2025 October 1 Wednesday

(day 274 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 33.7	+00.2	S 03 12.3	+01.0
01	197 33.9	+00.2	S 03 13.3	+00.9
02	212 34.1	+00.2	S 03 14.2	+01.0
03	227 34.3	+00.2	S 03 15.2	+01.0
04	242 34.5	+00.2	S 03 16.2	+00.9
05	257 34.7	+00.2	S 03 17.1	+01.0
06	272 34.9	+00.2	S 03 18.1	+01.0
07	287 35.1	+00.2	S 03 19.1	+00.9
08	302 35.3	+00.2	S 03 20.0	+01.0
09	317 35.5	+00.2	S 03 21.0	+01.0
10	332 35.7	+00.2	S 03 22.0	+00.9
11	347 35.9	+00.2	S 03 22.9	+01.0
12	2 36.1	+00.2	S 03 23.9	+01.0
13	17 36.3	+00.2	S 03 24.9	+00.9
14	32 36.5	+00.2	S 03 25.8	+01.0
15	47 36.7	+00.2	S 03 26.8	+01.0
16	62 36.9	+00.2	S 03 27.8	+01.0
17	77 37.1	+00.2	S 03 28.8	+00.9
18	92 37.3	+00.2	S 03 29.7	+01.0
19	107 37.5	+00.2	S 03 30.7	+01.0
20	122 37.7	+00.2	S 03 31.7	+00.9
21	137 37.9	+00.2	S 03 32.6	+01.0
22	152 38.1	+00.2	S 03 33.6	+01.0
23	167 38.3	+00.2	S 03 34.6	+00.9

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°	172°	172°	172°	172°	172°

Greenwich Culmination Time: 11:49

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	204 09.5	-00.5	N 07 27.3	-01.2
01	219 09.0	-00.4	N 07 26.1	-01.1
02	234 08.6	-00.4	N 07 25.0	-01.1
03	249 08.2	-00.4	N 07 23.9	-01.2
04	264 07.8	-00.5	N 07 22.7	-01.1
05	279 07.3	-00.4	N 07 21.6	-01.1
06	294 06.9	-00.4	N 07 20.5	-01.2
07	309 06.5	-00.4	N 07 19.3	-01.1
08	324 06.1	-00.4	N 07 18.2	-01.1
09	339 05.7	-00.5	N 07 17.1	-01.2
10	354 05.2	-00.4	N 07 15.9	-01.1
11	9 04.8	-00.4	N 07 14.8	-01.1
12	24 04.4	-00.4	N 07 13.7	-01.2
13	39 04.0	-00.4	N 07 12.5	-01.1
14	54 03.6	-00.5	N 07 11.4	-01.1
15	69 03.1	-00.4	N 07 10.3	-01.2
16	84 02.7	-00.4	N 07 09.1	-01.1
17	99 02.3	-00.4	N 07 08.0	-01.1
18	114 01.9	-00.4	N 07 06.9	-01.2
19	129 01.5	-00.5	N 07 05.7	-01.1
20	144 01.0	-00.4	N 07 04.6	-01.2
21	159 00.6	-00.4	N 07 03.4	-01.1
22	174 00.2	-00.4	N 07 02.3	-01.1
23	188 59.8	-00.4	N 07 01.2	-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	194°	194°	194°	194°	193°	193°

Greenwich Culmination Time: 10:23

Moon

A: 30%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	78 08.1	-31.7	S 26 27.7	-06.2
01	92 36.4	-31.8	S 26 21.5	-06.3
02	107 04.6	-31.7	S 26 15.2	-06.5
03	121 32.9	-31.7	S 26 08.7	-06.6
04	136 01.2	-31.6	S 26 02.1	-06.7
05	150 29.6	-31.6	S 25 55.4	-06.9
06	164 58.0	-31.7	S 25 48.5	-07.1
07	179 26.3	-31.5	S 25 41.4	-07.1
08	193 54.8	-31.6	S 25 34.3	-07.3
09	208 23.2	-31.5	S 25 27.0	-07.5
10	222 51.7	-31.5	S 25 19.5	-07.6
11	237 20.2	-31.5	S 25 11.9	-07.7
12	251 48.7	-31.4	S 25 04.2	-07.8
13	266 17.3	-31.4	S 24 56.4	-08.0
14	280 45.9	-31.4	S 24 48.4	-08.2
15	295 14.5	-31.3	S 24 40.2	-08.3
16	309 43.2	-31.3	S 24 31.9	-08.4
17	324 11.9	-31.3	S 24 23.5	-08.5
18	338 40.6	-31.3	S 24 15.0	-08.7
19	353 09.3	-31.2	S 24 06.3	-08.8
20	7 38.1	-31.2	S 23 57.5	-08.9
21	22 06.9	-31.1	S 23 48.6	-09.1
22	36 35.8	-31.1	S 23 39.5	-09.2
23	51 04.7	-31.1	S 23 30.3	-09.4

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	067°	065°	062°	060°	058°	056°

Greenwich Culmination Time: 19:28

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	156 27.2	+00.8	S 13 33.0	+00.6
01	171 28.0	+00.8	S 13 33.6	+00.6
02	186 28.8	+00.9	S 13 34.2	+00.6
03	201 29.7	+00.8	S 13 34.8	+00.6
04	216 30.5	+00.8	S 13 35.4	+00.6
05	231 31.3	+00.8	S 13 36.0	+00.5
06	246 32.1	+00.8	S 13 36.5	+00.6
07	261 32.9	+00.9	S 13 37.1	+00.6
08	276 33.8	+00.8	S 13 37.7	+00.6
09	291 34.6	+00.8	S 13 38.3	+00.6
10	306 35.4	+00.8	S 13 38.9	+00.6
11	321 36.2	+00.8	S 13 39.5	+00.6
12	336 37.0	+00.8	S 13 40.1	+00.6
13	351 37.8	+00.9	S 13 40.7	+00.6
14	6 38.7	+00.8	S 13 41.3	+00.5
15	21 39.5	+00.8	S 13 41.8	+00.6
16	36 40.3	+00.8	S 13 42.4	+00.6
17	51 41.1	+00.8	S 13 43.0	+00.6
18	66 41.9	+00.9	S 13 43.6	+00.6
19	81 42.8	+00.8	S 13 44.2	+00.6
20	96 43.6	+00.8	S 13 44.8	+00.6
21	111 44.4	+00.8	S 13 45.4	+00.5
22	126 45.2	+00.8	S 13 45.9	+00.6
23	141 46.0	+00.8	S 13 46.5	+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	146°	146°	146°	146°	146°	146°

Greenwich Culmination Time: 13:33

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	255 43.2	+02.1	N 21 35.2	+00.0
01	270 45.3	+02.2	N 21 35.2	-00.1
02	285 47.5	+02.1	N 21 35.1	+00.0
03	300 49.6	+02.2	N 21 35.1	-00.1
04	315 51.8	+02.1	N 21 35.0	+00.0
05	330 53.9	+02.1	N 21 35.0	+00.0
06	345 56.0	+02.2	N 21 35.0	-00.1
07	0 58.2	+02.1	N 21 34.9	+00.0
08	16 00.3	+02.2	N 21 34.9	-00.1
09	31 02.5	+02.1	N 21 34.8	+00.0
10	46 04.6	+02.1	N 21 34.8	-00.1
11	61 06.7	+02.2	N 21 34.7	+00.0
12	76 08.9	+02.1	N 21 34.7	-00.1
13	91 11.0	+02.2	N 21 34.6	+00.0
14	106 13.2	+02.1	N 21 34.6	-00.1
15	121 15.3	+02.2	N 21 34.5	+00.0
16	136 17.5	+02.1	N 21 34.5	+00.0
17	151 19.6	+02.2	N 21 34.5	-00.1
18	166 21.8	+02.1	N 21 34.4	+00.0
19	181 23.9	+02.1	N 21 34.4	-00.1
20	196 26.0	+02.2	N 21 34.3	+00.0
21	211 28.2	+02.1	N 21 34.3	-00.1
22	226 30.3	+02.2	N 21 34.2	+00.0
23	241 32.5	+02.1	N 21 34.2	-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	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 06:56

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	11 02.4	+02.6	S 03 11.7	+00.1
01	26 05.0	+02.7	S 03 11.8	+00.1
02	41 07.7	+02.6	S 03 11.9	+00.1
03	56 10.3	+02.6	S 03 12.0	+00.0
04	71 12.9	+02.7	S 03 12.0	+00.1
05	86 15.6	+02.6	S 03 12.1	+00.1
06	101 18.2	+02.6	S 03 12.2	+00.1
07	116 20.8	+02.7	S 03 12.3	+00.0
08	131 23.5	+02.6	S 03 12.3	+00.1
09	146 26.1	+02.7	S 03 12.4	+00.1
10	161 28.8	+02.6	S 03 12.5	+00.1
11	176 31.4	+02.6	S 03 12.6	+00.0
12	191 34.0	+02.7	S 03 12.6	+00.1
13	206 36.7	+02.6	S 03 12.7	+00.1
14	221 39.3	+02.6	S 03 12.8	+00.1
15	236 41.9	+02.7	S 03 12.9	+00.0
16	251 44.6	+02.6	S 03 12.9	+00.1
17	266 47.2	+02.7	S 03 13.0	+00.1
18	281 49.9	+02.6	S 03 13.1	+00.1
19	296 52.5	+02.6	S 03 13.2	+00.0
20	311 55.1	+02.7	S 03 13.2	+00.1
21	326 57.8	+02.6	S 03 13.3	+00.1
22	342 00.4	+02.6	S 03 13.4	+00.1
23	357 03.0	+02.7	S 03 13.5	+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	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:11

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2025 October 2 Thursday

(day 275 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 38.5	+00.2	S 03 35.5	+01.0	00
01	197 38.7	+00.2	S 03 36.5	+01.0	01
02	212 38.9	+00.2	S 03 37.5	+00.9	02
03	227 39.1	+00.2	S 03 38.4	+01.0	03
04	242 39.3	+00.2	S 03 39.4	+01.0	04
05	257 39.5	+00.2	S 03 40.4	+00.9	05
06	272 39.7	+00.2	S 03 41.3	+01.0	06
07	287 39.9	+00.2	S 03 42.3	+01.0	07
08	302 40.1	+00.2	S 03 43.3	+00.9	08
09	317 40.3	+00.2	S 03 44.2	+01.0	09
10	332 40.5	+00.2	S 03 45.2	+01.0	10
11	347 40.7	+00.2	S 03 46.2	+00.9	11
12	2 40.9	+00.2	S 03 47.1	+01.0	12
13	17 41.1	+00.2	S 03 48.1	+01.0	13
14	32 41.3	+00.2	S 03 49.1	+00.9	14
15	47 41.5	+00.2	S 03 50.0	+01.0	15
16	62 41.7	+00.2	S 03 51.0	+01.0	16
17	77 41.9	+00.2	S 03 52.0	+00.9	17
18	92 42.1	+00.2	S 03 52.9	+01.0	18
19	107 42.3	+00.2	S 03 53.9	+01.0	19
20	122 42.5	+00.2	S 03 54.9	+00.9	20
21	137 42.7	+00.2	S 03 55.8	+01.0	21
22	152 42.9	+00.2	S 03 56.8	+01.0	22
23	167 43.1	+00.2	S 03 57.8	+00.9	23

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	172°	171°	171°	171°	171°	171°

Greenwich Culmination Time: 11:49

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	203 59.4	−00.4	N 07 00.0	−01.1	00
01	218 59.0	−00.5	N 06 58.9	−01.2	01
02	233 58.5	−00.4	N 06 57.7	−01.1	02
03	248 58.1	−00.4	N 06 56.6	−01.1	03
04	263 57.7	−00.4	N 06 55.5	−01.2	04
05	278 57.3	−00.4	N 06 54.3	−01.1	05
06	293 56.9	−00.5	N 06 53.2	−01.2	06
07	308 56.4	−00.4	N 06 52.0	−01.1	07
08	323 56.0	−00.4	N 06 50.9	−01.2	08
09	338 55.6	−00.4	N 06 49.7	−01.1	09
10	353 55.2	−00.4	N 06 48.6	−01.1	10
11	8 54.8	−00.4	N 06 47.5	−01.2	11
12	23 54.4	−00.4	N 06 46.3	−01.1	12
13	38 54.0	−00.5	N 06 45.2	−01.2	13
14	53 53.5	−00.4	N 06 44.0	−01.1	14
15	68 53.1	−00.4	N 06 42.9	−01.2	15
16	83 52.7	−00.4	N 06 41.7	−01.1	16
17	98 52.3	−00.4	N 06 40.6	−01.2	17
18	113 51.9	−00.4	N 06 39.4	−01.1	18
19	128 51.5	−00.5	N 06 38.3	−01.2	19
20	143 51.0	−00.4	N 06 37.1	−01.1	20
21	158 50.6	−00.4	N 06 36.0	−01.2	21
22	173 50.2	−00.4	N 06 34.8	−01.1	22
23	188 49.8	−00.4	N 06 33.7	−01.2	23

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	193°	193°	193°	192°	192°	192°

Greenwich Culmination Time: 10:24

Moon

A: 34%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	65 33.6	−31.0	S 23 20.9	−09.5	00
01	80 02.6	−31.0	S 23 11.4	−09.6	01
02	94 31.6	−31.0	S 23 01.8	−09.7	02
03	109 00.6	−30.9	S 22 52.1	−09.9	03
04	123 29.7	−30.9	S 22 42.2	−10.0	04
05	137 58.8	−30.9	S 22 32.2	−10.1	05
06	152 27.9	−30.8	S 22 22.1	−10.2	06
07	166 57.1	−30.8	S 22 11.9	−10.4	07
08	181 26.3	−30.7	S 22 01.5	−10.5	08
09	195 55.6	−30.7	S 21 51.0	−10.6	09
10	210 24.9	−30.7	S 21 40.4	−10.8	10
11	224 54.2	−30.7	S 21 29.6	−10.9	11
12	239 23.5	−30.6	S 21 18.7	−11.0	12
13	253 52.9	−30.5	S 21 07.7	−11.1	13
14	268 22.4	−30.6	S 20 56.6	−11.2	14
15	282 51.8	−30.4	S 20 45.4	−11.4	15
16	297 21.4	−30.5	S 20 34.0	−11.5	16
17	311 50.9	−30.4	S 20 22.5	−11.6	17
18	326 20.5	−30.4	S 20 10.9	−11.7	18
19	340 50.1	−30.4	S 19 59.2	−11.8	19
20	355 19.7	−30.3	S 19 47.4	−12.0	20
21	9 49.4	−30.3	S 19 35.4	−12.0	21
22	24 19.1	−30.2	S 19 23.4	−12.2	22
23	38 48.9	−30.2	S 19 11.2	−12.3	23

UT	02	06	10	14	18	22
SD	15′4	15′5	15′5	15′5	15′6	15′6
HP	56′6	56′7	56′9	57′0	57′2	57′3
SHA	053°	051°	049°	047°	045°	042°

Greenwich Culmination Time: 20:19

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	156 46.8	+00.8	S 13 47.1	+00.6	00
01	171 47.6	+00.9	S 13 47.7	+00.6	01
02	186 48.5	+00.8	S 13 48.3	+00.6	02
03	201 49.3	+00.8	S 13 48.9	+00.6	03
04	216 50.1	+00.8	S 13 49.5	+00.5	04
05	231 50.9	+00.8	S 13 50.0	+00.6	05
06	246 51.7	+00.8	S 13 50.6	+00.6	06
07	261 52.5	+00.9	S 13 51.2	+00.6	07
08	276 53.4	+00.8	S 13 51.8	+00.6	08
09	291 54.2	+00.8	S 13 52.4	+00.6	09
10	306 55.0	+00.8	S 13 53.0	+00.6	10
11	321 55.8	+00.8	S 13 53.6	+00.5	11
12	336 56.6	+00.8	S 13 54.1	+00.6	12
13	351 57.4	+00.8	S 13 54.7	+00.6	13
14	6 58.2	+00.8	S 13 55.3	+00.6	14
15	21 59.0	+00.9	S 13 55.9	+00.6	15
16	36 59.9	+00.8	S 13 56.5	+00.6	16
17	52 00.7	+00.8	S 13 57.1	+00.5	17
18	67 01.5	+00.8	S 13 57.6	+00.6	18
19	82 02.3	+00.8	S 13 58.2	+00.6	19
20	97 03.1	+00.8	S 13 58.8	+00.6	20
21	112 03.9	+00.8	S 13 59.4	+00.6	21
22	127 04.7	+00.8	S 13 60.0	+00.6	22
23	142 05.5	+00.8	S 14 00.6	+00.5	23

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	146°	146°	146°	145°	145°	145°

Greenwich Culmination Time: 13:32

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	256 34.6	+02.2	N 21 34.1	+00.0	00
01	271 36.8	+02.1	N 21 34.1	+00.0	01
02	286 38.9	+02.2	N 21 34.1	−00.1	02
03	301 41.1	+02.1	N 21 34.0	+00.0	03
04	316 43.2	+02.2	N 21 34.0	−00.1	04
05	331 45.4	+02.1	N 21 33.9	+00.0	05
06	346 47.5	+02.2	N 21 33.9	−00.1	06
07	1 49.7	+02.1	N 21 33.8	+00.0	07
08	16 51.8	+02.1	N 21 33.8	−00.1	08
09	31 53.9	+02.2	N 21 33.7	+00.0	09
10	46 56.1	+02.1	N 21 33.7	+00.0	10
11	61 58.2	+02.2	N 21 33.7	−00.1	11
12	77 00.4	+02.1	N 21 33.6	+00.0	12
13	92 02.5	+02.2	N 21 33.6	−00.1	13
14	107 04.7	+02.1	N 21 33.5	+00.0	14
15	122 06.8	+02.2	N 21 33.5	−00.1	15
16	137 09.0	+02.1	N 21 33.4	+00.0	16
17	152 11.1	+02.2	N 21 33.4	+00.0	17
18	167 13.3	+02.1	N 21 33.4	−00.1	18
19	182 15.4	+02.2	N 21 33.3	+00.0	19
20	197 17.6	+02.1	N 21 33.3	−00.1	20
21	212 19.7	+02.2	N 21 33.2	+00.0	21
22	227 21.9	+02.2	N 21 33.2	−00.1	22
23	242 24.1	+02.1	N 21 33.1	+00.0	23

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°	245°

Greenwich Culmination Time: 06:52

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	12 05.7	+02.6	S 03 13.5	+00.1	00
01	27 08.3	+02.7	S 03 13.6	+00.1	01
02	42 11.0	+02.6	S 03 13.7	+00.1	02
03	57 13.6	+02.6	S 03 13.8	+00.0	03
04	72 16.2	+02.7	S 03 13.8	+00.1	04
05	87 18.9	+02.6	S 03 13.9	+00.1	05
06	102 21.5	+02.6	S 03 14.0	+00.0	06
07	117 24.1	+02.7	S 03 14.0	+00.1	07
08	132 26.8	+02.6	S 03 14.1	+00.1	08
09	147 29.4	+02.6	S 03 14.2	+00.1	09
10	162 32.0	+02.7	S 03 14.3	+00.0	10
11	177 34.7	+02.6	S 03 14.3	+00.1	11
12	192 37.3	+02.7	S 03 14.4	+00.1	12
13	207 40.0	+02.6	S 03 14.5	+00.1	13
14	222 42.6	+02.6	S 03 14.6	+00.0	14
15	237 45.2	+02.7	S 03 14.6	+00.1	15
16	252 47.9	+02.6	S 03 14.7	+00.1	16
17	267 50.5	+02.6	S 03 14.8	+00.1	17
18	282 53.1	+02.7	S 03 14.9	+00.0	18
19	297 55.8	+02.6	S 03 14.9	+00.1	19
20	312 58.4	+02.6	S 03 15.0	+00.1	20
21	328 01.0	+02.7	S 03 15.1	+00.1	21
22	343 03.7	+02.6	S 03 15.2	+00.0	22
23	358 06.3	+02.7	S 03 15.2	+00.1	23

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: 23:07

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2025 October 3 Friday

(day 276 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 43.3	+00.2	S 03 58.7	+01.0
01	197 43.5	+00.2	S 03 59.7	+01.0
02	212 43.7	+00.2	S 04 00.7	+00.9
03	227 43.9	+00.2	S 04 01.6	+01.0
04	242 44.1	+00.2	S 04 02.6	+01.0
05	257 44.3	+00.2	S 04 03.6	+00.9
06	272 44.5	+00.2	S 04 04.5	+01.0
07	287 44.7	+00.2	S 04 05.5	+00.9
08	302 44.9	+00.2	S 04 06.4	+01.0
09	317 45.1	+00.1	S 04 07.4	+01.0
10	332 45.2	+00.2	S 04 08.4	+00.9
11	347 45.4	+00.2	S 04 09.3	+01.0
12	2 45.6	+00.2	S 04 10.3	+01.0
13	17 45.8	+00.2	S 04 11.3	+00.9
14	32 46.0	+00.2	S 04 12.2	+01.0
15	47 46.2	+00.2	S 04 13.2	+01.0
16	62 46.4	+00.2	S 04 14.2	+00.9
17	77 46.6	+00.2	S 04 15.1	+01.0
18	92 46.8	+00.2	S 04 16.1	+01.0
19	107 47.0	+00.2	S 04 17.1	+00.9
20	122 47.2	+00.2	S 04 18.0	+01.0
21	137 47.4	+00.2	S 04 19.0	+00.9
22	152 47.6	+00.2	S 04 19.9	+01.0
23	167 47.8	+00.2	S 04 20.9	+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	171°	171°	170°	170°	170°	170°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	203 49.4	−00.4	N 06 32.5	−01.1
01	218 49.0	−00.4	N 06 31.4	−01.2
02	233 48.6	−00.5	N 06 30.2	−01.1
03	248 48.1	−00.4	N 06 29.1	−01.2
04	263 47.7	−00.4	N 06 27.9	−01.1
05	278 47.3	−00.4	N 06 26.8	−01.2
06	293 46.9	−00.4	N 06 25.6	−01.1
07	308 46.5	−00.4	N 06 24.5	−01.2
08	323 46.1	−00.4	N 06 23.3	−01.1
09	338 45.7	−00.4	N 06 22.2	−01.2
10	353 45.3	−00.5	N 06 21.0	−01.1
11	8 44.8	−00.4	N 06 19.9	−01.2
12	23 44.4	−00.4	N 06 18.7	−01.1
13	38 44.0	−00.4	N 06 17.6	−01.2
14	53 43.6	−00.4	N 06 16.4	−01.1
15	68 43.2	−00.4	N 06 15.3	−01.2
16	83 42.8	−00.4	N 06 14.1	−01.1
17	98 42.4	−00.4	N 06 13.0	−01.2
18	113 42.0	−00.4	N 06 11.8	−01.2
19	128 41.6	−00.5	N 06 10.6	−01.1
20	143 41.1	−00.4	N 06 09.5	−01.2
21	158 40.7	−00.4	N 06 08.3	−01.1
22	173 40.3	−00.4	N 06 07.2	−01.2
23	188 39.9	−00.4	N 06 06.0	−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	192°	192°	191°	191°	191°	191°

Greenwich Culmination Time: 10:24

Moon

A: 37%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	53 18.7	−30.2	S 18 58.9	−12.4
01	67 48.5	−30.1	S 18 46.5	−12.5
02	82 18.4	−30.1	S 18 34.0	−12.7
03	96 48.3	−30.1	S 18 21.3	−12.7
04	111 18.2	−30.1	S 18 08.6	−12.8
05	125 48.1	−30.0	S 17 55.8	−13.0
06	140 18.1	−29.9	S 17 42.8	−13.1
07	154 48.2	−30.0	S 17 29.7	−13.1
08	169 18.2	−29.9	S 17 16.6	−13.3
09	183 48.3	−29.9	S 17 03.3	−13.4
10	198 18.4	−29.8	S 16 49.9	−13.5
11	212 48.6	−29.8	S 16 36.4	−13.6
12	227 18.8	−29.8	S 16 22.8	−13.6
13	241 49.0	−29.8	S 16 09.2	−13.8
14	256 19.2	−29.7	S 15 55.4	−13.9
15	270 49.5	−29.7	S 15 41.5	−14.0
16	285 19.8	−29.7	S 15 27.5	−14.1
17	299 50.1	−29.7	S 15 13.4	−14.2
18	314 20.4	−29.6	S 14 59.2	−14.2
19	328 50.8	−29.6	S 14 45.0	−14.4
20	343 21.2	−29.6	S 14 30.6	−14.5
21	357 51.6	−29.6	S 14 16.1	−14.5
22	12 22.0	−29.5	S 14 01.6	−14.7
23	26 52.5	−29.5	S 13 46.9	−14.7

UT	02	06	10	14	18	22
SD	15′7	15′7	15′7	15′8	15′8	15′9
HP	57′5	57′6	57′8	57′9	58′1	58′3
SHA	040°	038°	036°	034°	032°	030°

Greenwich Culmination Time: 21:08

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	157 06.3	+00.8	S 14 01.1	+00.6
01	172 07.1	+00.9	S 14 01.7	+00.6
02	187 08.0	+00.8	S 14 02.3	+00.6
03	202 08.8	+00.8	S 14 02.9	+00.6
04	217 09.6	+00.8	S 14 03.5	+00.5
05	232 10.4	+00.8	S 14 04.0	+00.6
06	247 11.2	+00.8	S 14 04.6	+00.6
07	262 12.0	+00.8	S 14 05.2	+00.6
08	277 12.8	+00.8	S 14 05.8	+00.6
09	292 13.6	+00.8	S 14 06.4	+00.5
10	307 14.4	+00.8	S 14 06.9	+00.6
11	322 15.2	+00.8	S 14 07.5	+00.6
12	337 16.0	+00.8	S 14 08.1	+00.6
13	352 16.8	+00.9	S 14 08.7	+00.6
14	7 17.7	+00.8	S 14 09.3	+00.5
15	22 18.5	+00.8	S 14 09.8	+00.6
16	37 19.3	+00.8	S 14 10.4	+00.6
17	52 20.1	+00.8	S 14 11.0	+00.6
18	67 20.9	+00.8	S 14 11.6	+00.6
19	82 21.7	+00.8	S 14 12.2	+00.5
20	97 22.5	+00.8	S 14 12.7	+00.6
21	112 23.3	+00.8	S 14 13.3	+00.6
22	127 24.1	+00.8	S 14 13.9	+00.6
23	142 24.9	+00.8	S 14 14.5	+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	145°	145°	145°	145°	145°	145°

Greenwich Culmination Time: 13:30

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	257 26.2	+02.2	N 21 33.1	−00.1
01	272 28.4	+02.1	N 21 33.0	+00.0
02	287 30.5	+02.2	N 21 33.0	+00.0
03	302 32.7	+02.1	N 21 33.0	−00.1
04	317 34.8	+02.2	N 21 32.9	+00.0
05	332 37.0	+02.1	N 21 32.9	−00.1
06	347 39.1	+02.2	N 21 32.8	+00.0
07	2 41.3	+02.1	N 21 32.8	−00.1
08	17 43.4	+02.2	N 21 32.7	+00.0
09	32 45.6	+02.1	N 21 32.7	+00.0
10	47 47.7	+02.2	N 21 32.7	−00.1
11	62 49.9	+02.2	N 21 32.6	+00.0
12	77 52.1	+02.1	N 21 32.6	−00.1
13	92 54.2	+02.2	N 21 32.5	+00.0
14	107 56.4	+02.1	N 21 32.5	−00.1
15	122 58.5	+02.2	N 21 32.4	+00.0
16	138 00.7	+02.1	N 21 32.4	+00.0
17	153 02.8	+02.2	N 21 32.4	−00.1
18	168 05.0	+02.2	N 21 32.3	+00.0
19	183 07.2	+02.1	N 21 32.3	−00.1
20	198 09.3	+02.2	N 21 32.2	+00.0
21	213 11.5	+02.1	N 21 32.2	−00.1
22	228 13.6	+02.2	N 21 32.1	+00.0
23	243 15.8	+02.1	N 21 32.1	+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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:49

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	13 09.0	+02.6	S 03 15.3	+00.1
01	28 11.6	+02.6	S 03 15.4	+00.0
02	43 14.2	+02.7	S 03 15.4	+00.1
03	58 16.9	+02.6	S 03 15.5	+00.1
04	73 19.5	+02.6	S 03 15.6	+00.1
05	88 22.1	+02.7	S 03 15.7	+00.0
06	103 24.8	+02.6	S 03 15.7	+00.1
07	118 27.4	+02.6	S 03 15.8	+00.1
08	133 30.0	+02.7	S 03 15.9	+00.1
09	148 32.7	+02.6	S 03 16.0	+00.0
10	163 35.3	+02.7	S 03 16.0	+00.1
11	178 38.0	+02.6	S 03 16.1	+00.1
12	193 40.6	+02.6	S 03 16.2	+00.0
13	208 43.2	+02.7	S 03 16.2	+00.1
14	223 45.9	+02.6	S 03 16.3	+00.1
15	238 48.5	+02.6	S 03 16.4	+00.1
16	253 51.1	+02.7	S 03 16.5	+00.0
17	268 53.8	+02.6	S 03 16.5	+00.1
18	283 56.4	+02.6	S 03 16.6	+00.1
19	298 59.0	+02.7	S 03 16.7	+00.1
20	314 01.7	+02.6	S 03 16.8	+00.0
21	329 04.3	+02.6	S 03 16.8	+00.1
22	344 06.9	+02.7	S 03 16.9	+00.1
23	359 09.6	+02.6	S 03 17.0	+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	001°	001°	001°	001°	001°	001°

Greenwich Culmination Time: 23:03

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2025 October 4 Saturday

(day 277 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 48.0	+00.2	S 04 21.9	+00.9	00
01	197 48.2	+00.1	S 04 22.8	+01.0	01
02	212 48.3	+00.2	S 04 23.8	+01.0	02
03	227 48.5	+00.2	S 04 24.8	+00.9	03
04	242 48.7	+00.2	S 04 25.7	+01.0	04
05	257 48.9	+00.2	S 04 26.7	+01.0	05
06	272 49.1	+00.2	S 04 27.7	+00.9	06
07	287 49.3	+00.2	S 04 28.6	+01.0	07
08	302 49.5	+00.2	S 04 29.6	+00.9	08
09	317 49.7	+00.2	S 04 30.5	+01.0	09
10	332 49.9	+00.2	S 04 31.5	+01.0	10
11	347 50.1	+00.2	S 04 32.5	+00.9	11
12	2 50.3	+00.2	S 04 33.4	+01.0	12
13	17 50.5	+00.2	S 04 34.4	+01.0	13
14	32 50.7	+00.1	S 04 35.4	+00.9	14
15	47 50.8	+00.2	S 04 36.3	+01.0	15
16	62 51.0	+00.2	S 04 37.3	+00.9	16
17	77 51.2	+00.2	S 04 38.2	+01.0	17
18	92 51.4	+00.2	S 04 39.2	+01.0	18
19	107 51.6	+00.2	S 04 40.2	+00.9	19
20	122 51.8	+00.2	S 04 41.1	+01.0	20
21	137 52.0	+00.2	S 04 42.1	+00.9	21
22	152 52.2	+00.2	S 04 43.0	+01.0	22
23	167 52.4	+00.2	S 04 44.0	+01.0	23

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	170°	170°	169°	169°	169°	169°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	203 39.5	−00.4	N 06 04.9	−01.2	00
01	218 39.1	−00.4	N 06 03.7	−01.1	01
02	233 38.7	−00.4	N 06 02.6	−01.2	02
03	248 38.3	−00.4	N 06 01.4	−01.2	03
04	263 37.9	−00.4	N 06 00.2	−01.1	04
05	278 37.5	−00.4	N 05 59.1	−01.2	05
06	293 37.1	−00.5	N 05 57.9	−01.1	06
07	308 36.6	−00.4	N 05 56.8	−01.2	07
08	323 36.2	−00.4	N 05 55.6	−01.2	08
09	338 35.8	−00.4	N 05 54.4	−01.1	09
10	353 35.4	−00.4	N 05 53.3	−01.2	10
11	8 35.0	−00.4	N 05 52.1	−01.1	11
12	23 34.6	−00.4	N 05 51.0	−01.2	12
13	38 34.2	−00.4	N 05 49.8	−01.2	13
14	53 33.8	−00.4	N 05 48.6	−01.1	14
15	68 33.4	−00.4	N 05 47.5	−01.2	15
16	83 33.0	−00.4	N 05 46.3	−01.2	16
17	98 32.6	−00.4	N 05 45.1	−01.1	17
18	113 32.2	−00.5	N 05 44.0	−01.2	18
19	128 31.7	−00.4	N 05 42.8	−01.1	19
20	143 31.3	−00.4	N 05 41.7	−01.2	20
21	158 30.9	−00.4	N 05 40.5	−01.2	21
22	173 30.5	−00.4	N 05 39.3	−01.1	22
23	188 30.1	−00.4	N 05 38.2	−01.2	23

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	191°	190°	190°	190°	190°	190°

Greenwich Culmination Time: 10:25

Moon

A: 40%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	41 23.0	−29.5	S 13 32.2	−14.8	00
01	55 53.5	−29.5	S 13 17.4	−14.9	01
02	70 24.0	−29.4	S 13 02.5	−15.0	02
03	84 54.6	−29.4	S 12 47.5	−15.1	03
04	99 25.2	−29.4	S 12 32.4	−15.1	04
05	113 55.8	−29.4	S 12 17.3	−15.3	05
06	128 26.4	−29.4	S 12 02.0	−15.3	06
07	142 57.0	−29.4	S 11 46.7	−15.4	07
08	157 27.6	−29.3	S 11 31.3	−15.5	08
09	171 58.3	−29.4	S 11 15.8	−15.5	09
10	186 28.9	−29.3	S 11 00.3	−15.7	10
11	200 59.6	−29.3	S 10 44.6	−15.7	11
12	215 30.3	−29.3	S 10 28.9	−15.8	12
13	230 01.0	−29.3	S 10 13.1	−15.8	13
14	244 31.7	−29.3	S 09 57.3	−16.0	14
15	259 02.4	−29.2	S 09 41.3	−16.0	15
16	273 33.2	−29.3	S 09 25.3	−16.0	16
17	288 03.9	−29.3	S 09 09.3	−16.1	17
18	302 34.6	−29.2	S 08 53.2	−16.2	18
19	317 05.4	−29.3	S 08 37.0	−16.3	19
20	331 36.1	−29.2	S 08 20.7	−16.3	20
21	346 06.9	−29.3	S 08 04.4	−16.4	21
22	0 37.6	−29.2	S 07 48.0	−16.5	22
23	15 08.4	−29.2	S 07 31.5	−16.5	23

UT	02	06	10	14	18	22
SD	15′9	16′0	16′0	16′0	16′1	16′1
HP	58′4	58′6	58′7	58′9	59′0	59′2
SHA	027°	025°	023°	021°	019°	017°

Greenwich Culmination Time: 21:57

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	157 25.7	+00.8	S 14 15.1	+00.5	00
01	172 26.5	+00.8	S 14 15.6	+00.6	01
02	187 27.3	+00.8	S 14 16.2	+00.6	02
03	202 28.1	+00.8	S 14 16.8	+00.6	03
04	217 28.9	+00.8	S 14 17.4	+00.6	04
05	232 29.7	+00.8	S 14 18.0	+00.5	05
06	247 30.5	+00.8	S 14 18.5	+00.6	06
07	262 31.3	+00.8	S 14 19.1	+00.6	07
08	277 32.1	+00.8	S 14 19.7	+00.6	08
09	292 32.9	+00.8	S 14 20.3	+00.5	09
10	307 33.7	+00.8	S 14 20.8	+00.6	10
11	322 34.5	+00.8	S 14 21.4	+00.6	11
12	337 35.3	+00.8	S 14 22.0	+00.6	12
13	352 36.1	+00.8	S 14 22.6	+00.5	13
14	7 36.9	+00.8	S 14 23.1	+00.6	14
15	22 37.7	+00.8	S 14 23.7	+00.6	15
16	37 38.5	+00.8	S 14 24.3	+00.6	16
17	52 39.3	+00.8	S 14 24.9	+00.5	17
18	67 40.1	+00.8	S 14 25.4	+00.6	18
19	82 40.9	+00.8	S 14 26.0	+00.6	19
20	97 41.7	+00.8	S 14 26.6	+00.6	20
21	112 42.5	+00.8	S 14 27.2	+00.5	21
22	127 43.3	+00.8	S 14 27.7	+00.6	22
23	142 44.1	+00.8	S 14 28.3	+00.6	23

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	144°	144°	144°	144°	144°	144°

Greenwich Culmination Time: 13:29

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	258 17.9	+02.2	N 21 32.1	−00.1	00
01	273 20.1	+02.2	N 21 32.0	+00.0	01
02	288 22.3	+02.1	N 21 32.0	−00.1	02
03	303 24.4	+02.2	N 21 31.9	+00.0	03
04	318 26.6	+02.1	N 21 31.9	−00.1	04
05	333 28.7	+02.2	N 21 31.8	+00.0	05
06	348 30.9	+02.2	N 21 31.8	+00.0	06
07	3 33.1	+02.1	N 21 31.8	−00.1	07
08	18 35.2	+02.2	N 21 31.7	+00.0	08
09	33 37.4	+02.1	N 21 31.7	−00.1	09
10	48 39.5	+02.2	N 21 31.6	+00.0	10
11	63 41.7	+02.2	N 21 31.6	−00.1	11
12	78 43.9	+02.1	N 21 31.5	+00.0	12
13	93 46.0	+02.2	N 21 31.5	+00.0	13
14	108 48.2	+02.2	N 21 31.5	−00.1	14
15	123 50.4	+02.1	N 21 31.4	+00.0	15
16	138 52.5	+02.2	N 21 31.4	−00.1	16
17	153 54.7	+02.1	N 21 31.3	+00.0	17
18	168 56.8	+02.2	N 21 31.3	−00.1	18
19	183 59.0	+02.2	N 21 31.2	+00.0	19
20	199 01.2	+02.1	N 21 31.2	+00.0	20
21	214 03.3	+02.2	N 21 31.2	−00.1	21
22	229 05.5	+02.2	N 21 31.1	+00.0	22
23	244 07.7	+02.1	N 21 31.1	−00.1	23

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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:45

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	14 12.2	+02.6	S 03 17.0	+00.1	00
01	29 14.8	+02.7	S 03 17.1	+00.1	01
02	44 17.5	+02.6	S 03 17.2	+00.1	02
03	59 20.1	+02.6	S 03 17.3	+00.0	03
04	74 22.7	+02.7	S 03 17.3	+00.1	04
05	89 25.4	+02.6	S 03 17.4	+00.1	05
06	104 28.0	+02.7	S 03 17.5	+00.1	06
07	119 30.7	+02.6	S 03 17.6	+00.0	07
08	134 33.3	+02.6	S 03 17.6	+00.1	08
09	149 35.9	+02.7	S 03 17.7	+00.1	09
10	164 38.6	+02.6	S 03 17.8	+00.0	10
11	179 41.2	+02.6	S 03 17.8	+00.1	11
12	194 43.8	+02.7	S 03 17.9	+00.1	12
13	209 46.5	+02.6	S 03 18.0	+00.1	13
14	224 49.1	+02.6	S 03 18.1	+00.0	14
15	239 51.7	+02.7	S 03 18.1	+00.1	15
16	254 54.4	+02.6	S 03 18.2	+00.1	16
17	269 57.0	+02.6	S 03 18.3	+00.0	17
18	284 59.6	+02.7	S 03 18.3	+00.1	18
19	300 02.3	+02.6	S 03 18.4	+00.1	19
20	315 04.9	+02.6	S 03 18.5	+00.1	20
21	330 07.5	+02.7	S 03 18.6	+00.0	21
22	345 10.2	+02.6	S 03 18.6	+00.1	22
23	0 12.8	+02.6	S 03 18.7	+00.1	23

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: 22:59

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 October 5 Sunday

(day 278 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 52.6	+00.1	S 04 45.0	+00.9	00
01	197 52.7	+00.2	S 04 45.9	+01.0	01
02	212 52.9	+00.2	S 04 46.9	+01.0	02
03	227 53.1	+00.2	S 04 47.9	+00.9	03
04	242 53.3	+00.2	S 04 48.8	+01.0	04
05	257 53.5	+00.2	S 04 49.8	+00.9	05
06	272 53.7	+00.2	S 04 50.7	+01.0	06
07	287 53.9	+00.2	S 04 51.7	+01.0	07
08	302 54.1	+00.2	S 04 52.7	+00.9	08
09	317 54.3	+00.1	S 04 53.6	+01.0	09
10	332 54.4	+00.2	S 04 54.6	+00.9	10
11	347 54.6	+00.2	S 04 55.5	+01.0	11
12	2 54.8	+00.2	S 04 56.5	+01.0	12
13	17 55.0	+00.2	S 04 57.5	+00.9	13
14	32 55.2	+00.2	S 04 58.4	+01.0	14
15	47 55.4	+00.2	S 04 59.4	+00.9	15
16	62 55.6	+00.1	S 05 00.3	+01.0	16
17	77 55.7	+00.2	S 05 01.3	+01.0	17
18	92 55.9	+00.2	S 05 02.3	+00.9	18
19	107 56.1	+00.2	S 05 03.2	+01.0	19
20	122 56.3	+00.2	S 05 04.2	+00.9	20
21	137 56.5	+00.2	S 05 05.1	+01.0	21
22	152 56.7	+00.2	S 05 06.1	+00.9	22
23	167 56.9	+00.2	S 05 07.0	+01.0	23

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	169°	169°	169°	168°	168°	168°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	203 29.7	−00.4	N 05 37.0	−01.2	00
01	218 29.3	−00.4	N 05 35.8	−01.1	01
02	233 28.9	−00.4	N 05 34.7	−01.2	02
03	248 28.5	−00.4	N 05 33.5	−01.2	03
04	263 28.1	−00.4	N 05 32.3	−01.1	04
05	278 27.7	−00.4	N 05 31.2	−01.2	05
06	293 27.3	−00.4	N 05 30.0	−01.2	06
07	308 26.9	−00.4	N 05 28.8	−01.1	07
08	323 26.5	−00.4	N 05 27.7	−01.2	08
09	338 26.1	−00.4	N 05 26.5	−01.2	09
10	353 25.7	−00.4	N 05 25.3	−01.1	10
11	8 25.3	−00.4	N 05 24.2	−01.2	11
12	23 24.9	−00.5	N 05 23.0	−01.2	12
13	38 24.4	−00.4	N 05 21.8	−01.1	13
14	53 24.0	−00.4	N 05 20.7	−01.2	14
15	68 23.6	−00.4	N 05 19.5	−01.2	15
16	83 23.2	−00.4	N 05 18.3	−01.2	16
17	98 22.8	−00.4	N 05 17.1	−01.1	17
18	113 22.4	−00.4	N 05 16.0	−01.2	18
19	128 22.0	−00.4	N 05 14.8	−01.2	19
20	143 21.6	−00.4	N 05 13.6	−01.1	20
21	158 21.2	−00.4	N 05 12.5	−01.2	21
22	173 20.8	−00.4	N 05 11.3	−01.2	22
23	188 20.4	−00.4	N 05 10.1	−01.2	23

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	189°	189°	189°	189°	189°	189°

Greenwich Culmination Time: 10:26

Moon

A: 44%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	29 39.2	−29.3	S 07 15.0	−16.5	00
01	44 09.9	−29.2	S 06 58.5	−16.7	01
02	58 40.7	−29.3	S 06 41.8	−16.6	02
03	73 11.4	−29.2	S 06 25.2	−16.7	03
04	87 42.2	−29.3	S 06 08.5	−16.8	04
05	102 12.9	−29.3	S 05 51.7	−16.9	05
06	116 43.6	−29.2	S 05 34.8	−16.8	06
07	131 14.4	−29.3	S 05 18.0	−16.9	07
08	145 45.1	−29.3	S 05 01.1	−17.0	08
09	160 15.8	−29.3	S 04 44.1	−17.0	09
10	174 46.5	−29.3	S 04 27.1	−17.1	10
11	189 17.2	−29.4	S 04 10.0	−17.1	11
12	203 47.8	−29.3	S 03 52.9	−17.1	12
13	218 18.5	−29.4	S 03 35.8	−17.2	13
14	232 49.1	−29.4	S 03 18.6	−17.2	14
15	247 19.7	−29.3	S 03 01.4	−17.2	15
16	261 50.4	−29.5	S 02 44.2	−17.3	16
17	276 20.9	−29.4	S 02 26.9	−17.3	17
18	290 51.5	−29.5	S 02 09.6	−17.3	18
19	305 22.0	−29.4	S 01 52.3	−17.4	19
20	319 52.6	−29.5	S 01 34.9	−17.4	20
21	334 23.1	−29.6	S 01 17.5	−17.4	21
22	348 53.5	−29.5	S 01 00.1	−17.4	22
23	3 24.0	−29.6	S 00 42.7	−17.5	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′3	16′3	16′3
HP	59′3	59′4	59′6	59′7	59′8	59′9
SHA	015°	013°	010°	008°	006°	004°

Greenwich Culmination Time: 22:45

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	157 44.9	+00.8	S 14 28.9	+00.6	00
01	172 45.7	+00.8	S 14 29.5	+00.5	01
02	187 46.5	+00.8	S 14 30.0	+00.6	02
03	202 47.3	+00.8	S 14 30.6	+00.6	03
04	217 48.1	+00.8	S 14 31.2	+00.6	04
05	232 48.9	+00.8	S 14 31.8	+00.5	05
06	247 49.7	+00.8	S 14 32.3	+00.6	06
07	262 50.5	+00.8	S 14 32.9	+00.6	07
08	277 51.3	+00.8	S 14 33.5	+00.6	08
09	292 52.1	+00.8	S 14 34.1	+00.5	09
10	307 52.9	+00.8	S 14 34.6	+00.6	10
11	322 53.7	+00.8	S 14 35.2	+00.6	11
12	337 54.5	+00.8	S 14 35.8	+00.6	12
13	352 55.3	+00.8	S 14 36.4	+00.5	13
14	7 56.1	+00.8	S 14 36.9	+00.6	14
15	22 56.9	+00.8	S 14 37.5	+00.6	15
16	37 57.7	+00.8	S 14 38.1	+00.5	16
17	52 58.5	+00.7	S 14 38.6	+00.6	17
18	67 59.2	+00.8	S 14 39.2	+00.6	18
19	83 00.0	+00.8	S 14 39.8	+00.6	19
20	98 00.8	+00.8	S 14 40.4	+00.5	20
21	113 01.6	+00.8	S 14 40.9	+00.6	21
22	128 02.4	+00.8	S 14 41.5	+00.6	22
23	143 03.2	+00.8	S 14 42.1	+00.5	23

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	144°	144°	144°	143°	143°	143°

Greenwich Culmination Time: 13:28

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	259 09.8	+02.2	N 21 31.0	+00.0	00
01	274 12.0	+02.2	N 21 31.0	+00.0	01
02	289 14.2	+02.1	N 21 31.0	−00.1	02
03	304 16.3	+02.2	N 21 30.9	+00.0	03
04	319 18.5	+02.2	N 21 30.9	−00.1	04
05	334 20.7	+02.1	N 21 30.8	+00.0	05
06	349 22.8	+02.2	N 21 30.8	−00.1	06
07	4 25.0	+02.2	N 21 30.7	+00.0	07
08	19 27.2	+02.1	N 21 30.7	+00.0	08
09	34 29.3	+02.2	N 21 30.7	−00.1	09
10	49 31.5	+02.2	N 21 30.6	+00.0	10
11	64 33.7	+02.1	N 21 30.6	−00.1	11
12	79 35.8	+02.2	N 21 30.5	+00.0	12
13	94 38.0	+02.2	N 21 30.5	+00.0	13
14	109 40.2	+02.2	N 21 30.5	−00.1	14
15	124 42.4	+02.1	N 21 30.4	+00.0	15
16	139 44.5	+02.2	N 21 30.4	−00.1	16
17	154 46.7	+02.2	N 21 30.3	+00.0	17
18	169 48.9	+02.1	N 21 30.3	−00.1	18
19	184 51.0	+02.2	N 21 30.2	+00.0	19
20	199 53.2	+02.2	N 21 30.2	+00.0	20
21	214 55.4	+02.1	N 21 30.2	−00.1	21
22	229 57.5	+02.2	N 21 30.1	+00.0	22
23	244 59.7	+02.2	N 21 30.1	−00.1	23

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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:42

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	15 15.4	+02.7	S 03 18.8	+00.1	00
01	30 18.1	+02.6	S 03 18.9	+00.0	01
02	45 20.7	+02.6	S 03 18.9	+00.1	02
03	60 23.3	+02.7	S 03 19.0	+00.1	03
04	75 26.0	+02.6	S 03 19.1	+00.0	04
05	90 28.6	+02.6	S 03 19.1	+00.1	05
06	105 31.2	+02.7	S 03 19.2	+00.1	06
07	120 33.9	+02.6	S 03 19.3	+00.1	07
08	135 36.5	+02.6	S 03 19.4	+00.0	08
09	150 39.1	+02.7	S 03 19.4	+00.1	09
10	165 41.8	+02.6	S 03 19.5	+00.1	10
11	180 44.4	+02.6	S 03 19.6	+00.0	11
12	195 47.0	+02.7	S 03 19.6	+00.1	12
13	210 49.7	+02.6	S 03 19.7	+00.1	13
14	225 52.3	+02.6	S 03 19.8	+00.1	14
15	240 54.9	+02.7	S 03 19.9	+00.0	15
16	255 57.6	+02.6	S 03 19.9	+00.1	16
17	271 00.2	+02.6	S 03 20.0	+00.1	17
18	286 02.8	+02.7	S 03 20.1	+00.0	18
19	301 05.5	+02.6	S 03 20.1	+00.1	19
20	316 08.1	+02.6	S 03 20.2	+00.1	20
21	331 10.7	+02.7	S 03 20.3	+00.1	21
22	346 13.4	+02.6	S 03 20.4	+00.0	22
23	1 16.0	+02.6	S 03 20.4	+00.1	23

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: 22:54

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2025 October 6 Monday

(day 279 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 57.1	+00.1	S 05 08.0	+01.0	00
01	197 57.2	+00.2	S 05 09.0	+00.9	01
02	212 57.4	+00.2	S 05 09.9	+01.0	02
03	227 57.6	+00.2	S 05 10.9	+00.9	03
04	242 57.8	+00.2	S 05 11.8	+01.0	04
05	257 58.0	+00.2	S 05 12.8	+01.0	05
06	272 58.2	+00.1	S 05 13.8	+00.9	06
07	287 58.3	+00.2	S 05 14.7	+01.0	07
08	302 58.5	+00.2	S 05 15.7	+00.9	08
09	317 58.7	+00.2	S 05 16.6	+01.0	09
10	332 58.9	+00.2	S 05 17.6	+00.9	10
11	347 59.1	+00.2	S 05 18.5	+01.0	11
12	2 59.3	+00.1	S 05 19.5	+01.0	12
13	17 59.4	+00.2	S 05 20.5	+00.9	13
14	32 59.6	+00.2	S 05 21.4	+01.0	14
15	47 59.8	+00.2	S 05 22.4	+00.9	15
16	62 60.0	+00.2	S 05 23.3	+01.0	16
17	78 00.2	+00.2	S 05 24.3	+00.9	17
18	93 00.4	+00.1	S 05 25.2	+01.0	18
19	108 00.5	+00.2	S 05 26.2	+01.0	19
20	123 00.7	+00.2	S 05 27.2	+00.9	20
21	138 00.9	+00.2	S 05 28.1	+01.0	21
22	153 01.1	+00.2	S 05 29.1	+00.9	22
23	168 01.3	+00.2	S 05 30.0	+01.0	23

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	168°	168°	168°	168°	167°	167°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	203 20.0	−00.4	N 05 08.9	−01.1	00
01	218 19.6	−00.4	N 05 07.8	−01.2	01
02	233 19.2	−00.4	N 05 06.6	−01.2	02
03	248 18.8	−00.4	N 05 05.4	−01.1	03
04	263 18.4	−00.4	N 05 04.3	−01.2	04
05	278 18.0	−00.4	N 05 03.1	−01.2	05
06	293 17.6	−00.4	N 05 01.9	−01.2	06
07	308 17.2	−00.4	N 05 00.7	−01.1	07
08	323 16.8	−00.4	N 04 59.6	−01.2	08
09	338 16.4	−00.4	N 04 58.4	−01.2	09
10	353 16.0	−00.4	N 04 57.2	−01.2	10
11	8 15.6	−00.4	N 04 56.0	−01.1	11
12	23 15.2	−00.4	N 04 54.9	−01.2	12
13	38 14.8	−00.4	N 04 53.7	−01.2	13
14	53 14.4	−00.4	N 04 52.5	−01.2	14
15	68 14.0	−00.4	N 04 51.3	−01.1	15
16	83 13.6	−00.4	N 04 50.2	−01.2	16
17	98 13.2	−00.4	N 04 49.0	−01.2	17
18	113 12.8	−00.4	N 04 47.8	−01.2	18
19	128 12.4	−00.4	N 04 46.6	−01.2	19
20	143 12.0	−00.4	N 04 45.4	−01.1	20
21	158 11.6	−00.4	N 04 44.3	−01.2	21
22	173 11.2	−00.4	N 04 43.1	−01.2	22
23	188 10.8	−00.4	N 04 41.9	−01.2	23

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	188°	188°	188°	188°	188°	187°

Greenwich Culmination Time: 10:26

Moon

A: 47%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	17 54.4	−29.6	S 00 25.2	−17.5	00
01	32 24.8	−29.7	S 00 07.7	−17.5	01
02	46 55.1	−29.7	N 00 09.8	+17.5	02
03	61 25.4	−29.7	N 00 27.3	+17.5	03
04	75 55.7	−29.7	N 00 44.8	+17.5	04
05	90 26.0	−29.8	N 01 02.3	+17.6	05
06	104 56.2	−29.8	N 01 19.9	+17.5	06
07	119 26.4	−29.9	N 01 37.4	+17.6	07
08	133 56.5	−29.9	N 01 55.0	+17.6	08
09	148 26.6	−29.9	N 02 12.6	+17.5	09
10	162 56.7	−30.0	N 02 30.1	+17.6	10
11	177 26.7	−30.0	N 02 47.7	+17.6	11
12	191 56.7	−30.1	N 03 05.3	+17.5	12
13	206 26.6	−30.1	N 03 22.8	+17.6	13
14	220 56.5	−30.2	N 03 40.4	+17.6	14
15	235 26.3	−30.2	N 03 58.0	+17.5	15
16	249 56.1	−30.2	N 04 15.5	+17.5	16
17	264 25.9	−30.3	N 04 33.0	+17.6	17
18	278 55.6	−30.4	N 04 50.6	+17.5	18
19	293 25.2	−30.4	N 05 08.1	+17.5	19
20	307 54.8	−30.5	N 05 25.6	+17.5	20
21	322 24.3	−30.5	N 05 43.1	+17.4	21
22	336 53.8	−30.6	N 06 00.5	+17.5	22
23	351 23.2	−30.6	N 06 18.0	+17.4	23

UT	02	06	10	14	18	22
SD	16′4	16′4	16′4	16′4	16′5	16′5
HP	60′1	60′2	60′3	60′4	60′4	60′5
SHA	002°	360°	358°	355°	353°	351°

Greenwich Culmination Time: 23:35

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	158 04.0	+00.8	S 14 42.6	+00.6	00
01	173 04.8	+00.8	S 14 43.2	+00.6	01
02	188 05.6	+00.8	S 14 43.8	+00.5	02
03	203 06.4	+00.8	S 14 44.3	+00.6	03
04	218 07.2	+00.8	S 14 44.9	+00.6	04
05	233 08.0	+00.8	S 14 45.5	+00.6	05
06	248 08.8	+00.7	S 14 46.1	+00.5	06
07	263 09.5	+00.8	S 14 46.6	+00.6	07
08	278 10.3	+00.8	S 14 47.2	+00.6	08
09	293 11.1	+00.8	S 14 47.8	+00.5	09
10	308 11.9	+00.8	S 14 48.3	+00.6	10
11	323 12.7	+00.8	S 14 48.9	+00.6	11
12	338 13.5	+00.8	S 14 49.5	+00.5	12
13	353 14.3	+00.8	S 14 50.0	+00.6	13
14	8 15.1	+00.8	S 14 50.6	+00.6	14
15	23 15.9	+00.7	S 14 51.2	+00.5	15
16	38 16.6	+00.8	S 14 51.7	+00.6	16
17	53 17.4	+00.8	S 14 52.3	+00.6	17
18	68 18.2	+00.8	S 14 52.9	+00.5	18
19	83 19.0	+00.8	S 14 53.4	+00.6	19
20	98 19.8	+00.8	S 14 54.0	+00.6	20
21	113 20.6	+00.8	S 14 54.6	+00.5	21
22	128 21.4	+00.8	S 14 55.1	+00.6	22
23	143 22.2	+00.7	S 14 55.7	+00.6	23

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	143°	143°	143°	143°	143°	143°

Greenwich Culmination Time: 13:27

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	260 01.9	+02.2	N 21 30.0	+00.0	00
01	275 04.1	+02.1	N 21 30.0	+00.0	01
02	290 06.2	+02.2	N 21 30.0	−00.1	02
03	305 08.4	+02.2	N 21 29.9	+00.0	03
04	320 10.6	+02.2	N 21 29.9	−00.1	04
05	335 12.8	+02.1	N 21 29.8	+00.0	05
06	350 14.9	+02.2	N 21 29.8	+00.0	06
07	5 17.1	+02.2	N 21 29.8	−00.1	07
08	20 19.3	+02.2	N 21 29.7	+00.0	08
09	35 21.5	+02.1	N 21 29.7	−00.1	09
10	50 23.6	+02.2	N 21 29.6	+00.0	10
11	65 25.8	+02.2	N 21 29.6	+00.0	11
12	80 28.0	+02.2	N 21 29.6	−00.1	12
13	95 30.2	+02.1	N 21 29.5	+00.0	13
14	110 32.3	+02.2	N 21 29.5	−00.1	14
15	125 34.5	+02.2	N 21 29.4	+00.0	15
16	140 36.7	+02.2	N 21 29.4	−00.1	16
17	155 38.9	+02.1	N 21 29.3	+00.0	17
18	170 41.0	+02.2	N 21 29.3	+00.0	18
19	185 43.2	+02.2	N 21 29.3	−00.1	19
20	200 45.4	+02.2	N 21 29.2	+00.0	20
21	215 47.6	+02.1	N 21 29.2	−00.1	21
22	230 49.7	+02.2	N 21 29.1	+00.0	22
23	245 51.9	+02.2	N 21 29.1	+00.0	23

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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:38

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	16 18.6	+02.7	S 03 20.5	+00.1	00
01	31 21.3	+02.6	S 03 20.6	+00.0	01
02	46 23.9	+02.6	S 03 20.6	+00.1	02
03	61 26.5	+02.7	S 03 20.7	+00.1	03
04	76 29.2	+02.6	S 03 20.8	+00.1	04
05	91 31.8	+02.6	S 03 20.9	+00.0	05
06	106 34.4	+02.7	S 03 20.9	+00.1	06
07	121 37.1	+02.6	S 03 21.0	+00.1	07
08	136 39.7	+02.6	S 03 21.1	+00.0	08
09	151 42.3	+02.7	S 03 21.1	+00.1	09
10	166 45.0	+02.6	S 03 21.2	+00.1	10
11	181 47.6	+02.6	S 03 21.3	+00.0	11
12	196 50.2	+02.6	S 03 21.3	+00.1	12
13	211 52.8	+02.7	S 03 21.4	+00.1	13
14	226 55.5	+02.6	S 03 21.5	+00.1	14
15	241 58.1	+02.6	S 03 21.6	+00.0	15
16	257 00.7	+02.7	S 03 21.6	+00.1	16
17	272 03.4	+02.6	S 03 21.7	+00.1	17
18	287 06.0	+02.6	S 03 21.8	+00.0	18
19	302 08.6	+02.7	S 03 21.8	+00.1	19
20	317 11.3	+02.6	S 03 21.9	+00.1	20
21	332 13.9	+02.6	S 03 22.0	+00.1	21
22	347 16.5	+02.7	S 03 22.1	+00.0	22
23	2 19.2	+02.6	S 03 22.1	+00.1	23

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: 22:50

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2025 October 7 Tuesday

(day 280 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 01.5	+00.1	S 05 31.0	+00.9	00
01	198 01.6	+00.2	S 05 31.9	+01.0	01
02	213 01.8	+00.2	S 05 32.9	+00.9	02
03	228 02.0	+00.2	S 05 33.8	+01.0	03
04	243 02.2	+00.2	S 05 34.8	+01.0	04
05	258 02.4	+00.1	S 05 35.8	+00.9	05
06	273 02.5	+00.2	S 05 36.7	+01.0	06
07	288 02.7	+00.2	S 05 37.7	+00.9	07
08	303 02.9	+00.2	S 05 38.6	+01.0	08
09	318 03.1	+00.2	S 05 39.6	+00.9	09
10	333 03.3	+00.1	S 05 40.5	+01.0	10
11	348 03.4	+00.2	S 05 41.5	+00.9	11
12	3 03.6	+00.2	S 05 42.4	+01.0	12
13	18 03.8	+00.2	S 05 43.4	+00.9	13
14	33 04.0	+00.2	S 05 44.3	+01.0	14
15	48 04.2	+00.1	S 05 45.3	+01.0	15
16	63 04.3	+00.2	S 05 46.3	+00.9	16
17	78 04.5	+00.2	S 05 47.2	+01.0	17
18	93 04.7	+00.2	S 05 48.2	+00.9	18
19	108 04.9	+00.1	S 05 49.1	+01.0	19
20	123 05.0	+00.2	S 05 50.1	+00.9	20
21	138 05.2	+00.2	S 05 51.0	+01.0	21
22	153 05.4	+00.2	S 05 52.0	+00.9	22
23	168 05.6	+00.2	S 05 52.9	+01.0	23

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	167°	167°	167°	167°	166°	166°

Greenwich Culmination Time: 11:47

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	203 10.4	−00.4	N 04 40.7	−01.1	00
01	218 10.0	−00.4	N 04 39.6	−01.2	01
02	233 09.6	−00.4	N 04 38.4	−01.2	02
03	248 09.2	−00.4	N 04 37.2	−01.2	03
04	263 08.8	−00.4	N 04 36.0	−01.2	04
05	278 08.4	−00.4	N 04 34.8	−01.1	05
06	293 08.0	−00.4	N 04 33.7	−01.2	06
07	308 07.6	−00.4	N 04 32.5	−01.2	07
08	323 07.2	−00.4	N 04 31.3	−01.2	08
09	338 06.8	−00.4	N 04 30.1	−01.2	09
10	353 06.4	−00.4	N 04 28.9	−01.2	10
11	8 06.0	−00.4	N 04 27.7	−01.1	11
12	23 05.6	−00.4	N 04 26.6	−01.2	12
13	38 05.2	−00.4	N 04 25.4	−01.2	13
14	53 04.8	−00.4	N 04 24.2	−01.2	14
15	68 04.4	−00.4	N 04 23.0	−01.2	15
16	83 04.0	−00.4	N 04 21.8	−01.2	16
17	98 03.6	−00.4	N 04 20.6	−01.1	17
18	113 03.2	−00.4	N 04 19.5	−01.2	18
19	128 02.8	−00.4	N 04 18.3	−01.2	19
20	143 02.4	−00.4	N 04 17.1	−01.2	20
21	158 02.0	−00.4	N 04 15.9	−01.2	21
22	173 01.6	−00.4	N 04 14.7	−01.2	22
23	188 01.2	−00.4	N 04 13.5	−01.1	23

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	187°	187°	187°	187°	186°	186°

Greenwich Culmination Time: 10:27

Moon

A: 50%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	5 52.6	−30.7	N 06 35.4	+17.4	00
01	20 21.9	−30.7	N 06 52.8	+17.3	01
02	34 51.2	−30.9	N 07 10.1	+17.3	02
03	49 20.3	−30.8	N 07 27.4	+17.3	03
04	63 49.5	−31.0	N 07 44.7	+17.3	04
05	78 18.5	−31.0	N 08 02.0	+17.2	05
06	92 47.5	−31.1	N 08 19.2	+17.2	06
07	107 16.4	−31.1	N 08 36.4	+17.2	07
08	121 45.3	−31.2	N 08 53.6	+17.1	08
09	136 14.1	−31.3	N 09 10.7	+17.0	09
10	150 42.8	−31.4	N 09 27.7	+17.0	10
11	165 11.4	−31.4	N 09 44.7	+17.0	11
12	179 40.0	−31.5	N 10 01.7	+16.9	12
13	194 08.5	−31.5	N 10 18.6	+16.9	13
14	208 37.0	−31.7	N 10 35.5	+16.8	14
15	223 05.3	−31.7	N 10 52.3	+16.8	15
16	237 33.6	−31.8	N 11 09.1	+16.6	16
17	252 01.8	−31.9	N 11 25.7	+16.7	17
18	266 29.9	−31.9	N 11 42.4	+16.5	18
19	280 58.0	−32.1	N 11 58.9	+16.5	19
20	295 25.9	−32.1	N 12 15.4	+16.5	20
21	309 53.8	−32.2	N 12 31.9	+16.3	21
22	324 21.6	−32.3	N 12 48.2	+16.3	22
23	338 49.3	−32.3	N 13 04.5	+16.2	23

UT	02	06	10	14	18	22
SD	16′5	16′5	16′5	16′6	16′6	16′6
HP	60′6	60′7	60′7	60′8	60′8	60′9
SHA	349°	347°	344°	342°	340°	338°

Greenwich Culmination Time: −1:00

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	158 22.9	+00.8	S 14 56.3	+00.5	00
01	173 23.7	+00.8	S 14 56.8	+00.6	01
02	188 24.5	+00.8	S 14 57.4	+00.6	02
03	203 25.3	+00.8	S 14 58.0	+00.5	03
04	218 26.1	+00.8	S 14 58.5	+00.6	04
05	233 26.9	+00.8	S 14 59.1	+00.6	05
06	248 27.7	+00.7	S 14 59.7	+00.5	06
07	263 28.4	+00.8	S 15 00.2	+00.6	07
08	278 29.2	+00.8	S 15 00.8	+00.6	08
09	293 30.0	+00.8	S 15 01.4	+00.5	09
10	308 30.8	+00.8	S 15 01.9	+00.6	10
11	323 31.6	+00.8	S 15 02.5	+00.6	11
12	338 32.4	+00.7	S 15 03.1	+00.5	12
13	353 33.1	+00.8	S 15 03.6	+00.6	13
14	8 33.9	+00.8	S 15 04.2	+00.6	14
15	23 34.7	+00.8	S 15 04.8	+00.5	15
16	38 35.5	+00.8	S 15 05.3	+00.6	16
17	53 36.3	+00.7	S 15 05.9	+00.6	17
18	68 37.0	+00.8	S 15 06.5	+00.5	18
19	83 37.8	+00.8	S 15 07.0	+00.6	19
20	98 38.6	+00.8	S 15 07.6	+00.5	20
21	113 39.4	+00.8	S 15 08.1	+00.6	21
22	128 40.2	+00.8	S 15 08.7	+00.6	22
23	143 41.0	+00.7	S 15 09.3	+00.5	23

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	142°	142°	142°	142°	142°	142°

Greenwich Culmination Time: 13:25

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	260 54.1	+02.2	N 21 29.1	−00.1	00
01	275 56.3	+02.2	N 21 29.0	+00.0	01
02	290 58.5	+02.1	N 21 29.0	−00.1	02
03	306 00.6	+02.2	N 21 28.9	+00.0	03
04	321 02.8	+02.2	N 21 28.9	+00.0	04
05	336 05.0	+02.2	N 21 28.9	−00.1	05
06	351 07.2	+02.2	N 21 28.8	+00.0	06
07	6 09.4	+02.1	N 21 28.8	−00.1	07
08	21 11.5	+02.2	N 21 28.7	+00.0	08
09	36 13.7	+02.2	N 21 28.7	+00.0	09
10	51 15.9	+02.2	N 21 28.7	−00.1	10
11	66 18.1	+02.2	N 21 28.6	+00.0	11
12	81 20.3	+02.2	N 21 28.6	−00.1	12
13	96 22.5	+02.1	N 21 28.5	+00.0	13
14	111 24.6	+02.2	N 21 28.5	+00.0	14
15	126 26.8	+02.2	N 21 28.5	−00.1	15
16	141 29.0	+02.2	N 21 28.4	+00.0	16
17	156 31.2	+02.2	N 21 28.4	−00.1	17
18	171 33.4	+02.2	N 21 28.3	+00.0	18
19	186 35.6	+02.1	N 21 28.3	+00.0	19
20	201 37.7	+02.2	N 21 28.3	−00.1	20
21	216 39.9	+02.2	N 21 28.2	+00.0	21
22	231 42.1	+02.2	N 21 28.2	+00.0	22
23	246 44.3	+02.2	N 21 28.2	−00.1	23

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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:35

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	17 21.8	+02.6	S 03 22.2	+00.1	00
01	32 24.4	+02.7	S 03 22.3	+00.0	01
02	47 27.1	+02.6	S 03 22.3	+00.1	02
03	62 29.7	+02.6	S 03 22.4	+00.1	03
04	77 32.3	+02.7	S 03 22.5	+00.0	04
05	92 35.0	+02.6	S 03 22.5	+00.1	05
06	107 37.6	+02.6	S 03 22.6	+00.1	06
07	122 40.2	+02.6	S 03 22.7	+00.1	07
08	137 42.8	+02.7	S 03 22.8	+00.0	08
09	152 45.5	+02.6	S 03 22.8	+00.1	09
10	167 48.1	+02.6	S 03 22.9	+00.1	10
11	182 50.7	+02.7	S 03 23.0	+00.0	11
12	197 53.4	+02.6	S 03 23.0	+00.1	12
13	212 56.0	+02.6	S 03 23.1	+00.1	13
14	227 58.6	+02.7	S 03 23.2	+00.0	14
15	243 01.3	+02.6	S 03 23.2	+00.1	15
16	258 03.9	+02.6	S 03 23.3	+00.1	16
17	273 06.5	+02.6	S 03 23.4	+00.1	17
18	288 09.1	+02.7	S 03 23.5	+00.0	18
19	303 11.8	+02.6	S 03 23.5	+00.1	19
20	318 14.4	+02.6	S 03 23.6	+00.1	20
21	333 17.0	+02.7	S 03 23.7	+00.0	21
22	348 19.7	+02.6	S 03 23.7	+00.1	22
23	3 22.3	+02.6	S 03 23.8	+00.1	23

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°	002°	002°	002°

Greenwich Culmination Time: 22:46

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2025 October 8 Wednesday

(day 281 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 05.8	+00.1	S 05 53.9	+00.9
01	198 05.9	+00.2	S 05 54.8	+01.0
02	213 06.1	+00.2	S 05 55.8	+00.9
03	228 06.3	+00.2	S 05 56.7	+01.0
04	243 06.5	+00.1	S 05 57.7	+00.9
05	258 06.6	+00.2	S 05 58.6	+01.0
06	273 06.8	+00.2	S 05 59.6	+00.9
07	288 07.0	+00.2	S 06 00.5	+01.0
08	303 07.2	+00.1	S 06 01.5	+00.9
09	318 07.3	+00.2	S 06 02.4	+01.0
10	333 07.5	+00.2	S 06 03.4	+01.0
11	348 07.7	+00.2	S 06 04.4	+00.9
12	3 07.9	+00.1	S 06 05.3	+01.0
13	18 08.0	+00.2	S 06 06.3	+00.9
14	33 08.2	+00.2	S 06 07.2	+01.0
15	48 08.4	+00.2	S 06 08.2	+00.9
16	63 08.6	+00.1	S 06 09.1	+01.0
17	78 08.7	+00.2	S 06 10.1	+00.9
18	93 08.9	+00.2	S 06 11.0	+01.0
19	108 09.1	+00.2	S 06 12.0	+00.9
20	123 09.3	+00.1	S 06 12.9	+01.0
21	138 09.4	+00.2	S 06 13.9	+00.9
22	153 09.6	+00.2	S 06 14.8	+01.0
23	168 09.8	+00.2	S 06 15.8	+00.9

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	166°	166°	166°	166°	166°	165°

Greenwich Culmination Time: 11:47

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	203 00.8	-00.4	N 04 12.4	-01.2
01	218 00.4	-00.4	N 04 11.2	-01.2
02	233 00.0	-00.4	N 04 10.0	-01.2
03	247 59.6	-00.4	N 04 08.8	-01.2
04	262 59.2	-00.4	N 04 07.6	-01.2
05	277 58.8	-00.4	N 04 06.4	-01.2
06	292 58.4	-00.4	N 04 05.2	-01.2
07	307 58.0	-00.4	N 04 04.0	-01.1
08	322 57.6	-00.4	N 04 02.9	-01.2
09	337 57.2	-00.4	N 04 01.7	-01.2
10	352 56.8	-00.4	N 04 00.5	-01.2
11	7 56.4	-00.4	N 03 59.3	-01.2
12	22 56.0	-00.4	N 03 58.1	-01.2
13	37 55.6	-00.4	N 03 56.9	-01.2
14	52 55.2	-00.4	N 03 55.7	-01.2
15	67 54.8	-00.4	N 03 54.5	-01.1
16	82 54.4	-00.3	N 03 53.4	-01.2
17	97 54.1	-00.4	N 03 52.2	-01.2
18	112 53.7	-00.4	N 03 51.0	-01.2
19	127 53.3	-00.4	N 03 49.8	-01.2
20	142 52.9	-00.4	N 03 48.6	-01.2
21	157 52.5	-00.4	N 03 47.4	-01.2
22	172 52.1	-00.4	N 03 46.2	-01.2
23	187 51.7	-00.4	N 03 45.0	-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	186°	186°	186°	185°	185°	185°

