-00.5	N 14 52.7	-00.9
20	147 38.0	-00.5	N 14 51.8	-00.9
21	162 37.5	-00.6	N 14 50.9	-00.9
22	177 36.9	-00.5	N 14 50.0	-00.8
23	192 36.4	-00.6	N 14 49.2	-00.9

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	216°	216°	216°	216°	216°	215°

Greenwich Culmination Time: 10:09

Moon

A: 66%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	308 07.5	-34.2	N 21 13.7	+12.1
01	322 33.3	-34.2	N 21 25.8	+12.0
02	336 59.1	-34.4	N 21 37.8	+11.8
03	351 24.7	-34.4	N 21 49.6	+11.7
04	5 50.3	-34.5	N 22 01.3	+11.6
05	20 15.8	-34.6	N 22 12.9	+11.4
06	34 41.2	-34.7	N 22 24.3	+11.3
07	49 06.5	-34.7	N 22 35.6	+11.1
08	63 31.8	-34.9	N 22 46.7	+11.0
09	77 56.9	-34.9	N 22 57.7	+10.8
10	92 22.0	-35.0	N 23 08.5	+10.7
11	106 47.0	-35.1	N 23 19.2	+10.5
12	121 11.9	-35.1	N 23 29.7	+10.4
13	135 36.8	-35.3	N 23 40.1	+10.2
14	150 01.5	-35.3	N 23 50.3	+10.0
15	164 26.2	-35.4	N 24 00.3	+09.9
16	178 50.8	-35.5	N 24 10.2	+09.7
17	193 15.3	-35.5	N 24 19.9	+09.6
18	207 39.8	-35.7	N 24 29.5	+09.4
19	222 04.1	-35.6	N 24 38.9	+09.2
20	236 28.5	-35.8	N 24 48.1	+09.1
21	250 52.7	-35.9	N 24 57.2	+08.9
22	265 16.8	-35.9	N 25 06.1	+08.7
23	279 40.9	-35.9	N 25 14.8	+08.6

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′2	16′2
HP	59′9	59′8	59′7	59′7	59′6	59′6
SHA	316°	313°	311°	308°	306°	303°

Greenwich Culmination Time: 03:35

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	149 49.1	+00.9	S 08 52.0	+00.6
01	164 50.0	+00.9	S 08 52.6	+00.7
02	179 50.9	+01.0	S 08 53.3	+00.6
03	194 51.9	+00.9	S 08 53.9	+00.6
04	209 52.8	+00.9	S 08 54.5	+00.7
05	224 53.7	+00.9	S 08 55.2	+00.6
06	239 54.6	+00.9	S 08 55.8	+00.6
07	254 55.5	+01.0	S 08 56.4	+00.7
08	269 56.5	+00.9	S 08 57.1	+00.6
09	284 57.4	+00.9	S 08 57.7	+00.7
10	299 58.3	+00.9	S 08 58.4	+00.6
11	314 59.2	+00.9	S 08 59.0	+00.6
12	330 00.1	+01.0	S 08 59.6	+00.7
13	345 01.1	+00.9	S 09 00.3	+00.6
14	0 02.0	+00.9	S 09 00.9	+00.6
15	15 02.9	+00.9	S 09 01.5	+00.7
16	30 03.8	+00.9	S 09 02.2	+00.6
17	45 04.7	+00.9	S 09 02.8	+00.6
18	60 05.6	+01.0	S 09 03.4	+00.7
19	75 06.6	+00.9	S 09 04.1	+00.6
20	90 07.5	+00.9	S 09 04.7	+00.7
21	105 08.4	+00.9	S 09 05.4	+00.6
22	120 09.3	+00.9	S 09 06.0	+00.6
23	135 10.2	+01.0	S 09 06.6	+00.7

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	159°	158°	158°	158°	158°	158°

Greenwich Culmination Time: 13:59

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	239 53.0	+02.1	N 21 58.3	-00.1
01	254 55.1	+02.0	N 21 58.2	+00.0
02	269 57.1	+02.0	N 21 58.2	-00.1
03	284 59.1	+02.1	N 21 58.1	+00.0
04	300 01.2	+02.0	N 21 58.1	-00.1
05	315 03.2	+02.0	N 21 58.0	+00.0
06	330 05.2	+02.1	N 21 58.0	-00.1
07	345 07.3	+02.0	N 21 57.9	-00.1
08	0 09.3	+02.0	N 21 57.8	+00.0
09	15 11.3	+02.1	N 21 57.8	-00.1
10	30 13.4	+02.0	N 21 57.7	+00.0
11	45 15.4	+02.0	N 21 57.7	-00.1
12	60 17.4	+02.1	N 21 57.6	+00.0
13	75 19.5	+02.0	N 21 57.6	-00.1
14	90 21.5	+02.1	N 21 57.5	+00.0
15	105 23.6	+02.0	N 21 57.5	-00.1
16	120 25.6	+02.0	N 21 57.4	+00.0
17	135 27.6	+02.1	N 21 57.4	-00.1
18	150 29.7	+02.0	N 21 57.3	+00.0
19	165 31.7	+02.0	N 21 57.3	-00.1
20	180 33.7	+02.1	N 21 57.2	-00.1
21	195 35.8	+02.0	N 21 57.1	+00.0
22	210 37.8	+02.0	N 21 57.1	-00.1
23	225 39.8	+02.1	N 21 57.0	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	249°	249°	249°	249°	249°	248°

Greenwich Culmination Time: 07:59

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	350 58.5	+02.6	S 02 36.2	+00.1
01	6 01.1	+02.6	S 02 36.3	+00.1
02	21 03.7	+02.7	S 02 36.4	+00.0
03	36 06.4	+02.6	S 02 36.4	+00.1
04	51 09.0	+02.6	S 02 36.5	+00.1
05	66 11.6	+02.7	S 02 36.6	+00.1
06	81 14.3	+02.6	S 02 36.7	+00.0
07	96 16.9	+02.6	S 02 36.7	+00.1
08	111 19.5	+02.7	S 02 36.8	+00.1
09	126 22.2	+02.6	S 02 36.9	+00.1
10	141 24.8	+02.7	S 02 37.0	+00.1
11	156 27.5	+02.6	S 02 37.1	+00.0
12	171 30.1	+02.6	S 02 37.1	+00.1
13	186 32.7	+02.7	S 02 37.2	+00.1
14	201 35.4	+02.6	S 02 37.3	+00.1
15	216 38.0	+02.6	S 02 37.4	+00.1
16	231 40.6	+02.7	S 02 37.5	+00.0
17	246 43.3	+02.6	S 02 37.5	+00.1
18	261 45.9	+02.7	S 02 37.6	+00.1
19	276 48.6	+02.6	S 02 37.7	+00.1
20	291 51.2	+02.6	S 02 37.8	+00.1
21	306 53.8	+02.7	S 02 37.9	+00.0
22	321 56.5	+02.6	S 02 37.9	+00.1
23	336 59.1	+02.6	S 02 38.0	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:35

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2025 September 13 Saturday

(day 256 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	180 59.8	+00.2	N 03 46.6	-01.0
01	196 00.0	+00.2	N 03 45.6	-01.0
02	211 00.2	+00.3	N 03 44.6	-00.9
03	226 00.5	+00.2	N 03 43.7	-01.0
04	241 00.7	+00.2	N 03 42.7	-00.9
05	256 00.9	+00.2	N 03 41.8	-01.0
06	271 01.1	+00.2	N 03 40.8	-00.9
07	286 01.3	+00.3	N 03 39.9	-01.0
08	301 01.6	+00.2	N 03 38.9	-01.0
09	316 01.8	+00.2	N 03 37.9	-00.9
10	331 02.0	+00.2	N 03 37.0	-01.0
11	346 02.2	+00.3	N 03 36.0	-00.9
12	1 02.5	+00.2	N 03 35.1	-01.0
13	16 02.7	+00.2	N 03 34.1	-00.9
14	31 02.9	+00.2	N 03 33.2	-01.0
15	46 03.1	+00.2	N 03 32.2	-01.0
16	61 03.3	+00.3	N 03 31.2	-00.9
17	76 03.6	+00.2	N 03 30.3	-01.0
18	91 03.8	+00.2	N 03 29.3	-00.9
19	106 04.0	+00.2	N 03 28.4	-01.0
20	121 04.2	+00.3	N 03 27.4	-01.0
21	136 04.5	+00.2	N 03 26.4	-00.9
22	151 04.7	+00.2	N 03 25.5	-01.0
23	166 04.9	+00.2	N 03 24.5	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	189°	189°	188°	188°	188°	188°

Greenwich Culmination Time: 11:55

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	207 35.8	-00.5	N 14 48.3	-00.9
01	222 35.3	-00.6	N 14 47.4	-00.9
02	237 34.7	-00.5	N 14 46.5	-00.9
03	252 34.2	-00.5	N 14 45.6	-00.9
04	267 33.7	-00.6	N 14 44.7	-00.9
05	282 33.1	-00.5	N 14 43.8	-00.9
06	297 32.6	-00.6	N 14 42.9	-00.8
07	312 32.0	-00.5	N 14 42.1	-00.9
08	327 31.5	-00.5	N 14 41.2	-00.9
09	342 31.0	-00.6	N 14 40.3	-00.9
10	357 30.4	-00.5	N 14 39.4	-00.9
11	12 29.9	-00.5	N 14 38.5	-00.9
12	27 29.4	-00.6	N 14 37.6	-00.9
13	42 28.8	-00.5	N 14 36.7	-00.9
14	57 28.3	-00.6	N 14 35.8	-00.9
15	72 27.7	-00.5	N 14 34.9	-00.9
16	87 27.2	-00.5	N 14 34.0	-00.9
17	102 26.7	-00.6	N 14 33.1	-00.9
18	117 26.1	-00.5	N 14 32.2	-00.9
19	132 25.6	-00.5	N 14 31.3	-00.9
20	147 25.1	-00.6	N 14 30.4	-00.9
21	162 24.5	-00.5	N 14 29.5	-00.9
22	177 24.0	-00.5	N 14 28.6	-00.9
23	192 23.5	-00.6	N 14 27.7	-00.9

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	215°	215°	215°	215°	214°	214°

Greenwich Culmination Time: 10:09

Moon

A: 70%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	294 05.0	-36.1	N 25 23.4	+08.4
01	308 28.9	-36.1	N 25 31.8	+08.2
02	322 52.8	-36.2	N 25 40.0	+08.0
03	337 16.6	-36.2	N 25 48.0	+07.9
04	351 40.4	-36.3	N 25 55.9	+07.7
05	6 04.1	-36.4	N 26 03.6	+07.5
06	20 27.7	-36.4	N 26 11.1	+07.3
07	34 51.3	-36.5	N 26 18.4	+07.2
08	49 14.8	-36.5	N 26 25.6	+06.9
09	63 38.3	-36.6	N 26 32.5	+06.8
10	78 01.7	-36.6	N 26 39.3	+06.6
11	92 25.1	-36.7	N 26 45.9	+06.5
12	106 48.4	-36.7	N 26 52.4	+06.2
13	121 11.7	-36.8	N 26 58.6	+06.1
14	135 34.9	-36.8	N 27 04.7	+05.8
15	149 58.1	-36.9	N 27 10.5	+05.7
16	164 21.2	-36.9	N 27 16.2	+05.5
17	178 44.3	-36.9	N 27 21.7	+05.3
18	193 07.4	-37.0	N 27 27.0	+05.1
19	207 30.4	-37.0	N 27 32.1	+05.0
20	221 53.4	-37.1	N 27 37.1	+04.7
21	236 16.3	-37.1	N 27 41.8	+04.6
22	250 39.2	-37.1	N 27 46.4	+04.3
23	265 02.1	-37.1	N 27 50.7	+04.2

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′1	16′1
HP	59′5	59′4	59′4	59′3	59′2	59′1
SHA	301°	298°	295°	293°	290°	288°

Greenwich Culmination Time: 04:34

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	150 11.2	+00.9	S 09 07.3	+00.6
01	165 12.1	+00.9	S 09 07.9	+00.6
02	180 13.0	+00.9	S 09 08.5	+00.7
03	195 13.9	+00.9	S 09 09.2	+00.6
04	210 14.8	+00.9	S 09 09.8	+00.6
05	225 15.7	+01.0	S 09 10.4	+00.7
06	240 16.7	+00.9	S 09 11.1	+00.6
07	255 17.6	+00.9	S 09 11.7	+00.6
08	270 18.5	+00.9	S 09 12.3	+00.7
09	285 19.4	+00.9	S 09 13.0	+00.6
10	300 20.3	+00.9	S 09 13.6	+00.7
11	315 21.2	+00.9	S 09 14.3	+00.6
12	330 22.1	+01.0	S 09 14.9	+00.6
13	345 23.1	+00.9	S 09 15.5	+00.7
14	0 24.0	+00.9	S 09 16.2	+00.6
15	15 24.9	+00.9	S 09 16.8	+00.6
16	30 25.8	+00.9	S 09 17.4	+00.7
17	45 26.7	+00.9	S 09 18.1	+00.6
18	60 27.6	+00.9	S 09 18.7	+00.6
19	75 28.5	+01.0	S 09 19.3	+00.7
20	90 29.5	+00.9	S 09 20.0	+00.6
21	105 30.4	+00.9	S 09 20.6	+00.6
22	120 31.3	+00.9	S 09 21.2	+00.7
23	135 32.2	+00.9	S 09 21.9	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	158°	158°	158°	158°	157°	157°

Greenwich Culmination Time: 13:58

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	240 41.9	+02.0	N 21 57.0	-00.1
01	255 43.9	+02.1	N 21 56.9	+00.0
02	270 46.0	+02.0	N 21 56.9	-00.1
03	285 48.0	+02.0	N 21 56.8	+00.0
04	300 50.0	+02.1	N 21 56.8	-00.1
05	315 52.1	+02.0	N 21 56.7	+00.0
06	330 54.1	+02.0	N 21 56.7	-00.1
07	345 56.1	+02.1	N 21 56.6	-00.1
08	0 58.2	+02.0	N 21 56.5	+00.0
09	16 00.2	+02.1	N 21 56.5	-00.1
10	31 02.3	+02.0	N 21 56.4	+00.0
11	46 04.3	+02.0	N 21 56.4	-00.1
12	61 06.3	+02.1	N 21 56.3	+00.0
13	76 08.4	+02.0	N 21 56.3	-00.1
14	91 10.4	+02.1	N 21 56.2	+00.0
15	106 12.5	+02.0	N 21 56.2	-00.1
16	121 14.5	+02.0	N 21 56.1	+00.0
17	136 16.5	+02.1	N 21 56.1	-00.1
18	151 18.6	+02.0	N 21 56.0	+00.0
19	166 20.6	+02.1	N 21 56.0	-00.1
20	181 22.7	+02.0	N 21 55.9	-00.1
21	196 24.7	+02.1	N 21 55.8	+00.0
22	211 26.8	+02.0	N 21 55.8	-00.1
23	226 28.8	+02.0	N 21 55.7	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	248°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 07:56

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	352 01.7	+02.7	S 02 38.1	+00.1
01	7 04.4	+02.6	S 02 38.2	+00.0
02	22 07.0	+02.7	S 02 38.2	+00.1
03	37 09.7	+02.6	S 02 38.3	+00.1
04	52 12.3	+02.6	S 02 38.4	+00.1
05	67 14.9	+02.7	S 02 38.5	+00.1
06	82 17.6	+02.6	S 02 38.6	+00.0
07	97 20.2	+02.6	S 02 38.6	+00.1
08	112 22.8	+02.7	S 02 38.7	+00.1
09	127 25.5	+02.6	S 02 38.8	+00.1
10	142 28.1	+02.7	S 02 38.9	+00.1
11	157 30.8	+02.6	S 02 39.0	+00.0
12	172 33.4	+02.6	S 02 39.0	+00.1
13	187 36.0	+02.7	S 02 39.1	+00.1
14	202 38.7	+02.6	S 02 39.2	+00.1
15	217 41.3	+02.6	S 02 39.3	+00.1
16	232 43.9	+02.7	S 02 39.4	+00.0
17	247 46.6	+02.6	S 02 39.4	+00.1
18	262 49.2	+02.7	S 02 39.5	+00.1
19	277 51.9	+02.6	S 02 39.6	+00.1
20	292 54.5	+02.6	S 02 39.7	+00.0
21	307 57.1	+02.7	S 02 39.7	+00.1
22	322 59.8	+02.6	S 02 39.8	+00.1
23	338 02.4	+02.7	S 02 39.9	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:31

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2025 September 14 Sunday

(day 257 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 05.1	+00.3	N 03 23.6	-01.0
01	196 05.4	+00.2	N 03 22.6	-01.0
02	211 05.6	+00.2	N 03 21.6	-00.9
03	226 05.8	+00.2	N 03 20.7	-01.0
04	241 06.0	+00.2	N 03 19.7	-00.9
05	256 06.2	+00.3	N 03 18.8	-01.0
06	271 06.5	+00.2	N 03 17.8	-00.9
07	286 06.7	+00.2	N 03 16.9	-01.0
08	301 06.9	+00.2	N 03 15.9	-01.0
09	316 07.1	+00.3	N 03 14.9	-00.9
10	331 07.4	+00.2	N 03 14.0	-01.0
11	346 07.6	+00.2	N 03 13.0	-01.0
12	1 07.8	+00.2	N 03 12.0	-00.9
13	16 08.0	+00.2	N 03 11.1	-01.0
14	31 08.2	+00.3	N 03 10.1	-00.9
15	46 08.5	+00.2	N 03 09.2	-01.0
16	61 08.7	+00.2	N 03 08.2	-01.0
17	76 08.9	+00.2	N 03 07.2	-00.9
18	91 09.1	+00.3	N 03 06.3	-01.0
19	106 09.4	+00.2	N 03 05.3	-00.9
20	121 09.6	+00.2	N 03 04.4	-01.0
21	136 09.8	+00.2	N 03 03.4	-01.0
22	151 10.0	+00.3	N 03 02.4	-00.9
23	166 10.3	+00.2	N 03 01.5	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	188°	188°	187°	187°	187°	187°

Greenwich Culmination Time: 11:55

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	207 22.9	-00.5	N 14 26.8	-00.9
01	222 22.4	-00.5	N 14 25.9	-00.9
02	237 21.9	-00.6	N 14 25.0	-00.9
03	252 21.3	-00.5	N 14 24.1	-00.9
04	267 20.8	-00.5	N 14 23.2	-00.9
05	282 20.3	-00.6	N 14 22.3	-00.9
06	297 19.7	-00.5	N 14 21.4	-00.9
07	312 19.2	-00.5	N 14 20.5	-00.9
08	327 18.7	-00.6	N 14 19.6	-01.0
09	342 18.1	-00.5	N 14 18.6	-00.9
10	357 17.6	-00.5	N 14 17.7	-00.9
11	12 17.1	-00.6	N 14 16.8	-00.9
12	27 16.5	-00.5	N 14 15.9	-00.9
13	42 16.0	-00.5	N 14 15.0	-00.9
14	57 15.5	-00.6	N 14 14.1	-00.9
15	72 14.9	-00.5	N 14 13.2	-00.9
16	87 14.4	-00.5	N 14 12.3	-01.0
17	102 13.9	-00.5	N 14 11.3	-00.9
18	117 13.4	-00.6	N 14 10.4	-00.9
19	132 12.8	-00.5	N 14 09.5	-00.9
20	147 12.3	-00.5	N 14 08.6	-00.9
21	162 11.8	-00.5	N 14 07.7	-00.9
22	177 11.3	-00.6	N 14 06.8	-01.0
23	192 10.7	-00.5	N 14 05.8	-00.9

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	214°	214°	214°	213°	213°	213°

Greenwich Culmination Time: 10:10

Moon

A: 74%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	279 25.0	-37.1	N 27 54.9	+04.0
01	293 47.9	-37.2	N 27 58.9	+03.7
02	308 10.7	-37.2	N 28 02.6	+03.6
03	322 33.5	-37.2	N 28 06.2	+03.4
04	336 56.3	-37.2	N 28 09.6	+03.2
05	351 19.1	-37.2	N 28 12.8	+03.1
06	5 41.9	-37.3	N 28 15.9	+02.8
07	20 04.6	-37.2	N 28 18.7	+02.6
08	34 27.4	-37.3	N 28 21.3	+02.4
09	48 50.1	-37.2	N 28 23.7	+02.3
10	63 12.9	-37.3	N 28 26.0	+02.0
11	77 35.6	-37.2	N 28 28.0	+01.9
12	91 58.4	-37.2	N 28 29.9	+01.7
13	106 21.2	-37.3	N 28 31.6	+01.4
14	120 43.9	-37.2	N 28 33.0	+01.3
15	135 06.7	-37.2	N 28 34.3	+01.1
16	149 29.5	-37.2	N 28 35.4	+00.9
17	163 52.3	-37.2	N 28 36.3	+00.7
18	178 15.1	-37.1	N 28 37.0	+00.5
19	192 38.0	-37.1	N 28 37.5	+00.3
20	207 00.9	-37.2	N 28 37.8	+00.1
21	221 23.7	-37.0	N 28 37.9	-00.1
22	235 46.7	-37.1	N 28 37.8	-00.2
23	250 09.6	-37.0	N 28 37.6	-00.5

UT	02	06	10	14	18	22
SD	16′1	16′1	16′0	16′0	16′0	16′0
HP	59′1	59′0	58′9	58′8	58′7	58′7
SHA	285°	282°	280°	277°	274°	272°

Greenwich Culmination Time: 05:36

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	150 33.1	+00.9	S 09 22.5	+00.6
01	165 34.0	+00.9	S 09 23.1	+00.7
02	180 34.9	+00.9	S 09 23.8	+00.6
03	195 35.8	+00.9	S 09 24.4	+00.6
04	210 36.7	+01.0	S 09 25.0	+00.7
05	225 37.7	+00.9	S 09 25.7	+00.6
06	240 38.6	+00.9	S 09 26.3	+00.6
07	255 39.5	+00.9	S 09 26.9	+00.7
08	270 40.4	+00.9	S 09 27.6	+00.6
09	285 41.3	+00.9	S 09 28.2	+00.6
10	300 42.2	+00.9	S 09 28.8	+00.7
11	315 43.1	+00.9	S 09 29.5	+00.6
12	330 44.0	+00.9	S 09 30.1	+00.6
13	345 44.9	+00.9	S 09 30.7	+00.7
14	0 45.8	+01.0	S 09 31.4	+00.6
15	15 46.8	+00.9	S 09 32.0	+00.6
16	30 47.7	+00.9	S 09 32.6	+00.7
17	45 48.6	+00.9	S 09 33.3	+00.6
18	60 49.5	+00.9	S 09 33.9	+00.6
19	75 50.4	+00.9	S 09 34.5	+00.7
20	90 51.3	+00.9	S 09 35.2	+00.6
21	105 52.2	+00.9	S 09 35.8	+00.6
22	120 53.1	+00.9	S 09 36.4	+00.7
23	135 54.0	+00.9	S 09 37.1	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	157°	157°	157°	157°	157°	157°