Greenwich Culmination Time: 10:28

Moon

A: 54%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	353 17.0	-32.5	N 13 20.7	+16.2
01	7 44.5	-32.5	N 13 36.9	+16.0
02	22 12.0	-32.6	N 13 52.9	+16.0
03	36 39.4	-32.7	N 14 08.9	+15.9
04	51 06.7	-32.8	N 14 24.8	+15.8
05	65 33.9	-32.9	N 14 40.6	+15.8
06	80 01.0	-33.0	N 14 56.4	+15.6
07	94 28.0	-33.0	N 15 12.0	+15.5
08	108 55.0	-33.2	N 15 27.5	+15.5
09	123 21.8	-33.2	N 15 43.0	+15.3
10	137 48.6	-33.4	N 15 58.3	+15.3
11	152 15.2	-33.4	N 16 13.6	+15.1
12	166 41.8	-33.5	N 16 28.7	+15.1
13	181 08.3	-33.6	N 16 43.8	+14.9
14	195 34.7	-33.7	N 16 58.7	+14.9
15	210 01.0	-33.8	N 17 13.6	+14.7
16	224 27.2	-33.9	N 17 28.3	+14.6
17	238 53.3	-34.0	N 17 42.9	+14.5
18	253 19.3	-34.1	N 17 57.4	+14.4
19	267 45.2	-34.1	N 18 11.8	+14.3
20	282 11.1	-34.3	N 18 26.1	+14.1
21	296 36.8	-34.4	N 18 40.2	+14.0
22	311 02.4	-34.4	N 18 54.2	+13.9
23	325 28.0	-34.6	N 19 08.1	+13.8

UT	02	06	10	14	18	22
SD	16′6	16′6	16′6	16′6	16′6	16′6
HP	60′9	60′9	60′9	60′9	60′9	60′9
SHA	335°	333°	331°	328°	326°	323°

Greenwich Culmination Time: 00:27

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	158 41.7	+00.8	S 15 09.8	+00.6
01	173 42.5	+00.8	S 15 10.4	+00.6
02	188 43.3	+00.8	S 15 11.0	+00.5
03	203 44.1	+00.8	S 15 11.5	+00.6
04	218 44.9	+00.7	S 15 12.1	+00.5
05	233 45.6	+00.8	S 15 12.6	+00.6
06	248 46.4	+00.8	S 15 13.2	+00.6
07	263 47.2	+00.8	S 15 13.8	+00.5
08	278 48.0	+00.7	S 15 14.3	+00.6
09	293 48.7	+00.8	S 15 14.9	+00.5
10	308 49.5	+00.8	S 15 15.4	+00.6
11	323 50.3	+00.8	S 15 16.0	+00.6
12	338 51.1	+00.8	S 15 16.6	+00.5
13	353 51.9	+00.7	S 15 17.1	+00.6
14	8 52.6	+00.8	S 15 17.7	+00.5
15	23 53.4	+00.8	S 15 18.2	+00.6
16	38 54.2	+00.8	S 15 18.8	+00.6
17	53 55.0	+00.7	S 15 19.4	+00.5
18	68 55.7	+00.8	S 15 19.9	+00.6
19	83 56.5	+00.8	S 15 20.5	+00.5
20	98 57.3	+00.8	S 15 21.0	+00.6
21	113 58.1	+00.7	S 15 21.6	+00.6
22	128 58.8	+00.8	S 15 22.2	+00.5
23	143 59.6	+00.8	S 15 22.7	+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	142°	142°	142°	141°	141°	141°

Greenwich Culmination Time: 13:24

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	261 46.5	+02.2	N 21 28.1	+00.0
01	276 48.7	+02.2	N 21 28.1	-00.1
02	291 50.9	+02.1	N 21 28.0	+00.0
03	306 53.0	+02.2	N 21 28.0	+00.0
04	321 55.2	+02.2	N 21 28.0	-00.1
05	336 57.4	+02.2	N 21 27.9	+00.0
06	351 59.6	+02.2	N 21 27.9	-00.1
07	7 01.8	+02.2	N 21 27.8	+00.0
08	22 04.0	+02.2	N 21 27.8	+00.0
09	37 06.2	+02.2	N 21 27.8	-00.1
10	52 08.4	+02.1	N 21 27.7	+00.0
11	67 10.5	+02.2	N 21 27.7	-00.1
12	82 12.7	+02.2	N 21 27.6	+00.0
13	97 14.9	+02.2	N 21 27.6	+00.0
14	112 17.1	+02.2	N 21 27.6	-00.1
15	127 19.3	+02.2	N 21 27.5	+00.0
16	142 21.5	+02.2	N 21 27.5	-00.1
17	157 23.7	+02.2	N 21 27.4	+00.0
18	172 25.9	+02.2	N 21 27.4	+00.0
19	187 28.1	+02.2	N 21 27.4	-00.1
20	202 30.3	+02.1	N 21 27.3	+00.0
21	217 32.4	+02.2	N 21 27.3	+00.0
22	232 34.6	+02.2	N 21 27.3	-00.1
23	247 36.8	+02.2	N 21 27.2	+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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:31

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	18 24.9	+02.7	S 03 23.9	+00.0
01	33 27.6	+02.6	S 03 23.9	+00.1
02	48 30.2	+02.6	S 03 24.0	+00.1
03	63 32.8	+02.6	S 03 24.1	+00.0
04	78 35.4	+02.7	S 03 24.1	+00.1
05	93 38.1	+02.6	S 03 24.2	+00.1
06	108 40.7	+02.6	S 03 24.3	+00.1
07	123 43.3	+02.7	S 03 24.4	+00.0
08	138 46.0	+02.6	S 03 24.4	+00.1
09	153 48.6	+02.6	S 03 24.5	+00.1
10	168 51.2	+02.7	S 03 24.6	+00.0
11	183 53.9	+02.6	S 03 24.6	+00.1
12	198 56.5	+02.6	S 03 24.7	+00.1
13	213 59.1	+02.6	S 03 24.8	+00.0
14	229 01.7	+02.7	S 03 24.8	+00.1
15	244 04.4	+02.6	S 03 24.9	+00.1
16	259 07.0	+02.6	S 03 25.0	+00.0
17	274 09.6	+02.7	S 03 25.0	+00.1
18	289 12.3	+02.6	S 03 25.1	+00.1
19	304 14.9	+02.6	S 03 25.2	+00.0
20	319 17.5	+02.6	S 03 25.2	+00.1
21	334 20.1	+02.7	S 03 25.3	+00.1
22	349 22.8	+02.6	S 03 25.4	+00.1
23	4 25.4	+02.6	S 03 25.5	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:42

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2025 October 9 Thursday

(day 282 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 10.0	+00.1	S 06 16.7	+01.0
01	198 10.1	+00.2	S 06 17.7	+00.9
02	213 10.3	+00.2	S 06 18.6	+01.0
03	228 10.5	+00.1	S 06 19.6	+00.9
04	243 10.6	+00.2	S 06 20.5	+01.0
05	258 10.8	+00.2	S 06 21.5	+00.9
06	273 11.0	+00.2	S 06 22.4	+00.9
07	288 11.2	+00.1	S 06 23.3	+01.0
08	303 11.3	+00.2	S 06 24.3	+00.9
09	318 11.5	+00.2	S 06 25.2	+01.0
10	333 11.7	+00.1	S 06 26.2	+00.9
11	348 11.8	+00.2	S 06 27.1	+01.0
12	3 12.0	+00.2	S 06 28.1	+00.9
13	18 12.2	+00.1	S 06 29.0	+01.0
14	33 12.3	+00.2	S 06 30.0	+00.9
15	48 12.5	+00.2	S 06 30.9	+01.0
16	63 12.7	+00.2	S 06 31.9	+00.9
17	78 12.9	+00.1	S 06 32.8	+01.0
18	93 13.0	+00.2	S 06 33.8	+00.9
19	108 13.2	+00.2	S 06 34.7	+01.0
20	123 13.4	+00.1	S 06 35.7	+00.9
21	138 13.5	+00.2	S 06 36.6	+01.0
22	153 13.7	+00.2	S 06 37.6	+00.9
23	168 13.9	+00.1	S 06 38.5	+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	165°	165°	165°	165°	165°	164°

Greenwich Culmination Time: 11:47

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	202 51.3	-00.4	N 03 43.8	-01.2
01	217 50.9	-00.4	N 03 42.6	-01.2
02	232 50.5	-00.4	N 03 41.4	-01.1
03	247 50.1	-00.4	N 03 40.3	-01.2
04	262 49.7	-00.4	N 03 39.1	-01.2
05	277 49.3	-00.4	N 03 37.9	-01.2
06	292 48.9	-00.4	N 03 36.7	-01.2
07	307 48.5	-00.4	N 03 35.5	-01.2
08	322 48.1	-00.4	N 03 34.3	-01.2
09	337 47.7	-00.4	N 03 33.1	-01.2
10	352 47.3	-00.4	N 03 31.9	-01.2
11	7 46.9	-00.4	N 03 30.7	-01.2
12	22 46.5	-00.4	N 03 29.5	-01.2
13	37 46.1	-00.3	N 03 28.3	-01.2
14	52 45.8	-00.4	N 03 27.1	-01.2
15	67 45.4	-00.4	N 03 25.9	-01.2
16	82 45.0	-00.4	N 03 24.7	-01.2
17	97 44.6	-00.4	N 03 23.5	-01.2
18	112 44.2	-00.4	N 03 22.3	-01.1
19	127 43.8	-00.4	N 03 21.2	-01.2
20	142 43.4	-00.4	N 03 20.0	-01.2
21	157 43.0	-00.4	N 03 18.8	-01.2
22	172 42.6	-00.4	N 03 17.6	-01.2
23	187 42.2	-00.4	N 03 16.4	-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	185°	185°	185°	184°	184°	184°

Greenwich Culmination Time: 10:28

Moon

A: 58%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	339 53.4	-34.6	N 19 21.9	+13.7
01	354 18.8	-34.8	N 19 35.6	+13.5
02	8 44.0	-34.8	N 19 49.1	+13.4
03	23 09.2	-35.0	N 20 02.5	+13.2
04	37 34.2	-35.0	N 20 15.7	+13.1
05	51 59.2	-35.1	N 20 28.8	+13.0
06	66 24.1	-35.2	N 20 41.8	+12.8
07	80 48.9	-35.3	N 20 54.6	+12.7
08	95 13.6	-35.4	N 21 07.3	+12.6
09	109 38.2	-35.5	N 21 19.9	+12.4
10	124 02.7	-35.6	N 21 32.3	+12.2
11	138 27.1	-35.7	N 21 44.5	+12.1
12	152 51.4	-35.8	N 21 56.6	+12.0
13	167 15.6	-35.8	N 22 08.6	+11.7
14	181 39.8	-36.0	N 22 20.3	+11.7
15	196 03.8	-36.0	N 22 32.0	+11.5
16	210 27.8	-36.1	N 22 43.5	+11.3
17	224 51.7	-36.2	N 22 54.8	+11.1
18	239 15.5	-36.3	N 23 05.9	+11.0
19	253 39.2	-36.4	N 23 16.9	+10.9
20	268 02.8	-36.5	N 23 27.8	+10.6
21	282 26.3	-36.5	N 23 38.4	+10.5
22	296 49.8	-36.7	N 23 48.9	+10.3
23	311 13.1	-36.7	N 23 59.2	+10.2

UT	02	06	10	14	18	22
SD	16′6	16′6	16′6	16′6	16′5	16′5
HP	60′9	60′8	60′8	60′8	60′7	60′6
SHA	321°	318°	316°	313°	311°	308°

Greenwich Culmination Time: 01:23

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	159 00.4	+00.8	S 15 23.3	+00.5
01	174 01.2	+00.7	S 15 23.8	+00.6
02	189 01.9	+00.8	S 15 24.4	+00.5
03	204 02.7	+00.8	S 15 24.9	+00.6
04	219 03.5	+00.7	S 15 25.5	+00.6
05	234 04.2	+00.8	S 15 26.1	+00.5
06	249 05.0	+00.8	S 15 26.6	+00.6
07	264 05.8	+00.8	S 15 27.2	+00.5
08	279 06.6	+00.7	S 15 27.7	+00.6
09	294 07.3	+00.8	S 15 28.3	+00.5
10	309 08.1	+00.8	S 15 28.8	+00.6
11	324 08.9	+00.7	S 15 29.4	+00.6
12	339 09.6	+00.8	S 15 30.0	+00.5
13	354 10.4	+00.8	S 15 30.5	+00.6
14	9 11.2	+00.8	S 15 31.1	+00.5
15	24 12.0	+00.7	S 15 31.6	+00.6
16	39 12.7	+00.8	S 15 32.2	+00.5
17	54 13.5	+00.8	S 15 32.7	+00.6
18	69 14.3	+00.7	S 15 33.3	+00.5
19	84 15.0	+00.8	S 15 33.8	+00.6
20	99 15.8	+00.8	S 15 34.4	+00.6
21	114 16.6	+00.7	S 15 35.0	+00.5
22	129 17.3	+00.8	S 15 35.5	+00.6
23	144 18.1	+00.8	S 15 36.1	+00.5

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	141°	141°	141°	141°	141°	141°

Greenwich Culmination Time: 13:23

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	262 39.0	+02.2	N 21 27.2	-00.1
01	277 41.2	+02.2	N 21 27.1	+00.0
02	292 43.4	+02.2	N 21 27.1	+00.0
03	307 45.6	+02.2	N 21 27.1	-00.1
04	322 47.8	+02.2	N 21 27.0	+00.0
05	337 50.0	+02.2	N 21 27.0	-00.1
06	352 52.2	+02.2	N 21 26.9	+00.0
07	7 54.4	+02.2	N 21 26.9	+00.0
08	22 56.6	+02.2	N 21 26.9	-00.1
09	37 58.8	+02.2	N 21 26.8	+00.0
10	53 01.0	+02.2	N 21 26.8	+00.0
11	68 03.2	+02.2	N 21 26.8	-00.1
12	83 05.4	+02.1	N 21 26.7	+00.0
13	98 07.5	+02.2	N 21 26.7	-00.1
14	113 09.7	+02.2	N 21 26.6	+00.0
15	128 11.9	+02.2	N 21 26.6	+00.0
16	143 14.1	+02.2	N 21 26.6	-00.1
17	158 16.3	+02.2	N 21 26.5	+00.0
18	173 18.5	+02.2	N 21 26.5	+00.0
19	188 20.7	+02.2	N 21 26.5	-00.1
20	203 22.9	+02.2	N 21 26.4	+00.0
21	218 25.1	+02.2	N 21 26.4	-00.1
22	233 27.3	+02.2	N 21 26.3	+00.0
23	248 29.5	+02.2	N 21 26.3	+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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:28

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	19 28.0	+02.7	S 03 25.5	+00.1
01	34 30.7	+02.6	S 03 25.6	+00.1
02	49 33.3	+02.6	S 03 25.7	+00.0
03	64 35.9	+02.6	S 03 25.7	+00.1
04	79 38.5	+02.7	S 03 25.8	+00.1
05	94 41.2	+02.6	S 03 25.9	+00.0
06	109 43.8	+02.6	S 03 25.9	+00.1
07	124 46.4	+02.6	S 03 26.0	+00.1
08	139 49.0	+02.7	S 03 26.1	+00.0
09	154 51.7	+02.6	S 03 26.1	+00.1
10	169 54.3	+02.6	S 03 26.2	+00.1
11	184 56.9	+02.7	S 03 26.3	+00.0
12	199 59.6	+02.6	S 03 26.3	+00.1
13	215 02.2	+02.6	S 03 26.4	+00.1
14	230 04.8	+02.6	S 03 26.5	+00.0
15	245 07.4	+02.7	S 03 26.5	+00.1
16	260 10.1	+02.6	S 03 26.6	+00.1
17	275 12.7	+02.6	S 03 26.7	+00.0
18	290 15.3	+02.6	S 03 26.7	+00.1
19	305 17.9	+02.7	S 03 26.8	+00.1
20	320 20.6	+02.6	S 03 26.9	+00.1
21	335 23.2	+02.6	S 03 27.0	+00.0
22	350 25.8	+02.7	S 03 27.0	+00.1
23	5 28.5	+02.6	S 03 27.1	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:38

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2025 October 10 Friday

(day 283 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 14.0	+00.2	S 06 39.5	+00.9
01	198 14.2	+00.2	S 06 40.4	+00.9
02	213 14.4	+00.1	S 06 41.3	+01.0
03	228 14.5	+00.2	S 06 42.3	+00.9
04	243 14.7	+00.2	S 06 43.2	+01.0
05	258 14.9	+00.1	S 06 44.2	+00.9
06	273 15.0	+00.2	S 06 45.1	+01.0
07	288 15.2	+00.2	S 06 46.1	+00.9
08	303 15.4	+00.1	S 06 47.0	+01.0
09	318 15.5	+00.2	S 06 48.0	+00.9
10	333 15.7	+00.2	S 06 48.9	+00.9
11	348 15.9	+00.1	S 06 49.8	+01.0
12	3 16.0	+00.2	S 06 50.8	+00.9
13	18 16.2	+00.2	S 06 51.7	+01.0
14	33 16.4	+00.1	S 06 52.7	+00.9
15	48 16.5	+00.2	S 06 53.6	+01.0
16	63 16.7	+00.2	S 06 54.6	+00.9
17	78 16.9	+00.1	S 06 55.5	+01.0
18	93 17.0	+00.2	S 06 56.5	+00.9
19	108 17.2	+00.1	S 06 57.4	+00.9
20	123 17.3	+00.2	S 06 58.3	+01.0
21	138 17.5	+00.2	S 06 59.3	+00.9
22	153 17.7	+00.1	S 07 00.2	+01.0
23	168 17.8	+00.2	S 07 01.2	+00.9

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	164°	164°	164°	164°	164°	164°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	202 41.8	−00.4	N 03 15.2	−01.2
01	217 41.4	−00.4	N 03 14.0	−01.2
02	232 41.0	−00.4	N 03 12.8	−01.2
03	247 40.6	−00.4	N 03 11.6	−01.2
04	262 40.2	−00.4	N 03 10.4	−01.2
05	277 39.8	−00.4	N 03 09.2	−01.2
06	292 39.4	−00.3	N 03 08.0	−01.2
07	307 39.1	−00.4	N 03 06.8	−01.2
08	322 38.7	−00.4	N 03 05.6	−01.2
09	337 38.3	−00.4	N 03 04.4	−01.2
10	352 37.9	−00.4	N 03 03.2	−01.2
11	7 37.5	−00.4	N 03 02.0	−01.2
12	22 37.1	−00.4	N 03 00.8	−01.2
13	37 36.7	−00.4	N 02 59.6	−01.2
14	52 36.3	−00.4	N 02 58.4	−01.2
15	67 35.9	−00.4	N 02 57.2	−01.2
16	82 35.5	−00.4	N 02 56.0	−01.2
17	97 35.1	−00.4	N 02 54.8	−01.2
18	112 34.7	−00.4	N 02 53.6	−01.2
19	127 34.3	−00.4	N 02 52.4	−01.2
20	142 33.9	−00.3	N 02 51.2	−01.2
21	157 33.6	−00.4	N 02 50.0	−01.2
22	172 33.2	−00.4	N 02 48.8	−01.2
23	187 32.8	−00.4	N 02 47.6	−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	184°	184°	183°	183°	183°	183°

Greenwich Culmination Time: 10:29

Moon

A: 62%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	325 36.4	−36.8	N 24 09.4	+10.0
01	339 59.6	−36.9	N 24 19.4	+09.8
02	354 22.7	−36.9	N 24 29.2	+09.6
03	8 45.8	−37.0	N 24 38.8	+09.4
04	23 08.8	−37.1	N 24 48.2	+09.3
05	37 31.7	−37.2	N 24 57.5	+09.1
06	51 54.5	−37.2	N 25 06.6	+08.9
07	66 17.3	−37.3	N 25 15.5	+08.7
08	80 40.0	−37.4	N 25 24.2	+08.6
09	95 02.6	−37.4	N 25 32.8	+08.3
10	109 25.2	−37.5	N 25 41.1	+08.2
11	123 47.7	−37.6	N 25 49.3	+07.9
12	138 10.1	−37.6	N 25 57.2	+07.8
13	152 32.5	−37.7	N 26 05.0	+07.6
14	166 54.8	−37.7	N 26 12.6	+07.4
15	181 17.1	−37.8	N 26 20.0	+07.2
16	195 39.3	−37.8	N 26 27.2	+07.1
17	210 01.5	−37.9	N 26 34.3	+06.8
18	224 23.6	−37.9	N 26 41.1	+06.6
19	238 45.7	−38.0	N 26 47.7	+06.4
20	253 07.7	−38.0	N 26 54.1	+06.3
21	267 29.7	−38.1	N 27 00.4	+06.0
22	281 51.6	−38.1	N 27 06.4	+05.8
23	296 13.5	−38.1	N 27 12.2	+05.6

UT	02	06	10	14	18	22
SD	16′5	16′5	16′5	16′4	16′4	16′4
HP	60′6	60′5	60′4	60′3	60′3	60′2
SHA	305°	303°	300°	297°	295°	292°

Greenwich Culmination Time: 02:23

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	159 18.9	+00.7	S 15 36.6	+00.6
01	174 19.6	+00.8	S 15 37.2	+00.5
02	189 20.4	+00.8	S 15 37.7	+00.6
03	204 21.2	+00.7	S 15 38.3	+00.5
04	219 21.9	+00.8	S 15 38.8	+00.6
05	234 22.7	+00.8	S 15 39.4	+00.5
06	249 23.5	+00.7	S 15 39.9	+00.6
07	264 24.2	+00.8	S 15 40.5	+00.5
08	279 25.0	+00.8	S 15 41.0	+00.6
09	294 25.8	+00.7	S 15 41.6	+00.5
10	309 26.5	+00.8	S 15 42.1	+00.6
11	324 27.3	+00.8	S 15 42.7	+00.5
12	339 28.1	+00.7	S 15 43.2	+00.6
13	354 28.8	+00.8	S 15 43.8	+00.6
14	9 29.6	+00.8	S 15 44.4	+00.5
15	24 30.4	+00.7	S 15 44.9	+00.6
16	39 31.1	+00.8	S 15 45.5	+00.5
17	54 31.9	+00.7	S 15 46.0	+00.6
18	69 32.6	+00.8	S 15 46.6	+00.5
19	84 33.4	+00.8	S 15 47.1	+00.6
20	99 34.2	+00.7	S 15 47.7	+00.5
21	114 34.9	+00.8	S 15 48.2	+00.6
22	129 35.7	+00.8	S 15 48.8	+00.5
23	144 36.5	+00.7	S 15 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	140°	140°	140°	140°	140°	140°

Greenwich Culmination Time: 13:22

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	263 31.7	+02.2	N 21 26.3	−00.1
01	278 33.9	+02.2	N 21 26.2	+00.0
02	293 36.1	+02.2	N 21 26.2	+00.0
03	308 38.3	+02.2	N 21 26.2	−00.1
04	323 40.5	+02.2	N 21 26.1	+00.0
05	338 42.7	+02.2	N 21 26.1	−00.1
06	353 44.9	+02.2	N 21 26.0	+00.0
07	8 47.1	+02.2	N 21 26.0	+00.0
08	23 49.3	+02.2	N 21 26.0	−00.1
09	38 51.5	+02.2	N 21 25.9	+00.0
10	53 53.7	+02.2	N 21 25.9	+00.0
11	68 55.9	+02.2	N 21 25.9	−00.1
12	83 58.1	+02.2	N 21 25.8	+00.0
13	99 00.3	+02.2	N 21 25.8	−00.1
14	114 02.5	+02.3	N 21 25.7	+00.0
15	129 04.8	+02.2	N 21 25.7	+00.0
16	144 07.0	+02.2	N 21 25.7	−00.1
17	159 09.2	+02.2	N 21 25.6	+00.0
18	174 11.4	+02.2	N 21 25.6	+00.0
19	189 13.6	+02.2	N 21 25.6	−00.1
20	204 15.8	+02.2	N 21 25.5	+00.0
21	219 18.0	+02.2	N 21 25.5	+00.0
22	234 20.2	+02.2	N 21 25.5	−00.1
23	249 22.4	+02.2	N 21 25.4	+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	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 06:24

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	20 31.1	+02.6	S 03 27.2	+00.0
01	35 33.7	+02.6	S 03 27.2	+00.1
02	50 36.3	+02.7	S 03 27.3	+00.1
03	65 39.0	+02.6	S 03 27.4	+00.0
04	80 41.6	+02.6	S 03 27.4	+00.1
05	95 44.2	+02.6	S 03 27.5	+00.1
06	110 46.8	+02.7	S 03 27.6	+00.0
07	125 49.5	+02.6	S 03 27.6	+00.1
08	140 52.1	+02.6	S 03 27.7	+00.1
09	155 54.7	+02.6	S 03 27.8	+00.0
10	170 57.3	+02.7	S 03 27.8	+00.1
11	185 60.0	+02.6	S 03 27.9	+00.1
12	201 02.6	+02.6	S 03 28.0	+00.0
13	216 05.2	+02.6	S 03 28.0	+00.1
14	231 07.8	+02.7	S 03 28.1	+00.1
15	246 10.5	+02.6	S 03 28.2	+00.0
16	261 13.1	+02.6	S 03 28.2	+00.1
17	276 15.7	+02.7	S 03 28.3	+00.1
18	291 18.4	+02.6	S 03 28.4	+00.0
19	306 21.0	+02.6	S 03 28.4	+00.1
20	321 23.6	+02.6	S 03 28.5	+00.1
21	336 26.2	+02.7	S 03 28.6	+00.0
22	351 28.9	+02.6	S 03 28.6	+00.1
23	6 31.5	+02.6	S 03 28.7	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:33

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2025 October 11 Saturday

(day 284 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 18.0	+00.2	S 07 02.1	+01.0
01	198 18.2	+00.1	S 07 03.1	+00.9
02	213 18.3	+00.2	S 07 04.0	+00.9
03	228 18.5	+00.1	S 07 04.9	+01.0
04	243 18.6	+00.2	S 07 05.9	+00.9
05	258 18.8	+00.2	S 07 06.8	+01.0
06	273 19.0	+00.1	S 07 07.8	+00.9
07	288 19.1	+00.2	S 07 08.7	+00.9
08	303 19.3	+00.1	S 07 09.6	+01.0
09	318 19.4	+00.2	S 07 10.6	+00.9
10	333 19.6	+00.2	S 07 11.5	+01.0
11	348 19.8	+00.1	S 07 12.5	+00.9
12	3 19.9	+00.2	S 07 13.4	+00.9
13	18 20.1	+00.1	S 07 14.3	+01.0
14	33 20.2	+00.2	S 07 15.3	+00.9
15	48 20.4	+00.2	S 07 16.2	+01.0
16	63 20.6	+00.1	S 07 17.2	+00.9
17	78 20.7	+00.2	S 07 18.1	+00.9
18	93 20.9	+00.1	S 07 19.0	+01.0
19	108 21.0	+00.2	S 07 20.0	+00.9
20	123 21.2	+00.2	S 07 20.9	+01.0
21	138 21.4	+00.1	S 07 21.9	+00.9
22	153 21.5	+00.2	S 07 22.8	+00.9
23	168 21.7	+00.1	S 07 23.7	+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	163°	163°	163°	163°	163°	163°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	202 32.4	−00.4	N 02 46.4	−01.2
01	217 32.0	−00.4	N 02 45.2	−01.2
02	232 31.6	−00.4	N 02 44.0	−01.2
03	247 31.2	−00.4	N 02 42.8	−01.2
04	262 30.8	−00.4	N 02 41.6	−01.2
05	277 30.4	−00.4	N 02 40.4	−01.2
06	292 30.0	−00.4	N 02 39.2	−01.2
07	307 29.6	−00.4	N 02 38.0	−01.2
08	322 29.2	−00.4	N 02 36.8	−01.2
09	337 28.8	−00.3	N 02 35.6	−01.2
10	352 28.5	−00.4	N 02 34.4	−01.2
11	7 28.1	−00.4	N 02 33.2	−01.2
12	22 27.7	−00.4	N 02 32.0	−01.2
13	37 27.3	−00.4	N 02 30.8	−01.3
14	52 26.9	−00.4	N 02 29.5	−01.2
15	67 26.5	−00.4	N 02 28.3	−01.2
16	82 26.1	−00.4	N 02 27.1	−01.2
17	97 25.7	−00.4	N 02 25.9	−01.2
18	112 25.3	−00.4	N 02 24.7	−01.2
19	127 24.9	−00.4	N 02 23.5	−01.2
20	142 24.5	−00.4	N 02 22.3	−01.2
21	157 24.1	−00.3	N 02 21.1	−01.2
22	172 23.8	−00.4	N 02 19.9	−01.2
23	187 23.4	−00.4	N 02 18.7	−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	183°	182°	182°	182°	182°	182°

Greenwich Culmination Time: 10:30

Moon

A: 66%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	310 35.4	−38.1	N 27 17.8	+05.5
01	324 57.3	−38.2	N 27 23.3	+05.2
02	339 19.1	−38.2	N 27 28.5	+05.0
03	353 40.9	−38.3	N 27 33.5	+04.9
04	8 02.6	−38.2	N 27 38.4	+04.6
05	22 24.4	−38.3	N 27 43.0	+04.4
06	36 46.1	−38.3	N 27 47.4	+04.2
07	51 07.8	−38.3	N 27 51.6	+04.0
08	65 29.5	−38.3	N 27 55.6	+03.9
09	79 51.2	−38.3	N 27 59.5	+03.6
10	94 12.9	−38.3	N 28 03.1	+03.4
11	108 34.6	−38.4	N 28 06.5	+03.2
12	122 56.2	−38.3	N 28 09.7	+03.0
13	137 17.9	−38.3	N 28 12.7	+02.7
14	151 39.6	−38.3	N 28 15.4	+02.6
15	166 01.3	−38.3	N 28 18.0	+02.4
16	180 23.0	−38.3	N 28 20.4	+02.2
17	194 44.7	−38.3	N 28 22.6	+02.0
18	209 06.4	−38.3	N 28 24.6	+01.7
19	223 28.1	−38.2	N 28 26.3	+01.6
20	237 49.9	−38.2	N 28 27.9	+01.3
21	252 11.7	−38.2	N 28 29.2	+01.2
22	266 33.5	−38.2	N 28 30.4	+01.0
23	280 55.3	−38.1	N 28 31.4	+00.7

UT	02	06	10	14	18	22
SD	16′4	16′3	16′3	16′3	16′2	16′2
HP	60′1	60′0	59′9	59′7	59′6	59′5
SHA	289°	287°	284°	281°	279°	276°

Greenwich Culmination Time: 03:26

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	159 37.2	+00.8	S 15 49.9	+00.5
01	174 38.0	+00.7	S 15 50.4	+00.6
02	189 38.7	+00.8	S 15 51.0	+00.5
03	204 39.5	+00.8	S 15 51.5	+00.5
04	219 40.3	+00.7	S 15 52.0	+00.6
05	234 41.0	+00.8	S 15 52.6	+00.5
06	249 41.8	+00.7	S 15 53.1	+00.6
07	264 42.5	+00.8	S 15 53.7	+00.5
08	279 43.3	+00.8	S 15 54.2	+00.6
09	294 44.1	+00.7	S 15 54.8	+00.5
10	309 44.8	+00.8	S 15 55.3	+00.6
11	324 45.6	+00.7	S 15 55.9	+00.5
12	339 46.3	+00.8	S 15 56.4	+00.6
13	354 47.1	+00.7	S 15 57.0	+00.5
14	9 47.8	+00.8	S 15 57.5	+00.6
15	24 48.6	+00.8	S 15 58.1	+00.5
16	39 49.4	+00.7	S 15 58.6	+00.6
17	54 50.1	+00.8	S 15 59.2	+00.5
18	69 50.9	+00.7	S 15 59.7	+00.6
19	84 51.6	+00.8	S 16 00.3	+00.5
20	99 52.4	+00.7	S 16 00.8	+00.5
21	114 53.1	+00.8	S 16 01.3	+00.6
22	129 53.9	+00.8	S 16 01.9	+00.5
23	144 54.7	+00.7	S 16 02.4	+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	140°	140°	139°	139°	139°	139°

Greenwich Culmination Time: 13:20

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	264 24.6	+02.2	N 21 25.4	−00.1
01	279 26.8	+02.2	N 21 25.3	+00.0
02	294 29.0	+02.2	N 21 25.3	+00.0
03	309 31.2	+02.2	N 21 25.3	−00.1
04	324 33.4	+02.2	N 21 25.2	+00.0
05	339 35.6	+02.2	N 21 25.2	+00.0
06	354 37.8	+02.3	N 21 25.2	−00.1
07	9 40.1	+02.2	N 21 25.1	+00.0
08	24 42.3	+02.2	N 21 25.1	+00.0
09	39 44.5	+02.2	N 21 25.1	−00.1
10	54 46.7	+02.2	N 21 25.0	+00.0
11	69 48.9	+02.2	N 21 25.0	−00.1
12	84 51.1	+02.2	N 21 24.9	+00.0
13	99 53.3	+02.2	N 21 24.9	+00.0
14	114 55.5	+02.2	N 21 24.9	−00.1
15	129 57.7	+02.2	N 21 24.8	+00.0
16	144 59.9	+02.3	N 21 24.8	+00.0
17	160 02.2	+02.2	N 21 24.8	−00.1
18	175 04.4	+02.2	N 21 24.7	+00.0
19	190 06.6	+02.2	N 21 24.7	+00.0
20	205 08.8	+02.2	N 21 24.7	−00.1
21	220 11.0	+02.2	N 21 24.6	+00.0
22	235 13.2	+02.2	N 21 24.6	+00.0
23	250 15.4	+02.2	N 21 24.6	−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	245°	245°	245°	245°	244°	244°

Greenwich Culmination Time: 06:21

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	21 34.1	+02.6	S 03 28.8	+00.0
01	36 36.7	+02.7	S 03 28.8	+00.1
02	51 39.4	+02.6	S 03 28.9	+00.1
03	66 42.0	+02.6	S 03 29.0	+00.0
04	81 44.6	+02.6	S 03 29.0	+00.1
05	96 47.2	+02.7	S 03 29.1	+00.1
06	111 49.9	+02.6	S 03 29.2	+00.0
07	126 52.5	+02.6	S 03 29.2	+00.1
08	141 55.1	+02.6	S 03 29.3	+00.1
09	156 57.7	+02.6	S 03 29.4	+00.0
10	172 00.3	+02.7	S 03 29.4	+00.1
11	187 03.0	+02.6	S 03 29.5	+00.1
12	202 05.6	+02.6	S 03 29.6	+00.0
13	217 08.2	+02.6	S 03 29.6	+00.1
14	232 10.8	+02.7	S 03 29.7	+00.1
15	247 13.5	+02.6	S 03 29.8	+00.0
16	262 16.1	+02.6	S 03 29.8	+00.1
17	277 18.7	+02.6	S 03 29.9	+00.1
18	292 21.3	+02.7	S 03 30.0	+00.0
19	307 24.0	+02.6	S 03 30.0	+00.1
20	322 26.6	+02.6	S 03 30.1	+00.1
21	337 29.2	+02.6	S 03 30.2	+00.0
22	352 31.8	+02.7	S 03 30.2	+00.1
23	7 34.5	+02.6	S 03 30.3	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:29

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 October 12 Sunday

(day 285 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 21.8	+00.2	S 07 24.7	+00.9	00
01	198 22.0	+00.1	S 07 25.6	+01.0	01
02	213 22.1	+00.2	S 07 26.6	+00.9	02
03	228 22.3	+00.2	S 07 27.5	+00.9	03
04	243 22.5	+00.1	S 07 28.4	+01.0	04
05	258 22.6	+00.2	S 07 29.4	+00.9	05
06	273 22.8	+00.1	S 07 30.3	+00.9	06
07	288 22.9	+00.2	S 07 31.2	+01.0	07
08	303 23.1	+00.1	S 07 32.2	+00.9	08
09	318 23.2	+00.2	S 07 33.1	+00.9	09
10	333 23.4	+00.1	S 07 34.0	+01.0	10
11	348 23.5	+00.2	S 07 35.0	+00.9	11
12	3 23.7	+00.2	S 07 35.9	+01.0	12
13	18 23.9	+00.1	S 07 36.9	+00.9	13
14	33 24.0	+00.2	S 07 37.8	+00.9	14
15	48 24.2	+00.1	S 07 38.7	+01.0	15
16	63 24.3	+00.2	S 07 39.7	+00.9	16
17	78 24.5	+00.1	S 07 40.6	+00.9	17
18	93 24.6	+00.2	S 07 41.5	+01.0	18
19	108 24.8	+00.1	S 07 42.5	+00.9	19
20	123 24.9	+00.2	S 07 43.4	+00.9	20
21	138 25.1	+00.1	S 07 44.3	+01.0	21
22	153 25.2	+00.2	S 07 45.3	+00.9	22
23	168 25.4	+00.1	S 07 46.2	+00.9	23

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	162°	162°	162°	162°	162°	162°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	202 23.0	−00.4	N 02 17.5	−01.2	00
01	217 22.6	−00.4	N 02 16.3	−01.2	01
02	232 22.2	−00.4	N 02 15.1	−01.2	02
03	247 21.8	−00.4	N 02 13.9	−01.2	03
04	262 21.4	−00.4	N 02 12.7	−01.2	04
05	277 21.0	−00.4	N 02 11.5	−01.2	05
06	292 20.6	−00.4	N 02 10.3	−01.3	06
07	307 20.2	−00.4	N 02 09.0	−01.2	07
08	322 19.8	−00.4	N 02 07.8	−01.2	08
09	337 19.4	−00.3	N 02 06.6	−01.2	09
10	352 19.1	−00.4	N 02 05.4	−01.2	10
11	7 18.7	−00.4	N 02 04.2	−01.2	11
12	22 18.3	−00.4	N 02 03.0	−01.2	12
13	37 17.9	−00.4	N 02 01.8	−01.2	13
14	52 17.5	−00.4	N 02 00.6	−01.2	14
15	67 17.1	−00.4	N 01 59.4	−01.2	15
16	82 16.7	−00.4	N 01 58.2	−01.2	16
17	97 16.3	−00.4	N 01 57.0	−01.2	17
18	112 15.9	−00.4	N 01 55.8	−01.2	18
19	127 15.5	−00.4	N 01 54.6	−01.3	19
20	142 15.1	−00.3	N 01 53.3	−01.2	20
21	157 14.8	−00.4	N 01 52.1	−01.2	21
22	172 14.4	−00.4	N 01 50.9	−01.2	22
23	187 14.0	−00.4	N 01 49.7	−01.2	23

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	181°	181°	181°	181°	181°	181°

Greenwich Culmination Time: 10:30

Moon

A: 71%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	295 17.2	−38.1	N 28 32.1	+00.6	00
01	309 39.1	−38.1	N 28 32.7	+00.3	01
02	324 01.0	−38.0	N 28 33.0	+00.2	02
03	338 23.0	−38.0	N 28 33.2	−00.1	03
04	352 45.0	−37.9	N 28 33.1	−00.2	04
05	7 07.1	−37.9	N 28 32.9	−00.5	05
06	21 29.2	−37.9	N 28 32.4	−00.6	06
07	35 51.3	−37.8	N 28 31.8	−00.9	07
08	50 13.5	−37.7	N 28 30.9	−01.0	08
09	64 35.8	−37.7	N 28 29.9	−01.3	09
10	78 58.1	−37.6	N 28 28.6	−01.4	10
11	93 20.5	−37.5	N 28 27.2	−01.6	11
12	107 43.0	−37.5	N 28 25.6	−01.9	12
13	122 05.5	−37.4	N 28 23.7	−02.0	13
14	136 28.1	−37.4	N 28 21.7	−02.2	14
15	150 50.7	−37.3	N 28 19.5	−02.4	15
16	165 13.4	−37.2	N 28 17.1	−02.5	16
17	179 36.2	−37.1	N 28 14.6	−02.8	17
18	193 59.1	−37.1	N 28 11.8	−03.0	18
19	208 22.0	−36.9	N 28 08.8	−03.1	19
20	222 45.1	−36.9	N 28 05.7	−03.3	20
21	237 08.2	−36.8	N 28 02.4	−03.5	21
22	251 31.4	−36.7	N 27 58.9	−03.7	22
23	265 54.7	−36.6	N 27 55.2	−03.9	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′1	16′1	16′1	16′0
HP	59′4	59′3	59′2	59′0	58′9	58′8
SHA	273°	270°	268°	265°	262°	260°

Greenwich Culmination Time: 04:30

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	159 55.4	+00.8	S 16 03.0	+00.5	00
01	174 56.2	+00.7	S 16 03.5	+00.6	01
02	189 56.9	+00.8	S 16 04.1	+00.5	02
03	204 57.7	+00.7	S 16 04.6	+00.6	03
04	219 58.4	+00.8	S 16 05.2	+00.5	04
05	234 59.2	+00.7	S 16 05.7	+00.5	05
06	249 59.9	+00.8	S 16 06.2	+00.6	06
07	265 00.7	+00.7	S 16 06.8	+00.5	07
08	280 01.4	+00.8	S 16 07.3	+00.6	08
09	295 02.2	+00.7	S 16 07.9	+00.5	09
10	310 02.9	+00.8	S 16 08.4	+00.6	10
11	325 03.7	+00.8	S 16 09.0	+00.5	11
12	340 04.5	+00.7	S 16 09.5	+00.5	12
13	355 05.2	+00.8	S 16 10.0	+00.6	13
14	10 06.0	+00.7	S 16 10.6	+00.5	14
15	25 06.7	+00.8	S 16 11.1	+00.6	15
16	40 07.5	+00.7	S 16 11.7	+00.5	16
17	55 08.2	+00.8	S 16 12.2	+00.6	17
18	70 09.0	+00.7	S 16 12.8	+00.5	18
19	85 09.7	+00.8	S 16 13.3	+00.5	19
20	100 10.5	+00.7	S 16 13.8	+00.6	20
21	115 11.2	+00.8	S 16 14.4	+00.5	21
22	130 12.0	+00.7	S 16 14.9	+00.6	22
23	145 12.7	+00.8	S 16 15.5	+00.5	23

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	139°	139°	139°	139°	139°	138°

Greenwich Culmination Time: 13:19

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	265 17.6	+02.3	N 21 24.5	+00.0	00
01	280 19.9	+02.2	N 21 24.5	−00.1	01
02	295 22.1	+02.2	N 21 24.4	+00.0	02
03	310 24.3	+02.2	N 21 24.4	+00.0	03
04	325 26.5	+02.2	N 21 24.4	−00.1	04
05	340 28.7	+02.2	N 21 24.3	+00.0	05
06	355 30.9	+02.2	N 21 24.3	+00.0	06
07	10 33.1	+02.3	N 21 24.3	−00.1	07
08	25 35.4	+02.2	N 21 24.2	+00.0	08
09	40 37.6	+02.2	N 21 24.2	+00.0	09
10	55 39.8	+02.2	N 21 24.2	−00.1	10
11	70 42.0	+02.2	N 21 24.1	+00.0	11
12	85 44.2	+02.2	N 21 24.1	+00.0	12
13	100 46.4	+02.3	N 21 24.1	−00.1	13
14	115 48.7	+02.2	N 21 24.0	+00.0	14
15	130 50.9	+02.2	N 21 24.0	+00.0	15
16	145 53.1	+02.2	N 21 24.0	−00.1	16
17	160 55.3	+02.2	N 21 23.9	+00.0	17
18	175 57.5	+02.3	N 21 23.9	+00.0	18
19	190 59.8	+02.2	N 21 23.9	−00.1	19
20	206 02.0	+02.2	N 21 23.8	+00.0	20
21	221 04.2	+02.2	N 21 23.8	−00.1	21
22	236 06.4	+02.2	N 21 23.7	+00.0	22
23	251 08.6	+02.3	N 21 23.7	+00.0	23

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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 06:17

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	22 37.1	+02.6	S 03 30.4	+00.0	00
01	37 39.7	+02.6	S 03 30.4	+00.1	01
02	52 42.3	+02.7	S 03 30.5	+00.0	02
03	67 45.0	+02.6	S 03 30.5	+00.1	03
04	82 47.6	+02.6	S 03 30.6	+00.1	04
05	97 50.2	+02.6	S 03 30.7	+00.0	05
06	112 52.8	+02.6	S 03 30.7	+00.1	06
07	127 55.4	+02.7	S 03 30.8	+00.1	07
08	142 58.1	+02.6	S 03 30.9	+00.0	08
09	158 00.7	+02.6	S 03 30.9	+00.1	09
10	173 03.3	+02.6	S 03 31.0	+00.1	10
11	188 05.9	+02.7	S 03 31.1	+00.0	11
12	203 08.6	+02.6	S 03 31.1	+00.1	12
13	218 11.2	+02.6	S 03 31.2	+00.1	13
14	233 13.8	+02.6	S 03 31.3	+00.0	14
15	248 16.4	+02.6	S 03 31.3	+00.1	15
16	263 19.0	+02.7	S 03 31.4	+00.1	16
17	278 21.7	+02.6	S 03 31.5	+00.0	17
18	293 24.3	+02.6	S 03 31.5	+00.1	18
19	308 26.9	+02.6	S 03 31.6	+00.1	19
20	323 29.5	+02.7	S 03 31.7	+00.0	20
21	338 32.2	+02.6	S 03 31.7	+00.1	21
22	353 34.8	+02.6	S 03 31.8	+00.0	22
23	8 37.4	+02.6	S 03 31.8	+00.1	23

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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:25

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2025 October 13 Monday

(day 286 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 25.5	+00.2	S 07 47.1	+01.0
01	198 25.7	+00.1	S 07 48.1	+00.9
02	213 25.8	+00.2	S 07 49.0	+00.9
03	228 26.0	+00.1	S 07 49.9	+01.0
04	243 26.1	+00.2	S 07 50.9	+00.9
05	258 26.3	+00.1	S 07 51.8	+00.9
06	273 26.4	+00.2	S 07 52.7	+01.0
07	288 26.6	+00.1	S 07 53.7	+00.9
08	303 26.7	+00.2	S 07 54.6	+00.9
09	318 26.9	+00.1	S 07 55.5	+01.0
10	333 27.0	+00.2	S 07 56.5	+00.9
11	348 27.2	+00.1	S 07 57.4	+00.9
12	3 27.3	+00.2	S 07 58.3	+01.0
13	18 27.5	+00.1	S 07 59.3	+00.9
14	33 27.6	+00.2	S 08 00.2	+00.9
15	48 27.8	+00.1	S 08 01.1	+01.0
16	63 27.9	+00.2	S 08 02.1	+00.9
17	78 28.1	+00.1	S 08 03.0	+00.9
18	93 28.2	+00.2	S 08 03.9	+01.0
19	108 28.4	+00.1	S 08 04.9	+00.9
20	123 28.5	+00.2	S 08 05.8	+00.9
21	138 28.7	+00.1	S 08 06.7	+00.9
22	153 28.8	+00.2	S 08 07.6	+01.0
23	168 29.0	+00.1	S 08 08.6	+00.9

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	162°	161°	161°	161°	161°	161°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	202 13.6	-00.4	N 01 48.5	-01.2
01	217 13.2	-00.4	N 01 47.3	-01.2
02	232 12.8	-00.4	N 01 46.1	-01.2
03	247 12.4	-00.4	N 01 44.9	-01.2
04	262 12.0	-00.4	N 01 43.7	-01.2
05	277 11.6	-00.4	N 01 42.5	-01.3
06	292 11.2	-00.4	N 01 41.2	-01.2
07	307 10.8	-00.3	N 01 40.0	-01.2
08	322 10.5	-00.4	N 01 38.8	-01.2
09	337 10.1	-00.4	N 01 37.6	-01.2
10	352 09.7	-00.4	N 01 36.4	-01.2
11	7 09.3	-00.4	N 01 35.2	-01.2
12	22 08.9	-00.4	N 01 34.0	-01.2
13	37 08.5	-00.4	N 01 32.8	-01.3
14	52 08.1	-00.4	N 01 31.5	-01.2
15	67 07.7	-00.4	N 01 30.3	-01.2
16	82 07.3	-00.4	N 01 29.1	-01.2
17	97 06.9	-00.3	N 01 27.9	-01.2
18	112 06.6	-00.4	N 01 26.7	-01.2
19	127 06.2	-00.4	N 01 25.5	-01.2
20	142 05.8	-00.4	N 01 24.3	-01.2
21	157 05.4	-00.4	N 01 23.1	-01.3
22	172 05.0	-00.4	N 01 21.8	-01.2
23	187 04.6	-00.4	N 01 20.6	-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	180°	180°	180°	180°	180°	179°

Greenwich Culmination Time: 10:31

Moon

A: 75%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	280 18.1	-36.6	N 27 51.3	-04.0
01	294 41.5	-36.4	N 27 47.3	-04.3
02	309 05.1	-36.4	N 27 43.0	-04.4
03	323 28.7	-36.2	N 27 38.6	-04.5
04	337 52.5	-36.2	N 27 34.1	-04.8
05	352 16.3	-36.0	N 27 29.3	-04.9
06	6 40.3	-36.0	N 27 24.4	-05.1
07	21 04.3	-35.9	N 27 19.3	-05.3
08	35 28.4	-35.7	N 27 14.0	-05.4
09	49 52.7	-35.7	N 27 08.6	-05.6
10	64 17.0	-35.5	N 27 03.0	-05.7
11	78 41.5	-35.4	N 26 57.3	-06.0
12	93 06.1	-35.4	N 26 51.3	-06.1
13	107 30.7	-35.2	N 26 45.2	-06.2
14	121 55.5	-35.1	N 26 39.0	-06.4
15	136 20.4	-35.0	N 26 32.6	-06.6
16	150 45.4	-34.9	N 26 26.0	-06.7
17	165 10.5	-34.7	N 26 19.3	-06.8
18	179 35.8	-34.7	N 26 12.5	-07.1
19	194 01.1	-34.5	N 26 05.4	-07.1
20	208 26.6	-34.4	N 25 58.3	-07.3
21	222 52.2	-34.4	N 25 51.0	-07.5
22	237 17.8	-34.1	N 25 43.5	-07.6
23	251 43.7	-34.1	N 25 35.9	-07.8

UT	02	06	10	14	18	22
SD	16′0	15′9	15′9	15′9	15′8	15′8
HP	58′7	58′5	58′4	58′3	58′2	58′0
SHA	257°	255°	252°	250°	247°	245°

Greenwich Culmination Time: 05:32

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	160 13.5	+00.7	S 16 16.0	+00.5
01	175 14.2	+00.7	S 16 16.5	+00.6
02	190 14.9	+00.8	S 16 17.1	+00.5
03	205 15.7	+00.7	S 16 17.6	+00.6
04	220 16.4	+00.8	S 16 18.2	+00.5
05	235 17.2	+00.7	S 16 18.7	+00.5
06	250 17.9	+00.8	S 16 19.2	+00.6
07	265 18.7	+00.7	S 16 19.8	+00.5
08	280 19.4	+00.8	S 16 20.3	+00.6
09	295 20.2	+00.7	S 16 20.9	+00.5
10	310 20.9	+00.8	S 16 21.4	+00.5
11	325 21.7	+00.7	S 16 21.9	+00.6
12	340 22.4	+00.8	S 16 22.5	+00.5
13	355 23.2	+00.7	S 16 23.0	+00.5
14	10 23.9	+00.7	S 16 23.5	+00.6
15	25 24.6	+00.8	S 16 24.1	+00.5
16	40 25.4	+00.7	S 16 24.6	+00.6
17	55 26.1	+00.8	S 16 25.2	+00.5
18	70 26.9	+00.7	S 16 25.7	+00.5
19	85 27.6	+00.8	S 16 26.2	+00.6
20	100 28.4	+00.7	S 16 26.8	+00.5
21	115 29.1	+00.8	S 16 27.3	+00.5
22	130 29.9	+00.7	S 16 27.8	+00.6
23	145 30.6	+00.7	S 16 28.4	+00.5

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	138°	138°	138°	138°	138°	138°

Greenwich Culmination Time: 13:18

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	266 10.9	+02.2	N 21 23.7	-00.1
01	281 13.1	+02.2	N 21 23.6	+00.0
02	296 15.3	+02.2	N 21 23.6	+00.0
03	311 17.5	+02.2	N 21 23.6	-00.1
04	326 19.7	+02.3	N 21 23.5	+00.0
05	341 22.0	+02.2	N 21 23.5	+00.0
06	356 24.2	+02.2	N 21 23.5	-00.1
07	11 26.4	+02.2	N 21 23.4	+00.0
08	26 28.6	+02.3	N 21 23.4	+00.0
09	41 30.9	+02.2	N 21 23.4	-00.1
10	56 33.1	+02.2	N 21 23.3	+00.0
11	71 35.3	+02.2	N 21 23.3	+00.0
12	86 37.5	+02.3	N 21 23.3	-00.1
13	101 39.8	+02.2	N 21 23.2	+00.0
14	116 42.0	+02.2	N 21 23.2	+00.0
15	131 44.2	+02.2	N 21 23.2	-00.1
16	146 46.4	+02.3	N 21 23.1	+00.0
17	161 48.7	+02.2	N 21 23.1	+00.0
18	176 50.9	+02.2	N 21 23.1	-00.1
19	191 53.1	+02.2	N 21 23.0	+00.0
20	206 55.3	+02.3	N 21 23.0	+00.0
21	221 57.6	+02.2	N 21 23.0	-00.1
22	236 59.8	+02.2	N 21 22.9	+00.0
23	252 02.0	+02.2	N 21 22.9	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 06:14

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	23 40.0	+02.6	S 03 31.9	+00.1
01	38 42.6	+02.7	S 03 32.0	+00.0
02	53 45.3	+02.6	S 03 32.0	+00.1
03	68 47.9	+02.6	S 03 32.1	+00.1
04	83 50.5	+02.6	S 03 32.2	+00.0
05	98 53.1	+02.6	S 03 32.2	+00.1
06	113 55.7	+02.7	S 03 32.3	+00.1
07	128 58.4	+02.6	S 03 32.4	+00.0
08	144 01.0	+02.6	S 03 32.4	+00.1
09	159 03.6	+02.6	S 03 32.5	+00.1
10	174 06.2	+02.6	S 03 32.6	+00.0
11	189 08.8	+02.7	S 03 32.6	+00.1
12	204 11.5	+02.6	S 03 32.7	+00.0
13	219 14.1	+02.6	S 03 32.7	+00.1
14	234 16.7	+02.6	S 03 32.8	+00.1
15	249 19.3	+02.6	S 03 32.9	+00.0
16	264 21.9	+02.7	S 03 32.9	+00.1
17	279 24.6	+02.6	S 03 33.0	+00.1
18	294 27.2	+02.6	S 03 33.1	+00.0
19	309 29.8	+02.6	S 03 33.1	+00.1
20	324 32.4	+02.6	S 03 33.2	+00.1
21	339 35.0	+02.7	S 03 33.3	+00.0
22	354 37.7	+02.6	S 03 33.3	+00.1
23	9 40.3	+02.6	S 03 33.4	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:21

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 October 14 Tuesday

(day 287 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 29.1	+00.2	S 08 09.5	+00.9
01	198 29.3	+00.1	S 08 10.4	+01.0
02	213 29.4	+00.1	S 08 11.4	+00.9
03	228 29.5	+00.2	S 08 12.3	+00.9
04	243 29.7	+00.1	S 08 13.2	+00.9
05	258 29.8	+00.2	S 08 14.1	+01.0
06	273 30.0	+00.1	S 08 15.1	+00.9
07	288 30.1	+00.2	S 08 16.0	+00.9
08	303 30.3	+00.1	S 08 16.9	+01.0
09	318 30.4	+00.2	S 08 17.9	+00.9
10	333 30.6	+00.1	S 08 18.8	+00.9
11	348 30.7	+00.1	S 08 19.7	+00.9
12	3 30.8	+00.2	S 08 20.6	+01.0
13	18 31.0	+00.1	S 08 21.6	+00.9
14	33 31.1	+00.2	S 08 22.5	+00.9
15	48 31.3	+00.1	S 08 23.4	+01.0
16	63 31.4	+00.2	S 08 24.4	+00.9
17	78 31.6	+00.1	S 08 25.3	+00.9
18	93 31.7	+00.1	S 08 26.2	+00.9
19	108 31.8	+00.2	S 08 27.1	+01.0
20	123 32.0	+00.1	S 08 28.1	+00.9
21	138 32.1	+00.2	S 08 29.0	+00.9
22	153 32.3	+00.1	S 08 29.9	+00.9
23	168 32.4	+00.1	S 08 30.8	+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	161°	160°	160°	160°	160°	160°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	202 04.2	−00.4	N 01 19.4	−01.2
01	217 03.8	−00.4	N 01 18.2	−01.2
02	232 03.4	−00.4	N 01 17.0	−01.2
03	247 03.0	−00.4	N 01 15.8	−01.2
04	262 02.6	−00.3	N 01 14.6	−01.2
05	277 02.3	−00.4	N 01 13.4	−01.3
06	292 01.9	−00.4	N 01 12.1	−01.2
07	307 01.5	−00.4	N 01 10.9	−01.2
08	322 01.1	−00.4	N 01 09.7	−01.2
09	337 00.7	−00.4	N 01 08.5	−01.2
10	352 00.3	−00.4	N 01 07.3	−01.2
11	6 59.9	−00.4	N 01 06.1	−01.2
12	21 59.5	−00.4	N 01 04.9	−01.3
13	36 59.1	−00.4	N 01 03.6	−01.2
14	51 58.7	−00.4	N 01 02.4	−01.2
15	66 58.3	−00.3	N 01 01.2	−01.2
16	81 58.0	−00.4	N 00 60.0	−01.2
17	96 57.6	−00.4	N 00 58.8	−01.2
18	111 57.2	−00.4	N 00 57.6	−01.3
19	126 56.8	−00.4	N 00 56.3	−01.2
20	141 56.4	−00.4	N 00 55.1	−01.2
21	156 56.0	−00.4	N 00 53.9	−01.2
22	171 55.6	−00.4	N 00 52.7	−01.2
23	186 55.2	−00.4	N 00 51.5	−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	179°	179°	179°	179°	178°	178°

Greenwich Culmination Time: 10:31

Moon

A: 78%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	266 09.6	−34.0	N 25 28.1	−07.9
01	280 35.6	−33.8	N 25 20.2	−08.0
02	295 01.8	−33.7	N 25 12.2	−08.2
03	309 28.1	−33.6	N 25 04.0	−08.3
04	323 54.5	−33.5	N 24 55.7	−08.4
05	338 21.0	−33.4	N 24 47.3	−08.6
06	352 47.6	−33.2	N 24 38.7	−08.7
07	7 14.4	−33.1	N 24 30.0	−08.8
08	21 41.3	−33.0	N 24 21.2	−09.0
09	36 08.3	−32.9	N 24 12.2	−09.1
10	50 35.4	−32.8	N 24 03.1	−09.2
11	65 02.6	−32.6	N 23 53.9	−09.4
12	79 30.0	−32.5	N 23 44.5	−09.4
13	93 57.5	−32.4	N 23 35.1	−09.6
14	108 25.1	−32.3	N 23 25.5	−09.7
15	122 52.8	−32.1	N 23 15.8	−09.9
16	137 20.7	−32.1	N 23 05.9	−09.9
17	151 48.6	−31.9	N 22 56.0	−10.1
18	166 16.7	−31.8	N 22 45.9	−10.1
19	180 44.9	−31.7	N 22 35.8	−10.3
20	195 13.2	−31.5	N 22 25.5	−10.4
21	209 41.7	−31.5	N 22 15.1	−10.5
22	224 10.2	−31.3	N 22 04.6	−10.6
23	238 38.9	−31.2	N 21 54.0	−10.7

UT	02	06	10	14	18	22
SD	15′8	15′7	15′7	15′7	15′6	15′6
HP	57′9	57′8	57′7	57′5	57′4	57′3
SHA	242°	240°	237°	235°	233°	230°

Greenwich Culmination Time: 06:29

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	160 31.3	+00.8	S 16 28.9	+00.5
01	175 32.1	+00.7	S 16 29.4	+00.6
02	190 32.8	+00.8	S 16 30.0	+00.5
03	205 33.6	+00.7	S 16 30.5	+00.5
04	220 34.3	+00.7	S 16 31.0	+00.6
05	235 35.0	+00.8	S 16 31.6	+00.5
06	250 35.8	+00.7	S 16 32.1	+00.6
07	265 36.5	+00.8	S 16 32.7	+00.5
08	280 37.3	+00.7	S 16 33.2	+00.5
09	295 38.0	+00.7	S 16 33.7	+00.6
10	310 38.7	+00.8	S 16 34.3	+00.5
11	325 39.5	+00.7	S 16 34.8	+00.5
12	340 40.2	+00.8	S 16 35.3	+00.6
13	355 41.0	+00.7	S 16 35.9	+00.5
14	10 41.7	+00.7	S 16 36.4	+00.5
15	25 42.4	+00.8	S 16 36.9	+00.5
16	40 43.2	+00.7	S 16 37.4	+00.6
17	55 43.9	+00.7	S 16 38.0	+00.5
18	70 44.6	+00.8	S 16 38.5	+00.5
19	85 45.4	+00.7	S 16 39.0	+00.6
20	100 46.1	+00.8	S 16 39.6	+00.5
21	115 46.9	+00.7	S 16 40.1	+00.5
22	130 47.6	+00.7	S 16 40.6	+00.6
23	145 48.3	+00.8	S 16 41.2	+00.5

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	138°	138°	137°	137°	137°	137°

Greenwich Culmination Time: 13:17

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	267 04.2	+02.3	N 21 22.9	−00.1
01	282 06.5	+02.2	N 21 22.8	+00.0
02	297 08.7	+02.2	N 21 22.8	+00.0
03	312 10.9	+02.3	N 21 22.8	−00.1
04	327 13.2	+02.2	N 21 22.7	+00.0
05	342 15.4	+02.2	N 21 22.7	+00.0
06	357 17.6	+02.2	N 21 22.7	−00.1
07	12 19.8	+02.3	N 21 22.6	+00.0
08	27 22.1	+02.2	N 21 22.6	+00.0
09	42 24.3	+02.2	N 21 22.6	−00.1
10	57 26.5	+02.3	N 21 22.5	+00.0
11	72 28.8	+02.2	N 21 22.5	+00.0
12	87 31.0	+02.2	N 21 22.5	−00.1
13	102 33.2	+02.3	N 21 22.4	+00.0
14	117 35.5	+02.2	N 21 22.4	+00.0
15	132 37.7	+02.2	N 21 22.4	−00.1
16	147 39.9	+02.3	N 21 22.3	+00.0
17	162 42.2	+02.2	N 21 22.3	+00.0
18	177 44.4	+02.2	N 21 22.3	−00.1
19	192 46.6	+02.3	N 21 22.2	+00.0
20	207 48.9	+02.2	N 21 22.2	+00.0
21	222 51.1	+02.2	N 21 22.2	−00.1
22	237 53.3	+02.3	N 21 22.1	+00.0
23	252 55.6	+02.2	N 21 22.1	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 06:10

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	24 42.9	+02.6	S 03 33.4	+00.1
01	39 45.5	+02.6	S 03 33.5	+00.1
02	54 48.1	+02.7	S 03 33.6	+00.0
03	69 50.8	+02.6	S 03 33.6	+00.1
04	84 53.4	+02.6	S 03 33.7	+00.1
05	99 56.0	+02.6	S 03 33.8	+00.0
06	114 58.6	+02.6	S 03 33.8	+00.1
07	130 01.2	+02.7	S 03 33.9	+00.1
08	145 03.9	+02.6	S 03 34.0	+00.0
09	160 06.5	+02.6	S 03 34.0	+00.1
10	175 09.1	+02.6	S 03 34.1	+00.0
11	190 11.7	+02.6	S 03 34.1	+00.1
12	205 14.3	+02.7	S 03 34.2	+00.1
13	220 17.0	+02.6	S 03 34.3	+00.0
14	235 19.6	+02.6	S 03 34.3	+00.1
15	250 22.2	+02.6	S 03 34.4	+00.1
16	265 24.8	+02.6	S 03 34.5	+00.0
17	280 27.4	+02.6	S 03 34.5	+00.1
18	295 30.0	+02.7	S 03 34.6	+00.0
19	310 32.7	+02.6	S 03 34.6	+00.1
20	325 35.3	+02.6	S 03 34.7	+00.1
21	340 37.9	+02.6	S 03 34.8	+00.0
22	355 40.5	+02.6	S 03 34.8	+00.1
23	10 43.1	+02.6	S 03 34.9	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:17

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2025 October 15 Wednesday

(day 288 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 32.5	+00.2	S 08 31.8	+00.9	00
01	198 32.7	+00.1	S 08 32.7	+00.9	01
02	213 32.8	+00.2	S 08 33.6	+00.9	02
03	228 33.0	+00.1	S 08 34.5	+01.0	03
04	243 33.1	+00.1	S 08 35.5	+00.9	04
05	258 33.2	+00.2	S 08 36.4	+00.9	05
06	273 33.4	+00.1	S 08 37.3	+00.9	06
07	288 33.5	+00.1	S 08 38.2	+00.9	07
08	303 33.6	+00.2	S 08 39.1	+01.0	08
09	318 33.8	+00.1	S 08 40.1	+00.9	09
10	333 33.9	+00.2	S 08 41.0	+00.9	10
11	348 34.1	+00.1	S 08 41.9	+00.9	11
12	3 34.2	+00.1	S 08 42.8	+01.0	12
13	18 34.3	+00.2	S 08 43.8	+00.9	13
14	33 34.5	+00.1	S 08 44.7	+00.9	14
15	48 34.6	+00.1	S 08 45.6	+00.9	15
16	63 34.7	+00.2	S 08 46.5	+00.9	16
17	78 34.9	+00.1	S 08 47.4	+01.0	17
18	93 35.0	+00.2	S 08 48.4	+00.9	18
19	108 35.2	+00.1	S 08 49.3	+00.9	19
20	123 35.3	+00.1	S 08 50.2	+00.9	20
21	138 35.4	+00.2	S 08 51.1	+00.9	21
22	153 35.6	+00.1	S 08 52.0	+01.0	22
23	168 35.7	+00.1	S 08 53.0	+00.9	23

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	160°	160°	159°	159°	159°	159°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	201 54.8	−00.4	N 00 50.3	−01.2	00
01	216 54.4	−00.3	N 00 49.1	−01.3	01
02	231 54.1	−00.4	N 00 47.8	−01.2	02
03	246 53.7	−00.4	N 00 46.6	−01.2	03
04	261 53.3	−00.4	N 00 45.4	−01.2	04
05	276 52.9	−00.4	N 00 44.2	−01.2	05
06	291 52.5	−00.4	N 00 43.0	−01.2	06
07	306 52.1	−00.4	N 00 41.8	−01.3	07
08	321 51.7	−00.4	N 00 40.5	−01.2	08
09	336 51.3	−00.4	N 00 39.3	−01.2	09
10	351 50.9	−00.4	N 00 38.1	−01.2	10
11	6 50.5	−00.4	N 00 36.9	−01.2	11
12	21 50.1	−00.3	N 00 35.7	−01.3	12
13	36 49.8	−00.4	N 00 34.4	−01.2	13
14	51 49.4	−00.4	N 00 33.2	−01.2	14
15	66 49.0	−00.4	N 00 32.0	−01.2	15
16	81 48.6	−00.4	N 00 30.8	−01.2	16
17	96 48.2	−00.4	N 00 29.6	−01.2	17
18	111 47.8	−00.4	N 00 28.4	−01.3	18
19	126 47.4	−00.4	N 00 27.1	−01.2	19
20	141 47.0	−00.4	N 00 25.9	−01.2	20
21	156 46.6	−00.4	N 00 24.7	−01.2	21
22	171 46.2	−00.4	N 00 23.5	−01.2	22
23	186 45.8	−00.3	N 00 22.3	−01.2	23

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	178°	178°	178°	177°	177°	177°

Greenwich Culmination Time: 10:32

Moon

A: 82%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	253 07.7	−31.1	N 21 43.3	−10.8	00
01	267 36.6	−31.0	N 21 32.5	−10.9	01
02	282 05.6	−30.8	N 21 21.6	−11.0	02
03	296 34.8	−30.8	N 21 10.6	−11.1	03
04	311 04.0	−30.6	N 20 59.5	−11.2	04
05	325 33.4	−30.5	N 20 48.3	−11.2	05
06	340 02.9	−30.4	N 20 37.1	−11.4	06
07	354 32.5	−30.3	N 20 25.7	−11.5	07
08	9 02.2	−30.2	N 20 14.2	−11.6	08
09	23 32.0	−30.0	N 20 02.6	−11.6	09
10	38 02.0	−30.0	N 19 51.0	−11.8	10
11	52 32.0	−29.8	N 19 39.2	−11.8	11
12	67 02.2	−29.8	N 19 27.4	−11.9	12
13	81 32.4	−29.6	N 19 15.5	−12.0	13
14	96 02.8	−29.5	N 19 03.5	−12.1	14
15	110 33.3	−29.4	N 18 51.4	−12.1	15
16	125 03.9	−29.4	N 18 39.3	−12.2	16
17	139 34.5	−29.2	N 18 27.1	−12.3	17
18	154 05.3	−29.1	N 18 14.8	−12.4	18
19	168 36.2	−29.0	N 18 02.4	−12.5	19
20	183 07.2	−28.9	N 17 49.9	−12.5	20
21	197 38.3	−28.8	N 17 37.4	−12.6	21
22	212 09.5	−28.7	N 17 24.8	−12.7	22
23	226 40.8	−28.6	N 17 12.1	−12.7	23

UT	02	06	10	14	18	22
SD	15′6	15′5	15′5	15′5	15′5	15′4
HP	57′2	57′1	56′9	56′8	56′7	56′6
SHA	228°	226°	224°	222°	220°	217°

Greenwich Culmination Time: 07:22

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	160 49.1	+00.7	S 16 41.7	+00.5	00
01	175 49.8	+00.7	S 16 42.2	+00.6	01
02	190 50.5	+00.8	S 16 42.8	+00.5	02
03	205 51.3	+00.7	S 16 43.3	+00.5	03
04	220 52.0	+00.7	S 16 43.8	+00.5	04
05	235 52.7	+00.8	S 16 44.3	+00.6	05
06	250 53.5	+00.7	S 16 44.9	+00.5	06
07	265 54.2	+00.7	S 16 45.4	+00.5	07
08	280 54.9	+00.8	S 16 45.9	+00.6	08
09	295 55.7	+00.7	S 16 46.5	+00.5	09
10	310 56.4	+00.7	S 16 47.0	+00.5	10
11	325 57.1	+00.8	S 16 47.5	+00.5	11
12	340 57.9	+00.7	S 16 48.0	+00.6	12
13	355 58.6	+00.7	S 16 48.6	+00.5	13
14	10 59.3	+00.8	S 16 49.1	+00.5	14
15	26 00.1	+00.7	S 16 49.6	+00.6	15
16	41 00.8	+00.7	S 16 50.2	+00.5	16
17	56 01.5	+00.8	S 16 50.7	+00.5	17
18	71 02.3	+00.7	S 16 51.2	+00.5	18
19	86 03.0	+00.7	S 16 51.7	+00.6	19
20	101 03.7	+00.8	S 16 52.3	+00.5	20
21	116 04.5	+00.7	S 16 52.8	+00.5	21
22	131 05.2	+00.7	S 16 53.3	+00.5	22
23	146 05.9	+00.7	S 16 53.8	+00.6	23

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	137°	137°	137°	137°	137°	136°

Greenwich Culmination Time: 13:16

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	267 57.8	+02.2	N 21 22.1	+00.0	00
01	283 00.0	+02.3	N 21 22.1	−00.1	01
02	298 02.3	+02.2	N 21 22.0	+00.0	02
03	313 04.5	+02.3	N 21 22.0	+00.0	03
04	328 06.8	+02.2	N 21 22.0	−00.1	04
05	343 09.0	+02.2	N 21 21.9	+00.0	05
06	358 11.2	+02.3	N 21 21.9	+00.0	06
07	13 13.5	+02.2	N 21 21.9	−00.1	07
08	28 15.7	+02.2	N 21 21.8	+00.0	08
09	43 17.9	+02.3	N 21 21.8	+00.0	09
10	58 20.2	+02.2	N 21 21.8	−00.1	10
11	73 22.4	+02.3	N 21 21.7	+00.0	11
12	88 24.7	+02.2	N 21 21.7	+00.0	12
13	103 26.9	+02.2	N 21 21.7	−00.1	13
14	118 29.1	+02.3	N 21 21.6	+00.0	14
15	133 31.4	+02.2	N 21 21.6	+00.0	15
16	148 33.6	+02.3	N 21 21.6	−00.1	16
17	163 35.9	+02.2	N 21 21.5	+00.0	17
18	178 38.1	+02.2	N 21 21.5	+00.0	18
19	193 40.3	+02.3	N 21 21.5	−00.1	19
20	208 42.6	+02.2	N 21 21.4	+00.0	20
21	223 44.8	+02.3	N 21 21.4	+00.0	21
22	238 47.1	+02.2	N 21 21.4	+00.0	22
23	253 49.3	+02.2	N 21 21.4	−00.1	23

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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 06:07

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	25 45.7	+02.7	S 03 35.0	+00.0	00
01	40 48.4	+02.6	S 03 35.0	+00.1	01
02	55 51.0	+02.6	S 03 35.1	+00.0	02
03	70 53.6	+02.6	S 03 35.1	+00.1	03
04	85 56.2	+02.6	S 03 35.2	+00.1	04
05	100 58.8	+02.7	S 03 35.3	+00.0	05
06	116 01.5	+02.6	S 03 35.3	+00.1	06
07	131 04.1	+02.6	S 03 35.4	+00.1	07
08	146 06.7	+02.6	S 03 35.5	+00.0	08
09	161 09.3	+02.6	S 03 35.5	+00.1	09
10	176 11.9	+02.6	S 03 35.6	+00.0	10
11	191 14.5	+02.7	S 03 35.6	+00.1	11
12	206 17.2	+02.6	S 03 35.7	+00.1	12
13	221 19.8	+02.6	S 03 35.8	+00.0	13
14	236 22.4	+02.6	S 03 35.8	+00.1	14
15	251 25.0	+02.6	S 03 35.9	+00.1	15
16	266 27.6	+02.6	S 03 36.0	+00.0	16
17	281 30.2	+02.6	S 03 36.0	+00.1	17
18	296 32.8	+02.7	S 03 36.1	+00.0	18
19	311 35.5	+02.6	S 03 36.1	+00.1	19
20	326 38.1	+02.6	S 03 36.2	+00.1	20
21	341 40.7	+02.6	S 03 36.3	+00.0	21
22	356 43.3	+02.6	S 03 36.3	+00.1	22
23	11 45.9	+02.6	S 03 36.4	+00.0	23

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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:13

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2025 October 16 Thursday

(day 289 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 35.8	+00.2	S 08 53.9	+00.9	00
01	198 36.0	+00.1	S 08 54.8	+00.9	01
02	213 36.1	+00.1	S 08 55.7	+00.9	02
03	228 36.2	+00.2	S 08 56.6	+01.0	03
04	243 36.4	+00.1	S 08 57.6	+00.9	04
05	258 36.5	+00.1	S 08 58.5	+00.9	05
06	273 36.6	+00.2	S 08 59.4	+00.9	06
07	288 36.8	+00.1	S 09 00.3	+00.9	07
08	303 36.9	+00.1	S 09 01.2	+01.0	08
09	318 37.0	+00.1	S 09 02.2	+00.9	09
10	333 37.1	+00.2	S 09 03.1	+00.9	10
11	348 37.3	+00.1	S 09 04.0	+00.9	11
12	3 37.4	+00.1	S 09 04.9	+00.9	12
13	18 37.5	+00.2	S 09 05.8	+00.9	13
14	33 37.7	+00.1	S 09 06.7	+01.0	14
15	48 37.8	+00.1	S 09 07.7	+00.9	15
16	63 37.9	+00.2	S 09 08.6	+00.9	16
17	78 38.1	+00.1	S 09 09.5	+00.9	17
18	93 38.2	+00.1	S 09 10.4	+00.9	18
19	108 38.3	+00.1	S 09 11.3	+00.9	19
20	123 38.4	+00.2	S 09 12.2	+01.0	20
21	138 38.6	+00.1	S 09 13.2	+00.9	21
22	153 38.7	+00.1	S 09 14.1	+00.9	22
23	168 38.8	+00.2	S 09 15.0	+00.9	23

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	159°	159°	158°	158°	158°	158°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	201 45.5	-00.4	N 00 21.1	-01.3	00
01	216 45.1	-00.4	N 00 19.8	-01.2	01
02	231 44.7	-00.4	N 00 18.6	-01.2	02
03	246 44.3	-00.4	N 00 17.4	-01.2	03
04	261 43.9	-00.4	N 00 16.2	-01.2	04
05	276 43.5	-00.4	N 00 15.0	-01.3	05
06	291 43.1	-00.4	N 00 13.7	-01.2	06
07	306 42.7	-00.4	N 00 12.5	-01.2	07
08	321 42.3	-00.4	N 00 11.3	-01.2	08
09	336 41.9	-00.4	N 00 10.1	-01.2	09
10	351 41.5	-00.4	N 00 08.9	-01.3	10
11	6 41.1	-00.3	N 00 07.6	-01.2	11
12	21 40.8	-00.4	N 00 06.4	-01.2	12
13	36 40.4	-00.4	N 00 05.2	-01.2	13
14	51 40.0	-00.4	N 00 04.0	-01.2	14
15	66 39.6	-00.4	N 00 02.8	-01.3	15
16	81 39.2	-00.4	N 00 01.5	-01.2	16
17	96 38.8	-00.4	N 00 00.3	-01.2	17
18	111 38.4	-00.4	S 00 00.9	+01.2	18
19	126 38.0	-00.4	S 00 02.1	+01.2	19
20	141 37.6	-00.4	S 00 03.3	+01.3	20
21	156 37.2	-00.4	S 00 04.6	+01.2	21
22	171 36.8	-00.4	S 00 05.8	+01.2	22
23	186 36.4	-00.3	S 00 07.0	+01.2	23

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	177°	177°	177°	176°	176°	176°

Greenwich Culmination Time: 10:33

Moon

A: 85%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	241 12.2	-28.5	N 16 59.4	-12.8	00
01	255 43.7	-28.4	N 16 46.6	-12.9	01
02	270 15.3	-28.3	N 16 33.7	-12.9	02
03	284 47.0	-28.2	N 16 20.8	-13.0	03
04	299 18.8	-28.2	N 16 07.8	-13.1	04
05	313 50.6	-28.0	N 15 54.7	-13.1	05
06	328 22.6	-27.9	N 15 41.6	-13.2	06
07	342 54.7	-27.9	N 15 28.4	-13.2	07
08	357 26.8	-27.8	N 15 15.2	-13.3	08
09	11 59.0	-27.6	N 15 01.9	-13.4	09
10	26 31.4	-27.6	N 14 48.5	-13.4	10
11	41 03.8	-27.5	N 14 35.1	-13.4	11
12	55 36.3	-27.5	N 14 21.7	-13.5	12
13	70 08.8	-27.3	N 14 08.2	-13.6	13
14	84 41.5	-27.3	N 13 54.6	-13.6	14
15	99 14.2	-27.1	N 13 41.0	-13.6	15
16	113 47.1	-27.1	N 13 27.4	-13.7	16
17	128 20.0	-27.0	N 13 13.7	-13.8	17
18	142 53.0	-27.0	N 12 59.9	-13.8	18
19	157 26.0	-26.8	N 12 46.1	-13.8	19
20	171 59.2	-26.8	N 12 32.3	-13.9	20
21	186 32.4	-26.8	N 12 18.4	-13.9	21
22	201 05.6	-26.6	N 12 04.5	-14.0	22
23	215 39.0	-26.6	N 11 50.5	-14.0	23

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′0
SHA	215°	213°	211°	209°	207°	205°

Greenwich Culmination Time: 08:10

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	161 06.6	+00.8	S 16 54.4	+00.5	00
01	176 07.4	+00.7	S 16 54.9	+00.5	01
02	191 08.1	+00.7	S 16 55.4	+00.5	02
03	206 08.8	+00.8	S 16 55.9	+00.6	03
04	221 09.6	+00.7	S 16 56.5	+00.5	04
05	236 10.3	+00.7	S 16 57.0	+00.5	05
06	251 11.0	+00.7	S 16 57.5	+00.5	06
07	266 11.7	+00.8	S 16 58.0	+00.6	07
08	281 12.5	+00.7	S 16 58.6	+00.5	08
09	296 13.2	+00.7	S 16 59.1	+00.5	09
10	311 13.9	+00.7	S 16 59.6	+00.5	10
11	326 14.6	+00.8	S 17 00.1	+00.6	11
12	341 15.4	+00.7	S 17 00.7	+00.5	12
13	356 16.1	+00.7	S 17 01.2	+00.5	13
14	11 16.8	+00.7	S 17 01.7	+00.5	14
15	26 17.5	+00.8	S 17 02.2	+00.5	15
16	41 18.3	+00.7	S 17 02.7	+00.6	16
17	56 19.0	+00.7	S 17 03.3	+00.5	17
18	71 19.7	+00.7	S 17 03.8	+00.5	18
19	86 20.4	+00.8	S 17 04.3	+00.5	19
20	101 21.2	+00.7	S 17 04.8	+00.6	20
21	116 21.9	+00.7	S 17 05.4	+00.5	21
22	131 22.6	+00.7	S 17 05.9	+00.5	22
23	146 23.3	+00.8	S 17 06.4	+00.5	23

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	136°	136°	136°	136°	136°	136°

Greenwich Culmination Time: 13:14

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	268 51.5	+02.3	N 21 21.3	+00.0	00
01	283 53.8	+02.2	N 21 21.3	+00.0	01
02	298 56.0	+02.3	N 21 21.3	-00.1	02
03	313 58.3	+02.2	N 21 21.2	+00.0	03
04	329 00.5	+02.3	N 21 21.2	+00.0	04
05	344 02.8	+02.2	N 21 21.2	-00.1	05
06	359 05.0	+02.3	N 21 21.1	+00.0	06
07	14 07.3	+02.2	N 21 21.1	+00.0	07
08	29 09.5	+02.2	N 21 21.1	-00.1	08
09	44 11.7	+02.3	N 21 21.0	+00.0	09
10	59 14.0	+02.2	N 21 21.0	+00.0	10
11	74 16.2	+02.3	N 21 21.0	+00.0	11
12	89 18.5	+02.2	N 21 21.0	-00.1	12
13	104 20.7	+02.3	N 21 20.9	+00.0	13
14	119 23.0	+02.2	N 21 20.9	+00.0	14
15	134 25.2	+02.3	N 21 20.9	-00.1	15
16	149 27.5	+02.2	N 21 20.8	+00.0	16
17	164 29.7	+02.3	N 21 20.8	+00.0	17
18	179 32.0	+02.2	N 21 20.8	-00.1	18
19	194 34.2	+02.3	N 21 20.7	+00.0	19
20	209 36.5	+02.2	N 21 20.7	+00.0	20
21	224 38.7	+02.3	N 21 20.7	+00.0	21
22	239 41.0	+02.2	N 21 20.7	-00.1	22
23	254 43.2	+02.3	N 21 20.6	+00.0	23

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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 06:03

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	26 48.5	+02.7	S 03 36.4	+00.1	00
01	41 51.2	+02.6	S 03 36.5	+00.1	01
02	56 53.8	+02.6	S 03 36.6	+00.0	02
03	71 56.4	+02.6	S 03 36.6	+00.1	03
04	86 59.0	+02.6	S 03 36.7	+00.1	04
05	102 01.6	+02.6	S 03 36.8	+00.0	05
06	117 04.2	+02.6	S 03 36.8	+00.1	06
07	132 06.8	+02.7	S 03 36.9	+00.0	07
08	147 09.5	+02.6	S 03 36.9	+00.1	08
09	162 12.1	+02.6	S 03 37.0	+00.1	09
10	177 14.7	+02.6	S 03 37.1	+00.0	10
11	192 17.3	+02.6	S 03 37.1	+00.1	11
12	207 19.9	+02.6	S 03 37.2	+00.0	12
13	222 22.5	+02.6	S 03 37.2	+00.1	13
14	237 25.1	+02.7	S 03 37.3	+00.1	14
15	252 27.8	+02.6	S 03 37.4	+00.0	15
16	267 30.4	+02.6	S 03 37.4	+00.1	16
17	282 33.0	+02.6	S 03 37.5	+00.0	17
18	297 35.6	+02.6	S 03 37.5	+00.1	18
19	312 38.2	+02.6	S 03 37.6	+00.1	19
20	327 40.8	+02.6	S 03 37.7	+00.0	20
21	342 43.4	+02.7	S 03 37.7	+00.1	21
22	357 46.1	+02.6	S 03 37.8	+00.0	22
23	12 48.7	+02.6	S 03 37.8	+00.1	23

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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:08

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2025 October 17 Friday

(day 290 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 39.0	+00.1	S 09 15.9	+00.9
01	198 39.1	+00.1	S 09 16.8	+00.9
02	213 39.2	+00.1	S 09 17.7	+00.9
03	228 39.3	+00.2	S 09 18.6	+00.9
04	243 39.5	+00.1	S 09 19.5	+01.0
05	258 39.6	+00.1	S 09 20.5	+00.9
06	273 39.7	+00.1	S 09 21.4	+00.9
07	288 39.8	+00.2	S 09 22.3	+00.9
08	303 40.0	+00.1	S 09 23.2	+00.9
09	318 40.1	+00.1	S 09 24.1	+00.9
10	333 40.2	+00.1	S 09 25.0	+00.9
11	348 40.3	+00.2	S 09 25.9	+00.9
12	3 40.5	+00.1	S 09 26.8	+01.0
13	18 40.6	+00.1	S 09 27.8	+00.9
14	33 40.7	+00.1	S 09 28.7	+00.9
15	48 40.8	+00.2	S 09 29.6	+00.9
16	63 41.0	+00.1	S 09 30.5	+00.9
17	78 41.1	+00.1	S 09 31.4	+00.9
18	93 41.2	+00.1	S 09 32.3	+00.9
19	108 41.3	+00.2	S 09 33.2	+00.9
20	123 41.5	+00.1	S 09 34.1	+00.9
21	138 41.6	+00.1	S 09 35.0	+01.0
22	153 41.7	+00.1	S 09 36.0	+00.9
23	168 41.8	+00.1	S 09 36.9	+00.9

UT	02	06	10	14	18	22
SD	16′0	16′0	16′0	16′0	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	158°	158°	158°	157°	157°	157°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	201 36.1	−00.4	S 00 08.2	+01.2
01	216 35.7	−00.4	S 00 09.4	+01.3
02	231 35.3	−00.4	S 00 10.7	+01.2
03	246 34.9	−00.4	S 00 11.9	+01.2
04	261 34.5	−00.4	S 00 13.1	+01.2
05	276 34.1	−00.4	S 00 14.3	+01.2
06	291 33.7	−00.4	S 00 15.5	+01.3
07	306 33.3	−00.4	S 00 16.8	+01.2
08	321 32.9	−00.4	S 00 18.0	+01.2
09	336 32.5	−00.4	S 00 19.2	+01.2
10	351 32.1	−00.4	S 00 20.4	+01.2
11	6 31.7	−00.4	S 00 21.6	+01.3
12	21 31.3	−00.3	S 00 22.9	+01.2
13	36 31.0	−00.4	S 00 24.1	+01.2
14	51 30.6	−00.4	S 00 25.3	+01.2
15	66 30.2	−00.4	S 00 26.5	+01.2
16	81 29.8	−00.4	S 00 27.7	+01.3
17	96 29.4	−00.4	S 00 29.0	+01.2
18	111 29.0	−00.4	S 00 30.2	+01.2
19	126 28.6	−00.4	S 00 31.4	+01.2
20	141 28.2	−00.4	S 00 32.6	+01.3
21	156 27.8	−00.4	S 00 33.9	+01.2
22	171 27.4	−00.4	S 00 35.1	+01.2
23	186 27.0	−00.4	S 00 36.3	+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	176°	176°	175°	175°	175°	175°

Greenwich Culmination Time: 10:33

Moon

A: 88%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	230 12.4	−26.5	N 11 36.5	−14.0
01	244 45.9	−26.4	N 11 22.5	−14.1
02	259 19.5	−26.4	N 11 08.4	−14.1
03	273 53.1	−26.3	N 10 54.3	−14.1
04	288 26.8	−26.2	N 10 40.2	−14.2
05	303 00.6	−26.2	N 10 26.0	−14.2
06	317 34.4	−26.1	N 10 11.8	−14.2
07	332 08.3	−26.0	N 09 57.6	−14.3
08	346 42.3	−26.0	N 09 43.3	−14.3
09	1 16.3	−25.9	N 09 29.0	−14.3
10	15 50.4	−25.9	N 09 14.7	−14.4
11	30 24.5	−25.8	N 09 00.3	−14.3
12	44 58.7	−25.7	N 08 46.0	−14.4
13	59 33.0	−25.7	N 08 31.6	−14.5
14	74 07.3	−25.7	N 08 17.1	−14.4
15	88 41.6	−25.6	N 08 02.7	−14.5
16	103 16.0	−25.5	N 07 48.2	−14.5
17	117 50.5	−25.5	N 07 33.7	−14.5
18	132 25.0	−25.4	N 07 19.2	−14.5
19	146 59.6	−25.4	N 07 04.7	−14.5
20	161 34.2	−25.4	N 06 50.2	−14.6
21	176 08.8	−25.3	N 06 35.6	−14.6
22	190 43.5	−25.2	N 06 21.0	−14.6
23	205 18.3	−25.3	N 06 06.4	−14.6

UT	02	06	10	14	18	22
SD	15′2	15′2	15′2	15′2	15′1	15′1
HP	55′9	55′8	55′7	55′7	55′6	55′5
SHA	203°	202°	200°	198°	196°	194°

Greenwich Culmination Time: 08:54

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	161 24.1	+00.7	S 17 06.9	+00.5
01	176 24.8	+00.7	S 17 07.4	+00.6
02	191 25.5	+00.7	S 17 08.0	+00.5
03	206 26.2	+00.7	S 17 08.5	+00.5
04	221 26.9	+00.8	S 17 09.0	+00.5
05	236 27.7	+00.7	S 17 09.5	+00.5
06	251 28.4	+00.7	S 17 10.0	+00.6
07	266 29.1	+00.7	S 17 10.6	+00.5
08	281 29.8	+00.8	S 17 11.1	+00.5
09	296 30.6	+00.7	S 17 11.6	+00.5
10	311 31.3	+00.7	S 17 12.1	+00.5
11	326 32.0	+00.7	S 17 12.6	+00.5
12	341 32.7	+00.7	S 17 13.1	+00.6
13	356 33.4	+00.7	S 17 13.7	+00.5
14	11 34.1	+00.8	S 17 14.2	+00.5
15	26 34.9	+00.7	S 17 14.7	+00.5
16	41 35.6	+00.7	S 17 15.2	+00.5
17	56 36.3	+00.7	S 17 15.7	+00.5
18	71 37.0	+00.7	S 17 16.2	+00.6
19	86 37.7	+00.8	S 17 16.8	+00.5
20	101 38.5	+00.7	S 17 17.3	+00.5
21	116 39.2	+00.7	S 17 17.8	+00.5
22	131 39.9	+00.7	S 17 18.3	+00.5
23	146 40.6	+00.7	S 17 18.8	+00.5

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	136°	135°	135°	135°	135°	135°

Greenwich Culmination Time: 13:13

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	269 45.5	+02.2	N 21 20.6	+00.0
01	284 47.7	+02.3	N 21 20.6	−00.1
02	299 50.0	+02.2	N 21 20.5	+00.0
03	314 52.2	+02.3	N 21 20.5	+00.0
04	329 54.5	+02.2	N 21 20.5	−00.1
05	344 56.7	+02.3	N 21 20.4	+00.0
06	359 59.0	+02.2	N 21 20.4	+00.0
07	15 01.2	+02.3	N 21 20.4	+00.0
08	30 03.5	+02.2	N 21 20.4	−00.1
09	45 05.7	+02.3	N 21 20.3	+00.0
10	60 08.0	+02.2	N 21 20.3	+00.0
11	75 10.2	+02.3	N 21 20.3	−00.1
12	90 12.5	+02.3	N 21 20.2	+00.0
13	105 14.8	+02.2	N 21 20.2	+00.0
14	120 17.0	+02.3	N 21 20.2	−00.1
15	135 19.3	+02.2	N 21 20.1	+00.0
16	150 21.5	+02.3	N 21 20.1	+00.0
17	165 23.8	+02.2	N 21 20.1	+00.0
18	180 26.0	+02.3	N 21 20.1	−00.1
19	195 28.3	+02.2	N 21 20.0	+00.0
20	210 30.5	+02.3	N 21 20.0	+00.0
21	225 32.8	+02.3	N 21 20.0	−00.1
22	240 35.1	+02.2	N 21 19.9	+00.0
23	255 37.3	+02.3	N 21 19.9	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 06:00

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	27 51.3	+02.6	S 03 37.9	+00.1
01	42 53.9	+02.6	S 03 38.0	+00.0
02	57 56.5	+02.6	S 03 38.0	+00.1
03	72 59.1	+02.6	S 03 38.1	+00.0
04	88 01.7	+02.6	S 03 38.1	+00.1
05	103 04.3	+02.7	S 03 38.2	+00.1
06	118 07.0	+02.6	S 03 38.3	+00.0
07	133 09.6	+02.6	S 03 38.3	+00.1
08	148 12.2	+02.6	S 03 38.4	+00.0
09	163 14.8	+02.6	S 03 38.4	+00.1
10	178 17.4	+02.6	S 03 38.5	+00.1
11	193 20.0	+02.6	S 03 38.6	+00.0
12	208 22.6	+02.6	S 03 38.6	+00.1
13	223 25.2	+02.7	S 03 38.7	+00.0
14	238 27.9	+02.6	S 03 38.7	+00.1
15	253 30.5	+02.6	S 03 38.8	+00.1
16	268 33.1	+02.6	S 03 38.9	+00.0
17	283 35.7	+02.6	S 03 38.9	+00.1
18	298 38.3	+02.6	S 03 39.0	+00.0
19	313 40.9	+02.6	S 03 39.0	+00.1
20	328 43.5	+02.6	S 03 39.1	+00.1
21	343 46.1	+02.6	S 03 39.2	+00.0
22	358 48.7	+02.7	S 03 39.2	+00.1
23	13 51.4	+02.6	S 03 39.3	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:04

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2025 October 18 Saturday

(day 291 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 41.9	+00.2	S 09 37.8	+00.9
01	198 42.1	+00.1	S 09 38.7	+00.9
02	213 42.2	+00.1	S 09 39.6	+00.9
03	228 42.3	+00.1	S 09 40.5	+00.9
04	243 42.4	+00.2	S 09 41.4	+00.9
05	258 42.6	+00.1	S 09 42.3	+00.9
06	273 42.7	+00.1	S 09 43.2	+00.9
07	288 42.8	+00.1	S 09 44.1	+00.9
08	303 42.9	+00.1	S 09 45.0	+00.9
09	318 43.0	+00.1	S 09 45.9	+00.9
10	333 43.1	+00.2	S 09 46.8	+00.9
11	348 43.3	+00.1	S 09 47.7	+01.0
12	3 43.4	+00.1	S 09 48.7	+00.9
13	18 43.5	+00.1	S 09 49.6	+00.9
14	33 43.6	+00.1	S 09 50.5	+00.9
15	48 43.7	+00.2	S 09 51.4	+00.9
16	63 43.9	+00.1	S 09 52.3	+00.9
17	78 44.0	+00.1	S 09 53.2	+00.9
18	93 44.1	+00.1	S 09 54.1	+00.9
19	108 44.2	+00.1	S 09 55.0	+00.9
20	123 44.3	+00.1	S 09 55.9	+00.9
21	138 44.4	+00.1	S 09 56.8	+00.9
22	153 44.5	+00.2	S 09 57.7	+00.9
23	168 44.7	+00.1	S 09 58.6	+00.9

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	157°	157°	157°	156°	156°	156°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	201 26.6	-00.4	S 00 37.5	+01.2
01	216 26.2	-00.4	S 00 38.7	+01.3
02	231 25.8	-00.3	S 00 40.0	+01.2
03	246 25.5	-00.4	S 00 41.2	+01.2
04	261 25.1	-00.4	S 00 42.4	+01.2
05	276 24.7	-00.4	S 00 43.6	+01.2
06	291 24.3	-00.4	S 00 44.8	+01.3
07	306 23.9	-00.4	S 00 46.1	+01.2
08	321 23.5	-00.4	S 00 47.3	+01.2
09	336 23.1	-00.4	S 00 48.5	+01.2
10	351 22.7	-00.4	S 00 49.7	+01.3
11	6 22.3	-00.4	S 00 51.0	+01.2
12	21 21.9	-00.4	S 00 52.2	+01.2
13	36 21.5	-00.4	S 00 53.4	+01.2
14	51 21.1	-00.4	S 00 54.6	+01.2
15	66 20.7	-00.4	S 00 55.8	+01.3
16	81 20.3	-00.4	S 00 57.1	+01.2
17	96 19.9	-00.4	S 00 58.3	+01.2
18	111 19.5	-00.4	S 00 59.5	+01.2
19	126 19.1	-00.3	S 01 00.7	+01.3
20	141 18.8	-00.4	S 01 02.0	+01.2
21	156 18.4	-00.4	S 01 03.2	+01.2
22	171 18.0	-00.4	S 01 04.4	+01.2
23	186 17.6	-00.4	S 01 05.6	+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	175°	174°	174°	174°	174°	174°

Greenwich Culmination Time: 10:34

Moon

A: 91%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	219 53.0	-25.1	N 05 51.8	-14.6
01	234 27.9	-25.2	N 05 37.2	-14.6
02	249 02.7	-25.0	N 05 22.6	-14.7
03	263 37.7	-25.1	N 05 07.9	-14.6
04	278 12.6	-25.0	N 04 53.3	-14.7
05	292 47.6	-25.0	N 04 38.6	-14.7
06	307 22.6	-25.0	N 04 23.9	-14.6
07	321 57.6	-24.9	N 04 09.3	-14.7
08	336 32.7	-24.8	N 03 54.6	-14.7
09	351 07.9	-24.9	N 03 39.9	-14.7
10	5 43.0	-24.8	N 03 25.2	-14.7
11	20 18.2	-24.8	N 03 10.5	-14.7
12	34 53.4	-24.8	N 02 55.8	-14.7
13	49 28.6	-24.7	N 02 41.1	-14.7
14	64 03.9	-24.7	N 02 26.4	-14.7
15	78 39.2	-24.7	N 02 11.7	-14.7
16	93 14.5	-24.7	N 01 57.0	-14.8
17	107 49.8	-24.6	N 01 42.2	-14.7
18	122 25.2	-24.6	N 01 27.5	-14.7
19	137 00.6	-24.6	N 01 12.8	-14.6
20	151 36.0	-24.6	N 00 58.2	-14.7
21	166 11.4	-24.6	N 00 43.5	-14.7
22	180 46.8	-24.5	N 00 28.8	-14.7
23	195 22.3	-24.5	N 00 14.1	-14.7

UT	02	06	10	14	18	22
SD	15′1	15′1	15′1	15′0	15′0	15′0
HP	55′4	55′3	55′3	55′2	55′1	55′0
SHA	192°	190°	189°	187°	185°	183°

Greenwich Culmination Time: 09:36

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	161 41.3	+00.7	S 17 19.3	+00.6
01	176 42.0	+00.8	S 17 19.9	+00.5
02	191 42.8	+00.7	S 17 20.4	+00.5
03	206 43.5	+00.7	S 17 20.9	+00.5
04	221 44.2	+00.7	S 17 21.4	+00.5
05	236 44.9	+00.7	S 17 21.9	+00.5
06	251 45.6	+00.7	S 17 22.4	+00.5
07	266 46.3	+00.7	S 17 22.9	+00.6
08	281 47.0	+00.8	S 17 23.5	+00.5
09	296 47.8	+00.7	S 17 24.0	+00.5
10	311 48.5	+00.7	S 17 24.5	+00.5
11	326 49.2	+00.7	S 17 25.0	+00.5
12	341 49.9	+00.7	S 17 25.5	+00.5
13	356 50.6	+00.7	S 17 26.0	+00.5
14	11 51.3	+00.7	S 17 26.5	+00.5
15	26 52.0	+00.7	S 17 27.0	+00.6
16	41 52.7	+00.8	S 17 27.6	+00.5
17	56 53.5	+00.7	S 17 28.1	+00.5
18	71 54.2	+00.7	S 17 28.6	+00.5
19	86 54.9	+00.7	S 17 29.1	+00.5
20	101 55.6	+00.7	S 17 29.6	+00.5
21	116 56.3	+00.7	S 17 30.1	+00.5
22	131 57.0	+00.7	S 17 30.6	+00.5
23	146 57.7	+00.7	S 17 31.1	+00.5

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	135°	135°	135°	135°	134°	134°

Greenwich Culmination Time: 13:12

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	270 39.6	+02.2	N 21 19.9	+00.0
01	285 41.8	+02.3	N 21 19.9	-00.1
02	300 44.1	+02.2	N 21 19.8	+00.0
03	315 46.3	+02.3	N 21 19.8	+00.0
04	330 48.6	+02.3	N 21 19.8	-00.1
05	345 50.9	+02.2	N 21 19.7	+00.0
06	0 53.1	+02.3	N 21 19.7	+00.0
07	15 55.4	+02.2	N 21 19.7	+00.0
08	30 57.6	+02.3	N 21 19.7	-00.1
09	45 59.9	+02.3	N 21 19.6	+00.0
10	61 02.2	+02.2	N 21 19.6	+00.0
11	76 04.4	+02.3	N 21 19.6	-00.1
12	91 06.7	+02.3	N 21 19.5	+00.0
13	106 09.0	+02.2	N 21 19.5	+00.0
14	121 11.2	+02.3	N 21 19.5	+00.0
15	136 13.5	+02.2	N 21 19.5	-00.1
16	151 15.7	+02.3	N 21 19.4	+00.0
17	166 18.0	+02.3	N 21 19.4	+00.0
18	181 20.3	+02.2	N 21 19.4	+00.0
19	196 22.5	+02.3	N 21 19.4	-00.1
20	211 24.8	+02.3	N 21 19.3	+00.0
21	226 27.1	+02.2	N 21 19.3	+00.0
22	241 29.3	+02.3	N 21 19.3	-00.1
23	256 31.6	+02.3	N 21 19.2	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 05:56

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	28 54.0	+02.6	S 03 39.3	+00.1
01	43 56.6	+02.6	S 03 39.4	+00.1
02	58 59.2	+02.6	S 03 39.5	+00.0
03	74 01.8	+02.6	S 03 39.5	+00.1
04	89 04.4	+02.6	S 03 39.6	+00.0
05	104 07.0	+02.6	S 03 39.6	+00.1
06	119 09.6	+02.6	S 03 39.7	+00.0
07	134 12.2	+02.7	S 03 39.7	+00.1
08	149 14.9	+02.6	S 03 39.8	+00.1
09	164 17.5	+02.6	S 03 39.9	+00.0
10	179 20.1	+02.6	S 03 39.9	+00.1
11	194 22.7	+02.6	S 03 40.0	+00.0
12	209 25.3	+02.6	S 03 40.0	+00.1
13	224 27.9	+02.6	S 03 40.1	+00.1
14	239 30.5	+02.6	S 03 40.2	+00.0
15	254 33.1	+02.6	S 03 40.2	+00.1
16	269 35.7	+02.6	S 03 40.3	+00.0
17	284 38.3	+02.6	S 03 40.3	+00.1
18	299 40.9	+02.7	S 03 40.4	+00.0
19	314 43.6	+02.6	S 03 40.4	+00.1
20	329 46.2	+02.6	S 03 40.5	+00.1
21	344 48.8	+02.6	S 03 40.6	+00.0
22	359 51.4	+02.6	S 03 40.6	+00.1
23	14 54.0	+02.6	S 03 40.7	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 22:00

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2025 October 19 Sunday

(day 292 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 44.8	+00.1	S 09 59.5	+00.9	00
01	198 44.9	+00.1	S 10 00.4	+00.9	01
02	213 45.0	+00.1	S 10 01.3	+00.9	02
03	228 45.1	+00.1	S 10 02.2	+00.9	03
04	243 45.2	+00.1	S 10 03.1	+00.9	04
05	258 45.3	+00.2	S 10 04.0	+00.9	05
06	273 45.5	+00.1	S 10 04.9	+00.9	06
07	288 45.6	+00.1	S 10 05.8	+00.9	07
08	303 45.7	+00.1	S 10 06.7	+00.9	08
09	318 45.8	+00.1	S 10 07.6	+00.9	09
10	333 45.9	+00.1	S 10 08.5	+00.9	10
11	348 46.0	+00.1	S 10 09.4	+00.9	11
12	3 46.1	+00.1	S 10 10.3	+00.9	12
13	18 46.2	+00.2	S 10 11.2	+00.9	13
14	33 46.4	+00.1	S 10 12.1	+00.9	14
15	48 46.5	+00.1	S 10 13.0	+00.9	15
16	63 46.6	+00.1	S 10 13.9	+00.9	16
17	78 46.7	+00.1	S 10 14.8	+00.9	17
18	93 46.8	+00.1	S 10 15.7	+00.9	18
19	108 46.9	+00.1	S 10 16.6	+00.9	19
20	123 47.0	+00.1	S 10 17.5	+00.9	20
21	138 47.1	+00.1	S 10 18.4	+00.9	21
22	153 47.2	+00.1	S 10 19.3	+00.9	22
23	168 47.3	+00.2	S 10 20.2	+00.9	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	156°	156°	156°	155°	155°	155°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	201 17.2	−00.4	S 01 06.8	+01.3	00
01	216 16.8	−00.4	S 01 08.1	+01.2	01
02	231 16.4	−00.4	S 01 09.3	+01.2	02
03	246 16.0	−00.4	S 01 10.5	+01.2	03
04	261 15.6	−00.4	S 01 11.7	+01.3	04
05	276 15.2	−00.4	S 01 13.0	+01.2	05
06	291 14.8	−00.4	S 01 14.2	+01.2	06
07	306 14.4	−00.4	S 01 15.4	+01.2	07
08	321 14.0	−00.4	S 01 16.6	+01.2	08
09	336 13.6	−00.4	S 01 17.8	+01.3	09
10	351 13.2	−00.4	S 01 19.1	+01.2	10
11	6 12.8	−00.4	S 01 20.3	+01.2	11
12	21 12.4	−00.4	S 01 21.5	+01.2	12
13	36 12.0	−00.4	S 01 22.7	+01.3	13
14	51 11.6	−00.4	S 01 24.0	+01.2	14
15	66 11.2	−00.4	S 01 25.2	+01.2	15
16	81 10.8	−00.4	S 01 26.4	+01.2	16
17	96 10.4	−00.3	S 01 27.6	+01.3	17
18	111 10.1	−00.4	S 01 28.9	+01.2	18
19	126 09.7	−00.4	S 01 30.1	+01.2	19
20	141 09.3	−00.4	S 01 31.3	+01.2	20
21	156 08.9	−00.4	S 01 32.5	+01.2	21
22	171 08.5	−00.4	S 01 33.7	+01.3	22
23	186 08.1	−00.4	S 01 35.0	+01.2	23

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	173°	173°	173°	173°	173°	173°

Greenwich Culmination Time: 10:35

Moon

A: 94%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	209 57.8	−24.6	S 00 00.6	+14.6	00
01	224 33.2	−24.5	S 00 15.2	+14.7	01
02	239 08.7	−24.4	S 00 29.9	+14.6	02
03	253 44.3	−24.5	S 00 44.5	+14.7	03
04	268 19.8	−24.5	S 00 59.2	+14.6	04
05	282 55.3	−24.5	S 01 13.8	+14.6	05
06	297 30.8	−24.4	S 01 28.4	+14.6	06
07	312 06.4	−24.4	S 01 43.0	+14.6	07
08	326 42.0	−24.5	S 01 57.6	+14.5	08
09	341 17.5	−24.4	S 02 12.1	+14.6	09
10	355 53.1	−24.4	S 02 26.7	+14.5	10
11	10 28.7	−24.5	S 02 41.2	+14.5	11
12	25 04.2	−24.4	S 02 55.7	+14.5	12
13	39 39.8	−24.4	S 03 10.2	+14.5	13
14	54 15.4	−24.4	S 03 24.7	+14.5	14
15	68 51.0	−24.5	S 03 39.2	+14.4	15
16	83 26.5	−24.4	S 03 53.6	+14.4	16
17	98 02.1	−24.4	S 04 08.0	+14.4	17
18	112 37.7	−24.5	S 04 22.4	+14.4	18
19	127 13.2	−24.4	S 04 36.8	+14.4	19
20	141 48.8	−24.5	S 04 51.2	+14.3	20
21	156 24.3	−24.4	S 05 05.5	+14.3	21
22	170 59.9	−24.5	S 05 19.8	+14.2	22
23	185 35.4	−24.5	S 05 34.0	+14.3	23

UT	02	06	10	14	18	22
SD	15′0	15′0	14′9	14′9	14′9	14′9
HP	55′0	54′9	54′8	54′8	54′7	54′7
SHA	181°	180°	178°	176°	174°	172°

Greenwich Culmination Time: 10:16

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	161 58.4	+00.7	S 17 31.6	+00.5	00
01	176 59.1	+00.7	S 17 32.1	+00.6	01
02	191 59.8	+00.7	S 17 32.7	+00.5	02
03	207 00.5	+00.8	S 17 33.2	+00.5	03
04	222 01.3	+00.7	S 17 33.7	+00.5	04
05	237 02.0	+00.7	S 17 34.2	+00.5	05
06	252 02.7	+00.7	S 17 34.7	+00.5	06
07	267 03.4	+00.7	S 17 35.2	+00.5	07
08	282 04.1	+00.7	S 17 35.7	+00.5	08
09	297 04.8	+00.7	S 17 36.2	+00.5	09
10	312 05.5	+00.7	S 17 36.7	+00.5	10
11	327 06.2	+00.7	S 17 37.2	+00.5	11
12	342 06.9	+00.7	S 17 37.7	+00.5	12
13	357 07.6	+00.7	S 17 38.2	+00.6	13
14	12 08.3	+00.7	S 17 38.8	+00.5	14
15	27 09.0	+00.7	S 17 39.3	+00.5	15
16	42 09.7	+00.7	S 17 39.8	+00.5	16
17	57 10.4	+00.7	S 17 40.3	+00.5	17
18	72 11.1	+00.7	S 17 40.8	+00.5	18
19	87 11.8	+00.8	S 17 41.3	+00.5	19
20	102 12.6	+00.7	S 17 41.8	+00.5	20
21	117 13.3	+00.7	S 17 42.3	+00.5	21
22	132 14.0	+00.7	S 17 42.8	+00.5	22
23	147 14.7	+00.7	S 17 43.3	+00.5	23

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	134°	134°	134°	134°	134°	134°

Greenwich Culmination Time: 13:11

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	271 33.9	+02.2	N 21 19.2	+00.0	00
01	286 36.1	+02.3	N 21 19.2	+00.0	01
02	301 38.4	+02.3	N 21 19.2	−00.1	02
03	316 40.7	+02.2	N 21 19.1	+00.0	03
04	331 42.9	+02.3	N 21 19.1	+00.0	04
05	346 45.2	+02.3	N 21 19.1	+00.0	05
06	1 47.5	+02.2	N 21 19.1	−00.1	06
07	16 49.7	+02.3	N 21 19.0	+00.0	07
08	31 52.0	+02.3	N 21 19.0	+00.0	08
09	46 54.3	+02.2	N 21 19.0	−00.1	09
10	61 56.5	+02.3	N 21 18.9	+00.0	10
11	76 58.8	+02.3	N 21 18.9	+00.0	11
12	92 01.1	+02.2	N 21 18.9	+00.0	12
13	107 03.3	+02.3	N 21 18.9	−00.1	13
14	122 05.6	+02.3	N 21 18.8	+00.0	14
15	137 07.9	+02.3	N 21 18.8	+00.0	15
16	152 10.2	+02.2	N 21 18.8	+00.0	16
17	167 12.4	+02.3	N 21 18.8	−00.1	17
18	182 14.7	+02.3	N 21 18.7	+00.0	18
19	197 17.0	+02.2	N 21 18.7	+00.0	19
20	212 19.2	+02.3	N 21 18.7	−00.1	20
21	227 21.5	+02.3	N 21 18.6	+00.0	21
22	242 23.8	+02.3	N 21 18.6	+00.0	22
23	257 26.1	+02.2	N 21 18.6	+00.0	23

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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 05:52

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	29 56.6	+02.6	S 03 40.7	+00.1	00
01	44 59.2	+02.6	S 03 40.8	+00.0	01
02	60 01.8	+02.6	S 03 40.8	+00.1	02
03	75 04.4	+02.6	S 03 40.9	+00.1	03
04	90 07.0	+02.6	S 03 41.0	+00.0	04
05	105 09.6	+02.7	S 03 41.0	+00.1	05
06	120 12.3	+02.6	S 03 41.1	+00.0	06
07	135 14.9	+02.6	S 03 41.1	+00.1	07
08	150 17.5	+02.6	S 03 41.2	+00.1	08
09	165 20.1	+02.6	S 03 41.3	+00.0	09
10	180 22.7	+02.6	S 03 41.3	+00.1	10
11	195 25.3	+02.6	S 03 41.4	+00.0	11
12	210 27.9	+02.6	S 03 41.4	+00.1	12
13	225 30.5	+02.6	S 03 41.5	+00.0	13
14	240 33.1	+02.6	S 03 41.5	+00.1	14
15	255 35.7	+02.6	S 03 41.6	+00.1	15
16	270 38.3	+02.6	S 03 41.7	+00.0	16
17	285 40.9	+02.6	S 03 41.7	+00.1	17
18	300 43.5	+02.6	S 03 41.8	+00.0	18
19	315 46.1	+02.7	S 03 41.8	+00.1	19
20	330 48.8	+02.6	S 03 41.9	+00.0	20
21	345 51.4	+02.6	S 03 41.9	+00.1	21
22	0 54.0	+02.6	S 03 42.0	+00.0	22
23	15 56.6	+02.6	S 03 42.0	+00.1	23

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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 21:56

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2025 October 20 Monday

(day 293 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 47.5	+00.1	S 10 21.1	+00.9
01	198 47.6	+00.1	S 10 22.0	+00.9
02	213 47.7	+00.1	S 10 22.9	+00.9
03	228 47.8	+00.1	S 10 23.8	+00.9
04	243 47.9	+00.1	S 10 24.7	+00.9
05	258 48.0	+00.1	S 10 25.6	+00.9
06	273 48.1	+00.1	S 10 26.5	+00.9
07	288 48.2	+00.1	S 10 27.4	+00.9
08	303 48.3	+00.1	S 10 28.3	+00.9
09	318 48.4	+00.1	S 10 29.2	+00.8
10	333 48.5	+00.1	S 10 30.0	+00.9
11	348 48.6	+00.1	S 10 30.9	+00.9
12	3 48.7	+00.1	S 10 31.8	+00.9
13	18 48.8	+00.1	S 10 32.7	+00.9
14	33 48.9	+00.1	S 10 33.6	+00.9
15	48 49.0	+00.1	S 10 34.5	+00.9
16	63 49.1	+00.1	S 10 35.4	+00.9
17	78 49.2	+00.1	S 10 36.3	+00.9
18	93 49.3	+00.2	S 10 37.2	+00.9
19	108 49.5	+00.1	S 10 38.1	+00.9
20	123 49.6	+00.1	S 10 39.0	+00.9
21	138 49.7	+00.1	S 10 39.9	+00.9
22	153 49.8	+00.1	S 10 40.8	+00.8
23	168 49.9	+00.1	S 10 41.6	+00.9

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	155°	155°	155°	155°	154°	154°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	201 07.7	−00.4	S 01 36.2	+01.2
01	216 07.3	−00.4	S 01 37.4	+01.2
02	231 06.9	−00.4	S 01 38.6	+01.3
03	246 06.5	−00.4	S 01 39.9	+01.2
04	261 06.1	−00.4	S 01 41.1	+01.2
05	276 05.7	−00.4	S 01 42.3	+01.2
06	291 05.3	−00.4	S 01 43.5	+01.2
07	306 04.9	−00.4	S 01 44.7	+01.3
08	321 04.5	−00.4	S 01 46.0	+01.2
09	336 04.1	−00.4	S 01 47.2	+01.2
10	351 03.7	−00.4	S 01 48.4	+01.2
11	6 03.3	−00.4	S 01 49.6	+01.3
12	21 02.9	−00.4	S 01 50.9	+01.2
13	36 02.5	−00.4	S 01 52.1	+01.2
14	51 02.1	−00.4	S 01 53.3	+01.2
15	66 01.7	−00.4	S 01 54.5	+01.3
16	81 01.3	−00.4	S 01 55.8	+01.2
17	96 00.9	−00.4	S 01 57.0	+01.2
18	111 00.5	−00.4	S 01 58.2	+01.2
19	126 00.1	−00.4	S 01 59.4	+01.2
20	140 59.7	−00.4	S 02 00.6	+01.3
21	155 59.3	−00.4	S 02 01.9	+01.2
22	170 58.9	−00.4	S 02 03.1	+01.2
23	185 58.5	−00.4	S 02 04.3	+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	172°	172°	172°	172°	172°	171°

Greenwich Culmination Time: 10:35

Moon

A: 96%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	200 10.9	−24.4	S 05 48.3	+14.2
01	214 46.5	−24.5	S 06 02.5	+14.2
02	229 22.0	−24.5	S 06 16.7	+14.2
03	243 57.5	−24.6	S 06 30.9	+14.1
04	258 32.9	−24.5	S 06 45.0	+14.1
05	273 08.4	−24.6	S 06 59.1	+14.0
06	287 43.8	−24.5	S 07 13.1	+14.1
07	302 19.3	−24.6	S 07 27.2	+14.0
08	316 54.7	−24.6	S 07 41.2	+13.9
09	331 30.1	−24.6	S 07 55.1	+14.0
10	346 05.5	−24.7	S 08 09.1	+13.8
11	0 40.8	−24.6	S 08 22.9	+13.9
12	15 16.2	−24.7	S 08 36.8	+13.8
13	29 51.5	−24.7	S 08 50.6	+13.8
14	44 26.8	−24.7	S 09 04.4	+13.7
15	59 02.1	−24.8	S 09 18.1	+13.7
16	73 37.3	−24.8	S 09 31.8	+13.7
17	88 12.5	−24.8	S 09 45.5	+13.6
18	102 47.7	−24.8	S 09 59.1	+13.6
19	117 22.9	−24.9	S 10 12.7	+13.5
20	131 58.0	−24.9	S 10 26.2	+13.5
21	146 33.1	−24.9	S 10 39.7	+13.4
22	161 08.2	−24.9	S 10 53.1	+13.4
23	175 43.3	−25.0	S 11 06.5	+13.4

UT	02	06	10	14	18	22
SD	14′9	14′9	14′8	14′8	14′8	14′8
HP	54′6	54′6	54′5	54′5	54′4	54′4
SHA	171°	169°	167°	165°	163°	162°

Greenwich Culmination Time: 10:57

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	162 15.4	+00.7	S 17 43.8	+00.5
01	177 16.1	+00.7	S 17 44.3	+00.5
02	192 16.8	+00.7	S 17 44.8	+00.5
03	207 17.5	+00.7	S 17 45.3	+00.5
04	222 18.2	+00.7	S 17 45.8	+00.5
05	237 18.9	+00.7	S 17 46.3	+00.5
06	252 19.6	+00.7	S 17 46.8	+00.5
07	267 20.3	+00.7	S 17 47.3	+00.5
08	282 21.0	+00.7	S 17 47.8	+00.5
09	297 21.7	+00.7	S 17 48.3	+00.5
10	312 22.4	+00.7	S 17 48.8	+00.5
11	327 23.1	+00.7	S 17 49.3	+00.5
12	342 23.8	+00.7	S 17 49.8	+00.5
13	357 24.5	+00.7	S 17 50.3	+00.5
14	12 25.2	+00.7	S 17 50.8	+00.5
15	27 25.9	+00.7	S 17 51.3	+00.5
16	42 26.6	+00.7	S 17 51.8	+00.5
17	57 27.3	+00.7	S 17 52.3	+00.5
18	72 28.0	+00.7	S 17 52.8	+00.5
19	87 28.7	+00.7	S 17 53.3	+00.5
20	102 29.4	+00.7	S 17 53.8	+00.5
21	117 30.1	+00.7	S 17 54.3	+00.5
22	132 30.8	+00.7	S 17 54.8	+00.5
23	147 31.5	+00.7	S 17 55.3	+00.5

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	133°	133°	133°	133°	133°	133°

Greenwich Culmination Time: 13:10

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	272 28.3	+02.3	N 21 18.6	−00.1
01	287 30.6	+02.3	N 21 18.5	+00.0
02	302 32.9	+02.3	N 21 18.5	+00.0
03	317 35.2	+02.2	N 21 18.5	+00.0
04	332 37.4	+02.3	N 21 18.5	−00.1
05	347 39.7	+02.3	N 21 18.4	+00.0
06	2 42.0	+02.3	N 21 18.4	+00.0
07	17 44.3	+02.2	N 21 18.4	+00.0
08	32 46.5	+02.3	N 21 18.4	−00.1
09	47 48.8	+02.3	N 21 18.3	+00.0
10	62 51.1	+02.3	N 21 18.3	+00.0
11	77 53.4	+02.2	N 21 18.3	+00.0
12	92 55.6	+02.3	N 21 18.3	−00.1
13	107 57.9	+02.3	N 21 18.2	+00.0
14	123 00.2	+02.3	N 21 18.2	+00.0
15	138 02.5	+02.2	N 21 18.2	+00.0
16	153 04.7	+02.3	N 21 18.2	−00.1
17	168 07.0	+02.3	N 21 18.1	+00.0
18	183 09.3	+02.3	N 21 18.1	+00.0
19	198 11.6	+02.3	N 21 18.1	+00.0
20	213 13.9	+02.2	N 21 18.1	−00.1
21	228 16.1	+02.3	N 21 18.0	+00.0
22	243 18.4	+02.3	N 21 18.0	+00.0
23	258 20.7	+02.3	N 21 18.0	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 05:49

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	30 59.2	+02.6	S 03 42.1	+00.1
01	46 01.8	+02.6	S 03 42.2	+00.0
02	61 04.4	+02.6	S 03 42.2	+00.1
03	76 07.0	+02.6	S 03 42.3	+00.0
04	91 09.6	+02.6	S 03 42.3	+00.1
05	106 12.2	+02.6	S 03 42.4	+00.0
06	121 14.8	+02.6	S 03 42.4	+00.1
07	136 17.4	+02.6	S 03 42.5	+00.1
08	151 20.0	+02.6	S 03 42.6	+00.0
09	166 22.6	+02.6	S 03 42.6	+00.1
10	181 25.2	+02.6	S 03 42.7	+00.0
11	196 27.8	+02.6	S 03 42.7	+00.1
12	211 30.4	+02.6	S 03 42.8	+00.0
13	226 33.0	+02.6	S 03 42.8	+00.1
14	241 35.6	+02.7	S 03 42.9	+00.0
15	256 38.3	+02.6	S 03 42.9	+00.1
16	271 40.9	+02.6	S 03 43.0	+00.1
17	286 43.5	+02.6	S 03 43.1	+00.0
18	301 46.1	+02.6	S 03 43.1	+00.1
19	316 48.7	+02.6	S 03 43.2	+00.0
20	331 51.3	+02.6	S 03 43.2	+00.1
21	346 53.9	+02.6	S 03 43.3	+00.0
22	1 56.5	+02.6	S 03 43.3	+00.1
23	16 59.1	+02.6	S 03 43.4	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 21:52

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2025 October 21 Tuesday

(day 294 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 50.0	+00.1	S 10 42.5	+00.9
01	198 50.1	+00.1	S 10 43.4	+00.9
02	213 50.2	+00.1	S 10 44.3	+00.9
03	228 50.3	+00.1	S 10 45.2	+00.9
04	243 50.4	+00.1	S 10 46.1	+00.9
05	258 50.5	+00.1	S 10 47.0	+00.9
06	273 50.6	+00.1	S 10 47.9	+00.9
07	288 50.7	+00.1	S 10 48.8	+00.8
08	303 50.8	+00.1	S 10 49.6	+00.9
09	318 50.9	+00.1	S 10 50.5	+00.9
10	333 51.0	+00.1	S 10 51.4	+00.9
11	348 51.1	+00.1	S 10 52.3	+00.9
12	3 51.2	+00.1	S 10 53.2	+00.9
13	18 51.3	+00.0	S 10 54.1	+00.9
14	33 51.3	+00.1	S 10 55.0	+00.9
15	48 51.4	+00.1	S 10 55.9	+00.8
16	63 51.5	+00.1	S 10 56.7	+00.9
17	78 51.6	+00.1	S 10 57.6	+00.9
18	93 51.7	+00.1	S 10 58.5	+00.9
19	108 51.8	+00.1	S 10 59.4	+00.9
20	123 51.9	+00.1	S 11 00.3	+00.9
21	138 52.0	+00.1	S 11 01.2	+00.8
22	153 52.1	+00.1	S 11 02.0	+00.9
23	168 52.2	+00.1	S 11 02.9	+00.9

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	154°	154°	154°	154°	153°	153°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	200 58.1	−00.4	S 02 05.5	+01.3
01	215 57.7	−00.4	S 02 06.8	+01.2
02	230 57.3	−00.4	S 02 08.0	+01.2
03	245 56.9	−00.4	S 02 09.2	+01.2
04	260 56.5	−00.4	S 02 10.4	+01.2
05	275 56.1	−00.4	S 02 11.6	+01.3
06	290 55.7	−00.4	S 02 12.9	+01.2
07	305 55.3	−00.4	S 02 14.1	+01.2
08	320 54.9	−00.4	S 02 15.3	+01.2
09	335 54.5	−00.4	S 02 16.5	+01.3
10	350 54.1	−00.4	S 02 17.8	+01.2
11	5 53.7	−00.4	S 02 19.0	+01.2
12	20 53.3	−00.4	S 02 20.2	+01.2
13	35 52.9	−00.4	S 02 21.4	+01.2
14	50 52.5	−00.4	S 02 22.6	+01.3
15	65 52.1	−00.4	S 02 23.9	+01.2
16	80 51.7	−00.4	S 02 25.1	+01.2
17	95 51.3	−00.4	S 02 26.3	+01.2
18	110 50.9	−00.4	S 02 27.5	+01.3
19	125 50.5	−00.4	S 02 28.8	+01.2
20	140 50.1	−00.4	S 02 30.0	+01.2
21	155 49.7	−00.4	S 02 31.2	+01.2
22	170 49.3	−00.4	S 02 32.4	+01.2
23	185 48.9	−00.4	S 02 33.6	+01.3

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	171°	171°	171°	171°	170°	170°

Greenwich Culmination Time: 10:36

Moon

A: 99%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	190 18.3	−25.0	S 11 19.9	+13.3
01	204 53.3	−25.1	S 11 33.2	+13.2
02	219 28.2	−25.1	S 11 46.4	+13.2
03	234 03.1	−25.1	S 11 59.6	+13.2
04	248 38.0	−25.1	S 12 12.8	+13.1
05	263 12.9	−25.2	S 12 25.9	+13.0
06	277 47.7	−25.2	S 12 38.9	+13.0
07	292 22.5	−25.3	S 12 51.9	+12.9
08	306 57.2	−25.3	S 13 04.8	+12.9
09	321 31.9	−25.3	S 13 17.7	+12.9
10	336 06.6	−25.4	S 13 30.6	+12.7
11	350 41.2	−25.5	S 13 43.3	+12.8
12	5 15.7	−25.4	S 13 56.1	+12.6
13	19 50.3	−25.5	S 14 08.7	+12.6
14	34 24.8	−25.6	S 14 21.3	+12.6
15	48 59.2	−25.6	S 14 33.9	+12.4
16	63 33.6	−25.6	S 14 46.3	+12.5
17	78 08.0	−25.7	S 14 58.8	+12.3
18	92 42.3	−25.7	S 15 11.1	+12.3
19	107 16.6	−25.8	S 15 23.4	+12.3
20	121 50.8	−25.8	S 15 35.7	+12.1
21	136 25.0	−25.9	S 15 47.8	+12.1
22	150 59.1	−25.9	S 15 59.9	+12.1
23	165 33.2	−26.0	S 16 12.0	+12.0

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′7
HP	54′3	54′3	54′2	54′2	54′2	54′1
SHA	160°	158°	156°	154°	152°	150°

Greenwich Culmination Time: 11:38

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	162 32.2	+00.6	S 17 55.8	+00.5
01	177 32.8	+00.7	S 17 56.3	+00.5
02	192 33.5	+00.7	S 17 56.8	+00.5
03	207 34.2	+00.7	S 17 57.3	+00.5
04	222 34.9	+00.7	S 17 57.8	+00.5
05	237 35.6	+00.7	S 17 58.3	+00.5
06	252 36.3	+00.7	S 17 58.8	+00.5
07	267 37.0	+00.7	S 17 59.3	+00.5
08	282 37.7	+00.7	S 17 59.8	+00.5
09	297 38.4	+00.7	S 18 00.3	+00.5
10	312 39.1	+00.7	S 18 00.8	+00.5
11	327 39.8	+00.7	S 18 01.3	+00.5
12	342 40.5	+00.7	S 18 01.8	+00.5
13	357 41.2	+00.7	S 18 02.3	+00.5
14	12 41.9	+00.7	S 18 02.8	+00.5
15	27 42.6	+00.7	S 18 03.3	+00.5
16	42 43.3	+00.6	S 18 03.8	+00.5
17	57 43.9	+00.7	S 18 04.3	+00.5
18	72 44.6	+00.7	S 18 04.8	+00.5
19	87 45.3	+00.7	S 18 05.3	+00.5
20	102 46.0	+00.7	S 18 05.8	+00.5
21	117 46.7	+00.7	S 18 06.3	+00.5
22	132 47.4	+00.7	S 18 06.8	+00.4
23	147 48.1	+00.7	S 18 07.2	+00.5

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	133°	133°	133°	132°	132°	132°

Greenwich Culmination Time: 13:09

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	273 23.0	+02.3	N 21 18.0	−00.1
01	288 25.3	+02.3	N 21 17.9	+00.0
02	303 27.6	+02.2	N 21 17.9	+00.0
03	318 29.8	+02.3	N 21 17.9	+00.0
04	333 32.1	+02.3	N 21 17.9	−00.1
05	348 34.4	+02.3	N 21 17.8	+00.0
06	3 36.7	+02.3	N 21 17.8	+00.0
07	18 39.0	+02.3	N 21 17.8	+00.0
08	33 41.3	+02.2	N 21 17.8	−00.1
09	48 43.5	+02.3	N 21 17.7	+00.0
10	63 45.8	+02.3	N 21 17.7	+00.0
11	78 48.1	+02.3	N 21 17.7	+00.0
12	93 50.4	+02.3	N 21 17.7	−00.1
13	108 52.7	+02.3	N 21 17.6	+00.0
14	123 55.0	+02.2	N 21 17.6	+00.0
15	138 57.2	+02.3	N 21 17.6	+00.0
16	153 59.5	+02.3	N 21 17.6	−00.1
17	169 01.8	+02.3	N 21 17.5	+00.0
18	184 04.1	+02.3	N 21 17.5	+00.0
19	199 06.4	+02.3	N 21 17.5	+00.0
20	214 08.7	+02.3	N 21 17.5	−00.1
21	229 11.0	+02.3	N 21 17.4	+00.0
22	244 13.3	+02.2	N 21 17.4	+00.0
23	259 15.5	+02.3	N 21 17.4	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 05:45

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	32 01.7	+02.6	S 03 43.4	+00.1
01	47 04.3	+02.6	S 03 43.5	+00.1
02	62 06.9	+02.6	S 03 43.6	+00.0
03	77 09.5	+02.6	S 03 43.6	+00.1
04	92 12.1	+02.6	S 03 43.7	+00.0
05	107 14.7	+02.6	S 03 43.7	+00.1
06	122 17.3	+02.6	S 03 43.8	+00.0
07	137 19.9	+02.6	S 03 43.8	+00.1
08	152 22.5	+02.6	S 03 43.9	+00.0
09	167 25.1	+02.6	S 03 43.9	+00.1
10	182 27.7	+02.6	S 03 44.0	+00.0
11	197 30.3	+02.6	S 03 44.0	+00.1
12	212 32.9	+02.6	S 03 44.1	+00.1
13	227 35.5	+02.6	S 03 44.2	+00.0
14	242 38.1	+02.6	S 03 44.2	+00.1
15	257 40.7	+02.6	S 03 44.3	+00.0
16	272 43.3	+02.6	S 03 44.3	+00.1
17	287 45.9	+02.6	S 03 44.4	+00.0
18	302 48.5	+02.6	S 03 44.4	+00.1
19	317 51.1	+02.6	S 03 44.5	+00.0
20	332 53.7	+02.6	S 03 44.5	+00.1
21	347 56.3	+02.6	S 03 44.6	+00.0
22	2 58.9	+02.6	S 03 44.6	+00.1
23	18 01.5	+02.6	S 03 44.7	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 21:48

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2025 October 22 Wednesday

(day 295 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 52.3	+00.1	S 11 03.8	+00.9
01	198 52.4	+00.1	S 11 04.7	+00.9
02	213 52.5	+00.1	S 11 05.6	+00.9
03	228 52.6	+00.1	S 11 06.5	+00.8
04	243 52.7	+00.1	S 11 07.3	+00.9
05	258 52.8	+00.1	S 11 08.2	+00.9
06	273 52.9	+00.1	S 11 09.1	+00.9
07	288 53.0	+00.1	S 11 10.0	+00.9
08	303 53.1	+00.0	S 11 10.9	+00.9
09	318 53.1	+00.1	S 11 11.8	+00.8
10	333 53.2	+00.1	S 11 12.6	+00.9
11	348 53.3	+00.1	S 11 13.5	+00.9
12	3 53.4	+00.1	S 11 14.4	+00.9
13	18 53.5	+00.1	S 11 15.3	+00.9
14	33 53.6	+00.1	S 11 16.2	+00.8
15	48 53.7	+00.1	S 11 17.0	+00.9
16	63 53.8	+00.1	S 11 17.9	+00.9
17	78 53.9	+00.1	S 11 18.8	+00.9
18	93 54.0	+00.0	S 11 19.7	+00.8
19	108 54.0	+00.1	S 11 20.5	+00.9
20	123 54.1	+00.1	S 11 21.4	+00.9
21	138 54.2	+00.1	S 11 22.3	+00.9
22	153 54.3	+00.1	S 11 23.2	+00.9
23	168 54.4	+00.1	S 11 24.1	+00.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	153°	153°	153°	153°	152°	152°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	200 48.5	−00.4	S 02 34.9	+01.2
01	215 48.1	−00.4	S 02 36.1	+01.2
02	230 47.7	−00.4	S 02 37.3	+01.2
03	245 47.3	−00.4	S 02 38.5	+01.2
04	260 46.9	−00.4	S 02 39.7	+01.3
05	275 46.5	−00.4	S 02 41.0	+01.2
06	290 46.1	−00.4	S 02 42.2	+01.2
07	305 45.7	−00.4	S 02 43.4	+01.2
08	320 45.3	−00.4	S 02 44.6	+01.3
09	335 44.9	−00.4	S 02 45.9	+01.2
10	350 44.5	−00.4	S 02 47.1	+01.2
11	5 44.1	−00.4	S 02 48.3	+01.2
12	20 43.7	−00.4	S 02 49.5	+01.2
13	35 43.3	−00.4	S 02 50.7	+01.3
14	50 42.9	−00.4	S 02 52.0	+01.2
15	65 42.5	−00.4	S 02 53.2	+01.2
16	80 42.1	−00.4	S 02 54.4	+01.2
17	95 41.7	−00.5	S 02 55.6	+01.2
18	110 41.2	−00.4	S 02 56.8	+01.3
19	125 40.8	−00.4	S 02 58.1	+01.2
20	140 40.4	−00.4	S 02 59.3	+01.2
21	155 40.0	−00.4	S 03 00.5	+01.2
22	170 39.6	−00.4	S 03 01.7	+01.2
23	185 39.2	−00.4	S 03 02.9	+01.3

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	170°	170°	170°	169°	169°	169°

Greenwich Culmination Time: 10:37

Moon

A: 02%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 07.2	−26.0	S 16 24.0	+11.9
01	194 41.2	−26.1	S 16 35.9	+11.8
02	209 15.1	−26.1	S 16 47.7	+11.8
03	223 49.0	−26.1	S 16 59.5	+11.7
04	238 22.9	−26.3	S 17 11.2	+11.6
05	252 56.6	−26.2	S 17 22.8	+11.5
06	267 30.4	−26.4	S 17 34.3	+11.5
07	282 04.0	−26.4	S 17 45.8	+11.4
08	296 37.6	−26.4	S 17 57.2	+11.4
09	311 11.2	−26.5	S 18 08.6	+11.2
10	325 44.7	−26.5	S 18 19.8	+11.2
11	340 18.2	−26.6	S 18 31.0	+11.1
12	354 51.6	−26.7	S 18 42.1	+11.0
13	9 24.9	−26.7	S 18 53.1	+11.0
14	23 58.2	−26.8	S 19 04.1	+10.9
15	38 31.4	−26.8	S 19 15.0	+10.7
16	53 04.6	−26.9	S 19 25.7	+10.8
17	67 37.7	−26.9	S 19 36.5	+10.6
18	82 10.8	−27.0	S 19 47.1	+10.5
19	96 43.8	−27.1	S 19 57.6	+10.5
20	111 16.7	−27.1	S 20 08.1	+10.4
21	125 49.6	−27.2	S 20 18.5	+10.2
22	140 22.4	−27.3	S 20 28.7	+10.2
23	154 55.1	−27.3	S 20 38.9	+10.2

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	54′1	54′1	54′0	54′0	54′0	54′0
SHA	148°	147°	145°	143°	141°	139°

Greenwich Culmination Time: 12:21

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	162 48.8	+00.7	S 18 07.7	+00.5
01	177 49.5	+00.7	S 18 08.2	+00.5
02	192 50.2	+00.6	S 18 08.7	+00.5
03	207 50.8	+00.7	S 18 09.2	+00.5
04	222 51.5	+00.7	S 18 09.7	+00.5
05	237 52.2	+00.7	S 18 10.2	+00.5
06	252 52.9	+00.7	S 18 10.7	+00.5
07	267 53.6	+00.7	S 18 11.2	+00.5
08	282 54.3	+00.7	S 18 11.7	+00.5
09	297 55.0	+00.7	S 18 12.2	+00.5
10	312 55.7	+00.6	S 18 12.7	+00.4
11	327 56.3	+00.7	S 18 13.1	+00.5
12	342 57.0	+00.7	S 18 13.6	+00.5
13	357 57.7	+00.7	S 18 14.1	+00.5
14	12 58.4	+00.7	S 18 14.6	+00.5
15	27 59.1	+00.7	S 18 15.1	+00.5
16	42 59.8	+00.7	S 18 15.6	+00.5
17	58 00.5	+00.6	S 18 16.1	+00.5
18	73 01.1	+00.7	S 18 16.6	+00.5
19	88 01.8	+00.7	S 18 17.1	+00.4
20	103 02.5	+00.7	S 18 17.5	+00.5
21	118 03.2	+00.7	S 18 18.0	+00.5
22	133 03.9	+00.7	S 18 18.5	+00.5
23	148 04.6	+00.6	S 18 19.0	+00.5

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	132°	132°	132°	132°	132°	131°

Greenwich Culmination Time: 13:08

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	274 17.8	+02.3	N 21 17.4	−00.1
01	289 20.1	+02.3	N 21 17.3	+00.0
02	304 22.4	+02.3	N 21 17.3	+00.0
03	319 24.7	+02.3	N 21 17.3	+00.0
04	334 27.0	+02.3	N 21 17.3	−00.1
05	349 29.3	+02.3	N 21 17.2	+00.0
06	4 31.6	+02.3	N 21 17.2	+00.0
07	19 33.9	+02.3	N 21 17.2	+00.0
08	34 36.2	+02.3	N 21 17.2	+00.0
09	49 38.5	+02.2	N 21 17.2	−00.1
10	64 40.7	+02.3	N 21 17.1	+00.0
11	79 43.0	+02.3	N 21 17.1	+00.0
12	94 45.3	+02.3	N 21 17.1	+00.0
13	109 47.6	+02.3	N 21 17.1	−00.1
14	124 49.9	+02.3	N 21 17.0	+00.0
15	139 52.2	+02.3	N 21 17.0	+00.0
16	154 54.5	+02.3	N 21 17.0	+00.0
17	169 56.8	+02.3	N 21 17.0	−00.1
18	184 59.1	+02.3	N 21 16.9	+00.0
19	200 01.4	+02.3	N 21 16.9	+00.0
20	215 03.7	+02.3	N 21 16.9	+00.0
21	230 06.0	+02.3	N 21 16.9	+00.0
22	245 08.3	+02.3	N 21 16.9	−00.1
23	260 10.6	+02.3	N 21 16.8	+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	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 05:41

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	33 04.1	+02.6	S 03 44.8	+00.0
01	48 06.7	+02.6	S 03 44.8	+00.1
02	63 09.3	+02.6	S 03 44.9	+00.0
03	78 11.9	+02.6	S 03 44.9	+00.1
04	93 14.5	+02.6	S 03 45.0	+00.0
05	108 17.1	+02.6	S 03 45.0	+00.1
06	123 19.7	+02.6	S 03 45.1	+00.0
07	138 22.3	+02.6	S 03 45.1	+00.1
08	153 24.9	+02.6	S 03 45.2	+00.0
09	168 27.5	+02.6	S 03 45.2	+00.1
10	183 30.1	+02.6	S 03 45.3	+00.0
11	198 32.7	+02.6	S 03 45.3	+00.1
12	213 35.3	+02.6	S 03 45.4	+00.0
13	228 37.9	+02.6	S 03 45.4	+00.1
14	243 40.5	+02.6	S 03 45.5	+00.1
15	258 43.1	+02.6	S 03 45.6	+00.0
16	273 45.7	+02.6	S 03 45.6	+00.1
17	288 48.3	+02.6	S 03 45.7	+00.0
18	303 50.9	+02.6	S 03 45.7	+00.1
19	318 53.5	+02.6	S 03 45.8	+00.0
20	333 56.1	+02.6	S 03 45.8	+00.1
21	348 58.7	+02.6	S 03 45.9	+00.0
22	4 01.3	+02.6	S 03 45.9	+00.1
23	19 03.9	+02.6	S 03 46.0	+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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 21:43

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 October 23 Thursday

(day 296 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 54.5	+00.1	S 11 24.9	+00.9	00
01	198 54.6	+00.1	S 11 25.8	+00.9	01
02	213 54.7	+00.0	S 11 26.7	+00.9	02
03	228 54.7	+00.1	S 11 27.6	+00.8	03
04	243 54.8	+00.1	S 11 28.4	+00.9	04
05	258 54.9	+00.1	S 11 29.3	+00.9	05
06	273 55.0	+00.1	S 11 30.2	+00.9	06
07	288 55.1	+00.1	S 11 31.1	+00.8	07
08	303 55.2	+00.1	S 11 31.9	+00.9	08
09	318 55.3	+00.0	S 11 32.8	+00.9	09
10	333 55.3	+00.1	S 11 33.7	+00.9	10
11	348 55.4	+00.1	S 11 34.6	+00.8	11
12	3 55.5	+00.1	S 11 35.4	+00.9	12
13	18 55.6	+00.1	S 11 36.3	+00.9	13
14	33 55.7	+00.1	S 11 37.2	+00.8	14
15	48 55.8	+00.0	S 11 38.0	+00.9	15
16	63 55.8	+00.1	S 11 38.9	+00.9	16
17	78 55.9	+00.1	S 11 39.8	+00.9	17
18	93 56.0	+00.1	S 11 40.7	+00.8	18
19	108 56.1	+00.1	S 11 41.5	+00.9	19
20	123 56.2	+00.0	S 11 42.4	+00.9	20
21	138 56.2	+00.1	S 11 43.3	+00.8	21
22	153 56.3	+00.1	S 11 44.1	+00.9	22
23	168 56.4	+00.1	S 11 45.0	+00.9	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	152°	152°	152°	152°	152°	151°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	200 38.8	−00.4	S 03 04.2	+01.2	00
01	215 38.4	−00.4	S 03 05.4	+01.2	01
02	230 38.0	−00.4	S 03 06.6	+01.2	02
03	245 37.6	−00.4	S 03 07.8	+01.2	03
04	260 37.2	−00.4	S 03 09.0	+01.3	04
05	275 36.8	−00.4	S 03 10.3	+01.2	05
06	290 36.4	−00.4	S 03 11.5	+01.2	06
07	305 36.0	−00.4	S 03 12.7	+01.2	07
08	320 35.6	−00.4	S 03 13.9	+01.2	08
09	335 35.2	−00.4	S 03 15.1	+01.3	09
10	350 34.8	−00.4	S 03 16.4	+01.2	10
11	5 34.4	−00.5	S 03 17.6	+01.2	11
12	20 33.9	−00.4	S 03 18.8	+01.2	12
13	35 33.5	−00.4	S 03 20.0	+01.2	13
14	50 33.1	−00.4	S 03 21.2	+01.3	14
15	65 32.7	−00.4	S 03 22.5	+01.2	15
16	80 32.3	−00.4	S 03 23.7	+01.2	16
17	95 31.9	−00.4	S 03 24.9	+01.2	17
18	110 31.5	−00.4	S 03 26.1	+01.2	18
19	125 31.1	−00.4	S 03 27.3	+01.3	19
20	140 30.7	−00.4	S 03 28.6	+01.2	20
21	155 30.3	−00.4	S 03 29.8	+01.2	21
22	170 29.9	−00.4	S 03 31.0	+01.2	22
23	185 29.5	−00.4	S 03 32.2	+01.2	23

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	169°	169°	169°	168°	168°	168°

Greenwich Culmination Time: 10:37

Moon

A: 05%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	169 27.8	−27.3	S 20 49.1	+10.0	00
01	184 00.5	−27.4	S 20 59.1	+09.9	01
02	198 33.1	−27.5	S 21 09.0	+09.9	02
03	213 05.6	−27.6	S 21 18.9	+09.7	03
04	227 38.0	−27.6	S 21 28.6	+09.7	04
05	242 10.4	−27.7	S 21 38.3	+09.6	05
06	256 42.7	−27.7	S 21 47.9	+09.4	06
07	271 15.0	−27.8	S 21 57.3	+09.4	07
08	285 47.2	−27.8	S 22 06.7	+09.3	08
09	300 19.4	−28.0	S 22 16.0	+09.2	09
10	314 51.4	−27.9	S 22 25.2	+09.1	10
11	329 23.5	−28.1	S 22 34.3	+09.0	11
12	343 55.4	−28.1	S 22 43.3	+08.9	12
13	358 27.3	−28.2	S 22 52.2	+08.8	13
14	12 59.1	−28.2	S 23 01.0	+08.7	14
15	27 30.9	−28.3	S 23 09.7	+08.6	15
16	42 02.6	−28.3	S 23 18.3	+08.5	16
17	56 34.3	−28.4	S 23 26.8	+08.4	17
18	71 05.9	−28.5	S 23 35.2	+08.3	18
19	85 37.4	−28.6	S 23 43.5	+08.2	19
20	100 08.8	−28.6	S 23 51.7	+08.1	20
21	114 40.2	−28.6	S 23 59.8	+08.0	21
22	129 11.6	−28.8	S 24 07.8	+07.9	22
23	143 42.8	−28.8	S 24 15.7	+07.7	23

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	54′0	53′9	53′9	53′9	53′9	53′9
SHA	137°	135°	133°	131°	129°	127°

Greenwich Culmination Time: 13:06

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	163 05.2	+00.7	S 18 19.5	+00.5	00
01	178 05.9	+00.7	S 18 20.0	+00.5	01
02	193 06.6	+00.7	S 18 20.5	+00.5	02
03	208 07.3	+00.7	S 18 21.0	+00.4	03
04	223 08.0	+00.7	S 18 21.4	+00.5	04
05	238 08.7	+00.6	S 18 21.9	+00.5	05
06	253 09.3	+00.7	S 18 22.4	+00.5	06
07	268 10.0	+00.7	S 18 22.9	+00.5	07
08	283 10.7	+00.7	S 18 23.4	+00.5	08
09	298 11.4	+00.7	S 18 23.9	+00.5	09
10	313 12.1	+00.6	S 18 24.4	+00.4	10
11	328 12.7	+00.7	S 18 24.8	+00.5	11
12	343 13.4	+00.7	S 18 25.3	+00.5	12
13	358 14.1	+00.7	S 18 25.8	+00.5	13
14	13 14.8	+00.7	S 18 26.3	+00.5	14
15	28 15.5	+00.6	S 18 26.8	+00.5	15
16	43 16.1	+00.7	S 18 27.3	+00.4	16
17	58 16.8	+00.7	S 18 27.7	+00.5	17
18	73 17.5	+00.7	S 18 28.2	+00.5	18
19	88 18.2	+00.6	S 18 28.7	+00.5	19
20	103 18.8	+00.7	S 18 29.2	+00.5	20
21	118 19.5	+00.7	S 18 29.7	+00.5	21
22	133 20.2	+00.7	S 18 30.2	+00.4	22
23	148 20.9	+00.7	S 18 30.6	+00.5	23