Greenwich Culmination Time: 13:56

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	241 30.8	+02.1	N 21 55.7	-00.1
01	256 32.9	+02.0	N 21 55.6	+00.0
02	271 34.9	+02.1	N 21 55.6	-00.1
03	286 37.0	+02.0	N 21 55.5	+00.0
04	301 39.0	+02.1	N 21 55.5	-00.1
05	316 41.1	+02.0	N 21 55.4	+00.0
06	331 43.1	+02.0	N 21 55.4	-00.1
07	346 45.1	+02.1	N 21 55.3	+00.0
08	1 47.2	+02.0	N 21 55.3	-00.1
09	16 49.2	+02.1	N 21 55.2	-00.1
10	31 51.3	+02.0	N 21 55.1	+00.0
11	46 53.3	+02.1	N 21 55.1	-00.1
12	61 55.4	+02.0	N 21 55.0	+00.0
13	76 57.4	+02.1	N 21 55.0	-00.1
14	91 59.5	+02.0	N 21 54.9	+00.0
15	107 01.5	+02.0	N 21 54.9	-00.1
16	122 03.5	+02.1	N 21 54.8	+00.0
17	137 05.6	+02.0	N 21 54.8	-00.1
18	152 07.6	+02.1	N 21 54.7	+00.0
19	167 09.7	+02.0	N 21 54.7	-00.1
20	182 11.7	+02.1	N 21 54.6	+00.0
21	197 13.8	+02.0	N 21 54.6	-00.1
22	212 15.8	+02.1	N 21 54.5	+00.0
23	227 17.9	+02.0	N 21 54.5	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	248°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 07:52

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	353 05.1	+02.6	S 02 40.0	+00.1
01	8 07.7	+02.6	S 02 40.1	+00.0
02	23 10.3	+02.7	S 02 40.1	+00.1
03	38 13.0	+02.6	S 02 40.2	+00.1
04	53 15.6	+02.6	S 02 40.3	+00.1
05	68 18.2	+02.7	S 02 40.4	+00.1
06	83 20.9	+02.6	S 02 40.5	+00.0
07	98 23.5	+02.7	S 02 40.5	+00.1
08	113 26.2	+02.6	S 02 40.6	+00.1
09	128 28.8	+02.6	S 02 40.7	+00.1
10	143 31.4	+02.7	S 02 40.8	+00.1
11	158 34.1	+02.6	S 02 40.9	+00.0
12	173 36.7	+02.7	S 02 40.9	+00.1
13	188 39.4	+02.6	S 02 41.0	+00.1
14	203 42.0	+02.6	S 02 41.1	+00.1
15	218 44.6	+02.7	S 02 41.2	+00.0
16	233 47.3	+02.6	S 02 41.2	+00.1
17	248 49.9	+02.6	S 02 41.3	+00.1
18	263 52.5	+02.7	S 02 41.4	+00.1
19	278 55.2	+02.6	S 02 41.5	+00.1
20	293 57.8	+02.7	S 02 41.6	+00.0
21	309 00.5	+02.6	S 02 41.6	+00.1
22	324 03.1	+02.6	S 02 41.7	+00.1
23	339 05.7	+02.7	S 02 41.8	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:27

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2025 September 15 Monday

(day 258 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	181 10.5	+00.2	N 03 00.5	-00.9
01	196 10.7	+00.2	N 02 59.6	-01.0
02	211 10.9	+00.2	N 02 58.6	-01.0
03	226 11.1	+00.3	N 02 57.6	-00.9
04	241 11.4	+00.2	N 02 56.7	-01.0
05	256 11.6	+00.2	N 02 55.7	-01.0
06	271 11.8	+00.2	N 02 54.7	-00.9
07	286 12.0	+00.3	N 02 53.8	-01.0
08	301 12.3	+00.2	N 02 52.8	-00.9
09	316 12.5	+00.2	N 02 51.9	-01.0
10	331 12.7	+00.2	N 02 50.9	-01.0
11	346 12.9	+00.3	N 02 49.9	-00.9
12	1 13.2	+00.2	N 02 49.0	-01.0
13	16 13.4	+00.2	N 02 48.0	-01.0
14	31 13.6	+00.2	N 02 47.0	-00.9
15	46 13.8	+00.2	N 02 46.1	-01.0
16	61 14.0	+00.3	N 02 45.1	-01.0
17	76 14.3	+00.2	N 02 44.1	-00.9
18	91 14.5	+00.2	N 02 43.2	-01.0
19	106 14.7	+00.2	N 02 42.2	-00.9
20	121 14.9	+00.3	N 02 41.3	-01.0
21	136 15.2	+00.2	N 02 40.3	-01.0
22	151 15.4	+00.2	N 02 39.3	-00.9
23	166 15.6	+00.2	N 02 38.4	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	187°	187°	187°	186°	186°	186°

Greenwich Culmination Time: 11:55

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	207 10.2	-00.5	N 14 04.9	-00.9
01	222 09.7	-00.6	N 14 04.0	-00.9
02	237 09.1	-00.5	N 14 03.1	-00.9
03	252 08.6	-00.5	N 14 02.2	-01.0
04	267 08.1	-00.5	N 14 01.2	-00.9
05	282 07.6	-00.6	N 14 00.3	-00.9
06	297 07.0	-00.5	N 13 59.4	-00.9
07	312 06.5	-00.5	N 13 58.5	-01.0
08	327 06.0	-00.5	N 13 57.5	-00.9
09	342 05.5	-00.5	N 13 56.6	-00.9
10	357 05.0	-00.6	N 13 55.7	-00.9
11	12 04.4	-00.5	N 13 54.8	-01.0
12	27 03.9	-00.5	N 13 53.8	-00.9
13	42 03.4	-00.5	N 13 52.9	-00.9
14	57 02.9	-00.6	N 13 52.0	-01.0
15	72 02.3	-00.5	N 13 51.0	-00.9
16	87 01.8	-00.5	N 13 50.1	-00.9
17	102 01.3	-00.5	N 13 49.2	-00.9
18	117 00.8	-00.5	N 13 48.3	-01.0
19	132 00.3	-00.6	N 13 47.3	-00.9
20	146 59.7	-00.5	N 13 46.4	-00.9
21	161 59.2	-00.5	N 13 45.5	-01.0
22	176 58.7	-00.5	N 13 44.5	-00.9
23	191 58.2	-00.5	N 13 43.6	-01.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	213°	213°	212°	212°	212°	212°

Greenwich Culmination Time: 10:11

Moon

A: 78%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	264 32.6	-37.0	N 28 37.1	-00.6
01	278 55.6	-36.9	N 28 36.5	-00.9
02	293 18.7	-36.9	N 28 35.6	-01.0
03	307 41.8	-36.9	N 28 34.6	-01.2
04	322 04.9	-36.8	N 28 33.4	-01.4
05	336 28.1	-36.8	N 28 32.0	-01.6
06	350 51.3	-36.7	N 28 30.4	-01.8
07	5 14.6	-36.6	N 28 28.6	-01.9
08	19 38.0	-36.7	N 28 26.7	-02.2
09	34 01.3	-36.5	N 28 24.5	-02.3
10	48 24.8	-36.5	N 28 22.2	-02.5
11	62 48.3	-36.5	N 28 19.7	-02.7
12	77 11.8	-36.3	N 28 17.0	-02.9
13	91 35.5	-36.4	N 28 14.1	-03.0
14	105 59.1	-36.2	N 28 11.1	-03.3
15	120 22.9	-36.2	N 28 07.8	-03.4
16	134 46.7	-36.1	N 28 04.4	-03.6
17	149 10.6	-36.1	N 28 00.8	-03.7
18	163 34.5	-35.9	N 27 57.1	-04.0
19	177 58.6	-35.9	N 27 53.1	-04.1
20	192 22.7	-35.9	N 27 49.0	-04.3
21	206 46.8	-35.7	N 27 44.7	-04.4
22	221 11.1	-35.7	N 27 40.3	-04.7
23	235 35.4	-35.5	N 27 35.6	-04.8

UT	02	06	10	14	18	22
SD	16′0	15′9	15′9	15′9	15′9	15′8
HP	58′6	58′5	58′4	58′3	58′2	58′1
SHA	269°	266°	264°	261°	259°	256°

Greenwich Culmination Time: 06:38

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	150 54.9	+00.9	S 09 37.7	+00.6
01	165 55.8	+00.9	S 09 38.3	+00.7
02	180 56.7	+01.0	S 09 39.0	+00.6
03	195 57.7	+00.9	S 09 39.6	+00.6
04	210 58.6	+00.9	S 09 40.2	+00.6
05	225 59.5	+00.9	S 09 40.8	+00.7
06	241 00.4	+00.9	S 09 41.5	+00.6
07	256 01.3	+00.9	S 09 42.1	+00.6
08	271 02.2	+00.9	S 09 42.7	+00.7
09	286 03.1	+00.9	S 09 43.4	+00.6
10	301 04.0	+00.9	S 09 44.0	+00.6
11	316 04.9	+00.9	S 09 44.6	+00.7
12	331 05.8	+00.9	S 09 45.3	+00.6
13	346 06.7	+00.9	S 09 45.9	+00.6
14	1 07.6	+00.9	S 09 46.5	+00.7
15	16 08.5	+00.9	S 09 47.2	+00.6
16	31 09.4	+00.9	S 09 47.8	+00.6
17	46 10.3	+00.9	S 09 48.4	+00.7
18	61 11.2	+00.9	S 09 49.1	+00.6
19	76 12.1	+00.9	S 09 49.7	+00.6
20	91 13.0	+00.9	S 09 50.3	+00.6
21	106 13.9	+00.9	S 09 50.9	+00.7
22	121 14.8	+00.9	S 09 51.6	+00.6
23	136 15.7	+00.9	S 09 52.2	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	157°	157°	156°	156°	156°	156°

Greenwich Culmination Time: 13:55

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	242 19.9	+02.1	N 21 54.4	-00.1
01	257 22.0	+02.0	N 21 54.3	+00.0
02	272 24.0	+02.1	N 21 54.3	-00.1
03	287 26.1	+02.0	N 21 54.2	+00.0
04	302 28.1	+02.1	N 21 54.2	-00.1
05	317 30.2	+02.0	N 21 54.1	+00.0
06	332 32.2	+02.1	N 21 54.1	-00.1
07	347 34.3	+02.0	N 21 54.0	+00.0
08	2 36.3	+02.0	N 21 54.0	-00.1
09	17 38.3	+02.1	N 21 53.9	+00.0
10	32 40.4	+02.0	N 21 53.9	-00.1
11	47 42.4	+02.1	N 21 53.8	+00.0
12	62 44.5	+02.0	N 21 53.8	-00.1
13	77 46.5	+02.1	N 21 53.7	-00.1
14	92 48.6	+02.0	N 21 53.6	+00.0
15	107 50.6	+02.1	N 21 53.6	-00.1
16	122 52.7	+02.1	N 21 53.5	+00.0
17	137 54.8	+02.0	N 21 53.5	-00.1
18	152 56.8	+02.1	N 21 53.4	+00.0
19	167 58.9	+02.0	N 21 53.4	-00.1
20	183 00.9	+02.1	N 21 53.3	+00.0
21	198 03.0	+02.0	N 21 53.3	-00.1
22	213 05.0	+02.1	N 21 53.2	+00.0
23	228 07.1	+02.0	N 21 53.2	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	248°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 07:49

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	354 08.4	+02.6	S 02 41.9	+00.1
01	9 11.0	+02.7	S 02 42.0	+00.0
02	24 13.7	+02.6	S 02 42.0	+00.1
03	39 16.3	+02.6	S 02 42.1	+00.1
04	54 18.9	+02.7	S 02 42.2	+00.1
05	69 21.6	+02.6	S 02 42.3	+00.1
06	84 24.2	+02.7	S 02 42.4	+00.0
07	99 26.9	+02.6	S 02 42.4	+00.1
08	114 29.5	+02.6	S 02 42.5	+00.1
09	129 32.1	+02.7	S 02 42.6	+00.1
10	144 34.8	+02.6	S 02 42.7	+00.0
11	159 37.4	+02.7	S 02 42.7	+00.1
12	174 40.1	+02.6	S 02 42.8	+00.1
13	189 42.7	+02.6	S 02 42.9	+00.1
14	204 45.3	+02.7	S 02 43.0	+00.1
15	219 48.0	+02.6	S 02 43.1	+00.0
16	234 50.6	+02.6	S 02 43.1	+00.1
17	249 53.2	+02.7	S 02 43.2	+00.1
18	264 55.9	+02.6	S 02 43.3	+00.1
19	279 58.5	+02.7	S 02 43.4	+00.1
20	295 01.2	+02.6	S 02 43.5	+00.0
21	310 03.8	+02.6	S 02 43.5	+00.1
22	325 06.4	+02.7	S 02 43.6	+00.1
23	340 09.1	+02.6	S 02 43.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	360°	360°	360°	360°	360°	360°

Greenwich Culmination Time: 00:23

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 16 Tuesday

(day 259 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 15.8	+00.3	N 02 37.4	-01.0
01	196 16.1	+00.2	N 02 36.4	-00.9
02	211 16.3	+00.2	N 02 35.5	-01.0
03	226 16.5	+00.2	N 02 34.5	-01.0
04	241 16.7	+00.2	N 02 33.5	-00.9
05	256 16.9	+00.3	N 02 32.6	-01.0
06	271 17.2	+00.2	N 02 31.6	-00.9
07	286 17.4	+00.2	N 02 30.7	-01.0
08	301 17.6	+00.2	N 02 29.7	-01.0
09	316 17.8	+00.3	N 02 28.7	-00.9
10	331 18.1	+00.2	N 02 27.8	-01.0
11	346 18.3	+00.2	N 02 26.8	-01.0
12	1 18.5	+00.2	N 02 25.8	-00.9
13	16 18.7	+00.3	N 02 24.9	-01.0
14	31 19.0	+00.2	N 02 23.9	-01.0
15	46 19.2	+00.2	N 02 22.9	-00.9
16	61 19.4	+00.2	N 02 22.0	-01.0
17	76 19.6	+00.2	N 02 21.0	-01.0
18	91 19.8	+00.3	N 02 20.0	-00.9
19	106 20.1	+00.2	N 02 19.1	-01.0
20	121 20.3	+00.2	N 02 18.1	-01.0
21	136 20.5	+00.2	N 02 17.1	-00.9
22	151 20.7	+00.3	N 02 16.2	-01.0
23	166 21.0	+00.2	N 02 15.2	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	186°	186°	186°	186°	185°	185°

Greenwich Culmination Time: 11:54

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	206 57.7	-00.6	N 13 42.6	-00.9
01	221 57.1	-00.5	N 13 41.7	-00.9
02	236 56.6	-00.5	N 13 40.8	-01.0
03	251 56.1	-00.5	N 13 39.8	-00.9
04	266 55.6	-00.5	N 13 38.9	-00.9
05	281 55.1	-00.6	N 13 38.0	-01.0
06	296 54.5	-00.5	N 13 37.0	-00.9
07	311 54.0	-00.5	N 13 36.1	-01.0
08	326 53.5	-00.5	N 13 35.1	-00.9
09	341 53.0	-00.5	N 13 34.2	-01.0
10	356 52.5	-00.5	N 13 33.2	-00.9
11	11 52.0	-00.5	N 13 32.3	-00.9
12	26 51.5	-00.6	N 13 31.4	-01.0
13	41 50.9	-00.5	N 13 30.4	-00.9
14	56 50.4	-00.5	N 13 29.5	-01.0
15	71 49.9	-00.5	N 13 28.5	-00.9
16	86 49.4	-00.5	N 13 27.6	-01.0
17	101 48.9	-00.5	N 13 26.6	-00.9
18	116 48.4	-00.5	N 13 25.7	-01.0
19	131 47.9	-00.6	N 13 24.7	-00.9
20	146 47.3	-00.5	N 13 23.8	-01.0
21	161 46.8	-00.5	N 13 22.8	-00.9
22	176 46.3	-00.5	N 13 21.9	-01.0
23	191 45.8	-00.5	N 13 20.9	-00.9

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	212°	211°	211°	211°	211°	211°

Greenwich Culmination Time: 10:12

Moon

A: 82%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	249 59.9	-35.5	N 27 30.8	-04.9
01	264 24.4	-35.4	N 27 25.9	-05.2
02	278 49.0	-35.4	N 27 20.7	-05.3
03	293 13.6	-35.2	N 27 15.4	-05.5
04	307 38.4	-35.2	N 27 09.9	-05.6
05	322 03.2	-35.0	N 27 04.3	-05.8
06	336 28.2	-35.0	N 26 58.5	-05.9
07	350 53.2	-34.8	N 26 52.6	-06.2
08	5 18.4	-34.8	N 26 46.4	-06.2
09	19 43.6	-34.7	N 26 40.2	-06.5
10	34 08.9	-34.6	N 26 33.7	-06.5
11	48 34.3	-34.5	N 26 27.2	-06.8
12	62 59.8	-34.4	N 26 20.4	-06.9
13	77 25.4	-34.3	N 26 13.5	-07.0
14	91 51.1	-34.2	N 26 06.5	-07.2
15	106 16.9	-34.1	N 25 59.3	-07.4
16	120 42.8	-33.9	N 25 51.9	-07.5
17	135 08.9	-33.9	N 25 44.4	-07.6
18	149 35.0	-33.8	N 25 36.8	-07.8
19	164 01.2	-33.7	N 25 29.0	-07.9
20	178 27.5	-33.6	N 25 21.1	-08.1
21	192 53.9	-33.4	N 25 13.0	-08.2
22	207 20.5	-33.4	N 25 04.8	-08.3
23	221 47.1	-33.3	N 24 56.5	-08.5

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′7	15′7	15′7
HP	58′0	58′0	57′9	57′8	57′7	57′6
SHA	254°	251°	249°	246°	244°	241°

Greenwich Culmination Time: 07:37

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	151 16.6	+00.9	S 09 52.8	+00.7
01	166 17.5	+00.9	S 09 53.5	+00.6
02	181 18.4	+00.9	S 09 54.1	+00.6
03	196 19.3	+00.9	S 09 54.7	+00.7
04	211 20.2	+01.0	S 09 55.4	+00.6
05	226 21.2	+00.9	S 09 56.0	+00.6
06	241 22.1	+00.9	S 09 56.6	+00.6
07	256 23.0	+00.9	S 09 57.2	+00.7
08	271 23.9	+00.9	S 09 57.9	+00.6
09	286 24.8	+00.9	S 09 58.5	+00.6
10	301 25.7	+00.9	S 09 59.1	+00.7
11	316 26.6	+00.9	S 09 59.8	+00.6
12	331 27.5	+00.9	S 10 00.4	+00.6
13	346 28.4	+00.9	S 10 01.0	+00.6
14	1 29.3	+00.9	S 10 01.6	+00.7
15	16 30.2	+00.8	S 10 02.3	+00.6
16	31 31.0	+00.9	S 10 02.9	+00.6
17	46 31.9	+00.9	S 10 03.5	+00.7
18	61 32.8	+00.9	S 10 04.2	+00.6
19	76 33.7	+00.9	S 10 04.8	+00.6
20	91 34.6	+00.9	S 10 05.4	+00.6
21	106 35.5	+00.9	S 10 06.0	+00.7
22	121 36.4	+00.9	S 10 06.7	+00.6
23	136 37.3	+00.9	S 10 07.3	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	156°	156°	156°	156°	156°	156°

Greenwich Culmination Time: 13:54

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	243 09.1	+02.1	N 21 53.1	+00.0
01	258 11.2	+02.0	N 21 53.1	-00.1
02	273 13.2	+02.1	N 21 53.0	+00.0
03	288 15.3	+02.0	N 21 53.0	-00.1
04	303 17.3	+02.1	N 21 52.9	+00.0
05	318 19.4	+02.0	N 21 52.9	-00.1
06	333 21.4	+02.1	N 21 52.8	-00.1
07	348 23.5	+02.0	N 21 52.7	+00.0
08	3 25.5	+02.1	N 21 52.7	-00.1
09	18 27.6	+02.1	N 21 52.6	+00.0
10	33 29.7	+02.0	N 21 52.6	-00.1
11	48 31.7	+02.1	N 21 52.5	+00.0
12	63 33.8	+02.0	N 21 52.5	-00.1
13	78 35.8	+02.1	N 21 52.4	+00.0
14	93 37.9	+02.0	N 21 52.4	-00.1
15	108 39.9	+02.1	N 21 52.3	+00.0
16	123 42.0	+02.0	N 21 52.3	-00.1
17	138 44.0	+02.1	N 21 52.2	+00.0
18	153 46.1	+02.1	N 21 52.2	-00.1
19	168 48.2	+02.0	N 21 52.1	+00.0
20	183 50.2	+02.1	N 21 52.1	-00.1
21	198 52.3	+02.0	N 21 52.0	-00.1
22	213 54.3	+02.1	N 21 51.9	+00.0
23	228 56.4	+02.0	N 21 51.9	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	248°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 07:46

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	355 11.7	+02.7	S 02 43.8	+00.1
01	10 14.4	+02.6	S 02 43.9	+00.0
02	25 17.0	+02.6	S 02 43.9	+00.1
03	40 19.6	+02.7	S 02 44.0	+00.1
04	55 22.3	+02.6	S 02 44.1	+00.1
05	70 24.9	+02.7	S 02 44.2	+00.1
06	85 27.6	+02.6	S 02 44.3	+00.0
07	100 30.2	+02.6	S 02 44.3	+00.1
08	115 32.8	+02.7	S 02 44.4	+00.1
09	130 35.5	+02.6	S 02 44.5	+00.1
10	145 38.1	+02.7	S 02 44.6	+00.0
11	160 40.8	+02.6	S 02 44.6	+00.1
12	175 43.4	+02.6	S 02 44.7	+00.1
13	190 46.0	+02.7	S 02 44.8	+00.1
14	205 48.7	+02.6	S 02 44.9	+00.1
15	220 51.3	+02.7	S 02 45.0	+00.0
16	235 54.0	+02.6	S 02 45.0	+00.1
17	250 56.6	+02.6	S 02 45.1	+00.1
18	265 59.2	+02.7	S 02 45.2	+00.1
19	281 01.9	+02.6	S 02 45.3	+00.1
20	296 04.5	+02.7	S 02 45.4	+00.0
21	311 07.2	+02.6	S 02 45.4	+00.1
22	326 09.8	+02.6	S 02 45.5	+00.1
23	341 12.4	+02.7	S 02 45.6	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 00:19