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	131°	131°	131°	131°	131°	131°

Greenwich Culmination Time: 13:07

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	275 12.9	+02.3	N 21 16.8	+00.0	00
01	290 15.2	+02.3	N 21 16.8	+00.0	01
02	305 17.5	+02.3	N 21 16.8	−00.1	02
03	320 19.8	+02.3	N 21 16.7	+00.0	03
04	335 22.1	+02.3	N 21 16.7	+00.0	04
05	350 24.4	+02.3	N 21 16.7	+00.0	05
06	5 26.7	+02.3	N 21 16.7	+00.0	06
07	20 29.0	+02.3	N 21 16.7	−00.1	07
08	35 31.3	+02.3	N 21 16.6	+00.0	08
09	50 33.6	+02.3	N 21 16.6	+00.0	09
10	65 35.9	+02.3	N 21 16.6	+00.0	10
11	80 38.2	+02.3	N 21 16.6	−00.1	11
12	95 40.5	+02.3	N 21 16.5	+00.0	12
13	110 42.8	+02.3	N 21 16.5	+00.0	13
14	125 45.1	+02.3	N 21 16.5	+00.0	14
15	140 47.4	+02.3	N 21 16.5	+00.0	15
16	155 49.7	+02.3	N 21 16.5	−00.1	16
17	170 52.0	+02.3	N 21 16.4	+00.0	17
18	185 54.3	+02.3	N 21 16.4	+00.0	18
19	200 56.6	+02.3	N 21 16.4	+00.0	19
20	215 58.9	+02.3	N 21 16.4	−00.1	20
21	231 01.2	+02.3	N 21 16.3	+00.0	21
22	246 03.5	+02.3	N 21 16.3	+00.0	22
23	261 05.8	+02.3	N 21 16.3	+00.0	23

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	244°	244°	244°	244°	243°	243°

Greenwich Culmination Time: 05:38

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	34 06.5	+02.6	S 03 46.0	+00.1	00
01	49 09.1	+02.6	S 03 46.1	+00.0	01
02	64 11.7	+02.6	S 03 46.1	+00.1	02
03	79 14.3	+02.6	S 03 46.2	+00.0	03
04	94 16.9	+02.6	S 03 46.2	+00.1	04
05	109 19.5	+02.6	S 03 46.3	+00.0	05
06	124 22.1	+02.6	S 03 46.3	+00.1	06
07	139 24.7	+02.6	S 03 46.4	+00.0	07
08	154 27.3	+02.6	S 03 46.4	+00.1	08
09	169 29.9	+02.6	S 03 46.5	+00.0	09
10	184 32.5	+02.6	S 03 46.5	+00.1	10
11	199 35.1	+02.6	S 03 46.6	+00.1	11
12	214 37.7	+02.6	S 03 46.7	+00.0	12
13	229 40.3	+02.6	S 03 46.7	+00.1	13
14	244 42.9	+02.6	S 03 46.8	+00.0	14
15	259 45.5	+02.6	S 03 46.8	+00.1	15
16	274 48.1	+02.6	S 03 46.9	+00.0	16
17	289 50.7	+02.6	S 03 46.9	+00.1	17
18	304 53.3	+02.6	S 03 47.0	+00.0	18
19	319 55.9	+02.6	S 03 47.0	+00.1	19
20	334 58.5	+02.6	S 03 47.1	+00.0	20
21	350 01.1	+02.6	S 03 47.1	+00.1	21
22	5 03.7	+02.6	S 03 47.2	+00.0	22
23	20 06.3	+02.6	S 03 47.2	+00.1	23

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	002°	002°	002°	002°	002°	002°

Greenwich Culmination Time: 21:39

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 October 24 Friday

(day 297 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 56.5	+00.1	S 11 45.9	+00.8
01	198 56.6	+00.0	S 11 46.7	+00.9
02	213 56.6	+00.1	S 11 47.6	+00.9
03	228 56.7	+00.1	S 11 48.5	+00.8
04	243 56.8	+00.1	S 11 49.3	+00.9
05	258 56.9	+00.1	S 11 50.2	+00.9
06	273 57.0	+00.0	S 11 51.1	+00.8
07	288 57.0	+00.1	S 11 51.9	+00.9
08	303 57.1	+00.1	S 11 52.8	+00.9
09	318 57.2	+00.1	S 11 53.7	+00.8
10	333 57.3	+00.0	S 11 54.5	+00.9
11	348 57.3	+00.1	S 11 55.4	+00.9
12	3 57.4	+00.1	S 11 56.3	+00.8
13	18 57.5	+00.1	S 11 57.1	+00.9
14	33 57.6	+00.1	S 11 58.0	+00.9
15	48 57.7	+00.0	S 11 58.9	+00.8
16	63 57.7	+00.1	S 11 59.7	+00.9
17	78 57.8	+00.1	S 12 00.6	+00.9
18	93 57.9	+00.1	S 12 01.5	+00.8
19	108 58.0	+00.0	S 12 02.3	+00.9
20	123 58.0	+00.1	S 12 03.2	+00.9
21	138 58.1	+00.1	S 12 04.1	+00.8
22	153 58.2	+00.0	S 12 04.9	+00.9
23	168 58.2	+00.1	S 12 05.8	+00.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	151°	151°	151°	151°	151°	150°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	200 29.1	−00.5	S 03 33.4	+01.2
01	215 28.6	−00.4	S 03 34.6	+01.3
02	230 28.2	−00.4	S 03 35.9	+01.2
03	245 27.8	−00.4	S 03 37.1	+01.2
04	260 27.4	−00.4	S 03 38.3	+01.2
05	275 27.0	−00.4	S 03 39.5	+01.2
06	290 26.6	−00.4	S 03 40.7	+01.3
07	305 26.2	−00.4	S 03 42.0	+01.2
08	320 25.8	−00.4	S 03 43.2	+01.2
09	335 25.4	−00.4	S 03 44.4	+01.2
10	350 25.0	−00.4	S 03 45.6	+01.2
11	5 24.6	−00.5	S 03 46.8	+01.2
12	20 24.1	−00.4	S 03 48.0	+01.3
13	35 23.7	−00.4	S 03 49.3	+01.2
14	50 23.3	−00.4	S 03 50.5	+01.2
15	65 22.9	−00.4	S 03 51.7	+01.2
16	80 22.5	−00.4	S 03 52.9	+01.2
17	95 22.1	−00.4	S 03 54.1	+01.2
18	110 21.7	−00.4	S 03 55.3	+01.3
19	125 21.3	−00.4	S 03 56.6	+01.2
20	140 20.9	−00.5	S 03 57.8	+01.2
21	155 20.4	−00.4	S 03 59.0	+01.2
22	170 20.0	−00.4	S 04 00.2	+01.2
23	185 19.6	−00.4	S 04 01.4	+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	168°	168°	167°	167°	167°	167°

Greenwich Culmination Time: 10:38

Moon

A: 08%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	158 14.0	−28.8	S 24 23.4	+07.7
01	172 45.2	−28.9	S 24 31.1	+07.6
02	187 16.3	−29.0	S 24 38.7	+07.4
03	201 47.3	−29.0	S 24 46.1	+07.3
04	216 18.3	−29.1	S 24 53.4	+07.3
05	230 49.2	−29.2	S 25 00.7	+07.1
06	245 20.0	−29.2	S 25 07.8	+07.0
07	259 50.8	−29.3	S 25 14.8	+06.8
08	274 21.5	−29.3	S 25 21.6	+06.8
09	288 52.2	−29.4	S 25 28.4	+06.7
10	303 22.8	−29.5	S 25 35.1	+06.5
11	317 53.3	−29.5	S 25 41.6	+06.4
12	332 23.8	−29.5	S 25 48.0	+06.3
13	346 54.3	−29.7	S 25 54.3	+06.2
14	1 24.6	−29.6	S 26 00.5	+06.1
15	15 55.0	−29.8	S 26 06.6	+05.9
16	30 25.2	−29.8	S 26 12.5	+05.9
17	44 55.4	−29.8	S 26 18.4	+05.7
18	59 25.6	−29.9	S 26 24.1	+05.6
19	73 55.7	−30.0	S 26 29.7	+05.5
20	88 25.7	−30.0	S 26 35.2	+05.3
21	102 55.7	−30.0	S 26 40.5	+05.2
22	117 25.7	−30.2	S 26 45.7	+05.1
23	131 55.5	−30.1	S 26 50.8	+05.0

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	53′9	53′9	53′9	53′9	54′0	54′0
SHA	125°	122°	120°	118°	116°	114°

Greenwich Culmination Time: 13:54

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	163 21.6	+00.6	S 18 31.1	+00.5
01	178 22.2	+00.7	S 18 31.6	+00.5
02	193 22.9	+00.7	S 18 32.1	+00.5
03	208 23.6	+00.7	S 18 32.6	+00.4
04	223 24.3	+00.6	S 18 33.0	+00.5
05	238 24.9	+00.7	S 18 33.5	+00.5
06	253 25.6	+00.7	S 18 34.0	+00.5
07	268 26.3	+00.7	S 18 34.5	+00.5
08	283 27.0	+00.6	S 18 35.0	+00.4
09	298 27.6	+00.7	S 18 35.4	+00.5
10	313 28.3	+00.7	S 18 35.9	+00.5
11	328 29.0	+00.6	S 18 36.4	+00.5
12	343 29.6	+00.7	S 18 36.9	+00.4
13	358 30.3	+00.7	S 18 37.3	+00.5
14	13 31.0	+00.7	S 18 37.8	+00.5
15	28 31.7	+00.6	S 18 38.3	+00.5
16	43 32.3	+00.7	S 18 38.8	+00.5
17	58 33.0	+00.7	S 18 39.3	+00.4
18	73 33.7	+00.7	S 18 39.7	+00.5
19	88 34.4	+00.6	S 18 40.2	+00.5
20	103 35.0	+00.7	S 18 40.7	+00.5
21	118 35.7	+00.7	S 18 41.2	+00.4
22	133 36.4	+00.6	S 18 41.6	+00.5
23	148 37.0	+00.7	S 18 42.1	+00.5

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	131°	131°	130°	130°	130°	130°

Greenwich Culmination Time: 13:05

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	276 08.1	+02.3	N 21 16.3	+00.0
01	291 10.4	+02.3	N 21 16.3	−00.1
02	306 12.7	+02.3	N 21 16.2	+00.0
03	321 15.0	+02.3	N 21 16.2	+00.0
04	336 17.3	+02.3	N 21 16.2	+00.0
05	351 19.6	+02.3	N 21 16.2	+00.0
06	6 21.9	+02.3	N 21 16.2	−00.1
07	21 24.2	+02.4	N 21 16.1	+00.0
08	36 26.6	+02.3	N 21 16.1	+00.0
09	51 28.9	+02.3	N 21 16.1	+00.0
10	66 31.2	+02.3	N 21 16.1	+00.0
11	81 33.5	+02.3	N 21 16.1	−00.1
12	96 35.8	+02.3	N 21 16.0	+00.0
13	111 38.1	+02.3	N 21 16.0	+00.0
14	126 40.4	+02.3	N 21 16.0	+00.0
15	141 42.7	+02.3	N 21 16.0	+00.0
16	156 45.0	+02.3	N 21 16.0	−00.1
17	171 47.3	+02.4	N 21 15.9	+00.0
18	186 49.7	+02.3	N 21 15.9	+00.0
19	201 52.0	+02.3	N 21 15.9	+00.0
20	216 54.3	+02.3	N 21 15.9	−00.1
21	231 56.6	+02.3	N 21 15.8	+00.0
22	246 58.9	+02.3	N 21 15.8	+00.0
23	262 01.2	+02.3	N 21 15.8	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:34

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	35 08.9	+02.6	S 03 47.3	+00.0
01	50 11.5	+02.5	S 03 47.3	+00.1
02	65 14.0	+02.6	S 03 47.4	+00.0
03	80 16.6	+02.6	S 03 47.4	+00.1
04	95 19.2	+02.6	S 03 47.5	+00.0
05	110 21.8	+02.6	S 03 47.5	+00.1
06	125 24.4	+02.6	S 03 47.6	+00.0
07	140 27.0	+02.6	S 03 47.6	+00.1
08	155 29.6	+02.6	S 03 47.7	+00.0
09	170 32.2	+02.6	S 03 47.7	+00.1
10	185 34.8	+02.6	S 03 47.8	+00.0
11	200 37.4	+02.6	S 03 47.8	+00.1
12	215 40.0	+02.6	S 03 47.9	+00.0
13	230 42.6	+02.6	S 03 47.9	+00.1
14	245 45.2	+02.6	S 03 48.0	+00.0
15	260 47.8	+02.6	S 03 48.0	+00.1
16	275 50.4	+02.6	S 03 48.1	+00.0
17	290 53.0	+02.6	S 03 48.1	+00.1
18	305 55.6	+02.5	S 03 48.2	+00.0
19	320 58.1	+02.6	S 03 48.2	+00.1
20	336 00.7	+02.6	S 03 48.3	+00.0
21	351 03.3	+02.6	S 03 48.3	+00.1
22	6 05.9	+02.6	S 03 48.4	+00.0
23	21 08.5	+02.6	S 03 48.4	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:35

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 October 25 Saturday

(day 298 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 58.3	+00.1	S 12 06.6	+00.9
01	198 58.4	+00.1	S 12 07.5	+00.9
02	213 58.5	+00.0	S 12 08.4	+00.8
03	228 58.5	+00.1	S 12 09.2	+00.9
04	243 58.6	+00.1	S 12 10.1	+00.8
05	258 58.7	+00.0	S 12 10.9	+00.9
06	273 58.7	+00.1	S 12 11.8	+00.9
07	288 58.8	+00.1	S 12 12.7	+00.8
08	303 58.9	+00.1	S 12 13.5	+00.9
09	318 59.0	+00.0	S 12 14.4	+00.8
10	333 59.0	+00.1	S 12 15.2	+00.9
11	348 59.1	+00.1	S 12 16.1	+00.8
12	3 59.2	+00.0	S 12 16.9	+00.9
13	18 59.2	+00.1	S 12 17.8	+00.9
14	33 59.3	+00.1	S 12 18.7	+00.8
15	48 59.4	+00.0	S 12 19.5	+00.9
16	63 59.4	+00.1	S 12 20.4	+00.8
17	78 59.5	+00.1	S 12 21.2	+00.9
18	93 59.6	+00.0	S 12 22.1	+00.8
19	108 59.6	+00.1	S 12 22.9	+00.9
20	123 59.7	+00.1	S 12 23.8	+00.9
21	138 59.8	+00.0	S 12 24.7	+00.8
22	153 59.8	+00.1	S 12 25.5	+00.9
23	168 59.9	+00.1	S 12 26.4	+00.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	150°	150°	150°	150°	150°	149°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	200 19.2	−00.4	S 04 02.6	+01.3
01	215 18.8	−00.4	S 04 03.9	+01.2
02	230 18.4	−00.4	S 04 05.1	+01.2
03	245 18.0	−00.4	S 04 06.3	+01.2
04	260 17.6	−00.5	S 04 07.5	+01.2
05	275 17.1	−00.4	S 04 08.7	+01.2
06	290 16.7	−00.4	S 04 09.9	+01.3
07	305 16.3	−00.4	S 04 11.2	+01.2
08	320 15.9	−00.4	S 04 12.4	+01.2
09	335 15.5	−00.4	S 04 13.6	+01.2
10	350 15.1	−00.4	S 04 14.8	+01.2
11	5 14.7	−00.5	S 04 16.0	+01.2
12	20 14.2	−00.4	S 04 17.2	+01.2
13	35 13.8	−00.4	S 04 18.4	+01.3
14	50 13.4	−00.4	S 04 19.7	+01.2
15	65 13.0	−00.4	S 04 20.9	+01.2
16	80 12.6	−00.4	S 04 22.1	+01.2
17	95 12.2	−00.5	S 04 23.3	+01.2
18	110 11.7	−00.4	S 04 24.5	+01.2
19	125 11.3	−00.4	S 04 25.7	+01.2
20	140 10.9	−00.4	S 04 26.9	+01.3
21	155 10.5	−00.4	S 04 28.2	+01.2
22	170 10.1	−00.4	S 04 29.4	+01.2
23	185 09.7	−00.5	S 04 30.6	+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	167°	166°	166°	166°	166°	166°

Greenwich Culmination Time: 10:39

Moon

A: 12%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	146 25.4	−30.2	S 26 55.8	+04.8
01	160 55.2	−30.3	S 27 00.6	+04.8
02	175 24.9	−30.3	S 27 05.4	+04.6
03	189 54.6	−30.4	S 27 10.0	+04.4
04	204 24.2	−30.4	S 27 14.4	+04.4
05	218 53.8	−30.4	S 27 18.8	+04.2
06	233 23.4	−30.5	S 27 23.0	+04.1
07	247 52.9	−30.6	S 27 27.1	+03.9
08	262 22.3	−30.6	S 27 31.0	+03.9
09	276 51.7	−30.6	S 27 34.9	+03.7
10	291 21.1	−30.7	S 27 38.6	+03.5
11	305 50.4	−30.7	S 27 42.1	+03.5
12	320 19.7	−30.8	S 27 45.6	+03.3
13	334 48.9	−30.8	S 27 48.9	+03.1
14	349 18.1	−30.8	S 27 52.0	+03.1
15	3 47.3	−30.9	S 27 55.1	+02.9
16	18 16.4	−30.9	S 27 58.0	+02.8
17	32 45.5	−30.9	S 28 00.8	+02.6
18	47 14.6	−31.0	S 28 03.4	+02.5
19	61 43.6	−31.0	S 28 05.9	+02.4
20	76 12.6	−31.1	S 28 08.3	+02.2
21	90 41.5	−31.0	S 28 10.5	+02.1
22	105 10.5	−31.2	S 28 12.6	+01.9
23	119 39.3	−31.1	S 28 14.5	+01.9

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′8
HP	54′0	54′0	54′0	54′1	54′1	54′1
SHA	112°	110°	107°	105°	103°	101°

Greenwich Culmination Time: 14:44

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	163 37.7	+00.7	S 18 42.6	+00.5
01	178 38.4	+00.6	S 18 43.1	+00.4
02	193 39.0	+00.7	S 18 43.5	+00.5
03	208 39.7	+00.7	S 18 44.0	+00.5
04	223 40.4	+00.6	S 18 44.5	+00.5
05	238 41.0	+00.7	S 18 45.0	+00.4
06	253 41.7	+00.7	S 18 45.4	+00.5
07	268 42.4	+00.7	S 18 45.9	+00.5
08	283 43.1	+00.6	S 18 46.4	+00.5
09	298 43.7	+00.7	S 18 46.9	+00.4
10	313 44.4	+00.7	S 18 47.3	+00.5
11	328 45.1	+00.6	S 18 47.8	+00.5
12	343 45.7	+00.7	S 18 48.3	+00.4
13	358 46.4	+00.7	S 18 48.7	+00.5
14	13 47.1	+00.6	S 18 49.2	+00.5
15	28 47.7	+00.7	S 18 49.7	+00.5
16	43 48.4	+00.6	S 18 50.2	+00.4
17	58 49.0	+00.7	S 18 50.6	+00.5
18	73 49.7	+00.7	S 18 51.1	+00.5
19	88 50.4	+00.6	S 18 51.6	+00.4
20	103 51.0	+00.7	S 18 52.0	+00.5
21	118 51.7	+00.7	S 18 52.5	+00.5
22	133 52.4	+00.6	S 18 53.0	+00.4
23	148 53.0	+00.7	S 18 53.4	+00.5

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	130°	130°	130°	130°	129°	129°

Greenwich Culmination Time: 13:04

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	277 03.5	+02.3	N 21 15.8	+00.0
01	292 05.8	+02.4	N 21 15.8	+00.0
02	307 08.2	+02.3	N 21 15.8	−00.1
03	322 10.5	+02.3	N 21 15.7	+00.0
04	337 12.8	+02.3	N 21 15.7	+00.0
05	352 15.1	+02.3	N 21 15.7	+00.0
06	7 17.4	+02.3	N 21 15.7	+00.0
07	22 19.7	+02.3	N 21 15.7	−00.1
08	37 22.0	+02.4	N 21 15.6	+00.0
09	52 24.4	+02.3	N 21 15.6	+00.0
10	67 26.7	+02.3	N 21 15.6	+00.0
11	82 29.0	+02.3	N 21 15.6	+00.0
12	97 31.3	+02.3	N 21 15.6	−00.1
13	112 33.6	+02.3	N 21 15.5	+00.0
14	127 35.9	+02.4	N 21 15.5	+00.0
15	142 38.3	+02.3	N 21 15.5	+00.0
16	157 40.6	+02.3	N 21 15.5	+00.0
17	172 42.9	+02.3	N 21 15.5	−00.1
18	187 45.2	+02.3	N 21 15.4	+00.0
19	202 47.5	+02.4	N 21 15.4	+00.0
20	217 49.9	+02.3	N 21 15.4	+00.0
21	232 52.2	+02.3	N 21 15.4	+00.0
22	247 54.5	+02.3	N 21 15.4	−00.1
23	262 56.8	+02.3	N 21 15.3	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:30

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	36 11.1	+02.6	S 03 48.5	+00.0
01	51 13.7	+02.6	S 03 48.5	+00.1
02	66 16.3	+02.6	S 03 48.6	+00.0
03	81 18.9	+02.6	S 03 48.6	+00.1
04	96 21.5	+02.6	S 03 48.7	+00.0
05	111 24.1	+02.6	S 03 48.7	+00.1
06	126 26.7	+02.6	S 03 48.8	+00.0
07	141 29.3	+02.5	S 03 48.8	+00.1
08	156 31.8	+02.6	S 03 48.9	+00.0
09	171 34.4	+02.6	S 03 48.9	+00.1
10	186 37.0	+02.6	S 03 49.0	+00.0
11	201 39.6	+02.6	S 03 49.0	+00.1
12	216 42.2	+02.6	S 03 49.1	+00.0
13	231 44.8	+02.6	S 03 49.1	+00.1
14	246 47.4	+02.6	S 03 49.2	+00.0
15	261 50.0	+02.6	S 03 49.2	+00.1
16	276 52.6	+02.6	S 03 49.3	+00.0
17	291 55.2	+02.6	S 03 49.3	+00.1
18	306 57.8	+02.6	S 03 49.4	+00.0
19	322 00.4	+02.5	S 03 49.4	+00.1
20	337 02.9	+02.6	S 03 49.5	+00.0
21	352 05.5	+02.6	S 03 49.5	+00.1
22	7 08.1	+02.6	S 03 49.6	+00.0
23	22 10.7	+02.6	S 03 49.6	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:31

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2025 October 26 Sunday

(day 299 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 60.0	+00.0	S 12 27.2	+00.9
01	199 00.0	+00.1	S 12 28.1	+00.8
02	214 00.1	+00.1	S 12 28.9	+00.9
03	229 00.2	+00.0	S 12 29.8	+00.8
04	244 00.2	+00.1	S 12 30.6	+00.9
05	259 00.3	+00.1	S 12 31.5	+00.8
06	274 00.4	+00.0	S 12 32.3	+00.9
07	289 00.4	+00.1	S 12 33.2	+00.8
08	304 00.5	+00.0	S 12 34.0	+00.9
09	319 00.5	+00.1	S 12 34.9	+00.8
10	334 00.6	+00.1	S 12 35.7	+00.9
11	349 00.7	+00.0	S 12 36.6	+00.8
12	4 00.7	+00.1	S 12 37.4	+00.9
13	19 00.8	+00.1	S 12 38.3	+00.8
14	34 00.9	+00.0	S 12 39.1	+00.9
15	49 00.9	+00.1	S 12 40.0	+00.8
16	64 01.0	+00.0	S 12 40.8	+00.9
17	79 01.0	+00.1	S 12 41.7	+00.8
18	94 01.1	+00.1	S 12 42.5	+00.9
19	109 01.2	+00.0	S 12 43.4	+00.8
20	124 01.2	+00.1	S 12 44.2	+00.9
21	139 01.3	+00.0	S 12 45.1	+00.8
22	154 01.3	+00.1	S 12 45.9	+00.8
23	169 01.4	+00.0	S 12 46.7	+00.9

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	149°	149°	149°	149°	149°	148°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	200 09.2	−00.4	S 04 31.8	+01.2
01	215 08.8	−00.4	S 04 33.0	+01.2
02	230 08.4	−00.4	S 04 34.2	+01.2
03	245 08.0	−00.4	S 04 35.4	+01.2
04	260 07.6	−00.4	S 04 36.6	+01.3
05	275 07.2	−00.5	S 04 37.9	+01.2
06	290 06.7	−00.4	S 04 39.1	+01.2
07	305 06.3	−00.4	S 04 40.3	+01.2
08	320 05.9	−00.4	S 04 41.5	+01.2
09	335 05.5	−00.4	S 04 42.7	+01.2
10	350 05.1	−00.4	S 04 43.9	+01.2
11	5 04.7	−00.5	S 04 45.1	+01.2
12	20 04.2	−00.4	S 04 46.3	+01.3
13	35 03.8	−00.4	S 04 47.6	+01.2
14	50 03.4	−00.4	S 04 48.8	+01.2
15	65 03.0	−00.4	S 04 50.0	+01.2
16	80 02.6	−00.5	S 04 51.2	+01.2
17	95 02.1	−00.4	S 04 52.4	+01.2
18	110 01.7	−00.4	S 04 53.6	+01.2
19	125 01.3	−00.4	S 04 54.8	+01.2
20	140 00.9	−00.4	S 04 56.0	+01.2
21	155 00.5	−00.5	S 04 57.2	+01.3
22	170 00.0	−00.4	S 04 58.5	+01.2
23	184 59.6	−00.4	S 04 59.7	+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	165°	165°	165°	165°	165°	164°

Greenwich Culmination Time: 10:39

Moon

A: 15%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	134 08.2	−31.2	S 28 16.4	+01.7
01	148 37.0	−31.2	S 28 18.1	+01.5
02	163 05.8	−31.2	S 28 19.6	+01.4
03	177 34.6	−31.2	S 28 21.0	+01.3
04	192 03.4	−31.3	S 28 22.3	+01.1
05	206 32.1	−31.3	S 28 23.4	+01.0
06	221 00.8	−31.3	S 28 24.4	+00.9
07	235 29.5	−31.3	S 28 25.3	+00.7
08	249 58.2	−31.4	S 28 26.0	+00.6
09	264 26.8	−31.3	S 28 26.6	+00.4
10	278 55.5	−31.4	S 28 27.0	+00.3
11	293 24.1	−31.4	S 28 27.3	+00.2
12	307 52.7	−31.5	S 28 27.5	+00.0
13	322 21.2	−31.4	S 28 27.5	−00.1
14	336 49.8	−31.4	S 28 27.4	−00.2
15	351 18.4	−31.5	S 28 27.2	−00.4
16	5 46.9	−31.4	S 28 26.8	−00.6
17	20 15.5	−31.5	S 28 26.2	−00.7
18	34 44.0	−31.5	S 28 25.5	−00.8
19	49 12.5	−31.5	S 28 24.7	−00.9
20	63 41.0	−31.5	S 28 23.8	−01.1
21	78 09.5	−31.5	S 28 22.7	−01.3
22	92 38.0	−31.5	S 28 21.4	−01.4
23	107 06.5	−31.5	S 28 20.0	−01.5

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′3	54′3	54′4	54′4
SHA	098°	096°	094°	092°	089°	087°

Greenwich Culmination Time: 15:36

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	163 53.7	+00.7	S 18 53.9	+00.5
01	178 54.4	+00.6	S 18 54.4	+00.4
02	193 55.0	+00.7	S 18 54.8	+00.5
03	208 55.7	+00.6	S 18 55.3	+00.5
04	223 56.3	+00.7	S 18 55.8	+00.5
05	238 57.0	+00.7	S 18 56.3	+00.4
06	253 57.7	+00.6	S 18 56.7	+00.5
07	268 58.3	+00.7	S 18 57.2	+00.5
08	283 59.0	+00.6	S 18 57.7	+00.4
09	298 59.6	+00.7	S 18 58.1	+00.5
10	314 00.3	+00.7	S 18 58.6	+00.5
11	329 01.0	+00.6	S 18 59.1	+00.4
12	344 01.6	+00.7	S 18 59.5	+00.5
13	359 02.3	+00.6	S 18 60.0	+00.4
14	14 02.9	+00.7	S 19 00.4	+00.5
15	29 03.6	+00.7	S 19 00.9	+00.5
16	44 04.3	+00.6	S 19 01.4	+00.4
17	59 04.9	+00.7	S 19 01.8	+00.5
18	74 05.6	+00.6	S 19 02.3	+00.5
19	89 06.2	+00.7	S 19 02.8	+00.4
20	104 06.9	+00.7	S 19 03.2	+00.5
21	119 07.6	+00.6	S 19 03.7	+00.5
22	134 08.2	+00.7	S 19 04.2	+00.4
23	149 08.9	+00.6	S 19 04.6	+00.5

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	129°	129°	129°	129°	129°	129°

Greenwich Culmination Time: 13:03

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	277 59.1	+02.4	N 21 15.3	+00.0
01	293 01.5	+02.3	N 21 15.3	+00.0
02	308 03.8	+02.3	N 21 15.3	+00.0
03	323 06.1	+02.3	N 21 15.3	+00.0
04	338 08.4	+02.4	N 21 15.3	−00.1
05	353 10.8	+02.3	N 21 15.2	+00.0
06	8 13.1	+02.3	N 21 15.2	+00.0
07	23 15.4	+02.3	N 21 15.2	+00.0
08	38 17.7	+02.3	N 21 15.2	+00.0
09	53 20.0	+02.4	N 21 15.2	−00.1
10	68 22.4	+02.3	N 21 15.1	+00.0
11	83 24.7	+02.3	N 21 15.1	+00.0
12	98 27.0	+02.3	N 21 15.1	+00.0
13	113 29.3	+02.4	N 21 15.1	+00.0
14	128 31.7	+02.3	N 21 15.1	+00.0
15	143 34.0	+02.3	N 21 15.1	−00.1
16	158 36.3	+02.4	N 21 15.0	+00.0
17	173 38.7	+02.3	N 21 15.0	+00.0
18	188 41.0	+02.3	N 21 15.0	+00.0
19	203 43.3	+02.3	N 21 15.0	+00.0
20	218 45.6	+02.4	N 21 15.0	+00.0
21	233 48.0	+02.3	N 21 15.0	−00.1
22	248 50.3	+02.3	N 21 14.9	+00.0
23	263 52.6	+02.3	N 21 14.9	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:27

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	37 13.3	+02.6	S 03 49.7	+00.0
01	52 15.9	+02.6	S 03 49.7	+00.0
02	67 18.5	+02.6	S 03 49.7	+00.1
03	82 21.1	+02.6	S 03 49.8	+00.0
04	97 23.7	+02.5	S 03 49.8	+00.1
05	112 26.2	+02.6	S 03 49.9	+00.0
06	127 28.8	+02.6	S 03 49.9	+00.1
07	142 31.4	+02.6	S 03 50.0	+00.0
08	157 34.0	+02.6	S 03 50.0	+00.1
09	172 36.6	+02.6	S 03 50.1	+00.0
10	187 39.2	+02.6	S 03 50.1	+00.1
11	202 41.8	+02.6	S 03 50.2	+00.0
12	217 44.4	+02.6	S 03 50.2	+00.1
13	232 47.0	+02.5	S 03 50.3	+00.0
14	247 49.5	+02.6	S 03 50.3	+00.1
15	262 52.1	+02.6	S 03 50.4	+00.0
16	277 54.7	+02.6	S 03 50.4	+00.1
17	292 57.3	+02.6	S 03 50.5	+00.0
18	307 59.9	+02.6	S 03 50.5	+00.1
19	323 02.5	+02.6	S 03 50.6	+00.0
20	338 05.1	+02.6	S 03 50.6	+00.1
21	353 07.7	+02.5	S 03 50.7	+00.0
22	8 10.2	+02.6	S 03 50.7	+00.0
23	23 12.8	+02.6	S 03 50.7	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:27

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 October 27 Monday

(day 300 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 01.4	+00.1	S 12 47.6	+00.8	00
01	199 01.5	+00.1	S 12 48.4	+00.9	01
02	214 01.6	+00.0	S 12 49.3	+00.8	02
03	229 01.6	+00.1	S 12 50.1	+00.9	03
04	244 01.7	+00.0	S 12 51.0	+00.8	04
05	259 01.7	+00.1	S 12 51.8	+00.9	05
06	274 01.8	+00.0	S 12 52.7	+00.8	06
07	289 01.8	+00.1	S 12 53.5	+00.8	07
08	304 01.9	+00.0	S 12 54.3	+00.9	08
09	319 01.9	+00.1	S 12 55.2	+00.8	09
10	334 02.0	+00.1	S 12 56.0	+00.9	10
11	349 02.1	+00.0	S 12 56.9	+00.8	11
12	4 02.1	+00.1	S 12 57.7	+00.9	12
13	19 02.2	+00.0	S 12 58.6	+00.8	13
14	34 02.2	+00.1	S 12 59.4	+00.8	14
15	49 02.3	+00.0	S 13 00.2	+00.9	15
16	64 02.3	+00.1	S 13 01.1	+00.8	16
17	79 02.4	+00.0	S 13 01.9	+00.9	17
18	94 02.4	+00.1	S 13 02.8	+00.8	18
19	109 02.5	+00.0	S 13 03.6	+00.8	19
20	124 02.5	+00.1	S 13 04.4	+00.9	20
21	139 02.6	+00.0	S 13 05.3	+00.8	21
22	154 02.6	+00.1	S 13 06.1	+00.8	22
23	169 02.7	+00.0	S 13 06.9	+00.9	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	148°	148°	148°	148°	148°	148°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	199 59.2	-00.4	S 05 00.9	+01.2	00
01	214 58.8	-00.5	S 05 02.1	+01.2	01
02	229 58.3	-00.4	S 05 03.3	+01.2	02
03	244 57.9	-00.4	S 05 04.5	+01.2	03
04	259 57.5	-00.4	S 05 05.7	+01.2	04
05	274 57.1	-00.4	S 05 06.9	+01.2	05
06	289 56.7	-00.5	S 05 08.1	+01.2	06
07	304 56.2	-00.4	S 05 09.3	+01.2	07
08	319 55.8	-00.4	S 05 10.5	+01.3	08
09	334 55.4	-00.4	S 05 11.8	+01.2	09
10	349 55.0	-00.5	S 05 13.0	+01.2	10
11	4 54.5	-00.4	S 05 14.2	+01.2	11
12	19 54.1	-00.4	S 05 15.4	+01.2	12
13	34 53.7	-00.4	S 05 16.6	+01.2	13
14	49 53.3	-00.5	S 05 17.8	+01.2	14
15	64 52.8	-00.4	S 05 19.0	+01.2	15
16	79 52.4	-00.4	S 05 20.2	+01.2	16
17	94 52.0	-00.4	S 05 21.4	+01.2	17
18	109 51.6	-00.5	S 05 22.6	+01.2	18
19	124 51.1	-00.4	S 05 23.8	+01.2	19
20	139 50.7	-00.4	S 05 25.0	+01.2	20
21	154 50.3	-00.4	S 05 26.2	+01.2	21
22	169 49.9	-00.5	S 05 27.4	+01.3	22
23	184 49.4	-00.4	S 05 28.7	+01.2	23

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	164°	164°	164°	164°	164°	163°

Greenwich Culmination Time: 10:40

Moon

A: 19%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	121 35.0	-31.5	S 28 18.5	-01.7	00
01	136 03.5	-31.5	S 28 16.8	-01.8	01
02	150 32.0	-31.5	S 28 15.0	-01.9	02
03	165 00.5	-31.5	S 28 13.1	-02.1	03
04	179 29.0	-31.5	S 28 11.0	-02.2	04
05	193 57.5	-31.5	S 28 08.8	-02.4	05
06	208 26.0	-31.4	S 28 06.4	-02.5	06
07	222 54.6	-31.5	S 28 03.9	-02.7	07
08	237 23.1	-31.5	S 28 01.2	-02.8	08
09	251 51.6	-31.4	S 27 58.4	-02.9	09
10	266 20.2	-31.5	S 27 55.5	-03.1	10
11	280 48.7	-31.4	S 27 52.4	-03.2	11
12	295 17.3	-31.5	S 27 49.2	-03.4	12
13	309 45.8	-31.4	S 27 45.8	-03.5	13
14	324 14.4	-31.4	S 27 42.3	-03.6	14
15	338 43.0	-31.3	S 27 38.7	-03.8	15
16	353 11.7	-31.4	S 27 34.9	-03.9	16
17	7 40.3	-31.4	S 27 31.0	-04.0	17
18	22 08.9	-31.3	S 27 27.0	-04.2	18
19	36 37.6	-31.3	S 27 22.8	-04.4	19
20	51 06.3	-31.3	S 27 18.4	-04.4	20
21	65 35.0	-31.3	S 27 14.0	-04.6	21
22	80 03.7	-31.2	S 27 09.4	-04.8	22
23	94 32.5	-31.2	S 27 04.6	-04.9	23

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′9	14′9	15′0
HP	54′5	54′6	54′7	54′7	54′8	54′9
SHA	085°	083°	080°	078°	076°	074°

Greenwich Culmination Time: 16:28

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	164 09.5	+00.7	S 19 05.1	+00.4	00
01	179 10.2	+00.6	S 19 05.5	+00.5	01
02	194 10.8	+00.7	S 19 06.0	+00.5	02
03	209 11.5	+00.7	S 19 06.5	+00.4	03
04	224 12.2	+00.6	S 19 06.9	+00.5	04
05	239 12.8	+00.7	S 19 07.4	+00.5	05
06	254 13.5	+00.6	S 19 07.9	+00.4	06
07	269 14.1	+00.7	S 19 08.3	+00.5	07
08	284 14.8	+00.6	S 19 08.8	+00.4	08
09	299 15.4	+00.7	S 19 09.2	+00.5	09
10	314 16.1	+00.6	S 19 09.7	+00.5	10
11	329 16.7	+00.7	S 19 10.2	+00.4	11
12	344 17.4	+00.6	S 19 10.6	+00.5	12
13	359 18.0	+00.7	S 19 11.1	+00.4	13
14	14 18.7	+00.6	S 19 11.5	+00.5	14
15	29 19.3	+00.7	S 19 12.0	+00.5	15
16	44 20.0	+00.6	S 19 12.5	+00.4	16
17	59 20.6	+00.7	S 19 12.9	+00.5	17
18	74 21.3	+00.6	S 19 13.4	+00.4	18
19	89 21.9	+00.7	S 19 13.8	+00.5	19
20	104 22.6	+00.7	S 19 14.3	+00.4	20
21	119 23.3	+00.6	S 19 14.7	+00.5	21
22	134 23.9	+00.7	S 19 15.2	+00.5	22
23	149 24.6	+00.6	S 19 15.7	+00.4	23

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	128°	128°	128°	128°	128°	128°

Greenwich Culmination Time: 13:02

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	278 54.9	+02.4	N 21 14.9	+00.0	00
01	293 57.3	+02.3	N 21 14.9	+00.0	01
02	308 59.6	+02.3	N 21 14.9	-00.1	02
03	324 01.9	+02.4	N 21 14.8	+00.0	03
04	339 04.3	+02.3	N 21 14.8	+00.0	04
05	354 06.6	+02.3	N 21 14.8	+00.0	05
06	9 08.9	+02.4	N 21 14.8	+00.0	06
07	24 11.3	+02.3	N 21 14.8	+00.0	07
08	39 13.6	+02.3	N 21 14.8	-00.1	08
09	54 15.9	+02.4	N 21 14.7	+00.0	09
10	69 18.3	+02.3	N 21 14.7	+00.0	10
11	84 20.6	+02.3	N 21 14.7	+00.0	11
12	99 22.9	+02.4	N 21 14.7	+00.0	12
13	114 25.3	+02.3	N 21 14.7	+00.0	13
14	129 27.6	+02.3	N 21 14.7	+00.0	14
15	144 29.9	+02.4	N 21 14.7	-00.1	15
16	159 32.3	+02.3	N 21 14.6	+00.0	16
17	174 34.6	+02.3	N 21 14.6	+00.0	17
18	189 36.9	+02.4	N 21 14.6	+00.0	18
19	204 39.3	+02.3	N 21 14.6	+00.0	19
20	219 41.6	+02.3	N 21 14.6	+00.0	20
21	234 43.9	+02.4	N 21 14.6	-00.1	21
22	249 46.3	+02.3	N 21 14.5	+00.0	22
23	264 48.6	+02.4	N 21 14.5	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:23

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	38 15.4	+02.6	S 03 50.8	+00.0	00
01	53 18.0	+02.6	S 03 50.8	+00.1	01
02	68 20.6	+02.6	S 03 50.9	+00.0	02
03	83 23.2	+02.6	S 03 50.9	+00.1	03
04	98 25.8	+02.6	S 03 51.0	+00.0	04
05	113 28.4	+02.5	S 03 51.0	+00.1	05
06	128 30.9	+02.6	S 03 51.1	+00.0	06
07	143 33.5	+02.6	S 03 51.1	+00.1	07
08	158 36.1	+02.6	S 03 51.2	+00.0	08
09	173 38.7	+02.6	S 03 51.2	+00.1	09
10	188 41.3	+02.6	S 03 51.3	+00.0	10
11	203 43.9	+02.6	S 03 51.3	+00.0	11
12	218 46.5	+02.5	S 03 51.3	+00.1	12
13	233 49.0	+02.6	S 03 51.4	+00.0	13
14	248 51.6	+02.6	S 03 51.4	+00.1	14
15	263 54.2	+02.6	S 03 51.5	+00.0	15
16	278 56.8	+02.6	S 03 51.5	+00.1	16
17	293 59.4	+02.6	S 03 51.6	+00.0	17
18	309 02.0	+02.5	S 03 51.6	+00.1	18
19	324 04.5	+02.6	S 03 51.7	+00.0	19
20	339 07.1	+02.6	S 03 51.7	+00.1	20
21	354 09.7	+02.6	S 03 51.8	+00.0	21
22	9 12.3	+02.6	S 03 51.8	+00.0	22
23	24 14.9	+02.6	S 03 51.8	+00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:23

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2025 October 28 Tuesday

(day 301 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 02.7	+00.1	S 13 07.8	+00.8	00
01	199 02.8	+00.0	S 13 08.6	+00.8	01
02	214 02.8	+00.1	S 13 09.4	+00.9	02
03	229 02.9	+00.0	S 13 10.3	+00.8	03
04	244 02.9	+00.1	S 13 11.1	+00.9	04
05	259 03.0	+00.0	S 13 12.0	+00.8	05
06	274 03.0	+00.1	S 13 12.8	+00.8	06
07	289 03.1	+00.0	S 13 13.6	+00.9	07
08	304 03.1	+00.1	S 13 14.5	+00.8	08
09	319 03.2	+00.0	S 13 15.3	+00.8	09
10	334 03.2	+00.1	S 13 16.1	+00.9	10
11	349 03.3	+00.0	S 13 17.0	+00.8	11
12	4 03.3	+00.1	S 13 17.8	+00.8	12
13	19 03.4	+00.0	S 13 18.6	+00.9	13
14	34 03.4	+00.0	S 13 19.5	+00.8	14
15	49 03.4	+00.1	S 13 20.3	+00.8	15
16	64 03.5	+00.0	S 13 21.1	+00.8	16
17	79 03.5	+00.1	S 13 21.9	+00.9	17
18	94 03.6	+00.0	S 13 22.8	+00.8	18
19	109 03.6	+00.1	S 13 23.6	+00.8	19
20	124 03.7	+00.0	S 13 24.4	+00.9	20
21	139 03.7	+00.1	S 13 25.3	+00.8	21
22	154 03.8	+00.0	S 13 26.1	+00.8	22
23	169 03.8	+00.0	S 13 26.9	+00.9	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	147°	147°	147°	147°	147°	147°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	199 49.0	−00.4	S 05 29.9	+01.2	00
01	214 48.6	−00.4	S 05 31.1	+01.2	01
02	229 48.2	−00.5	S 05 32.3	+01.2	02
03	244 47.7	−00.4	S 05 33.5	+01.2	03
04	259 47.3	−00.4	S 05 34.7	+01.2	04
05	274 46.9	−00.4	S 05 35.9	+01.2	05
06	289 46.5	−00.5	S 05 37.1	+01.2	06
07	304 46.0	−00.4	S 05 38.3	+01.2	07
08	319 45.6	−00.4	S 05 39.5	+01.2	08
09	334 45.2	−00.5	S 05 40.7	+01.2	09
10	349 44.7	−00.4	S 05 41.9	+01.2	10
11	4 44.3	−00.4	S 05 43.1	+01.2	11
12	19 43.9	−00.5	S 05 44.3	+01.2	12
13	34 43.4	−00.4	S 05 45.5	+01.2	13
14	49 43.0	−00.4	S 05 46.7	+01.2	14
15	64 42.6	−00.4	S 05 47.9	+01.2	15
16	79 42.2	−00.5	S 05 49.1	+01.2	16
17	94 41.7	−00.4	S 05 50.3	+01.2	17
18	109 41.3	−00.4	S 05 51.5	+01.2	18
19	124 40.9	−00.5	S 05 52.7	+01.2	19
20	139 40.4	−00.4	S 05 53.9	+01.2	20
21	154 40.0	−00.4	S 05 55.1	+01.2	21
22	169 39.6	−00.5	S 05 56.3	+01.2	22
23	184 39.1	−00.4	S 05 57.5	+01.2	23

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	163°	163°	163°	163°	162°	162°

Greenwich Culmination Time: 10:41

Moon

A: 22%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	109 01.3	−31.2	S 26 59.7	−05.0	00
01	123 30.1	−31.2	S 26 54.7	−05.2	01
02	137 58.9	−31.2	S 26 49.5	−05.3	02
03	152 27.7	−31.1	S 26 44.2	−05.4	03
04	166 56.6	−31.1	S 26 38.8	−05.6	04
05	181 25.5	−31.0	S 26 33.2	−05.7	05
06	195 54.5	−31.1	S 26 27.5	−05.8	06
07	210 23.4	−31.0	S 26 21.7	−06.0	07
08	224 52.4	−31.0	S 26 15.7	−06.1	08
09	239 21.4	−30.9	S 26 09.6	−06.2	09
10	253 50.5	−31.0	S 26 03.4	−06.4	10
11	268 19.5	−30.9	S 25 57.0	−06.5	11
12	282 48.6	−30.8	S 25 50.5	−06.6	12
13	297 17.8	−30.8	S 25 43.9	−06.8	13
14	311 47.0	−30.8	S 25 37.1	−06.9	14
15	326 16.2	−30.8	S 25 30.2	−07.1	15
16	340 45.4	−30.7	S 25 23.1	−07.1	16
17	355 14.7	−30.7	S 25 16.0	−07.3	17
18	9 44.0	−30.7	S 25 08.7	−07.5	18
19	24 13.3	−30.6	S 25 01.2	−07.5	19
20	38 42.7	−30.6	S 24 53.7	−07.7	20
21	53 12.1	−30.5	S 24 46.0	−07.8	21
22	67 41.6	−30.5	S 24 38.2	−08.0	22
23	82 11.1	−30.5	S 24 30.2	−08.0	23

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	15′1	15′1	15′1
HP	55′0	55′1	55′2	55′3	55′4	55′5
SHA	071°	069°	067°	065°	062°	060°

Greenwich Culmination Time: 17:19

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	164 25.2	+00.7	S 19 16.1	+00.5	00
01	179 25.9	+00.6	S 19 16.6	+00.4	01
02	194 26.5	+00.7	S 19 17.0	+00.5	02
03	209 27.2	+00.6	S 19 17.5	+00.4	03
04	224 27.8	+00.6	S 19 17.9	+00.5	04
05	239 28.4	+00.7	S 19 18.4	+00.4	05
06	254 29.1	+00.6	S 19 18.8	+00.5	06
07	269 29.7	+00.7	S 19 19.3	+00.4	07
08	284 30.4	+00.6	S 19 19.7	+00.5	08
09	299 31.0	+00.7	S 19 20.2	+00.5	09
10	314 31.7	+00.6	S 19 20.7	+00.4	10
11	329 32.3	+00.7	S 19 21.1	+00.5	11
12	344 33.0	+00.6	S 19 21.6	+00.4	12
13	359 33.6	+00.7	S 19 22.0	+00.5	13
14	14 34.3	+00.6	S 19 22.5	+00.4	14
15	29 34.9	+00.7	S 19 22.9	+00.5	15
16	44 35.6	+00.6	S 19 23.4	+00.4	16
17	59 36.2	+00.7	S 19 23.8	+00.5	17
18	74 36.9	+00.6	S 19 24.3	+00.4	18
19	89 37.5	+00.6	S 19 24.7	+00.5	19
20	104 38.1	+00.7	S 19 25.2	+00.4	20
21	119 38.8	+00.6	S 19 25.6	+00.5	21
22	134 39.4	+00.7	S 19 26.1	+00.4	22
23	149 40.1	+00.6	S 19 26.5	+00.5	23

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	128°	128°	128°	127°	127°	127°

Greenwich Culmination Time: 13:01

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	279 51.0	+02.3	N 21 14.5	+00.0	00
01	294 53.3	+02.3	N 21 14.5	+00.0	01
02	309 55.6	+02.4	N 21 14.5	+00.0	02
03	324 58.0	+02.3	N 21 14.5	−00.1	03
04	340 00.3	+02.3	N 21 14.4	+00.0	04
05	355 02.6	+02.4	N 21 14.4	+00.0	05
06	10 05.0	+02.3	N 21 14.4	+00.0	06
07	25 07.3	+02.4	N 21 14.4	+00.0	07
08	40 09.7	+02.3	N 21 14.4	+00.0	08
09	55 12.0	+02.4	N 21 14.4	+00.0	09
10	70 14.4	+02.3	N 21 14.4	−00.1	10
11	85 16.7	+02.3	N 21 14.3	+00.0	11
12	100 19.0	+02.4	N 21 14.3	+00.0	12
13	115 21.4	+02.3	N 21 14.3	+00.0	13
14	130 23.7	+02.4	N 21 14.3	+00.0	14
15	145 26.1	+02.3	N 21 14.3	+00.0	15
16	160 28.4	+02.3	N 21 14.3	−00.1	16
17	175 30.7	+02.4	N 21 14.2	+00.0	17
18	190 33.1	+02.3	N 21 14.2	+00.0	18
19	205 35.4	+02.4	N 21 14.2	+00.0	19
20	220 37.8	+02.3	N 21 14.2	+00.0	20
21	235 40.1	+02.4	N 21 14.2	+00.0	21
22	250 42.5	+02.3	N 21 14.2	+00.0	22
23	265 44.8	+02.4	N 21 14.2	−00.1	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:19

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	39 17.5	+02.5	S 03 51.9	+00.0	00
01	54 20.0	+02.6	S 03 51.9	+00.1	01
02	69 22.6	+02.6	S 03 52.0	+00.0	02
03	84 25.2	+02.6	S 03 52.0	+00.1	03
04	99 27.8	+02.6	S 03 52.1	+00.0	04
05	114 30.4	+02.6	S 03 52.1	+00.1	05
06	129 33.0	+02.5	S 03 52.2	+00.0	06
07	144 35.5	+02.6	S 03 52.2	+00.1	07
08	159 38.1	+02.6	S 03 52.3	+00.0	08
09	174 40.7	+02.6	S 03 52.3	+00.0	09
10	189 43.3	+02.6	S 03 52.3	+00.1	10
11	204 45.9	+02.6	S 03 52.4	+00.0	11
12	219 48.5	+02.5	S 03 52.4	+00.1	12
13	234 51.0	+02.6	S 03 52.5	+00.0	13
14	249 53.6	+02.6	S 03 52.5	+00.1	14
15	264 56.2	+02.6	S 03 52.6	+00.0	15
16	279 58.8	+02.6	S 03 52.6	+00.1	16
17	295 01.4	+02.6	S 03 52.7	+00.0	17
18	310 04.0	+02.5	S 03 52.7	+00.0	18
19	325 06.5	+02.6	S 03 52.7	+00.1	19
20	340 09.1	+02.6	S 03 52.8	+00.0	20
21	355 11.7	+02.6	S 03 52.8	+00.1	21
22	10 14.3	+02.6	S 03 52.9	+00.0	22
23	25 16.9	+02.5	S 03 52.9	+00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:19

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2025 October 29 Wednesday

(day 302 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 03.8	+00.1	S 13 27.8	+00.8
01	199 03.9	+00.0	S 13 28.6	+00.8
02	214 03.9	+00.1	S 13 29.4	+00.8
03	229 04.0	+00.0	S 13 30.2	+00.9
04	244 04.0	+00.0	S 13 31.1	+00.8
05	259 04.0	+00.1	S 13 31.9	+00.8
06	274 04.1	+00.0	S 13 32.7	+00.8
07	289 04.1	+00.1	S 13 33.5	+00.9
08	304 04.2	+00.0	S 13 34.4	+00.8
09	319 04.2	+00.0	S 13 35.2	+00.8
10	334 04.2	+00.1	S 13 36.0	+00.8
11	349 04.3	+00.0	S 13 36.8	+00.9
12	4 04.3	+00.1	S 13 37.7	+00.8
13	19 04.4	+00.0	S 13 38.5	+00.8
14	34 04.4	+00.0	S 13 39.3	+00.8
15	49 04.4	+00.1	S 13 40.1	+00.9
16	64 04.5	+00.0	S 13 41.0	+00.8
17	79 04.5	+00.0	S 13 41.8	+00.8
18	94 04.5	+00.1	S 13 42.6	+00.8
19	109 04.6	+00.0	S 13 43.4	+00.8
20	124 04.6	+00.1	S 13 44.2	+00.9
21	139 04.7	+00.0	S 13 45.1	+00.8
22	154 04.7	+00.0	S 13 45.9	+00.8
23	169 04.7	+00.1	S 13 46.7	+00.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	146°	146°	146°	146°	146°	146°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	199 38.7	−00.4	S 05 58.7	+01.2
01	214 38.3	−00.5	S 05 59.9	+01.2
02	229 37.8	−00.4	S 06 01.1	+01.2
03	244 37.4	−00.4	S 06 02.3	+01.2
04	259 37.0	−00.5	S 06 03.5	+01.2
05	274 36.5	−00.4	S 06 04.7	+01.3
06	289 36.1	−00.4	S 06 06.0	+01.2
07	304 35.7	−00.5	S 06 07.2	+01.1
08	319 35.2	−00.4	S 06 08.3	+01.2
09	334 34.8	−00.4	S 06 09.5	+01.2
10	349 34.4	−00.5	S 06 10.7	+01.2
11	4 33.9	−00.4	S 06 11.9	+01.2
12	19 33.5	−00.4	S 06 13.1	+01.2
13	34 33.1	−00.5	S 06 14.3	+01.2
14	49 32.6	−00.4	S 06 15.5	+01.2
15	64 32.2	−00.4	S 06 16.7	+01.2
16	79 31.8	−00.5	S 06 17.9	+01.2
17	94 31.3	−00.4	S 06 19.1	+01.2
18	109 30.9	−00.4	S 06 20.3	+01.2
19	124 30.5	−00.5	S 06 21.5	+01.2
20	139 30.0	−00.4	S 06 22.7	+01.2
21	154 29.6	−00.5	S 06 23.9	+01.2
22	169 29.1	−00.4	S 06 25.1	+01.2
23	184 28.7	−00.4	S 06 26.3	+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	162°	162°	162°	161°	161°	161°

Greenwich Culmination Time: 10:41

Moon

A: 25%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	96 40.6	−30.5	S 24 22.2	−08.2
01	111 10.1	−30.4	S 24 14.0	−08.4
02	125 39.7	−30.3	S 24 05.6	−08.4
03	140 09.4	−30.4	S 23 57.2	−08.6
04	154 39.0	−30.2	S 23 48.6	−08.7
05	169 08.8	−30.3	S 23 39.9	−08.8
06	183 38.5	−30.2	S 23 31.1	−09.0
07	198 08.3	−30.2	S 23 22.1	−09.0
08	212 38.1	−30.1	S 23 13.1	−09.2
09	227 08.0	−30.1	S 23 03.9	−09.3
10	241 37.9	−30.1	S 22 54.6	−09.5
11	256 07.8	−30.0	S 22 45.1	−09.5
12	270 37.8	−30.0	S 22 35.6	−09.7
13	285 07.8	−29.9	S 22 25.9	−09.8
14	299 37.9	−29.9	S 22 16.1	−09.9
15	314 08.0	−29.9	S 22 06.2	−10.0
16	328 38.1	−29.8	S 21 56.2	−10.2
17	343 08.3	−29.8	S 21 46.0	−10.2
18	357 38.5	−29.7	S 21 35.8	−10.4
19	12 08.8	−29.8	S 21 25.4	−10.5
20	26 39.0	−29.6	S 21 14.9	−10.6
21	41 09.4	−29.7	S 21 04.3	−10.7
22	55 39.7	−29.6	S 20 53.6	−10.9
23	70 10.1	−29.5	S 20 42.7	−10.9

UT	02	06	10	14	18	22
SD	15′2	15′2	15′2	15′3	15′3	15′3
HP	55′6	55′7	55′9	56′0	56′1	56′3
SHA	058°	056°	054°	051°	049°	047°

Greenwich Culmination Time: 18:09

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	164 40.7	+00.7	S 19 27.0	+00.4
01	179 41.4	+00.6	S 19 27.4	+00.5
02	194 42.0	+00.6	S 19 27.9	+00.4
03	209 42.6	+00.7	S 19 28.3	+00.5
04	224 43.3	+00.6	S 19 28.8	+00.4
05	239 43.9	+00.7	S 19 29.2	+00.5
06	254 44.6	+00.6	S 19 29.7	+00.4
07	269 45.2	+00.7	S 19 30.1	+00.5
08	284 45.9	+00.6	S 19 30.6	+00.4
09	299 46.5	+00.6	S 19 31.0	+00.5
10	314 47.1	+00.7	S 19 31.5	+00.4
11	329 47.8	+00.6	S 19 31.9	+00.4
12	344 48.4	+00.7	S 19 32.3	+00.5
13	359 49.1	+00.6	S 19 32.8	+00.4
14	14 49.7	+00.6	S 19 33.2	+00.5
15	29 50.3	+00.7	S 19 33.7	+00.4
16	44 51.0	+00.6	S 19 34.1	+00.5
17	59 51.6	+00.7	S 19 34.6	+00.4
18	74 52.3	+00.6	S 19 35.0	+00.5
19	89 52.9	+00.6	S 19 35.5	+00.4
20	104 53.5	+00.7	S 19 35.9	+00.5
21	119 54.2	+00.6	S 19 36.4	+00.4
22	134 54.8	+00.6	S 19 36.8	+00.4
23	149 55.4	+00.7	S 19 37.2	+00.5

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	127°	127°	127°	127°	127°	126°

Greenwich Culmination Time: 13:00

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	280 47.2	+02.3	N 21 14.1	+00.0
01	295 49.5	+02.4	N 21 14.1	+00.0
02	310 51.9	+02.3	N 21 14.1	+00.0
03	325 54.2	+02.3	N 21 14.1	+00.0
04	340 56.5	+02.4	N 21 14.1	+00.0
05	355 58.9	+02.3	N 21 14.1	+00.0
06	11 01.2	+02.4	N 21 14.1	−00.1
07	26 03.6	+02.3	N 21 14.0	+00.0
08	41 05.9	+02.4	N 21 14.0	+00.0
09	56 08.3	+02.3	N 21 14.0	+00.0
10	71 10.6	+02.4	N 21 14.0	+00.0
11	86 13.0	+02.3	N 21 14.0	+00.0
12	101 15.3	+02.4	N 21 14.0	+00.0
13	116 17.7	+02.3	N 21 14.0	+00.0
14	131 20.0	+02.4	N 21 14.0	−00.1
15	146 22.4	+02.3	N 21 13.9	+00.0
16	161 24.7	+02.4	N 21 13.9	+00.0
17	176 27.1	+02.3	N 21 13.9	+00.0
18	191 29.4	+02.4	N 21 13.9	+00.0
19	206 31.8	+02.4	N 21 13.9	+00.0
20	221 34.2	+02.3	N 21 13.9	+00.0
21	236 36.5	+02.4	N 21 13.9	−00.1
22	251 38.9	+02.3	N 21 13.8	+00.0
23	266 41.2	+02.4	N 21 13.8	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:16

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	40 19.4	+02.6	S 03 53.0	+00.0
01	55 22.0	+02.6	S 03 53.0	+00.0
02	70 24.6	+02.6	S 03 53.0	+00.1
03	85 27.2	+02.6	S 03 53.1	+00.0
04	100 29.8	+02.5	S 03 53.1	+00.1
05	115 32.3	+02.6	S 03 53.2	+00.0
06	130 34.9	+02.6	S 03 53.2	+00.1
07	145 37.5	+02.6	S 03 53.3	+00.0
08	160 40.1	+02.6	S 03 53.3	+00.1
09	175 42.7	+02.5	S 03 53.4	+00.0
10	190 45.2	+02.6	S 03 53.4	+00.0
11	205 47.8	+02.6	S 03 53.4	+00.1
12	220 50.4	+02.6	S 03 53.5	+00.0
13	235 53.0	+02.6	S 03 53.5	+00.1
14	250 55.6	+02.5	S 03 53.6	+00.0
15	265 58.1	+02.6	S 03 53.6	+00.1
16	281 00.7	+02.6	S 03 53.7	+00.0
17	296 03.3	+02.6	S 03 53.7	+00.0
18	311 05.9	+02.5	S 03 53.7	+00.1
19	326 08.4	+02.6	S 03 53.8	+00.0
20	341 11.0	+02.6	S 03 53.8	+00.1
21	356 13.6	+02.6	S 03 53.9	+00.0
22	11 16.2	+02.6	S 03 53.9	+00.1
23	26 18.8	+02.5	S 03 54.0	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:15

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2025 October 30 Thursday

(day 303 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 04.8	+00.0	S 13 47.5	+00.8
01	199 04.8	+00.0	S 13 48.3	+00.9
02	214 04.8	+00.1	S 13 49.2	+00.8
03	229 04.9	+00.0	S 13 50.0	+00.8
04	244 04.9	+00.0	S 13 50.8	+00.8
05	259 04.9	+00.1	S 13 51.6	+00.8
06	274 05.0	+00.0	S 13 52.4	+00.8
07	289 05.0	+00.0	S 13 53.2	+00.9
08	304 05.0	+00.1	S 13 54.1	+00.8
09	319 05.1	+00.0	S 13 54.9	+00.8
10	334 05.1	+00.0	S 13 55.7	+00.8
11	349 05.1	+00.0	S 13 56.5	+00.8
12	4 05.1	+00.1	S 13 57.3	+00.8
13	19 05.2	+00.0	S 13 58.1	+00.8
14	34 05.2	+00.0	S 13 58.9	+00.9
15	49 05.2	+00.1	S 13 59.8	+00.8
16	64 05.3	+00.0	S 14 00.6	+00.8
17	79 05.3	+00.0	S 14 01.4	+00.8
18	94 05.3	+00.1	S 14 02.2	+00.8
19	109 05.4	+00.0	S 14 03.0	+00.8
20	124 05.4	+00.0	S 14 03.8	+00.8
21	139 05.4	+00.0	S 14 04.6	+00.8
22	154 05.4	+00.1	S 14 05.4	+00.8
23	169 05.5	+00.0	S 14 06.2	+00.9

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	145°	145°	145°	145°	145°	145°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	199 28.3	−00.5	S 06 27.5	+01.2
01	214 27.8	−00.4	S 06 28.7	+01.2
02	229 27.4	−00.4	S 06 29.9	+01.2
03	244 27.0	−00.5	S 06 31.1	+01.2
04	259 26.5	−00.4	S 06 32.3	+01.2
05	274 26.1	−00.5	S 06 33.5	+01.2
06	289 25.6	−00.4	S 06 34.7	+01.2
07	304 25.2	−00.4	S 06 35.9	+01.2
08	319 24.8	−00.5	S 06 37.1	+01.2
09	334 24.3	−00.4	S 06 38.3	+01.2
10	349 23.9	−00.5	S 06 39.5	+01.2
11	4 23.4	−00.4	S 06 40.7	+01.2
12	19 23.0	−00.4	S 06 41.9	+01.2
13	34 22.6	−00.5	S 06 43.1	+01.1
14	49 22.1	−00.4	S 06 44.2	+01.2
15	64 21.7	−00.5	S 06 45.4	+01.2
16	79 21.2	−00.4	S 06 46.6	+01.2
17	94 20.8	−00.4	S 06 47.8	+01.2
18	109 20.4	−00.5	S 06 49.0	+01.2
19	124 19.9	−00.4	S 06 50.2	+01.2
20	139 19.5	−00.5	S 06 51.4	+01.2
21	154 19.0	−00.4	S 06 52.6	+01.2
22	169 18.6	−00.5	S 06 53.8	+01.2
23	184 18.1	−00.4	S 06 55.0	+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	161°	161°	160°	160°	160°	160°

Greenwich Culmination Time: 10:42

Moon

A: 29%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	84 40.6	−29.5	S 20 31.8	−11.1
01	99 11.1	−29.5	S 20 20.7	−11.1
02	113 41.6	−29.5	S 20 09.6	−11.3
03	128 12.1	−29.4	S 19 58.3	−11.4
04	142 42.7	−29.4	S 19 46.9	−11.5
05	157 13.3	−29.3	S 19 35.4	−11.6
06	171 44.0	−29.3	S 19 23.8	−11.7
07	186 14.7	−29.3	S 19 12.1	−11.8
08	200 45.4	−29.2	S 19 00.3	−12.0
09	215 16.2	−29.2	S 18 48.3	−12.0
10	229 47.0	−29.2	S 18 36.3	−12.1
11	244 17.8	−29.1	S 18 24.2	−12.3
12	258 48.7	−29.2	S 18 11.9	−12.3
13	273 19.5	−29.0	S 17 59.6	−12.4
14	287 50.5	−29.1	S 17 47.2	−12.6
15	302 21.4	−29.0	S 17 34.6	−12.6
16	316 52.4	−29.0	S 17 22.0	−12.8
17	331 23.4	−28.9	S 17 09.2	−12.8
18	345 54.5	−29.0	S 16 56.4	−12.9
19	0 25.5	−28.8	S 16 43.5	−13.1
20	14 56.7	−28.9	S 16 30.4	−13.1
21	29 27.8	−28.9	S 16 17.3	−13.2
22	43 58.9	−28.8	S 16 04.1	−13.3
23	58 30.1	−28.8	S 15 50.8	−13.4

UT	02	06	10	14	18	22
SD	15′4	15′4	15′4	15′5	15′5	15′6
HP	56′4	56′5	56′7	56′8	57′0	57′1
SHA	045°	043°	041°	039°	037°	035°

Greenwich Culmination Time: 18:58

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	164 56.1	+00.6	S 19 37.7	+00.4
01	179 56.7	+00.7	S 19 38.1	+00.5
02	194 57.4	+00.6	S 19 38.6	+00.4
03	209 58.0	+00.6	S 19 39.0	+00.4
04	224 58.6	+00.7	S 19 39.4	+00.5
05	239 59.3	+00.6	S 19 39.9	+00.4
06	254 59.9	+00.6	S 19 40.3	+00.5
07	270 00.5	+00.7	S 19 40.8	+00.4
08	285 01.2	+00.6	S 19 41.2	+00.5
09	300 01.8	+00.6	S 19 41.7	+00.4
10	315 02.4	+00.7	S 19 42.1	+00.4
11	330 03.1	+00.6	S 19 42.5	+00.5
12	345 03.7	+00.6	S 19 43.0	+00.4
13	0 04.3	+00.7	S 19 43.4	+00.5
14	15 05.0	+00.6	S 19 43.9	+00.4
15	30 05.6	+00.6	S 19 44.3	+00.4
16	45 06.2	+00.7	S 19 44.7	+00.5
17	60 06.9	+00.6	S 19 45.2	+00.4
18	75 07.5	+00.6	S 19 45.6	+00.4
19	90 08.1	+00.7	S 19 46.0	+00.5
20	105 08.8	+00.6	S 19 46.5	+00.4
21	120 09.4	+00.6	S 19 46.9	+00.5
22	135 10.0	+00.7	S 19 47.4	+00.4
23	150 10.7	+00.6	S 19 47.8	+00.4

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	126°	126°	126°	126°	126°	126°

Greenwich Culmination Time: 12:59

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	281 43.6	+02.3	N 21 13.8	+00.0
01	296 45.9	+02.4	N 21 13.8	+00.0
02	311 48.3	+02.3	N 21 13.8	+00.0
03	326 50.6	+02.4	N 21 13.8	+00.0
04	341 53.0	+02.3	N 21 13.8	+00.0
05	356 55.3	+02.4	N 21 13.8	−00.1
06	11 57.7	+02.4	N 21 13.7	+00.0
07	27 00.1	+02.3	N 21 13.7	+00.0
08	42 02.4	+02.4	N 21 13.7	+00.0
09	57 04.8	+02.3	N 21 13.7	+00.0
10	72 07.1	+02.4	N 21 13.7	+00.0
11	87 09.5	+02.3	N 21 13.7	+00.0
12	102 11.8	+02.4	N 21 13.7	+00.0
13	117 14.2	+02.4	N 21 13.7	−00.1
14	132 16.6	+02.3	N 21 13.6	+00.0
15	147 18.9	+02.4	N 21 13.6	+00.0
16	162 21.3	+02.3	N 21 13.6	+00.0
17	177 23.6	+02.4	N 21 13.6	+00.0
18	192 26.0	+02.4	N 21 13.6	+00.0
19	207 28.4	+02.3	N 21 13.6	+00.0
20	222 30.7	+02.4	N 21 13.6	+00.0
21	237 33.1	+02.3	N 21 13.6	−00.1
22	252 35.4	+02.4	N 21 13.5	+00.0
23	267 37.8	+02.4	N 21 13.5	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:12

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	41 21.3	+02.6	S 03 54.0	+00.0
01	56 23.9	+02.6	S 03 54.0	+00.1
02	71 26.5	+02.6	S 03 54.1	+00.0
03	86 29.1	+02.5	S 03 54.1	+00.1
04	101 31.6	+02.6	S 03 54.2	+00.0
05	116 34.2	+02.6	S 03 54.2	+00.0
06	131 36.8	+02.6	S 03 54.2	+00.1
07	146 39.4	+02.6	S 03 54.3	+00.0
08	161 42.0	+02.5	S 03 54.3	+00.1
09	176 44.5	+02.6	S 03 54.4	+00.0
10	191 47.1	+02.6	S 03 54.4	+00.1
11	206 49.7	+02.6	S 03 54.5	+00.0
12	221 52.3	+02.5	S 03 54.5	+00.0
13	236 54.8	+02.6	S 03 54.5	+00.1
14	251 57.4	+02.6	S 03 54.6	+00.0
15	266 60.0	+02.6	S 03 54.6	+00.1
16	282 02.6	+02.5	S 03 54.7	+00.0
17	297 05.1	+02.6	S 03 54.7	+00.0
18	312 07.7	+02.6	S 03 54.7	+00.1
19	327 10.3	+02.6	S 03 54.8	+00.0
20	342 12.9	+02.5	S 03 54.8	+00.1
21	357 15.4	+02.6	S 03 54.9	+00.0
22	12 18.0	+02.6	S 03 54.9	+00.0
23	27 20.6	+02.6	S 03 54.9	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:10

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2025 October 31 Friday

(day 304 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 05.5	+00.0	S 14 07.1	+00.8
01	199 05.5	+00.0	S 14 07.9	+00.8
02	214 05.5	+00.1	S 14 08.7	+00.8
03	229 05.6	+00.0	S 14 09.5	+00.8
04	244 05.6	+00.0	S 14 10.3	+00.8
05	259 05.6	+00.0	S 14 11.1	+00.8
06	274 05.6	+00.1	S 14 11.9	+00.8
07	289 05.7	+00.0	S 14 12.7	+00.8
08	304 05.7	+00.0	S 14 13.5	+00.8
09	319 05.7	+00.0	S 14 14.3	+00.8
10	334 05.7	+00.1	S 14 15.1	+00.8
11	349 05.8	+00.0	S 14 15.9	+00.8
12	4 05.8	+00.0	S 14 16.7	+00.8
13	19 05.8	+00.0	S 14 17.5	+00.9
14	34 05.8	+00.0	S 14 18.4	+00.8
15	49 05.8	+00.1	S 14 19.2	+00.8
16	64 05.9	+00.0	S 14 20.0	+00.8
17	79 05.9	+00.0	S 14 20.8	+00.8
18	94 05.9	+00.0	S 14 21.6	+00.8
19	109 05.9	+00.0	S 14 22.4	+00.8
20	124 05.9	+00.1	S 14 23.2	+00.8
21	139 06.0	+00.0	S 14 24.0	+00.8
22	154 06.0	+00.0	S 14 24.8	+00.8
23	169 06.0	+00.0	S 14 25.6	+00.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	144°	144°	144°	144°	144°	144°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	199 17.7	−00.5	S 06 56.2	+01.2
01	214 17.2	−00.4	S 06 57.4	+01.1
02	229 16.8	−00.4	S 06 58.5	+01.2
03	244 16.4	−00.5	S 06 59.7	+01.2
04	259 15.9	−00.4	S 07 00.9	+01.2
05	274 15.5	−00.5	S 07 02.1	+01.2
06	289 15.0	−00.4	S 07 03.3	+01.2
07	304 14.6	−00.5	S 07 04.5	+01.2
08	319 14.1	−00.4	S 07 05.7	+01.2
09	334 13.7	−00.5	S 07 06.9	+01.2
10	349 13.2	−00.4	S 07 08.1	+01.1
11	4 12.8	−00.5	S 07 09.2	+01.2
12	19 12.3	−00.4	S 07 10.4	+01.2
13	34 11.9	−00.5	S 07 11.6	+01.2
14	49 11.4	−00.4	S 07 12.8	+01.2
15	64 11.0	−00.4	S 07 14.0	+01.2
16	79 10.6	−00.5	S 07 15.2	+01.2
17	94 10.1	−00.4	S 07 16.4	+01.2
18	109 09.7	−00.5	S 07 17.6	+01.1
19	124 09.2	−00.4	S 07 18.7	+01.2
20	139 08.8	−00.5	S 07 19.9	+01.2
21	154 08.3	−00.4	S 07 21.1	+01.2
22	169 07.9	−00.5	S 07 22.3	+01.2
23	184 07.4	−00.4	S 07 23.5	+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	160°	159°	159°	159°	159°	159°

Greenwich Culmination Time: 10:43

Moon

A: 32%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	73 01.3	−28.7	S 15 37.4	−13.5
01	87 32.6	−28.8	S 15 23.9	−13.6
02	102 03.8	−28.7	S 15 10.3	−13.7
03	116 35.1	−28.7	S 14 56.6	−13.8
04	131 06.4	−28.7	S 14 42.8	−13.9
05	145 37.7	−28.6	S 14 28.9	−13.9
06	160 09.1	−28.7	S 14 15.0	−14.1
07	174 40.4	−28.6	S 14 00.9	−14.1
08	189 11.8	−28.6	S 13 46.8	−14.2
09	203 43.2	−28.6	S 13 32.6	−14.3
10	218 14.6	−28.5	S 13 18.3	−14.4
11	232 46.1	−28.6	S 13 03.9	−14.4
12	247 17.5	−28.5	S 12 49.5	−14.6
13	261 49.0	−28.6	S 12 34.9	−14.6
14	276 20.4	−28.5	S 12 20.3	−14.7
15	290 51.9	−28.5	S 12 05.6	−14.8
16	305 23.4	−28.5	S 11 50.8	−14.8
17	319 54.9	−28.4	S 11 36.0	−15.0
18	334 26.5	−28.5	S 11 21.0	−15.0
19	348 58.0	−28.5	S 11 06.0	−15.0
20	3 29.5	−28.4	S 10 51.0	−15.2
21	18 01.1	−28.5	S 10 35.8	−15.2
22	32 32.6	−28.4	S 10 20.6	−15.3
23	47 04.2	−28.5	S 10 05.3	−15.4

UT	02	06	10	14	18	22
SD	15′6	15′7	15′7	15′7	15′8	15′8
HP	57′3	57′5	57′6	57′8	57′9	58′1
SHA	032°	030°	028°	026°	024°	022°

Greenwich Culmination Time: 19:45

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	165 11.3	+00.6	S 19 48.2	+00.5
01	180 11.9	+00.6	S 19 48.7	+00.4
02	195 12.5	+00.7	S 19 49.1	+00.4
03	210 13.2	+00.6	S 19 49.5	+00.5
04	225 13.8	+00.6	S 19 50.0	+00.4
05	240 14.4	+00.7	S 19 50.4	+00.4
06	255 15.1	+00.6	S 19 50.8	+00.5
07	270 15.7	+00.6	S 19 51.3	+00.4
08	285 16.3	+00.6	S 19 51.7	+00.4
09	300 16.9	+00.7	S 19 52.1	+00.5
10	315 17.6	+00.6	S 19 52.6	+00.4
11	330 18.2	+00.6	S 19 53.0	+00.4
12	345 18.8	+00.7	S 19 53.4	+00.5
13	0 19.5	+00.6	S 19 53.9	+00.4
14	15 20.1	+00.6	S 19 54.3	+00.4
15	30 20.7	+00.6	S 19 54.7	+00.5
16	45 21.3	+00.7	S 19 55.2	+00.4
17	60 22.0	+00.6	S 19 55.6	+00.4
18	75 22.6	+00.6	S 19 56.0	+00.5
19	90 23.2	+00.6	S 19 56.5	+00.4
20	105 23.8	+00.7	S 19 56.9	+00.4
21	120 24.5	+00.6	S 19 57.3	+00.4
22	135 25.1	+00.6	S 19 57.7	+00.5
23	150 25.7	+00.6	S 19 58.2	+00.4

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	126°	125°	125°	125°	125°	125°

Greenwich Culmination Time: 12:58

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	282 40.2	+02.3	N 21 13.5	+00.0
01	297 42.5	+02.4	N 21 13.5	+00.0
02	312 44.9	+02.4	N 21 13.5	+00.0
03	327 47.3	+02.3	N 21 13.5	+00.0
04	342 49.6	+02.4	N 21 13.5	+00.0
05	357 52.0	+02.4	N 21 13.5	+00.0
06	12 54.4	+02.3	N 21 13.5	−00.1
07	27 56.7	+02.4	N 21 13.4	+00.0
08	42 59.1	+02.3	N 21 13.4	+00.0
09	58 01.4	+02.4	N 21 13.4	+00.0
10	73 03.8	+02.4	N 21 13.4	+00.0
11	88 06.2	+02.3	N 21 13.4	+00.0
12	103 08.5	+02.4	N 21 13.4	+00.0
13	118 10.9	+02.4	N 21 13.4	+00.0
14	133 13.3	+02.3	N 21 13.4	+00.0
15	148 15.6	+02.4	N 21 13.4	+00.0
16	163 18.0	+02.4	N 21 13.4	−00.1
17	178 20.4	+02.4	N 21 13.3	+00.0
18	193 22.8	+02.3	N 21 13.3	+00.0
19	208 25.1	+02.4	N 21 13.3	+00.0
20	223 27.5	+02.4	N 21 13.3	+00.0
21	238 29.9	+02.3	N 21 13.3	+00.0
22	253 32.2	+02.4	N 21 13.3	+00.0
23	268 34.6	+02.4	N 21 13.3	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:08

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	42 23.2	+02.5	S 03 55.0	+00.0
01	57 25.7	+02.6	S 03 55.0	+00.1
02	72 28.3	+02.6	S 03 55.1	+00.0
03	87 30.9	+02.6	S 03 55.1	+00.1
04	102 33.5	+02.5	S 03 55.2	+00.0
05	117 36.0	+02.6	S 03 55.2	+00.0
06	132 38.6	+02.6	S 03 55.2	+00.1
07	147 41.2	+02.5	S 03 55.3	+00.0
08	162 43.7	+02.6	S 03 55.3	+00.1
09	177 46.3	+02.6	S 03 55.4	+00.0
10	192 48.9	+02.6	S 03 55.4	+00.0
11	207 51.5	+02.5	S 03 55.4	+00.1
12	222 54.0	+02.6	S 03 55.5	+00.0
13	237 56.6	+02.6	S 03 55.5	+00.1
14	252 59.2	+02.6	S 03 55.6	+00.0
15	268 01.8	+02.5	S 03 55.6	+00.0
16	283 04.3	+02.6	S 03 55.6	+00.1
17	298 06.9	+02.6	S 03 55.7	+00.0
18	313 09.5	+02.5	S 03 55.7	+00.1
19	328 12.0	+02.6	S 03 55.8	+00.0
20	343 14.6	+02.6	S 03 55.8	+00.0
21	358 17.2	+02.6	S 03 55.8	+00.1
22	13 19.8	+02.5	S 03 55.9	+00.0
23	28 22.3	+02.6	S 03 55.9	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:06

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2025 November 1 Saturday

(day 305 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 06.0	+00.0	S 14 26.4	+00.8
01	199 06.0	+00.1	S 14 27.2	+00.8
02	214 06.1	+00.0	S 14 28.0	+00.8
03	229 06.1	+00.0	S 14 28.8	+00.8
04	244 06.1	+00.0	S 14 29.6	+00.8
05	259 06.1	+00.0	S 14 30.4	+00.8
06	274 06.1	+00.0	S 14 31.2	+00.8
07	289 06.1	+00.1	S 14 32.0	+00.8
08	304 06.2	+00.0	S 14 32.8	+00.8
09	319 06.2	+00.0	S 14 33.6	+00.7
10	334 06.2	+00.0	S 14 34.3	+00.8
11	349 06.2	+00.0	S 14 35.1	+00.8
12	4 06.2	+00.0	S 14 35.9	+00.8
13	19 06.2	+00.0	S 14 36.7	+00.8
14	34 06.2	+00.1	S 14 37.5	+00.8
15	49 06.3	+00.0	S 14 38.3	+00.8
16	64 06.3	+00.0	S 14 39.1	+00.8
17	79 06.3	+00.0	S 14 39.9	+00.8
18	94 06.3	+00.0	S 14 40.7	+00.8
19	109 06.3	+00.0	S 14 41.5	+00.8
20	124 06.3	+00.0	S 14 42.3	+00.8
21	139 06.3	+00.0	S 14 43.1	+00.8
22	154 06.3	+00.1	S 14 43.9	+00.8
23	169 06.4	+00.0	S 14 44.7	+00.7

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	143°	143°	143°	143°	143°	143°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	199 07.0	−00.5	S 07 24.7	+01.2
01	214 06.5	−00.4	S 07 25.9	+01.1
02	229 06.1	−00.5	S 07 27.0	+01.2
03	244 05.6	−00.5	S 07 28.2	+01.2
04	259 05.1	−00.4	S 07 29.4	+01.2
05	274 04.7	−00.5	S 07 30.6	+01.2
06	289 04.2	−00.4	S 07 31.8	+01.2
07	304 03.8	−00.5	S 07 33.0	+01.1
08	319 03.3	−00.4	S 07 34.1	+01.2
09	334 02.9	−00.5	S 07 35.3	+01.2
10	349 02.4	−00.4	S 07 36.5	+01.2
11	4 02.0	−00.5	S 07 37.7	+01.2
12	19 01.5	−00.4	S 07 38.9	+01.1
13	34 01.1	−00.5	S 07 40.0	+01.2
14	49 00.6	−00.4	S 07 41.2	+01.2
15	64 00.2	−00.5	S 07 42.4	+01.2
16	78 59.7	−00.4	S 07 43.6	+01.2
17	93 59.3	−00.5	S 07 44.8	+01.1
18	108 58.8	−00.5	S 07 45.9	+01.2
19	123 58.3	−00.4	S 07 47.1	+01.2
20	138 57.9	−00.5	S 07 48.3	+01.2
21	153 57.4	−00.4	S 07 49.5	+01.2
22	168 57.0	−00.5	S 07 50.7	+01.1
23	183 56.5	−00.4	S 07 51.8	+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	158°	158°	158°	158°	158°	158°

Greenwich Culmination Time: 10:43

Moon

A: 35%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	61 35.7	−28.4	S 09 49.9	−15.5
01	76 07.3	−28.4	S 09 34.4	−15.5
02	90 38.9	−28.5	S 09 18.9	−15.5
03	105 10.4	−28.4	S 09 03.4	−15.7
04	119 42.0	−28.5	S 08 47.7	−15.7
05	134 13.5	−28.4	S 08 32.0	−15.8
06	148 45.1	−28.5	S 08 16.2	−15.8
07	163 16.6	−28.4	S 08 00.4	−15.9
08	177 48.2	−28.5	S 07 44.5	−15.9
09	192 19.7	−28.4	S 07 28.6	−16.1
10	206 51.3	−28.5	S 07 12.5	−16.0
11	221 22.8	−28.5	S 06 56.5	−16.2
12	235 54.3	−28.5	S 06 40.3	−16.1
13	250 25.8	−28.5	S 06 24.2	−16.3
14	264 57.3	−28.6	S 06 07.9	−16.3
15	279 28.7	−28.5	S 05 51.6	−16.3
16	294 00.2	−28.6	S 05 35.3	−16.4
17	308 31.6	−28.5	S 05 18.9	−16.5
18	323 03.1	−28.6	S 05 02.4	−16.5
19	337 34.5	−28.6	S 04 45.9	−16.5
20	352 05.9	−28.7	S 04 29.4	−16.6
21	6 37.2	−28.6	S 04 12.8	−16.6
22	21 08.6	−28.7	S 03 56.2	−16.7
23	35 39.9	−28.7	S 03 39.5	−16.7

UT	02	06	10	14	18	22
SD	15′9	15′9	16′0	16′0	16′1	16′1
HP	58′3	58′4	58′6	58′8	58′9	59′1
SHA	020°	018°	016°	014°	012°	010°

Greenwich Culmination Time: 20:32

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	165 26.3	+00.7	S 19 58.6	+00.4
01	180 27.0	+00.6	S 19 59.0	+00.5
02	195 27.6	+00.6	S 19 59.5	+00.4
03	210 28.2	+00.6	S 19 59.9	+00.4
04	225 28.8	+00.6	S 20 00.3	+00.4
05	240 29.4	+00.7	S 20 00.7	+00.5
06	255 30.1	+00.6	S 20 01.2	+00.4
07	270 30.7	+00.6	S 20 01.6	+00.4
08	285 31.3	+00.6	S 20 02.0	+00.5
09	300 31.9	+00.7	S 20 02.5	+00.4
10	315 32.6	+00.6	S 20 02.9	+00.4
11	330 33.2	+00.6	S 20 03.3	+00.4
12	345 33.8	+00.6	S 20 03.7	+00.5
13	0 34.4	+00.6	S 20 04.2	+00.4
14	15 35.0	+00.7	S 20 04.6	+00.4
15	30 35.7	+00.6	S 20 05.0	+00.4
16	45 36.3	+00.6	S 20 05.4	+00.5
17	60 36.9	+00.6	S 20 05.9	+00.4
18	75 37.5	+00.6	S 20 06.3	+00.4
19	90 38.1	+00.7	S 20 06.7	+00.4
20	105 38.8	+00.6	S 20 07.1	+00.4
21	120 39.4	+00.6	S 20 07.5	+00.5
22	135 40.0	+00.6	S 20 08.0	+00.4
23	150 40.6	+00.6	S 20 08.4	+00.4

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	125°	125°	125°	124°	124°	124°

Greenwich Culmination Time: 12:57

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	283 37.0	+02.3	N 21 13.3	+00.0
01	298 39.3	+02.4	N 21 13.3	−00.1
02	313 41.7	+02.4	N 21 13.2	+00.0
03	328 44.1	+02.4	N 21 13.2	+00.0
04	343 46.5	+02.3	N 21 13.2	+00.0
05	358 48.8	+02.4	N 21 13.2	+00.0
06	13 51.2	+02.4	N 21 13.2	+00.0
07	28 53.6	+02.4	N 21 13.2	+00.0
08	43 56.0	+02.3	N 21 13.2	+00.0
09	58 58.3	+02.4	N 21 13.2	+00.0
10	74 00.7	+02.4	N 21 13.2	+00.0
11	89 03.1	+02.4	N 21 13.2	+00.0
12	104 05.5	+02.3	N 21 13.2	−00.1
13	119 07.8	+02.4	N 21 13.1	+00.0
14	134 10.2	+02.4	N 21 13.1	+00.0
15	149 12.6	+02.4	N 21 13.1	+00.0
16	164 15.0	+02.3	N 21 13.1	+00.0
17	179 17.3	+02.4	N 21 13.1	+00.0
18	194 19.7	+02.4	N 21 13.1	+00.0
19	209 22.1	+02.4	N 21 13.1	+00.0
20	224 24.5	+02.3	N 21 13.1	+00.0
21	239 26.8	+02.4	N 21 13.1	+00.0
22	254 29.2	+02.4	N 21 13.1	+00.0
23	269 31.6	+02.4	N 21 13.1	−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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:04

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	43 24.9	+02.6	S 03 55.9	+00.1
01	58 27.5	+02.5	S 03 56.0	+00.0
02	73 30.0	+02.6	S 03 56.0	+00.1
03	88 32.6	+02.6	S 03 56.1	+00.0
04	103 35.2	+02.6	S 03 56.1	+00.0
05	118 37.8	+02.5	S 03 56.1	+00.1
06	133 40.3	+02.6	S 03 56.2	+00.0
07	148 42.9	+02.6	S 03 56.2	+00.1
08	163 45.5	+02.5	S 03 56.3	+00.0
09	178 48.0	+02.6	S 03 56.3	+00.0
10	193 50.6	+02.6	S 03 56.3	+00.1
11	208 53.2	+02.5	S 03 56.4	+00.0
12	223 55.7	+02.6	S 03 56.4	+00.1
13	238 58.3	+02.6	S 03 56.5	+00.0
14	254 00.9	+02.6	S 03 56.5	+00.0
15	269 03.5	+02.5	S 03 56.5	+00.1
16	284 06.0	+02.6	S 03 56.6	+00.0
17	299 08.6	+02.6	S 03 56.6	+00.0
18	314 11.2	+02.5	S 03 56.6	+00.1
19	329 13.7	+02.6	S 03 56.7	+00.0
20	344 16.3	+02.6	S 03 56.7	+00.1
21	359 18.9	+02.5	S 03 56.8	+00.0
22	14 21.4	+02.6	S 03 56.8	+00.0
23	29 24.0	+02.6	S 03 56.8	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 21:02

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2025 November 2 Sunday

(day 306 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 06.4	+00.0	S 14 45.4	+00.8
01	199 06.4	+00.0	S 14 46.2	+00.8
02	214 06.4	+00.0	S 14 47.0	+00.8
03	229 06.4	+00.0	S 14 47.8	+00.8
04	244 06.4	+00.0	S 14 48.6	+00.8
05	259 06.4	+00.0	S 14 49.4	+00.8
06	274 06.4	+00.0	S 14 50.2	+00.8
07	289 06.4	+00.0	S 14 51.0	+00.8
08	304 06.4	+00.0	S 14 51.8	+00.7
09	319 06.4	+00.0	S 14 52.5	+00.8
10	334 06.4	+00.1	S 14 53.3	+00.8
11	349 06.5	+00.0	S 14 54.1	+00.8
12	4 06.5	+00.0	S 14 54.9	+00.8
13	19 06.5	+00.0	S 14 55.7	+00.8
14	34 06.5	+00.0	S 14 56.5	+00.8
15	49 06.5	+00.0	S 14 57.3	+00.7
16	64 06.5	+00.0	S 14 58.0	+00.8
17	79 06.5	+00.0	S 14 58.8	+00.8
18	94 06.5	+00.0	S 14 59.6	+00.8
19	109 06.5	+00.0	S 15 00.4	+00.8
20	124 06.5	+00.0	S 15 01.2	+00.7
21	139 06.5	+00.0	S 15 01.9	+00.8
22	154 06.5	+00.0	S 15 02.7	+00.8
23	169 06.5	+00.0	S 15 03.5	+00.8

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	143°	142°	142°	142°	142°	142°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	198 56.1	−00.5	S 07 53.0	+01.2
01	213 55.6	−00.5	S 07 54.2	+01.2
02	228 55.1	−00.4	S 07 55.4	+01.2
03	243 54.7	−00.5	S 07 56.6	+01.1
04	258 54.2	−00.4	S 07 57.7	+01.2
05	273 53.8	−00.5	S 07 58.9	+01.2
06	288 53.3	−00.5	S 08 00.1	+01.2
07	303 52.8	−00.4	S 08 01.3	+01.1
08	318 52.4	−00.5	S 08 02.4	+01.2
09	333 51.9	−00.4	S 08 03.6	+01.2
10	348 51.5	−00.5	S 08 04.8	+01.2
11	3 51.0	−00.5	S 08 06.0	+01.1
12	18 50.5	−00.4	S 08 07.1	+01.2
13	33 50.1	−00.5	S 08 08.3	+01.2
14	48 49.6	−00.4	S 08 09.5	+01.2
15	63 49.2	−00.5	S 08 10.7	+01.1
16	78 48.7	−00.5	S 08 11.8	+01.2
17	93 48.2	−00.4	S 08 13.0	+01.2
18	108 47.8	−00.5	S 08 14.2	+01.1
19	123 47.3	−00.5	S 08 15.3	+01.2
20	138 46.8	−00.4	S 08 16.5	+01.2
21	153 46.4	−00.5	S 08 17.7	+01.2
22	168 45.9	−00.5	S 08 18.9	+01.1
23	183 45.4	−00.4	S 08 20.0	+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	157°	157°	157°	157°	157°	156°

Greenwich Culmination Time: 10:44

Moon

A: 38%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	50 11.2	−28.8	S 03 22.8	−16.8
01	64 42.4	−28.7	S 03 06.0	−16.8
02	79 13.7	−28.8	S 02 49.2	−16.8
03	93 44.9	−28.8	S 02 32.4	−16.9
04	108 16.1	−28.9	S 02 15.5	−16.9
05	122 47.2	−28.9	S 01 58.6	−16.9
06	137 18.3	−28.9	S 01 41.7	−17.0
07	151 49.4	−29.0	S 01 24.7	−17.0
08	166 20.4	−28.9	S 01 07.7	−17.0
09	180 51.5	−29.1	S 00 50.7	−17.0
10	195 22.4	−29.1	S 00 33.7	−17.1
11	209 53.3	−29.1	S 00 16.6	−17.1
12	224 24.2	−29.1	N 00 00.5	+17.2
13	238 55.1	−29.2	N 00 17.7	+17.1
14	253 25.9	−29.3	N 00 34.8	+17.2
15	267 56.6	−29.3	N 00 52.0	+17.2
16	282 27.3	−29.3	N 01 09.2	+17.2
17	296 58.0	−29.4	N 01 26.4	+17.2
18	311 28.6	−29.4	N 01 43.6	+17.2
19	325 59.2	−29.5	N 02 00.8	+17.2
20	340 29.7	−29.6	N 02 18.0	+17.3
21	355 00.1	−29.6	N 02 35.3	+17.2
22	9 30.5	−29.6	N 02 52.5	+17.3
23	24 00.9	−29.8	N 03 09.8	+17.3

UT	02	06	10	14	18	22
SD	16′1	16′2	16′2	16′3	16′3	16′3
HP	59′2	59′4	59′5	59′7	59′8	60′0
SHA	008°	006°	003°	001°	359°	357°

Greenwich Culmination Time: 21:20

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	165 41.2	+00.6	S 20 08.8	+00.4
01	180 41.8	+00.7	S 20 09.2	+00.5
02	195 42.5	+00.6	S 20 09.7	+00.4
03	210 43.1	+00.6	S 20 10.1	+00.4
04	225 43.7	+00.6	S 20 10.5	+00.4
05	240 44.3	+00.6	S 20 10.9	+00.4
06	255 44.9	+00.6	S 20 11.3	+00.5
07	270 45.5	+00.7	S 20 11.8	+00.4
08	285 46.2	+00.6	S 20 12.2	+00.4
09	300 46.8	+00.6	S 20 12.6	+00.4
10	315 47.4	+00.6	S 20 13.0	+00.4
11	330 48.0	+00.6	S 20 13.4	+00.5
12	345 48.6	+00.6	S 20 13.9	+00.4
13	0 49.2	+00.6	S 20 14.3	+00.4
14	15 49.8	+00.6	S 20 14.7	+00.4
15	30 50.4	+00.7	S 20 15.1	+00.4
16	45 51.1	+00.6	S 20 15.5	+00.4
17	60 51.7	+00.6	S 20 15.9	+00.5
18	75 52.3	+00.6	S 20 16.4	+00.4
19	90 52.9	+00.6	S 20 16.8	+00.4
20	105 53.5	+00.6	S 20 17.2	+00.4
21	120 54.1	+00.6	S 20 17.6	+00.4
22	135 54.7	+00.6	S 20 18.0	+00.4
23	150 55.3	+00.7	S 20 18.4	+00.5

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	124°	124°	124°	124°	124°	123°

Greenwich Culmination Time: 12:56

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	284 34.0	+02.4	N 21 13.0	+00.0
01	299 36.4	+02.3	N 21 13.0	+00.0
02	314 38.7	+02.4	N 21 13.0	+00.0
03	329 41.1	+02.4	N 21 13.0	+00.0
04	344 43.5	+02.4	N 21 13.0	+00.0
05	359 45.9	+02.4	N 21 13.0	+00.0
06	14 48.3	+02.3	N 21 13.0	+00.0
07	29 50.6	+02.4	N 21 13.0	+00.0
08	44 53.0	+02.4	N 21 13.0	+00.0
09	59 55.4	+02.4	N 21 13.0	+00.0
10	74 57.8	+02.4	N 21 13.0	+00.0
11	90 00.2	+02.4	N 21 13.0	−00.1
12	105 02.6	+02.3	N 21 12.9	+00.0
13	120 04.9	+02.4	N 21 12.9	+00.0
14	135 07.3	+02.4	N 21 12.9	+00.0
15	150 09.7	+02.4	N 21 12.9	+00.0
16	165 12.1	+02.4	N 21 12.9	+00.0
17	180 14.5	+02.4	N 21 12.9	+00.0
18	195 16.9	+02.4	N 21 12.9	+00.0
19	210 19.3	+02.3	N 21 12.9	+00.0
20	225 21.6	+02.4	N 21 12.9	+00.0
21	240 24.0	+02.4	N 21 12.9	+00.0
22	255 26.4	+02.4	N 21 12.9	+00.0
23	270 28.8	+02.4	N 21 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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 05:00

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	44 26.6	+02.5	S 03 56.9	+00.0
01	59 29.1	+02.6	S 03 56.9	+00.0
02	74 31.7	+02.6	S 03 56.9	+00.1
03	89 34.3	+02.5	S 03 57.0	+00.0
04	104 36.8	+02.6	S 03 57.0	+00.1
05	119 39.4	+02.6	S 03 57.1	+00.0
06	134 42.0	+02.5	S 03 57.1	+00.0
07	149 44.5	+02.6	S 03 57.1	+00.1
08	164 47.1	+02.6	S 03 57.2	+00.0
09	179 49.7	+02.5	S 03 57.2	+00.0
10	194 52.2	+02.6	S 03 57.2	+00.1
11	209 54.8	+02.6	S 03 57.3	+00.0
12	224 57.4	+02.5	S 03 57.3	+00.0
13	239 59.9	+02.6	S 03 57.3	+00.1
14	255 02.5	+02.6	S 03 57.4	+00.0
15	270 05.1	+02.5	S 03 57.4	+00.1
16	285 07.6	+02.6	S 03 57.5	+00.0
17	300 10.2	+02.6	S 03 57.5	+00.0
18	315 12.8	+02.5	S 03 57.5	+00.1
19	330 15.3	+02.6	S 03 57.6	+00.0
20	345 17.9	+02.6	S 03 57.6	+00.0
21	0 20.5	+02.5	S 03 57.6	+00.1
22	15 23.0	+02.6	S 03 57.7	+00.0
23	30 25.6	+02.6	S 03 57.7	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:58

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 November 3 Monday

(day 307 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 06.5	+00.0	S 15 04.3	+00.8	00
01	199 06.5	+00.0	S 15 05.1	+00.7	01
02	214 06.5	+00.0	S 15 05.8	+00.8	02
03	229 06.5	+00.0	S 15 06.6	+00.8	03
04	244 06.5	+00.0	S 15 07.4	+00.8	04
05	259 06.5	+00.0	S 15 08.2	+00.8	05
06	274 06.5	+00.0	S 15 09.0	+00.7	06
07	289 06.5	+00.0	S 15 09.7	+00.8	07
08	304 06.5	+00.0	S 15 10.5	+00.8	08
09	319 06.5	+00.0	S 15 11.3	+00.8	09
10	334 06.5	+00.0	S 15 12.1	+00.7	10
11	349 06.5	+00.0	S 15 12.8	+00.8	11
12	4 06.5	+00.0	S 15 13.6	+00.8	12
13	19 06.5	+00.0	S 15 14.4	+00.8	13
14	34 06.5	+00.0	S 15 15.2	+00.7	14
15	49 06.5	+00.0	S 15 15.9	+00.8	15
16	64 06.5	+00.0	S 15 16.7	+00.8	16
17	79 06.5	+00.0	S 15 17.5	+00.8	17
18	94 06.5	+00.0	S 15 18.3	+00.7	18
19	109 06.5	+00.0	S 15 19.0	+00.8	19
20	124 06.5	+00.0	S 15 19.8	+00.8	20
21	139 06.5	+00.0	S 15 20.6	+00.7	21
22	154 06.5	+00.0	S 15 21.3	+00.8	22
23	169 06.5	+00.0	S 15 22.1	+00.8	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	142°	141°	141°	141°	141°	141°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	198 45.0	-00.5	S 08 21.2	+01.2	00
01	213 44.5	-00.4	S 08 22.4	+01.1	01
02	228 44.1	-00.5	S 08 23.5	+01.2	02
03	243 43.6	-00.5	S 08 24.7	+01.2	03
04	258 43.1	-00.4	S 08 25.9	+01.2	04
05	273 42.7	-00.5	S 08 27.1	+01.1	05
06	288 42.2	-00.5	S 08 28.2	+01.2	06
07	303 41.7	-00.4	S 08 29.4	+01.2	07
08	318 41.3	-00.5	S 08 30.6	+01.1	08
09	333 40.8	-00.5	S 08 31.7	+01.2	09
10	348 40.3	-00.5	S 08 32.9	+01.2	10
11	3 39.8	-00.4	S 08 34.1	+01.1	11
12	18 39.4	-00.5	S 08 35.2	+01.2	12
13	33 38.9	-00.5	S 08 36.4	+01.2	13
14	48 38.4	-00.4	S 08 37.6	+01.1	14
15	63 38.0	-00.5	S 08 38.7	+01.2	15
16	78 37.5	-00.5	S 08 39.9	+01.2	16
17	93 37.0	-00.4	S 08 41.1	+01.1	17
18	108 36.6	-00.5	S 08 42.2	+01.2	18
19	123 36.1	-00.5	S 08 43.4	+01.2	19
20	138 35.6	-00.5	S 08 44.6	+01.1	20
21	153 35.1	-00.4	S 08 45.7	+01.2	21
22	168 34.7	-00.5	S 08 46.9	+01.2	22
23	183 34.2	-00.5	S 08 48.1	+01.1	23

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	156°	156°	156°	156°	155°	155°

Greenwich Culmination Time: 10:45

Moon

A: 42%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	38 31.1	-29.7	N 03 27.1	+17.3	00
01	53 01.4	-29.9	N 03 44.4	+17.2	01
02	67 31.5	-29.9	N 04 01.6	+17.3	02
03	82 01.6	-29.9	N 04 18.9	+17.3	03
04	96 31.7	-30.1	N 04 36.2	+17.2	04
05	111 01.6	-30.1	N 04 53.4	+17.3	05
06	125 31.5	-30.1	N 05 10.7	+17.2	06
07	140 01.4	-30.3	N 05 27.9	+17.3	07
08	154 31.1	-30.3	N 05 45.2	+17.2	08
09	169 00.8	-30.3	N 06 02.4	+17.2	09
10	183 30.5	-30.5	N 06 19.6	+17.2	10
11	198 00.0	-30.5	N 06 36.8	+17.2	11
12	212 29.5	-30.6	N 06 54.0	+17.2	12
13	226 58.9	-30.7	N 07 11.2	+17.1	13
14	241 28.2	-30.7	N 07 28.3	+17.1	14
15	255 57.5	-30.8	N 07 45.4	+17.1	15
16	270 26.7	-30.9	N 08 02.5	+17.1	16
17	284 55.8	-31.0	N 08 19.6	+17.0	17
18	299 24.8	-31.1	N 08 36.6	+17.0	18
19	313 53.7	-31.2	N 08 53.6	+17.0	19
20	328 22.5	-31.2	N 09 10.6	+16.9	20
21	342 51.3	-31.4	N 09 27.5	+16.9	21
22	357 19.9	-31.4	N 09 44.4	+16.9	22
23	11 48.5	-31.5	N 10 01.3	+16.8	23

UT	02	06	10	14	18	22
SD	16′4	16′4	16′5	16′5	16′5	16′6
HP	60′1	60′3	60′4	60′5	60′6	60′7
SHA	355°	353°	351°	348°	346°	344°

Greenwich Culmination Time: 22:11

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	165 56.0	+00.6	S 20 18.9	+00.4	00
01	180 56.6	+00.6	S 20 19.3	+00.4	01
02	195 57.2	+00.6	S 20 19.7	+00.4	02
03	210 57.8	+00.6	S 20 20.1	+00.4	03
04	225 58.4	+00.6	S 20 20.5	+00.4	04
05	240 59.0	+00.6	S 20 20.9	+00.4	05
06	255 59.6	+00.6	S 20 21.3	+00.5	06
07	271 00.2	+00.6	S 20 21.8	+00.4	07
08	286 00.8	+00.6	S 20 22.2	+00.4	08
09	301 01.4	+00.7	S 20 22.6	+00.4	09
10	316 02.1	+00.6	S 20 23.0	+00.4	10
11	331 02.7	+00.6	S 20 23.4	+00.4	11
12	346 03.3	+00.6	S 20 23.8	+00.4	12
13	1 03.9	+00.6	S 20 24.2	+00.4	13
14	16 04.5	+00.6	S 20 24.6	+00.4	14
15	31 05.1	+00.6	S 20 25.0	+00.5	15
16	46 05.7	+00.6	S 20 25.5	+00.4	16
17	61 06.3	+00.6	S 20 25.9	+00.4	17
18	76 06.9	+00.6	S 20 26.3	+00.4	18
19	91 07.5	+00.6	S 20 26.7	+00.4	19
20	106 08.1	+00.6	S 20 27.1	+00.4	20
21	121 08.7	+00.6	S 20 27.5	+00.4	21
22	136 09.3	+00.6	S 20 27.9	+00.4	22
23	151 09.9	+00.6	S 20 28.3	+00.4	23

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	123°	123°	123°	123°	123°	123°

Greenwich Culmination Time: 12:55

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	285 31.2	+02.4	N 21 12.9	+00.0	00
01	300 33.6	+02.4	N 21 12.9	-00.1	01
02	315 36.0	+02.4	N 21 12.8	+00.0	02
03	330 38.4	+02.3	N 21 12.8	+00.0	03
04	345 40.7	+02.4	N 21 12.8	+00.0	04
05	0 43.1	+02.4	N 21 12.8	+00.0	05
06	15 45.5	+02.4	N 21 12.8	+00.0	06
07	30 47.9	+02.4	N 21 12.8	+00.0	07
08	45 50.3	+02.4	N 21 12.8	+00.0	08
09	60 52.7	+02.4	N 21 12.8	+00.0	09
10	75 55.1	+02.4	N 21 12.8	+00.0	10
11	90 57.5	+02.4	N 21 12.8	+00.0	11
12	105 59.9	+02.4	N 21 12.8	+00.0	12
13	121 02.3	+02.4	N 21 12.8	+00.0	13
14	136 04.7	+02.3	N 21 12.8	+00.0	14
15	151 07.0	+02.4	N 21 12.8	+00.0	15
16	166 09.4	+02.4	N 21 12.8	-00.1	16
17	181 11.8	+02.4	N 21 12.7	+00.0	17
18	196 14.2	+02.4	N 21 12.7	+00.0	18
19	211 16.6	+02.4	N 21 12.7	+00.0	19
20	226 19.0	+02.4	N 21 12.7	+00.0	20
21	241 21.4	+02.4	N 21 12.7	+00.0	21
22	256 23.8	+02.4	N 21 12.7	+00.0	22
23	271 26.2	+02.4	N 21 12.7	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:57

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	45 28.2	+02.5	S 03 57.7	+00.1	00
01	60 30.7	+02.6	S 03 57.8	+00.0	01
02	75 33.3	+02.5	S 03 57.8	+00.1	02
03	90 35.8	+02.6	S 03 57.9	+00.0	03
04	105 38.4	+02.6	S 03 57.9	+00.0	04
05	120 41.0	+02.5	S 03 57.9	+00.1	05
06	135 43.5	+02.6	S 03 58.0	+00.0	06
07	150 46.1	+02.6	S 03 58.0	+00.0	07
08	165 48.7	+02.5	S 03 58.0	+00.1	08
09	180 51.2	+02.6	S 03 58.1	+00.0	09
10	195 53.8	+02.6	S 03 58.1	+00.0	10
11	210 56.4	+02.5	S 03 58.1	+00.1	11
12	225 58.9	+02.6	S 03 58.2	+00.0	12
13	241 01.5	+02.5	S 03 58.2	+00.0	13
14	256 04.0	+02.6	S 03 58.2	+00.1	14
15	271 06.6	+02.6	S 03 58.3	+00.0	15
16	286 09.2	+02.5	S 03 58.3	+00.1	16
17	301 11.7	+02.6	S 03 58.4	+00.0	17
18	316 14.3	+02.5	S 03 58.4	+00.0	18
19	331 16.8	+02.6	S 03 58.4	+00.1	19
20	346 19.4	+02.6	S 03 58.5	+00.0	20
21	1 22.0	+02.5	S 03 58.5	+00.0	21
22	16 24.5	+02.6	S 03 58.5	+00.1	22
23	31 27.1	+02.6	S 03 58.6	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:54

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 November 4 Tuesday

(day 308 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 06.5	−00.1	S 15 22.9	+00.8
01	199 06.4	+00.0	S 15 23.7	+00.7
02	214 06.4	+00.0	S 15 24.4	+00.8
03	229 06.4	+00.0	S 15 25.2	+00.8
04	244 06.4	+00.0	S 15 26.0	+00.7
05	259 06.4	+00.0	S 15 26.7	+00.8
06	274 06.4	+00.0	S 15 27.5	+00.8
07	289 06.4	+00.0	S 15 28.3	+00.7
08	304 06.4	+00.0	S 15 29.0	+00.8
09	319 06.4	+00.0	S 15 29.8	+00.8
10	334 06.4	+00.0	S 15 30.6	+00.7
11	349 06.4	−00.1	S 15 31.3	+00.8
12	4 06.3	+00.0	S 15 32.1	+00.7
13	19 06.3	+00.0	S 15 32.8	+00.8
14	34 06.3	+00.0	S 15 33.6	+00.8
15	49 06.3	+00.0	S 15 34.4	+00.7
16	64 06.3	+00.0	S 15 35.1	+00.8
17	79 06.3	+00.0	S 15 35.9	+00.8
18	94 06.3	+00.0	S 15 36.7	+00.7
19	109 06.3	−00.1	S 15 37.4	+00.8
20	124 06.2	+00.0	S 15 38.2	+00.7
21	139 06.2	+00.0	S 15 38.9	+00.8
22	154 06.2	+00.0	S 15 39.7	+00.8
23	169 06.2	+00.0	S 15 40.5	+00.7

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	141°	140°	140°	140°	140°	140°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	198 33.7	−00.4	S 08 49.2	+01.2
01	213 33.3	−00.5	S 08 50.4	+01.1
02	228 32.8	−00.5	S 08 51.5	+01.2
03	243 32.3	−00.5	S 08 52.7	+01.2
04	258 31.8	−00.4	S 08 53.9	+01.1
05	273 31.4	−00.5	S 08 55.0	+01.2
06	288 30.9	−00.5	S 08 56.2	+01.1
07	303 30.4	−00.5	S 08 57.3	+01.2
08	318 29.9	−00.4	S 08 58.5	+01.2
09	333 29.5	−00.5	S 08 59.7	+01.1
10	348 29.0	−00.5	S 09 00.8	+01.2
11	3 28.5	−00.5	S 09 02.0	+01.1
12	18 28.0	−00.4	S 09 03.1	+01.2
13	33 27.6	−00.5	S 09 04.3	+01.2
14	48 27.1	−00.5	S 09 05.5	+01.1
15	63 26.6	−00.5	S 09 06.6	+01.2
16	78 26.1	−00.5	S 09 07.8	+01.1
17	93 25.6	−00.4	S 09 08.9	+01.2
18	108 25.2	−00.5	S 09 10.1	+01.2
19	123 24.7	−00.5	S 09 11.3	+01.1
20	138 24.2	−00.5	S 09 12.4	+01.2
21	153 23.7	−00.5	S 09 13.6	+01.1
22	168 23.2	−00.4	S 09 14.7	+01.2
23	183 22.8	−00.5	S 09 15.9	+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	155°	155°	155°	154°	154°	154°

Greenwich Culmination Time: 10:46

Moon

A: 45%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	26 17.0	−31.6	N 10 18.1	+16.8
01	40 45.4	−31.7	N 10 34.9	+16.7
02	55 13.7	−31.8	N 10 51.6	+16.7
03	69 41.9	−31.9	N 11 08.3	+16.6
04	84 10.0	−32.0	N 11 24.9	+16.5
05	98 38.0	−32.0	N 11 41.4	+16.6
06	113 06.0	−32.2	N 11 58.0	+16.4
07	127 33.8	−32.3	N 12 14.4	+16.4
08	142 01.5	−32.4	N 12 30.8	+16.3
09	156 29.1	−32.4	N 12 47.1	+16.3
10	170 56.7	−32.6	N 13 03.4	+16.2
11	185 24.1	−32.7	N 13 19.6	+16.1
12	199 51.4	−32.8	N 13 35.7	+16.1
13	214 18.6	−32.9	N 13 51.8	+16.0
14	228 45.7	−33.0	N 14 07.8	+15.9
15	243 12.7	−33.1	N 14 23.7	+15.8
16	257 39.6	−33.2	N 14 39.5	+15.8
17	272 06.4	−33.3	N 14 55.3	+15.6
18	286 33.1	−33.4	N 15 10.9	+15.6
19	300 59.7	−33.6	N 15 26.5	+15.5
20	315 26.1	−33.6	N 15 42.0	+15.4
21	329 52.5	−33.8	N 15 57.4	+15.3
22	344 18.7	−33.8	N 16 12.7	+15.2
23	358 44.9	−34.0	N 16 27.9	+15.1

UT	02	06	10	14	18	22
SD	16′6	16′6	16′6	16′6	16′7	16′7
HP	60′8	60′9	61′0	61′1	61′2	61′2
SHA	342°	339°	337°	335°	332°	330°

Greenwich Culmination Time: 23:05

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	166 10.5	+00.6	S 20 28.7	+00.4
01	181 11.1	+00.6	S 20 29.1	+00.4
02	196 11.7	+00.6	S 20 29.5	+00.4
03	211 12.3	+00.7	S 20 29.9	+00.5
04	226 13.0	+00.6	S 20 30.4	+00.4
05	241 13.6	+00.6	S 20 30.8	+00.4
06	256 14.2	+00.6	S 20 31.2	+00.4
07	271 14.8	+00.6	S 20 31.6	+00.4
08	286 15.4	+00.6	S 20 32.0	+00.4
09	301 16.0	+00.6	S 20 32.4	+00.4
10	316 16.6	+00.6	S 20 32.8	+00.4
11	331 17.2	+00.6	S 20 33.2	+00.4
12	346 17.8	+00.6	S 20 33.6	+00.4
13	1 18.4	+00.6	S 20 34.0	+00.4
14	16 19.0	+00.6	S 20 34.4	+00.4
15	31 19.6	+00.6	S 20 34.8	+00.4
16	46 20.2	+00.6	S 20 35.2	+00.4
17	61 20.8	+00.6	S 20 35.6	+00.4
18	76 21.4	+00.6	S 20 36.0	+00.4
19	91 22.0	+00.6	S 20 36.4	+00.4
20	106 22.6	+00.6	S 20 36.8	+00.4
21	121 23.2	+00.6	S 20 37.2	+00.4
22	136 23.8	+00.6	S 20 37.6	+00.4
23	151 24.4	+00.6	S 20 38.0	+00.4

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	123°	122°	122°	122°	122°	122°

Greenwich Culmination Time: 12:54

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	286 28.6	+02.4	N 21 12.7	+00.0
01	301 31.0	+02.4	N 21 12.7	+00.0
02	316 33.4	+02.4	N 21 12.7	+00.0
03	331 35.8	+02.4	N 21 12.7	+00.0
04	346 38.2	+02.4	N 21 12.7	+00.0
05	1 40.6	+02.4	N 21 12.7	+00.0
06	16 43.0	+02.4	N 21 12.7	+00.0
07	31 45.4	+02.4	N 21 12.7	+00.0
08	46 47.8	+02.4	N 21 12.7	+00.0
09	61 50.2	+02.4	N 21 12.7	−00.1
10	76 52.6	+02.4	N 21 12.6	+00.0
11	91 55.0	+02.4	N 21 12.6	+00.0
12	106 57.4	+02.4	N 21 12.6	+00.0
13	121 59.8	+02.4	N 21 12.6	+00.0
14	137 02.2	+02.4	N 21 12.6	+00.0
15	152 04.6	+02.4	N 21 12.6	+00.0
16	167 07.0	+02.4	N 21 12.6	+00.0
17	182 09.4	+02.4	N 21 12.6	+00.0
18	197 11.8	+02.4	N 21 12.6	+00.0
19	212 14.2	+02.4	N 21 12.6	+00.0
20	227 16.6	+02.4	N 21 12.6	+00.0
21	242 19.0	+02.4	N 21 12.6	+00.0
22	257 21.4	+02.4	N 21 12.6	+00.0
23	272 23.8	+02.4	N 21 12.6	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:53

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	46 29.7	+02.5	S 03 58.6	+00.0
01	61 32.2	+02.6	S 03 58.6	+00.1
02	76 34.8	+02.5	S 03 58.7	+00.0
03	91 37.3	+02.6	S 03 58.7	+00.0
04	106 39.9	+02.6	S 03 58.7	+00.1
05	121 42.5	+02.5	S 03 58.8	+00.0
06	136 45.0	+02.6	S 03 58.8	+00.0
07	151 47.6	+02.5	S 03 58.8	+00.1
08	166 50.1	+02.6	S 03 58.9	+00.0
09	181 52.7	+02.6	S 03 58.9	+00.0
10	196 55.3	+02.5	S 03 58.9	+00.1
11	211 57.8	+02.6	S 03 59.0	+00.0
12	227 00.4	+02.5	S 03 59.0	+00.0
13	242 02.9	+02.6	S 03 59.0	+00.1
14	257 05.5	+02.6	S 03 59.1	+00.0
15	272 08.1	+02.5	S 03 59.1	+00.0
16	287 10.6	+02.6	S 03 59.1	+00.1
17	302 13.2	+02.5	S 03 59.2	+00.0
18	317 15.7	+02.6	S 03 59.2	+00.0
19	332 18.3	+02.5	S 03 59.2	+00.1
20	347 20.8	+02.6	S 03 59.3	+00.0
21	2 23.4	+02.6	S 03 59.3	+00.0
22	17 26.0	+02.5	S 03 59.3	+00.1
23	32 28.5	+02.6	S 03 59.4	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:50

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!

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 06.2	+00.0	S 15 41.2	+00.8	00
01	199 06.2	+00.0	S 15 42.0	+00.7	01
02	214 06.2	−00.1	S 15 42.7	+00.8	02
03	229 06.1	+00.0	S 15 43.5	+00.8	03
04	244 06.1	+00.0	S 15 44.3	+00.7	04
05	259 06.1	+00.0	S 15 45.0	+00.8	05
06	274 06.1	+00.0	S 15 45.8	+00.7	06
07	289 06.1	+00.0	S 15 46.5	+00.8	07
08	304 06.1	−00.1	S 15 47.3	+00.7	08
09	319 06.0	+00.0	S 15 48.0	+00.8	09
10	334 06.0	+00.0	S 15 48.8	+00.7	10
11	349 06.0	+00.0	S 15 49.5	+00.8	11
12	4 06.0	+00.0	S 15 50.3	+00.7	12
13	19 06.0	−00.1	S 15 51.0	+00.8	13
14	34 05.9	+00.0	S 15 51.8	+00.8	14
15	49 05.9	+00.0	S 15 52.6	+00.7	15
16	64 05.9	+00.0	S 15 53.3	+00.8	16
17	79 05.9	+00.0	S 15 54.1	+00.7	17
18	94 05.9	−00.1	S 15 54.8	+00.8	18
19	109 05.8	+00.0	S 15 55.6	+00.7	19
20	124 05.8	+00.0	S 15 56.3	+00.8	20
21	139 05.8	+00.0	S 15 57.1	+00.7	21
22	154 05.8	−00.1	S 15 57.8	+00.8	22
23	169 05.7	+00.0	S 15 58.6	+00.7	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	140°	139°	139°	139°	139°	139°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	198 22.3	−00.5	S 09 17.0	+01.2	00
01	213 21.8	−00.5	S 09 18.2	+01.1	01
02	228 21.3	−00.5	S 09 19.3	+01.2	02
03	243 20.8	−00.4	S 09 20.5	+01.2	03
04	258 20.4	−00.5	S 09 21.7	+01.1	04
05	273 19.9	−00.5	S 09 22.8	+01.2	05
06	288 19.4	−00.5	S 09 24.0	+01.1	06
07	303 18.9	−00.5	S 09 25.1	+01.2	07
08	318 18.4	−00.5	S 09 26.3	+01.1	08
09	333 17.9	−00.4	S 09 27.4	+01.2	09
10	348 17.5	−00.5	S 09 28.6	+01.1	10
11	3 17.0	−00.5	S 09 29.7	+01.2	11
12	18 16.5	−00.5	S 09 30.9	+01.1	12
13	33 16.0	−00.5	S 09 32.0	+01.2	13
14	48 15.5	−00.5	S 09 33.2	+01.1	14
15	63 15.0	−00.5	S 09 34.3	+01.2	15
16	78 14.5	−00.4	S 09 35.5	+01.1	16
17	93 14.1	−00.5	S 09 36.6	+01.2	17
18	108 13.6	−00.5	S 09 37.8	+01.1	18
19	123 13.1	−00.5	S 09 38.9	+01.2	19
20	138 12.6	−00.5	S 09 40.1	+01.1	20
21	153 12.1	−00.5	S 09 41.2	+01.2	21
22	168 11.6	−00.5	S 09 42.4	+01.1	22
23	183 11.1	−00.5	S 09 43.5	+01.2	23

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	154°	154°	153°	153°	153°	153°

Greenwich Culmination Time: 10:46

Moon

A: 49%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	13 10.9	−34.1	N 16 43.0	+15.1	00
01	27 36.8	−34.2	N 16 58.1	+14.9	01
02	42 02.6	−34.4	N 17 13.0	+14.8	02
03	56 28.2	−34.4	N 17 27.8	+14.7	03
04	70 53.8	−34.5	N 17 42.5	+14.6	04
05	85 19.3	−34.7	N 17 57.1	+14.4	05
06	99 44.6	−34.8	N 18 11.5	+14.4	06
07	114 09.8	−34.9	N 18 25.9	+14.2	07
08	128 34.9	−35.0	N 18 40.1	+14.2	08
09	142 59.9	−35.1	N 18 54.3	+14.0	09
10	157 24.8	−35.3	N 19 08.3	+13.8	10
11	171 49.5	−35.3	N 19 22.1	+13.8	11
12	186 14.2	−35.5	N 19 35.9	+13.6	12
13	200 38.7	−35.6	N 19 49.5	+13.5	13
14	215 03.1	−35.7	N 20 03.0	+13.4	14
15	229 27.4	−35.8	N 20 16.4	+13.2	15
16	243 51.6	−35.9	N 20 29.6	+13.1	16
17	258 15.7	−36.1	N 20 42.7	+12.9	17
18	272 39.6	−36.1	N 20 55.6	+12.8	18
19	287 03.5	−36.3	N 21 08.4	+12.6	19
20	301 27.2	−36.4	N 21 21.0	+12.5	20
21	315 50.8	−36.5	N 21 33.5	+12.4	21
22	330 14.3	−36.6	N 21 45.9	+12.2	22
23	344 37.7	−36.7	N 21 58.1	+12.0	23

UT	02	06	10	14	18	22
SD	16′7	16′7	16′7	16′7	16′7	16′7
HP	61′3	61′3	61′4	61′4	61′4	61′4
SHA	327°	325°	323°	320°	317°	315°

Greenwich Culmination Time: −1:00

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	166 25.0	+00.6	S 20 38.4	+00.4	00
01	181 25.6	+00.6	S 20 38.8	+00.4	01
02	196 26.2	+00.6	S 20 39.2	+00.4	02
03	211 26.8	+00.5	S 20 39.6	+00.4	03
04	226 27.3	+00.6	S 20 40.0	+00.4	04
05	241 27.9	+00.6	S 20 40.4	+00.4	05
06	256 28.5	+00.6	S 20 40.8	+00.4	06
07	271 29.1	+00.6	S 20 41.2	+00.4	07
08	286 29.7	+00.6	S 20 41.6	+00.4	08
09	301 30.3	+00.6	S 20 42.0	+00.4	09
10	316 30.9	+00.6	S 20 42.4	+00.4	10
11	331 31.5	+00.6	S 20 42.8	+00.4	11
12	346 32.1	+00.6	S 20 43.2	+00.4	12
13	1 32.7	+00.6	S 20 43.6	+00.4	13
14	16 33.3	+00.6	S 20 44.0	+00.4	14
15	31 33.9	+00.6	S 20 44.4	+00.4	15
16	46 34.5	+00.6	S 20 44.8	+00.4	16
17	61 35.1	+00.6	S 20 45.2	+00.4	17
18	76 35.7	+00.6	S 20 45.6	+00.4	18
19	91 36.3	+00.6	S 20 46.0	+00.4	19
20	106 36.9	+00.6	S 20 46.4	+00.3	20
21	121 37.5	+00.5	S 20 46.7	+00.4	21
22	136 38.0	+00.6	S 20 47.1	+00.4	22
23	151 38.6	+00.6	S 20 47.5	+00.4	23

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	122°	122°	122°	122°	121°	121°

Greenwich Culmination Time: 12:53

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	287 26.2	+02.4	N 21 12.6	+00.0	00
01	302 28.6	+02.4	N 21 12.6	+00.0	01
02	317 31.0	+02.4	N 21 12.6	+00.0	02
03	332 33.4	+02.4	N 21 12.6	+00.0	03
04	347 35.8	+02.4	N 21 12.6	+00.0	04
05	2 38.2	+02.5	N 21 12.6	+00.0	05
06	17 40.7	+02.4	N 21 12.6	+00.0	06
07	32 43.1	+02.4	N 21 12.6	+00.0	07
08	47 45.5	+02.4	N 21 12.6	−00.1	08
09	62 47.9	+02.4	N 21 12.5	+00.0	09
10	77 50.3	+02.4	N 21 12.5	+00.0	10
11	92 52.7	+02.4	N 21 12.5	+00.0	11
12	107 55.1	+02.4	N 21 12.5	+00.0	12
13	122 57.5	+02.4	N 21 12.5	+00.0	13
14	137 59.9	+02.4	N 21 12.5	+00.0	14
15	153 02.3	+02.4	N 21 12.5	+00.0	15
16	168 04.7	+02.5	N 21 12.5	+00.0	16
17	183 07.2	+02.4	N 21 12.5	+00.0	17
18	198 09.6	+02.4	N 21 12.5	+00.0	18
19	213 12.0	+02.4	N 21 12.5	+00.0	19
20	228 14.4	+02.4	N 21 12.5	+00.0	20
21	243 16.8	+02.4	N 21 12.5	+00.0	21
22	258 19.2	+02.4	N 21 12.5	+00.0	22
23	273 21.6	+02.4	N 21 12.5	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:49

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	47 31.1	+02.5	S 03 59.4	+00.0	00
01	62 33.6	+02.6	S 03 59.4	+00.1	01
02	77 36.2	+02.5	S 03 59.5	+00.0	02
03	92 38.7	+02.6	S 03 59.5	+00.0	03
04	107 41.3	+02.6	S 03 59.5	+00.1	04
05	122 43.9	+02.5	S 03 59.6	+00.0	05
06	137 46.4	+02.6	S 03 59.6	+00.0	06
07	152 49.0	+02.5	S 03 59.6	+00.1	07
08	167 51.5	+02.6	S 03 59.7	+00.0	08
09	182 54.1	+02.5	S 03 59.7	+00.0	09
10	197 56.6	+02.6	S 03 59.7	+00.1	10
11	212 59.2	+02.6	S 03 59.8	+00.0	11
12	228 01.8	+02.5	S 03 59.8	+00.0	12
13	243 04.3	+02.6	S 03 59.8	+00.0	13
14	258 06.9	+02.5	S 03 59.8	+00.1	14
15	273 09.4	+02.6	S 03 59.9	+00.0	15
16	288 12.0	+02.5	S 03 59.9	+00.0	16
17	303 14.5	+02.6	S 03 59.9	+00.1	17
18	318 17.1	+02.5	S 03 60.0	+00.0	18
19	333 19.6	+02.6	S 04 00.0	+00.0	19
20	348 22.2	+02.6	S 04 00.0	+00.1	20
21	3 24.8	+02.5	S 04 00.1	+00.0	21
22	18 27.3	+02.6	S 04 00.1	+00.0	22
23	33 29.9	+02.5	S 04 00.1	+00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:46

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2025 November 6 Thursday

(day 310 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 05.7	+00.0	S 15 59.3	+00.8	00
01	199 05.7	+00.0	S 16 00.1	+00.7	01
02	214 05.7	+00.0	S 16 00.8	+00.7	02
03	229 05.7	−00.1	S 16 01.5	+00.8	03
04	244 05.6	+00.0	S 16 02.3	+00.7	04
05	259 05.6	+00.0	S 16 03.0	+00.8	05
06	274 05.6	−00.1	S 16 03.8	+00.7	06
07	289 05.5	+00.0	S 16 04.5	+00.8	07
08	304 05.5	+00.0	S 16 05.3	+00.7	08
09	319 05.5	+00.0	S 16 06.0	+00.8	09
10	334 05.5	−00.1	S 16 06.8	+00.7	10
11	349 05.4	+00.0	S 16 07.5	+00.7	11
12	4 05.4	+00.0	S 16 08.2	+00.8	12
13	19 05.4	+00.0	S 16 09.0	+00.7	13
14	34 05.4	−00.1	S 16 09.7	+00.8	14
15	49 05.3	+00.0	S 16 10.5	+00.7	15
16	64 05.3	+00.0	S 16 11.2	+00.8	16
17	79 05.3	−00.1	S 16 12.0	+00.7	17
18	94 05.2	+00.0	S 16 12.7	+00.7	18
19	109 05.2	+00.0	S 16 13.4	+00.8	19
20	124 05.2	−00.1	S 16 14.2	+00.7	20
21	139 05.1	+00.0	S 16 14.9	+00.7	21
22	154 05.1	+00.0	S 16 15.6	+00.8	22
23	169 05.1	−00.1	S 16 16.4	+00.7	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	139°	138°	138°	138°	138°	138°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	198 10.6	−00.4	S 09 44.7	+01.1	00
01	213 10.2	−00.5	S 09 45.8	+01.1	01
02	228 09.7	−00.5	S 09 46.9	+01.2	02
03	243 09.2	−00.5	S 09 48.1	+01.1	03
04	258 08.7	−00.5	S 09 49.2	+01.2	04
05	273 08.2	−00.5	S 09 50.4	+01.1	05
06	288 07.7	−00.5	S 09 51.5	+01.2	06
07	303 07.2	−00.5	S 09 52.7	+01.1	07
08	318 06.7	−00.5	S 09 53.8	+01.2	08
09	333 06.2	−00.5	S 09 55.0	+01.1	09
10	348 05.7	−00.5	S 09 56.1	+01.1	10
11	3 05.2	−00.5	S 09 57.2	+01.2	11
12	18 04.7	−00.5	S 09 58.4	+01.1	12
13	33 04.2	−00.4	S 09 59.5	+01.2	13
14	48 03.8	−00.5	S 10 00.7	+01.1	14
15	63 03.3	−00.5	S 10 01.8	+01.1	15
16	78 02.8	−00.5	S 10 02.9	+01.2	16
17	93 02.3	−00.5	S 10 04.1	+01.1	17
18	108 01.8	−00.5	S 10 05.2	+01.2	18
19	123 01.3	−00.5	S 10 06.4	+01.1	19
20	138 00.8	−00.5	S 10 07.5	+01.1	20
21	153 00.3	−00.5	S 10 08.6	+01.2	21
22	167 59.8	−00.5	S 10 09.8	+01.1	22
23	182 59.3	−00.5	S 10 10.9	+01.2	23

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	153°	152°	152°	152°	152°	152°

Greenwich Culmination Time: 10:47

Moon

A: 53%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	359 01.0	−36.8	N 22 10.1	+11.9	00
01	13 24.2	−37.0	N 22 22.0	+11.7	01
02	27 47.2	−37.0	N 22 33.7	+11.6	02
03	42 10.2	−37.2	N 22 45.3	+11.4	03
04	56 33.0	−37.2	N 22 56.7	+11.2	04
05	70 55.8	−37.4	N 23 07.9	+11.1	05
06	85 18.4	−37.5	N 23 19.0	+10.9	06
07	99 40.9	−37.5	N 23 29.9	+10.7	07
08	114 03.4	−37.7	N 23 40.6	+10.5	08
09	128 25.7	−37.8	N 23 51.1	+10.4	09
10	142 47.9	−37.8	N 24 01.5	+10.2	10
11	157 10.1	−38.0	N 24 11.7	+10.0	11
12	171 32.1	−38.0	N 24 21.7	+09.8	12
13	185 54.1	−38.2	N 24 31.5	+09.7	13
14	200 15.9	−38.2	N 24 41.2	+09.4	14
15	214 37.7	−38.3	N 24 50.6	+09.3	15
16	228 59.4	−38.4	N 24 59.9	+09.1	16
17	243 21.0	−38.5	N 25 09.0	+08.9	17
18	257 42.5	−38.6	N 25 17.9	+08.7	18
19	272 03.9	−38.7	N 25 26.6	+08.5	19
20	286 25.2	−38.7	N 25 35.1	+08.3	20
21	300 46.5	−38.8	N 25 43.4	+08.1	21
22	315 07.7	−38.9	N 25 51.5	+07.9	22
23	329 28.8	−38.9	N 25 59.4	+07.7	23

UT	02	06	10	14	18	22
SD	16′7	16′7	16′7	16′7	16′7	16′7
HP	61′4	61′4	61′4	61′3	61′3	61′3
SHA	312°	310°	307°	304°	302°	299°

Greenwich Culmination Time: 00:04

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	166 39.2	+00.6	S 20 47.9	+00.4	00
01	181 39.8	+00.6	S 20 48.3	+00.4	01
02	196 40.4	+00.6	S 20 48.7	+00.4	02
03	211 41.0	+00.6	S 20 49.1	+00.4	03
04	226 41.6	+00.6	S 20 49.5	+00.4	04
05	241 42.2	+00.6	S 20 49.9	+00.4	05
06	256 42.8	+00.6	S 20 50.3	+00.4	06
07	271 43.4	+00.5	S 20 50.7	+00.4	07
08	286 43.9	+00.6	S 20 51.1	+00.3	08
09	301 44.5	+00.6	S 20 51.4	+00.4	09
10	316 45.1	+00.6	S 20 51.8	+00.4	10
11	331 45.7	+00.6	S 20 52.2	+00.4	11
12	346 46.3	+00.6	S 20 52.6	+00.4	12
13	1 46.9	+00.6	S 20 53.0	+00.4	13
14	16 47.5	+00.6	S 20 53.4	+00.4	14
15	31 48.1	+00.6	S 20 53.8	+00.4	15
16	46 48.7	+00.5	S 20 54.2	+00.4	16
17	61 49.2	+00.6	S 20 54.6	+00.3	17
18	76 49.8	+00.6	S 20 54.9	+00.4	18
19	91 50.4	+00.6	S 20 55.3	+00.4	19
20	106 51.0	+00.6	S 20 55.7	+00.4	20
21	121 51.6	+00.6	S 20 56.1	+00.4	21
22	136 52.2	+00.6	S 20 56.5	+00.4	22
23	151 52.8	+00.5	S 20 56.9	+00.4	23

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	121°	121°	121°	121°	121°	121°

Greenwich Culmination Time: 12:52

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	288 24.0	+02.5	N 21 12.5	+00.0	00
01	303 26.5	+02.4	N 21 12.5	+00.0	01
02	318 28.9	+02.4	N 21 12.5	+00.0	02
03	333 31.3	+02.4	N 21 12.5	+00.0	03
04	348 33.7	+02.4	N 21 12.5	+00.0	04
05	3 36.1	+02.4	N 21 12.5	+00.0	05
06	18 38.5	+02.4	N 21 12.5	+00.0	06
07	33 40.9	+02.5	N 21 12.5	+00.0	07
08	48 43.4	+02.4	N 21 12.5	+00.0	08
09	63 45.8	+02.4	N 21 12.5	+00.0	09
10	78 48.2	+02.4	N 21 12.5	+00.0	10
11	93 50.6	+02.4	N 21 12.5	+00.0	11
12	108 53.0	+02.4	N 21 12.5	+00.0	12
13	123 55.4	+02.5	N 21 12.5	+00.0	13
14	138 57.9	+02.4	N 21 12.5	+00.0	14
15	154 00.3	+02.4	N 21 12.5	+00.0	15
16	169 02.7	+02.4	N 21 12.5	+00.0	16
17	184 05.1	+02.4	N 21 12.5	+00.0	17
18	199 07.5	+02.5	N 21 12.5	+00.0	18
19	214 10.0	+02.4	N 21 12.5	+00.0	19
20	229 12.4	+02.4	N 21 12.5	+00.0	20
21	244 14.8	+02.4	N 21 12.5	+00.0	21
22	259 17.2	+02.4	N 21 12.5	+00.0	22
23	274 19.6	+02.5	N 21 12.5	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:45

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	48 32.4	+02.6	S 04 00.2	+00.0	00
01	63 35.0	+02.5	S 04 00.2	+00.0	01
02	78 37.5	+02.6	S 04 00.2	+00.1	02
03	93 40.1	+02.5	S 04 00.3	+00.0	03
04	108 42.6	+02.6	S 04 00.3	+00.0	04
05	123 45.2	+02.5	S 04 00.3	+00.0	05
06	138 47.7	+02.6	S 04 00.3	+00.1	06
07	153 50.3	+02.5	S 04 00.4	+00.0	07
08	168 52.8	+02.6	S 04 00.4	+00.0	08
09	183 55.4	+02.5	S 04 00.4	+00.1	09
10	198 57.9	+02.6	S 04 00.5	+00.0	10
11	214 00.5	+02.6	S 04 00.5	+00.0	11
12	229 03.1	+02.5	S 04 00.5	+00.1	12
13	244 05.6	+02.6	S 04 00.6	+00.0	13
14	259 08.2	+02.5	S 04 00.6	+00.0	14
15	274 10.7	+02.6	S 04 00.6	+00.0	15
16	289 13.3	+02.5	S 04 00.6	+00.1	16
17	304 15.8	+02.6	S 04 00.7	+00.0	17
18	319 18.4	+02.5	S 04 00.7	+00.0	18
19	334 20.9	+02.6	S 04 00.7	+00.1	19
20	349 23.5	+02.5	S 04 00.8	+00.0	20
21	4 26.0	+02.6	S 04 00.8	+00.0	21
22	19 28.6	+02.5	S 04 00.8	+00.1	22
23	34 31.1	+02.6	S 04 00.9	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:42

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 November 7 Friday

(day 311 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 05.0	+00.0	S 16 17.1	+00.8	00
01	199 05.0	+00.0	S 16 17.9	+00.7	01
02	214 05.0	−00.1	S 16 18.6	+00.7	02
03	229 04.9	+00.0	S 16 19.3	+00.8	03
04	244 04.9	+00.0	S 16 20.1	+00.7	04
05	259 04.9	−00.1	S 16 20.8	+00.7	05
06	274 04.8	+00.0	S 16 21.5	+00.8	06
07	289 04.8	+00.0	S 16 22.3	+00.7	07
08	304 04.8	−00.1	S 16 23.0	+00.7	08
09	319 04.7	+00.0	S 16 23.7	+00.8	09
10	334 04.7	+00.0	S 16 24.5	+00.7	10
11	349 04.7	−00.1	S 16 25.2	+00.7	11
12	4 04.6	+00.0	S 16 25.9	+00.8	12
13	19 04.6	+00.0	S 16 26.7	+00.7	13
14	34 04.6	−00.1	S 16 27.4	+00.7	14
15	49 04.5	+00.0	S 16 28.1	+00.8	15
16	64 04.5	−00.1	S 16 28.9	+00.7	16
17	79 04.4	+00.0	S 16 29.6	+00.7	17
18	94 04.4	+00.0	S 16 30.3	+00.7	18
19	109 04.4	−00.1	S 16 31.0	+00.8	19
20	124 04.3	+00.0	S 16 31.8	+00.7	20
21	139 04.3	−00.1	S 16 32.5	+00.7	21
22	154 04.2	+00.0	S 16 33.2	+00.7	22
23	169 04.2	+00.0	S 16 33.9	+00.8	23

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	138°	137°	137°	137°	137°	137°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	197 58.8	−00.5	S 10 12.1	+01.1	00
01	212 58.3	−00.5	S 10 13.2	+01.1	01
02	227 57.8	−00.5	S 10 14.3	+01.2	02
03	242 57.3	−00.5	S 10 15.5	+01.1	03
04	257 56.8	−00.5	S 10 16.6	+01.1	04
05	272 56.3	−00.5	S 10 17.7	+01.2	05
06	287 55.8	−00.5	S 10 18.9	+01.1	06
07	302 55.3	−00.5	S 10 20.0	+01.1	07
08	317 54.8	−00.5	S 10 21.1	+01.2	08
09	332 54.3	−00.5	S 10 22.3	+01.1	09
10	347 53.8	−00.5	S 10 23.4	+01.1	10
11	2 53.3	−00.5	S 10 24.5	+01.2	11
12	17 52.8	−00.5	S 10 25.7	+01.1	12
13	32 52.3	−00.5	S 10 26.8	+01.1	13
14	47 51.8	−00.5	S 10 27.9	+01.2	14
15	62 51.3	−00.5	S 10 29.1	+01.1	15
16	77 50.8	−00.5	S 10 30.2	+01.1	16
17	92 50.3	−00.5	S 10 31.3	+01.2	17
18	107 49.8	−00.6	S 10 32.5	+01.1	18
19	122 49.2	−00.5	S 10 33.6	+01.1	19
20	137 48.7	−00.5	S 10 34.7	+01.1	20
21	152 48.2	−00.5	S 10 35.8	+01.2	21
22	167 47.7	−00.5	S 10 37.0	+01.1	22
23	182 47.2	−00.5	S 10 38.1	+01.1	23

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	151°	151°	151°	151°	151°	150°

Greenwich Culmination Time: 10:48

Moon

A: 57%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	343 49.9	−39.1	N 26 07.1	+07.5	00
01	358 10.8	−39.0	N 26 14.6	+07.3	01
02	12 31.8	−39.2	N 26 21.9	+07.1	02
03	26 52.6	−39.2	N 26 29.0	+06.9	03
04	41 13.4	−39.3	N 26 35.9	+06.7	04
05	55 34.1	−39.3	N 26 42.6	+06.5	05
06	69 54.8	−39.4	N 26 49.1	+06.3	06
07	84 15.4	−39.4	N 26 55.4	+06.0	07
08	98 36.0	−39.4	N 27 01.4	+05.9	08
09	112 56.6	−39.6	N 27 07.3	+05.6	09
10	127 17.0	−39.5	N 27 12.9	+05.4	10
11	141 37.5	−39.6	N 27 18.3	+05.2	11
12	155 57.9	−39.6	N 27 23.5	+05.0	12
13	170 18.3	−39.7	N 27 28.5	+04.8	13
14	184 38.6	−39.6	N 27 33.3	+04.6	14
15	198 59.0	−39.7	N 27 37.9	+04.3	15
16	213 19.3	−39.8	N 27 42.2	+04.1	16
17	227 39.5	−39.7	N 27 46.3	+04.0	17
18	241 59.8	−39.8	N 27 50.3	+03.6	18
19	256 20.0	−39.7	N 27 53.9	+03.5	19
20	270 40.3	−39.8	N 27 57.4	+03.3	20
21	285 00.5	−39.8	N 28 00.7	+03.0	21
22	299 20.7	−39.7	N 28 03.7	+02.8	22
23	313 41.0	−39.8	N 28 06.5	+02.7	23

UT	02	06	10	14	18	22
SD	16′7	16′7	16′6	16′6	16′6	16′6
HP	61′2	61′1	61′1	61′0	60′9	60′8
SHA	296°	293°	290°	288°	285°	282°

Greenwich Culmination Time: 01:07

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	166 53.3	+00.6	S 20 57.3	+00.3	00
01	181 53.9	+00.6	S 20 57.6	+00.4	01
02	196 54.5	+00.6	S 20 58.0	+00.4	02
03	211 55.1	+00.6	S 20 58.4	+00.4	03
04	226 55.7	+00.6	S 20 58.8	+00.4	04
05	241 56.3	+00.5	S 20 59.2	+00.4	05
06	256 56.8	+00.6	S 20 59.6	+00.3	06
07	271 57.4	+00.6	S 20 59.9	+00.4	07
08	286 58.0	+00.6	S 21 00.3	+00.4	08
09	301 58.6	+00.6	S 21 00.7	+00.4	09
10	316 59.2	+00.6	S 21 01.1	+00.4	10
11	331 59.8	+00.5	S 21 01.5	+00.4	11
12	347 00.3	+00.6	S 21 01.9	+00.3	12
13	2 00.9	+00.6	S 21 02.2	+00.4	13
14	17 01.5	+00.6	S 21 02.6	+00.4	14
15	32 02.1	+00.6	S 21 03.0	+00.4	15
16	47 02.7	+00.5	S 21 03.4	+00.4	16
17	62 03.2	+00.6	S 21 03.8	+00.3	17
18	77 03.8	+00.6	S 21 04.1	+00.4	18
19	92 04.4	+00.6	S 21 04.5	+00.4	19
20	107 05.0	+00.6	S 21 04.9	+00.4	20
21	122 05.6	+00.5	S 21 05.3	+00.4	21
22	137 06.1	+00.6	S 21 05.7	+00.3	22
23	152 06.7	+00.6	S 21 06.0	+00.4	23

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	120°	120°	120°	120°	120°	120°

Greenwich Culmination Time: 12:51

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	289 22.1	+02.4	N 21 12.5	+00.0	00
01	304 24.5	+02.4	N 21 12.5	−00.1	01
02	319 26.9	+02.4	N 21 12.4	+00.0	02
03	334 29.3	+02.5	N 21 12.4	+00.0	03
04	349 31.8	+02.4	N 21 12.4	+00.0	04
05	4 34.2	+02.4	N 21 12.4	+00.0	05
06	19 36.6	+02.4	N 21 12.4	+00.0	06
07	34 39.0	+02.5	N 21 12.4	+00.0	07
08	49 41.5	+02.4	N 21 12.4	+00.0	08
09	64 43.9	+02.4	N 21 12.4	+00.0	09
10	79 46.3	+02.4	N 21 12.4	+00.0	10
11	94 48.7	+02.5	N 21 12.4	+00.0	11
12	109 51.2	+02.4	N 21 12.4	+00.0	12
13	124 53.6	+02.4	N 21 12.4	+00.0	13
14	139 56.0	+02.4	N 21 12.4	+00.0	14
15	154 58.4	+02.5	N 21 12.4	+00.0	15
16	170 00.9	+02.4	N 21 12.4	+00.0	16
17	185 03.3	+02.4	N 21 12.4	+00.0	17
18	200 05.7	+02.4	N 21 12.4	+00.0	18
19	215 08.1	+02.5	N 21 12.4	+00.0	19
20	230 10.6	+02.4	N 21 12.4	+00.0	20
21	245 13.0	+02.4	N 21 12.4	+00.0	21
22	260 15.4	+02.5	N 21 12.4	+00.0	22
23	275 17.9	+02.4	N 21 12.4	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:41