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 17 Wednesday (day 260 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	181 21.2	+00.2	N 02 14.2	-00.9
01	196 21.4	+00.2	N 02 13.3	-01.0
02	211 21.6	+00.3	N 02 12.3	-01.0
03	226 21.9	+00.2	N 02 11.3	-00.9
04	241 22.1	+00.2	N 02 10.4	-01.0
05	256 22.3	+00.2	N 02 09.4	-01.0
06	271 22.5	+00.2	N 02 08.4	-00.9
07	286 22.7	+00.3	N 02 07.5	-01.0
08	301 23.0	+00.2	N 02 06.5	-01.0
09	316 23.2	+00.2	N 02 05.5	-00.9
10	331 23.4	+00.2	N 02 04.6	-01.0
11	346 23.6	+00.3	N 02 03.6	-01.0
12	1 23.9	+00.2	N 02 02.6	-00.9
13	16 24.1	+00.2	N 02 01.7	-01.0
14	31 24.3	+00.2	N 02 00.7	-01.0
15	46 24.5	+00.3	N 01 59.7	-00.9
16	61 24.8	+00.2	N 01 58.8	-01.0
17	76 25.0	+00.2	N 01 57.8	-01.0
18	91 25.2	+00.2	N 01 56.8	-00.9
19	106 25.4	+00.2	N 01 55.9	-01.0
20	121 25.6	+00.3	N 01 54.9	-01.0
21	136 25.9	+00.2	N 01 53.9	-00.9
22	151 26.1	+00.2	N 01 53.0	-01.0
23	166 26.3	+00.2	N 01 52.0	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	185°	185°	185°	185°	184°	184°

Greenwich Culmination Time: 11:54

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	206 45.3	-00.5	N 13 20.0	-01.0
01	221 44.8	-00.5	N 13 19.0	-00.9
02	236 44.3	-00.5	N 13 18.1	-01.0
03	251 43.8	-00.5	N 13 17.1	-00.9
04	266 43.3	-00.6	N 13 16.2	-01.0
05	281 42.7	-00.5	N 13 15.2	-01.0
06	296 42.2	-00.5	N 13 14.2	-00.9
07	311 41.7	-00.5	N 13 13.3	-01.0
08	326 41.2	-00.5	N 13 12.3	-00.9
09	341 40.7	-00.5	N 13 11.4	-01.0
10	356 40.2	-00.5	N 13 10.4	-01.0
11	11 39.7	-00.5	N 13 09.4	-00.9
12	26 39.2	-00.5	N 13 08.5	-01.0
13	41 38.7	-00.5	N 13 07.5	-00.9
14	56 38.2	-00.5	N 13 06.6	-01.0
15	71 37.7	-00.5	N 13 05.6	-01.0
16	86 37.2	-00.6	N 13 04.6	-00.9
17	101 36.6	-00.5	N 13 03.7	-01.0
18	116 36.1	-00.5	N 13 02.7	-01.0
19	131 35.6	-00.5	N 13 01.7	-00.9
20	146 35.1	-00.5	N 13 00.8	-01.0
21	161 34.6	-00.5	N 12 59.8	-01.0
22	176 34.1	-00.5	N 12 58.8	-00.9
23	191 33.6	-00.5	N 12 57.9	-01.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	210°	210°	210°	210°	210°	209°

Greenwich Culmination Time: 10:13

Moon

A: 86%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	236 13.8	-33.1	N 24 48.0	-08.6
01	250 40.7	-33.1	N 24 39.4	-08.7
02	265 07.6	-32.9	N 24 30.7	-08.9
03	279 34.7	-32.8	N 24 21.8	-09.0
04	294 01.9	-32.7	N 24 12.8	-09.2
05	308 29.2	-32.7	N 24 03.6	-09.2
06	322 56.5	-32.5	N 23 54.4	-09.4
07	337 24.0	-32.3	N 23 45.0	-09.5
08	351 51.7	-32.3	N 23 35.5	-09.7
09	6 19.4	-32.2	N 23 25.8	-09.7
10	20 47.2	-32.1	N 23 16.1	-09.9
11	35 15.1	-31.9	N 23 06.2	-10.0
12	49 43.2	-31.9	N 22 56.2	-10.1
13	64 11.3	-31.7	N 22 46.1	-10.2
14	78 39.6	-31.7	N 22 35.9	-10.4
15	93 07.9	-31.5	N 22 25.5	-10.4
16	107 36.4	-31.4	N 22 15.1	-10.6
17	122 05.0	-31.3	N 22 04.5	-10.7
18	136 33.7	-31.2	N 21 53.8	-10.7
19	151 02.5	-31.1	N 21 43.1	-10.9
20	165 31.4	-31.0	N 21 32.2	-11.0
21	180 00.4	-30.9	N 21 21.2	-11.1
22	194 29.5	-30.8	N 21 10.1	-11.2
23	208 58.7	-30.7	N 20 58.9	-11.3

UT	02	06	10	14	18	22
SD	15′7	15′6	15′6	15′6	15′6	15′6
HP	57′5	57′4	57′3	57′3	57′2	57′1
SHA	239°	237°	234°	232°	230°	227°

Greenwich Culmination Time: 08:33

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	151 38.2	+00.9	S 10 07.9	+00.7
01	166 39.1	+00.9	S 10 08.6	+00.6
02	181 40.0	+00.9	S 10 09.2	+00.6
03	196 40.9	+00.9	S 10 09.8	+00.6
04	211 41.8	+00.9	S 10 10.4	+00.7
05	226 42.7	+00.9	S 10 11.1	+00.6
06	241 43.6	+00.9	S 10 11.7	+00.6
07	256 44.5	+00.9	S 10 12.3	+00.7
08	271 45.4	+00.9	S 10 13.0	+00.6
09	286 46.3	+00.9	S 10 13.6	+00.6
10	301 47.2	+00.9	S 10 14.2	+00.6
11	316 48.1	+00.9	S 10 14.8	+00.7
12	331 49.0	+00.9	S 10 15.5	+00.6
13	346 49.9	+00.9	S 10 16.1	+00.6
14	1 50.8	+00.9	S 10 16.7	+00.6
15	16 51.7	+00.9	S 10 17.3	+00.7
16	31 52.6	+00.9	S 10 18.0	+00.6
17	46 53.5	+00.8	S 10 18.6	+00.6
18	61 54.3	+00.9	S 10 19.2	+00.6
19	76 55.2	+00.9	S 10 19.8	+00.7
20	91 56.1	+00.9	S 10 20.5	+00.6
21	106 57.0	+00.9	S 10 21.1	+00.6
22	121 57.9	+00.9	S 10 21.7	+00.7
23	136 58.8	+00.9	S 10 22.4	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	155°	155°	155°	155°	155°	155°

Greenwich Culmination Time: 13:52

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	243 58.4	+02.1	N 21 51.8	+00.0
01	259 00.5	+02.1	N 21 51.8	-00.1
02	274 02.6	+02.0	N 21 51.7	+00.0
03	289 04.6	+02.1	N 21 51.7	-00.1
04	304 06.7	+02.0	N 21 51.6	+00.0
05	319 08.7	+02.1	N 21 51.6	-00.1
06	334 10.8	+02.0	N 21 51.5	+00.0
07	349 12.8	+02.1	N 21 51.5	-00.1
08	4 14.9	+02.1	N 21 51.4	+00.0
09	19 17.0	+02.0	N 21 51.4	-00.1
10	34 19.0	+02.1	N 21 51.3	+00.0
11	49 21.1	+02.0	N 21 51.3	-00.1
12	64 23.1	+02.1	N 21 51.2	+00.0
13	79 25.2	+02.1	N 21 51.2	-00.1
14	94 27.3	+02.0	N 21 51.1	+00.0
15	109 29.3	+02.1	N 21 51.1	-00.1
16	124 31.4	+02.1	N 21 51.0	-00.1
17	139 33.5	+02.0	N 21 50.9	+00.0
18	154 35.5	+02.1	N 21 50.9	-00.1
19	169 37.6	+02.0	N 21 50.8	+00.0
20	184 39.6	+02.1	N 21 50.8	-00.1
21	199 41.7	+02.1	N 21 50.7	+00.0
22	214 43.8	+02.0	N 21 50.7	-00.1
23	229 45.8	+02.1	N 21 50.6	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	248°	248°	248°	248°	248°	248°

Greenwich Culmination Time: 07:43

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	356 15.1	+02.6	S 02 45.7	+00.1
01	11 17.7	+02.7	S 02 45.8	+00.0
02	26 20.4	+02.6	S 02 45.8	+00.1
03	41 23.0	+02.6	S 02 45.9	+00.1
04	56 25.6	+02.7	S 02 46.0	+00.1
05	71 28.3	+02.6	S 02 46.1	+00.1
06	86 30.9	+02.7	S 02 46.2	+00.0
07	101 33.6	+02.6	S 02 46.2	+00.1
08	116 36.2	+02.7	S 02 46.3	+00.1
09	131 38.9	+02.6	S 02 46.4	+00.1
10	146 41.5	+02.6	S 02 46.5	+00.0
11	161 44.1	+02.7	S 02 46.5	+00.1
12	176 46.8	+02.6	S 02 46.6	+00.1
13	191 49.4	+02.7	S 02 46.7	+00.1
14	206 52.1	+02.6	S 02 46.8	+00.1
15	221 54.7	+02.6	S 02 46.9	+00.0
16	236 57.3	+02.7	S 02 46.9	+00.1
17	251 60.0	+02.6	S 02 47.0	+00.1
18	267 02.6	+02.7	S 02 47.1	+00.1
19	282 05.3	+02.6	S 02 47.2	+00.1
20	297 07.9	+02.6	S 02 47.3	+00.0
21	312 10.5	+02.7	S 02 47.3	+00.1
22	327 13.2	+02.6	S 02 47.4	+00.1
23	342 15.8	+02.7	S 02 47.5	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 00:14

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2025 September 18 Thursday

(day 261 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 26.5	+00.3	N 01 51.0	-00.9
01	196 26.8	+00.2	N 01 50.1	-01.0
02	211 27.0	+00.2	N 01 49.1	-01.0
03	226 27.2	+00.2	N 01 48.1	-00.9
04	241 27.4	+00.3	N 01 47.2	-01.0
05	256 27.7	+00.2	N 01 46.2	-01.0
06	271 27.9	+00.2	N 01 45.2	-01.0
07	286 28.1	+00.2	N 01 44.2	-00.9
08	301 28.3	+00.2	N 01 43.3	-01.0
09	316 28.5	+00.3	N 01 42.3	-01.0
10	331 28.8	+00.2	N 01 41.3	-00.9
11	346 29.0	+00.2	N 01 40.4	-01.0
12	1 29.2	+00.2	N 01 39.4	-01.0
13	16 29.4	+00.3	N 01 38.4	-00.9
14	31 29.7	+00.2	N 01 37.5	-01.0
15	46 29.9	+00.2	N 01 36.5	-01.0
16	61 30.1	+00.2	N 01 35.5	-00.9
17	76 30.3	+00.2	N 01 34.6	-01.0
18	91 30.5	+00.3	N 01 33.6	-01.0
19	106 30.8	+00.2	N 01 32.6	-00.9
20	121 31.0	+00.2	N 01 31.7	-01.0
21	136 31.2	+00.2	N 01 30.7	-01.0
22	151 31.4	+00.3	N 01 29.7	-01.0
23	166 31.7	+00.2	N 01 28.7	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	184°	184°	184°	184°	184°	183°

Greenwich Culmination Time: 11:54

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	206 33.1	-00.5	N 12 56.9	-01.0
01	221 32.6	-00.5	N 12 55.9	-00.9
02	236 32.1	-00.5	N 12 55.0	-01.0
03	251 31.6	-00.5	N 12 54.0	-01.0
04	266 31.1	-00.5	N 12 53.0	-00.9
05	281 30.6	-00.5	N 12 52.1	-01.0
06	296 30.1	-00.5	N 12 51.1	-01.0
07	311 29.6	-00.5	N 12 50.1	-01.0
08	326 29.1	-00.5	N 12 49.1	-00.9
09	341 28.6	-00.5	N 12 48.2	-01.0
10	356 28.1	-00.5	N 12 47.2	-01.0
11	11 27.6	-00.5	N 12 46.2	-01.0
12	26 27.1	-00.5	N 12 45.2	-00.9
13	41 26.6	-00.5	N 12 44.3	-01.0
14	56 26.1	-00.5	N 12 43.3	-01.0
15	71 25.6	-00.5	N 12 42.3	-01.0
16	86 25.1	-00.5	N 12 41.3	-01.0
17	101 24.6	-00.5	N 12 40.3	-00.9
18	116 24.1	-00.5	N 12 39.4	-01.0
19	131 23.6	-00.5	N 12 38.4	-01.0
20	146 23.1	-00.5	N 12 37.4	-01.0
21	161 22.6	-00.5	N 12 36.4	-01.0
22	176 22.1	-00.5	N 12 35.4	-00.9
23	191 21.6	-00.5	N 12 34.5	-01.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	209°	209°	209°	209°	208°	208°

Greenwich Culmination Time: 10:14

Moon

A: 90%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	223 28.0	-30.5	N 20 47.6	-11.4
01	237 57.5	-30.5	N 20 36.2	-11.5
02	252 27.0	-30.3	N 20 24.7	-11.5
03	266 56.7	-30.3	N 20 13.2	-11.7
04	281 26.4	-30.1	N 20 01.5	-11.8
05	295 56.3	-30.1	N 19 49.7	-11.8
06	310 26.2	-29.9	N 19 37.9	-12.0
07	324 56.3	-29.9	N 19 25.9	-12.0
08	339 26.4	-29.7	N 19 13.9	-12.1
09	353 56.7	-29.7	N 19 01.8	-12.2
10	8 27.0	-29.5	N 18 49.6	-12.3
11	22 57.5	-29.4	N 18 37.3	-12.4
12	37 28.1	-29.4	N 18 24.9	-12.4
13	51 58.7	-29.2	N 18 12.5	-12.5
14	66 29.5	-29.2	N 17 60.0	-12.6
15	81 00.3	-29.1	N 17 47.4	-12.7
16	95 31.2	-28.9	N 17 34.7	-12.8
17	110 02.3	-28.9	N 17 21.9	-12.8
18	124 33.4	-28.8	N 17 09.1	-12.9
19	139 04.6	-28.6	N 16 56.2	-13.0
20	153 36.0	-28.6	N 16 43.2	-13.0
21	168 07.4	-28.5	N 16 30.2	-13.1
22	182 38.9	-28.4	N 16 17.1	-13.2
23	197 10.5	-28.4	N 16 03.9	-13.2

UT	02	06	10	14	18	22
SD	15′5	15′5	15′5	15′5	15′4	15′4
HP	57′0	56′9	56′8	56′7	56′6	56′6
SHA	225°	223°	221°	219°	217°	215°

Greenwich Culmination Time: 09:25

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	151 59.7	+00.9	S 10 23.0	+00.6
01	167 00.6	+00.9	S 10 23.6	+00.6
02	182 01.5	+00.9	S 10 24.2	+00.7
03	197 02.4	+00.9	S 10 24.9	+00.6
04	212 03.3	+00.9	S 10 25.5	+00.6
05	227 04.2	+00.9	S 10 26.1	+00.6
06	242 05.1	+00.8	S 10 26.7	+00.7
07	257 05.9	+00.9	S 10 27.4	+00.6
08	272 06.8	+00.9	S 10 28.0	+00.6
09	287 07.7	+00.9	S 10 28.6	+00.6
10	302 08.6	+00.9	S 10 29.2	+00.7
11	317 09.5	+00.9	S 10 29.9	+00.6
12	332 10.4	+00.9	S 10 30.5	+00.6
13	347 11.3	+00.9	S 10 31.1	+00.6
14	2 12.2	+00.9	S 10 31.7	+00.7
15	17 13.1	+00.8	S 10 32.4	+00.6
16	32 13.9	+00.9	S 10 33.0	+00.6
17	47 14.8	+00.9	S 10 33.6	+00.6
18	62 15.7	+00.9	S 10 34.2	+00.7
19	77 16.6	+00.9	S 10 34.9	+00.6
20	92 17.5	+00.9	S 10 35.5	+00.6
21	107 18.4	+00.9	S 10 36.1	+00.6
22	122 19.3	+00.9	S 10 36.7	+00.7
23	137 20.2	+00.9	S 10 37.4	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	155°	155°	155°	154°	154°	154°

Greenwich Culmination Time: 13:51

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	244 47.9	+02.1	N 21 50.6	-00.1
01	259 50.0	+02.0	N 21 50.5	+00.0
02	274 52.0	+02.1	N 21 50.5	-00.1
03	289 54.1	+02.0	N 21 50.4	+00.0
04	304 56.1	+02.1	N 21 50.4	-00.1
05	319 58.2	+02.1	N 21 50.3	+00.0
06	335 00.3	+02.0	N 21 50.3	-00.1
07	350 02.3	+02.1	N 21 50.2	+00.0
08	5 04.4	+02.1	N 21 50.2	-00.1
09	20 06.5	+02.0	N 21 50.1	+00.0
10	35 08.5	+02.1	N 21 50.1	-00.1
11	50 10.6	+02.1	N 21 50.0	+00.0
12	65 12.7	+02.0	N 21 50.0	-00.1
13	80 14.7	+02.1	N 21 49.9	-00.1
14	95 16.8	+02.1	N 21 49.8	+00.0
15	110 18.9	+02.0	N 21 49.8	-00.1
16	125 20.9	+02.1	N 21 49.7	+00.0
17	140 23.0	+02.1	N 21 49.7	-00.1
18	155 25.1	+02.0	N 21 49.6	+00.0
19	170 27.1	+02.1	N 21 49.6	-00.1
20	185 29.2	+02.1	N 21 49.5	+00.0
21	200 31.3	+02.0	N 21 49.5	-00.1
22	215 33.3	+02.1	N 21 49.4	+00.0
23	230 35.4	+02.1	N 21 49.4	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	248°	248°	248°	248°	248°	247°

Greenwich Culmination Time: 07:39

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	357 18.5	+02.6	S 02 47.6	+00.1
01	12 21.1	+02.6	S 02 47.7	+00.0
02	27 23.7	+02.7	S 02 47.7	+00.1
03	42 26.4	+02.6	S 02 47.8	+00.1
04	57 29.0	+02.7	S 02 47.9	+00.1
05	72 31.7	+02.6	S 02 48.0	+00.0
06	87 34.3	+02.6	S 02 48.0	+00.1
07	102 36.9	+02.7	S 02 48.1	+00.1
08	117 39.6	+02.6	S 02 48.2	+00.1
09	132 42.2	+02.7	S 02 48.3	+00.1
10	147 44.9	+02.6	S 02 48.4	+00.0
11	162 47.5	+02.7	S 02 48.4	+00.1
12	177 50.2	+02.6	S 02 48.5	+00.1
13	192 52.8	+02.6	S 02 48.6	+00.1
14	207 55.4	+02.7	S 02 48.7	+00.1
15	222 58.1	+02.6	S 02 48.8	+00.0
16	238 00.7	+02.7	S 02 48.8	+00.1
17	253 03.4	+02.6	S 02 48.9	+00.1
18	268 06.0	+02.6	S 02 49.0	+00.1
19	283 08.6	+02.7	S 02 49.1	+00.1
20	298 11.3	+02.6	S 02 49.2	+00.0
21	313 13.9	+02.7	S 02 49.2	+00.1
22	328 16.6	+02.6	S 02 49.3	+00.1
23	343 19.2	+02.6	S 02 49.4	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 00:10

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2025 September 19 Friday

(day 262 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 31.9	+00.2	N 01 27.8	-01.0
01	196 32.1	+00.2	N 01 26.8	-01.0
02	211 32.3	+00.2	N 01 25.8	-00.9
03	226 32.5	+00.3	N 01 24.9	-01.0
04	241 32.8	+00.2	N 01 23.9	-01.0
05	256 33.0	+00.2	N 01 22.9	-00.9
06	271 33.2	+00.2	N 01 22.0	-01.0
07	286 33.4	+00.3	N 01 21.0	-01.0
08	301 33.7	+00.2	N 01 20.0	-01.0
09	316 33.9	+00.2	N 01 19.0	-00.9
10	331 34.1	+00.2	N 01 18.1	-01.0
11	346 34.3	+00.2	N 01 17.1	-01.0
12	1 34.5	+00.3	N 01 16.1	-00.9
13	16 34.8	+00.2	N 01 15.2	-01.0
14	31 35.0	+00.2	N 01 14.2	-01.0
15	46 35.2	+00.2	N 01 13.2	-00.9
16	61 35.4	+00.3	N 01 12.3	-01.0
17	76 35.7	+00.2	N 01 11.3	-01.0
18	91 35.9	+00.2	N 01 10.3	-01.0
19	106 36.1	+00.2	N 01 09.3	-00.9
20	121 36.3	+00.2	N 01 08.4	-01.0
21	136 36.5	+00.3	N 01 07.4	-01.0
22	151 36.8	+00.2	N 01 06.4	-00.9
23	166 37.0	+00.2	N 01 05.5	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	183°	183°	183°	183°	183°	183°

Greenwich Culmination Time: 11:53

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	206 21.1	-00.5	N 12 33.5	-01.0
01	221 20.6	-00.5	N 12 32.5	-01.0
02	236 20.1	-00.5	N 12 31.5	-01.0
03	251 19.6	-00.5	N 12 30.5	-01.0
04	266 19.1	-00.5	N 12 29.5	-01.0
05	281 18.6	-00.5	N 12 28.5	-00.9
06	296 18.1	-00.5	N 12 27.6	-01.0
07	311 17.6	-00.5	N 12 26.6	-01.0
08	326 17.1	-00.5	N 12 25.6	-01.0
09	341 16.6	-00.5	N 12 24.6	-01.0
10	356 16.1	-00.4	N 12 23.6	-01.0
11	11 15.7	-00.5	N 12 22.6	-01.0
12	26 15.2	-00.5	N 12 21.6	-01.0
13	41 14.7	-00.5	N 12 20.6	-01.0
14	56 14.2	-00.5	N 12 19.6	-01.0
15	71 13.7	-00.5	N 12 18.6	-00.9
16	86 13.2	-00.5	N 12 17.7	-01.0
17	101 12.7	-00.5	N 12 16.7	-01.0
18	116 12.2	-00.5	N 12 15.7	-01.0
19	131 11.7	-00.5	N 12 14.7	-01.0
20	146 11.2	-00.5	N 12 13.7	-01.0
21	161 10.7	-00.5	N 12 12.7	-01.0
22	176 10.2	-00.4	N 12 11.7	-01.0
23	191 09.8	-00.5	N 12 10.7	-01.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	208°	208°	208°	208°	207°	207°