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	49 33.7	+02.5	S 04 00.9	+00.0	00
01	64 36.2	+02.6	S 04 00.9	+00.0	01
02	79 38.8	+02.5	S 04 00.9	+00.1	02
03	94 41.3	+02.6	S 04 01.0	+00.0	03
04	109 43.9	+02.5	S 04 01.0	+00.0	04
05	124 46.4	+02.6	S 04 01.0	+00.1	05
06	139 49.0	+02.5	S 04 01.1	+00.0	06
07	154 51.5	+02.6	S 04 01.1	+00.0	07
08	169 54.1	+02.5	S 04 01.1	+00.0	08
09	184 56.6	+02.6	S 04 01.1	+00.1	09
10	199 59.2	+02.5	S 04 01.2	+00.0	10
11	215 01.7	+02.6	S 04 01.2	+00.0	11
12	230 04.3	+02.5	S 04 01.2	+00.1	12
13	245 06.8	+02.6	S 04 01.3	+00.0	13
14	260 09.4	+02.5	S 04 01.3	+00.0	14
15	275 11.9	+02.6	S 04 01.3	+00.0	15
16	290 14.5	+02.5	S 04 01.3	+00.1	16
17	305 17.0	+02.6	S 04 01.4	+00.0	17
18	320 19.6	+02.5	S 04 01.4	+00.0	18
19	335 22.1	+02.6	S 04 01.4	+00.1	19
20	350 24.7	+02.5	S 04 01.5	+00.0	20
21	5 27.2	+02.5	S 04 01.5	+00.0	21
22	20 29.7	+02.6	S 04 01.5	+00.0	22
23	35 32.3	+02.5	S 04 01.5	+00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:38

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2025 November 8 Saturday

(day 312 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 04.2	−00.1	S 16 34.7	+00.7
01	199 04.1	+00.0	S 16 35.4	+00.7
02	214 04.1	−00.1	S 16 36.1	+00.7
03	229 04.0	+00.0	S 16 36.8	+00.8
04	244 04.0	−00.1	S 16 37.6	+00.7
05	259 03.9	+00.0	S 16 38.3	+00.7
06	274 03.9	+00.0	S 16 39.0	+00.7
07	289 03.9	−00.1	S 16 39.7	+00.8
08	304 03.8	+00.0	S 16 40.5	+00.7
09	319 03.8	−00.1	S 16 41.2	+00.7
10	334 03.7	+00.0	S 16 41.9	+00.7
11	349 03.7	−00.1	S 16 42.6	+00.7
12	4 03.6	+00.0	S 16 43.3	+00.8
13	19 03.6	−00.1	S 16 44.1	+00.7
14	34 03.5	+00.0	S 16 44.8	+00.7
15	49 03.5	+00.0	S 16 45.5	+00.7
16	64 03.5	−00.1	S 16 46.2	+00.7
17	79 03.4	+00.0	S 16 46.9	+00.7
18	94 03.4	−00.1	S 16 47.6	+00.8
19	109 03.3	+00.0	S 16 48.4	+00.7
20	124 03.3	−00.1	S 16 49.1	+00.7
21	139 03.2	+00.0	S 16 49.8	+00.7
22	154 03.2	−00.1	S 16 50.5	+00.7
23	169 03.1	+00.0	S 16 51.2	+00.7

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	137°	136°	136°	136°	136°	136°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	197 46.7	−00.5	S 10 39.2	+01.2
01	212 46.2	−00.5	S 10 40.4	+01.1
02	227 45.7	−00.5	S 10 41.5	+01.1
03	242 45.2	−00.5	S 10 42.6	+01.1
04	257 44.7	−00.5	S 10 43.7	+01.2
05	272 44.2	−00.5	S 10 44.9	+01.1
06	287 43.7	−00.5	S 10 46.0	+01.1
07	302 43.2	−00.6	S 10 47.1	+01.1
08	317 42.6	−00.5	S 10 48.2	+01.2
09	332 42.1	−00.5	S 10 49.4	+01.1
10	347 41.6	−00.5	S 10 50.5	+01.1
11	2 41.1	−00.5	S 10 51.6	+01.1
12	17 40.6	−00.5	S 10 52.7	+01.1
13	32 40.1	−00.5	S 10 53.8	+01.2
14	47 39.6	−00.5	S 10 55.0	+01.1
15	62 39.1	−00.6	S 10 56.1	+01.1
16	77 38.5	−00.5	S 10 57.2	+01.1
17	92 38.0	−00.5	S 10 58.3	+01.1
18	107 37.5	−00.5	S 10 59.4	+01.2
19	122 37.0	−00.5	S 11 00.6	+01.1
20	137 36.5	−00.5	S 11 01.7	+01.1
21	152 36.0	−00.5	S 11 02.8	+01.1
22	167 35.5	−00.6	S 11 03.9	+01.1
23	182 34.9	−00.5	S 11 05.0	+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	150°	150°	150°	150°	149°	149°

Greenwich Culmination Time: 10:49

Moon

A: 62%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	328 01.2	−39.8	N 28 09.2	+02.3
01	342 21.4	−39.7	N 28 11.5	+02.2
02	356 41.7	−39.8	N 28 13.7	+02.0
03	11 01.9	−39.7	N 28 15.7	+01.7
04	25 22.2	−39.7	N 28 17.4	+01.5
05	39 42.5	−39.7	N 28 18.9	+01.3
06	54 02.8	−39.6	N 28 20.2	+01.1
07	68 23.2	−39.6	N 28 21.3	+00.8
08	82 43.6	−39.6	N 28 22.1	+00.7
09	97 04.0	−39.6	N 28 22.8	+00.4
10	111 24.4	−39.5	N 28 23.2	+00.2
11	125 44.9	−39.5	N 28 23.4	+00.0
12	140 05.4	−39.4	N 28 23.4	−00.2
13	154 26.0	−39.3	N 28 23.2	−00.4
14	168 46.7	−39.4	N 28 22.8	−00.7
15	183 07.3	−39.2	N 28 22.1	−00.8
16	197 28.1	−39.2	N 28 21.3	−01.1
17	211 48.9	−39.2	N 28 20.2	−01.2
18	226 09.7	−39.0	N 28 19.0	−01.5
19	240 30.7	−39.0	N 28 17.5	−01.7
20	254 51.7	−39.0	N 28 15.8	−01.9
21	269 12.7	−38.8	N 28 13.9	−02.1
22	283 33.9	−38.8	N 28 11.8	−02.3
23	297 55.1	−38.7	N 28 09.5	−02.5

UT	02	06	10	14	18	22
SD	16′5	16′5	16′5	16′4	16′4	16′4
HP	60′7	60′6	60′4	60′3	60′2	60′1
SHA	279°	276°	274°	271°	268°	265°

Greenwich Culmination Time: 02:13

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	167 07.3	+00.6	S 21 06.4	+00.4
01	182 07.9	+00.6	S 21 06.8	+00.4
02	197 08.5	+00.5	S 21 07.2	+00.3
03	212 09.0	+00.6	S 21 07.5	+00.4
04	227 09.6	+00.6	S 21 07.9	+00.4
05	242 10.2	+00.6	S 21 08.3	+00.4
06	257 10.8	+00.5	S 21 08.7	+00.3
07	272 11.3	+00.6	S 21 09.0	+00.4
08	287 11.9	+00.6	S 21 09.4	+00.4
09	302 12.5	+00.6	S 21 09.8	+00.4
10	317 13.1	+00.5	S 21 10.2	+00.3
11	332 13.6	+00.6	S 21 10.5	+00.4
12	347 14.2	+00.6	S 21 10.9	+00.4
13	2 14.8	+00.6	S 21 11.3	+00.4
14	17 15.4	+00.5	S 21 11.7	+00.3
15	32 15.9	+00.6	S 21 12.0	+00.4
16	47 16.5	+00.6	S 21 12.4	+00.4
17	62 17.1	+00.6	S 21 12.8	+00.4
18	77 17.7	+00.5	S 21 13.2	+00.3
19	92 18.2	+00.6	S 21 13.5	+00.4
20	107 18.8	+00.6	S 21 13.9	+00.4
21	122 19.4	+00.6	S 21 14.3	+00.3
22	137 20.0	+00.5	S 21 14.6	+00.4
23	152 20.5	+00.6	S 21 15.0	+00.4

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	120°	119°	119°	119°	119°	119°

Greenwich Culmination Time: 12:51

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	290 20.3	+02.4	N 21 12.4	+00.0
01	305 22.7	+02.5	N 21 12.4	+00.0
02	320 25.2	+02.4	N 21 12.4	+00.0
03	335 27.6	+02.4	N 21 12.4	+00.0
04	350 30.0	+02.5	N 21 12.4	+00.0
05	5 32.5	+02.4	N 21 12.4	+00.0
06	20 34.9	+02.4	N 21 12.4	+00.0
07	35 37.3	+02.5	N 21 12.4	+00.0
08	50 39.8	+02.4	N 21 12.4	+00.0
09	65 42.2	+02.4	N 21 12.4	+00.0
10	80 44.6	+02.5	N 21 12.4	+00.0
11	95 47.1	+02.4	N 21 12.4	+00.0
12	110 49.5	+02.4	N 21 12.4	+00.0
13	125 51.9	+02.5	N 21 12.4	+00.0
14	140 54.4	+02.4	N 21 12.4	+00.1
15	155 56.8	+02.4	N 21 12.5	+00.0
16	170 59.2	+02.5	N 21 12.5	+00.0
17	186 01.7	+02.4	N 21 12.5	+00.0
18	201 04.1	+02.4	N 21 12.5	+00.0
19	216 06.5	+02.5	N 21 12.5	+00.0
20	231 09.0	+02.4	N 21 12.5	+00.0
21	246 11.4	+02.5	N 21 12.5	+00.0
22	261 13.9	+02.4	N 21 12.5	+00.0
23	276 16.3	+02.4	N 21 12.5	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:37

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	50 34.8	+02.6	S 04 01.6	+00.0
01	65 37.4	+02.5	S 04 01.6	+00.0
02	80 39.9	+02.6	S 04 01.6	+00.1
03	95 42.5	+02.5	S 04 01.7	+00.0
04	110 45.0	+02.6	S 04 01.7	+00.0
05	125 47.6	+02.5	S 04 01.7	+00.0
06	140 50.1	+02.6	S 04 01.7	+00.1
07	155 52.7	+02.5	S 04 01.8	+00.0
08	170 55.2	+02.6	S 04 01.8	+00.0
09	185 57.8	+02.5	S 04 01.8	+00.0
10	201 00.3	+02.5	S 04 01.8	+00.1
11	216 02.8	+02.6	S 04 01.9	+00.0
12	231 05.4	+02.5	S 04 01.9	+00.0
13	246 07.9	+02.6	S 04 01.9	+00.1
14	261 10.5	+02.5	S 04 02.0	+00.0
15	276 13.0	+02.6	S 04 02.0	+00.0
16	291 15.6	+02.5	S 04 02.0	+00.0
17	306 18.1	+02.6	S 04 02.0	+00.1
18	321 20.7	+02.5	S 04 02.1	+00.0
19	336 23.2	+02.5	S 04 02.1	+00.0
20	351 25.7	+02.6	S 04 02.1	+00.0
21	6 28.3	+02.5	S 04 02.1	+00.1
22	21 30.8	+02.6	S 04 02.2	+00.0
23	36 33.4	+02.5	S 04 02.2	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:34

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2025 November 9 Sunday

(day 313 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 03.1	-00.1	S 16 51.9	+00.8
01	199 03.0	+00.0	S 16 52.7	+00.7
02	214 03.0	-00.1	S 16 53.4	+00.7
03	229 02.9	+00.0	S 16 54.1	+00.7
04	244 02.9	-00.1	S 16 54.8	+00.7
05	259 02.8	+00.0	S 16 55.5	+00.7
06	274 02.8	-00.1	S 16 56.2	+00.7
07	289 02.7	-00.1	S 16 56.9	+00.7
08	304 02.6	+00.0	S 16 57.6	+00.7
09	319 02.6	-00.1	S 16 58.3	+00.8
10	334 02.5	+00.0	S 16 59.1	+00.7
11	349 02.5	-00.1	S 16 59.8	+00.7
12	4 02.4	+00.0	S 17 00.5	+00.7
13	19 02.4	-00.1	S 17 01.2	+00.7
14	34 02.3	+00.0	S 17 01.9	+00.7
15	49 02.3	-00.1	S 17 02.6	+00.7
16	64 02.2	+00.0	S 17 03.3	+00.7
17	79 02.2	-00.1	S 17 04.0	+00.7
18	94 02.1	-00.1	S 17 04.7	+00.7
19	109 02.0	+00.0	S 17 05.4	+00.7
20	124 02.0	-00.1	S 17 06.1	+00.7
21	139 01.9	+00.0	S 17 06.8	+00.7
22	154 01.9	-00.1	S 17 07.5	+00.7
23	169 01.8	-00.1	S 17 08.2	+00.7

UT	02	06	10	14	18	22
SD	16′1	16′1	16′1	16′1	16′1	16′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	136°	135°	135°	135°	135°	135°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	197 34.4	-00.5	S 11 06.2	+01.1
01	212 33.9	-00.5	S 11 07.3	+01.1
02	227 33.4	-00.5	S 11 08.4	+01.1
03	242 32.9	-00.6	S 11 09.5	+01.1
04	257 32.3	-00.5	S 11 10.6	+01.1
05	272 31.8	-00.5	S 11 11.7	+01.1
06	287 31.3	-00.5	S 11 12.8	+01.2
07	302 30.8	-00.5	S 11 14.0	+01.1
08	317 30.3	-00.6	S 11 15.1	+01.1
09	332 29.7	-00.5	S 11 16.2	+01.1
10	347 29.2	-00.5	S 11 17.3	+01.1
11	2 28.7	-00.5	S 11 18.4	+01.1
12	17 28.2	-00.5	S 11 19.5	+01.1
13	32 27.7	-00.6	S 11 20.6	+01.1
14	47 27.1	-00.5	S 11 21.7	+01.2
15	62 26.6	-00.5	S 11 22.9	+01.1
16	77 26.1	-00.5	S 11 24.0	+01.1
17	92 25.6	-00.6	S 11 25.1	+01.1
18	107 25.0	-00.5	S 11 26.2	+01.1
19	122 24.5	-00.5	S 11 27.3	+01.1
20	137 24.0	-00.5	S 11 28.4	+01.1
21	152 23.5	-00.6	S 11 29.5	+01.1
22	167 22.9	-00.5	S 11 30.6	+01.1
23	182 22.4	-00.5	S 11 31.7	+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	149°	149°	149°	148°	148°	148°

Greenwich Culmination Time: 10:50

Moon

A: 66%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	312 16.4	-38.6	N 28 07.0	-02.7
01	326 37.8	-38.5	N 28 04.3	-02.9
02	340 59.3	-38.5	N 28 01.4	-03.1
03	355 20.8	-38.3	N 27 58.3	-03.3
04	9 42.5	-38.3	N 27 55.0	-03.5
05	24 04.2	-38.1	N 27 51.5	-03.7
06	38 26.1	-38.1	N 27 47.8	-03.9
07	52 48.0	-37.9	N 27 43.9	-04.1
08	67 10.1	-37.9	N 27 39.8	-04.3
09	81 32.2	-37.8	N 27 35.5	-04.4
10	95 54.4	-37.6	N 27 31.1	-04.7
11	110 16.8	-37.5	N 27 26.4	-04.8
12	124 39.3	-37.5	N 27 21.6	-05.0
13	139 01.8	-37.3	N 27 16.6	-05.2
14	153 24.5	-37.2	N 27 11.4	-05.4
15	167 47.3	-37.0	N 27 06.0	-05.5
16	182 10.3	-37.0	N 27 00.5	-05.8
17	196 33.3	-36.8	N 26 54.7	-05.9
18	210 56.5	-36.8	N 26 48.8	-06.0
19	225 19.7	-36.6	N 26 42.8	-06.3
20	239 43.1	-36.4	N 26 36.5	-06.4
21	254 06.7	-36.4	N 26 30.1	-06.6
22	268 30.3	-36.2	N 26 23.5	-06.7
23	282 54.1	-36.1	N 26 16.8	-06.9

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′2	16′2	16′1
HP	59′9	59′8	59′6	59′5	59′3	59′2
SHA	262°	260°	257°	254°	252°	249°

Greenwich Culmination Time: 03:19

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	167 21.1	+00.6	S 21 15.4	+00.3
01	182 21.7	+00.5	S 21 15.7	+00.4
02	197 22.2	+00.6	S 21 16.1	+00.4
03	212 22.8	+00.6	S 21 16.5	+00.3
04	227 23.4	+00.6	S 21 16.8	+00.4
05	242 24.0	+00.5	S 21 17.2	+00.4
06	257 24.5	+00.6	S 21 17.6	+00.4
07	272 25.1	+00.6	S 21 18.0	+00.3
08	287 25.7	+00.5	S 21 18.3	+00.4
09	302 26.2	+00.6	S 21 18.7	+00.4
10	317 26.8	+00.6	S 21 19.1	+00.3
11	332 27.4	+00.5	S 21 19.4	+00.4
12	347 27.9	+00.6	S 21 19.8	+00.4
13	2 28.5	+00.6	S 21 20.2	+00.3
14	17 29.1	+00.6	S 21 20.5	+00.4
15	32 29.7	+00.5	S 21 20.9	+00.3
16	47 30.2	+00.6	S 21 21.2	+00.4
17	62 30.8	+00.6	S 21 21.6	+00.4
18	77 31.4	+00.5	S 21 22.0	+00.3
19	92 31.9	+00.6	S 21 22.3	+00.4
20	107 32.5	+00.6	S 21 22.7	+00.4
21	122 33.1	+00.5	S 21 23.1	+00.3
22	137 33.6	+00.6	S 21 23.4	+00.4
23	152 34.2	+00.6	S 21 23.8	+00.3

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	119°	119°	119°	118°	118°	118°

Greenwich Culmination Time: 12:50

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	291 18.7	+02.5	N 21 12.5	+00.0
01	306 21.2	+02.4	N 21 12.5	+00.0
02	321 23.6	+02.5	N 21 12.5	+00.0
03	336 26.1	+02.4	N 21 12.5	+00.0
04	351 28.5	+02.4	N 21 12.5	+00.0
05	6 30.9	+02.5	N 21 12.5	+00.0
06	21 33.4	+02.4	N 21 12.5	+00.0
07	36 35.8	+02.5	N 21 12.5	+00.0
08	51 38.3	+02.4	N 21 12.5	+00.0
09	66 40.7	+02.5	N 21 12.5	+00.0
10	81 43.2	+02.4	N 21 12.5	+00.0
11	96 45.6	+02.4	N 21 12.5	+00.0
12	111 48.0	+02.5	N 21 12.5	+00.0
13	126 50.5	+02.4	N 21 12.5	+00.0
14	141 52.9	+02.5	N 21 12.5	+00.0
15	156 55.4	+02.4	N 21 12.5	+00.0
16	171 57.8	+02.5	N 21 12.5	+00.0
17	187 00.3	+02.4	N 21 12.5	+00.0
18	202 02.7	+02.5	N 21 12.5	+00.0
19	217 05.2	+02.4	N 21 12.5	+00.0
20	232 07.6	+02.4	N 21 12.5	+00.0
21	247 10.0	+02.5	N 21 12.5	+00.0
22	262 12.5	+02.4	N 21 12.5	+00.0
23	277 14.9	+02.5	N 21 12.5	+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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:34

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	51 35.9	+02.6	S 04 02.2	+00.0
01	66 38.5	+02.5	S 04 02.2	+00.1
02	81 41.0	+02.6	S 04 02.3	+00.0
03	96 43.6	+02.5	S 04 02.3	+00.0
04	111 46.1	+02.5	S 04 02.3	+00.0
05	126 48.6	+02.6	S 04 02.3	+00.1
06	141 51.2	+02.5	S 04 02.4	+00.0
07	156 53.7	+02.6	S 04 02.4	+00.0
08	171 56.3	+02.5	S 04 02.4	+00.0
09	186 58.8	+02.5	S 04 02.4	+00.1
10	202 01.3	+02.6	S 04 02.5	+00.0
11	217 03.9	+02.5	S 04 02.5	+00.0
12	232 06.4	+02.6	S 04 02.5	+00.0
13	247 09.0	+02.5	S 04 02.5	+00.1
14	262 11.5	+02.6	S 04 02.6	+00.0
15	277 14.1	+02.5	S 04 02.6	+00.0
16	292 16.6	+02.5	S 04 02.6	+00.0
17	307 19.1	+02.6	S 04 02.6	+00.1
18	322 21.7	+02.5	S 04 02.7	+00.0
19	337 24.2	+02.6	S 04 02.7	+00.0
20	352 26.8	+02.5	S 04 02.7	+00.0
21	7 29.3	+02.5	S 04 02.7	+00.1
22	22 31.8	+02.6	S 04 02.8	+00.0
23	37 34.4	+02.5	S 04 02.8	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:30

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2025 November 10 Monday

(day 314 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 01.7	+00.0	S 17 08.9	+00.7	00
01	199 01.7	−00.1	S 17 09.6	+00.7	01
02	214 01.6	+00.0	S 17 10.3	+00.7	02
03	229 01.6	−00.1	S 17 11.0	+00.7	03
04	244 01.5	−00.1	S 17 11.7	+00.7	04
05	259 01.4	+00.0	S 17 12.4	+00.7	05
06	274 01.4	−00.1	S 17 13.1	+00.7	06
07	289 01.3	+00.0	S 17 13.8	+00.7	07
08	304 01.3	−00.1	S 17 14.5	+00.7	08
09	319 01.2	−00.1	S 17 15.2	+00.7	09
10	334 01.1	+00.0	S 17 15.9	+00.7	10
11	349 01.1	−00.1	S 17 16.6	+00.7	11
12	4 01.0	−00.1	S 17 17.3	+00.7	12
13	19 00.9	+00.0	S 17 18.0	+00.7	13
14	34 00.9	−00.1	S 17 18.7	+00.7	14
15	49 00.8	−00.1	S 17 19.4	+00.7	15
16	64 00.7	+00.0	S 17 20.1	+00.7	16
17	79 00.7	−00.1	S 17 20.8	+00.7	17
18	94 00.6	−00.1	S 17 21.5	+00.7	18
19	109 00.5	+00.0	S 17 22.2	+00.7	19
20	124 00.5	−00.1	S 17 22.9	+00.6	20
21	139 00.4	−00.1	S 17 23.5	+00.7	21
22	154 00.3	+00.0	S 17 24.2	+00.7	22
23	169 00.3	−00.1	S 17 24.9	+00.7	23

UT	02	06	10	14	18	22
SD	16′1	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	135°	134°	134°	134°	134°	134°

Greenwich Culmination Time: 11:43

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	197 21.9	−00.5	S 11 32.8	+01.1	00
01	212 21.4	−00.6	S 11 33.9	+01.1	01
02	227 20.8	−00.5	S 11 35.0	+01.1	02
03	242 20.3	−00.5	S 11 36.1	+01.1	03
04	257 19.8	−00.6	S 11 37.2	+01.2	04
05	272 19.2	−00.5	S 11 38.4	+01.1	05
06	287 18.7	−00.5	S 11 39.5	+01.1	06
07	302 18.2	−00.5	S 11 40.6	+01.1	07
08	317 17.7	−00.6	S 11 41.7	+01.1	08
09	332 17.1	−00.5	S 11 42.8	+01.1	09
10	347 16.6	−00.5	S 11 43.9	+01.1	10
11	2 16.1	−00.6	S 11 45.0	+01.1	11
12	17 15.5	−00.5	S 11 46.1	+01.1	12
13	32 15.0	−00.5	S 11 47.2	+01.1	13
14	47 14.5	−00.6	S 11 48.3	+01.1	14
15	62 13.9	−00.5	S 11 49.4	+01.1	15
16	77 13.4	−00.5	S 11 50.5	+01.1	16
17	92 12.9	−00.6	S 11 51.6	+01.1	17
18	107 12.3	−00.5	S 11 52.7	+01.1	18
19	122 11.8	−00.5	S 11 53.8	+01.1	19
20	137 11.3	−00.6	S 11 54.9	+01.0	20
21	152 10.7	−00.5	S 11 55.9	+01.1	21
22	167 10.2	−00.5	S 11 57.0	+01.1	22
23	182 09.7	−00.6	S 11 58.1	+01.1	23

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	148°	148°	147°	147°	147°	147°

Greenwich Culmination Time: 10:50

Moon

A: 70%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	297 18.0	−36.0	N 26 09.9	−07.1	00
01	311 42.0	−35.8	N 26 02.8	−07.2	01
02	326 06.2	−35.7	N 25 55.6	−07.4	02
03	340 30.5	−35.6	N 25 48.2	−07.6	03
04	354 54.9	−35.4	N 25 40.6	−07.7	04
05	9 19.5	−35.3	N 25 32.9	−07.8	05
06	23 44.2	−35.2	N 25 25.1	−08.0	06
07	38 09.0	−35.0	N 25 17.1	−08.2	07
08	52 34.0	−34.9	N 25 08.9	−08.2	08
09	66 59.1	−34.8	N 25 00.7	−08.5	09
10	81 24.3	−34.6	N 24 52.2	−08.6	10
11	95 49.7	−34.5	N 24 43.6	−08.7	11
12	110 15.2	−34.3	N 24 34.9	−08.8	12
13	124 40.9	−34.3	N 24 26.1	−09.0	13
14	139 06.6	−34.0	N 24 17.1	−09.1	14
15	153 32.6	−34.0	N 24 08.0	−09.3	15
16	167 58.6	−33.8	N 23 58.7	−09.4	16
17	182 24.8	−33.6	N 23 49.3	−09.5	17
18	196 51.2	−33.6	N 23 39.8	−09.6	18
19	211 17.6	−33.4	N 23 30.2	−09.8	19
20	225 44.2	−33.2	N 23 20.4	−09.9	20
21	240 11.0	−33.1	N 23 10.5	−10.0	21
22	254 37.9	−33.0	N 23 00.5	−10.1	22
23	269 04.9	−32.9	N 22 50.4	−10.3	23

UT	02	06	10	14	18	22
SD	16′1	16′0	16′0	16′0	15′9	15′9
HP	59′0	58′9	58′7	58′6	58′4	58′3
SHA	247°	244°	242°	239°	237°	234°

Greenwich Culmination Time: 04:21

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	167 34.8	+00.5	S 21 24.1	+00.4	00
01	182 35.3	+00.6	S 21 24.5	+00.4	01
02	197 35.9	+00.5	S 21 24.9	+00.3	02
03	212 36.4	+00.6	S 21 25.2	+00.4	03
04	227 37.0	+00.6	S 21 25.6	+00.4	04
05	242 37.6	+00.5	S 21 26.0	+00.3	05
06	257 38.1	+00.6	S 21 26.3	+00.4	06
07	272 38.7	+00.6	S 21 26.7	+00.3	07
08	287 39.3	+00.5	S 21 27.0	+00.4	08
09	302 39.8	+00.6	S 21 27.4	+00.3	09
10	317 40.4	+00.6	S 21 27.7	+00.4	10
11	332 41.0	+00.5	S 21 28.1	+00.4	11
12	347 41.5	+00.6	S 21 28.5	+00.3	12
13	2 42.1	+00.5	S 21 28.8	+00.4	13
14	17 42.6	+00.6	S 21 29.2	+00.3	14
15	32 43.2	+00.6	S 21 29.5	+00.4	15
16	47 43.8	+00.5	S 21 29.9	+00.3	16
17	62 44.3	+00.6	S 21 30.2	+00.4	17
18	77 44.9	+00.5	S 21 30.6	+00.4	18
19	92 45.4	+00.6	S 21 31.0	+00.3	19
20	107 46.0	+00.6	S 21 31.3	+00.4	20
21	122 46.6	+00.5	S 21 31.7	+00.3	21
22	137 47.1	+00.6	S 21 32.0	+00.4	22
23	152 47.7	+00.5	S 21 32.4	+00.3	23

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	118°	118°	118°	118°	118°	117°

Greenwich Culmination Time: 12:49

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	292 17.4	+02.4	N 21 12.5	+00.0	00
01	307 19.8	+02.5	N 21 12.5	+00.0	01
02	322 22.3	+02.4	N 21 12.5	+00.0	02
03	337 24.7	+02.5	N 21 12.5	+00.0	03
04	352 27.2	+02.4	N 21 12.5	+00.0	04
05	7 29.6	+02.5	N 21 12.5	+00.0	05
06	22 32.1	+02.4	N 21 12.5	+00.1	06
07	37 34.5	+02.5	N 21 12.6	+00.0	07
08	52 37.0	+02.4	N 21 12.6	+00.0	08
09	67 39.4	+02.5	N 21 12.6	+00.0	09
10	82 41.9	+02.4	N 21 12.6	+00.0	10
11	97 44.3	+02.5	N 21 12.6	+00.0	11
12	112 46.8	+02.4	N 21 12.6	+00.0	12
13	127 49.2	+02.5	N 21 12.6	+00.0	13
14	142 51.7	+02.5	N 21 12.6	+00.0	14
15	157 54.2	+02.4	N 21 12.6	+00.0	15
16	172 56.6	+02.5	N 21 12.6	+00.0	16
17	187 59.1	+02.4	N 21 12.6	+00.0	17
18	203 01.5	+02.5	N 21 12.6	+00.0	18
19	218 04.0	+02.4	N 21 12.6	+00.0	19
20	233 06.4	+02.5	N 21 12.6	+00.0	20
21	248 08.9	+02.4	N 21 12.6	+00.0	21
22	263 11.3	+02.5	N 21 12.6	+00.0	22
23	278 13.8	+02.4	N 21 12.6	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:30

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	52 36.9	+02.6	S 04 02.8	+00.0	00
01	67 39.5	+02.5	S 04 02.8	+00.1	01
02	82 42.0	+02.5	S 04 02.9	+00.0	02
03	97 44.5	+02.6	S 04 02.9	+00.0	03
04	112 47.1	+02.5	S 04 02.9	+00.0	04
05	127 49.6	+02.6	S 04 02.9	+00.1	05
06	142 52.2	+02.5	S 04 03.0	+00.0	06
07	157 54.7	+02.5	S 04 03.0	+00.0	07
08	172 57.2	+02.6	S 04 03.0	+00.0	08
09	187 59.8	+02.5	S 04 03.0	+00.1	09
10	203 02.3	+02.5	S 04 03.1	+00.0	10
11	218 04.8	+02.6	S 04 03.1	+00.0	11
12	233 07.4	+02.5	S 04 03.1	+00.0	12
13	248 09.9	+02.6	S 04 03.1	+00.1	13
14	263 12.5	+02.5	S 04 03.2	+00.0	14
15	278 15.0	+02.5	S 04 03.2	+00.0	15
16	293 17.5	+02.6	S 04 03.2	+00.0	16
17	308 20.1	+02.5	S 04 03.2	+00.0	17
18	323 22.6	+02.5	S 04 03.2	+00.1	18
19	338 25.1	+02.6	S 04 03.3	+00.0	19
20	353 27.7	+02.5	S 04 03.3	+00.0	20
21	8 30.2	+02.6	S 04 03.3	+00.0	21
22	23 32.8	+02.5	S 04 03.3	+00.1	22
23	38 35.3	+02.5	S 04 03.4	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:26

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2025 November 11 Tuesday

(day 315 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 00.2	−00.1	S 17 25.6	+00.7	00
01	199 00.1	+00.0	S 17 26.3	+00.7	01
02	214 00.1	−00.1	S 17 27.0	+00.7	02
03	229 00.0	−00.1	S 17 27.7	+00.7	03
04	243 59.9	+00.0	S 17 28.4	+00.7	04
05	258 59.9	−00.1	S 17 29.1	+00.6	05
06	273 59.8	−00.1	S 17 29.7	+00.7	06
07	288 59.7	+00.0	S 17 30.4	+00.7	07
08	303 59.7	−00.1	S 17 31.1	+00.7	08
09	318 59.6	−00.1	S 17 31.8	+00.7	09
10	333 59.5	−00.1	S 17 32.5	+00.7	10
11	348 59.4	+00.0	S 17 33.2	+00.7	11
12	3 59.4	−00.1	S 17 33.9	+00.6	12
13	18 59.3	−00.1	S 17 34.5	+00.7	13
14	33 59.2	−00.1	S 17 35.2	+00.7	14
15	48 59.1	+00.0	S 17 35.9	+00.7	15
16	63 59.1	−00.1	S 17 36.6	+00.7	16
17	78 59.0	−00.1	S 17 37.3	+00.6	17
18	93 58.9	−00.1	S 17 37.9	+00.7	18
19	108 58.8	+00.0	S 17 38.6	+00.7	19
20	123 58.8	−00.1	S 17 39.3	+00.7	20
21	138 58.7	−00.1	S 17 40.0	+00.7	21
22	153 58.6	−00.1	S 17 40.7	+00.6	22
23	168 58.5	+00.0	S 17 41.3	+00.7	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	134°	133°	133°	133°	133°	133°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	197 09.1	−00.5	S 11 59.2	+01.1	00
01	212 08.6	−00.6	S 12 00.3	+01.1	01
02	227 08.0	−00.5	S 12 01.4	+01.1	02
03	242 07.5	−00.5	S 12 02.5	+01.1	03
04	257 07.0	−00.6	S 12 03.6	+01.1	04
05	272 06.4	−00.5	S 12 04.7	+01.1	05
06	287 05.9	−00.6	S 12 05.8	+01.1	06
07	302 05.3	−00.5	S 12 06.9	+01.1	07
08	317 04.8	−00.5	S 12 08.0	+01.1	08
09	332 04.3	−00.6	S 12 09.1	+01.1	09
10	347 03.7	−00.5	S 12 10.2	+01.0	10
11	2 03.2	−00.6	S 12 11.2	+01.1	11
12	17 02.6	−00.5	S 12 12.3	+01.1	12
13	32 02.1	−00.5	S 12 13.4	+01.1	13
14	47 01.6	−00.6	S 12 14.5	+01.1	14
15	62 01.0	−00.5	S 12 15.6	+01.1	15
16	77 00.5	−00.6	S 12 16.7	+01.1	16
17	91 59.9	−00.5	S 12 17.8	+01.1	17
18	106 59.4	−00.6	S 12 18.9	+01.0	18
19	121 58.8	−00.5	S 12 19.9	+01.1	19
20	136 58.3	−00.6	S 12 21.0	+01.1	20
21	151 57.7	−00.5	S 12 22.1	+01.1	21
22	166 57.2	−00.6	S 12 23.2	+01.1	22
23	181 56.6	−00.5	S 12 24.3	+01.1	23

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	147°	146°	146°	146°	146°	146°

Greenwich Culmination Time: 10:51

Moon

A: 74%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	283 32.0	−32.7	N 22 40.1	−10.3	00
01	297 59.3	−32.5	N 22 29.8	−10.5	01
02	312 26.8	−32.5	N 22 19.3	−10.6	02
03	326 54.3	−32.3	N 22 08.7	−10.7	03
04	341 22.0	−32.1	N 21 58.0	−10.7	04
05	355 49.9	−32.1	N 21 47.3	−10.9	05
06	10 17.8	−31.9	N 21 36.4	−11.1	06
07	24 45.9	−31.7	N 21 25.3	−11.1	07
08	39 14.2	−31.7	N 21 14.2	−11.2	08
09	53 42.5	−31.5	N 21 03.0	−11.3	09
10	68 11.0	−31.3	N 20 51.7	−11.4	10
11	82 39.7	−31.3	N 20 40.3	−11.5	11
12	97 08.4	−31.1	N 20 28.8	−11.5	12
13	111 37.3	−31.0	N 20 17.3	−11.7	13
14	126 06.3	−30.8	N 20 05.6	−11.8	14
15	140 35.5	−30.7	N 19 53.8	−11.8	15
16	155 04.8	−30.6	N 19 42.0	−12.0	16
17	169 34.2	−30.5	N 19 30.0	−12.0	17
18	184 03.7	−30.4	N 19 18.0	−12.1	18
19	198 33.3	−30.2	N 19 05.9	−12.2	19
20	213 03.1	−30.1	N 18 53.7	−12.3	20
21	227 33.0	−30.0	N 18 41.4	−12.3	21
22	242 03.0	−29.9	N 18 29.1	−12.4	22
23	256 33.1	−29.7	N 18 16.7	−12.5	23

UT	02	06	10	14	18	22
SD	15′8	15′8	15′8	15′7	15′7	15′6
HP	58′1	58′0	57′8	57′7	57′5	57′4
SHA	232°	230°	227°	225°	223°	221°

Greenwich Culmination Time: 05:17

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	167 48.2	+00.6	S 21 32.7	+00.4	00
01	182 48.8	+00.6	S 21 33.1	+00.3	01
02	197 49.4	+00.5	S 21 33.4	+00.4	02
03	212 49.9	+00.6	S 21 33.8	+00.3	03
04	227 50.5	+00.5	S 21 34.1	+00.4	04
05	242 51.0	+00.6	S 21 34.5	+00.3	05
06	257 51.6	+00.6	S 21 34.8	+00.4	06
07	272 52.2	+00.5	S 21 35.2	+00.4	07
08	287 52.7	+00.6	S 21 35.6	+00.3	08
09	302 53.3	+00.5	S 21 35.9	+00.4	09
10	317 53.8	+00.6	S 21 36.3	+00.3	10
11	332 54.4	+00.5	S 21 36.6	+00.4	11
12	347 54.9	+00.6	S 21 37.0	+00.3	12
13	2 55.5	+00.5	S 21 37.3	+00.4	13
14	17 56.0	+00.6	S 21 37.7	+00.3	14
15	32 56.6	+00.6	S 21 38.0	+00.3	15
16	47 57.2	+00.5	S 21 38.3	+00.4	16
17	62 57.7	+00.6	S 21 38.7	+00.3	17
18	77 58.3	+00.5	S 21 39.0	+00.4	18
19	92 58.8	+00.6	S 21 39.4	+00.3	19
20	107 59.4	+00.5	S 21 39.7	+00.4	20
21	122 59.9	+00.6	S 21 40.1	+00.3	21
22	138 00.5	+00.5	S 21 40.4	+00.4	22
23	153 01.0	+00.6	S 21 40.8	+00.3	23

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	117°	117°	117°	117°	117°	117°

Greenwich Culmination Time: 12:48

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	293 16.2	+02.5	N 21 12.6	+00.0	00
01	308 18.7	+02.5	N 21 12.6	+00.0	01
02	323 21.2	+02.4	N 21 12.6	+00.0	02
03	338 23.6	+02.5	N 21 12.6	+00.0	03
04	353 26.1	+02.4	N 21 12.6	+00.1	04
05	8 28.5	+02.5	N 21 12.7	+00.0	05
06	23 31.0	+02.5	N 21 12.7	+00.0	06
07	38 33.5	+02.4	N 21 12.7	+00.0	07
08	53 35.9	+02.5	N 21 12.7	+00.0	08
09	68 38.4	+02.4	N 21 12.7	+00.0	09
10	83 40.8	+02.5	N 21 12.7	+00.0	10
11	98 43.3	+02.5	N 21 12.7	+00.0	11
12	113 45.8	+02.4	N 21 12.7	+00.0	12
13	128 48.2	+02.5	N 21 12.7	+00.0	13
14	143 50.7	+02.4	N 21 12.7	+00.0	14
15	158 53.1	+02.5	N 21 12.7	+00.0	15
16	173 55.6	+02.5	N 21 12.7	+00.0	16
17	188 58.1	+02.4	N 21 12.7	+00.0	17
18	204 00.5	+02.5	N 21 12.7	+00.0	18
19	219 03.0	+02.5	N 21 12.7	+00.0	19
20	234 05.5	+02.4	N 21 12.7	+00.0	20
21	249 07.9	+02.5	N 21 12.7	+00.0	21
22	264 10.4	+02.5	N 21 12.7	+00.1	22
23	279 12.9	+02.4	N 21 12.8	+00.0	23

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	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:26

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	53 37.8	+02.6	S 04 03.4	+00.0	00
01	68 40.4	+02.5	S 04 03.4	+00.0	01
02	83 42.9	+02.5	S 04 03.4	+00.0	02
03	98 45.4	+02.6	S 04 03.4	+00.1	03
04	113 48.0	+02.5	S 04 03.5	+00.0	04
05	128 50.5	+02.5	S 04 03.5	+00.0	05
06	143 53.0	+02.6	S 04 03.5	+00.0	06
07	158 55.6	+02.5	S 04 03.5	+00.1	07
08	173 58.1	+02.5	S 04 03.6	+00.0	08
09	189 00.6	+02.6	S 04 03.6	+00.0	09
10	204 03.2	+02.5	S 04 03.6	+00.0	10
11	219 05.7	+02.5	S 04 03.6	+00.0	11
12	234 08.2	+02.6	S 04 03.6	+00.1	12
13	249 10.8	+02.5	S 04 03.7	+00.0	13
14	264 13.3	+02.5	S 04 03.7	+00.0	14
15	279 15.8	+02.6	S 04 03.7	+00.0	15
16	294 18.4	+02.5	S 04 03.7	+00.1	16
17	309 20.9	+02.5	S 04 03.8	+00.0	17
18	324 23.4	+02.6	S 04 03.8	+00.0	18
19	339 26.0	+02.5	S 04 03.8	+00.0	19
20	354 28.5	+02.5	S 04 03.8	+00.0	20
21	9 31.0	+02.6	S 04 03.8	+00.1	21
22	24 33.6	+02.5	S 04 03.9	+00.0	22
23	39 36.1	+02.5	S 04 03.9	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:22

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 November 12 Wednesday (day 316 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 58.5	-00.1	S 17 42.0	+00.7
01	198 58.4	-00.1	S 17 42.7	+00.7
02	213 58.3	-00.1	S 17 43.4	+00.6
03	228 58.2	+00.0	S 17 44.0	+00.7
04	243 58.2	-00.1	S 17 44.7	+00.7
05	258 58.1	-00.1	S 17 45.4	+00.7
06	273 58.0	-00.1	S 17 46.1	+00.6
07	288 57.9	-00.1	S 17 46.7	+00.7
08	303 57.8	+00.0	S 17 47.4	+00.7
09	318 57.8	-00.1	S 17 48.1	+00.7
10	333 57.7	-00.1	S 17 48.8	+00.6
11	348 57.6	-00.1	S 17 49.4	+00.7
12	3 57.5	-00.1	S 17 50.1	+00.7
13	18 57.4	-00.1	S 17 50.8	+00.6
14	33 57.3	+00.0	S 17 51.4	+00.7
15	48 57.3	-00.1	S 17 52.1	+00.7
16	63 57.2	-00.1	S 17 52.8	+00.6
17	78 57.1	-00.1	S 17 53.4	+00.7
18	93 57.0	-00.1	S 17 54.1	+00.7
19	108 56.9	-00.1	S 17 54.8	+00.6
20	123 56.8	+00.0	S 17 55.4	+00.7
21	138 56.8	-00.1	S 17 56.1	+00.7
22	153 56.7	-00.1	S 17 56.8	+00.6
23	168 56.6	-00.1	S 17 57.4	+00.7

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	133°	132°	132°	132°	132°	132°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	196 56.1	-00.6	S 12 25.4	+01.0
01	211 55.5	-00.5	S 12 26.4	+01.1
02	226 55.0	-00.6	S 12 27.5	+01.1
03	241 54.4	-00.5	S 12 28.6	+01.1
04	256 53.9	-00.5	S 12 29.7	+01.1
05	271 53.4	-00.6	S 12 30.8	+01.0
06	286 52.8	-00.6	S 12 31.8	+01.1
07	301 52.2	-00.5	S 12 32.9	+01.1
08	316 51.7	-00.6	S 12 34.0	+01.1
09	331 51.1	-00.5	S 12 35.1	+01.1
10	346 50.6	-00.6	S 12 36.2	+01.0
11	1 50.0	-00.5	S 12 37.2	+01.1
12	16 49.5	-00.6	S 12 38.3	+01.1
13	31 48.9	-00.5	S 12 39.4	+01.1
14	46 48.4	-00.6	S 12 40.5	+01.0
15	61 47.8	-00.5	S 12 41.5	+01.1
16	76 47.3	-00.6	S 12 42.6	+01.1
17	91 46.7	-00.5	S 12 43.7	+01.1
18	106 46.2	-00.6	S 12 44.8	+01.0
19	121 45.6	-00.5	S 12 45.8	+01.1
20	136 45.1	-00.6	S 12 46.9	+01.1
21	151 44.5	-00.6	S 12 48.0	+01.0
22	166 43.9	-00.5	S 12 49.0	+01.1
23	181 43.4	-00.6	S 12 50.1	+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	145°	145°	145°	145°	145°	144°

Greenwich Culmination Time: 10:52

Moon

A: 77%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	271 03.4	-29.7	N 18 04.2	-12.6
01	285 33.7	-29.5	N 17 51.6	-12.6
02	300 04.2	-29.4	N 17 39.0	-12.7
03	314 34.8	-29.3	N 17 26.3	-12.8
04	329 05.5	-29.1	N 17 13.5	-12.8
05	343 36.4	-29.1	N 17 00.7	-12.9
06	358 07.3	-29.0	N 16 47.8	-13.0
07	12 38.3	-28.8	N 16 34.8	-13.0
08	27 09.5	-28.7	N 16 21.8	-13.1
09	41 40.8	-28.7	N 16 08.7	-13.2
10	56 12.1	-28.5	N 15 55.5	-13.2
11	70 43.6	-28.4	N 15 42.3	-13.3
12	85 15.2	-28.3	N 15 29.0	-13.3
13	99 46.9	-28.2	N 15 15.7	-13.4
14	114 18.7	-28.1	N 15 02.3	-13.4
15	128 50.6	-28.1	N 14 48.9	-13.5
16	143 22.5	-27.9	N 14 35.4	-13.5
17	157 54.6	-27.8	N 14 21.9	-13.6
18	172 26.8	-27.7	N 14 08.3	-13.6
19	186 59.1	-27.6	N 13 54.7	-13.7
20	201 31.5	-27.6	N 13 41.0	-13.7
21	216 03.9	-27.4	N 13 27.3	-13.7
22	230 36.5	-27.4	N 13 13.6	-13.8
23	245 09.1	-27.2	N 12 59.8	-13.9

UT	02	06	10	14	18	22
SD	15′6	15′6	15′5	15′5	15′4	15′4
HP	57′2	57′1	56′9	56′8	56′7	56′5
SHA	219°	216°	214°	212°	210°	208°

Greenwich Culmination Time: 06:07

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	168 01.6	+00.5	S 21 41.1	+00.4
01	183 02.1	+00.6	S 21 41.5	+00.3
02	198 02.7	+00.5	S 21 41.8	+00.4
03	213 03.2	+00.6	S 21 42.2	+00.3
04	228 03.8	+00.6	S 21 42.5	+00.3
05	243 04.4	+00.5	S 21 42.8	+00.4
06	258 04.9	+00.6	S 21 43.2	+00.3
07	273 05.5	+00.5	S 21 43.5	+00.4
08	288 06.0	+00.6	S 21 43.9	+00.3
09	303 06.6	+00.5	S 21 44.2	+00.4
10	318 07.1	+00.6	S 21 44.6	+00.3
11	333 07.7	+00.5	S 21 44.9	+00.3
12	348 08.2	+00.6	S 21 45.2	+00.4
13	3 08.8	+00.5	S 21 45.6	+00.3
14	18 09.3	+00.6	S 21 45.9	+00.4
15	33 09.9	+00.5	S 21 46.3	+00.3
16	48 10.4	+00.5	S 21 46.6	+00.3
17	63 10.9	+00.6	S 21 46.9	+00.4
18	78 11.5	+00.5	S 21 47.3	+00.3
19	93 12.0	+00.6	S 21 47.6	+00.4
20	108 12.6	+00.5	S 21 48.0	+00.3
21	123 13.1	+00.6	S 21 48.3	+00.3
22	138 13.7	+00.5	S 21 48.6	+00.4
23	153 14.2	+00.6	S 21 49.0	+00.3

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	117°	116°	116°	116°	116°	116°

Greenwich Culmination Time: 12:47

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	294 15.3	+02.5	N 21 12.8	+00.0
01	309 17.8	+02.5	N 21 12.8	+00.0
02	324 20.3	+02.4	N 21 12.8	+00.0
03	339 22.7	+02.5	N 21 12.8	+00.0
04	354 25.2	+02.5	N 21 12.8	+00.0
05	9 27.7	+02.4	N 21 12.8	+00.0
06	24 30.1	+02.5	N 21 12.8	+00.0
07	39 32.6	+02.5	N 21 12.8	+00.0
08	54 35.1	+02.4	N 21 12.8	+00.0
09	69 37.5	+02.5	N 21 12.8	+00.0
10	84 40.0	+02.5	N 21 12.8	+00.0
11	99 42.5	+02.4	N 21 12.8	+00.0
12	114 44.9	+02.5	N 21 12.8	+00.0
13	129 47.4	+02.5	N 21 12.8	+00.1
14	144 49.9	+02.4	N 21 12.9	+00.0
15	159 52.3	+02.5	N 21 12.9	+00.0
16	174 54.8	+02.5	N 21 12.9	+00.0
17	189 57.3	+02.5	N 21 12.9	+00.0
18	204 59.8	+02.4	N 21 12.9	+00.0
19	220 02.2	+02.5	N 21 12.9	+00.0
20	235 04.7	+02.5	N 21 12.9	+00.0
21	250 07.2	+02.5	N 21 12.9	+00.0
22	265 09.7	+02.4	N 21 12.9	+00.0
23	280 12.1	+02.5	N 21 12.9	+00.0

UT	02	06	10	14	18	22
SD	00′3	00′3	00′3	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:22

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	54 38.6	+02.6	S 04 03.9	+00.0
01	69 41.2	+02.5	S 04 03.9	+00.0
02	84 43.7	+02.5	S 04 03.9	+00.1
03	99 46.2	+02.6	S 04 04.0	+00.0
04	114 48.8	+02.5	S 04 04.0	+00.0
05	129 51.3	+02.5	S 04 04.0	+00.0
06	144 53.8	+02.6	S 04 04.0	+00.0
07	159 56.4	+02.5	S 04 04.0	+00.1
08	174 58.9	+02.5	S 04 04.1	+00.0
09	190 01.4	+02.6	S 04 04.1	+00.0
10	205 04.0	+02.5	S 04 04.1	+00.0
11	220 06.5	+02.5	S 04 04.1	+00.0
12	235 09.0	+02.5	S 04 04.1	+00.1
13	250 11.5	+02.6	S 04 04.2	+00.0
14	265 14.1	+02.5	S 04 04.2	+00.0
15	280 16.6	+02.5	S 04 04.2	+00.0
16	295 19.1	+02.6	S 04 04.2	+00.0
17	310 21.7	+02.5	S 04 04.2	+00.1
18	325 24.2	+02.5	S 04 04.3	+00.0
19	340 26.7	+02.6	S 04 04.3	+00.0
20	355 29.3	+02.5	S 04 04.3	+00.0
21	10 31.8	+02.5	S 04 04.3	+00.0
22	25 34.3	+02.5	S 04 04.3	+00.1
23	40 36.8	+02.6	S 04 04.4	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:17

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2025 November 13 Thursday

(day 317 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 56.5	-00.1	S 17 58.1	+00.7
01	198 56.4	-00.1	S 17 58.8	+00.6
02	213 56.3	-00.1	S 17 59.4	+00.7
03	228 56.2	-00.1	S 18 00.1	+00.7
04	243 56.1	+00.0	S 18 00.8	+00.6
05	258 56.1	-00.1	S 18 01.4	+00.7
06	273 56.0	-00.1	S 18 02.1	+00.6
07	288 55.9	-00.1	S 18 02.7	+00.7
08	303 55.8	-00.1	S 18 03.4	+00.7
09	318 55.7	-00.1	S 18 04.1	+00.6
10	333 55.6	-00.1	S 18 04.7	+00.7
11	348 55.5	-00.1	S 18 05.4	+00.6
12	3 55.4	-00.1	S 18 06.0	+00.7
13	18 55.3	-00.1	S 18 06.7	+00.7
14	33 55.2	+00.0	S 18 07.4	+00.6
15	48 55.2	-00.1	S 18 08.0	+00.7
16	63 55.1	-00.1	S 18 08.7	+00.6
17	78 55.0	-00.1	S 18 09.3	+00.7
18	93 54.9	-00.1	S 18 10.0	+00.6
19	108 54.8	-00.1	S 18 10.6	+00.7
20	123 54.7	-00.1	S 18 11.3	+00.6
21	138 54.6	-00.1	S 18 11.9	+00.7
22	153 54.5	-00.1	S 18 12.6	+00.6
23	168 54.4	-00.1	S 18 13.2	+00.7

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	131°	131°	131°	131°	131°	131°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	196 42.8	-00.5	S 12 51.2	+01.1
01	211 42.3	-00.6	S 12 52.3	+01.0
02	226 41.7	-00.6	S 12 53.3	+01.1
03	241 41.1	-00.5	S 12 54.4	+01.1
04	256 40.6	-00.6	S 12 55.5	+01.0
05	271 40.0	-00.5	S 12 56.5	+01.1
06	286 39.5	-00.6	S 12 57.6	+01.1
07	301 38.9	-00.6	S 12 58.7	+01.0
08	316 38.3	-00.5	S 12 59.7	+01.1
09	331 37.8	-00.6	S 13 00.8	+01.1
10	346 37.2	-00.6	S 13 01.9	+01.0
11	1 36.6	-00.5	S 13 02.9	+01.1
12	16 36.1	-00.6	S 13 04.0	+01.0
13	31 35.5	-00.5	S 13 05.0	+01.1
14	46 35.0	-00.6	S 13 06.1	+01.1
15	61 34.4	-00.6	S 13 07.2	+01.0
16	76 33.8	-00.5	S 13 08.2	+01.1
17	91 33.3	-00.6	S 13 09.3	+01.1
18	106 32.7	-00.6	S 13 10.4	+01.0
19	121 32.1	-00.5	S 13 11.4	+01.1
20	136 31.6	-00.6	S 13 12.5	+01.0
21	151 31.0	-00.6	S 13 13.5	+01.1
22	166 30.4	-00.5	S 13 14.6	+01.0
23	181 29.9	-00.6	S 13 15.6	+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	144°	144°	144°	144°	143°	143°

Greenwich Culmination Time: 10:53

Moon

A: 80%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	259 41.9	-27.2	N 12 45.9	-13.8
01	274 14.7	-27.1	N 12 32.1	-14.0
02	288 47.6	-27.0	N 12 18.1	-13.9
03	303 20.6	-26.9	N 12 04.2	-14.0
04	317 53.7	-26.9	N 11 50.2	-14.0
05	332 26.8	-26.7	N 11 36.2	-14.1
06	347 00.1	-26.7	N 11 22.1	-14.1
07	1 33.4	-26.6	N 11 08.0	-14.1
08	16 06.8	-26.6	N 10 53.9	-14.2
09	30 40.2	-26.4	N 10 39.7	-14.2
10	45 13.8	-26.4	N 10 25.5	-14.2
11	59 47.4	-26.3	N 10 11.3	-14.2
12	74 21.1	-26.2	N 09 57.1	-14.3
13	88 54.9	-26.2	N 09 42.8	-14.3
14	103 28.7	-26.1	N 09 28.5	-14.3
15	118 02.6	-26.0	N 09 14.2	-14.3
16	132 36.6	-26.0	N 08 59.9	-14.4
17	147 10.6	-25.9	N 08 45.5	-14.4
18	161 44.7	-25.8	N 08 31.1	-14.4
19	176 18.9	-25.8	N 08 16.7	-14.4
20	190 53.1	-25.7	N 08 02.3	-14.4
21	205 27.4	-25.6	N 07 47.9	-14.5
22	220 01.8	-25.6	N 07 33.4	-14.5
23	234 36.2	-25.6	N 07 18.9	-14.4

UT	02	06	10	14	18	22
SD	15′4	15′3	15′3	15′3	15′2	15′2
HP	56′4	56′3	56′2	56′0	55′9	55′8
SHA	206°	204°	202°	201°	199°	197°

Greenwich Culmination Time: 06:53

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	168 14.8	+00.5	S 21 49.3	+00.4
01	183 15.3	+00.6	S 21 49.7	+00.3
02	198 15.9	+00.5	S 21 50.0	+00.3
03	213 16.4	+00.6	S 21 50.3	+00.4
04	228 17.0	+00.5	S 21 50.7	+00.3
05	243 17.5	+00.6	S 21 51.0	+00.3
06	258 18.1	+00.5	S 21 51.3	+00.4
07	273 18.6	+00.5	S 21 51.7	+00.3
08	288 19.1	+00.6	S 21 52.0	+00.3
09	303 19.7	+00.5	S 21 52.3	+00.4
10	318 20.2	+00.6	S 21 52.7	+00.3
11	333 20.8	+00.5	S 21 53.0	+00.3
12	348 21.3	+00.6	S 21 53.3	+00.4
13	3 21.9	+00.5	S 21 53.7	+00.3
14	18 22.4	+00.5	S 21 54.0	+00.3
15	33 22.9	+00.6	S 21 54.3	+00.4
16	48 23.5	+00.5	S 21 54.7	+00.3
17	63 24.0	+00.6	S 21 55.0	+00.3
18	78 24.6	+00.5	S 21 55.3	+00.4
19	93 25.1	+00.6	S 21 55.7	+00.3
20	108 25.7	+00.5	S 21 56.0	+00.3
21	123 26.2	+00.5	S 21 56.3	+00.3
22	138 26.7	+00.6	S 21 56.6	+00.4
23	153 27.3	+00.5	S 21 57.0	+00.3

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	116°	116°	116°	115°	115°	115°

Greenwich Culmination Time: 12:46

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	295 14.6	+02.5	N 21 12.9	+00.0
01	310 17.1	+02.4	N 21 12.9	+00.0
02	325 19.5	+02.5	N 21 12.9	+00.1
03	340 22.0	+02.5	N 21 13.0	+00.0
04	355 24.5	+02.5	N 21 13.0	+00.0
05	10 27.0	+02.5	N 21 13.0	+00.0
06	25 29.5	+02.4	N 21 13.0	+00.0
07	40 31.9	+02.5	N 21 13.0	+00.0
08	55 34.4	+02.5	N 21 13.0	+00.0
09	70 36.9	+02.5	N 21 13.0	+00.0
10	85 39.4	+02.4	N 21 13.0	+00.0
11	100 41.8	+02.5	N 21 13.0	+00.0
12	115 44.3	+02.5	N 21 13.0	+00.0
13	130 46.8	+02.5	N 21 13.0	+00.1
14	145 49.3	+02.5	N 21 13.1	+00.0
15	160 51.8	+02.4	N 21 13.1	+00.0
16	175 54.2	+02.5	N 21 13.1	+00.0
17	190 56.7	+02.5	N 21 13.1	+00.0
18	205 59.2	+02.5	N 21 13.1	+00.0
19	221 01.7	+02.5	N 21 13.1	+00.0
20	236 04.2	+02.4	N 21 13.1	+00.0
21	251 06.6	+02.5	N 21 13.1	+00.0
22	266 09.1	+02.5	N 21 13.1	+00.0
23	281 11.6	+02.5	N 21 13.1	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:18

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	55 39.4	+02.5	S 04 04.4	+00.0
01	70 41.9	+02.5	S 04 04.4	+00.0
02	85 44.4	+02.6	S 04 04.4	+00.0
03	100 47.0	+02.5	S 04 04.4	+00.1
04	115 49.5	+02.5	S 04 04.5	+00.0
05	130 52.0	+02.5	S 04 04.5	+00.0
06	145 54.5	+02.6	S 04 04.5	+00.0
07	160 57.1	+02.5	S 04 04.5	+00.0
08	175 59.6	+02.5	S 04 04.5	+00.1
09	191 02.1	+02.5	S 04 04.6	+00.0
10	206 04.6	+02.6	S 04 04.6	+00.0
11	221 07.2	+02.5	S 04 04.6	+00.0
12	236 09.7	+02.5	S 04 04.6	+00.0
13	251 12.2	+02.6	S 04 04.6	+00.0
14	266 14.8	+02.5	S 04 04.6	+00.1
15	281 17.3	+02.5	S 04 04.7	+00.0
16	296 19.8	+02.5	S 04 04.7	+00.0
17	311 22.3	+02.6	S 04 04.7	+00.0
18	326 24.9	+02.5	S 04 04.7	+00.0
19	341 27.4	+02.5	S 04 04.7	+00.1
20	356 29.9	+02.5	S 04 04.8	+00.0
21	11 32.4	+02.6	S 04 04.8	+00.0
22	26 35.0	+02.5	S 04 04.8	+00.0
23	41 37.5	+02.5	S 04 04.8	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:13

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 November 14 Friday

(day 318 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 54.3	-00.1	S 18 13.9	+00.6
01	198 54.2	-00.1	S 18 14.5	+00.7
02	213 54.1	-00.1	S 18 15.2	+00.6
03	228 54.0	-00.1	S 18 15.8	+00.7
04	243 53.9	-00.1	S 18 16.5	+00.6
05	258 53.8	-00.1	S 18 17.1	+00.7
06	273 53.7	-00.1	S 18 17.8	+00.6
07	288 53.6	-00.1	S 18 18.4	+00.7
08	303 53.5	-00.1	S 18 19.1	+00.6
09	318 53.4	-00.1	S 18 19.7	+00.7
10	333 53.3	-00.1	S 18 20.4	+00.6
11	348 53.2	-00.1	S 18 21.0	+00.7
12	3 53.1	-00.1	S 18 21.7	+00.6
13	18 53.0	-00.1	S 18 22.3	+00.6
14	33 52.9	-00.1	S 18 22.9	+00.7
15	48 52.8	-00.1	S 18 23.6	+00.6
16	63 52.7	-00.1	S 18 24.2	+00.7
17	78 52.6	-00.1	S 18 24.9	+00.6
18	93 52.5	-00.1	S 18 25.5	+00.7
19	108 52.4	-00.1	S 18 26.2	+00.6
20	123 52.3	-00.1	S 18 26.8	+00.6
21	138 52.2	-00.1	S 18 27.4	+00.7
22	153 52.1	-00.1	S 18 28.1	+00.6
23	168 52.0	-00.1	S 18 28.7	+00.7

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	130°	130°	130°	130°	130°	130°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	196 29.3	-00.6	S 13 16.7	+01.1
01	211 28.7	-00.6	S 13 17.8	+01.0
02	226 28.1	-00.5	S 13 18.8	+01.1
03	241 27.6	-00.6	S 13 19.9	+01.0
04	256 27.0	-00.6	S 13 20.9	+01.1
05	271 26.4	-00.5	S 13 22.0	+01.0
06	286 25.9	-00.6	S 13 23.0	+01.1
07	301 25.3	-00.6	S 13 24.1	+01.0
08	316 24.7	-00.6	S 13 25.1	+01.1
09	331 24.1	-00.5	S 13 26.2	+01.0
10	346 23.6	-00.6	S 13 27.2	+01.1
11	1 23.0	-00.6	S 13 28.3	+01.0
12	16 22.4	-00.6	S 13 29.3	+01.1
13	31 21.8	-00.5	S 13 30.4	+01.0
14	46 21.3	-00.6	S 13 31.4	+01.1
15	61 20.7	-00.6	S 13 32.5	+01.0
16	76 20.1	-00.6	S 13 33.5	+01.1
17	91 19.5	-00.5	S 13 34.6	+01.0
18	106 19.0	-00.6	S 13 35.6	+01.1
19	121 18.4	-00.6	S 13 36.7	+01.0
20	136 17.8	-00.6	S 13 37.7	+01.1
21	151 17.2	-00.6	S 13 38.8	+01.0
22	166 16.6	-00.5	S 13 39.8	+01.1
23	181 16.1	-00.6	S 13 40.9	+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	143°	143°	143°	142°	142°	142°

Greenwich Culmination Time: 10:54

Moon

A: 83%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	249 10.6	-25.5	N 07 04.5	-14.6
01	263 45.1	-25.4	N 06 49.9	-14.5
02	278 19.7	-25.4	N 06 35.4	-14.5
03	292 54.3	-25.3	N 06 20.9	-14.5
04	307 29.0	-25.3	N 06 06.4	-14.6
05	322 03.7	-25.2	N 05 51.8	-14.5
06	336 38.5	-25.2	N 05 37.3	-14.6
07	351 13.3	-25.1	N 05 22.7	-14.6
08	5 48.2	-25.1	N 05 08.1	-14.6
09	20 23.1	-25.1	N 04 53.5	-14.6
10	34 58.0	-25.0	N 04 38.9	-14.6
11	49 33.0	-24.9	N 04 24.3	-14.6
12	64 08.1	-25.0	N 04 09.7	-14.6
13	78 43.1	-24.9	N 03 55.1	-14.6
14	93 18.2	-24.8	N 03 40.5	-14.6
15	107 53.4	-24.8	N 03 25.9	-14.6
16	122 28.6	-24.8	N 03 11.3	-14.6
17	137 03.8	-24.8	N 02 56.7	-14.6
18	151 39.0	-24.7	N 02 42.1	-14.6
19	166 14.3	-24.7	N 02 27.5	-14.6
20	180 49.6	-24.6	N 02 12.9	-14.6
21	195 25.0	-24.6	N 01 58.3	-14.6
22	210 00.4	-24.6	N 01 43.7	-14.6
23	224 35.8	-24.6	N 01 29.1	-14.6

UT	02	06	10	14	18	22
SD	15′2	15′1	15′1	15′1	15′1	15′0
HP	55′7	55′6	55′5	55′4	55′3	55′2
SHA	195°	193°	191°	189°	188°	186°

Greenwich Culmination Time: 07:36

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	168 27.8	+00.6	S 21 57.3	+00.3
01	183 28.4	+00.5	S 21 57.6	+00.4
02	198 28.9	+00.5	S 21 58.0	+00.3
03	213 29.4	+00.6	S 21 58.3	+00.3
04	228 30.0	+00.5	S 21 58.6	+00.3
05	243 30.5	+00.6	S 21 58.9	+00.4
06	258 31.1	+00.5	S 21 59.3	+00.3
07	273 31.6	+00.5	S 21 59.6	+00.3
08	288 32.1	+00.6	S 21 59.9	+00.4
09	303 32.7	+00.5	S 22 00.3	+00.3
10	318 33.2	+00.5	S 22 00.6	+00.3
11	333 33.7	+00.6	S 22 00.9	+00.3
12	348 34.3	+00.5	S 22 01.2	+00.4
13	3 34.8	+00.6	S 22 01.6	+00.3
14	18 35.4	+00.5	S 22 01.9	+00.3
15	33 35.9	+00.5	S 22 02.2	+00.3
16	48 36.4	+00.6	S 22 02.5	+00.3
17	63 37.0	+00.5	S 22 02.8	+00.4
18	78 37.5	+00.5	S 22 03.2	+00.3
19	93 38.0	+00.6	S 22 03.5	+00.3
20	108 38.6	+00.5	S 22 03.8	+00.3
21	123 39.1	+00.5	S 22 04.1	+00.4
22	138 39.6	+00.6	S 22 04.5	+00.3
23	153 40.2	+00.5	S 22 04.8	+00.3

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	115°	115°	115°	115°	115°	114°

Greenwich Culmination Time: 12:45

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	296 14.1	+02.5	N 21 13.1	+00.1
01	311 16.6	+02.5	N 21 13.2	+00.0
02	326 19.1	+02.4	N 21 13.2	+00.0
03	341 21.5	+02.5	N 21 13.2	+00.0
04	356 24.0	+02.5	N 21 13.2	+00.0
05	11 26.5	+02.5	N 21 13.2	+00.0
06	26 29.0	+02.5	N 21 13.2	+00.0
07	41 31.5	+02.5	N 21 13.2	+00.0
08	56 34.0	+02.5	N 21 13.2	+00.0
09	71 36.5	+02.4	N 21 13.2	+00.0
10	86 38.9	+02.5	N 21 13.2	+00.1
11	101 41.4	+02.5	N 21 13.3	+00.0
12	116 43.9	+02.5	N 21 13.3	+00.0
13	131 46.4	+02.5	N 21 13.3	+00.0
14	146 48.9	+02.5	N 21 13.3	+00.0
15	161 51.4	+02.5	N 21 13.3	+00.0
16	176 53.9	+02.5	N 21 13.3	+00.0
17	191 56.4	+02.5	N 21 13.3	+00.0
18	206 58.9	+02.4	N 21 13.3	+00.0
19	222 01.3	+02.5	N 21 13.3	+00.0
20	237 03.8	+02.5	N 21 13.3	+00.1
21	252 06.3	+02.5	N 21 13.4	+00.0
22	267 08.8	+02.5	N 21 13.4	+00.0
23	282 11.3	+02.5	N 21 13.4	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:14

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	56 40.0	+02.5	S 04 04.8	+00.0
01	71 42.5	+02.6	S 04 04.8	+00.1
02	86 45.1	+02.5	S 04 04.9	+00.0
03	101 47.6	+02.5	S 04 04.9	+00.0
04	116 50.1	+02.5	S 04 04.9	+00.0
05	131 52.6	+02.6	S 04 04.9	+00.0
06	146 55.2	+02.5	S 04 04.9	+00.0
07	161 57.7	+02.5	S 04 04.9	+00.1
08	177 00.2	+02.5	S 04 05.0	+00.0
09	192 02.7	+02.5	S 04 05.0	+00.0
10	207 05.2	+02.6	S 04 05.0	+00.0
11	222 07.8	+02.5	S 04 05.0	+00.0
12	237 10.3	+02.5	S 04 05.0	+00.0
13	252 12.8	+02.5	S 04 05.0	+00.1
14	267 15.3	+02.6	S 04 05.1	+00.0
15	282 17.9	+02.5	S 04 05.1	+00.0
16	297 20.4	+02.5	S 04 05.1	+00.0
17	312 22.9	+02.5	S 04 05.1	+00.0
18	327 25.4	+02.5	S 04 05.1	+00.0
19	342 27.9	+02.6	S 04 05.1	+00.1
20	357 30.5	+02.5	S 04 05.2	+00.0
21	12 33.0	+02.5	S 04 05.2	+00.0
22	27 35.5	+02.5	S 04 05.2	+00.0
23	42 38.0	+02.6	S 04 05.2	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:09

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2025 November 15 Saturday

(day 319 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 51.9	-00.1	S 18 29.4	+00.6
01	198 51.8	-00.1	S 18 30.0	+00.6
02	213 51.7	-00.1	S 18 30.6	+00.7
03	228 51.6	-00.1	S 18 31.3	+00.6
04	243 51.5	-00.1	S 18 31.9	+00.6
05	258 51.4	-00.1	S 18 32.5	+00.7
06	273 51.3	-00.1	S 18 33.2	+00.6
07	288 51.2	-00.1	S 18 33.8	+00.6
08	303 51.1	-00.1	S 18 34.4	+00.7
09	318 51.0	-00.2	S 18 35.1	+00.6
10	333 50.8	-00.1	S 18 35.7	+00.6
11	348 50.7	-00.1	S 18 36.3	+00.7
12	3 50.6	-00.1	S 18 37.0	+00.6
13	18 50.5	-00.1	S 18 37.6	+00.6
14	33 50.4	-00.1	S 18 38.2	+00.7
15	48 50.3	-00.1	S 18 38.9	+00.6
16	63 50.2	-00.1	S 18 39.5	+00.6
17	78 50.1	-00.1	S 18 40.1	+00.6
18	93 50.0	-00.1	S 18 40.7	+00.7
19	108 49.9	-00.2	S 18 41.4	+00.6
20	123 49.7	-00.1	S 18 42.0	+00.6
21	138 49.6	-00.1	S 18 42.6	+00.6
22	153 49.5	-00.1	S 18 43.2	+00.7
23	168 49.4	-00.1	S 18 43.9	+00.6

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	129°	129°	129°	129°	129°	129°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	196 15.5	-00.6	S 13 41.9	+01.0
01	211 14.9	-00.6	S 13 42.9	+01.1
02	226 14.3	-00.6	S 13 44.0	+01.0
03	241 13.7	-00.5	S 13 45.0	+01.1
04	256 13.2	-00.6	S 13 46.1	+01.0
05	271 12.6	-00.6	S 13 47.1	+01.0
06	286 12.0	-00.6	S 13 48.1	+01.1
07	301 11.4	-00.6	S 13 49.2	+01.0
08	316 10.8	-00.6	S 13 50.2	+01.1
09	331 10.2	-00.5	S 13 51.3	+01.0
10	346 09.7	-00.6	S 13 52.3	+01.0
11	1 09.1	-00.6	S 13 53.3	+01.1
12	16 08.5	-00.6	S 13 54.4	+01.0
13	31 07.9	-00.6	S 13 55.4	+01.0
14	46 07.3	-00.6	S 13 56.4	+01.1
15	61 06.7	-00.6	S 13 57.5	+01.0
16	76 06.1	-00.6	S 13 58.5	+01.0
17	91 05.5	-00.5	S 13 59.5	+01.1
18	106 05.0	-00.6	S 14 00.6	+01.0
19	121 04.4	-00.6	S 14 01.6	+01.0
20	136 03.8	-00.6	S 14 02.6	+01.1
21	151 03.2	-00.6	S 14 03.7	+01.0
22	166 02.6	-00.6	S 14 04.7	+01.0
23	181 02.0	-00.6	S 14 05.7	+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	142°	142°	141°	141°	141°	141°

Greenwich Culmination Time: 10:55

Moon

A: 85%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	239 11.2	-24.6	N 01 14.5	-14.6
01	253 46.6	-24.5	N 00 59.9	-14.6
02	268 22.1	-24.5	N 00 45.3	-14.5
03	282 57.6	-24.5	N 00 30.8	-14.6
04	297 33.1	-24.5	N 00 16.2	-14.5
05	312 08.6	-24.4	N 00 01.7	-14.6
06	326 44.2	-24.4	S 00 12.9	+14.5
07	341 19.8	-24.5	S 00 27.4	+14.5
08	355 55.3	-24.4	S 00 41.9	+14.5
09	10 30.9	-24.3	S 00 56.4	+14.5
10	25 06.6	-24.4	S 01 10.9	+14.5
11	39 42.2	-24.4	S 01 25.4	+14.5
12	54 17.8	-24.3	S 01 39.9	+14.4
13	68 53.5	-24.4	S 01 54.3	+14.4
14	83 29.1	-24.3	S 02 08.7	+14.4
15	98 04.8	-24.3	S 02 23.1	+14.4
16	112 40.5	-24.4	S 02 37.5	+14.4
17	127 16.1	-24.3	S 02 51.9	+14.4
18	141 51.8	-24.3	S 03 06.3	+14.3
19	156 27.5	-24.3	S 03 20.6	+14.3
20	171 03.2	-24.3	S 03 34.9	+14.3
21	185 38.9	-24.3	S 03 49.2	+14.3
22	200 14.6	-24.3	S 04 03.5	+14.3
23	214 50.3	-24.4	S 04 17.8	+14.2

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	14′9	14′9	14′9
HP	55′1	55′0	54′9	54′9	54′8	54′7
SHA	184°	182°	180°	179°	177°	175°

Greenwich Culmination Time: 08:16

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	168 40.7	+00.5	S 22 05.1	+00.3
01	183 41.2	+00.6	S 22 05.4	+00.3
02	198 41.8	+00.5	S 22 05.7	+00.4
03	213 42.3	+00.5	S 22 06.1	+00.3
04	228 42.8	+00.6	S 22 06.4	+00.3
05	243 43.4	+00.5	S 22 06.7	+00.3
06	258 43.9	+00.5	S 22 07.0	+00.3
07	273 44.4	+00.6	S 22 07.3	+00.3
08	288 45.0	+00.5	S 22 07.6	+00.4
09	303 45.5	+00.5	S 22 08.0	+00.3
10	318 46.0	+00.6	S 22 08.3	+00.3
11	333 46.6	+00.5	S 22 08.6	+00.3
12	348 47.1	+00.5	S 22 08.9	+00.3
13	3 47.6	+00.6	S 22 09.2	+00.3
14	18 48.2	+00.5	S 22 09.5	+00.4
15	33 48.7	+00.5	S 22 09.9	+00.3
16	48 49.2	+00.6	S 22 10.2	+00.3
17	63 49.8	+00.5	S 22 10.5	+00.3
18	78 50.3	+00.5	S 22 10.8	+00.3
19	93 50.8	+00.5	S 22 11.1	+00.3
20	108 51.3	+00.6	S 22 11.4	+00.3
21	123 51.9	+00.5	S 22 11.7	+00.4
22	138 52.4	+00.5	S 22 12.1	+00.3
23	153 52.9	+00.6	S 22 12.4	+00.3

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	114°	114°	114°	114°	114°	114°

Greenwich Culmination Time: 12:44

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	297 13.8	+02.5	N 21 13.4	+00.0
01	312 16.3	+02.5	N 21 13.4	+00.0
02	327 18.8	+02.5	N 21 13.4	+00.0
03	342 21.3	+02.5	N 21 13.4	+00.0
04	357 23.8	+02.5	N 21 13.4	+00.0
05	12 26.3	+02.5	N 21 13.4	+00.1
06	27 28.8	+02.4	N 21 13.5	+00.0
07	42 31.2	+02.5	N 21 13.5	+00.0
08	57 33.7	+02.5	N 21 13.5	+00.0
09	72 36.2	+02.5	N 21 13.5	+00.0
10	87 38.7	+02.5	N 21 13.5	+00.0
11	102 41.2	+02.5	N 21 13.5	+00.0
12	117 43.7	+02.5	N 21 13.5	+00.0
13	132 46.2	+02.5	N 21 13.5	+00.1
14	147 48.7	+02.5	N 21 13.6	+00.0
15	162 51.2	+02.5	N 21 13.6	+00.0
16	177 53.7	+02.5	N 21 13.6	+00.0
17	192 56.2	+02.5	N 21 13.6	+00.0
18	207 58.7	+02.5	N 21 13.6	+00.0
19	223 01.2	+02.5	N 21 13.6	+00.0
20	238 03.7	+02.5	N 21 13.6	+00.0
21	253 06.2	+02.5	N 21 13.6	+00.0
22	268 08.7	+02.5	N 21 13.6	+00.1
23	283 11.2	+02.5	N 21 13.7	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:10

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	57 40.6	+02.5	S 04 05.2	+00.0
01	72 43.1	+02.5	S 04 05.2	+00.1
02	87 45.6	+02.5	S 04 05.3	+00.0
03	102 48.1	+02.5	S 04 05.3	+00.0
04	117 50.6	+02.6	S 04 05.3	+00.0
05	132 53.2	+02.5	S 04 05.3	+00.0
06	147 55.7	+02.5	S 04 05.3	+00.0
07	162 58.2	+02.5	S 04 05.3	+00.0
08	178 00.7	+02.5	S 04 05.3	+00.1
09	193 03.2	+02.6	S 04 05.4	+00.0
10	208 05.8	+02.5	S 04 05.4	+00.0
11	223 08.3	+02.5	S 04 05.4	+00.0
12	238 10.8	+02.5	S 04 05.4	+00.0
13	253 13.3	+02.5	S 04 05.4	+00.0
14	268 15.8	+02.5	S 04 05.4	+00.0
15	283 18.3	+02.6	S 04 05.4	+00.1
16	298 20.9	+02.5	S 04 05.5	+00.0
17	313 23.4	+02.5	S 04 05.5	+00.0
18	328 25.9	+02.5	S 04 05.5	+00.0
19	343 28.4	+02.5	S 04 05.5	+00.0
20	358 30.9	+02.6	S 04 05.5	+00.0
21	13 33.5	+02.5	S 04 05.5	+00.0
22	28 36.0	+02.5	S 04 05.5	+00.1
23	43 38.5	+02.5	S 04 05.6	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:05

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 November 16 Sunday

(day 320 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 49.3	-00.1	S 18 44.5	+00.6	00
01	198 49.2	-00.1	S 18 45.1	+00.6	01
02	213 49.1	-00.1	S 18 45.7	+00.7	02
03	228 49.0	-00.2	S 18 46.4	+00.6	03
04	243 48.8	-00.1	S 18 47.0	+00.6	04
05	258 48.7	-00.1	S 18 47.6	+00.6	05
06	273 48.6	-00.1	S 18 48.2	+00.6	06
07	288 48.5	-00.1	S 18 48.8	+00.7	07
08	303 48.4	-00.1	S 18 49.5	+00.6	08
09	318 48.3	-00.2	S 18 50.1	+00.6	09
10	333 48.1	-00.1	S 18 50.7	+00.6	10
11	348 48.0	-00.1	S 18 51.3	+00.6	11
12	3 47.9	-00.1	S 18 51.9	+00.6	12
13	18 47.8	-00.1	S 18 52.5	+00.7	13
14	33 47.7	-00.1	S 18 53.2	+00.6	14
15	48 47.6	-00.2	S 18 53.8	+00.6	15
16	63 47.4	-00.1	S 18 54.4	+00.6	16
17	78 47.3	-00.1	S 18 55.0	+00.6	17
18	93 47.2	-00.1	S 18 55.6	+00.6	18
19	108 47.1	-00.1	S 18 56.2	+00.6	19
20	123 47.0	-00.2	S 18 56.8	+00.7	20
21	138 46.8	-00.1	S 18 57.5	+00.6	21
22	153 46.7	-00.1	S 18 58.1	+00.6	22
23	168 46.6	-00.1	S 18 58.7	+00.6	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	128°	128°	128°	128°	128°	128°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	196 01.4	-00.6	S 14 06.8	+01.0	00
01	211 00.8	-00.6	S 14 07.8	+01.0	01
02	226 00.2	-00.6	S 14 08.8	+01.0	02
03	240 59.6	-00.6	S 14 09.8	+01.1	03
04	255 59.0	-00.6	S 14 10.9	+01.0	04
05	270 58.4	-00.6	S 14 11.9	+01.0	05
06	285 57.8	-00.5	S 14 12.9	+01.0	06
07	300 57.3	-00.6	S 14 13.9	+01.1	07
08	315 56.7	-00.6	S 14 15.0	+01.0	08
09	330 56.1	-00.6	S 14 16.0	+01.0	09
10	345 55.5	-00.6	S 14 17.0	+01.0	10
11	0 54.9	-00.6	S 14 18.0	+01.1	11
12	15 54.3	-00.6	S 14 19.1	+01.0	12
13	30 53.7	-00.6	S 14 20.1	+01.0	13
14	45 53.1	-00.6	S 14 21.1	+01.0	14
15	60 52.5	-00.6	S 14 22.1	+01.0	15
16	75 51.9	-00.6	S 14 23.1	+01.1	16
17	90 51.3	-00.6	S 14 24.2	+01.0	17
18	105 50.7	-00.6	S 14 25.2	+01.0	18
19	120 50.1	-00.6	S 14 26.2	+01.0	19
20	135 49.5	-00.6	S 14 27.2	+01.0	20
21	150 48.9	-00.6	S 14 28.2	+01.0	21
22	165 48.3	-00.6	S 14 29.2	+01.1	22
23	180 47.7	-00.6	S 14 30.3	+01.0	23

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	141°	140°	140°	140°	140°	140°

Greenwich Culmination Time: 10:56

Moon

A: 88%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	229 25.9	-24.3	S 04 32.0	+14.2	00
01	244 01.6	-24.3	S 04 46.2	+14.2	01
02	258 37.3	-24.3	S 05 00.4	+14.1	02
03	273 13.0	-24.4	S 05 14.5	+14.2	03
04	287 48.6	-24.3	S 05 28.7	+14.1	04
05	302 24.3	-24.4	S 05 42.8	+14.0	05
06	316 59.9	-24.3	S 05 56.8	+14.1	06
07	331 35.6	-24.4	S 06 10.9	+14.0	07
08	346 11.2	-24.4	S 06 24.9	+14.0	08
09	0 46.8	-24.4	S 06 38.9	+13.9	09
10	15 22.4	-24.4	S 06 52.8	+14.0	10
11	29 58.0	-24.4	S 07 06.8	+13.9	11
12	44 33.6	-24.5	S 07 20.7	+13.8	12
13	59 09.1	-24.4	S 07 34.5	+13.8	13
14	73 44.7	-24.5	S 07 48.3	+13.8	14
15	88 20.2	-24.5	S 08 02.1	+13.8	15
16	102 55.7	-24.5	S 08 15.9	+13.7	16
17	117 31.2	-24.6	S 08 29.6	+13.7	17
18	132 06.6	-24.5	S 08 43.3	+13.6	18
19	146 42.1	-24.6	S 08 56.9	+13.6	19
20	161 17.5	-24.6	S 09 10.5	+13.6	20
21	175 52.9	-24.7	S 09 24.1	+13.5	21
22	190 28.2	-24.6	S 09 37.6	+13.5	22
23	205 03.6	-24.7	S 09 51.1	+13.4	23

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′8	14′8	14′8
HP	54′6	54′6	54′5	54′5	54′4	54′4
SHA	173°	171°	170°	168°	166°	164°

Greenwich Culmination Time: 08:56

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	168 53.5	+00.5	S 22 12.7	+00.3	00
01	183 54.0	+00.5	S 22 13.0	+00.3	01
02	198 54.5	+00.5	S 22 13.3	+00.3	02
03	213 55.0	+00.6	S 22 13.6	+00.3	03
04	228 55.6	+00.5	S 22 13.9	+00.3	04
05	243 56.1	+00.5	S 22 14.2	+00.3	05
06	258 56.6	+00.5	S 22 14.5	+00.4	06
07	273 57.1	+00.6	S 22 14.9	+00.3	07
08	288 57.7	+00.5	S 22 15.2	+00.3	08
09	303 58.2	+00.5	S 22 15.5	+00.3	09
10	318 58.7	+00.6	S 22 15.8	+00.3	10
11	333 59.3	+00.5	S 22 16.1	+00.3	11
12	348 59.8	+00.5	S 22 16.4	+00.3	12
13	4 00.3	+00.5	S 22 16.7	+00.3	13
14	19 00.8	+00.6	S 22 17.0	+00.3	14
15	34 01.4	+00.5	S 22 17.3	+00.3	15
16	49 01.9	+00.5	S 22 17.6	+00.3	16
17	64 02.4	+00.5	S 22 17.9	+00.3	17
18	79 02.9	+00.5	S 22 18.2	+00.3	18
19	94 03.4	+00.6	S 22 18.5	+00.3	19
20	109 04.0	+00.5	S 22 18.8	+00.3	20
21	124 04.5	+00.5	S 22 19.1	+00.3	21
22	139 05.0	+00.5	S 22 19.4	+00.4	22
23	154 05.5	+00.6	S 22 19.8	+00.3	23

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	114°	113°	113°	113°	113°	113°

Greenwich Culmination Time: 12:43

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	298 13.7	+02.5	N 21 13.7	+00.0	00
01	313 16.2	+02.5	N 21 13.7	+00.0	01
02	328 18.7	+02.5	N 21 13.7	+00.0	02
03	343 21.2	+02.5	N 21 13.7	+00.0	03
04	358 23.7	+02.5	N 21 13.7	+00.0	04
05	13 26.2	+02.5	N 21 13.7	+00.0	05
06	28 28.7	+02.5	N 21 13.7	+00.1	06
07	43 31.2	+02.5	N 21 13.8	+00.0	07
08	58 33.7	+02.5	N 21 13.8	+00.0	08
09	73 36.2	+02.5	N 21 13.8	+00.0	09
10	88 38.7	+02.5	N 21 13.8	+00.0	10
11	103 41.2	+02.6	N 21 13.8	+00.0	11
12	118 43.8	+02.5	N 21 13.8	+00.0	12
13	133 46.3	+02.5	N 21 13.8	+00.1	13
14	148 48.8	+02.5	N 21 13.9	+00.0	14
15	163 51.3	+02.5	N 21 13.9	+00.0	15
16	178 53.8	+02.5	N 21 13.9	+00.0	16
17	193 56.3	+02.5	N 21 13.9	+00.0	17
18	208 58.8	+02.5	N 21 13.9	+00.0	18
19	224 01.3	+02.5	N 21 13.9	+00.0	19
20	239 03.8	+02.5	N 21 13.9	+00.1	20
21	254 06.3	+02.5	N 21 14.0	+00.0	21
22	269 08.8	+02.5	N 21 14.0	+00.0	22
23	284 11.3	+02.5	N 21 14.0	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:06

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	58 41.0	+02.5	S 04 05.6	+00.0	00
01	73 43.5	+02.5	S 04 05.6	+00.0	01
02	88 46.0	+02.6	S 04 05.6	+00.0	02
03	103 48.6	+02.5	S 04 05.6	+00.0	03
04	118 51.1	+02.5	S 04 05.6	+00.0	04
05	133 53.6	+02.5	S 04 05.6	+00.1	05
06	148 56.1	+02.5	S 04 05.7	+00.0	06
07	163 58.6	+02.5	S 04 05.7	+00.0	07
08	179 01.1	+02.5	S 04 05.7	+00.0	08
09	194 03.6	+02.6	S 04 05.7	+00.0	09
10	209 06.2	+02.5	S 04 05.7	+00.0	10
11	224 08.7	+02.5	S 04 05.7	+00.0	11
12	239 11.2	+02.5	S 04 05.7	+00.0	12
13	254 13.7	+02.5	S 04 05.7	+00.1	13
14	269 16.2	+02.5	S 04 05.8	+00.0	14
15	284 18.7	+02.6	S 04 05.8	+00.0	15
16	299 21.3	+02.5	S 04 05.8	+00.0	16
17	314 23.8	+02.5	S 04 05.8	+00.0	17
18	329 26.3	+02.5	S 04 05.8	+00.0	18
19	344 28.8	+02.5	S 04 05.8	+00.0	19
20	359 31.3	+02.5	S 04 05.8	+00.1	20
21	14 33.8	+02.5	S 04 05.9	+00.0	21
22	29 36.3	+02.5	S 04 05.9	+00.0	22
23	44 38.8	+02.6	S 04 05.9	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 20:01

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2025 November 17 Monday

(day 321 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 46.5	-00.2	S 18 59.3	+00.6	00
01	198 46.3	-00.1	S 18 59.9	+00.6	01
02	213 46.2	-00.1	S 19 00.5	+00.6	02
03	228 46.1	-00.1	S 19 01.1	+00.6	03
04	243 46.0	-00.1	S 19 01.7	+00.6	04
05	258 45.9	-00.2	S 19 02.3	+00.6	05
06	273 45.7	-00.1	S 19 02.9	+00.6	06
07	288 45.6	-00.1	S 19 03.5	+00.7	07
08	303 45.5	-00.1	S 19 04.2	+00.6	08
09	318 45.4	-00.2	S 19 04.8	+00.6	09
10	333 45.2	-00.1	S 19 05.4	+00.6	10
11	348 45.1	-00.1	S 19 06.0	+00.6	11
12	3 45.0	-00.2	S 19 06.6	+00.6	12
13	18 44.8	-00.1	S 19 07.2	+00.6	13
14	33 44.7	-00.1	S 19 07.8	+00.6	14
15	48 44.6	-00.1	S 19 08.4	+00.6	15
16	63 44.5	-00.2	S 19 09.0	+00.6	16
17	78 44.3	-00.1	S 19 09.6	+00.6	17
18	93 44.2	-00.1	S 19 10.2	+00.6	18
19	108 44.1	-00.2	S 19 10.8	+00.6	19
20	123 43.9	-00.1	S 19 11.4	+00.6	20
21	138 43.8	-00.1	S 19 12.0	+00.6	21
22	153 43.7	-00.1	S 19 12.6	+00.6	22
23	168 43.6	-00.2	S 19 13.2	+00.6	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	127°	127°	127°	127°	127°	127°

Greenwich Culmination Time: 11:44

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	195 47.1	-00.6	S 14 31.3	+01.0	00
01	210 46.5	-00.7	S 14 32.3	+01.0	01
02	225 45.8	-00.6	S 14 33.3	+01.0	02
03	240 45.2	-00.6	S 14 34.3	+01.0	03
04	255 44.6	-00.6	S 14 35.3	+01.0	04
05	270 44.0	-00.6	S 14 36.3	+01.0	05
06	285 43.4	-00.6	S 14 37.3	+01.1	06
07	300 42.8	-00.6	S 14 38.4	+01.0	07
08	315 42.2	-00.6	S 14 39.4	+01.0	08
09	330 41.6	-00.6	S 14 40.4	+01.0	09
10	345 41.0	-00.6	S 14 41.4	+01.0	10
11	0 40.4	-00.6	S 14 42.4	+01.0	11
12	15 39.8	-00.6	S 14 43.4	+01.0	12
13	30 39.2	-00.6	S 14 44.4	+01.0	13
14	45 38.6	-00.7	S 14 45.4	+01.0	14
15	60 37.9	-00.6	S 14 46.4	+01.0	15
16	75 37.3	-00.6	S 14 47.4	+01.0	16
17	90 36.7	-00.6	S 14 48.4	+01.0	17
18	105 36.1	-00.6	S 14 49.4	+01.0	18
19	120 35.5	-00.6	S 14 50.4	+01.0	19
20	135 34.9	-00.6	S 14 51.4	+01.0	20
21	150 34.3	-00.6	S 14 52.4	+01.0	21
22	165 33.7	-00.7	S 14 53.4	+01.0	22
23	180 33.0	-00.6	S 14 54.4	+01.0	23

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	139°	139°	139°	139°	139°	138°

Greenwich Culmination Time: 10:57

Moon

A: 91%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	219 38.9	-24.7	S 10 04.5	+13.4	00
01	234 14.2	-24.8	S 10 17.9	+13.4	01
02	248 49.4	-24.7	S 10 31.3	+13.3	02
03	263 24.7	-24.9	S 10 44.6	+13.3	03
04	277 59.8	-24.8	S 10 57.9	+13.2	04
05	292 35.0	-24.9	S 11 11.1	+13.2	05
06	307 10.1	-24.9	S 11 24.3	+13.1	06
07	321 45.2	-24.9	S 11 37.4	+13.1	07
08	336 20.3	-25.0	S 11 50.5	+13.0	08
09	350 55.3	-25.0	S 12 03.5	+13.0	09
10	5 30.3	-25.0	S 12 16.5	+12.9	10
11	20 05.3	-25.1	S 12 29.4	+12.9	11
12	34 40.2	-25.1	S 12 42.3	+12.8	12
13	49 15.1	-25.2	S 12 55.1	+12.8	13
14	63 49.9	-25.2	S 13 07.9	+12.8	14
15	78 24.7	-25.2	S 13 20.7	+12.6	15
16	92 59.5	-25.3	S 13 33.3	+12.6	16
17	107 34.2	-25.3	S 13 45.9	+12.6	17
18	122 08.9	-25.4	S 13 58.5	+12.5	18
19	136 43.5	-25.4	S 14 11.0	+12.5	19
20	151 18.1	-25.5	S 14 23.5	+12.4	20
21	165 52.6	-25.5	S 14 35.9	+12.3	21
22	180 27.1	-25.5	S 14 48.2	+12.3	22
23	195 01.6	-25.6	S 15 00.5	+12.2	23

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′7
HP	54′3	54′3	54′2	54′2	54′1	54′1
SHA	162°	161°	159°	157°	155°	153°

Greenwich Culmination Time: 09:37

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	169 06.1	+00.5	S 22 20.1	+00.3	00
01	184 06.6	+00.5	S 22 20.4	+00.3	01
02	199 07.1	+00.5	S 22 20.7	+00.3	02
03	214 07.6	+00.5	S 22 21.0	+00.3	03
04	229 08.1	+00.6	S 22 21.3	+00.3	04
05	244 08.7	+00.5	S 22 21.6	+00.3	05
06	259 09.2	+00.5	S 22 21.9	+00.3	06
07	274 09.7	+00.5	S 22 22.2	+00.3	07
08	289 10.2	+00.5	S 22 22.5	+00.3	08
09	304 10.7	+00.6	S 22 22.8	+00.3	09
10	319 11.3	+00.5	S 22 23.1	+00.3	10
11	334 11.8	+00.5	S 22 23.4	+00.3	11
12	349 12.3	+00.5	S 22 23.7	+00.3	12
13	4 12.8	+00.5	S 22 24.0	+00.3	13
14	19 13.3	+00.6	S 22 24.3	+00.3	14
15	34 13.9	+00.5	S 22 24.6	+00.3	15
16	49 14.4	+00.5	S 22 24.9	+00.3	16
17	64 14.9	+00.5	S 22 25.2	+00.2	17
18	79 15.4	+00.5	S 22 25.4	+00.3	18
19	94 15.9	+00.5	S 22 25.7	+00.3	19
20	109 16.4	+00.6	S 22 26.0	+00.3	20
21	124 17.0	+00.5	S 22 26.3	+00.3	21
22	139 17.5	+00.5	S 22 26.6	+00.3	22
23	154 18.0	+00.5	S 22 26.9	+00.3	23

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	113°	113°	112°	112°	112°	112°

Greenwich Culmination Time: 12:43

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	299 13.8	+02.6	N 21 14.0	+00.0	00
01	314 16.4	+02.5	N 21 14.0	+00.0	01
02	329 18.9	+02.5	N 21 14.0	+00.0	02
03	344 21.4	+02.5	N 21 14.0	+00.1	03
04	359 23.9	+02.5	N 21 14.1	+00.0	04
05	14 26.4	+02.5	N 21 14.1	+00.0	05
06	29 28.9	+02.5	N 21 14.1	+00.0	06
07	44 31.4	+02.5	N 21 14.1	+00.0	07
08	59 33.9	+02.5	N 21 14.1	+00.0	08
09	74 36.4	+02.6	N 21 14.1	+00.0	09
10	89 39.0	+02.5	N 21 14.1	+00.1	10
11	104 41.5	+02.5	N 21 14.2	+00.0	11
12	119 44.0	+02.5	N 21 14.2	+00.0	12
13	134 46.5	+02.5	N 21 14.2	+00.0	13
14	149 49.0	+02.5	N 21 14.2	+00.0	14
15	164 51.5	+02.5	N 21 14.2	+00.0	15
16	179 54.0	+02.6	N 21 14.2	+00.0	16
17	194 56.6	+02.5	N 21 14.2	+00.1	17
18	209 59.1	+02.5	N 21 14.3	+00.0	18
19	225 01.6	+02.5	N 21 14.3	+00.0	19
20	240 04.1	+02.5	N 21 14.3	+00.0	20
21	255 06.6	+02.5	N 21 14.3	+00.0	21
22	270 09.1	+02.6	N 21 14.3	+00.0	22
23	285 11.7	+02.5	N 21 14.3	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 04:02

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	59 41.4	+02.5	S 04 05.9	+00.0	00
01	74 43.9	+02.5	S 04 05.9	+00.0	01
02	89 46.4	+02.5	S 04 05.9	+00.0	02
03	104 48.9	+02.5	S 04 05.9	+00.0	03
04	119 51.4	+02.5	S 04 05.9	+00.0	04
05	134 53.9	+02.5	S 04 05.9	+00.1	05
06	149 56.4	+02.5	S 04 06.0	+00.0	06
07	164 58.9	+02.6	S 04 06.0	+00.0	07
08	180 01.5	+02.5	S 04 06.0	+00.0	08
09	195 04.0	+02.5	S 04 06.0	+00.0	09
10	210 06.5	+02.5	S 04 06.0	+00.0	10
11	225 09.0	+02.5	S 04 06.0	+00.0	11
12	240 11.5	+02.5	S 04 06.0	+00.0	12
13	255 14.0	+02.5	S 04 06.0	+00.0	13
14	270 16.5	+02.5	S 04 06.0	+00.1	14
15	285 19.0	+02.5	S 04 06.1	+00.0	15
16	300 21.5	+02.6	S 04 06.1	+00.0	16
17	315 24.1	+02.5	S 04 06.1	+00.0	17
18	330 26.6	+02.5	S 04 06.1	+00.0	18
19	345 29.1	+02.5	S 04 06.1	+00.0	19
20	0 31.6	+02.5	S 04 06.1	+00.0	20
21	15 34.1	+02.5	S 04 06.1	+00.0	21
22	30 36.6	+02.5	S 04 06.1	+00.0	22
23	45 39.1	+02.5	S 04 06.1	+00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:57

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2025 November 18 Tuesday

(day 322 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 43.4	−00.1	S 19 13.8	+00.6
01	198 43.3	−00.1	S 19 14.4	+00.6
02	213 43.2	−00.2	S 19 15.0	+00.5
03	228 43.0	−00.1	S 19 15.5	+00.6
04	243 42.9	−00.1	S 19 16.1	+00.6
05	258 42.8	−00.2	S 19 16.7	+00.6
06	273 42.6	−00.1	S 19 17.3	+00.6
07	288 42.5	−00.1	S 19 17.9	+00.6
08	303 42.4	−00.2	S 19 18.5	+00.6
09	318 42.2	−00.1	S 19 19.1	+00.6
10	333 42.1	−00.1	S 19 19.7	+00.6
11	348 42.0	−00.2	S 19 20.3	+00.6
12	3 41.8	−00.1	S 19 20.9	+00.6
13	18 41.7	−00.1	S 19 21.5	+00.5
14	33 41.6	−00.2	S 19 22.0	+00.6
15	48 41.4	−00.1	S 19 22.6	+00.6
16	63 41.3	−00.2	S 19 23.2	+00.6
17	78 41.1	−00.1	S 19 23.8	+00.6
18	93 41.0	−00.1	S 19 24.4	+00.6
19	108 40.9	−00.2	S 19 25.0	+00.6
20	123 40.7	−00.1	S 19 25.6	+00.5
21	138 40.6	−00.1	S 19 26.1	+00.6
22	153 40.5	−00.2	S 19 26.7	+00.6
23	168 40.3	−00.1	S 19 27.3	+00.6

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	126°	126°	126°	126°	126°	125°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	195 32.4	−00.6	S 14 55.4	+01.0
01	210 31.8	−00.6	S 14 56.4	+01.0
02	225 31.2	−00.6	S 14 57.4	+01.0
03	240 30.6	−00.6	S 14 58.4	+01.0
04	255 30.0	−00.7	S 14 59.4	+01.0
05	270 29.3	−00.6	S 15 00.4	+01.0
06	285 28.7	−00.6	S 15 01.4	+01.0
07	300 28.1	−00.6	S 15 02.4	+01.0
08	315 27.5	−00.6	S 15 03.4	+01.0
09	330 26.9	−00.7	S 15 04.4	+01.0
10	345 26.2	−00.6	S 15 05.4	+01.0
11	0 25.6	−00.6	S 15 06.4	+00.9
12	15 25.0	−00.6	S 15 07.3	+01.0
13	30 24.4	−00.6	S 15 08.3	+01.0
14	45 23.8	−00.7	S 15 09.3	+01.0
15	60 23.1	−00.6	S 15 10.3	+01.0
16	75 22.5	−00.6	S 15 11.3	+01.0
17	90 21.9	−00.6	S 15 12.3	+01.0
18	105 21.3	−00.7	S 15 13.3	+01.0
19	120 20.6	−00.6	S 15 14.3	+00.9
20	135 20.0	−00.6	S 15 15.2	+01.0
21	150 19.4	−00.6	S 15 16.2	+01.0
22	165 18.8	−00.7	S 15 17.2	+01.0
23	180 18.1	−00.6	S 15 18.2	+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	138°	138°	138°	138°	137°	137°

Greenwich Culmination Time: 10:58

Moon

A: 94%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	209 36.0	−25.7	S 15 12.7	+12.1
01	224 10.3	−25.7	S 15 24.8	+12.1
02	238 44.6	−25.7	S 15 36.9	+12.0
03	253 18.9	−25.8	S 15 48.9	+12.0
04	267 53.1	−25.9	S 16 00.9	+11.9
05	282 27.2	−25.9	S 16 12.8	+11.8
06	297 01.3	−25.9	S 16 24.6	+11.8
07	311 35.4	−26.0	S 16 36.4	+11.7
08	326 09.4	−26.1	S 16 48.1	+11.6
09	340 43.3	−26.1	S 16 59.7	+11.6
10	355 17.2	−26.1	S 17 11.3	+11.5
11	9 51.1	−26.2	S 17 22.8	+11.4
12	24 24.9	−26.3	S 17 34.2	+11.4
13	38 58.6	−26.4	S 17 45.6	+11.3
14	53 32.2	−26.3	S 17 56.9	+11.2
15	68 05.9	−26.5	S 18 08.1	+11.1
16	82 39.4	−26.5	S 18 19.2	+11.0
17	97 12.9	−26.5	S 18 30.2	+11.0
18	111 46.4	−26.7	S 18 41.2	+10.9
19	126 19.7	−26.6	S 18 52.1	+10.9
20	140 53.1	−26.8	S 19 03.0	+10.7
21	155 26.3	−26.8	S 19 13.7	+10.7
22	169 59.5	−26.8	S 19 24.4	+10.6
23	184 32.7	−27.0	S 19 35.0	+10.5

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	54′1	54′0	54′0	54′0	54′0	54′0
SHA	151°	149°	148°	146°	144°	142°

Greenwich Culmination Time: 10:19

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	169 18.5	+00.5	S 22 27.2	+00.3
01	184 19.0	+00.5	S 22 27.5	+00.3
02	199 19.5	+00.6	S 22 27.8	+00.3
03	214 20.1	+00.5	S 22 28.1	+00.3
04	229 20.6	+00.5	S 22 28.4	+00.3
05	244 21.1	+00.5	S 22 28.7	+00.3
06	259 21.6	+00.5	S 22 29.0	+00.3
07	274 22.1	+00.5	S 22 29.3	+00.3
08	289 22.6	+00.5	S 22 29.6	+00.3
09	304 23.1	+00.6	S 22 29.9	+00.2
10	319 23.7	+00.5	S 22 30.1	+00.3
11	334 24.2	+00.5	S 22 30.4	+00.3
12	349 24.7	+00.5	S 22 30.7	+00.3
13	4 25.2	+00.5	S 22 31.0	+00.3
14	19 25.7	+00.5	S 22 31.3	+00.3
15	34 26.2	+00.5	S 22 31.6	+00.3
16	49 26.7	+00.5	S 22 31.9	+00.3
17	64 27.2	+00.6	S 22 32.2	+00.3
18	79 27.8	+00.5	S 22 32.5	+00.2
19	94 28.3	+00.5	S 22 32.7	+00.3
20	109 28.8	+00.5	S 22 33.0	+00.3
21	124 29.3	+00.5	S 22 33.3	+00.3
22	139 29.8	+00.5	S 22 33.6	+00.3
23	154 30.3	+00.5	S 22 33.9	+00.3

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	112°	112°	112°	112°	111°	111°

Greenwich Culmination Time: 12:42

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	300 14.2	+02.5	N 21 14.3	+00.1
01	315 16.7	+02.5	N 21 14.4	+00.0
02	330 19.2	+02.5	N 21 14.4	+00.0
03	345 21.7	+02.6	N 21 14.4	+00.0
04	0 24.3	+02.5	N 21 14.4	+00.0
05	15 26.8	+02.5	N 21 14.4	+00.0
06	30 29.3	+02.5	N 21 14.4	+00.1
07	45 31.8	+02.5	N 21 14.5	+00.0
08	60 34.3	+02.6	N 21 14.5	+00.0
09	75 36.9	+02.5	N 21 14.5	+00.0
10	90 39.4	+02.5	N 21 14.5	+00.0
11	105 41.9	+02.5	N 21 14.5	+00.0
12	120 44.4	+02.6	N 21 14.5	+00.1
13	135 47.0	+02.5	N 21 14.6	+00.0
14	150 49.5	+02.5	N 21 14.6	+00.0
15	165 52.0	+02.5	N 21 14.6	+00.0
16	180 54.5	+02.6	N 21 14.6	+00.0
17	195 57.1	+02.5	N 21 14.6	+00.0
18	210 59.6	+02.5	N 21 14.6	+00.1
19	226 02.1	+02.5	N 21 14.7	+00.0
20	241 04.6	+02.6	N 21 14.7	+00.0
21	256 07.2	+02.5	N 21 14.7	+00.0
22	271 09.7	+02.5	N 21 14.7	+00.0
23	286 12.2	+02.5	N 21 14.7	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:58

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	60 41.6	+02.5	S 04 06.2	+00.0
01	75 44.1	+02.5	S 04 06.2	+00.0
02	90 46.6	+02.6	S 04 06.2	+00.0
03	105 49.2	+02.5	S 04 06.2	+00.0
04	120 51.7	+02.5	S 04 06.2	+00.0
05	135 54.2	+02.5	S 04 06.2	+00.0
06	150 56.7	+02.5	S 04 06.2	+00.0
07	165 59.2	+02.5	S 04 06.2	+00.0
08	181 01.7	+02.5	S 04 06.2	+00.0
09	196 04.2	+02.5	S 04 06.2	+00.1
10	211 06.7	+02.5	S 04 06.3	+00.0
11	226 09.2	+02.5	S 04 06.3	+00.0
12	241 11.7	+02.5	S 04 06.3	+00.0
13	256 14.2	+02.5	S 04 06.3	+00.0
14	271 16.7	+02.5	S 04 06.3	+00.0
15	286 19.2	+02.5	S 04 06.3	+00.0
16	301 21.7	+02.6	S 04 06.3	+00.0
17	316 24.3	+02.5	S 04 06.3	+00.0
18	331 26.8	+02.5	S 04 06.3	+00.0
19	346 29.3	+02.5	S 04 06.3	+00.0
20	1 31.8	+02.5	S 04 06.3	+00.1
21	16 34.3	+02.5	S 04 06.4	+00.0
22	31 36.8	+02.5	S 04 06.4	+00.0
23	46 39.3	+02.5	S 04 06.4	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:53

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2025 November 19 Wednesday (day 323 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 40.2	−00.2	S 19 27.9	+00.6	00
01	198 40.0	−00.1	S 19 28.5	+00.5	01
02	213 39.9	−00.1	S 19 29.0	+00.6	02
03	228 39.8	−00.2	S 19 29.6	+00.6	03
04	243 39.6	−00.1	S 19 30.2	+00.6	04
05	258 39.5	−00.2	S 19 30.8	+00.6	05
06	273 39.3	−00.1	S 19 31.4	+00.5	06
07	288 39.2	−00.2	S 19 31.9	+00.6	07
08	303 39.0	−00.1	S 19 32.5	+00.6	08
09	318 38.9	−00.1	S 19 33.1	+00.6	09
10	333 38.8	−00.2	S 19 33.7	+00.5	10
11	348 38.6	−00.1	S 19 34.2	+00.6	11
12	3 38.5	−00.2	S 19 34.8	+00.6	12
13	18 38.3	−00.1	S 19 35.4	+00.6	13
14	33 38.2	−00.2	S 19 36.0	+00.5	14
15	48 38.0	−00.1	S 19 36.5	+00.6	15
16	63 37.9	−00.1	S 19 37.1	+00.6	16
17	78 37.8	−00.2	S 19 37.7	+00.5	17
18	93 37.6	−00.1	S 19 38.2	+00.6	18
19	108 37.5	−00.2	S 19 38.8	+00.6	19
20	123 37.3	−00.1	S 19 39.4	+00.6	20
21	138 37.2	−00.2	S 19 40.0	+00.5	21
22	153 37.0	−00.1	S 19 40.5	+00.6	22
23	168 36.9	−00.2	S 19 41.1	+00.6	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	125°	125°	125°	125°	125°	124°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	195 17.5	−00.6	S 15 19.2	+01.0	00
01	210 16.9	−00.6	S 15 20.2	+00.9	01
02	225 16.3	−00.7	S 15 21.1	+01.0	02
03	240 15.6	−00.6	S 15 22.1	+01.0	03
04	255 15.0	−00.6	S 15 23.1	+01.0	04
05	270 14.4	−00.7	S 15 24.1	+01.0	05
06	285 13.7	−00.6	S 15 25.1	+00.9	06
07	300 13.1	−00.6	S 15 26.0	+01.0	07
08	315 12.5	−00.7	S 15 27.0	+01.0	08
09	330 11.8	−00.6	S 15 28.0	+01.0	09
10	345 11.2	−00.6	S 15 29.0	+00.9	10
11	0 10.6	−00.7	S 15 29.9	+01.0	11
12	15 09.9	−00.6	S 15 30.9	+01.0	12
13	30 09.3	−00.6	S 15 31.9	+01.0	13
14	45 08.7	−00.7	S 15 32.9	+00.9	14
15	60 08.0	−00.6	S 15 33.8	+01.0	15
16	75 07.4	−00.6	S 15 34.8	+01.0	16
17	90 06.8	−00.7	S 15 35.8	+01.0	17
18	105 06.1	−00.6	S 15 36.8	+00.9	18
19	120 05.5	−00.6	S 15 37.7	+01.0	19
20	135 04.9	−00.7	S 15 38.7	+01.0	20
21	150 04.2	−00.6	S 15 39.7	+00.9	21
22	165 03.6	−00.7	S 15 40.6	+01.0	22
23	180 02.9	−00.6	S 15 41.6	+01.0	23

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	137°	137°	136°	136°	136°	136°

Greenwich Culmination Time: 10:59

Moon

A: 97%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	199 05.7	−26.9	S 19 45.5	+10.4	00
01	213 38.8	−27.1	S 19 55.9	+10.4	01
02	228 11.7	−27.1	S 20 06.3	+10.2	02
03	242 44.6	−27.2	S 20 16.5	+10.2	03
04	257 17.4	−27.2	S 20 26.7	+10.1	04
05	271 50.2	−27.3	S 20 36.8	+10.0	05
06	286 22.9	−27.3	S 20 46.8	+09.9	06
07	300 55.6	−27.5	S 20 56.7	+09.9	07
08	315 28.1	−27.4	S 21 06.6	+09.7	08
09	330 00.7	−27.6	S 21 16.3	+09.7	09
10	344 33.1	−27.6	S 21 26.0	+09.5	10
11	359 05.5	−27.7	S 21 35.5	+09.5	11
12	13 37.8	−27.7	S 21 45.0	+09.4	12
13	28 10.1	−27.8	S 21 54.4	+09.3	13
14	42 42.3	−27.9	S 22 03.7	+09.2	14
15	57 14.4	−27.9	S 22 12.9	+09.1	15
16	71 46.5	−28.0	S 22 22.0	+09.0	16
17	86 18.5	−28.1	S 22 31.0	+08.9	17
18	100 50.4	−28.1	S 22 39.9	+08.8	18
19	115 22.3	−28.2	S 22 48.7	+08.7	19
20	129 54.1	−28.3	S 22 57.4	+08.6	20
21	144 25.8	−28.3	S 23 06.0	+08.6	21
22	158 57.5	−28.4	S 23 14.6	+08.4	22
23	173 29.1	−28.4	S 23 23.0	+08.3	23

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	53′9	53′9	53′9	53′9	53′9	53′9
SHA	140°	138°	136°	134°	132°	130°

Greenwich Culmination Time: 11:03

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	169 30.8	+00.5	S 22 34.2	+00.3	00
01	184 31.3	+00.5	S 22 34.5	+00.2	01
02	199 31.8	+00.6	S 22 34.7	+00.3	02
03	214 32.4	+00.5	S 22 35.0	+00.3	03
04	229 32.9	+00.5	S 22 35.3	+00.3	04
05	244 33.4	+00.5	S 22 35.6	+00.3	05
06	259 33.9	+00.5	S 22 35.9	+00.3	06
07	274 34.4	+00.5	S 22 36.2	+00.2	07
08	289 34.9	+00.5	S 22 36.4	+00.3	08
09	304 35.4	+00.5	S 22 36.7	+00.3	09
10	319 35.9	+00.5	S 22 37.0	+00.3	10
11	334 36.4	+00.5	S 22 37.3	+00.3	11
12	349 36.9	+00.5	S 22 37.6	+00.2	12
13	4 37.4	+00.5	S 22 37.8	+00.3	13
14	19 37.9	+00.6	S 22 38.1	+00.3	14
15	34 38.5	+00.5	S 22 38.4	+00.3	15
16	49 39.0	+00.5	S 22 38.7	+00.3	16
17	64 39.5	+00.5	S 22 39.0	+00.2	17
18	79 40.0	+00.5	S 22 39.2	+00.3	18
19	94 40.5	+00.5	S 22 39.5	+00.3	19
20	109 41.0	+00.5	S 22 39.8	+00.3	20
21	124 41.5	+00.5	S 22 40.1	+00.3	21
22	139 42.0	+00.5	S 22 40.4	+00.2	22
23	154 42.5	+00.5	S 22 40.6	+00.3	23

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	111°	111°	111°	111°	111°	111°

Greenwich Culmination Time: 12:41

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	301 14.7	+02.6	N 21 14.7	+00.1	00
01	316 17.3	+02.5	N 21 14.8	+00.0	01
02	331 19.8	+02.5	N 21 14.8	+00.0	02
03	346 22.3	+02.5	N 21 14.8	+00.0	03
04	1 24.8	+02.6	N 21 14.8	+00.0	04
05	16 27.4	+02.5	N 21 14.8	+00.0	05
06	31 29.9	+02.5	N 21 14.8	+00.1	06
07	46 32.4	+02.6	N 21 14.9	+00.0	07
08	61 35.0	+02.5	N 21 14.9	+00.0	08
09	76 37.5	+02.5	N 21 14.9	+00.0	09
10	91 40.0	+02.6	N 21 14.9	+00.0	10
11	106 42.6	+02.5	N 21 14.9	+00.1	11
12	121 45.1	+02.5	N 21 15.0	+00.0	12
13	136 47.6	+02.6	N 21 15.0	+00.0	13
14	151 50.2	+02.5	N 21 15.0	+00.0	14
15	166 52.7	+02.5	N 21 15.0	+00.0	15
16	181 55.2	+02.6	N 21 15.0	+00.0	16
17	196 57.8	+02.5	N 21 15.0	+00.1	17
18	212 00.3	+02.5	N 21 15.1	+00.0	18
19	227 02.8	+02.6	N 21 15.1	+00.0	19
20	242 05.4	+02.5	N 21 15.1	+00.0	20
21	257 07.9	+02.5	N 21 15.1	+00.0	21
22	272 10.4	+02.6	N 21 15.1	+00.1	22
23	287 13.0	+02.5	N 21 15.2	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:54

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	61 41.8	+02.5	S 04 06.4	+00.0	00
01	76 44.3	+02.5	S 04 06.4	+00.0	01
02	91 46.8	+02.5	S 04 06.4	+00.0	02
03	106 49.3	+02.5	S 04 06.4	+00.0	03
04	121 51.8	+02.5	S 04 06.4	+00.0	04
05	136 54.3	+02.5	S 04 06.4	+00.0	05
06	151 56.8	+02.5	S 04 06.4	+00.0	06
07	166 59.3	+02.5	S 04 06.4	+00.0	07
08	182 01.8	+02.5	S 04 06.4	+00.1	08
09	197 04.3	+02.5	S 04 06.5	+00.0	09
10	212 06.8	+02.5	S 04 06.5	+00.0	10
11	227 09.3	+02.5	S 04 06.5	+00.0	11
12	242 11.8	+02.5	S 04 06.5	+00.0	12
13	257 14.3	+02.5	S 04 06.5	+00.0	13
14	272 16.8	+02.5	S 04 06.5	+00.0	14
15	287 19.3	+02.6	S 04 06.5	+00.0	15
16	302 21.9	+02.5	S 04 06.5	+00.0	16
17	317 24.4	+02.5	S 04 06.5	+00.0	17
18	332 26.9	+02.5	S 04 06.5	+00.0	18
19	347 29.4	+02.5	S 04 06.5	+00.0	19
20	2 31.9	+02.5	S 04 06.5	+00.0	20
21	17 34.4	+02.5	S 04 06.5	+00.1	21
22	32 36.9	+02.5	S 04 06.6	+00.0	22
23	47 39.4	+02.5	S 04 06.6	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:49

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2025 November 20 Thursday

(day 324 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 36.7	-00.1	S 19 41.7	+00.5
01	198 36.6	-00.2	S 19 42.2	+00.6
02	213 36.4	-00.1	S 19 42.8	+00.6
03	228 36.3	-00.2	S 19 43.4	+00.5
04	243 36.1	-00.1	S 19 43.9	+00.6
05	258 36.0	-00.2	S 19 44.5	+00.5
06	273 35.8	-00.1	S 19 45.0	+00.6
07	288 35.7	-00.2	S 19 45.6	+00.6
08	303 35.5	-00.1	S 19 46.2	+00.5
09	318 35.4	-00.2	S 19 46.7	+00.6
10	333 35.2	-00.1	S 19 47.3	+00.6
11	348 35.1	-00.2	S 19 47.9	+00.5
12	3 34.9	-00.1	S 19 48.4	+00.6
13	18 34.8	-00.2	S 19 49.0	+00.5
14	33 34.6	-00.1	S 19 49.5	+00.6
15	48 34.5	-00.2	S 19 50.1	+00.5
16	63 34.3	-00.2	S 19 50.6	+00.6
17	78 34.1	-00.1	S 19 51.2	+00.6
18	93 34.0	-00.2	S 19 51.8	+00.5
19	108 33.8	-00.1	S 19 52.3	+00.6
20	123 33.7	-00.2	S 19 52.9	+00.5
21	138 33.5	-00.1	S 19 53.4	+00.6
22	153 33.4	-00.2	S 19 54.0	+00.5
23	168 33.2	-00.1	S 19 54.5	+00.6

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	124°	124°	124°	124°	124°	123°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	195 02.3	-00.6	S 15 42.6	+00.9
01	210 01.7	-00.7	S 15 43.5	+01.0
02	225 01.0	-00.6	S 15 44.5	+01.0
03	240 00.4	-00.7	S 15 45.5	+00.9
04	254 59.7	-00.6	S 15 46.4	+01.0
05	269 59.1	-00.6	S 15 47.4	+00.9
06	284 58.5	-00.7	S 15 48.3	+01.0
07	299 57.8	-00.6	S 15 49.3	+01.0
08	314 57.2	-00.7	S 15 50.3	+00.9
09	329 56.5	-00.6	S 15 51.2	+01.0
10	344 55.9	-00.7	S 15 52.2	+00.9
11	359 55.2	-00.6	S 15 53.1	+01.0
12	14 54.6	-00.7	S 15 54.1	+01.0
13	29 53.9	-00.6	S 15 55.1	+00.9
14	44 53.3	-00.7	S 15 56.0	+01.0
15	59 52.6	-00.6	S 15 57.0	+00.9
16	74 52.0	-00.6	S 15 57.9	+01.0
17	89 51.4	-00.7	S 15 58.9	+00.9
18	104 50.7	-00.6	S 15 59.8	+01.0
19	119 50.1	-00.7	S 16 00.8	+00.9
20	134 49.4	-00.6	S 16 01.7	+01.0
21	149 48.8	-00.7	S 16 02.7	+00.9
22	164 48.1	-00.6	S 16 03.6	+01.0
23	179 47.5	-00.7	S 16 04.6	+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	136°	135°	135°	135°	135°	135°

Greenwich Culmination Time: 11:00

Moon

A: 00%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	188 00.7	-28.6	S 23 31.3	+08.2
01	202 32.1	-28.6	S 23 39.5	+08.1
02	217 03.5	-28.6	S 23 47.6	+08.0
03	231 34.9	-28.7	S 23 55.6	+07.9
04	246 06.2	-28.8	S 24 03.5	+07.8
05	260 37.4	-28.8	S 24 11.3	+07.7
06	275 08.6	-28.9	S 24 19.0	+07.5
07	289 39.7	-29.0	S 24 26.5	+07.5
08	304 10.7	-29.0	S 24 34.0	+07.4
09	318 41.7	-29.1	S 24 41.4	+07.2
10	333 12.6	-29.2	S 24 48.6	+07.2
11	347 43.4	-29.2	S 24 55.8	+07.0
12	2 14.2	-29.3	S 25 02.8	+06.9
13	16 44.9	-29.3	S 25 09.7	+06.8
14	31 15.6	-29.4	S 25 16.5	+06.7
15	45 46.2	-29.5	S 25 23.2	+06.6
16	60 16.7	-29.5	S 25 29.8	+06.4
17	74 47.2	-29.6	S 25 36.2	+06.4
18	89 17.6	-29.6	S 25 42.6	+06.2
19	103 48.0	-29.7	S 25 48.8	+06.1
20	118 18.3	-29.8	S 25 54.9	+06.0
21	132 48.5	-29.8	S 26 00.9	+05.9
22	147 18.7	-29.8	S 26 06.8	+05.7
23	161 48.9	-30.0	S 26 12.5	+05.6

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	53′9	53′9	53′9	53′9	53′9	53′9
SHA	128°	126°	124°	121°	119°	117°

Greenwich Culmination Time: 11:50

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	169 43.0	+00.5	S 22 40.9	+00.3
01	184 43.5	+00.5	S 22 41.2	+00.3
02	199 44.0	+00.5	S 22 41.5	+00.2
03	214 44.5	+00.5	S 22 41.7	+00.3
04	229 45.0	+00.5	S 22 42.0	+00.3
05	244 45.5	+00.5	S 22 42.3	+00.3
06	259 46.0	+00.5	S 22 42.6	+00.2
07	274 46.5	+00.5	S 22 42.8	+00.3
08	289 47.0	+00.5	S 22 43.1	+00.3
09	304 47.5	+00.5	S 22 43.4	+00.3
10	319 48.0	+00.5	S 22 43.7	+00.2
11	334 48.5	+00.5	S 22 43.9	+00.3
12	349 49.0	+00.5	S 22 44.2	+00.3
13	4 49.5	+00.5	S 22 44.5	+00.2
14	19 50.0	+00.5	S 22 44.7	+00.3
15	34 50.5	+00.5	S 22 45.0	+00.3
16	49 51.0	+00.5	S 22 45.3	+00.2
17	64 51.5	+00.5	S 22 45.5	+00.3
18	79 52.0	+00.5	S 22 45.8	+00.3
19	94 52.5	+00.5	S 22 46.1	+00.3
20	109 53.0	+00.5	S 22 46.4	+00.2
21	124 53.5	+00.5	S 22 46.6	+00.3
22	139 54.0	+00.5	S 22 46.9	+00.3
23	154 54.5	+00.5	S 22 47.2	+00.2

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	110°	110°	110°	110°	110°	110°

Greenwich Culmination Time: 12:40

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	302 15.5	+02.5	N 21 15.2	+00.0
01	317 18.0	+02.6	N 21 15.2	+00.0
02	332 20.6	+02.5	N 21 15.2	+00.0
03	347 23.1	+02.5	N 21 15.2	+00.0
04	2 25.6	+02.6	N 21 15.2	+00.1
05	17 28.2	+02.5	N 21 15.3	+00.0
06	32 30.7	+02.6	N 21 15.3	+00.0
07	47 33.3	+02.5	N 21 15.3	+00.0
08	62 35.8	+02.5	N 21 15.3	+00.0
09	77 38.3	+02.6	N 21 15.3	+00.1
10	92 40.9	+02.5	N 21 15.4	+00.0
11	107 43.4	+02.6	N 21 15.4	+00.0
12	122 46.0	+02.5	N 21 15.4	+00.0
13	137 48.5	+02.5	N 21 15.4	+00.0
14	152 51.0	+02.6	N 21 15.4	+00.1
15	167 53.6	+02.5	N 21 15.5	+00.0
16	182 56.1	+02.6	N 21 15.5	+00.0
17	197 58.7	+02.5	N 21 15.5	+00.0
18	213 01.2	+02.5	N 21 15.5	+00.0
19	228 03.7	+02.6	N 21 15.5	+00.1
20	243 06.3	+02.5	N 21 15.6	+00.0
21	258 08.8	+02.6	N 21 15.6	+00.0
22	273 11.4	+02.5	N 21 15.6	+00.0
23	288 13.9	+02.6	N 21 15.6	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:50

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	62 41.9	+02.5	S 04 06.6	+00.0
01	77 44.4	+02.5	S 04 06.6	+00.0
02	92 46.9	+02.5	S 04 06.6	+00.0
03	107 49.4	+02.5	S 04 06.6	+00.0
04	122 51.9	+02.5	S 04 06.6	+00.0
05	137 54.4	+02.5	S 04 06.6	+00.0
06	152 56.9	+02.5	S 04 06.6	+00.0
07	167 59.4	+02.5	S 04 06.6	+00.0
08	183 01.9	+02.5	S 04 06.6	+00.0
09	198 04.4	+02.5	S 04 06.6	+00.0
10	213 06.9	+02.5	S 04 06.6	+00.0
11	228 09.4	+02.5	S 04 06.6	+00.0
12	243 11.9	+02.5	S 04 06.6	+00.0
13	258 14.4	+02.5	S 04 06.6	+00.0
14	273 16.9	+02.5	S 04 06.6	+00.1
15	288 19.4	+02.5	S 04 06.7	+00.0
16	303 21.9	+02.5	S 04 06.7	+00.0
17	318 24.4	+02.5	S 04 06.7	+00.0
18	333 26.9	+02.5	S 04 06.7	+00.0
19	348 29.4	+02.5	S 04 06.7	+00.0
20	3 31.9	+02.4	S 04 06.7	+00.0
21	18 34.3	+02.5	S 04 06.7	+00.0
22	33 36.8	+02.5	S 04 06.7	+00.0
23	48 39.3	+02.5	S 04 06.7	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:45

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2025 November 21 Friday

(day 325 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 33.1	−00.2	S 19 55.1	+00.5	00
01	198 32.9	−00.2	S 19 55.6	+00.6	01
02	213 32.7	−00.1	S 19 56.2	+00.5	02
03	228 32.6	−00.2	S 19 56.7	+00.6	03
04	243 32.4	−00.1	S 19 57.3	+00.5	04
05	258 32.3	−00.2	S 19 57.8	+00.6	05
06	273 32.1	−00.1	S 19 58.4	+00.5	06
07	288 32.0	−00.2	S 19 58.9	+00.6	07
08	303 31.8	−00.2	S 19 59.5	+00.5	08
09	318 31.6	−00.1	S 20 00.0	+00.6	09
10	333 31.5	−00.2	S 20 00.6	+00.5	10
11	348 31.3	−00.1	S 20 01.1	+00.5	11
12	3 31.2	−00.2	S 20 01.6	+00.6	12
13	18 31.0	−00.2	S 20 02.2	+00.5	13
14	33 30.8	−00.1	S 20 02.7	+00.6	14
15	48 30.7	−00.2	S 20 03.3	+00.5	15
16	63 30.5	−00.2	S 20 03.8	+00.6	16
17	78 30.3	−00.1	S 20 04.4	+00.5	17
18	93 30.2	−00.2	S 20 04.9	+00.5	18
19	108 30.0	−00.1	S 20 05.4	+00.6	19
20	123 29.9	−00.2	S 20 06.0	+00.5	20
21	138 29.7	−00.2	S 20 06.5	+00.5	21
22	153 29.5	−00.1	S 20 07.0	+00.6	22
23	168 29.4	−00.2	S 20 07.6	+00.5	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	123°	123°	123°	123°	123°	122°

Greenwich Culmination Time: 11:45

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	194 46.8	−00.6	S 16 05.5	+01.0	00
01	209 46.2	−00.7	S 16 06.5	+00.9	01
02	224 45.5	−00.7	S 16 07.4	+01.0	02
03	239 44.8	−00.6	S 16 08.4	+00.9	03
04	254 44.2	−00.7	S 16 09.3	+01.0	04
05	269 43.5	−00.6	S 16 10.3	+00.9	05
06	284 42.9	−00.7	S 16 11.2	+01.0	06
07	299 42.2	−00.6	S 16 12.2	+00.9	07
08	314 41.6	−00.7	S 16 13.1	+00.9	08
09	329 40.9	−00.6	S 16 14.0	+01.0	09
10	344 40.3	−00.7	S 16 15.0	+00.9	10
11	359 39.6	−00.7	S 16 15.9	+01.0	11
12	14 38.9	−00.6	S 16 16.9	+00.9	12
13	29 38.3	−00.7	S 16 17.8	+00.9	13
14	44 37.6	−00.6	S 16 18.7	+01.0	14
15	59 37.0	−00.7	S 16 19.7	+00.9	15
16	74 36.3	−00.7	S 16 20.6	+01.0	16
17	89 35.6	−00.6	S 16 21.6	+00.9	17
18	104 35.0	−00.7	S 16 22.5	+00.9	18
19	119 34.3	−00.6	S 16 23.4	+01.0	19
20	134 33.7	−00.7	S 16 24.4	+00.9	20
21	149 33.0	−00.7	S 16 25.3	+00.9	21
22	164 32.3	−00.6	S 16 26.2	+01.0	22
23	179 31.7	−00.7	S 16 27.2	+00.9	23

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	134°	134°	134°	134°	134°	133°

Greenwich Culmination Time: 11:01

Moon

A: 03%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	176 18.9	−29.9	S 26 18.1	+05.5	00
01	190 49.0	−30.1	S 26 23.6	+05.4	01
02	205 18.9	−30.1	S 26 29.0	+05.3	02
03	219 48.8	−30.1	S 26 34.3	+05.1	03
04	234 18.7	−30.2	S 26 39.4	+05.0	04
05	248 48.5	−30.2	S 26 44.4	+04.9	05
06	263 18.3	−30.3	S 26 49.3	+04.8	06
07	277 48.0	−30.4	S 26 54.1	+04.6	07
08	292 17.6	−30.4	S 26 58.7	+04.5	08
09	306 47.2	−30.4	S 27 03.2	+04.4	09
10	321 16.8	−30.5	S 27 07.6	+04.3	10
11	335 46.3	−30.5	S 27 11.9	+04.1	11
12	350 15.8	−30.6	S 27 16.0	+04.0	12
13	4 45.2	−30.6	S 27 20.0	+03.9	13
14	19 14.6	−30.7	S 27 23.9	+03.7	14
15	33 43.9	−30.7	S 27 27.6	+03.6	15
16	48 13.2	−30.7	S 27 31.2	+03.5	16
17	62 42.5	−30.8	S 27 34.7	+03.4	17
18	77 11.7	−30.8	S 27 38.1	+03.2	18
19	91 40.9	−30.9	S 27 41.3	+03.1	19
20	106 10.0	−30.9	S 27 44.4	+02.9	20
21	120 39.1	−30.9	S 27 47.3	+02.8	21
22	135 08.2	−31.0	S 27 50.1	+02.7	22
23	149 37.2	−31.0	S 27 52.8	+02.6	23

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	53′9	53′9	54′0	54′0	54′0	54′0
SHA	115°	113°	111°	108°	106°	104°

Greenwich Culmination Time: 12:40

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	169 55.0	+00.5	S 22 47.4	+00.3	00
01	184 55.5	+00.5	S 22 47.7	+00.3	01
02	199 56.0	+00.5	S 22 48.0	+00.2	02
03	214 56.5	+00.5	S 22 48.2	+00.3	03
04	229 57.0	+00.5	S 22 48.5	+00.3	04
05	244 57.5	+00.5	S 22 48.8	+00.2	05
06	259 58.0	+00.5	S 22 49.0	+00.3	06
07	274 58.5	+00.5	S 22 49.3	+00.3	07
08	289 59.0	+00.5	S 22 49.6	+00.2	08
09	304 59.5	+00.5	S 22 49.8	+00.3	09
10	320 00.0	+00.5	S 22 50.1	+00.2	10
11	335 00.5	+00.5	S 22 50.3	+00.3	11
12	350 01.0	+00.5	S 22 50.6	+00.3	12
13	5 01.5	+00.5	S 22 50.9	+00.2	13
14	20 02.0	+00.5	S 22 51.1	+00.3	14
15	35 02.5	+00.5	S 22 51.4	+00.2	15
16	50 03.0	+00.5	S 22 51.6	+00.3	16
17	65 03.5	+00.5	S 22 51.9	+00.3	17
18	80 04.0	+00.5	S 22 52.2	+00.2	18
19	95 04.5	+00.5	S 22 52.4	+00.3	19
20	110 05.0	+00.5	S 22 52.7	+00.2	20
21	125 05.5	+00.5	S 22 52.9	+00.3	21
22	140 06.0	+00.4	S 22 53.2	+00.3	22
23	155 06.4	+00.5	S 22 53.5	+00.2	23

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	110°	109°	109°	109°	109°	109°

Greenwich Culmination Time: 12:39

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	303 16.5	+02.5	N 21 15.6	+00.1	00
01	318 19.0	+02.6	N 21 15.7	+00.0	01
02	333 21.6	+02.5	N 21 15.7	+00.0	02
03	348 24.1	+02.6	N 21 15.7	+00.0	03
04	3 26.7	+02.5	N 21 15.7	+00.0	04
05	18 29.2	+02.5	N 21 15.7	+00.1	05
06	33 31.7	+02.6	N 21 15.8	+00.0	06
07	48 34.3	+02.5	N 21 15.8	+00.0	07
08	63 36.8	+02.6	N 21 15.8	+00.0	08
09	78 39.4	+02.5	N 21 15.8	+00.0	09
10	93 41.9	+02.6	N 21 15.8	+00.1	10
11	108 44.5	+02.5	N 21 15.9	+00.0	11
12	123 47.0	+02.6	N 21 15.9	+00.0	12
13	138 49.6	+02.5	N 21 15.9	+00.0	13
14	153 52.1	+02.6	N 21 15.9	+00.0	14
15	168 54.7	+02.5	N 21 15.9	+00.1	15
16	183 57.2	+02.6	N 21 16.0	+00.0	16
17	198 59.8	+02.5	N 21 16.0	+00.0	17
18	214 02.3	+02.6	N 21 16.0	+00.0	18
19	229 04.9	+02.5	N 21 16.0	+00.1	19
20	244 07.4	+02.6	N 21 16.1	+00.0	20
21	259 10.0	+02.5	N 21 16.1	+00.0	21
22	274 12.5	+02.6	N 21 16.1	+00.0	22
23	289 15.1	+02.6	N 21 16.1	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:46

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	63 41.8	+02.5	S 04 06.7	+00.0	00
01	78 44.3	+02.5	S 04 06.7	+00.0	01
02	93 46.8	+02.5	S 04 06.7	+00.0	02
03	108 49.3	+02.5	S 04 06.7	+00.0	03
04	123 51.8	+02.5	S 04 06.7	+00.0	04
05	138 54.3	+02.5	S 04 06.7	+00.0	05
06	153 56.8	+02.5	S 04 06.7	+00.0	06
07	168 59.3	+02.5	S 04 06.7	+00.0	07
08	184 01.8	+02.5	S 04 06.7	+00.0	08
09	199 04.3	+02.5	S 04 06.7	+00.0	09
10	214 06.8	+02.5	S 04 06.7	+00.1	10
11	229 09.3	+02.5	S 04 06.8	+00.0	11
12	244 11.8	+02.5	S 04 06.8	+00.0	12
13	259 14.3	+02.5	S 04 06.8	+00.0	13
14	274 16.8	+02.5	S 04 06.8	+00.0	14
15	289 19.3	+02.5	S 04 06.8	+00.0	15
16	304 21.8	+02.5	S 04 06.8	+00.0	16
17	319 24.3	+02.5	S 04 06.8	+00.0	17
18	334 26.8	+02.5	S 04 06.8	+00.0	18
19	349 29.3	+02.4	S 04 06.8	+00.0	19
20	4 31.7	+02.5	S 04 06.8	+00.0	20
21	19 34.2	+02.5	S 04 06.8	+00.0	21
22	34 36.7	+02.5	S 04 06.8	+00.0	22
23	49 39.2	+02.5	S 04 06.8	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:41

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2025 November 22 Saturday

(day 326 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 29.2	-00.2	S 20 08.1	+00.6	00
01	198 29.0	-00.1	S 20 08.7	+00.5	01
02	213 28.9	-00.2	S 20 09.2	+00.5	02
03	228 28.7	-00.2	S 20 09.7	+00.6	03
04	243 28.5	-00.1	S 20 10.3	+00.5	04
05	258 28.4	-00.2	S 20 10.8	+00.5	05
06	273 28.2	-00.2	S 20 11.3	+00.6	06
07	288 28.0	-00.1	S 20 11.9	+00.5	07
08	303 27.9	-00.2	S 20 12.4	+00.5	08
09	318 27.7	-00.2	S 20 12.9	+00.6	09
10	333 27.5	-00.1	S 20 13.5	+00.5	10
11	348 27.4	-00.2	S 20 14.0	+00.5	11
12	3 27.2	-00.2	S 20 14.5	+00.5	12
13	18 27.0	-00.1	S 20 15.0	+00.6	13
14	33 26.9	-00.2	S 20 15.6	+00.5	14
15	48 26.7	-00.2	S 20 16.1	+00.5	15
16	63 26.5	-00.2	S 20 16.6	+00.5	16
17	78 26.3	-00.1	S 20 17.1	+00.6	17
18	93 26.2	-00.2	S 20 17.7	+00.5	18
19	108 26.0	-00.2	S 20 18.2	+00.5	19
20	123 25.8	-00.1	S 20 18.7	+00.5	20
21	138 25.7	-00.2	S 20 19.2	+00.6	21
22	153 25.5	-00.2	S 20 19.8	+00.5	22
23	168 25.3	-00.2	S 20 20.3	+00.5	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	122°	122°	122°	122°	121°	121°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	194 31.0	-00.7	S 16 28.1	+00.9	00
01	209 30.3	-00.6	S 16 29.0	+01.0	01
02	224 29.7	-00.7	S 16 30.0	+00.9	02
03	239 29.0	-00.6	S 16 30.9	+00.9	03
04	254 28.4	-00.7	S 16 31.8	+00.9	04
05	269 27.7	-00.7	S 16 32.7	+01.0	05
06	284 27.0	-00.7	S 16 33.7	+00.9	06
07	299 26.3	-00.6	S 16 34.6	+00.9	07
08	314 25.7	-00.7	S 16 35.5	+00.9	08
09	329 25.0	-00.7	S 16 36.4	+01.0	09
10	344 24.3	-00.6	S 16 37.4	+00.9	10
11	359 23.7	-00.7	S 16 38.3	+00.9	11
12	14 23.0	-00.7	S 16 39.2	+00.9	12
13	29 22.3	-00.6	S 16 40.1	+01.0	13
14	44 21.7	-00.7	S 16 41.1	+00.9	14
15	59 21.0	-00.7	S 16 42.0	+00.9	15
16	74 20.3	-00.7	S 16 42.9	+00.9	16
17	89 19.6	-00.6	S 16 43.8	+00.9	17
18	104 19.0	-00.7	S 16 44.7	+00.9	18
19	119 18.3	-00.7	S 16 45.6	+01.0	19
20	134 17.6	-00.6	S 16 46.6	+00.9	20
21	149 17.0	-00.7	S 16 47.5	+00.9	21
22	164 16.3	-00.7	S 16 48.4	+00.9	22
23	179 15.6	-00.7	S 16 49.3	+00.9	23

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	133°	133°	133°	133°	132°	132°

Greenwich Culmination Time: 11:02

Moon

A: 07%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	164 06.2	-31.1	S 27 55.4	+02.4	00
01	178 35.1	-31.0	S 27 57.8	+02.2	01
02	193 04.1	-31.1	S 28 00.0	+02.2	02
03	207 33.0	-31.1	S 28 02.2	+02.0	03
04	222 01.9	-31.2	S 28 04.2	+01.9	04
05	236 30.7	-31.2	S 28 06.1	+01.7	05
06	250 59.5	-31.2	S 28 07.8	+01.6	06
07	265 28.3	-31.2	S 28 09.4	+01.4	07
08	279 57.1	-31.3	S 28 10.8	+01.4	08
09	294 25.8	-31.2	S 28 12.2	+01.1	09
10	308 54.6	-31.3	S 28 13.3	+01.1	10
11	323 23.3	-31.3	S 28 14.4	+00.9	11
12	337 52.0	-31.4	S 28 15.3	+00.8	12
13	352 20.6	-31.3	S 28 16.1	+00.6	13
14	6 49.3	-31.4	S 28 16.7	+00.5	14
15	21 17.9	-31.3	S 28 17.2	+00.3	15
16	35 46.6	-31.4	S 28 17.5	+00.2	16
17	50 15.2	-31.4	S 28 17.7	+00.1	17
18	64 43.8	-31.4	S 28 17.8	-00.1	18
19	79 12.4	-31.5	S 28 17.7	-00.2	19
20	93 40.9	-31.4	S 28 17.5	-00.3	20
21	108 09.5	-31.4	S 28 17.2	-00.5	21
22	122 38.1	-31.4	S 28 16.7	-00.7	22
23	137 06.7	-31.5	S 28 16.0	-00.7	23

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′2	54′2	54′2
SHA	102°	100°	097°	095°	093°	090°

Greenwich Culmination Time: 13:31

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	170 06.9	+00.5	S 22 53.7	+00.3	00
01	185 07.4	+00.5	S 22 54.0	+00.2	01
02	200 07.9	+00.5	S 22 54.2	+00.3	02
03	215 08.4	+00.5	S 22 54.5	+00.3	03
04	230 08.9	+00.5	S 22 54.8	+00.2	04
05	245 09.4	+00.5	S 22 55.0	+00.3	05
06	260 09.9	+00.5	S 22 55.3	+00.2	06
07	275 10.4	+00.5	S 22 55.5	+00.3	07
08	290 10.9	+00.5	S 22 55.8	+00.2	08
09	305 11.4	+00.5	S 22 56.0	+00.3	09
10	320 11.9	+00.5	S 22 56.3	+00.2	10
11	335 12.4	+00.4	S 22 56.5	+00.3	11
12	350 12.8	+00.5	S 22 56.8	+00.2	12
13	5 13.3	+00.5	S 22 57.0	+00.3	13
14	20 13.8	+00.5	S 22 57.3	+00.2	14
15	35 14.3	+00.5	S 22 57.5	+00.3	15
16	50 14.8	+00.5	S 22 57.8	+00.2	16
17	65 15.3	+00.5	S 22 58.0	+00.3	17
18	80 15.8	+00.5	S 22 58.3	+00.3	18
19	95 16.3	+00.5	S 22 58.6	+00.2	19
20	110 16.8	+00.4	S 22 58.8	+00.3	20
21	125 17.2	+00.5	S 22 59.1	+00.2	21
22	140 17.7	+00.5	S 22 59.3	+00.2	22
23	155 18.2	+00.5	S 22 59.5	+00.3	23

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	109°	109°	109°	108°	108°	108°

Greenwich Culmination Time: 12:39

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	304 17.7	+02.5	N 21 16.1	+00.1	00
01	319 20.2	+02.6	N 21 16.2	+00.0	01
02	334 22.8	+02.5	N 21 16.2	+00.0	02
03	349 25.3	+02.6	N 21 16.2	+00.0	03
04	4 27.9	+02.5	N 21 16.2	+00.1	04
05	19 30.4	+02.6	N 21 16.3	+00.0	05
06	34 33.0	+02.5	N 21 16.3	+00.0	06
07	49 35.5	+02.6	N 21 16.3	+00.0	07
08	64 38.1	+02.6	N 21 16.3	+00.0	08
09	79 40.7	+02.5	N 21 16.3	+00.1	09
10	94 43.2	+02.6	N 21 16.4	+00.0	10
11	109 45.8	+02.5	N 21 16.4	+00.0	11
12	124 48.3	+02.6	N 21 16.4	+00.0	12
13	139 50.9	+02.5	N 21 16.4	+00.1	13
14	154 53.4	+02.6	N 21 16.5	+00.0	14
15	169 56.0	+02.6	N 21 16.5	+00.0	15
16	184 58.6	+02.5	N 21 16.5	+00.0	16
17	200 01.1	+02.6	N 21 16.5	+00.0	17
18	215 03.7	+02.5	N 21 16.5	+00.1	18
19	230 06.2	+02.6	N 21 16.6	+00.0	19
20	245 08.8	+02.6	N 21 16.6	+00.0	20
21	260 11.4	+02.5	N 21 16.6	+00.0	21
22	275 13.9	+02.6	N 21 16.6	+00.1	22
23	290 16.5	+02.5	N 21 16.7	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:42

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	64 41.7	+02.5	S 04 06.8	+00.0	00
01	79 44.2	+02.5	S 04 06.8	+00.0	01
02	94 46.7	+02.5	S 04 06.8	+00.0	02
03	109 49.2	+02.5	S 04 06.8	+00.0	03
04	124 51.7	+02.5	S 04 06.8	+00.0	04
05	139 54.2	+02.5	S 04 06.8	+00.0	05
06	154 56.7	+02.5	S 04 06.8	+00.0	06
07	169 59.2	+02.5	S 04 06.8	+00.0	07
08	185 01.7	+02.4	S 04 06.8	+00.0	08
09	200 04.1	+02.5	S 04 06.8	+00.0	09
10	215 06.6	+02.5	S 04 06.8	+00.0	10
11	230 09.1	+02.5	S 04 06.8	+00.0	11
12	245 11.6	+02.5	S 04 06.8	+00.0	12
13	260 14.1	+02.5	S 04 06.8	+00.0	13
14	275 16.6	+02.5	S 04 06.8	+00.0	14
15	290 19.1	+02.5	S 04 06.8	+00.0	15
16	305 21.6	+02.5	S 04 06.8	+00.0	16
17	320 24.1	+02.5	S 04 06.8	+00.0	17
18	335 26.6	+02.5	S 04 06.8	+00.0	18
19	350 29.1	+02.4	S 04 06.8	+00.0	19
20	5 31.5	+02.5	S 04 06.8	+00.0	20
21	20 34.0	+02.5	S 04 06.8	+00.0	21
22	35 36.5	+02.5	S 04 06.8	+00.0	22
23	50 39.0	+02.5	S 04 06.8	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:37