Greenwich Culmination Time: 10:14

Moon

A: 93%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	211 42.1	-28.2	N 15 50.7	-13.3
01	226 13.9	-28.1	N 15 37.4	-13.4
02	240 45.8	-28.1	N 15 24.0	-13.4
03	255 17.7	-28.0	N 15 10.6	-13.5
04	269 49.7	-27.9	N 14 57.1	-13.5
05	284 21.8	-27.8	N 14 43.6	-13.6
06	298 54.0	-27.7	N 14 30.0	-13.6
07	313 26.3	-27.7	N 14 16.4	-13.7
08	327 58.6	-27.5	N 14 02.7	-13.8
09	342 31.1	-27.5	N 13 48.9	-13.8
10	357 03.6	-27.4	N 13 35.1	-13.9
11	11 36.2	-27.3	N 13 21.2	-13.9
12	26 08.9	-27.3	N 13 07.3	-13.9
13	40 41.6	-27.2	N 12 53.4	-14.0
14	55 14.4	-27.1	N 12 39.4	-14.1
15	69 47.3	-27.0	N 12 25.3	-14.1
16	84 20.3	-27.0	N 12 11.2	-14.1
17	98 53.3	-26.9	N 11 57.1	-14.2
18	113 26.4	-26.8	N 11 42.9	-14.2
19	127 59.6	-26.7	N 11 28.7	-14.2
20	142 32.9	-26.7	N 11 14.5	-14.3
21	157 06.2	-26.7	N 11 00.2	-14.3
22	171 39.5	-26.5	N 10 45.9	-14.4
23	186 13.0	-26.5	N 10 31.5	-14.4

UT	02	06	10	14	18	22
SD	15′4	15′4	15′3	15′3	15′3	15′3
HP	56′5	56′4	56′3	56′2	56′1	56′1
SHA	213°	210°	208°	207°	205°	203°

Greenwich Culmination Time: 10:12

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	152 21.1	+00.8	S 10 38.0	+00.6
01	167 21.9	+00.9	S 10 38.6	+00.6
02	182 22.8	+00.9	S 10 39.2	+00.6
03	197 23.7	+00.9	S 10 39.8	+00.7
04	212 24.6	+00.9	S 10 40.5	+00.6
05	227 25.5	+00.9	S 10 41.1	+00.6
06	242 26.4	+00.9	S 10 41.7	+00.6
07	257 27.3	+00.8	S 10 42.3	+00.7
08	272 28.1	+00.9	S 10 43.0	+00.6
09	287 29.0	+00.9	S 10 43.6	+00.6
10	302 29.9	+00.9	S 10 44.2	+00.6
11	317 30.8	+00.9	S 10 44.8	+00.7
12	332 31.7	+00.9	S 10 45.5	+00.6
13	347 32.6	+00.8	S 10 46.1	+00.6
14	2 33.4	+00.9	S 10 46.7	+00.6
15	17 34.3	+00.9	S 10 47.3	+00.6
16	32 35.2	+00.9	S 10 47.9	+00.7
17	47 36.1	+00.9	S 10 48.6	+00.6
18	62 37.0	+00.9	S 10 49.2	+00.6
19	77 37.9	+00.8	S 10 49.8	+00.6
20	92 38.7	+00.9	S 10 50.4	+00.7
21	107 39.6	+00.9	S 10 51.1	+00.6
22	122 40.5	+00.9	S 10 51.7	+00.6
23	137 41.4	+00.9	S 10 52.3	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	154°	154°	154°	154°	154°	154°

Greenwich Culmination Time: 13:49

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	245 37.5	+02.0	N 21 49.3	+00.0
01	260 39.5	+02.1	N 21 49.3	-00.1
02	275 41.6	+02.1	N 21 49.2	+00.0
03	290 43.7	+02.0	N 21 49.2	-00.1
04	305 45.7	+02.1	N 21 49.1	+00.0
05	320 47.8	+02.1	N 21 49.1	-00.1
06	335 49.9	+02.1	N 21 49.0	+00.0
07	350 52.0	+02.0	N 21 49.0	-00.1
08	5 54.0	+02.1	N 21 48.9	+00.0
09	20 56.1	+02.1	N 21 48.9	-00.1
10	35 58.2	+02.0	N 21 48.8	+00.0
11	51 00.2	+02.1	N 21 48.8	-00.1
12	66 02.3	+02.1	N 21 48.7	-00.1
13	81 04.4	+02.1	N 21 48.6	+00.0
14	96 06.5	+02.0	N 21 48.6	-00.1
15	111 08.5	+02.1	N 21 48.5	+00.0
16	126 10.6	+02.1	N 21 48.5	-00.1
17	141 12.7	+02.0	N 21 48.4	+00.0
18	156 14.7	+02.1	N 21 48.4	-00.1
19	171 16.8	+02.1	N 21 48.3	+00.0
20	186 18.9	+02.1	N 21 48.3	-00.1
21	201 21.0	+02.0	N 21 48.2	+00.0
22	216 23.0	+02.1	N 21 48.2	-00.1
23	231 25.1	+02.1	N 21 48.1	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 07:36

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	358 21.8	+02.7	S 02 49.5	+00.1
01	13 24.5	+02.6	S 02 49.6	+00.0
02	28 27.1	+02.7	S 02 49.6	+00.1
03	43 29.8	+02.6	S 02 49.7	+00.1
04	58 32.4	+02.7	S 02 49.8	+00.1
05	73 35.1	+02.6	S 02 49.9	+00.0
06	88 37.7	+02.6	S 02 49.9	+00.1
07	103 40.3	+02.7	S 02 50.0	+00.1
08	118 43.0	+02.6	S 02 50.1	+00.1
09	133 45.6	+02.7	S 02 50.2	+00.1
10	148 48.3	+02.6	S 02 50.3	+00.0
11	163 50.9	+02.6	S 02 50.3	+00.1
12	178 53.5	+02.7	S 02 50.4	+00.1
13	193 56.2	+02.6	S 02 50.5	+00.1
14	208 58.8	+02.7	S 02 50.6	+00.1
15	224 01.5	+02.6	S 02 50.7	+00.0
16	239 04.1	+02.6	S 02 50.7	+00.1
17	254 06.7	+02.7	S 02 50.8	+00.1
18	269 09.4	+02.6	S 02 50.9	+00.1
19	284 12.0	+02.7	S 02 51.0	+00.1
20	299 14.7	+02.6	S 02 51.1	+00.0
21	314 17.3	+02.7	S 02 51.1	+00.1
22	329 20.0	+02.6	S 02 51.2	+00.1
23	344 22.6	+02.6	S 02 51.3	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 00:06

Warning: This page has been generated by a computer program. Complex computer programs usually have bugs and may produce wrong data. The data on this page is believed to be accurate but no warranty is given for its correctness. Use it only for training and exercising!

2025 September 20 Saturday

(day 263 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	181 37.2	+00.2	N 01 04.5	-01.0
01	196 37.4	+00.3	N 01 03.5	-01.0
02	211 37.7	+00.2	N 01 02.5	-00.9
03	226 37.9	+00.2	N 01 01.6	-01.0
04	241 38.1	+00.2	N 01 00.6	-01.0
05	256 38.3	+00.2	N 00 59.6	-00.9
06	271 38.5	+00.3	N 00 58.7	-01.0
07	286 38.8	+00.2	N 00 57.7	-01.0
08	301 39.0	+00.2	N 00 56.7	-01.0
09	316 39.2	+00.2	N 00 55.7	-00.9
10	331 39.4	+00.2	N 00 54.8	-01.0
11	346 39.6	+00.3	N 00 53.8	-01.0
12	1 39.9	+00.2	N 00 52.8	-00.9
13	16 40.1	+00.2	N 00 51.9	-01.0
14	31 40.3	+00.2	N 00 50.9	-01.0
15	46 40.5	+00.3	N 00 49.9	-01.0
16	61 40.8	+00.2	N 00 48.9	-00.9
17	76 41.0	+00.2	N 00 48.0	-01.0
18	91 41.2	+00.2	N 00 47.0	-01.0
19	106 41.4	+00.2	N 00 46.0	-00.9
20	121 41.6	+00.3	N 00 45.1	-01.0
21	136 41.9	+00.2	N 00 44.1	-01.0
22	151 42.1	+00.2	N 00 43.1	-01.0
23	166 42.3	+00.2	N 00 42.1	-00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	182°	182°	182°	182°	182°	182°

Greenwich Culmination Time: 11:53

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	206 09.3	-00.5	N 12 09.7	-01.0
01	221 08.8	-00.5	N 12 08.7	-01.0
02	236 08.3	-00.5	N 12 07.7	-01.0
03	251 07.8	-00.5	N 12 06.7	-01.0
04	266 07.3	-00.5	N 12 05.7	-01.0
05	281 06.8	-00.5	N 12 04.7	-01.0
06	296 06.3	-00.5	N 12 03.7	-01.0
07	311 05.8	-00.4	N 12 02.7	-01.0
08	326 05.4	-00.5	N 12 01.7	-01.0
09	341 04.9	-00.5	N 12 00.7	-01.0
10	356 04.4	-00.5	N 11 59.7	-01.0
11	11 03.9	-00.5	N 11 58.7	-01.0
12	26 03.4	-00.5	N 11 57.7	-01.1
13	41 02.9	-00.5	N 11 56.6	-01.0
14	56 02.4	-00.4	N 11 55.6	-01.0
15	71 02.0	-00.5	N 11 54.6	-01.0
16	86 01.5	-00.5	N 11 53.6	-01.0
17	101 01.0	-00.5	N 11 52.6	-01.0
18	116 00.5	-00.5	N 11 51.6	-01.0
19	131 00.0	-00.5	N 11 50.6	-01.0
20	145 59.5	-00.4	N 11 49.6	-01.0
21	160 59.1	-00.5	N 11 48.6	-01.0
22	175 58.6	-00.5	N 11 47.6	-01.0
23	190 58.1	-00.5	N 11 46.6	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	207°	207°	207°	206°	206°	206°

Greenwich Culmination Time: 10:15

Moon

A: 96%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	200 46.5	-26.4	N 10 17.1	-14.4
01	215 20.1	-26.4	N 10 02.7	-14.5
02	229 53.7	-26.3	N 09 48.2	-14.5
03	244 27.4	-26.2	N 09 33.7	-14.5
04	259 01.2	-26.2	N 09 19.2	-14.6
05	273 35.0	-26.1	N 09 04.6	-14.5
06	288 08.9	-26.1	N 08 50.1	-14.6
07	302 42.8	-26.0	N 08 35.5	-14.7
08	317 16.8	-26.0	N 08 20.8	-14.6
09	331 50.8	-25.9	N 08 06.2	-14.7
10	346 24.9	-25.8	N 07 51.5	-14.7
11	0 59.1	-25.8	N 07 36.8	-14.7
12	15 33.3	-25.8	N 07 22.1	-14.8
13	30 07.5	-25.7	N 07 07.3	-14.7
14	44 41.8	-25.7	N 06 52.6	-14.8
15	59 16.1	-25.6	N 06 37.8	-14.8
16	73 50.5	-25.5	N 06 23.0	-14.8
17	88 25.0	-25.6	N 06 08.2	-14.8
18	102 59.4	-25.4	N 05 53.4	-14.8
19	117 34.0	-25.5	N 05 38.6	-14.9
20	132 08.5	-25.4	N 05 23.7	-14.8
21	146 43.1	-25.3	N 05 08.9	-14.9
22	161 17.8	-25.3	N 04 54.0	-14.9
23	175 52.5	-25.3	N 04 39.1	-14.9

UT	02	06	10	14	18	22
SD	15′3	15′2	15′2	15′2	15′2	15′1
HP	56′0	55′9	55′8	55′7	55′7	55′6
SHA	201°	199°	197°	195°	193°	191°

Greenwich Culmination Time: 10:55

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	152 42.3	+00.9	S 10 52.9	+00.6
01	167 43.2	+00.8	S 10 53.5	+00.7
02	182 44.0	+00.9	S 10 54.2	+00.6
03	197 44.9	+00.9	S 10 54.8	+00.6
04	212 45.8	+00.9	S 10 55.4	+00.6
05	227 46.7	+00.9	S 10 56.0	+00.6
06	242 47.6	+00.8	S 10 56.6	+00.7
07	257 48.4	+00.9	S 10 57.3	+00.6
08	272 49.3	+00.9	S 10 57.9	+00.6
09	287 50.2	+00.9	S 10 58.5	+00.6
10	302 51.1	+00.9	S 10 59.1	+00.6
11	317 52.0	+00.8	S 10 59.7	+00.7
12	332 52.8	+00.9	S 11 00.4	+00.6
13	347 53.7	+00.9	S 11 01.0	+00.6
14	2 54.6	+00.9	S 11 01.6	+00.6
15	17 55.5	+00.9	S 11 02.2	+00.6
16	32 56.4	+00.8	S 11 02.8	+00.7
17	47 57.2	+00.9	S 11 03.5	+00.6
18	62 58.1	+00.9	S 11 04.1	+00.6
19	77 59.0	+00.9	S 11 04.7	+00.6
20	92 59.9	+00.8	S 11 05.3	+00.6
21	108 00.7	+00.9	S 11 05.9	+00.7
22	123 01.6	+00.9	S 11 06.6	+00.6
23	138 02.5	+00.9	S 11 07.2	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	154°	153°	153°	153°	153°	153°

Greenwich Culmination Time: 13:48

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	246 27.2	+02.1	N 21 48.1	-00.1
01	261 29.3	+02.0	N 21 48.0	+00.0
02	276 31.3	+02.1	N 21 48.0	-00.1
03	291 33.4	+02.1	N 21 47.9	+00.0
04	306 35.5	+02.1	N 21 47.9	-00.1
05	321 37.6	+02.0	N 21 47.8	+00.0
06	336 39.6	+02.1	N 21 47.8	-00.1
07	351 41.7	+02.1	N 21 47.7	+00.0
08	6 43.8	+02.1	N 21 47.7	-00.1
09	21 45.9	+02.0	N 21 47.6	+00.0
10	36 47.9	+02.1	N 21 47.6	-00.1
11	51 50.0	+02.1	N 21 47.5	+00.0
12	66 52.1	+02.1	N 21 47.5	-00.1
13	81 54.2	+02.0	N 21 47.4	+00.0
14	96 56.2	+02.1	N 21 47.4	-00.1
15	111 58.3	+02.1	N 21 47.3	+00.0
16	127 00.4	+02.1	N 21 47.3	-00.1
17	142 02.5	+02.1	N 21 47.2	+00.0
18	157 04.6	+02.0	N 21 47.2	-00.1
19	172 06.6	+02.1	N 21 47.1	+00.0
20	187 08.7	+02.1	N 21 47.1	-00.1
21	202 10.8	+02.1	N 21 47.0	-00.1
22	217 12.9	+02.0	N 21 46.9	+00.0
23	232 14.9	+02.1	N 21 46.9	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 07:33

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	359 25.2	+02.7	S 02 51.4	+00.0
01	14 27.9	+02.6	S 02 51.4	+00.1
02	29 30.5	+02.7	S 02 51.5	+00.1
03	44 33.2	+02.6	S 02 51.6	+00.1
04	59 35.8	+02.6	S 02 51.7	+00.1
05	74 38.4	+02.7	S 02 51.8	+00.0
06	89 41.1	+02.6	S 02 51.8	+00.1
07	104 43.7	+02.7	S 02 51.9	+00.1
08	119 46.4	+02.6	S 02 52.0	+00.1
09	134 49.0	+02.7	S 02 52.1	+00.1
10	149 51.7	+02.6	S 02 52.2	+00.0
11	164 54.3	+02.6	S 02 52.2	+00.1
12	179 56.9	+02.7	S 02 52.3	+00.1
13	194 59.6	+02.6	S 02 52.4	+00.1
14	210 02.2	+02.7	S 02 52.5	+00.1
15	225 04.9	+02.6	S 02 52.6	+00.0
16	240 07.5	+02.6	S 02 52.6	+00.1
17	255 10.1	+02.7	S 02 52.7	+00.1
18	270 12.8	+02.6	S 02 52.8	+00.1
19	285 15.4	+02.7	S 02 52.9	+00.0
20	300 18.1	+02.6	S 02 52.9	+00.1
21	315 20.7	+02.7	S 02 53.0	+00.1
22	330 23.4	+02.6	S 02 53.1	+00.1
23	345 26.0	+02.6	S 02 53.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 00:02

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2025 September 21 Sunday

(day 264 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	181 42.5	+00.2	N 00 41.2	-01.0
01	196 42.7	+00.3	N 00 40.2	-01.0
02	211 43.0	+00.2	N 00 39.2	-00.9
03	226 43.2	+00.2	N 00 38.3	-01.0
04	241 43.4	+00.2	N 00 37.3	-01.0
05	256 43.6	+00.2	N 00 36.3	-01.0
06	271 43.8	+00.3	N 00 35.3	-00.9
07	286 44.1	+00.2	N 00 34.4	-01.0
08	301 44.3	+00.2	N 00 33.4	-01.0
09	316 44.5	+00.2	N 00 32.4	-01.0
10	331 44.7	+00.2	N 00 31.4	-00.9
11	346 44.9	+00.3	N 00 30.5	-01.0
12	1 45.2	+00.2	N 00 29.5	-01.0
13	16 45.4	+00.2	N 00 28.5	-00.9
14	31 45.6	+00.2	N 00 27.6	-01.0
15	46 45.8	+00.2	N 00 26.6	-01.0
16	61 46.0	+00.3	N 00 25.6	-01.0
17	76 46.3	+00.2	N 00 24.6	-00.9
18	91 46.5	+00.2	N 00 23.7	-01.0
19	106 46.7	+00.2	N 00 22.7	-01.0
20	121 46.9	+00.2	N 00 21.7	-01.0
21	136 47.1	+00.3	N 00 20.7	-00.9
22	151 47.4	+00.2	N 00 19.8	-01.0
23	166 47.6	+00.2	N 00 18.8	-01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	182°	181°	181°	181°	181°	181°

Greenwich Culmination Time: 11:52

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	205 57.6	-00.5	N 11 45.5	-01.0
01	220 57.1	-00.5	N 11 44.5	-01.0
02	235 56.6	-00.4	N 11 43.5	-01.0
03	250 56.2	-00.5	N 11 42.5	-01.0
04	265 55.7	-00.5	N 11 41.5	-01.0
05	280 55.2	-00.5	N 11 40.5	-01.0
06	295 54.7	-00.5	N 11 39.5	-01.1
07	310 54.2	-00.4	N 11 38.4	-01.0
08	325 53.8	-00.5	N 11 37.4	-01.0
09	340 53.3	-00.5	N 11 36.4	-01.0
10	355 52.8	-00.5	N 11 35.4	-01.0
11	10 52.3	-00.5	N 11 34.4	-01.1
12	25 51.8	-00.4	N 11 33.3	-01.0
13	40 51.4	-00.5	N 11 32.3	-01.0
14	55 50.9	-00.5	N 11 31.3	-01.0
15	70 50.4	-00.5	N 11 30.3	-01.0
16	85 49.9	-00.5	N 11 29.3	-01.1
17	100 49.4	-00.4	N 11 28.2	-01.0
18	115 49.0	-00.5	N 11 27.2	-01.0
19	130 48.5	-00.5	N 11 26.2	-01.0
20	145 48.0	-00.5	N 11 25.2	-01.1
21	160 47.5	-00.4	N 11 24.1	-01.0
22	175 47.1	-00.5	N 11 23.1	-01.0
23	190 46.6	-00.5	N 11 22.1	-01.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	206°	206°	205°	205°	205°	205°

Greenwich Culmination Time: 10:16

Moon

A: 98%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	190 27.2	-25.2	N 04 24.2	-14.9
01	205 02.0	-25.2	N 04 09.3	-14.9
02	219 36.8	-25.2	N 03 54.4	-14.9
03	234 11.6	-25.1	N 03 39.5	-14.9
04	248 46.5	-25.2	N 03 24.6	-14.9
05	263 21.3	-25.0	N 03 09.7	-14.9
06	277 56.3	-25.1	N 02 54.8	-14.9
07	292 31.2	-25.0	N 02 39.9	-14.9
08	307 06.2	-25.0	N 02 25.0	-15.0
09	321 41.2	-24.9	N 02 10.0	-14.9
10	336 16.3	-25.0	N 01 55.1	-14.9
11	350 51.3	-24.9	N 01 40.2	-14.9
12	5 26.4	-24.8	N 01 25.3	-14.9
13	20 01.6	-24.9	N 01 10.4	-14.9
14	34 36.7	-24.9	N 00 55.5	-14.9
15	49 11.8	-24.8	N 00 40.6	-14.9
16	63 47.0	-24.8	N 00 25.7	-14.8
17	78 22.2	-24.8	N 00 10.9	-14.9
18	92 57.4	-24.7	S 00 04.0	+14.9
19	107 32.7	-24.8	S 00 18.9	+14.8
20	122 07.9	-24.7	S 00 33.7	+14.9
21	136 43.2	-24.7	S 00 48.6	+14.8
22	151 18.5	-24.7	S 01 03.4	+14.8
23	165 53.8	-24.7	S 01 18.2	+14.8

UT	02	06	10	14	18	22
SD	15′1	15′1	15′1	15′1	15′0	15′0
HP	55′5	55′4	55′4	55′3	55′2	55′2
SHA	189°	188°	186°	184°	182°	180°

Greenwich Culmination Time: 11:37

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	153 03.4	+00.8	S 11 07.8	+00.6
01	168 04.2	+00.9	S 11 08.4	+00.6
02	183 05.1	+00.9	S 11 09.0	+00.7
03	198 06.0	+00.9	S 11 09.7	+00.6
04	213 06.9	+00.9	S 11 10.3	+00.6
05	228 07.8	+00.8	S 11 10.9	+00.6
06	243 08.6	+00.9	S 11 11.5	+00.6
07	258 09.5	+00.9	S 11 12.1	+00.7
08	273 10.4	+00.9	S 11 12.8	+00.6
09	288 11.3	+00.8	S 11 13.4	+00.6
10	303 12.1	+00.9	S 11 14.0	+00.6
11	318 13.0	+00.9	S 11 14.6	+00.6
12	333 13.9	+00.8	S 11 15.2	+00.6
13	348 14.7	+00.9	S 11 15.8	+00.7
14	3 15.6	+00.9	S 11 16.5	+00.6
15	18 16.5	+00.9	S 11 17.1	+00.6
16	33 17.4	+00.8	S 11 17.7	+00.6
17	48 18.2	+00.9	S 11 18.3	+00.6
18	63 19.1	+00.9	S 11 18.9	+00.6
19	78 20.0	+00.9	S 11 19.5	+00.7
20	93 20.9	+00.8	S 11 20.2	+00.6
21	108 21.7	+00.9	S 11 20.8	+00.6
22	123 22.6	+00.9	S 11 21.4	+00.6
23	138 23.5	+00.8	S 11 22.0	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	153°	153°	153°	153°	152°	152°

Greenwich Culmination Time: 13:46

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	247 17.0	+02.1	N 21 46.8	+00.0
01	262 19.1	+02.1	N 21 46.8	-00.1
02	277 21.2	+02.1	N 21 46.7	+00.0
03	292 23.3	+02.0	N 21 46.7	-00.1
04	307 25.3	+02.1	N 21 46.6	+00.0
05	322 27.4	+02.1	N 21 46.6	-00.1
06	337 29.5	+02.1	N 21 46.5	+00.0
07	352 31.6	+02.1	N 21 46.5	-00.1
08	7 33.7	+02.1	N 21 46.4	+00.0
09	22 35.8	+02.0	N 21 46.4	-00.1
10	37 37.8	+02.1	N 21 46.3	+00.0
11	52 39.9	+02.1	N 21 46.3	-00.1
12	67 42.0	+02.1	N 21 46.2	+00.0
13	82 44.1	+02.1	N 21 46.2	-00.1
14	97 46.2	+02.0	N 21 46.1	+00.0
15	112 48.2	+02.1	N 21 46.1	-00.1
16	127 50.3	+02.1	N 21 46.0	+00.0
17	142 52.4	+02.1	N 21 46.0	-00.1
18	157 54.5	+02.1	N 21 45.9	+00.0
19	172 56.6	+02.1	N 21 45.9	-00.1
20	187 58.7	+02.1	N 21 45.8	+00.0
21	203 00.8	+02.0	N 21 45.8	-00.1
22	218 02.8	+02.1	N 21 45.7	+00.0
23	233 04.9	+02.1	N 21 45.7	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 07:29

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	0 28.6	+02.7	S 02 53.3	+00.0
01	15 31.3	+02.6	S 02 53.3	+00.1
02	30 33.9	+02.7	S 02 53.4	+00.1
03	45 36.6	+02.6	S 02 53.5	+00.1
04	60 39.2	+02.6	S 02 53.6	+00.1
05	75 41.8	+02.7	S 02 53.7	+00.0
06	90 44.5	+02.6	S 02 53.7	+00.1
07	105 47.1	+02.7	S 02 53.8	+00.1
08	120 49.8	+02.6	S 02 53.9	+00.1
09	135 52.4	+02.7	S 02 54.0	+00.0
10	150 55.1	+02.6	S 02 54.0	+00.1
11	165 57.7	+02.6	S 02 54.1	+00.1
12	181 00.3	+02.7	S 02 54.2	+00.1
13	196 03.0	+02.6	S 02 54.3	+00.1
14	211 05.6	+02.7	S 02 54.4	+00.0
15	226 08.3	+02.6	S 02 54.4	+00.1
16	241 10.9	+02.6	S 02 54.5	+00.1
17	256 13.5	+02.7	S 02 54.6	+00.1
18	271 16.2	+02.6	S 02 54.7	+00.1
19	286 18.8	+02.7	S 02 54.8	+00.0
20	301 21.5	+02.6	S 02 54.8	+00.1
21	316 24.1	+02.7	S 02 54.9	+00.1
22	331 26.8	+02.6	S 02 55.0	+00.1
23	346 29.4	+02.6	S 02 55.1	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 23:53

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2025 September 22 Monday

(day 265 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 47.8	+00.2	N 00 17.8	−00.9
01	196 48.0	+00.2	N 00 16.9	−01.0
02	211 48.2	+00.3	N 00 15.9	−01.0
03	226 48.5	+00.2	N 00 14.9	−01.0
04	241 48.7	+00.2	N 00 13.9	−00.9
05	256 48.9	+00.2	N 00 13.0	−01.0
06	271 49.1	+00.2	N 00 12.0	−01.0
07	286 49.3	+00.3	N 00 11.0	−01.0
08	301 49.6	+00.2	N 00 10.0	−00.9
09	316 49.8	+00.2	N 00 09.1	−01.0
10	331 50.0	+00.2	N 00 08.1	−01.0
11	346 50.2	+00.2	N 00 07.1	−00.9
12	1 50.4	+00.3	N 00 06.2	−01.0
13	16 50.7	+00.2	N 00 05.2	−01.0
14	31 50.9	+00.2	N 00 04.2	−01.0
15	46 51.1	+00.2	N 00 03.2	−00.9
16	61 51.3	+00.2	N 00 02.3	−01.0
17	76 51.5	+00.3	N 00 01.3	−01.0
18	91 51.8	+00.2	N 00 00.3	−01.0
19	106 52.0	+00.2	S 00 00.7	+00.9
20	121 52.2	+00.2	S 00 01.6	+01.0
21	136 52.4	+00.2	S 00 02.6	+01.0
22	151 52.6	+00.3	S 00 03.6	+01.0
23	166 52.9	+00.2	S 00 04.6	+00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	181°	180°	180°	180°	180°	180°

Greenwich Culmination Time: 11:52

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	205 46.1	−00.5	N 11 21.1	−01.1
01	220 45.6	−00.4	N 11 20.0	−01.0
02	235 45.2	−00.5	N 11 19.0	−01.0
03	250 44.7	−00.5	N 11 18.0	−01.1
04	265 44.2	−00.5	N 11 16.9	−01.0
05	280 43.7	−00.4	N 11 15.9	−01.0
06	295 43.3	−00.5	N 11 14.9	−01.0
07	310 42.8	−00.5	N 11 13.9	−01.1
08	325 42.3	−00.5	N 11 12.8	−01.0
09	340 41.8	−00.4	N 11 11.8	−01.0
10	355 41.4	−00.5	N 11 10.8	−01.1
11	10 40.9	−00.5	N 11 09.7	−01.0
12	25 40.4	−00.5	N 11 08.7	−01.0
13	40 39.9	−00.4	N 11 07.7	−01.1
14	55 39.5	−00.5	N 11 06.6	−01.0
15	70 39.0	−00.5	N 11 05.6	−01.0
16	85 38.5	−00.4	N 11 04.6	−01.1
17	100 38.1	−00.5	N 11 03.5	−01.0
18	115 37.6	−00.5	N 11 02.5	−01.1
19	130 37.1	−00.4	N 11 01.4	−01.0
20	145 36.7	−00.5	N 11 00.4	−01.0
21	160 36.2	−00.5	N 10 59.4	−01.1
22	175 35.7	−00.5	N 10 58.3	−01.0
23	190 35.2	−00.4	N 10 57.3	−01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	205°	204°	204°	204°	204°	204°

Greenwich Culmination Time: 10:17

Moon

A: 01%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 29.1	−24.7	S 01 33.0	+14.8
01	195 04.4	−24.7	S 01 47.8	+14.7
02	209 39.7	−24.6	S 02 02.5	+14.8
03	224 15.1	−24.7	S 02 17.3	+14.7
04	238 50.4	−24.7	S 02 32.0	+14.7
05	253 25.7	−24.6	S 02 46.7	+14.7
06	268 01.1	−24.6	S 03 01.4	+14.7
07	282 36.5	−24.7	S 03 16.1	+14.6
08	297 11.8	−24.6	S 03 30.7	+14.6
09	311 47.2	−24.6	S 03 45.3	+14.6
10	326 22.6	−24.7	S 03 59.9	+14.6
11	340 57.9	−24.6	S 04 14.5	+14.6
12	355 33.3	−24.6	S 04 29.1	+14.5
13	10 08.7	−24.7	S 04 43.6	+14.5
14	24 44.0	−24.6	S 04 58.1	+14.5
15	39 19.4	−24.7	S 05 12.6	+14.4
16	53 54.7	−24.6	S 05 27.0	+14.4
17	68 30.1	−24.7	S 05 41.4	+14.4
18	83 05.4	−24.6	S 05 55.8	+14.4
19	97 40.8	−24.7	S 06 10.2	+14.3
20	112 16.1	−24.7	S 06 24.5	+14.3
21	126 51.4	−24.7	S 06 38.8	+14.3
22	141 26.7	−24.7	S 06 53.1	+14.2
23	156 02.0	−24.7	S 07 07.3	+14.2

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	15′0	14′9	14′9
HP	55′1	55′0	54′9	54′9	54′8	54′8
SHA	178°	177°	175°	173°	171°	169°

Greenwich Culmination Time: 12:18

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	153 24.3	+00.9	S 11 22.6	+00.6
01	168 25.2	+00.9	S 11 23.2	+00.7
02	183 26.1	+00.9	S 11 23.9	+00.6
03	198 27.0	+00.8	S 11 24.5	+00.6
04	213 27.8	+00.9	S 11 25.1	+00.6
05	228 28.7	+00.9	S 11 25.7	+00.6
06	243 29.6	+00.8	S 11 26.3	+00.6
07	258 30.4	+00.9	S 11 26.9	+00.7
08	273 31.3	+00.9	S 11 27.6	+00.6
09	288 32.2	+00.8	S 11 28.2	+00.6
10	303 33.0	+00.9	S 11 28.8	+00.6
11	318 33.9	+00.9	S 11 29.4	+00.6
12	333 34.8	+00.8	S 11 30.0	+00.6
13	348 35.6	+00.9	S 11 30.6	+00.7
14	3 36.5	+00.9	S 11 31.3	+00.6
15	18 37.4	+00.9	S 11 31.9	+00.6
16	33 38.3	+00.8	S 11 32.5	+00.6
17	48 39.1	+00.9	S 11 33.1	+00.6
18	63 40.0	+00.9	S 11 33.7	+00.6
19	78 40.9	+00.8	S 11 34.3	+00.6
20	93 41.7	+00.9	S 11 34.9	+00.7
21	108 42.6	+00.9	S 11 35.6	+00.6
22	123 43.5	+00.8	S 11 36.2	+00.6
23	138 44.3	+00.9	S 11 36.8	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	152°	152°	152°	152°	152°	152°

Greenwich Culmination Time: 13:45

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	248 07.0	+02.1	N 21 45.6	+00.0
01	263 09.1	+02.1	N 21 45.6	−00.1
02	278 11.2	+02.1	N 21 45.5	+00.0
03	293 13.3	+02.1	N 21 45.5	−00.1
04	308 15.4	+02.0	N 21 45.4	+00.0
05	323 17.4	+02.1	N 21 45.4	−00.1
06	338 19.5	+02.1	N 21 45.3	+00.0
07	353 21.6	+02.1	N 21 45.3	−00.1
08	8 23.7	+02.1	N 21 45.2	+00.0
09	23 25.8	+02.1	N 21 45.2	−00.1
10	38 27.9	+02.1	N 21 45.1	+00.0
11	53 30.0	+02.0	N 21 45.1	−00.1
12	68 32.0	+02.1	N 21 45.0	+00.0
13	83 34.1	+02.1	N 21 45.0	−00.1
14	98 36.2	+02.1	N 21 44.9	+00.0
15	113 38.3	+02.1	N 21 44.9	−00.1
16	128 40.4	+02.1	N 21 44.8	+00.0
17	143 42.5	+02.1	N 21 44.8	−00.1
18	158 44.6	+02.1	N 21 44.7	+00.0
19	173 46.7	+02.1	N 21 44.7	−00.1
20	188 48.8	+02.1	N 21 44.6	+00.0
21	203 50.9	+02.0	N 21 44.6	−00.1
22	218 52.9	+02.1	N 21 44.5	+00.0
23	233 55.0	+02.1	N 21 44.5	−00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 07:26

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	1 32.0	+02.7	S 02 55.1	+00.1
01	16 34.7	+02.6	S 02 55.2	+00.1
02	31 37.3	+02.7	S 02 55.3	+00.1
03	46 40.0	+02.6	S 02 55.4	+00.1
04	61 42.6	+02.6	S 02 55.5	+00.0
05	76 45.2	+02.7	S 02 55.5	+00.1
06	91 47.9	+02.6	S 02 55.6	+00.1
07	106 50.5	+02.7	S 02 55.7	+00.1
08	121 53.2	+02.6	S 02 55.8	+00.1
09	136 55.8	+02.7	S 02 55.9	+00.0
10	151 58.5	+02.6	S 02 55.9	+00.1
11	167 01.1	+02.6	S 02 56.0	+00.1
12	182 03.7	+02.7	S 02 56.1	+00.1
13	197 06.4	+02.6	S 02 56.2	+00.0
14	212 09.0	+02.7	S 02 56.2	+00.1
15	227 11.7	+02.6	S 02 56.3	+00.1
16	242 14.3	+02.6	S 02 56.4	+00.1
17	257 16.9	+02.7	S 02 56.5	+00.1
18	272 19.6	+02.6	S 02 56.6	+00.0
19	287 22.2	+02.7	S 02 56.6	+00.1
20	302 24.9	+02.6	S 02 56.7	+00.1
21	317 27.5	+02.7	S 02 56.8	+00.1
22	332 30.2	+02.6	S 02 56.9	+00.1
23	347 32.8	+02.6	S 02 57.0	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	000°	000°	000°	000°	000°

Greenwich Culmination Time: 23:49

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2025 September 23 Tuesday

(day 266 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 53.1	+00.2	S 00 05.5	+01.0
01	196 53.3	+00.2	S 00 06.5	+01.0
02	211 53.5	+00.2	S 00 07.5	+01.0
03	226 53.7	+00.2	S 00 08.5	+00.9
04	241 53.9	+00.3	S 00 09.4	+01.0
05	256 54.2	+00.2	S 00 10.4	+01.0
06	271 54.4	+00.2	S 00 11.4	+00.9
07	286 54.6	+00.2	S 00 12.3	+01.0
08	301 54.8	+00.2	S 00 13.3	+01.0
09	316 55.0	+00.3	S 00 14.3	+01.0
10	331 55.3	+00.2	S 00 15.3	+00.9
11	346 55.5	+00.2	S 00 16.2	+01.0
12	1 55.7	+00.2	S 00 17.2	+01.0
13	16 55.9	+00.2	S 00 18.2	+01.0
14	31 56.1	+00.2	S 00 19.2	+00.9
15	46 56.3	+00.3	S 00 20.1	+01.0
16	61 56.6	+00.2	S 00 21.1	+01.0
17	76 56.8	+00.2	S 00 22.1	+01.0
18	91 57.0	+00.2	S 00 23.1	+00.9
19	106 57.2	+00.2	S 00 24.0	+01.0
20	121 57.4	+00.3	S 00 25.0	+01.0
21	136 57.7	+00.2	S 00 26.0	+01.0
22	151 57.9	+00.2	S 00 27.0	+00.9
23	166 58.1	+00.2	S 00 27.9	+01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	180°	180°	179°	179°	179°	179°

Greenwich Culmination Time: 11:52

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	205 34.8	-00.5	N 10 56.2	-01.0
01	220 34.3	-00.5	N 10 55.2	-01.0
02	235 33.8	-00.4	N 10 54.2	-01.1
03	250 33.4	-00.5	N 10 53.1	-01.0
04	265 32.9	-00.5	N 10 52.1	-01.1
05	280 32.4	-00.4	N 10 51.0	-01.0
06	295 32.0	-00.5	N 10 50.0	-01.1
07	310 31.5	-00.5	N 10 48.9	-01.0
08	325 31.0	-00.4	N 10 47.9	-01.0
09	340 30.6	-00.5	N 10 46.9	-01.1
10	355 30.1	-00.5	N 10 45.8	-01.0
11	10 29.6	-00.4	N 10 44.8	-01.1
12	25 29.2	-00.5	N 10 43.7	-01.0
13	40 28.7	-00.5	N 10 42.7	-01.1
14	55 28.2	-00.4	N 10 41.6	-01.0
15	70 27.8	-00.5	N 10 40.6	-01.1
16	85 27.3	-00.5	N 10 39.5	-01.0
17	100 26.8	-00.4	N 10 38.5	-01.1
18	115 26.4	-00.5	N 10 37.4	-01.0
19	130 25.9	-00.4	N 10 36.4	-01.1
20	145 25.5	-00.5	N 10 35.3	-01.0
21	160 25.0	-00.5	N 10 34.3	-01.1
22	175 24.5	-00.4	N 10 33.2	-01.0
23	190 24.1	-00.5	N 10 32.2	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	203°	203°	203°	203°	203°	202°

Greenwich Culmination Time: 10:18

Moon

A: 04%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	170 37.3	-24.7	S 07 21.5	+14.1
01	185 12.6	-24.7	S 07 35.6	+14.2
02	199 47.9	-24.8	S 07 49.8	+14.0
03	214 23.1	-24.8	S 08 03.8	+14.1
04	228 58.3	-24.8	S 08 17.9	+14.0
05	243 33.5	-24.8	S 08 31.9	+13.9
06	258 08.7	-24.8	S 08 45.8	+14.0
07	272 43.9	-24.8	S 08 59.8	+13.8
08	287 19.1	-24.9	S 09 13.6	+13.9
09	301 54.2	-24.9	S 09 27.5	+13.8
10	316 29.3	-24.9	S 09 41.3	+13.7
11	331 04.4	-24.9	S 09 55.0	+13.7
12	345 39.5	-25.0	S 10 08.7	+13.7
13	0 14.5	-25.0	S 10 22.4	+13.6
14	14 49.5	-25.0	S 10 36.0	+13.6
15	29 24.5	-25.0	S 10 49.6	+13.5
16	43 59.5	-25.1	S 11 03.1	+13.5
17	58 34.4	-25.0	S 11 16.6	+13.4
18	73 09.4	-25.2	S 11 30.0	+13.4
19	87 44.2	-25.1	S 11 43.4	+13.3
20	102 19.1	-25.2	S 11 56.7	+13.3
21	116 53.9	-25.2	S 12 10.0	+13.2
22	131 28.7	-25.2	S 12 23.2	+13.2
23	146 03.5	-25.3	S 12 36.4	+13.1

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′9	14′8	14′8
HP	54′7	54′6	54′6	54′5	54′5	54′4
SHA	168°	166°	164°	162°	160°	158°

Greenwich Culmination Time: 12:59

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	153 45.2	+00.9	S 11 37.4	+00.6
01	168 46.1	+00.8	S 11 38.0	+00.6
02	183 46.9	+00.9	S 11 38.6	+00.6
03	198 47.8	+00.8	S 11 39.2	+00.7
04	213 48.6	+00.9	S 11 39.9	+00.6
05	228 49.5	+00.9	S 11 40.5	+00.6
06	243 50.4	+00.8	S 11 41.1	+00.6
07	258 51.2	+00.9	S 11 41.7	+00.6
08	273 52.1	+00.9	S 11 42.3	+00.6
09	288 53.0	+00.8	S 11 42.9	+00.6
10	303 53.8	+00.9	S 11 43.5	+00.6
11	318 54.7	+00.9	S 11 44.1	+00.7
12	333 55.6	+00.8	S 11 44.8	+00.6
13	348 56.4	+00.9	S 11 45.4	+00.6
14	3 57.3	+00.8	S 11 46.0	+00.6
15	18 58.1	+00.9	S 11 46.6	+00.6
16	33 59.0	+00.9	S 11 47.2	+00.6
17	48 59.9	+00.8	S 11 47.8	+00.6
18	64 00.7	+00.9	S 11 48.4	+00.6
19	79 01.6	+00.9	S 11 49.0	+00.7
20	94 02.5	+00.8	S 11 49.7	+00.6
21	109 03.3	+00.9	S 11 50.3	+00.6
22	124 04.2	+00.8	S 11 50.9	+00.6
23	139 05.0	+00.9	S 11 51.5	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	152°	151°	151°	151°	151°	151°

Greenwich Culmination Time: 13:44

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	248 57.1	+02.1	N 21 44.4	+00.0
01	263 59.2	+02.1	N 21 44.4	-00.1
02	279 01.3	+02.1	N 21 44.3	+00.0
03	294 03.4	+02.1	N 21 44.3	-00.1
04	309 05.5	+02.1	N 21 44.2	+00.0
05	324 07.6	+02.1	N 21 44.2	-00.1
06	339 09.7	+02.1	N 21 44.1	+00.0
07	354 11.8	+02.1	N 21 44.1	-00.1
08	9 13.9	+02.1	N 21 44.0	+00.0
09	24 16.0	+02.0	N 21 44.0	-00.1
10	39 18.0	+02.1	N 21 43.9	+00.0
11	54 20.1	+02.1	N 21 43.9	-00.1
12	69 22.2	+02.1	N 21 43.8	+00.0
13	84 24.3	+02.1	N 21 43.8	-00.1
14	99 26.4	+02.1	N 21 43.7	+00.0
15	114 28.5	+02.1	N 21 43.7	-00.1
16	129 30.6	+02.1	N 21 43.6	+00.0
17	144 32.7	+02.1	N 21 43.6	-00.1
18	159 34.8	+02.1	N 21 43.5	+00.0
19	174 36.9	+02.1	N 21 43.5	-00.1
20	189 39.0	+02.1	N 21 43.4	+00.0
21	204 41.1	+02.1	N 21 43.4	-00.1
22	219 43.2	+02.1	N 21 43.3	+00.0
23	234 45.3	+02.1	N 21 43.3	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 07:23

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	2 35.4	+02.7	S 02 57.0	+00.1
01	17 38.1	+02.6	S 02 57.1	+00.1
02	32 40.7	+02.7	S 02 57.2	+00.1
03	47 43.4	+02.6	S 02 57.3	+00.0
04	62 46.0	+02.6	S 02 57.3	+00.1
05	77 48.6	+02.7	S 02 57.4	+00.1
06	92 51.3	+02.6	S 02 57.5	+00.1
07	107 53.9	+02.7	S 02 57.6	+00.1
08	122 56.6	+02.6	S 02 57.7	+00.0
09	137 59.2	+02.7	S 02 57.7	+00.1
10	153 01.9	+02.6	S 02 57.8	+00.1
11	168 04.5	+02.6	S 02 57.9	+00.1
12	183 07.1	+02.7	S 02 58.0	+00.0
13	198 09.8	+02.6	S 02 58.0	+00.1
14	213 12.4	+02.7	S 02 58.1	+00.1
15	228 15.1	+02.6	S 02 58.2	+00.1
16	243 17.7	+02.6	S 02 58.3	+00.1
17	258 20.3	+02.7	S 02 58.4	+00.0
18	273 23.0	+02.6	S 02 58.4	+00.1
19	288 25.6	+02.7	S 02 58.5	+00.1
20	303 28.3	+02.6	S 02 58.6	+00.1
21	318 30.9	+02.7	S 02 58.7	+00.1
22	333 33.6	+02.6	S 02 58.8	+00.0
23	348 36.2	+02.6	S 02 58.8	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	000°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:45

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2025 September 24 Wednesday (day 267 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 58.3	+00.2	S 00 28.9	+01.0
01	196 58.5	+00.2	S 00 29.9	+00.9
02	211 58.7	+00.3	S 00 30.8	+01.0
03	226 59.0	+00.2	S 00 31.8	+01.0
04	241 59.2	+00.2	S 00 32.8	+01.0
05	256 59.4	+00.2	S 00 33.8	+00.9
06	271 59.6	+00.2	S 00 34.7	+01.0
07	286 59.8	+00.2	S 00 35.7	+01.0
08	302 00.0	+00.3	S 00 36.7	+01.0
09	317 00.3	+00.2	S 00 37.7	+00.9
10	332 00.5	+00.2	S 00 38.6	+01.0
11	347 00.7	+00.2	S 00 39.6	+01.0
12	2 00.9	+00.2	S 00 40.6	+01.0
13	17 01.1	+00.2	S 00 41.6	+00.9
14	32 01.3	+00.3	S 00 42.5	+01.0
15	47 01.6	+00.2	S 00 43.5	+01.0
16	62 01.8	+00.2	S 00 44.5	+01.0
17	77 02.0	+00.2	S 00 45.5	+00.9
18	92 02.2	+00.2	S 00 46.4	+01.0
19	107 02.4	+00.2	S 00 47.4	+01.0
20	122 02.6	+00.3	S 00 48.4	+01.0
21	137 02.9	+00.2	S 00 49.4	+00.9
22	152 03.1	+00.2	S 00 50.3	+01.0
23	167 03.3	+00.2	S 00 51.3	+01.0

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	15′9
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	179°	179°	179°	178°	178°	178°

Greenwich Culmination Time: 11:51

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	205 23.6	-00.5	N 10 31.1	-01.0
01	220 23.1	-00.4	N 10 30.1	-01.1
02	235 22.7	-00.5	N 10 29.0	-01.0
03	250 22.2	-00.4	N 10 28.0	-01.1
04	265 21.8	-00.5	N 10 26.9	-01.1
05	280 21.3	-00.5	N 10 25.8	-01.0
06	295 20.8	-00.4	N 10 24.8	-01.1
07	310 20.4	-00.5	N 10 23.7	-01.0
08	325 19.9	-00.4	N 10 22.7	-01.1
09	340 19.5	-00.5	N 10 21.6	-01.0
10	355 19.0	-00.5	N 10 20.6	-01.1
11	10 18.5	-00.4	N 10 19.5	-01.1
12	25 18.1	-00.5	N 10 18.4	-01.0
13	40 17.6	-00.4	N 10 17.4	-01.1
14	55 17.2	-00.5	N 10 16.3	-01.0
15	70 16.7	-00.5	N 10 15.3	-01.1
16	85 16.2	-00.4	N 10 14.2	-01.1
17	100 15.8	-00.5	N 10 13.1	-01.0
18	115 15.3	-00.4	N 10 12.1	-01.1
19	130 14.9	-00.5	N 10 11.0	-01.1
20	145 14.4	-00.4	N 10 09.9	-01.0
21	160 14.0	-00.5	N 10 08.9	-01.1
22	175 13.5	-00.5	N 10 07.8	-01.1
23	190 13.0	-00.4	N 10 06.7	-01.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	202°	202°	202°	202°	201°	201°

Greenwich Culmination Time: 10:18

Moon

A: 07%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	160 38.2	-25.3	S 12 49.5	+13.0
01	175 12.9	-25.4	S 13 02.5	+13.0
02	189 47.5	-25.4	S 13 15.5	+13.0
03	204 22.1	-25.4	S 13 28.5	+12.8
04	218 56.7	-25.4	S 13 41.3	+12.9
05	233 31.3	-25.5	S 13 54.2	+12.7
06	248 05.8	-25.6	S 14 06.9	+12.7
07	262 40.2	-25.6	S 14 19.6	+12.7
08	277 14.6	-25.6	S 14 32.3	+12.6
09	291 49.0	-25.6	S 14 44.9	+12.5
10	306 23.4	-25.7	S 14 57.4	+12.5
11	320 57.7	-25.8	S 15 09.9	+12.4
12	335 31.9	-25.8	S 15 22.3	+12.3
13	350 06.1	-25.8	S 15 34.6	+12.2
14	4 40.3	-25.9	S 15 46.8	+12.2
15	19 14.4	-25.9	S 15 59.0	+12.2
16	33 48.5	-25.9	S 16 11.2	+12.0
17	48 22.6	-26.1	S 16 23.2	+12.0
18	62 56.5	-26.0	S 16 35.2	+12.0
19	77 30.5	-26.1	S 16 47.2	+11.8
20	92 04.4	-26.2	S 16 59.0	+11.8
21	106 38.2	-26.2	S 17 10.8	+11.7
22	121 12.0	-26.3	S 17 22.5	+11.7
23	135 45.7	-26.3	S 17 34.2	+11.5

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′8
HP	54′4	54′3	54′3	54′3	54′2	54′2
SHA	157°	155°	153°	151°	149°	147°

Greenwich Culmination Time: 13:40

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	154 05.9	+00.9	S 11 52.1	+00.6
01	169 06.8	+00.8	S 11 52.7	+00.6
02	184 07.6	+00.9	S 11 53.3	+00.6
03	199 08.5	+00.8	S 11 53.9	+00.6
04	214 09.3	+00.9	S 11 54.5	+00.7
05	229 10.2	+00.9	S 11 55.2	+00.6
06	244 11.1	+00.8	S 11 55.8	+00.6
07	259 11.9	+00.9	S 11 56.4	+00.6
08	274 12.8	+00.8	S 11 57.0	+00.6
09	289 13.6	+00.9	S 11 57.6	+00.6
10	304 14.5	+00.8	S 11 58.2	+00.6
11	319 15.3	+00.9	S 11 58.8	+00.6
12	334 16.2	+00.9	S 11 59.4	+00.6
13	349 17.1	+00.8	S 12 00.0	+00.6
14	4 17.9	+00.9	S 12 00.6	+00.7
15	19 18.8	+00.8	S 12 01.3	+00.6
16	34 19.6	+00.9	S 12 01.9	+00.6
17	49 20.5	+00.8	S 12 02.5	+00.6
18	64 21.3	+00.9	S 12 03.1	+00.6
19	79 22.2	+00.9	S 12 03.7	+00.6
20	94 23.1	+00.8	S 12 04.3	+00.6
21	109 23.9	+00.9	S 12 04.9	+00.6
22	124 24.8	+00.8	S 12 05.5	+00.6
23	139 25.6	+00.9	S 12 06.1	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	151°	151°	151°	151°	151°	150°

Greenwich Culmination Time: 13:42

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	249 47.4	+02.1	N 21 43.2	+00.0
01	264 49.5	+02.1	N 21 43.2	-00.1
02	279 51.6	+02.1	N 21 43.1	+00.0
03	294 53.7	+02.1	N 21 43.1	-00.1
04	309 55.8	+02.1	N 21 43.0	+00.0
05	324 57.9	+02.1	N 21 43.0	-00.1
06	339 60.0	+02.1	N 21 42.9	+00.0
07	355 02.1	+02.1	N 21 42.9	-00.1
08	10 04.2	+02.1	N 21 42.8	+00.0
09	25 06.3	+02.1	N 21 42.8	-00.1
10	40 08.4	+02.1	N 21 42.7	+00.0
11	55 10.5	+02.1	N 21 42.7	-00.1
12	70 12.6	+02.1	N 21 42.6	+00.0
13	85 14.7	+02.1	N 21 42.6	-00.1
14	100 16.8	+02.1	N 21 42.5	+00.0
15	115 18.9	+02.1	N 21 42.5	-00.1
16	130 21.0	+02.1	N 21 42.4	+00.0
17	145 23.1	+02.1	N 21 42.4	-00.1
18	160 25.2	+02.1	N 21 42.3	+00.0
19	175 27.3	+02.1	N 21 42.3	-00.1
20	190 29.4	+02.1	N 21 42.2	+00.0
21	205 31.5	+02.1	N 21 42.2	-00.1
22	220 33.6	+02.1	N 21 42.1	+00.0
23	235 35.7	+02.1	N 21 42.1	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 07:19

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	3 38.8	+02.7	S 02 58.9	+00.1
01	18 41.5	+02.6	S 02 59.0	+00.1
02	33 44.1	+02.7	S 02 59.1	+00.0
03	48 46.8	+02.6	S 02 59.1	+00.1
04	63 49.4	+02.6	S 02 59.2	+00.1
05	78 52.0	+02.7	S 02 59.3	+00.1
06	93 54.7	+02.6	S 02 59.4	+00.1
07	108 57.3	+02.7	S 02 59.5	+00.0
08	123 60.0	+02.6	S 02 59.5	+00.1
09	139 02.6	+02.7	S 02 59.6	+00.1
10	154 05.3	+02.6	S 02 59.7	+00.1
11	169 07.9	+02.6	S 02 59.8	+00.0
12	184 10.5	+02.7	S 02 59.8	+00.1
13	199 13.2	+02.6	S 02 59.9	+00.1
14	214 15.8	+02.7	S 02 60.0	+00.1
15	229 18.5	+02.6	S 03 00.1	+00.1
16	244 21.1	+02.6	S 03 00.2	+00.0
17	259 23.7	+02.7	S 03 00.2	+00.1
18	274 26.4	+02.6	S 03 00.3	+00.1
19	289 29.0	+02.7	S 03 00.4	+00.1
20	304 31.7	+02.6	S 03 00.5	+00.0
21	319 34.3	+02.6	S 03 00.5	+00.1
22	334 36.9	+02.7	S 03 00.6	+00.1
23	349 39.6	+02.6	S 03 00.7	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:41

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2025 September 25 Thursday (day 268 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 03.5	+00.2	S 00 52.3	+00.9
01	197 03.7	+00.2	S 00 53.2	+01.0
02	212 03.9	+00.3	S 00 54.2	+01.0
03	227 04.2	+00.2	S 00 55.2	+01.0
04	242 04.4	+00.2	S 00 56.2	+00.9
05	257 04.6	+00.2	S 00 57.1	+01.0
06	272 04.8	+00.2	S 00 58.1	+01.0
07	287 05.0	+00.2	S 00 59.1	+01.0
08	302 05.2	+00.2	S 01 00.1	+00.9
09	317 05.4	+00.3	S 01 01.0	+01.0
10	332 05.7	+00.2	S 01 02.0	+01.0
11	347 05.9	+00.2	S 01 03.0	+01.0
12	2 06.1	+00.2	S 01 04.0	+00.9
13	17 06.3	+00.2	S 01 04.9	+01.0
14	32 06.5	+00.2	S 01 05.9	+01.0
15	47 06.7	+00.2	S 01 06.9	+01.0
16	62 06.9	+00.3	S 01 07.9	+00.9
17	77 07.2	+00.2	S 01 08.8	+01.0
18	92 07.4	+00.2	S 01 09.8	+01.0
19	107 07.6	+00.2	S 01 10.8	+01.0
20	122 07.8	+00.2	S 01 11.8	+00.9
21	137 08.0	+00.2	S 01 12.7	+01.0
22	152 08.2	+00.3	S 01 13.7	+01.0
23	167 08.5	+00.2	S 01 14.7	+00.9

UT	02	06	10	14	18	22
SD	15′9	15′9	15′9	15′9	15′9	16′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	178°	178°	178°	177°	177°	177°

Greenwich Culmination Time: 11:51

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	205 12.6	-00.5	N 10 05.7	-01.1
01	220 12.1	-00.4	N 10 04.6	-01.1
02	235 11.7	-00.5	N 10 03.5	-01.0
03	250 11.2	-00.4	N 10 02.5	-01.1
04	265 10.8	-00.5	N 10 01.4	-01.1
05	280 10.3	-00.4	N 10 00.3	-01.0
06	295 09.9	-00.5	N 09 59.3	-01.1
07	310 09.4	-00.5	N 09 58.2	-01.1
08	325 08.9	-00.4	N 09 57.1	-01.0
09	340 08.5	-00.5	N 09 56.1	-01.1
10	355 08.0	-00.4	N 09 55.0	-01.1
11	10 07.6	-00.5	N 09 53.9	-01.0
12	25 07.1	-00.4	N 09 52.9	-01.1
13	40 06.7	-00.5	N 09 51.8	-01.1
14	55 06.2	-00.4	N 09 50.7	-01.1
15	70 05.8	-00.5	N 09 49.6	-01.0
16	85 05.3	-00.4	N 09 48.6	-01.1
17	100 04.9	-00.5	N 09 47.5	-01.1
18	115 04.4	-00.4	N 09 46.4	-01.1
19	130 04.0	-00.5	N 09 45.3	-01.0
20	145 03.5	-00.4	N 09 44.3	-01.1
21	160 03.1	-00.5	N 09 43.2	-01.1
22	175 02.6	-00.4	N 09 42.1	-01.1
23	190 02.2	-00.5	N 09 41.0	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	201°	201°	201°	200°	200°	200°

Greenwich Culmination Time: 10:19

Moon

A: 10%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	150 19.4	-26.3	S 17 45.7	+11.5
01	164 53.1	-26.4	S 17 57.2	+11.4
02	179 26.7	-26.5	S 18 08.6	+11.4
03	194 00.2	-26.5	S 18 20.0	+11.2
04	208 33.7	-26.6	S 18 31.2	+11.2
05	223 07.1	-26.6	S 18 42.4	+11.1
06	237 40.5	-26.7	S 18 53.5	+11.1
07	252 13.8	-26.8	S 19 04.6	+10.9
08	266 47.0	-26.8	S 19 15.5	+10.9
09	281 20.2	-26.8	S 19 26.4	+10.8
10	295 53.4	-26.9	S 19 37.2	+10.7
11	310 26.5	-27.0	S 19 47.9	+10.6
12	324 59.5	-27.0	S 19 58.5	+10.5
13	339 32.5	-27.1	S 20 09.0	+10.5
14	354 05.4	-27.1	S 20 19.5	+10.3
15	8 38.3	-27.2	S 20 29.8	+10.3
16	23 11.1	-27.3	S 20 40.1	+10.2
17	37 43.8	-27.3	S 20 50.3	+10.1
18	52 16.5	-27.4	S 21 00.4	+10.0
19	66 49.1	-27.4	S 21 10.4	+10.0
20	81 21.7	-27.5	S 21 20.4	+09.8
21	95 54.2	-27.6	S 21 30.2	+09.7
22	110 26.6	-27.6	S 21 39.9	+09.7
23	124 59.0	-27.7	S 21 49.6	+09.6

UT	02	06	10	14	18	22
SD	14′8	14′7	14′7	14′7	14′7	14′7
HP	54′2	54′1	54′1	54′1	54′1	54′1
SHA	145°	143°	141°	139°	137°	135°

Greenwich Culmination Time: 14:24

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	154 26.5	+00.8	S 12 06.7	+00.6
01	169 27.3	+00.9	S 12 07.3	+00.6
02	184 28.2	+00.8	S 12 07.9	+00.7
03	199 29.0	+00.9	S 12 08.6	+00.6
04	214 29.9	+00.9	S 12 09.2	+00.6
05	229 30.8	+00.8	S 12 09.8	+00.6
06	244 31.6	+00.9	S 12 10.4	+00.6
07	259 32.5	+00.8	S 12 11.0	+00.6
08	274 33.3	+00.9	S 12 11.6	+00.6
09	289 34.2	+00.8	S 12 12.2	+00.6
10	304 35.0	+00.9	S 12 12.8	+00.6
11	319 35.9	+00.8	S 12 13.4	+00.6
12	334 36.7	+00.9	S 12 14.0	+00.6
13	349 37.6	+00.8	S 12 14.6	+00.6
14	4 38.4	+00.9	S 12 15.2	+00.6
15	19 39.3	+00.8	S 12 15.8	+00.7
16	34 40.1	+00.9	S 12 16.5	+00.6
17	49 41.0	+00.8	S 12 17.1	+00.6
18	64 41.8	+00.9	S 12 17.7	+00.6
19	79 42.7	+00.8	S 12 18.3	+00.6
20	94 43.5	+00.9	S 12 18.9	+00.6
21	109 44.4	+00.8	S 12 19.5	+00.6
22	124 45.2	+00.9	S 12 20.1	+00.6
23	139 46.1	+00.8	S 12 20.7	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	150°	150°	150°	150°	150°	150°

Greenwich Culmination Time: 13:41

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	250 37.8	+02.1	N 21 42.0	+00.0
01	265 39.9	+02.1	N 21 42.0	-00.1
02	280 42.0	+02.1	N 21 41.9	+00.0
03	295 44.1	+02.1	N 21 41.9	-00.1
04	310 46.2	+02.1	N 21 41.8	+00.0
05	325 48.3	+02.1	N 21 41.8	-00.1
06	340 50.4	+02.1	N 21 41.7	+00.0
07	355 52.5	+02.1	N 21 41.7	-00.1
08	10 54.6	+02.1	N 21 41.6	+00.0
09	25 56.7	+02.1	N 21 41.6	-00.1
10	40 58.8	+02.1	N 21 41.5	+00.0
11	56 00.9	+02.1	N 21 41.5	-00.1
12	71 03.0	+02.1	N 21 41.4	+00.0
13	86 05.1	+02.1	N 21 41.4	-00.1
14	101 07.2	+02.1	N 21 41.3	+00.0
15	116 09.3	+02.2	N 21 41.3	-00.1
16	131 11.5	+02.1	N 21 41.2	+00.0
17	146 13.6	+02.1	N 21 41.2	-00.1
18	161 15.7	+02.1	N 21 41.1	+00.0
19	176 17.8	+02.1	N 21 41.1	-00.1
20	191 19.9	+02.1	N 21 41.0	+00.0
21	206 22.0	+02.1	N 21 41.0	-00.1
22	221 24.1	+02.1	N 21 40.9	+00.0
23	236 26.2	+02.1	N 21 40.9	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	246°	246°	246°

Greenwich Culmination Time: 07:16

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	4 42.2	+02.7	S 03 00.8	+00.1
01	19 44.9	+02.6	S 03 00.9	+00.0
02	34 47.5	+02.7	S 03 00.9	+00.1
03	49 50.2	+02.6	S 03 01.0	+00.1
04	64 52.8	+02.6	S 03 01.1	+00.1
05	79 55.4	+02.7	S 03 01.2	+00.0
06	94 58.1	+02.6	S 03 01.2	+00.1
07	110 00.7	+02.7	S 03 01.3	+00.1
08	125 03.4	+02.6	S 03 01.4	+00.1
09	140 06.0	+02.6	S 03 01.5	+00.0
10	155 08.6	+02.7	S 03 01.5	+00.1
11	170 11.3	+02.6	S 03 01.6	+00.1
12	185 13.9	+02.7	S 03 01.7	+00.1
13	200 16.6	+02.6	S 03 01.8	+00.1
14	215 19.2	+02.6	S 03 01.9	+00.0
15	230 21.8	+02.7	S 03 01.9	+00.1
16	245 24.5	+02.6	S 03 02.0	+00.1
17	260 27.1	+02.7	S 03 02.1	+00.1
18	275 29.8	+02.6	S 03 02.2	+00.0
19	290 32.4	+02.7	S 03 02.2	+00.1
20	305 35.1	+02.6	S 03 02.3	+00.1
21	320 37.7	+02.6	S 03 02.4	+00.1
22	335 40.3	+02.7	S 03 02.5	+00.1
23	350 43.0	+02.6	S 03 02.6	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:37

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2025 September 26 Friday

(day 269 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 08.7	+00.2	S 01 15.6	+01.0
01	197 08.9	+00.2	S 01 16.6	+01.0
02	212 09.1	+00.2	S 01 17.6	+01.0
03	227 09.3	+00.2	S 01 18.6	+00.9
04	242 09.5	+00.2	S 01 19.5	+01.0
05	257 09.7	+00.2	S 01 20.5	+01.0
06	272 09.9	+00.3	S 01 21.5	+01.0
07	287 10.2	+00.2	S 01 22.5	+00.9
08	302 10.4	+00.2	S 01 23.4	+01.0
09	317 10.6	+00.2	S 01 24.4	+01.0
10	332 10.8	+00.2	S 01 25.4	+01.0
11	347 11.0	+00.2	S 01 26.4	+00.9
12	2 11.2	+00.2	S 01 27.3	+01.0
13	17 11.4	+00.3	S 01 28.3	+01.0
14	32 11.7	+00.2	S 01 29.3	+01.0
15	47 11.9	+00.2	S 01 30.3	+00.9
16	62 12.1	+00.2	S 01 31.2	+01.0
17	77 12.3	+00.2	S 01 32.2	+01.0
18	92 12.5	+00.2	S 01 33.2	+00.9
19	107 12.7	+00.2	S 01 34.1	+01.0
20	122 12.9	+00.2	S 01 35.1	+01.0
21	137 13.1	+00.3	S 01 36.1	+01.0
22	152 13.4	+00.2	S 01 37.1	+00.9
23	167 13.6	+00.2	S 01 38.0	+01.0

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	177°	177°	177°	177°	176°	176°

Greenwich Culmination Time: 11:51

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	205 01.7	-00.4	N 09 39.9	-01.0
01	220 01.3	-00.5	N 09 38.9	-01.1
02	235 00.8	-00.4	N 09 37.8	-01.1
03	250 00.4	-00.5	N 09 36.7	-01.1
04	264 59.9	-00.4	N 09 35.6	-01.0
05	279 59.5	-00.5	N 09 34.6	-01.1
06	294 59.0	-00.4	N 09 33.5	-01.1
07	309 58.6	-00.5	N 09 32.4	-01.1
08	324 58.1	-00.4	N 09 31.3	-01.1
09	339 57.7	-00.5	N 09 30.2	-01.1
10	354 57.2	-00.4	N 09 29.1	-01.0
11	9 56.8	-00.5	N 09 28.1	-01.1
12	24 56.3	-00.4	N 09 27.0	-01.1
13	39 55.9	-00.4	N 09 25.9	-01.1
14	54 55.5	-00.5	N 09 24.8	-01.1
15	69 55.0	-00.4	N 09 23.7	-01.1
16	84 54.6	-00.5	N 09 22.6	-01.0
17	99 54.1	-00.4	N 09 21.6	-01.1
18	114 53.7	-00.5	N 09 20.5	-01.1
19	129 53.2	-00.4	N 09 19.4	-01.1
20	144 52.8	-00.5	N 09 18.3	-01.1
21	159 52.3	-00.4	N 09 17.2	-01.1
22	174 51.9	-00.5	N 09 16.1	-01.1
23	189 51.4	-00.4	N 09 15.0	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	200°	200°	199°	199°	199°	199°

Greenwich Culmination Time: 10:20

Moon

A: 13%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	139 31.3	-27.7	S 21 59.2	+09.4
01	154 03.6	-27.8	S 22 08.6	+09.4
02	168 35.8	-27.9	S 22 18.0	+09.3
03	183 07.9	-28.0	S 22 27.3	+09.1
04	197 39.9	-28.0	S 22 36.4	+09.1
05	212 11.9	-28.0	S 22 45.5	+09.0
06	226 43.9	-28.1	S 22 54.5	+08.9
07	241 15.8	-28.2	S 23 03.4	+08.8
08	255 47.6	-28.3	S 23 12.2	+08.7
09	270 19.3	-28.3	S 23 20.9	+08.6
10	284 51.0	-28.4	S 23 29.5	+08.4
11	299 22.6	-28.4	S 23 37.9	+08.4
12	313 54.2	-28.5	S 23 46.3	+08.3
13	328 25.7	-28.6	S 23 54.6	+08.2
14	342 57.1	-28.6	S 24 02.8	+08.0
15	357 28.5	-28.7	S 24 10.8	+08.0
16	11 59.8	-28.8	S 24 18.8	+07.9
17	26 31.0	-28.8	S 24 26.7	+07.7
18	41 02.2	-28.9	S 24 34.4	+07.7
19	55 33.3	-29.0	S 24 42.1	+07.5
20	70 04.3	-29.0	S 24 49.6	+07.4
21	84 35.3	-29.1	S 24 57.0	+07.3
22	99 06.2	-29.1	S 25 04.3	+07.2
23	113 37.1	-29.2	S 25 11.5	+07.1

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	54′0	54′0	54′0	54′0	54′1	54′1
SHA	133°	131°	129°	127°	125°	123°

Greenwich Culmination Time: 15:10

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	154 46.9	+00.9	S 12 21.3	+00.6
01	169 47.8	+00.8	S 12 21.9	+00.6
02	184 48.6	+00.9	S 12 22.5	+00.6
03	199 49.5	+00.8	S 12 23.1	+00.6
04	214 50.3	+00.9	S 12 23.7	+00.6
05	229 51.2	+00.8	S 12 24.3	+00.6
06	244 52.0	+00.9	S 12 24.9	+00.6
07	259 52.9	+00.8	S 12 25.5	+00.6
08	274 53.7	+00.9	S 12 26.1	+00.6
09	289 54.6	+00.8	S 12 26.7	+00.6
10	304 55.4	+00.9	S 12 27.3	+00.7
11	319 56.3	+00.8	S 12 28.0	+00.6
12	334 57.1	+00.9	S 12 28.6	+00.6
13	349 58.0	+00.8	S 12 29.2	+00.6
14	4 58.8	+00.8	S 12 29.8	+00.6
15	19 59.6	+00.9	S 12 30.4	+00.6
16	35 00.5	+00.8	S 12 31.0	+00.6
17	50 01.3	+00.9	S 12 31.6	+00.6
18	65 02.2	+00.8	S 12 32.2	+00.6
19	80 03.0	+00.9	S 12 32.8	+00.6
20	95 03.9	+00.8	S 12 33.4	+00.6
21	110 04.7	+00.9	S 12 34.0	+00.6
22	125 05.6	+00.8	S 12 34.6	+00.6
23	140 06.4	+00.9	S 12 35.2	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	150°	150°	149°	149°	149°	149°

Greenwich Culmination Time: 13:40

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	251 28.3	+02.1	N 21 40.9	-00.1
01	266 30.4	+02.1	N 21 40.8	+00.0
02	281 32.5	+02.1	N 21 40.8	-00.1
03	296 34.6	+02.2	N 21 40.7	+00.0
04	311 36.8	+02.1	N 21 40.7	-00.1
05	326 38.9	+02.1	N 21 40.6	+00.0
06	341 41.0	+02.1	N 21 40.6	-00.1
07	356 43.1	+02.1	N 21 40.5	+00.0
08	11 45.2	+02.1	N 21 40.5	-00.1
09	26 47.3	+02.1	N 21 40.4	+00.0
10	41 49.4	+02.1	N 21 40.4	-00.1
11	56 51.5	+02.1	N 21 40.3	+00.0
12	71 53.6	+02.1	N 21 40.3	-00.1
13	86 55.7	+02.2	N 21 40.2	+00.0
14	101 57.9	+02.1	N 21 40.2	-00.1
15	116 60.0	+02.1	N 21 40.1	+00.0
16	132 02.1	+02.1	N 21 40.1	-00.1
17	147 04.2	+02.1	N 21 40.0	+00.0
18	162 06.3	+02.1	N 21 40.0	-00.1
19	177 08.4	+02.1	N 21 39.9	+00.0
20	192 10.5	+02.2	N 21 39.9	-00.1
21	207 12.7	+02.1	N 21 39.8	+00.0
22	222 14.8	+02.1	N 21 39.8	-00.1
23	237 16.9	+02.1	N 21 39.7	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 07:13

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	5 45.6	+02.7	S 03 02.6	+00.1
01	20 48.3	+02.6	S 03 02.7	+00.1
02	35 50.9	+02.6	S 03 02.8	+00.1
03	50 53.5	+02.7	S 03 02.9	+00.0
04	65 56.2	+02.6	S 03 02.9	+00.1
05	80 58.8	+02.7	S 03 03.0	+00.1
06	96 01.5	+02.6	S 03 03.1	+00.1
07	111 04.1	+02.6	S 03 03.2	+00.0
08	126 06.7	+02.7	S 03 03.2	+00.1
09	141 09.4	+02.6	S 03 03.3	+00.1
10	156 12.0	+02.7	S 03 03.4	+00.1
11	171 14.7	+02.6	S 03 03.5	+00.1
12	186 17.3	+02.7	S 03 03.6	+00.0
13	201 20.0	+02.6	S 03 03.6	+00.1
14	216 22.6	+02.6	S 03 03.7	+00.1
15	231 25.2	+02.7	S 03 03.8	+00.1
16	246 27.9	+02.6	S 03 03.9	+00.0
17	261 30.5	+02.7	S 03 03.9	+00.1
18	276 33.2	+02.6	S 03 04.0	+00.1
19	291 35.8	+02.6	S 03 04.1	+00.1
20	306 38.4	+02.7	S 03 04.2	+00.0
21	321 41.1	+02.6	S 03 04.2	+00.1
22	336 43.7	+02.7	S 03 04.3	+00.1
23	351 46.4	+02.6	S 03 04.4	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:32

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2025 September 27 Saturday

(day 270 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 13.8	+00.2	S 01 39.0	+01.0
01	197 14.0	+00.2	S 01 40.0	+01.0
02	212 14.2	+00.2	S 01 41.0	+00.9
03	227 14.4	+00.2	S 01 41.9	+01.0
04	242 14.6	+00.2	S 01 42.9	+01.0
05	257 14.8	+00.3	S 01 43.9	+01.0
06	272 15.1	+00.2	S 01 44.9	+00.9
07	287 15.3	+00.2	S 01 45.8	+01.0
08	302 15.5	+00.2	S 01 46.8	+01.0
09	317 15.7	+00.2	S 01 47.8	+00.9
10	332 15.9	+00.2	S 01 48.7	+01.0
11	347 16.1	+00.2	S 01 49.7	+01.0
12	2 16.3	+00.2	S 01 50.7	+01.0
13	17 16.5	+00.2	S 01 51.7	+00.9
14	32 16.7	+00.3	S 01 52.6	+01.0
15	47 17.0	+00.2	S 01 53.6	+01.0
16	62 17.2	+00.2	S 01 54.6	+01.0
17	77 17.4	+00.2	S 01 55.6	+00.9
18	92 17.6	+00.2	S 01 56.5	+01.0
19	107 17.8	+00.2	S 01 57.5	+01.0
20	122 18.0	+00.2	S 01 58.5	+00.9
21	137 18.2	+00.2	S 01 59.4	+01.0
22	152 18.4	+00.2	S 02 00.4	+01.0
23	167 18.6	+00.2	S 02 01.4	+01.0

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	176°	176°	176°	176°	176°	175°

Greenwich Culmination Time: 11:50

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	204 51.0	-00.4	N 09 13.9	-01.1
01	219 50.6	-00.5	N 09 12.8	-01.0
02	234 50.1	-00.4	N 09 11.8	-01.1
03	249 49.7	-00.5	N 09 10.7	-01.1
04	264 49.2	-00.4	N 09 09.6	-01.1
05	279 48.8	-00.5	N 09 08.5	-01.1
06	294 48.3	-00.4	N 09 07.4	-01.1
07	309 47.9	-00.4	N 09 06.3	-01.1
08	324 47.5	-00.5	N 09 05.2	-01.1
09	339 47.0	-00.4	N 09 04.1	-01.1
10	354 46.6	-00.5	N 09 03.0	-01.1
11	9 46.1	-00.4	N 09 01.9	-01.1
12	24 45.7	-00.4	N 09 00.8	-01.1
13	39 45.3	-00.5	N 08 59.7	-01.1
14	54 44.8	-00.4	N 08 58.6	-01.1
15	69 44.4	-00.5	N 08 57.5	-01.1
16	84 43.9	-00.4	N 08 56.4	-01.1
17	99 43.5	-00.4	N 08 55.3	-01.1
18	114 43.1	-00.5	N 08 54.2	-01.1
19	129 42.6	-00.4	N 08 53.1	-01.1
20	144 42.2	-00.5	N 08 52.0	-01.0
21	159 41.7	-00.4	N 08 51.0	-01.1
22	174 41.3	-00.4	N 08 49.9	-01.1
23	189 40.9	-00.5	N 08 48.8	-01.2

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	199°	199°	198°	198°	198°	198°

Greenwich Culmination Time: 10:20

Moon

A: 16%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	128 07.9	-29.3	S 25 18.6	+07.0
01	142 38.6	-29.4	S 25 25.6	+06.9
02	157 09.2	-29.4	S 25 32.5	+06.7
03	171 39.8	-29.4	S 25 39.2	+06.6
04	186 10.4	-29.5	S 25 45.8	+06.6
05	200 40.9	-29.6	S 25 52.4	+06.4
06	215 11.3	-29.7	S 25 58.8	+06.2
07	229 41.6	-29.7	S 26 05.0	+06.2
08	244 11.9	-29.7	S 26 11.2	+06.1
09	258 42.2	-29.9	S 26 17.3	+05.9
10	273 12.3	-29.9	S 26 23.2	+05.8
11	287 42.4	-29.9	S 26 29.0	+05.7
12	302 12.5	-30.0	S 26 34.7	+05.5
13	316 42.5	-30.1	S 26 40.2	+05.5
14	331 12.4	-30.1	S 26 45.7	+05.3
15	345 42.3	-30.2	S 26 51.0	+05.2
16	0 12.1	-30.2	S 26 56.2	+05.1
17	14 41.9	-30.3	S 27 01.3	+04.9
18	29 11.6	-30.4	S 27 06.2	+04.8
19	43 41.2	-30.4	S 27 11.0	+04.7
20	58 10.8	-30.4	S 27 15.7	+04.6
21	72 40.4	-30.5	S 27 20.3	+04.5
22	87 09.9	-30.6	S 27 24.8	+04.3
23	101 39.3	-30.6	S 27 29.1	+04.2

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′8	14′8	14′8
HP	54′1	54′1	54′1	54′1	54′2	54′2
SHA	121°	119°	117°	115°	112°	110°

Greenwich Culmination Time: 15:59

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	155 07.3	+00.8	S 12 35.8	+00.6
01	170 08.1	+00.8	S 12 36.4	+00.6
02	185 08.9	+00.9	S 12 37.0	+00.6
03	200 09.8	+00.8	S 12 37.6	+00.6
04	215 10.6	+00.9	S 12 38.2	+00.6
05	230 11.5	+00.8	S 12 38.8	+00.6
06	245 12.3	+00.9	S 12 39.4	+00.6
07	260 13.2	+00.8	S 12 40.0	+00.6
08	275 14.0	+00.8	S 12 40.6	+00.6
09	290 14.8	+00.9	S 12 41.2	+00.6
10	305 15.7	+00.8	S 12 41.8	+00.6
11	320 16.5	+00.9	S 12 42.4	+00.6
12	335 17.4	+00.8	S 12 43.0	+00.6
13	350 18.2	+00.8	S 12 43.6	+00.6
14	5 19.0	+00.9	S 12 44.2	+00.6
15	20 19.9	+00.8	S 12 44.8	+00.6
16	35 20.7	+00.9	S 12 45.4	+00.6
17	50 21.6	+00.8	S 12 46.0	+00.6
18	65 22.4	+00.8	S 12 46.6	+00.6
19	80 23.2	+00.9	S 12 47.2	+00.6
20	95 24.1	+00.8	S 12 47.8	+00.6
21	110 24.9	+00.9	S 12 48.4	+00.6
22	125 25.8	+00.8	S 12 49.0	+00.6
23	140 26.6	+00.8	S 12 49.6	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	149°	149°	149°	149°	149°	148°

Greenwich Culmination Time: 13:38

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	252 19.0	+02.1	N 21 39.7	-00.1
01	267 21.1	+02.1	N 21 39.6	+00.0
02	282 23.2	+02.1	N 21 39.6	-00.1
03	297 25.3	+02.2	N 21 39.5	+00.0
04	312 27.5	+02.1	N 21 39.5	+00.0
05	327 29.6	+02.1	N 21 39.5	-00.1
06	342 31.7	+02.1	N 21 39.4	+00.0
07	357 33.8	+02.1	N 21 39.4	-00.1
08	12 35.9	+02.1	N 21 39.3	+00.0
09	27 38.0	+02.2	N 21 39.3	-00.1
10	42 40.2	+02.1	N 21 39.2	+00.0
11	57 42.3	+02.1	N 21 39.2	-00.1
12	72 44.4	+02.1	N 21 39.1	+00.0
13	87 46.5	+02.1	N 21 39.1	-00.1
14	102 48.6	+02.1	N 21 39.0	+00.0
15	117 50.7	+02.2	N 21 39.0	-00.1
16	132 52.9	+02.1	N 21 38.9	+00.0
17	147 55.0	+02.1	N 21 38.9	-00.1
18	162 57.1	+02.1	N 21 38.8	+00.0
19	177 59.2	+02.1	N 21 38.8	-00.1
20	193 01.3	+02.2	N 21 38.7	+00.0
21	208 03.5	+02.1	N 21 38.7	-00.1
22	223 05.6	+02.1	N 21 38.6	+00.0
23	238 07.7	+02.1	N 21 38.6	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 07:09

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	6 49.0	+02.6	S 03 04.5	+00.1
01	21 51.6	+02.7	S 03 04.6	+00.0
02	36 54.3	+02.6	S 03 04.6	+00.1
03	51 56.9	+02.7	S 03 04.7	+00.1
04	66 59.6	+02.6	S 03 04.8	+00.1
05	82 02.2	+02.6	S 03 04.9	+00.0
06	97 04.8	+02.7	S 03 04.9	+00.1
07	112 07.5	+02.6	S 03 05.0	+00.1
08	127 10.1	+02.7	S 03 05.1	+00.1
09	142 12.8	+02.6	S 03 05.2	+00.0
10	157 15.4	+02.6	S 03 05.2	+00.1
11	172 18.0	+02.7	S 03 05.3	+00.1
12	187 20.7	+02.6	S 03 05.4	+00.1
13	202 23.3	+02.7	S 03 05.5	+00.1
14	217 26.0	+02.6	S 03 05.6	+00.0
15	232 28.6	+02.6	S 03 05.6	+00.1
16	247 31.2	+02.7	S 03 05.7	+00.1
17	262 33.9	+02.6	S 03 05.8	+00.1
18	277 36.5	+02.7	S 03 05.9	+00.0
19	292 39.2	+02.6	S 03 05.9	+00.1
20	307 41.8	+02.6	S 03 06.0	+00.1
21	322 44.4	+02.7	S 03 06.1	+00.1
22	337 47.1	+02.6	S 03 06.2	+00.0
23	352 49.7	+02.7	S 03 06.2	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:28

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2025 September 28 Sunday

(day 271 of 365)

Sun

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	182 18.8	+00.3	S 02 02.4	+00.9
01	197 19.1	+00.2	S 02 03.3	+01.0
02	212 19.3	+00.2	S 02 04.3	+01.0
03	227 19.5	+00.2	S 02 05.3	+01.0
04	242 19.7	+00.2	S 02 06.3	+00.9
05	257 19.9	+00.2	S 02 07.2	+01.0
06	272 20.1	+00.2	S 02 08.2	+01.0
07	287 20.3	+00.2	S 02 09.2	+00.9
08	302 20.5	+00.2	S 02 10.1	+01.0
09	317 20.7	+00.2	S 02 11.1	+01.0
10	332 20.9	+00.3	S 02 12.1	+01.0
11	347 21.2	+00.2	S 02 13.1	+00.9
12	2 21.4	+00.2	S 02 14.0	+01.0
13	17 21.6	+00.2	S 02 15.0	+01.0
14	32 21.8	+00.2	S 02 16.0	+01.0
15	47 22.0	+00.2	S 02 17.0	+00.9
16	62 22.2	+00.2	S 02 17.9	+01.0
17	77 22.4	+00.2	S 02 18.9	+01.0
18	92 22.6	+00.2	S 02 19.9	+00.9
19	107 22.8	+00.2	S 02 20.8	+01.0
20	122 23.0	+00.2	S 02 21.8	+01.0
21	137 23.2	+00.2	S 02 22.8	+01.0
22	152 23.4	+00.3	S 02 23.8	+00.9
23	167 23.7	+00.2	S 02 24.7	+01.0

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	175°	175°	175°	175°	175°	174°

Greenwich Culmination Time: 11:50

Venus

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	204 40.4	-00.4	N 08 47.6	-01.1
01	219 40.0	-00.5	N 08 46.5	-01.1
02	234 39.5	-00.4	N 08 45.4	-01.1
03	249 39.1	-00.4	N 08 44.3	-01.1
04	264 38.7	-00.5	N 08 43.2	-01.1
05	279 38.2	-00.4	N 08 42.1	-01.1
06	294 37.8	-00.4	N 08 41.0	-01.1
07	309 37.4	-00.5	N 08 39.9	-01.1
08	324 36.9	-00.4	N 08 38.8	-01.1
09	339 36.5	-00.4	N 08 37.7	-01.1
10	354 36.1	-00.5	N 08 36.6	-01.1
11	9 35.6	-00.4	N 08 35.5	-01.1
12	24 35.2	-00.5	N 08 34.4	-01.1
13	39 34.7	-00.4	N 08 33.3	-01.1
14	54 34.3	-00.4	N 08 32.2	-01.1
15	69 33.9	-00.5	N 08 31.1	-01.1
16	84 33.4	-00.4	N 08 30.0	-01.1
17	99 33.0	-00.4	N 08 28.9	-01.1
18	114 32.6	-00.5	N 08 27.8	-01.1
19	129 32.1	-00.4	N 08 26.7	-01.2
20	144 31.7	-00.4	N 08 25.5	-01.1
21	159 31.3	-00.5	N 08 24.4	-01.1
22	174 30.8	-00.4	N 08 23.3	-01.1
23	189 30.4	-00.4	N 08 22.2	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	198°	197°	197°	197°	197°	197°

Greenwich Culmination Time: 10:21

Moon

A: 20%

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	116 08.7	-30.7	S 27 33.3	+04.0
01	130 38.0	-30.7	S 27 37.3	+03.9
02	145 07.3	-30.8	S 27 41.2	+03.8
03	159 36.5	-30.8	S 27 45.0	+03.7
04	174 05.7	-30.9	S 27 48.7	+03.5
05	188 34.8	-30.9	S 27 52.2	+03.4
06	203 03.9	-31.0	S 27 55.6	+03.3
07	217 32.9	-31.0	S 27 58.9	+03.1
08	232 01.9	-31.1	S 28 02.0	+03.0
09	246 30.8	-31.1	S 28 05.0	+02.9
10	260 59.7	-31.1	S 28 07.9	+02.7
11	275 28.6	-31.2	S 28 10.6	+02.6
12	289 57.4	-31.2	S 28 13.2	+02.4
13	304 26.2	-31.3	S 28 15.6	+02.4
14	318 54.9	-31.3	S 28 18.0	+02.1
15	333 23.6	-31.4	S 28 20.1	+02.1
16	347 52.2	-31.4	S 28 22.2	+01.9
17	2 20.8	-31.4	S 28 24.1	+01.8
18	16 49.4	-31.4	S 28 25.9	+01.6
19	31 18.0	-31.5	S 28 27.5	+01.5
20	45 46.5	-31.6	S 28 29.0	+01.3
21	60 14.9	-31.5	S 28 30.3	+01.2
22	74 43.4	-31.6	S 28 31.5	+01.1
23	89 11.8	-31.7	S 28 32.6	+00.9

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′9
HP	54′3	54′3	54′4	54′4	54′5	54′5
SHA	108°	106°	104°	101°	099°	097°

Greenwich Culmination Time: 16:50

Mars

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	155 27.4	+00.9	S 12 50.2	+00.6
01	170 28.3	+00.8	S 12 50.8	+00.6
02	185 29.1	+00.9	S 12 51.4	+00.6
03	200 30.0	+00.8	S 12 52.0	+00.6
04	215 30.8	+00.8	S 12 52.6	+00.6
05	230 31.6	+00.9	S 12 53.2	+00.6
06	245 32.5	+00.8	S 12 53.8	+00.6
07	260 33.3	+00.8	S 12 54.4	+00.6
08	275 34.1	+00.9	S 12 55.0	+00.6
09	290 35.0	+00.8	S 12 55.6	+00.6
10	305 35.8	+00.8	S 12 56.2	+00.6
11	320 36.6	+00.9	S 12 56.8	+00.6
12	335 37.5	+00.8	S 12 57.4	+00.6
13	350 38.3	+00.9	S 12 58.0	+00.6
14	5 39.2	+00.8	S 12 58.6	+00.6
15	20 40.0	+00.8	S 12 59.2	+00.6
16	35 40.8	+00.9	S 12 59.8	+00.6
17	50 41.7	+00.8	S 13 00.4	+00.6
18	65 42.5	+00.8	S 13 01.0	+00.6
19	80 43.3	+00.9	S 13 01.6	+00.6
20	95 44.2	+00.8	S 13 02.2	+00.6
21	110 45.0	+00.8	S 13 02.8	+00.6
22	125 45.8	+00.9	S 13 03.4	+00.6
23	140 46.7	+00.8	S 13 04.0	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	148°	148°	148°	148°	148°	148°

Greenwich Culmination Time: 13:37

Jupiter

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	253 09.8	+02.1	N 21 38.5	+00.0
01	268 11.9	+02.2	N 21 38.5	+00.0
02	283 14.1	+02.1	N 21 38.5	-00.1
03	298 16.2	+02.1	N 21 38.4	+00.0
04	313 18.3	+02.1	N 21 38.4	-00.1
05	328 20.4	+02.2	N 21 38.3	+00.0
06	343 22.6	+02.1	N 21 38.3	-00.1
07	358 24.7	+02.1	N 21 38.2	+00.0
08	13 26.8	+02.1	N 21 38.2	-00.1
09	28 28.9	+02.1	N 21 38.1	+00.0
10	43 31.0	+02.2	N 21 38.1	-00.1
11	58 33.2	+02.1	N 21 38.0	+00.0
12	73 35.3	+02.1	N 21 38.0	-00.1
13	88 37.4	+02.1	N 21 37.9	+00.0
14	103 39.5	+02.2	N 21 37.9	-00.1
15	118 41.7	+02.1	N 21 37.8	+00.0
16	133 43.8	+02.1	N 21 37.8	+00.0
17	148 45.9	+02.1	N 21 37.8	-00.1
18	163 48.0	+02.2	N 21 37.7	+00.0
19	178 50.2	+02.1	N 21 37.7	-00.1
20	193 52.3	+02.1	N 21 37.6	+00.0
21	208 54.4	+02.1	N 21 37.6	-00.1
22	223 56.5	+02.2	N 21 37.5	+00.0
23	238 58.7	+02.1	N 21 37.5	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 07:06

Saturn

UT	GHA ° ′	ddGHA ′	Dec ° ′	dDec ′
00	7 52.4	+02.6	S 03 06.3	+00.1
01	22 55.0	+02.6	S 03 06.4	+00.1
02	37 57.6	+02.7	S 03 06.5	+00.0
03	53 00.3	+02.6	S 03 06.5	+00.1
04	68 02.9	+02.7	S 03 06.6	+00.1
05	83 05.6	+02.6	S 03 06.7	+00.1
06	98 08.2	+02.6	S 03 06.8	+00.0
07	113 10.8	+02.7	S 03 06.8	+00.1
08	128 13.5	+02.6	S 03 06.9	+00.1
09	143 16.1	+02.7	S 03 07.0	+00.1
10	158 18.8	+02.6	S 03 07.1	+00.1
11	173 21.4	+02.6	S 03 07.2	+00.0
12	188 24.0	+02.7	S 03 07.2	+00.1
13	203 26.7	+02.6	S 03 07.3	+00.1
14	218 29.3	+02.7	S 03 07.4	+00.1
15	233 32.0	+02.6	S 03 07.5	+00.0
16	248 34.6	+02.6	S 03 07.5	+00.1
17	263 37.2	+02.7	S 03 07.6	+00.1
18	278 39.9	+02.6	S 03 07.7	+00.1
19	293 42.5	+02.7	S 03 07.8	+00.0
20	308 45.2	+02.6	S 03 07.8	+00.1
21	323 47.8	+02.6	S 03 07.9	+00.1
22	338 50.4	+02.7	S 03 08.0	+00.1
23	353 53.1	+02.6	S 03 08.1	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:24

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2025 September 29 Monday

(day 272 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 23.9	+00.2	S 02 25.7	+01.0
01	197 24.1	+00.2	S 02 26.7	+00.9
02	212 24.3	+00.2	S 02 27.6	+01.0
03	227 24.5	+00.2	S 02 28.6	+01.0
04	242 24.7	+00.2	S 02 29.6	+01.0
05	257 24.9	+00.2	S 02 30.6	+00.9
06	272 25.1	+00.2	S 02 31.5	+01.0
07	287 25.3	+00.2	S 02 32.5	+01.0
08	302 25.5	+00.2	S 02 33.5	+00.9
09	317 25.7	+00.2	S 02 34.4	+01.0
10	332 25.9	+00.2	S 02 35.4	+01.0
11	347 26.1	+00.2	S 02 36.4	+01.0
12	2 26.3	+00.3	S 02 37.4	+00.9
13	17 26.6	+00.2	S 02 38.3	+01.0
14	32 26.8	+00.2	S 02 39.3	+01.0
15	47 27.0	+00.2	S 02 40.3	+00.9
16	62 27.2	+00.2	S 02 41.2	+01.0
17	77 27.4	+00.2	S 02 42.2	+01.0
18	92 27.6	+00.2	S 02 43.2	+01.0
19	107 27.8	+00.2	S 02 44.2	+00.9
20	122 28.0	+00.2	S 02 45.1	+01.0
21	137 28.2	+00.2	S 02 46.1	+01.0
22	152 28.4	+00.2	S 02 47.1	+00.9
23	167 28.6	+00.2	S 02 48.0	+01.0

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	174°	174°	174°	174°	174°	174°

Greenwich Culmination Time: 11:50

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	204 30.0	-00.5	N 08 21.1	-01.1
01	219 29.5	-00.4	N 08 20.0	-01.1
02	234 29.1	-00.4	N 08 18.9	-01.1
03	249 28.7	-00.5	N 08 17.8	-01.1
04	264 28.2	-00.4	N 08 16.7	-01.2
05	279 27.8	-00.4	N 08 15.5	-01.1
06	294 27.4	-00.4	N 08 14.4	-01.1
07	309 27.0	-00.5	N 08 13.3	-01.1
08	324 26.5	-00.4	N 08 12.2	-01.1
09	339 26.1	-00.4	N 08 11.1	-01.1
10	354 25.7	-00.5	N 08 10.0	-01.1
11	9 25.2	-00.4	N 08 08.9	-01.2
12	24 24.8	-00.4	N 08 07.7	-01.1
13	39 24.4	-00.5	N 08 06.6	-01.1
14	54 23.9	-00.4	N 08 05.5	-01.1
15	69 23.5	-00.4	N 08 04.4	-01.1
16	84 23.1	-00.4	N 08 03.3	-01.2
17	99 22.7	-00.5	N 08 02.1	-01.1
18	114 22.2	-00.4	N 08 01.0	-01.1
19	129 21.8	-00.4	N 07 59.9	-01.1
20	144 21.4	-00.5	N 07 58.8	-01.1
21	159 20.9	-00.4	N 07 57.7	-01.1
22	174 20.5	-00.4	N 07 56.6	-01.2
23	189 20.1	-00.4	N 07 55.4	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	196°	196°	196°	196°	196°	195°

Greenwich Culmination Time: 10:22

Moon

A: 23%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	103 40.1	-31.6	S 28 33.5	+00.8
01	118 08.5	-31.7	S 28 34.3	+00.6
02	132 36.8	-31.7	S 28 34.9	+00.5
03	147 05.1	-31.8	S 28 35.4	+00.4
04	161 33.3	-31.7	S 28 35.8	+00.2
05	176 01.6	-31.8	S 28 36.0	+00.1
06	190 29.8	-31.8	S 28 36.1	-00.1
07	204 58.0	-31.9	S 28 36.0	-00.2
08	219 26.1	-31.8	S 28 35.8	-00.4
09	233 54.3	-31.9	S 28 35.4	-00.5
10	248 22.4	-31.9	S 28 34.9	-00.6
11	262 50.5	-31.9	S 28 34.3	-00.8
12	277 18.6	-31.9	S 28 33.5	-01.0
13	291 46.7	-31.9	S 28 32.5	-01.1
14	306 14.8	-32.0	S 28 31.4	-01.2
15	320 42.8	-32.0	S 28 30.2	-01.4
16	335 10.8	-31.9	S 28 28.8	-01.5
17	349 38.9	-32.0	S 28 27.3	-01.7
18	4 06.9	-32.0	S 28 25.6	-01.8
19	18 34.9	-32.0	S 28 23.8	-01.9
20	33 02.9	-32.0	S 28 21.9	-02.1
21	47 30.9	-32.1	S 28 19.8	-02.3
22	61 58.8	-32.0	S 28 17.5	-02.4
23	76 26.8	-32.0	S 28 15.1	-02.5

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′9	15′0	15′0
HP	54′6	54′7	54′7	54′8	54′9	55′0
SHA	095°	092°	090°	088°	085°	083°

Greenwich Culmination Time: 17:42

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	155 47.5	+00.8	S 13 04.6	+00.6
01	170 48.3	+00.9	S 13 05.2	+00.6
02	185 49.2	+00.8	S 13 05.8	+00.6
03	200 50.0	+00.8	S 13 06.4	+00.5
04	215 50.8	+00.9	S 13 06.9	+00.6
05	230 51.7	+00.8	S 13 07.5	+00.6
06	245 52.5	+00.8	S 13 08.1	+00.6
07	260 53.3	+00.8	S 13 08.7	+00.6
08	275 54.1	+00.9	S 13 09.3	+00.6
09	290 55.0	+00.8	S 13 09.9	+00.6
10	305 55.8	+00.8	S 13 10.5	+00.6
11	320 56.6	+00.9	S 13 11.1	+00.6
12	335 57.5	+00.8	S 13 11.7	+00.6
13	350 58.3	+00.8	S 13 12.3	+00.6
14	5 59.1	+00.9	S 13 12.9	+00.6
15	20 60.0	+00.8	S 13 13.5	+00.6
16	36 00.8	+00.8	S 13 14.1	+00.6
17	51 01.6	+00.8	S 13 14.7	+00.6
18	66 02.4	+00.9	S 13 15.3	+00.6
19	81 03.3	+00.8	S 13 15.9	+00.6
20	96 04.1	+00.8	S 13 16.5	+00.6
21	111 04.9	+00.9	S 13 17.1	+00.5
22	126 05.8	+00.8	S 13 17.6	+00.6
23	141 06.6	+00.8	S 13 18.2	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	148°	148°	148°	147°	147°	147°

Greenwich Culmination Time: 13:36

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	254 00.8	+02.1	N 21 37.4	+00.0
01	269 02.9	+02.2	N 21 37.4	-00.1
02	284 05.1	+02.1	N 21 37.3	+00.0
03	299 07.2	+02.1	N 21 37.3	-00.1
04	314 09.3	+02.1	N 21 37.2	+00.0
05	329 11.4	+02.2	N 21 37.2	-00.1
06	344 13.6	+02.1	N 21 37.1	+00.0
07	359 15.7	+02.1	N 21 37.1	+00.0
08	14 17.8	+02.2	N 21 37.1	-00.1
09	29 20.0	+02.1	N 21 37.0	+00.0
10	44 22.1	+02.1	N 21 37.0	-00.1
11	59 24.2	+02.1	N 21 36.9	+00.0
12	74 26.3	+02.2	N 21 36.9	-00.1
13	89 28.5	+02.1	N 21 36.8	+00.0
14	104 30.6	+02.1	N 21 36.8	-00.1
15	119 32.7	+02.2	N 21 36.7	+00.0
16	134 34.9	+02.1	N 21 36.7	-00.1
17	149 37.0	+02.1	N 21 36.6	+00.0
18	164 39.1	+02.2	N 21 36.6	-00.1
19	179 41.3	+02.1	N 21 36.5	+00.0
20	194 43.4	+02.1	N 21 36.5	+00.0
21	209 45.5	+02.2	N 21 36.5	-00.1
22	224 47.7	+02.1	N 21 36.4	+00.0
23	239 49.8	+02.1	N 21 36.4	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 07:02

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	8 55.7	+02.7	S 03 08.1	+00.1
01	23 58.4	+02.6	S 03 08.2	+00.1
02	39 01.0	+02.6	S 03 08.3	+00.1
03	54 03.6	+02.7	S 03 08.4	+00.0
04	69 06.3	+02.6	S 03 08.4	+00.1
05	84 08.9	+02.7	S 03 08.5	+00.1
06	99 11.6	+02.6	S 03 08.6	+00.1
07	114 14.2	+02.6	S 03 08.7	+00.0
08	129 16.8	+02.7	S 03 08.7	+00.1
09	144 19.5	+02.6	S 03 08.8	+00.1
10	159 22.1	+02.7	S 03 08.9	+00.1
11	174 24.8	+02.6	S 03 09.0	+00.0
12	189 27.4	+02.6	S 03 09.0	+00.1
13	204 30.0	+02.7	S 03 09.1	+00.1
14	219 32.7	+02.6	S 03 09.2	+00.1
15	234 35.3	+02.6	S 03 09.3	+00.0
16	249 37.9	+02.7	S 03 09.3	+00.1
17	264 40.6	+02.6	S 03 09.4	+00.1
18	279 43.2	+02.7	S 03 09.5	+00.1
19	294 45.9	+02.6	S 03 09.6	+00.0
20	309 48.5	+02.6	S 03 09.6	+00.1
21	324 51.1	+02.7	S 03 09.7	+00.1
22	339 53.8	+02.6	S 03 09.8	+00.1
23	354 56.4	+02.7	S 03 09.9	+00.1

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:20

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2025 September 30 Tuesday

(day 273 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 28.8	+00.2	S 02 49.0	+01.0
01	197 29.0	+00.2	S 02 50.0	+00.9
02	212 29.2	+00.2	S 02 50.9	+01.0
03	227 29.4	+00.2	S 02 51.9	+01.0
04	242 29.6	+00.2	S 02 52.9	+01.0
05	257 29.8	+00.2	S 02 53.9	+00.9
06	272 30.0	+00.3	S 02 54.8	+01.0
07	287 30.3	+00.2	S 02 55.8	+01.0
08	302 30.5	+00.2	S 02 56.8	+00.9
09	317 30.7	+00.2	S 02 57.7	+01.0
10	332 30.9	+00.2	S 02 58.7	+01.0
11	347 31.1	+00.2	S 02 59.7	+01.0
12	2 31.3	+00.2	S 03 00.7	+00.9
13	17 31.5	+00.2	S 03 01.6	+01.0
14	32 31.7	+00.2	S 03 02.6	+01.0
15	47 31.9	+00.2	S 03 03.6	+00.9
16	62 32.1	+00.2	S 03 04.5	+01.0
17	77 32.3	+00.2	S 03 05.5	+01.0
18	92 32.5	+00.2	S 03 06.5	+00.9
19	107 32.7	+00.2	S 03 07.4	+01.0
20	122 32.9	+00.2	S 03 08.4	+01.0
21	137 33.1	+00.2	S 03 09.4	+00.9
22	152 33.3	+00.2	S 03 10.3	+01.0
23	167 33.5	+00.2	S 03 11.3	+01.0

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′0	16′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	173°	173°	173°	173°	173°	173°

Greenwich Culmination Time: 11:49

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	204 19.7	-00.5	N 07 54.3	-01.1
01	219 19.2	-00.4	N 07 53.2	-01.1
02	234 18.8	-00.4	N 07 52.1	-01.2
03	249 18.4	-00.5	N 07 50.9	-01.1
04	264 17.9	-00.4	N 07 49.8	-01.1
05	279 17.5	-00.4	N 07 48.7	-01.1
06	294 17.1	-00.4	N 07 47.6	-01.2
07	309 16.7	-00.5	N 07 46.4	-01.1
08	324 16.2	-00.4	N 07 45.3	-01.1
09	339 15.8	-00.4	N 07 44.2	-01.1
10	354 15.4	-00.4	N 07 43.1	-01.2
11	9 15.0	-00.5	N 07 41.9	-01.1
12	24 14.5	-00.4	N 07 40.8	-01.1
13	39 14.1	-00.4	N 07 39.7	-01.1
14	54 13.7	-00.4	N 07 38.6	-01.2
15	69 13.3	-00.5	N 07 37.4	-01.1
16	84 12.8	-00.4	N 07 36.3	-01.1
17	99 12.4	-00.4	N 07 35.2	-01.1
18	114 12.0	-00.4	N 07 34.1	-01.2
19	129 11.6	-00.5	N 07 32.9	-01.1
20	144 11.1	-00.4	N 07 31.8	-01.1
21	159 10.7	-00.4	N 07 30.7	-01.2
22	174 10.3	-00.4	N 07 29.5	-01.1
23	189 09.9	-00.4	N 07 28.4	-01.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	195°	195°	195°	195°	194°	194°

Greenwich Culmination Time: 10:22

Moon

A: 27%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	90 54.8	-32.0	S 28 12.6	-02.7
01	105 22.8	-32.0	S 28 09.9	-02.9
02	119 50.8	-32.1	S 28 07.0	-03.0
03	134 18.7	-32.0	S 28 04.0	-03.1
04	148 46.7	-32.0	S 28 00.9	-03.3
05	163 14.7	-32.0	S 27 57.6	-03.4
06	177 42.7	-32.0	S 27 54.2	-03.6
07	192 10.7	-32.1	S 27 50.6	-03.7
08	206 38.6	-32.0	S 27 46.9	-03.8
09	221 06.6	-32.0	S 27 43.1	-04.1
10	235 34.6	-31.9	S 27 39.0	-04.1
11	250 02.7	-32.0	S 27 34.9	-04.3
12	264 30.7	-32.0	S 27 30.6	-04.5
13	278 58.7	-31.9	S 27 26.1	-04.5
14	293 26.8	-32.0	S 27 21.6	-04.8
15	307 54.8	-31.9	S 27 16.8	-04.9
16	322 22.9	-31.9	S 27 11.9	-05.0
17	336 51.0	-31.9	S 27 06.9	-05.2
18	351 19.1	-31.9	S 27 01.7	-05.3
19	5 47.2	-31.8	S 26 56.4	-05.4
20	20 15.4	-31.9	S 26 51.0	-05.7
21	34 43.5	-31.8	S 26 45.3	-05.7
22	49 11.7	-31.8	S 26 39.6	-05.9
23	63 39.9	-31.8	S 26 33.7	-06.0

UT	02	06	10	14	18	22
SD	15′0	15′0	15′1	15′1	15′1	15′2
HP	55′1	55′2	55′3	55′4	55′5	55′7
SHA	081°	078°	076°	074°	072°	069°

Greenwich Culmination Time: 18:36

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	156 07.4	+00.8	S 13 18.8	+00.6
01	171 08.2	+00.9	S 13 19.4	+00.6
02	186 09.1	+00.8	S 13 20.0	+00.6
03	201 09.9	+00.8	S 13 20.6	+00.6
04	216 10.7	+00.8	S 13 21.2	+00.6
05	231 11.5	+00.9	S 13 21.8	+00.6
06	246 12.4	+00.8	S 13 22.4	+00.6
07	261 13.2	+00.8	S 13 23.0	+00.6
08	276 14.0	+00.8	S 13 23.6	+00.6
09	291 14.8	+00.9	S 13 24.2	+00.6
10	306 15.7	+00.8	S 13 24.8	+00.5
11	321 16.5	+00.8	S 13 25.3	+00.6
12	336 17.3	+00.8	S 13 25.9	+00.6
13	351 18.1	+00.9	S 13 26.5	+00.6
14	6 19.0	+00.8	S 13 27.1	+00.6
15	21 19.8	+00.8	S 13 27.7	+00.6
16	36 20.6	+00.8	S 13 28.3	+00.6
17	51 21.4	+00.9	S 13 28.9	+00.6
18	66 22.3	+00.8	S 13 29.5	+00.6
19	81 23.1	+00.8	S 13 30.1	+00.6
20	96 23.9	+00.8	S 13 30.7	+00.5
21	111 24.7	+00.8	S 13 31.2	+00.6
22	126 25.5	+00.9	S 13 31.8	+00.6
23	141 26.4	+00.8	S 13 32.4	+00.6

UT	02	06	10	14	18	22
SD	00′0	00′0	00′0	00′0	00′0	00′0
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	147°	147°	147°	147°	147°	147°

Greenwich Culmination Time: 13:34

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	254 51.9	+02.2	N 21 36.3	+00.0
01	269 54.1	+02.1	N 21 36.3	-00.1
02	284 56.2	+02.1	N 21 36.2	+00.0
03	299 58.3	+02.2	N 21 36.2	-00.1
04	315 00.5	+02.1	N 21 36.1	+00.0
05	330 02.6	+02.1	N 21 36.1	-00.1
06	345 04.7	+02.2	N 21 36.0	+00.0
07	0 06.9	+02.1	N 21 36.0	-00.1
08	15 09.0	+02.1	N 21 35.9	+00.0
09	30 11.1	+02.2	N 21 35.9	+00.0
10	45 13.3	+02.1	N 21 35.9	-00.1
11	60 15.4	+02.1	N 21 35.8	+00.0
12	75 17.5	+02.2	N 21 35.8	-00.1
13	90 19.7	+02.1	N 21 35.7	+00.0
14	105 21.8	+02.2	N 21 35.7	-00.1
15	120 24.0	+02.1	N 21 35.6	+00.0
16	135 26.1	+02.1	N 21 35.6	-00.1
17	150 28.2	+02.2	N 21 35.5	+00.0
18	165 30.4	+02.1	N 21 35.5	-00.1
19	180 32.5	+02.1	N 21 35.4	+00.0
20	195 34.6	+02.2	N 21 35.4	+00.0
21	210 36.8	+02.1	N 21 35.4	-00.1
22	225 38.9	+02.2	N 21 35.3	+00.0
23	240 41.1	+02.1	N 21 35.3	-00.1

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′3	00′3	00′3
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 06:59

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	9 59.1	+02.6	S 03 10.0	+00.0
01	25 01.7	+02.6	S 03 10.0	+00.1
02	40 04.3	+02.7	S 03 10.1	+00.1
03	55 07.0	+02.6	S 03 10.2	+00.1
04	70 09.6	+02.7	S 03 10.3	+00.0
05	85 12.3	+02.6	S 03 10.3	+00.1
06	100 14.9	+02.6	S 03 10.4	+00.1
07	115 17.5	+02.7	S 03 10.5	+00.1
08	130 20.2	+02.6	S 03 10.6	+00.0
09	145 22.8	+02.6	S 03 10.6	+00.1
10	160 25.4	+02.7	S 03 10.7	+00.1
11	175 28.1	+02.6	S 03 10.8	+00.1
12	190 30.7	+02.7	S 03 10.9	+00.0
13	205 33.4	+02.6	S 03 10.9	+00.1
14	220 36.0	+02.6	S 03 11.0	+00.1
15	235 38.6	+02.7	S 03 11.1	+00.1
16	250 41.3	+02.6	S 03 11.2	+00.0
17	265 43.9	+02.7	S 03 11.2	+00.1
18	280 46.6	+02.6	S 03 11.3	+00.1
19	295 49.2	+02.6	S 03 11.4	+00.0
20	310 51.8	+02.7	S 03 11.4	+00.1
21	325 54.5	+02.6	S 03 11.5	+00.1
22	340 57.1	+02.6	S 03 11.6	+00.1
23	355 59.7	+02.7	S 03 11.7	+00.0

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′2	00′2
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:15

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