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 November 23 Sunday

(day 327 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 25.1	−00.1	S 20 20.8	+00.5
01	198 25.0	−00.2	S 20 21.3	+00.5
02	213 24.8	−00.2	S 20 21.8	+00.6
03	228 24.6	−00.2	S 20 22.4	+00.5
04	243 24.4	−00.1	S 20 22.9	+00.5
05	258 24.3	−00.2	S 20 23.4	+00.5
06	273 24.1	−00.2	S 20 23.9	+00.5
07	288 23.9	−00.2	S 20 24.4	+00.5
08	303 23.7	−00.1	S 20 24.9	+00.6
09	318 23.6	−00.2	S 20 25.5	+00.5
10	333 23.4	−00.2	S 20 26.0	+00.5
11	348 23.2	−00.2	S 20 26.5	+00.5
12	3 23.0	−00.1	S 20 27.0	+00.5
13	18 22.9	−00.2	S 20 27.5	+00.5
14	33 22.7	−00.2	S 20 28.0	+00.5
15	48 22.5	−00.2	S 20 28.5	+00.6
16	63 22.3	−00.2	S 20 29.1	+00.5
17	78 22.1	−00.1	S 20 29.6	+00.5
18	93 22.0	−00.2	S 20 30.1	+00.5
19	108 21.8	−00.2	S 20 30.6	+00.5
20	123 21.6	−00.2	S 20 31.1	+00.5
21	138 21.4	−00.1	S 20 31.6	+00.5
22	153 21.3	−00.2	S 20 32.1	+00.5
23	168 21.1	−00.2	S 20 32.6	+00.5

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	121°	121°	121°	121°	120°	120°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	194 14.9	−00.7	S 16 50.2	+00.9
01	209 14.2	−00.6	S 16 51.1	+00.9
02	224 13.6	−00.7	S 16 52.0	+01.0
03	239 12.9	−00.7	S 16 53.0	+00.9
04	254 12.2	−00.7	S 16 53.9	+00.9
05	269 11.5	−00.6	S 16 54.8	+00.9
06	284 10.9	−00.7	S 16 55.7	+00.9
07	299 10.2	−00.7	S 16 56.6	+00.9
08	314 09.5	−00.7	S 16 57.5	+00.9
09	329 08.8	−00.7	S 16 58.4	+00.9
10	344 08.1	−00.7	S 16 59.3	+00.9
11	359 07.4	−00.6	S 17 00.2	+00.9
12	14 06.8	−00.7	S 17 01.1	+00.9
13	29 06.1	−00.7	S 17 02.0	+00.9
14	44 05.4	−00.7	S 17 02.9	+00.9
15	59 04.7	−00.7	S 17 03.8	+00.9
16	74 04.0	−00.7	S 17 04.7	+00.9
17	89 03.3	−00.6	S 17 05.6	+00.9
18	104 02.7	−00.7	S 17 06.5	+00.9
19	119 02.0	−00.7	S 17 07.4	+00.9
20	134 01.3	−00.7	S 17 08.3	+00.9
21	149 00.6	−00.7	S 17 09.2	+00.9
22	163 59.9	−00.7	S 17 10.1	+00.9
23	178 59.2	−00.7	S 17 11.0	+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	132°	132°	132°	131°	131°	131°

Greenwich Culmination Time: 11:03

Moon

A: 10%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	151 35.2	−31.4	S 28 15.3	−00.9
01	166 03.8	−31.5	S 28 14.4	−01.1
02	180 32.3	−31.4	S 28 13.3	−01.2
03	195 00.9	−31.4	S 28 12.1	−01.3
04	209 29.5	−31.5	S 28 10.8	−01.5
05	223 58.0	−31.4	S 28 09.3	−01.6
06	238 26.6	−31.4	S 28 07.7	−01.7
07	252 55.2	−31.4	S 28 06.0	−01.9
08	267 23.8	−31.4	S 28 04.1	−02.0
09	281 52.4	−31.4	S 28 02.1	−02.2
10	296 21.0	−31.4	S 27 59.9	−02.3
11	310 49.6	−31.4	S 27 57.6	−02.5
12	325 18.2	−31.4	S 27 55.1	−02.6
13	339 46.8	−31.3	S 27 52.5	−02.7
14	354 15.5	−31.4	S 27 49.8	−02.8
15	8 44.1	−31.3	S 27 47.0	−03.1
16	23 12.8	−31.3	S 27 43.9	−03.1
17	37 41.5	−31.3	S 27 40.8	−03.3
18	52 10.2	−31.2	S 27 37.5	−03.4
19	66 39.0	−31.3	S 27 34.1	−03.5
20	81 07.7	−31.2	S 27 30.6	−03.7
21	95 36.5	−31.2	S 27 26.9	−03.9
22	110 05.3	−31.2	S 27 23.0	−03.9
23	124 34.1	−31.1	S 27 19.1	−04.1

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	088°	086°	084°	081°	079°	077°

Greenwich Culmination Time: 14:23

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	170 18.7	+00.5	S 22 59.8	+00.2
01	185 19.2	+00.5	S 23 00.0	+00.3
02	200 19.7	+00.5	S 23 00.3	+00.2
03	215 20.2	+00.5	S 23 00.5	+00.3
04	230 20.7	+00.4	S 23 00.8	+00.2
05	245 21.1	+00.5	S 23 01.0	+00.3
06	260 21.6	+00.5	S 23 01.3	+00.2
07	275 22.1	+00.5	S 23 01.5	+00.3
08	290 22.6	+00.5	S 23 01.8	+00.2
09	305 23.1	+00.5	S 23 02.0	+00.3
10	320 23.6	+00.5	S 23 02.3	+00.2
11	335 24.1	+00.4	S 23 02.5	+00.3
12	350 24.5	+00.5	S 23 02.8	+00.2
13	5 25.0	+00.5	S 23 03.0	+00.2
14	20 25.5	+00.5	S 23 03.2	+00.3
15	35 26.0	+00.5	S 23 03.5	+00.2
16	50 26.5	+00.5	S 23 03.7	+00.3
17	65 27.0	+00.5	S 23 04.0	+00.2
18	80 27.5	+00.4	S 23 04.2	+00.2
19	95 27.9	+00.5	S 23 04.4	+00.3
20	110 28.4	+00.5	S 23 04.7	+00.2
21	125 28.9	+00.5	S 23 04.9	+00.3
22	140 29.4	+00.5	S 23 05.2	+00.2
23	155 29.9	+00.5	S 23 05.4	+00.2

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	108°	108°	108°	108°	107°	107°

Greenwich Culmination Time: 12:38

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	305 19.0	+02.6	N 21 16.7	+00.0
01	320 21.6	+02.6	N 21 16.7	+00.0
02	335 24.2	+02.5	N 21 16.7	+00.0
03	350 26.7	+02.6	N 21 16.7	+00.1
04	5 29.3	+02.6	N 21 16.8	+00.0
05	20 31.9	+02.5	N 21 16.8	+00.0
06	35 34.4	+02.6	N 21 16.8	+00.0
07	50 37.0	+02.6	N 21 16.8	+00.1
08	65 39.6	+02.5	N 21 16.9	+00.0
09	80 42.1	+02.6	N 21 16.9	+00.0
10	95 44.7	+02.6	N 21 16.9	+00.0
11	110 47.3	+02.5	N 21 16.9	+00.1
12	125 49.8	+02.6	N 21 17.0	+00.0
13	140 52.4	+02.6	N 21 17.0	+00.0
14	155 55.0	+02.5	N 21 17.0	+00.0
15	170 57.5	+02.6	N 21 17.0	+00.1
16	186 00.1	+02.6	N 21 17.1	+00.0
17	201 02.7	+02.5	N 21 17.1	+00.0
18	216 05.2	+02.6	N 21 17.1	+00.0
19	231 07.8	+02.6	N 21 17.1	+00.1
20	246 10.4	+02.5	N 21 17.2	+00.0
21	261 12.9	+02.6	N 21 17.2	+00.0
22	276 15.5	+02.6	N 21 17.2	+00.0
23	291 18.1	+02.5	N 21 17.2	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:38

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	65 41.5	+02.5	S 04 06.8	+00.0
01	80 44.0	+02.5	S 04 06.8	+00.0
02	95 46.5	+02.5	S 04 06.8	+00.1
03	110 49.0	+02.5	S 04 06.9	+00.0
04	125 51.5	+02.4	S 04 06.9	+00.0
05	140 53.9	+02.5	S 04 06.9	+00.0
06	155 56.4	+02.5	S 04 06.9	+00.0
07	170 58.9	+02.5	S 04 06.9	+00.0
08	186 01.4	+02.5	S 04 06.9	+00.0
09	201 03.9	+02.5	S 04 06.9	+00.0
10	216 06.4	+02.5	S 04 06.9	+00.0
11	231 08.9	+02.5	S 04 06.9	+00.0
12	246 11.4	+02.4	S 04 06.9	+00.0
13	261 13.8	+02.5	S 04 06.9	+00.0
14	276 16.3	+02.5	S 04 06.9	+00.0
15	291 18.8	+02.5	S 04 06.9	+00.0
16	306 21.3	+02.5	S 04 06.9	+00.0
17	321 23.8	+02.5	S 04 06.9	+00.0
18	336 26.3	+02.5	S 04 06.9	+00.0
19	351 28.8	+02.4	S 04 06.9	+00.0
20	6 31.2	+02.5	S 04 06.9	+00.0
21	21 33.7	+02.5	S 04 06.9	+00.0
22	36 36.2	+02.5	S 04 06.9	+00.0
23	51 38.7	+02.5	S 04 06.9	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:33

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2025 November 24 Monday

(day 328 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 20.9	-00.2	S 20 33.1	+00.5
01	198 20.7	-00.2	S 20 33.6	+00.5
02	213 20.5	-00.2	S 20 34.1	+00.5
03	228 20.3	-00.1	S 20 34.6	+00.5
04	243 20.2	-00.2	S 20 35.1	+00.5
05	258 20.0	-00.2	S 20 35.6	+00.5
06	273 19.8	-00.2	S 20 36.1	+00.5
07	288 19.6	-00.2	S 20 36.6	+00.5
08	303 19.4	-00.2	S 20 37.1	+00.5
09	318 19.2	-00.1	S 20 37.6	+00.5
10	333 19.1	-00.2	S 20 38.1	+00.5
11	348 18.9	-00.2	S 20 38.6	+00.5
12	3 18.7	-00.2	S 20 39.1	+00.5
13	18 18.5	-00.2	S 20 39.6	+00.5
14	33 18.3	-00.2	S 20 40.1	+00.5
15	48 18.1	-00.1	S 20 40.6	+00.5
16	63 18.0	-00.2	S 20 41.1	+00.5
17	78 17.8	-00.2	S 20 41.6	+00.5
18	93 17.6	-00.2	S 20 42.1	+00.5
19	108 17.4	-00.2	S 20 42.6	+00.5
20	123 17.2	-00.2	S 20 43.1	+00.5
21	138 17.0	-00.2	S 20 43.6	+00.5
22	153 16.8	-00.2	S 20 44.1	+00.4
23	168 16.6	-00.2	S 20 44.5	+00.5

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	120°	120°	120°	120°	119°	119°

Greenwich Culmination Time: 11:46

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	193 58.5	-00.7	S 17 11.9	+00.9
01	208 57.8	-00.6	S 17 12.8	+00.9
02	223 57.2	-00.7	S 17 13.7	+00.9
03	238 56.5	-00.7	S 17 14.6	+00.9
04	253 55.8	-00.7	S 17 15.5	+00.9
05	268 55.1	-00.7	S 17 16.4	+00.8
06	283 54.4	-00.7	S 17 17.2	+00.9
07	298 53.7	-00.7	S 17 18.1	+00.9
08	313 53.0	-00.7	S 17 19.0	+00.9
09	328 52.3	-00.7	S 17 19.9	+00.9
10	343 51.6	-00.7	S 17 20.8	+00.9
11	358 50.9	-00.7	S 17 21.7	+00.9
12	13 50.2	-00.7	S 17 22.6	+00.9
13	28 49.5	-00.7	S 17 23.5	+00.8
14	43 48.8	-00.7	S 17 24.3	+00.9
15	58 48.1	-00.7	S 17 25.2	+00.9
16	73 47.4	-00.7	S 17 26.1	+00.9
17	88 46.7	-00.6	S 17 27.0	+00.9
18	103 46.1	-00.7	S 17 27.9	+00.8
19	118 45.4	-00.7	S 17 28.7	+00.9
20	133 44.7	-00.7	S 17 29.6	+00.9
21	148 44.0	-00.7	S 17 30.5	+00.9
22	163 43.3	-00.7	S 17 31.4	+00.8
23	178 42.6	-00.7	S 17 32.2	+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	131°	130°	130°	130°	130°	130°

Greenwich Culmination Time: 11:04

Moon

A: 14%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	139 03.0	-31.1	S 27 15.0	-04.3
01	153 31.9	-31.1	S 27 10.7	-04.3
02	168 00.8	-31.1	S 27 06.4	-04.6
03	182 29.7	-31.0	S 27 01.8	-04.6
04	196 58.7	-31.0	S 26 57.2	-04.8
05	211 27.7	-31.0	S 26 52.4	-04.9
06	225 56.7	-30.9	S 26 47.5	-05.0
07	240 25.8	-31.0	S 26 42.5	-05.2
08	254 54.8	-30.8	S 26 37.3	-05.3
09	269 24.0	-30.9	S 26 32.0	-05.5
10	283 53.1	-30.8	S 26 26.5	-05.5
11	298 22.3	-30.7	S 26 21.0	-05.8
12	312 51.6	-30.8	S 26 15.2	-05.8
13	327 20.8	-30.7	S 26 09.4	-06.0
14	341 50.1	-30.6	S 26 03.4	-06.1
15	356 19.5	-30.7	S 25 57.3	-06.2
16	10 48.8	-30.5	S 25 51.1	-06.3
17	25 18.3	-30.6	S 25 44.8	-06.5
18	39 47.7	-30.5	S 25 38.3	-06.6
19	54 17.2	-30.4	S 25 31.7	-06.8
20	68 46.8	-30.5	S 25 24.9	-06.8
21	83 16.3	-30.3	S 25 18.1	-07.0
22	97 46.0	-30.4	S 25 11.1	-07.2
23	112 15.6	-30.3	S 25 03.9	-07.2

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	075°	072°	070°	068°	066°	064°

Greenwich Culmination Time: 15:15

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	170 30.4	+00.4	S 23 05.6	+00.3
01	185 30.8	+00.5	S 23 05.9	+00.2
02	200 31.3	+00.5	S 23 06.1	+00.3
03	215 31.8	+00.5	S 23 06.4	+00.2
04	230 32.3	+00.5	S 23 06.6	+00.2
05	245 32.8	+00.4	S 23 06.8	+00.3
06	260 33.2	+00.5	S 23 07.1	+00.2
07	275 33.7	+00.5	S 23 07.3	+00.2
08	290 34.2	+00.5	S 23 07.5	+00.3
09	305 34.7	+00.5	S 23 07.8	+00.2
10	320 35.2	+00.4	S 23 08.0	+00.3
11	335 35.6	+00.5	S 23 08.3	+00.2
12	350 36.1	+00.5	S 23 08.5	+00.2
13	5 36.6	+00.5	S 23 08.7	+00.3
14	20 37.1	+00.5	S 23 09.0	+00.2
15	35 37.6	+00.4	S 23 09.2	+00.2
16	50 38.0	+00.5	S 23 09.4	+00.3
17	65 38.5	+00.5	S 23 09.7	+00.2
18	80 39.0	+00.5	S 23 09.9	+00.2
19	95 39.5	+00.5	S 23 10.1	+00.2
20	110 40.0	+00.4	S 23 10.3	+00.3
21	125 40.4	+00.5	S 23 10.6	+00.2
22	140 40.9	+00.5	S 23 10.8	+00.2
23	155 41.4	+00.5	S 23 11.0	+00.3

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	107°	107°	107°	107°	107°	107°

Greenwich Culmination Time: 12:37

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	306 20.6	+02.6	N 21 17.3	+00.0
01	321 23.2	+02.6	N 21 17.3	+00.0
02	336 25.8	+02.6	N 21 17.3	+00.0
03	351 28.4	+02.5	N 21 17.3	+00.1
04	6 30.9	+02.6	N 21 17.4	+00.0
05	21 33.5	+02.6	N 21 17.4	+00.0
06	36 36.1	+02.6	N 21 17.4	+00.0
07	51 38.7	+02.5	N 21 17.4	+00.1
08	66 41.2	+02.6	N 21 17.5	+00.0
09	81 43.8	+02.6	N 21 17.5	+00.0
10	96 46.4	+02.5	N 21 17.5	+00.0
11	111 48.9	+02.6	N 21 17.5	+00.1
12	126 51.5	+02.6	N 21 17.6	+00.0
13	141 54.1	+02.6	N 21 17.6	+00.0
14	156 56.7	+02.6	N 21 17.6	+00.0
15	171 59.3	+02.5	N 21 17.6	+00.1
16	187 01.8	+02.6	N 21 17.7	+00.0
17	202 04.4	+02.6	N 21 17.7	+00.0
18	217 07.0	+02.6	N 21 17.7	+00.0
19	232 09.6	+02.5	N 21 17.7	+00.1
20	247 12.1	+02.6	N 21 17.8	+00.0
21	262 14.7	+02.6	N 21 17.8	+00.0
22	277 17.3	+02.6	N 21 17.8	+00.0
23	292 19.9	+02.6	N 21 17.8	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:34

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	66 41.2	+02.5	S 04 06.9	+00.0
01	81 43.7	+02.5	S 04 06.9	+00.0
02	96 46.2	+02.4	S 04 06.9	+00.0
03	111 48.6	+02.5	S 04 06.9	+00.0
04	126 51.1	+02.5	S 04 06.9	-00.1
05	141 53.6	+02.5	S 04 06.8	+00.0
06	156 56.1	+02.5	S 04 06.8	+00.0
07	171 58.6	+02.5	S 04 06.8	+00.0
08	187 01.1	+02.4	S 04 06.8	+00.0
09	202 03.5	+02.5	S 04 06.8	+00.0
10	217 06.0	+02.5	S 04 06.8	+00.0
11	232 08.5	+02.5	S 04 06.8	+00.0
12	247 11.0	+02.5	S 04 06.8	+00.0
13	262 13.5	+02.5	S 04 06.8	+00.0
14	277 16.0	+02.4	S 04 06.8	+00.0
15	292 18.4	+02.5	S 04 06.8	+00.0
16	307 20.9	+02.5	S 04 06.8	+00.0
17	322 23.4	+02.5	S 04 06.8	+00.0
18	337 25.9	+02.5	S 04 06.8	+00.0
19	352 28.4	+02.4	S 04 06.8	+00.0
20	7 30.8	+02.5	S 04 06.8	+00.0
21	22 33.3	+02.5	S 04 06.8	+00.0
22	37 35.8	+02.5	S 04 06.8	+00.0
23	52 38.3	+02.5	S 04 06.8	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:30

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 November 25 Tuesday

(day 329 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 16.4	−00.1	S 20 45.0	+00.5
01	198 16.3	−00.2	S 20 45.5	+00.5
02	213 16.1	−00.2	S 20 46.0	+00.5
03	228 15.9	−00.2	S 20 46.5	+00.5
04	243 15.7	−00.2	S 20 47.0	+00.5
05	258 15.5	−00.2	S 20 47.5	+00.5
06	273 15.3	−00.2	S 20 48.0	+00.4
07	288 15.1	−00.2	S 20 48.4	+00.5
08	303 14.9	−00.2	S 20 48.9	+00.5
09	318 14.7	−00.2	S 20 49.4	+00.5
10	333 14.5	−00.1	S 20 49.9	+00.5
11	348 14.4	−00.2	S 20 50.4	+00.5
12	3 14.2	−00.2	S 20 50.9	+00.4
13	18 14.0	−00.2	S 20 51.3	+00.5
14	33 13.8	−00.2	S 20 51.8	+00.5
15	48 13.6	−00.2	S 20 52.3	+00.5
16	63 13.4	−00.2	S 20 52.8	+00.4
17	78 13.2	−00.2	S 20 53.2	+00.5
18	93 13.0	−00.2	S 20 53.7	+00.5
19	108 12.8	−00.2	S 20 54.2	+00.5
20	123 12.6	−00.2	S 20 54.7	+00.5
21	138 12.4	−00.2	S 20 55.2	+00.4
22	153 12.2	−00.2	S 20 55.6	+00.5
23	168 12.0	−00.2	S 20 56.1	+00.5

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	119°	119°	119°	118°	118°	118°

Greenwich Culmination Time: 11:47

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	193 41.9	−00.8	S 17 33.1	+00.9
01	208 41.1	−00.7	S 17 34.0	+00.9
02	223 40.4	−00.7	S 17 34.9	+00.8
03	238 39.7	−00.7	S 17 35.7	+00.9
04	253 39.0	−00.7	S 17 36.6	+00.9
05	268 38.3	−00.7	S 17 37.5	+00.9
06	283 37.6	−00.7	S 17 38.4	+00.8
07	298 36.9	−00.7	S 17 39.2	+00.9
08	313 36.2	−00.7	S 17 40.1	+00.9
09	328 35.5	−00.7	S 17 41.0	+00.8
10	343 34.8	−00.7	S 17 41.8	+00.9
11	358 34.1	−00.7	S 17 42.7	+00.9
12	13 33.4	−00.7	S 17 43.6	+00.8
13	28 32.7	−00.7	S 17 44.4	+00.9
14	43 32.0	−00.7	S 17 45.3	+00.9
15	58 31.3	−00.7	S 17 46.2	+00.8
16	73 30.6	−00.7	S 17 47.0	+00.9
17	88 29.9	−00.8	S 17 47.9	+00.8
18	103 29.1	−00.7	S 17 48.7	+00.9
19	118 28.4	−00.7	S 17 49.6	+00.9
20	133 27.7	−00.7	S 17 50.5	+00.8
21	148 27.0	−00.7	S 17 51.3	+00.9
22	163 26.3	−00.7	S 17 52.2	+00.8
23	178 25.6	−00.7	S 17 53.0	+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	129°	129°	129°	129°	129°	128°

Greenwich Culmination Time: 11:05

Moon

A: 17%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	126 45.3	−30.2	S 24 56.7	−07.4
01	141 15.1	−30.2	S 24 49.3	−07.5
02	155 44.9	−30.2	S 24 41.8	−07.6
03	170 14.7	−30.1	S 24 34.2	−07.7
04	184 44.6	−30.0	S 24 26.5	−07.9
05	199 14.6	−30.1	S 24 18.6	−07.9
06	213 44.5	−29.9	S 24 10.7	−08.1
07	228 14.6	−30.0	S 24 02.6	−08.2
08	242 44.6	−29.8	S 23 54.4	−08.4
09	257 14.8	−29.9	S 23 46.0	−08.4
10	271 44.9	−29.8	S 23 37.6	−08.6
11	286 15.1	−29.7	S 23 29.0	−08.7
12	300 45.4	−29.7	S 23 20.3	−08.8
13	315 15.7	−29.7	S 23 11.5	−08.9
14	329 46.0	−29.6	S 23 02.6	−09.1
15	344 16.4	−29.5	S 22 53.5	−09.1
16	358 46.9	−29.5	S 22 44.4	−09.3
17	13 17.4	−29.5	S 22 35.1	−09.4
18	27 47.9	−29.4	S 22 25.7	−09.4
19	42 18.5	−29.4	S 22 16.3	−09.6
20	56 49.1	−29.3	S 22 06.7	−09.8
21	71 19.8	−29.3	S 21 56.9	−09.8
22	85 50.5	−29.2	S 21 47.1	−09.9
23	100 21.3	−29.2	S 21 37.2	−10.0

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	15′1	15′1	15′1
HP	55′0	55′1	55′2	55′3	55′4	55′5
SHA	061°	059°	057°	055°	053°	051°

Greenwich Culmination Time: 16:05

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	170 41.9	+00.4	S 23 11.3	+00.2
01	185 42.3	+00.5	S 23 11.5	+00.2
02	200 42.8	+00.5	S 23 11.7	+00.3
03	215 43.3	+00.5	S 23 12.0	+00.2
04	230 43.8	+00.5	S 23 12.2	+00.2
05	245 44.3	+00.4	S 23 12.4	+00.2
06	260 44.7	+00.5	S 23 12.6	+00.3
07	275 45.2	+00.5	S 23 12.9	+00.2
08	290 45.7	+00.5	S 23 13.1	+00.2
09	305 46.2	+00.4	S 23 13.3	+00.2
10	320 46.6	+00.5	S 23 13.5	+00.3
11	335 47.1	+00.5	S 23 13.8	+00.2
12	350 47.6	+00.5	S 23 14.0	+00.2
13	5 48.1	+00.4	S 23 14.2	+00.2
14	20 48.5	+00.5	S 23 14.4	+00.3
15	35 49.0	+00.5	S 23 14.7	+00.2
16	50 49.5	+00.4	S 23 14.9	+00.2
17	65 49.9	+00.5	S 23 15.1	+00.2
18	80 50.4	+00.5	S 23 15.3	+00.3
19	95 50.9	+00.5	S 23 15.6	+00.2
20	110 51.4	+00.4	S 23 15.8	+00.2
21	125 51.8	+00.5	S 23 16.0	+00.2
22	140 52.3	+00.5	S 23 16.2	+00.2
23	155 52.8	+00.5	S 23 16.4	+00.3

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	106°	106°	106°	106°	106°	106°

Greenwich Culmination Time: 12:36

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	307 22.5	+02.5	N 21 17.9	+00.0
01	322 25.0	+02.6	N 21 17.9	+00.0
02	337 27.6	+02.6	N 21 17.9	+00.0
03	352 30.2	+02.6	N 21 17.9	+00.1
04	7 32.8	+02.6	N 21 18.0	+00.0
05	22 35.4	+02.5	N 21 18.0	+00.0
06	37 37.9	+02.6	N 21 18.0	+00.0
07	52 40.5	+02.6	N 21 18.0	+00.1
08	67 43.1	+02.6	N 21 18.1	+00.0
09	82 45.7	+02.6	N 21 18.1	+00.0
10	97 48.3	+02.5	N 21 18.1	+00.1
11	112 50.8	+02.6	N 21 18.2	+00.0
12	127 53.4	+02.6	N 21 18.2	+00.0
13	142 56.0	+02.6	N 21 18.2	+00.0
14	157 58.6	+02.6	N 21 18.2	+00.1
15	173 01.2	+02.6	N 21 18.3	+00.0
16	188 03.8	+02.6	N 21 18.3	+00.0
17	203 06.4	+02.5	N 21 18.3	+00.0
18	218 08.9	+02.6	N 21 18.3	+00.1
19	233 11.5	+02.6	N 21 18.4	+00.0
20	248 14.1	+02.6	N 21 18.4	+00.0
21	263 16.7	+02.6	N 21 18.4	+00.1
22	278 19.3	+02.6	N 21 18.5	+00.0
23	293 21.9	+02.6	N 21 18.5	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:29

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	67 40.8	+02.4	S 04 06.8	+00.0
01	82 43.2	+02.5	S 04 06.8	+00.0
02	97 45.7	+02.5	S 04 06.8	+00.0
03	112 48.2	+02.5	S 04 06.8	+00.0
04	127 50.7	+02.5	S 04 06.8	+00.0
05	142 53.2	+02.4	S 04 06.8	+00.0
06	157 55.6	+02.5	S 04 06.8	+00.0
07	172 58.1	+02.5	S 04 06.8	+00.0
08	188 00.6	+02.5	S 04 06.8	+00.0
09	203 03.1	+02.5	S 04 06.8	+00.0
10	218 05.6	+02.4	S 04 06.8	+00.0
11	233 08.0	+02.5	S 04 06.8	+00.0
12	248 10.5	+02.5	S 04 06.8	+00.0
13	263 13.0	+02.5	S 04 06.8	+00.0
14	278 15.5	+02.5	S 04 06.8	+00.0
15	293 18.0	+02.4	S 04 06.8	+00.0
16	308 20.4	+02.5	S 04 06.8	+00.0
17	323 22.9	+02.5	S 04 06.8	+00.0
18	338 25.4	+02.5	S 04 06.8	+00.0
19	353 27.9	+02.4	S 04 06.8	+00.0
20	8 30.3	+02.5	S 04 06.8	−00.1
21	23 32.8	+02.5	S 04 06.7	+00.0
22	38 35.3	+02.5	S 04 06.7	+00.0
23	53 37.8	+02.5	S 04 06.7	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:26

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2025 November 26 Wednesday (day 330 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 11.8	−00.2	S 20 56.6	+00.4
01	198 11.6	−00.2	S 20 57.0	+00.5
02	213 11.4	−00.2	S 20 57.5	+00.5
03	228 11.2	−00.2	S 20 58.0	+00.5
04	243 11.0	−00.2	S 20 58.5	+00.4
05	258 10.8	−00.2	S 20 58.9	+00.5
06	273 10.6	−00.2	S 20 59.4	+00.5
07	288 10.4	−00.2	S 20 59.9	+00.4
08	303 10.2	−00.2	S 21 00.3	+00.5
09	318 10.0	−00.2	S 21 00.8	+00.5
10	333 09.8	−00.2	S 21 01.3	+00.4
11	348 09.6	−00.2	S 21 01.7	+00.5
12	3 09.4	−00.2	S 21 02.2	+00.5
13	18 09.2	−00.2	S 21 02.7	+00.4
14	33 09.0	−00.2	S 21 03.1	+00.5
15	48 08.8	−00.2	S 21 03.6	+00.4
16	63 08.6	−00.2	S 21 04.0	+00.5
17	78 08.4	−00.2	S 21 04.5	+00.5
18	93 08.2	−00.2	S 21 05.0	+00.4
19	108 08.0	−00.2	S 21 05.4	+00.5
20	123 07.8	−00.2	S 21 05.9	+00.4
21	138 07.6	−00.2	S 21 06.3	+00.5
22	153 07.4	−00.2	S 21 06.8	+00.5
23	168 07.2	−00.2	S 21 07.3	+00.4

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	118°	118°	118°	117°	117°	117°

Greenwich Culmination Time: 11:47

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	193 24.9	−00.7	S 17 53.9	+00.8
01	208 24.2	−00.8	S 17 54.7	+00.9
02	223 23.4	−00.7	S 17 55.6	+00.8
03	238 22.7	−00.7	S 17 56.4	+00.9
04	253 22.0	−00.7	S 17 57.3	+00.8
05	268 21.3	−00.7	S 17 58.1	+00.9
06	283 20.6	−00.7	S 17 59.0	+00.8
07	298 19.9	−00.8	S 17 59.8	+00.9
08	313 19.1	−00.7	S 18 00.7	+00.8
09	328 18.4	−00.7	S 18 01.5	+00.9
10	343 17.7	−00.7	S 18 02.4	+00.8
11	358 17.0	−00.7	S 18 03.2	+00.9
12	13 16.3	−00.8	S 18 04.1	+00.8
13	28 15.5	−00.7	S 18 04.9	+00.9
14	43 14.8	−00.7	S 18 05.8	+00.8
15	58 14.1	−00.7	S 18 06.6	+00.8
16	73 13.4	−00.7	S 18 07.4	+00.9
17	88 12.7	−00.8	S 18 08.3	+00.8
18	103 11.9	−00.7	S 18 09.1	+00.9
19	118 11.2	−00.7	S 18 10.0	+00.8
20	133 10.5	−00.7	S 18 10.8	+00.8
21	148 09.8	−00.8	S 18 11.6	+00.9
22	163 09.0	−00.7	S 18 12.5	+00.8
23	178 08.3	−00.7	S 18 13.3	+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	128°	128°	128°	127°	127°	127°

Greenwich Culmination Time: 11:06

Moon

A: 20%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	114 52.1	−29.1	S 21 27.2	−10.2
01	129 23.0	−29.1	S 21 17.0	−10.2
02	143 53.9	−29.0	S 21 06.8	−10.4
03	158 24.9	−29.0	S 20 56.4	−10.5
04	172 55.9	−28.9	S 20 45.9	−10.5
05	187 27.0	−28.9	S 20 35.4	−10.7
06	201 58.1	−28.9	S 20 24.7	−10.8
07	216 29.2	−28.8	S 20 13.9	−10.9
08	231 00.4	−28.8	S 20 03.0	−10.9
09	245 31.6	−28.7	S 19 52.1	−11.1
10	260 02.9	−28.7	S 19 41.0	−11.2
11	274 34.2	−28.6	S 19 29.8	−11.3
12	289 05.6	−28.6	S 19 18.5	−11.4
13	303 37.0	−28.6	S 19 07.1	−11.4
14	318 08.4	−28.5	S 18 55.7	−11.6
15	332 39.9	−28.4	S 18 44.1	−11.7
16	347 11.5	−28.5	S 18 32.4	−11.7
17	1 43.0	−28.3	S 18 20.7	−11.9
18	16 14.7	−28.4	S 18 08.8	−11.9
19	30 46.3	−28.3	S 17 56.9	−12.1
20	45 18.0	−28.3	S 17 44.8	−12.1
21	59 49.7	−28.2	S 17 32.7	−12.3
22	74 21.5	−28.2	S 17 20.4	−12.3
23	88 53.3	−28.1	S 17 08.1	−12.4

UT	02	06	10	14	18	22
SD	15′1	15′2	15′2	15′2	15′3	15′3
HP	55′6	55′7	55′8	55′9	56′0	56′1
SHA	049°	047°	044°	042°	040°	038°

Greenwich Culmination Time: 16:52

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	170 53.3	+00.4	S 23 16.7	+00.2
01	185 53.7	+00.5	S 23 16.9	+00.2
02	200 54.2	+00.5	S 23 17.1	+00.2
03	215 54.7	+00.4	S 23 17.3	+00.2
04	230 55.1	+00.5	S 23 17.5	+00.3
05	245 55.6	+00.5	S 23 17.8	+00.2
06	260 56.1	+00.5	S 23 18.0	+00.2
07	275 56.6	+00.4	S 23 18.2	+00.2
08	290 57.0	+00.5	S 23 18.4	+00.2
09	305 57.5	+00.5	S 23 18.6	+00.2
10	320 58.0	+00.4	S 23 18.8	+00.3
11	335 58.4	+00.5	S 23 19.1	+00.2
12	350 58.9	+00.5	S 23 19.3	+00.2
13	5 59.4	+00.4	S 23 19.5	+00.2
14	20 59.8	+00.5	S 23 19.7	+00.2
15	36 00.3	+00.5	S 23 19.9	+00.2
16	51 00.8	+00.5	S 23 20.1	+00.2
17	66 01.3	+00.4	S 23 20.3	+00.2
18	81 01.7	+00.5	S 23 20.5	+00.3
19	96 02.2	+00.5	S 23 20.8	+00.2
20	111 02.7	+00.4	S 23 21.0	+00.2
21	126 03.1	+00.5	S 23 21.2	+00.2
22	141 03.6	+00.5	S 23 21.4	+00.2
23	156 04.1	+00.4	S 23 21.6	+00.2

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	106°	106°	105°	105°	105°	105°

Greenwich Culmination Time: 12:36

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	308 24.5	+02.6	N 21 18.5	+00.0
01	323 27.1	+02.5	N 21 18.5	+00.1
02	338 29.6	+02.6	N 21 18.6	+00.0
03	353 32.2	+02.6	N 21 18.6	+00.0
04	8 34.8	+02.6	N 21 18.6	+00.0
05	23 37.4	+02.6	N 21 18.6	+00.1
06	38 40.0	+02.6	N 21 18.7	+00.0
07	53 42.6	+02.6	N 21 18.7	+00.0
08	68 45.2	+02.6	N 21 18.7	+00.1
09	83 47.8	+02.6	N 21 18.8	+00.0
10	98 50.4	+02.6	N 21 18.8	+00.0
11	113 53.0	+02.5	N 21 18.8	+00.0
12	128 55.5	+02.6	N 21 18.8	+00.1
13	143 58.1	+02.6	N 21 18.9	+00.0
14	159 00.7	+02.6	N 21 18.9	+00.0
15	174 03.3	+02.6	N 21 18.9	+00.1
16	189 05.9	+02.6	N 21 19.0	+00.0
17	204 08.5	+02.6	N 21 19.0	+00.0
18	219 11.1	+02.6	N 21 19.0	+00.0
19	234 13.7	+02.6	N 21 19.0	+00.1
20	249 16.3	+02.6	N 21 19.1	+00.0
21	264 18.9	+02.6	N 21 19.1	+00.0
22	279 21.5	+02.6	N 21 19.1	+00.1
23	294 24.1	+02.6	N 21 19.2	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:25

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	68 40.3	+02.4	S 04 06.7	+00.0
01	83 42.7	+02.5	S 04 06.7	+00.0
02	98 45.2	+02.5	S 04 06.7	+00.0
03	113 47.7	+02.5	S 04 06.7	+00.0
04	128 50.2	+02.4	S 04 06.7	+00.0
05	143 52.6	+02.5	S 04 06.7	+00.0
06	158 55.1	+02.5	S 04 06.7	+00.0
07	173 57.6	+02.5	S 04 06.7	+00.0
08	189 00.1	+02.4	S 04 06.7	+00.0
09	204 02.5	+02.5	S 04 06.7	+00.0
10	219 05.0	+02.5	S 04 06.7	+00.0
11	234 07.5	+02.5	S 04 06.7	+00.0
12	249 10.0	+02.4	S 04 06.7	+00.0
13	264 12.4	+02.5	S 04 06.7	+00.0
14	279 14.9	+02.5	S 04 06.7	+00.0
15	294 17.4	+02.5	S 04 06.7	+00.0
16	309 19.9	+02.4	S 04 06.7	+00.0
17	324 22.3	+02.5	S 04 06.7	−00.1
18	339 24.8	+02.5	S 04 06.6	+00.0
19	354 27.3	+02.4	S 04 06.6	+00.0
20	9 29.7	+02.5	S 04 06.6	+00.0
21	24 32.2	+02.5	S 04 06.6	+00.0
22	39 34.7	+02.5	S 04 06.6	+00.0
23	54 37.2	+02.4	S 04 06.6	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:22

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2025 November 27 Thursday

(day 331 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 07.0	−00.2	S 21 07.7	+00.5	00
01	198 06.8	−00.2	S 21 08.2	+00.4	01
02	213 06.6	−00.2	S 21 08.6	+00.5	02
03	228 06.4	−00.2	S 21 09.1	+00.4	03
04	243 06.2	−00.2	S 21 09.5	+00.5	04
05	258 06.0	−00.2	S 21 10.0	+00.4	05
06	273 05.8	−00.2	S 21 10.4	+00.5	06
07	288 05.6	−00.2	S 21 10.9	+00.4	07
08	303 05.4	−00.2	S 21 11.3	+00.5	08
09	318 05.2	−00.2	S 21 11.8	+00.4	09
10	333 05.0	−00.2	S 21 12.2	+00.5	10
11	348 04.8	−00.3	S 21 12.7	+00.4	11
12	3 04.5	−00.2	S 21 13.1	+00.5	12
13	18 04.3	−00.2	S 21 13.6	+00.4	13
14	33 04.1	−00.2	S 21 14.0	+00.5	14
15	48 03.9	−00.2	S 21 14.5	+00.4	15
16	63 03.7	−00.2	S 21 14.9	+00.5	16
17	78 03.5	−00.2	S 21 15.4	+00.4	17
18	93 03.3	−00.2	S 21 15.8	+00.5	18
19	108 03.1	−00.2	S 21 16.3	+00.4	19
20	123 02.9	−00.2	S 21 16.7	+00.4	20
21	138 02.7	−00.2	S 21 17.1	+00.5	21
22	153 02.5	−00.3	S 21 17.6	+00.4	22
23	168 02.2	−00.2	S 21 18.0	+00.5	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	117°	117°	117°	116°	116°	116°

Greenwich Culmination Time: 11:47

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	193 07.6	−00.7	S 18 14.1	+00.9	00
01	208 06.9	−00.8	S 18 15.0	+00.8	01
02	223 06.1	−00.7	S 18 15.8	+00.8	02
03	238 05.4	−00.7	S 18 16.6	+00.9	03
04	253 04.7	−00.8	S 18 17.5	+00.8	04
05	268 03.9	−00.7	S 18 18.3	+00.8	05
06	283 03.2	−00.7	S 18 19.1	+00.9	06
07	298 02.5	−00.7	S 18 20.0	+00.8	07
08	313 01.8	−00.8	S 18 20.8	+00.8	08
09	328 01.0	−00.7	S 18 21.6	+00.8	09
10	343 00.3	−00.7	S 18 22.4	+00.9	10
11	357 59.6	−00.8	S 18 23.3	+00.8	11
12	12 58.8	−00.7	S 18 24.1	+00.8	12
13	27 58.1	−00.7	S 18 24.9	+00.8	13
14	42 57.4	−00.8	S 18 25.7	+00.9	14
15	57 56.6	−00.7	S 18 26.6	+00.8	15
16	72 55.9	−00.7	S 18 27.4	+00.8	16
17	87 55.2	−00.8	S 18 28.2	+00.8	17
18	102 54.4	−00.7	S 18 29.0	+00.8	18
19	117 53.7	−00.7	S 18 29.8	+00.9	19
20	132 53.0	−00.8	S 18 30.7	+00.8	20
21	147 52.2	−00.7	S 18 31.5	+00.8	21
22	162 51.5	−00.8	S 18 32.3	+00.8	22
23	177 50.7	−00.7	S 18 33.1	+00.8	23

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	127°	127°	126°	126°	126°	126°

Greenwich Culmination Time: 11:08

Moon

A: 23%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	103 25.2	−28.2	S 16 55.7	−12.5	00
01	117 57.0	−28.0	S 16 43.2	−12.6	01
02	132 29.0	−28.1	S 16 30.6	−12.6	02
03	147 00.9	−28.0	S 16 18.0	−12.8	03
04	161 32.9	−28.0	S 16 05.2	−12.8	04
05	176 04.9	−27.9	S 15 52.4	−13.0	05
06	190 37.0	−28.0	S 15 39.4	−13.0	06
07	205 09.0	−27.9	S 15 26.4	−13.1	07
08	219 41.1	−27.8	S 15 13.3	−13.1	08
09	234 13.3	−27.8	S 15 00.2	−13.3	09
10	248 45.5	−27.8	S 14 46.9	−13.3	10
11	263 17.7	−27.8	S 14 33.6	−13.5	11
12	277 49.9	−27.8	S 14 20.1	−13.5	12
13	292 22.1	−27.7	S 14 06.6	−13.5	13
14	306 54.4	−27.7	S 13 53.1	−13.7	14
15	321 26.7	−27.6	S 13 39.4	−13.7	15
16	335 59.1	−27.7	S 13 25.7	−13.8	16
17	350 31.4	−27.6	S 13 11.9	−13.9	17
18	5 03.8	−27.6	S 12 58.0	−14.0	18
19	19 36.2	−27.6	S 12 44.0	−14.0	19
20	34 08.6	−27.6	S 12 30.0	−14.1	20
21	48 41.0	−27.5	S 12 15.9	−14.1	21
22	63 13.5	−27.5	S 12 01.8	−14.3	22
23	77 46.0	−27.6	S 11 47.5	−14.3	23

UT	02	06	10	14	18	22
SD	15′3	15′4	15′4	15′4	15′5	15′5
HP	56′3	56′4	56′5	56′6	56′8	56′9
SHA	036°	034°	032°	030°	028°	026°

Greenwich Culmination Time: 17:39

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	171 04.5	+00.5	S 23 21.8	+00.2	00
01	186 05.0	+00.5	S 23 22.0	+00.2	01
02	201 05.5	+00.4	S 23 22.2	+00.2	02
03	216 05.9	+00.5	S 23 22.4	+00.3	03
04	231 06.4	+00.5	S 23 22.7	+00.2	04
05	246 06.9	+00.4	S 23 22.9	+00.2	05
06	261 07.3	+00.5	S 23 23.1	+00.2	06
07	276 07.8	+00.5	S 23 23.3	+00.2	07
08	291 08.3	+00.4	S 23 23.5	+00.2	08
09	306 08.7	+00.5	S 23 23.7	+00.2	09
10	321 09.2	+00.5	S 23 23.9	+00.2	10
11	336 09.7	+00.4	S 23 24.1	+00.2	11
12	351 10.1	+00.5	S 23 24.3	+00.2	12
13	6 10.6	+00.4	S 23 24.5	+00.2	13
14	21 11.0	+00.5	S 23 24.7	+00.2	14
15	36 11.5	+00.5	S 23 24.9	+00.2	15
16	51 12.0	+00.4	S 23 25.1	+00.2	16
17	66 12.4	+00.5	S 23 25.3	+00.2	17
18	81 12.9	+00.5	S 23 25.5	+00.2	18
19	96 13.4	+00.4	S 23 25.7	+00.2	19
20	111 13.8	+00.5	S 23 25.9	+00.2	20
21	126 14.3	+00.5	S 23 26.1	+00.2	21
22	141 14.8	+00.4	S 23 26.3	+00.2	22
23	156 15.2	+00.5	S 23 26.5	+00.2	23

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	105°	105°	105°	104°	104°	104°

Greenwich Culmination Time: 12:35

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	309 26.7	+02.6	N 21 19.2	+00.0	00
01	324 29.3	+02.6	N 21 19.2	+00.0	01
02	339 31.9	+02.6	N 21 19.2	+00.1	02
03	354 34.5	+02.6	N 21 19.3	+00.0	03
04	9 37.1	+02.6	N 21 19.3	+00.0	04
05	24 39.7	+02.6	N 21 19.3	+00.1	05
06	39 42.3	+02.6	N 21 19.4	+00.0	06
07	54 44.9	+02.6	N 21 19.4	+00.0	07
08	69 47.5	+02.6	N 21 19.4	+00.0	08
09	84 50.1	+02.6	N 21 19.4	+00.1	09
10	99 52.7	+02.6	N 21 19.5	+00.0	10
11	114 55.3	+02.6	N 21 19.5	+00.0	11
12	129 57.9	+02.6	N 21 19.5	+00.1	12
13	145 00.5	+02.6	N 21 19.6	+00.0	13
14	160 03.1	+02.6	N 21 19.6	+00.0	14
15	175 05.7	+02.6	N 21 19.6	+00.1	15
16	190 08.3	+02.6	N 21 19.7	+00.0	16
17	205 10.9	+02.6	N 21 19.7	+00.0	17
18	220 13.5	+02.6	N 21 19.7	+00.0	18
19	235 16.1	+02.6	N 21 19.7	+00.1	19
20	250 18.7	+02.6	N 21 19.8	+00.0	20
21	265 21.3	+02.6	N 21 19.8	+00.0	21
22	280 23.9	+02.6	N 21 19.8	+00.1	22
23	295 26.5	+02.6	N 21 19.9	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:21

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	69 39.6	+02.5	S 04 06.6	+00.0	00
01	84 42.1	+02.5	S 04 06.6	+00.0	01
02	99 44.6	+02.5	S 04 06.6	+00.0	02
03	114 47.1	+02.4	S 04 06.6	+00.0	03
04	129 49.5	+02.5	S 04 06.6	+00.0	04
05	144 52.0	+02.5	S 04 06.6	+00.0	05
06	159 54.5	+02.4	S 04 06.6	+00.0	06
07	174 56.9	+02.5	S 04 06.6	+00.0	07
08	189 59.4	+02.5	S 04 06.6	+00.0	08
09	205 01.9	+02.5	S 04 06.6	−00.1	09
10	220 04.4	+02.4	S 04 06.5	+00.0	10
11	235 06.8	+02.5	S 04 06.5	+00.0	11
12	250 09.3	+02.5	S 04 06.5	+00.0	12
13	265 11.8	+02.4	S 04 06.5	+00.0	13
14	280 14.2	+02.5	S 04 06.5	+00.0	14
15	295 16.7	+02.5	S 04 06.5	+00.0	15
16	310 19.2	+02.4	S 04 06.5	+00.0	16
17	325 21.6	+02.5	S 04 06.5	+00.0	17
18	340 24.1	+02.5	S 04 06.5	+00.0	18
19	355 26.6	+02.5	S 04 06.5	+00.0	19
20	10 29.1	+02.4	S 04 06.5	+00.0	20
21	25 31.5	+02.5	S 04 06.5	+00.0	21
22	40 34.0	+02.5	S 04 06.5	+00.0	22
23	55 36.5	+02.4	S 04 06.5	−00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:18

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2025 November 28 Friday

(day 332 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 02.0	−00.2	S 21 18.5	+00.4
01	198 01.8	−00.2	S 21 18.9	+00.4
02	213 01.6	−00.2	S 21 19.3	+00.5
03	228 01.4	−00.2	S 21 19.8	+00.4
04	243 01.2	−00.2	S 21 20.2	+00.5
05	258 01.0	−00.2	S 21 20.7	+00.4
06	273 00.8	−00.2	S 21 21.1	+00.4
07	288 00.6	−00.3	S 21 21.5	+00.5
08	303 00.3	−00.2	S 21 22.0	+00.4
09	318 00.1	−00.2	S 21 22.4	+00.4
10	332 59.9	−00.2	S 21 22.8	+00.5
11	347 59.7	−00.2	S 21 23.3	+00.4
12	2 59.5	−00.2	S 21 23.7	+00.4
13	17 59.3	−00.2	S 21 24.1	+00.4
14	32 59.1	−00.3	S 21 24.5	+00.5
15	47 58.8	−00.2	S 21 25.0	+00.4
16	62 58.6	−00.2	S 21 25.4	+00.4
17	77 58.4	−00.2	S 21 25.8	+00.5
18	92 58.2	−00.2	S 21 26.3	+00.4
19	107 58.0	−00.2	S 21 26.7	+00.4
20	122 57.8	−00.3	S 21 27.1	+00.4
21	137 57.5	−00.2	S 21 27.5	+00.5
22	152 57.3	−00.2	S 21 28.0	+00.4
23	167 57.1	−00.2	S 21 28.4	+00.4

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	116°	116°	115°	115°	115°	115°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	192 50.0	−00.7	S 18 33.9	+00.8
01	207 49.3	−00.8	S 18 34.7	+00.8
02	222 48.5	−00.7	S 18 35.5	+00.9
03	237 47.8	−00.8	S 18 36.4	+00.8
04	252 47.0	−00.7	S 18 37.2	+00.8
05	267 46.3	−00.7	S 18 38.0	+00.8
06	282 45.6	−00.8	S 18 38.8	+00.8
07	297 44.8	−00.7	S 18 39.6	+00.8
08	312 44.1	−00.8	S 18 40.4	+00.8
09	327 43.3	−00.7	S 18 41.2	+00.8
10	342 42.6	−00.8	S 18 42.0	+00.8
11	357 41.8	−00.7	S 18 42.8	+00.8
12	12 41.1	−00.7	S 18 43.6	+00.8
13	27 40.4	−00.8	S 18 44.4	+00.8
14	42 39.6	−00.7	S 18 45.2	+00.8
15	57 38.9	−00.8	S 18 46.0	+00.8
16	72 38.1	−00.7	S 18 46.8	+00.8
17	87 37.4	−00.8	S 18 47.6	+00.8
18	102 36.6	−00.7	S 18 48.4	+00.8
19	117 35.9	−00.8	S 18 49.2	+00.8
20	132 35.1	−00.7	S 18 50.0	+00.8
21	147 34.4	−00.8	S 18 50.8	+00.8
22	162 33.6	−00.7	S 18 51.6	+00.8
23	177 32.9	−00.8	S 18 52.4	+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	126°	125°	125°	125°	125°	125°

Greenwich Culmination Time: 11:09

Moon

A: 26%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	92 18.4	−27.5	S 11 33.2	−14.4
01	106 50.9	−27.4	S 11 18.8	−14.4
02	121 23.5	−27.5	S 11 04.4	−14.5
03	135 56.0	−27.5	S 10 49.9	−14.6
04	150 28.5	−27.4	S 10 35.3	−14.6
05	165 01.1	−27.5	S 10 20.7	−14.8
06	179 33.6	−27.4	S 10 05.9	−14.7
07	194 06.2	−27.4	S 09 51.2	−14.9
08	208 38.8	−27.4	S 09 36.3	−14.9
09	223 11.4	−27.4	S 09 21.4	−14.9
10	237 44.0	−27.4	S 09 06.5	−15.0
11	252 16.6	−27.4	S 08 51.5	−15.1
12	266 49.2	−27.4	S 08 36.4	−15.1
13	281 21.8	−27.4	S 08 21.3	−15.2
14	295 54.4	−27.4	S 08 06.1	−15.2
15	310 27.0	−27.4	S 07 50.9	−15.3
16	324 59.6	−27.5	S 07 35.6	−15.4
17	339 32.1	−27.4	S 07 20.2	−15.4
18	354 04.7	−27.4	S 07 04.8	−15.4
19	8 37.3	−27.4	S 06 49.4	−15.5
20	23 09.9	−27.4	S 06 33.9	−15.6
21	37 42.5	−27.5	S 06 18.3	−15.6
22	52 15.0	−27.4	S 06 02.7	−15.7
23	66 47.6	−27.5	S 05 47.0	−15.7

UT	02	06	10	14	18	22
SD	15′5	15′6	15′6	15′7	15′7	15′7
HP	57′0	57′2	57′3	57′5	57′6	57′8
SHA	024°	022°	020°	018°	016°	014°

Greenwich Culmination Time: 18:24

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	171 15.7	+00.4	S 23 26.7	+00.2
01	186 16.1	+00.5	S 23 26.9	+00.2
02	201 16.6	+00.5	S 23 27.1	+00.2
03	216 17.1	+00.4	S 23 27.3	+00.2
04	231 17.5	+00.5	S 23 27.5	+00.2
05	246 18.0	+00.5	S 23 27.7	+00.2
06	261 18.5	+00.4	S 23 27.9	+00.2
07	276 18.9	+00.5	S 23 28.1	+00.2
08	291 19.4	+00.4	S 23 28.3	+00.2
09	306 19.8	+00.5	S 23 28.5	+00.2
10	321 20.3	+00.5	S 23 28.7	+00.2
11	336 20.8	+00.4	S 23 28.9	+00.2
12	351 21.2	+00.5	S 23 29.1	+00.2
13	6 21.7	+00.4	S 23 29.3	+00.2
14	21 22.1	+00.5	S 23 29.5	+00.2
15	36 22.6	+00.5	S 23 29.7	+00.2
16	51 23.1	+00.4	S 23 29.9	+00.2
17	66 23.5	+00.5	S 23 30.1	+00.2
18	81 24.0	+00.4	S 23 30.3	+00.2
19	96 24.4	+00.5	S 23 30.5	+00.2
20	111 24.9	+00.4	S 23 30.7	+00.2
21	126 25.3	+00.5	S 23 30.9	+00.1
22	141 25.8	+00.5	S 23 31.0	+00.2
23	156 26.3	+00.4	S 23 31.2	+00.2

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	104°	104°	104°	104°	104°	103°

Greenwich Culmination Time: 12:34

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	310 29.1	+02.6	N 21 19.9	+00.0
01	325 31.7	+02.6	N 21 19.9	+00.1
02	340 34.3	+02.6	N 21 20.0	+00.0
03	355 36.9	+02.6	N 21 20.0	+00.0
04	10 39.5	+02.6	N 21 20.0	+00.1
05	25 42.1	+02.6	N 21 20.1	+00.0
06	40 44.7	+02.6	N 21 20.1	+00.0
07	55 47.3	+02.7	N 21 20.1	+00.0
08	70 50.0	+02.6	N 21 20.1	+00.1
09	85 52.6	+02.6	N 21 20.2	+00.0
10	100 55.2	+02.6	N 21 20.2	+00.0
11	115 57.8	+02.6	N 21 20.2	+00.1
12	131 00.4	+02.6	N 21 20.3	+00.0
13	146 03.0	+02.6	N 21 20.3	+00.0
14	161 05.6	+02.6	N 21 20.3	+00.1
15	176 08.2	+02.6	N 21 20.4	+00.0
16	191 10.8	+02.6	N 21 20.4	+00.0
17	206 13.4	+02.6	N 21 20.4	+00.1
18	221 16.0	+02.7	N 21 20.5	+00.0
19	236 18.7	+02.6	N 21 20.5	+00.0
20	251 21.3	+02.6	N 21 20.5	+00.0
21	266 23.9	+02.6	N 21 20.5	+00.1
22	281 26.5	+02.6	N 21 20.6	+00.0
23	296 29.1	+02.6	N 21 20.6	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:17

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	70 38.9	+02.5	S 04 06.4	+00.0
01	85 41.4	+02.5	S 04 06.4	+00.0
02	100 43.9	+02.4	S 04 06.4	+00.0
03	115 46.3	+02.5	S 04 06.4	+00.0
04	130 48.8	+02.5	S 04 06.4	+00.0
05	145 51.3	+02.4	S 04 06.4	+00.0
06	160 53.7	+02.5	S 04 06.4	+00.0
07	175 56.2	+02.5	S 04 06.4	+00.0
08	190 58.7	+02.4	S 04 06.4	+00.0
09	206 01.1	+02.5	S 04 06.4	+00.0
10	221 03.6	+02.5	S 04 06.4	+00.0
11	236 06.1	+02.4	S 04 06.4	−00.1
12	251 08.5	+02.5	S 04 06.3	+00.0
13	266 11.0	+02.5	S 04 06.3	+00.0
14	281 13.5	+02.4	S 04 06.3	+00.0
15	296 15.9	+02.5	S 04 06.3	+00.0
16	311 18.4	+02.5	S 04 06.3	+00.0
17	326 20.9	+02.4	S 04 06.3	+00.0
18	341 23.3	+02.5	S 04 06.3	+00.0
19	356 25.8	+02.5	S 04 06.3	+00.0
20	11 28.3	+02.4	S 04 06.3	+00.0
21	26 30.7	+02.5	S 04 06.3	+00.0
22	41 33.2	+02.5	S 04 06.3	−00.1
23	56 35.7	+02.4	S 04 06.2	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:14

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2025 November 29 Saturday

(day 333 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 56.9	−00.2	S 21 28.8	+00.4	00
01	197 56.7	−00.3	S 21 29.2	+00.4	01
02	212 56.4	−00.2	S 21 29.6	+00.5	02
03	227 56.2	−00.2	S 21 30.1	+00.4	03
04	242 56.0	−00.2	S 21 30.5	+00.4	04
05	257 55.8	−00.2	S 21 30.9	+00.4	05
06	272 55.6	−00.3	S 21 31.3	+00.4	06
07	287 55.3	−00.2	S 21 31.7	+00.5	07
08	302 55.1	−00.2	S 21 32.2	+00.4	08
09	317 54.9	−00.2	S 21 32.6	+00.4	09
10	332 54.7	−00.2	S 21 33.0	+00.4	10
11	347 54.5	−00.3	S 21 33.4	+00.4	11
12	2 54.2	−00.2	S 21 33.8	+00.4	12
13	17 54.0	−00.2	S 21 34.2	+00.5	13
14	32 53.8	−00.2	S 21 34.7	+00.4	14
15	47 53.6	−00.2	S 21 35.1	+00.4	15
16	62 53.4	−00.3	S 21 35.5	+00.4	16
17	77 53.1	−00.2	S 21 35.9	+00.4	17
18	92 52.9	−00.2	S 21 36.3	+00.4	18
19	107 52.7	−00.2	S 21 36.7	+00.4	19
20	122 52.5	−00.3	S 21 37.1	+00.4	20
21	137 52.2	−00.2	S 21 37.5	+00.4	21
22	152 52.0	−00.2	S 21 37.9	+00.4	22
23	167 51.8	−00.2	S 21 38.3	+00.4	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	115°	115°	114°	114°	114°	114°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	192 32.1	−00.7	S 18 53.2	+00.8	00
01	207 31.4	−00.8	S 18 54.0	+00.8	01
02	222 30.6	−00.7	S 18 54.8	+00.8	02
03	237 29.9	−00.8	S 18 55.6	+00.8	03
04	252 29.1	−00.7	S 18 56.4	+00.7	04
05	267 28.4	−00.8	S 18 57.1	+00.8	05
06	282 27.6	−00.8	S 18 57.9	+00.8	06
07	297 26.8	−00.7	S 18 58.7	+00.8	07
08	312 26.1	−00.8	S 18 59.5	+00.8	08
09	327 25.3	−00.7	S 19 00.3	+00.8	09
10	342 24.6	−00.8	S 19 01.1	+00.7	10
11	357 23.8	−00.7	S 19 01.8	+00.8	11
12	12 23.1	−00.8	S 19 02.6	+00.8	12
13	27 22.3	−00.7	S 19 03.4	+00.8	13
14	42 21.6	−00.8	S 19 04.2	+00.8	14
15	57 20.8	−00.8	S 19 05.0	+00.7	15
16	72 20.0	−00.7	S 19 05.7	+00.8	16
17	87 19.3	−00.8	S 19 06.5	+00.8	17
18	102 18.5	−00.7	S 19 07.3	+00.8	18
19	117 17.8	−00.8	S 19 08.1	+00.7	19
20	132 17.0	−00.8	S 19 08.8	+00.8	20
21	147 16.2	−00.7	S 19 09.6	+00.8	21
22	162 15.5	−00.8	S 19 10.4	+00.8	22
23	177 14.7	−00.8	S 19 11.2	+00.7	23

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	124°	124°	124°	124°	123°	123°

Greenwich Culmination Time: 11:10

Moon

A: 29%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	81 20.1	−27.5	S 05 31.3	−15.7	00
01	95 52.6	−27.4	S 05 15.6	−15.8	01
02	110 25.2	−27.5	S 04 59.8	−15.8	02
03	124 57.7	−27.6	S 04 44.0	−15.9	03
04	139 30.1	−27.5	S 04 28.1	−15.9	04
05	154 02.6	−27.6	S 04 12.2	−16.0	05
06	168 35.0	−27.5	S 03 56.2	−16.0	06
07	183 07.5	−27.7	S 03 40.2	−16.0	07
08	197 39.8	−27.6	S 03 24.2	−16.1	08
09	212 12.2	−27.6	S 03 08.1	−16.1	09
10	226 44.6	−27.7	S 02 52.0	−16.1	10
11	241 16.9	−27.7	S 02 35.9	−16.2	11
12	255 49.2	−27.7	S 02 19.7	−16.2	12
13	270 21.5	−27.8	S 02 03.5	−16.2	13
14	284 53.7	−27.8	S 01 47.3	−16.3	14
15	299 25.9	−27.8	S 01 31.0	−16.3	15
16	313 58.1	−27.9	S 01 14.7	−16.3	16
17	328 30.2	−27.9	S 00 58.4	−16.4	17
18	343 02.3	−28.0	S 00 42.0	−16.3	18
19	357 34.3	−27.9	S 00 25.7	−16.4	19
20	12 06.4	−28.1	S 00 09.3	−16.5	20
21	26 38.3	−28.0	N 00 07.2	+16.4	21
22	41 10.3	−28.1	N 00 23.6	+16.5	22
23	55 42.2	−28.2	N 00 40.1	+16.5	23

UT	02	06	10	14	18	22
SD	15′8	15′8	15′9	15′9	15′9	16′0
HP	57′9	58′1	58′2	58′4	58′5	58′7
SHA	012°	010°	008°	006°	004°	002°

Greenwich Culmination Time: 19:10

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	171 26.7	+00.5	S 23 31.4	+00.2	00
01	186 27.2	+00.4	S 23 31.6	+00.2	01
02	201 27.6	+00.5	S 23 31.8	+00.2	02
03	216 28.1	+00.4	S 23 32.0	+00.2	03
04	231 28.5	+00.5	S 23 32.2	+00.2	04
05	246 29.0	+00.5	S 23 32.4	+00.2	05
06	261 29.5	+00.4	S 23 32.6	+00.1	06
07	276 29.9	+00.5	S 23 32.7	+00.2	07
08	291 30.4	+00.4	S 23 32.9	+00.2	08
09	306 30.8	+00.5	S 23 33.1	+00.2	09
10	321 31.3	+00.4	S 23 33.3	+00.2	10
11	336 31.7	+00.5	S 23 33.5	+00.2	11
12	351 32.2	+00.5	S 23 33.7	+00.2	12
13	6 32.7	+00.4	S 23 33.9	+00.1	13
14	21 33.1	+00.5	S 23 34.0	+00.2	14
15	36 33.6	+00.4	S 23 34.2	+00.2	15
16	51 34.0	+00.5	S 23 34.4	+00.2	16
17	66 34.5	+00.4	S 23 34.6	+00.2	17
18	81 34.9	+00.5	S 23 34.8	+00.2	18
19	96 35.4	+00.4	S 23 35.0	+00.1	19
20	111 35.8	+00.5	S 23 35.1	+00.2	20
21	126 36.3	+00.4	S 23 35.3	+00.2	21
22	141 36.7	+00.5	S 23 35.5	+00.2	22
23	156 37.2	+00.4	S 23 35.7	+00.2	23

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	103°	103°	103°	103°	103°	103°

Greenwich Culmination Time: 12:33

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	311 31.7	+02.6	N 21 20.6	+00.1	00
01	326 34.3	+02.6	N 21 20.7	+00.0	01
02	341 36.9	+02.7	N 21 20.7	+00.0	02
03	356 39.6	+02.6	N 21 20.7	+00.1	03
04	11 42.2	+02.6	N 21 20.8	+00.0	04
05	26 44.8	+02.6	N 21 20.8	+00.0	05
06	41 47.4	+02.6	N 21 20.8	+00.1	06
07	56 50.0	+02.6	N 21 20.9	+00.0	07
08	71 52.6	+02.7	N 21 20.9	+00.0	08
09	86 55.3	+02.6	N 21 20.9	+00.1	09
10	101 57.9	+02.6	N 21 21.0	+00.0	10
11	117 00.5	+02.6	N 21 21.0	+00.0	11
12	132 03.1	+02.6	N 21 21.0	+00.1	12
13	147 05.7	+02.6	N 21 21.1	+00.0	13
14	162 08.3	+02.7	N 21 21.1	+00.0	14
15	177 11.0	+02.6	N 21 21.1	+00.1	15
16	192 13.6	+02.6	N 21 21.2	+00.0	16
17	207 16.2	+02.6	N 21 21.2	+00.0	17
18	222 18.8	+02.6	N 21 21.2	+00.1	18
19	237 21.4	+02.7	N 21 21.3	+00.0	19
20	252 24.1	+02.6	N 21 21.3	+00.0	20
21	267 26.7	+02.6	N 21 21.3	+00.1	21
22	282 29.3	+02.6	N 21 21.4	+00.0	22
23	297 31.9	+02.6	N 21 21.4	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	243°	243°

Greenwich Culmination Time: 03:13

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	71 38.1	+02.5	S 04 06.2	+00.0	00
01	86 40.6	+02.4	S 04 06.2	+00.0	01
02	101 43.0	+02.5	S 04 06.2	+00.0	02
03	116 45.5	+02.5	S 04 06.2	+00.0	03
04	131 48.0	+02.4	S 04 06.2	+00.0	04
05	146 50.4	+02.5	S 04 06.2	+00.0	05
06	161 52.9	+02.5	S 04 06.2	+00.0	06
07	176 55.4	+02.4	S 04 06.2	+00.0	07
08	191 57.8	+02.5	S 04 06.2	−00.1	08
09	207 00.3	+02.5	S 04 06.1	+00.0	09
10	222 02.8	+02.4	S 04 06.1	+00.0	10
11	237 05.2	+02.5	S 04 06.1	+00.0	11
12	252 07.7	+02.4	S 04 06.1	+00.0	12
13	267 10.1	+02.5	S 04 06.1	+00.0	13
14	282 12.6	+02.5	S 04 06.1	+00.0	14
15	297 15.1	+02.4	S 04 06.1	+00.0	15
16	312 17.5	+02.5	S 04 06.1	+00.0	16
17	327 20.0	+02.4	S 04 06.1	−00.1	17
18	342 22.4	+02.5	S 04 06.0	+00.0	18
19	357 24.9	+02.5	S 04 06.0	+00.0	19
20	12 27.4	+02.4	S 04 06.0	+00.0	20
21	27 29.8	+02.5	S 04 06.0	+00.0	21
22	42 32.3	+02.4	S 04 06.0	+00.0	22
23	57 34.7	+02.5	S 04 06.0	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:10

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Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 51.6	−00.3	S 21 38.7	+00.4
01	197 51.3	−00.2	S 21 39.1	+00.4
02	212 51.1	−00.2	S 21 39.5	+00.5
03	227 50.9	−00.2	S 21 40.0	+00.4
04	242 50.7	−00.3	S 21 40.4	+00.4
05	257 50.4	−00.2	S 21 40.8	+00.4
06	272 50.2	−00.2	S 21 41.2	+00.4
07	287 50.0	−00.2	S 21 41.6	+00.4
08	302 49.8	−00.3	S 21 42.0	+00.4
09	317 49.5	−00.2	S 21 42.4	+00.4
10	332 49.3	−00.2	S 21 42.8	+00.4
11	347 49.1	−00.3	S 21 43.2	+00.4
12	2 48.8	−00.2	S 21 43.6	+00.3
13	17 48.6	−00.2	S 21 43.9	+00.4
14	32 48.4	−00.2	S 21 44.3	+00.4
15	47 48.2	−00.3	S 21 44.7	+00.4
16	62 47.9	−00.2	S 21 45.1	+00.4
17	77 47.7	−00.2	S 21 45.5	+00.4
18	92 47.5	−00.3	S 21 45.9	+00.4
19	107 47.2	−00.2	S 21 46.3	+00.4
20	122 47.0	−00.2	S 21 46.7	+00.4
21	137 46.8	−00.3	S 21 47.1	+00.4
22	152 46.5	−00.2	S 21 47.5	+00.4
23	167 46.3	−00.2	S 21 47.9	+00.4

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	114°	113°	113°	113°	113°	113°

Greenwich Culmination Time: 11:48

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	192 13.9	−00.7	S 19 11.9	+00.8
01	207 13.2	−00.8	S 19 12.7	+00.8
02	222 12.4	−00.8	S 19 13.5	+00.7
03	237 11.6	−00.7	S 19 14.2	+00.8
04	252 10.9	−00.8	S 19 15.0	+00.8
05	267 10.1	−00.7	S 19 15.8	+00.7
06	282 09.4	−00.8	S 19 16.5	+00.8
07	297 08.6	−00.8	S 19 17.3	+00.8
08	312 07.8	−00.8	S 19 18.1	+00.7
09	327 07.0	−00.7	S 19 18.8	+00.8
10	342 06.3	−00.8	S 19 19.6	+00.8
11	357 05.5	−00.8	S 19 20.4	+00.7
12	12 04.7	−00.7	S 19 21.1	+00.8
13	27 04.0	−00.8	S 19 21.9	+00.7
14	42 03.2	−00.8	S 19 22.6	+00.8
15	57 02.4	−00.7	S 19 23.4	+00.7
16	72 01.7	−00.8	S 19 24.1	+00.8
17	87 00.9	−00.8	S 19 24.9	+00.7
18	102 00.1	−00.8	S 19 25.6	+00.8
19	116 59.3	−00.7	S 19 26.4	+00.8
20	131 58.6	−00.8	S 19 27.2	+00.7
21	146 57.8	−00.8	S 19 27.9	+00.8
22	161 57.0	−00.8	S 19 28.7	+00.7
23	176 56.2	−00.7	S 19 29.4	+00.7

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	123°	123°	123°	122°	122°	122°

Greenwich Culmination Time: 11:11

Moon

A: 32%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	70 14.0	−28.2	N 00 56.6	+16.5
01	84 45.8	−28.2	N 01 13.1	+16.5
02	99 17.6	−28.3	N 01 29.6	+16.5
03	113 49.3	−28.4	N 01 46.1	+16.6
04	128 20.9	−28.4	N 02 02.7	+16.5
05	142 52.5	−28.4	N 02 19.2	+16.6
06	157 24.1	−28.5	N 02 35.8	+16.6
07	171 55.6	−28.6	N 02 52.4	+16.6
08	186 27.0	−28.6	N 03 09.0	+16.5
09	200 58.4	−28.7	N 03 25.5	+16.6
10	215 29.7	−28.7	N 03 42.1	+16.7
11	230 01.0	−28.8	N 03 58.8	+16.6
12	244 32.2	−28.9	N 04 15.4	+16.6
13	259 03.3	−28.9	N 04 32.0	+16.6
14	273 34.4	−29.0	N 04 48.6	+16.6
15	288 05.4	−29.1	N 05 05.2	+16.6
16	302 36.3	−29.1	N 05 21.8	+16.6
17	317 07.2	−29.3	N 05 38.4	+16.6
18	331 37.9	−29.2	N 05 55.0	+16.5
19	346 08.7	−29.4	N 06 11.5	+16.6
20	0 39.3	−29.4	N 06 28.1	+16.6
21	15 09.9	−29.5	N 06 44.7	+16.5
22	29 40.4	−29.6	N 07 01.2	+16.5
23	44 10.8	−29.7	N 07 17.7	+16.5

UT	02	06	10	14	18	22
SD	16′0	16′1	16′1	16′2	16′2	16′2
HP	58′8	59′0	59′1	59′3	59′4	59′6
SHA	000°	358°	356°	354°	352°	350°

Greenwich Culmination Time: 19:57

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	171 37.6	+00.5	S 23 35.9	+00.2
01	186 38.1	+00.5	S 23 36.1	+00.1
02	201 38.6	+00.4	S 23 36.2	+00.2
03	216 39.0	+00.5	S 23 36.4	+00.2
04	231 39.5	+00.4	S 23 36.6	+00.2
05	246 39.9	+00.5	S 23 36.8	+00.1
06	261 40.4	+00.4	S 23 36.9	+00.2
07	276 40.8	+00.5	S 23 37.1	+00.2
08	291 41.3	+00.4	S 23 37.3	+00.2
09	306 41.7	+00.5	S 23 37.5	+00.2
10	321 42.2	+00.4	S 23 37.7	+00.1
11	336 42.6	+00.5	S 23 37.8	+00.2
12	351 43.1	+00.4	S 23 38.0	+00.2
13	6 43.5	+00.5	S 23 38.2	+00.2
14	21 44.0	+00.4	S 23 38.4	+00.1
15	36 44.4	+00.5	S 23 38.5	+00.2
16	51 44.9	+00.4	S 23 38.7	+00.2
17	66 45.3	+00.5	S 23 38.9	+00.1
18	81 45.8	+00.4	S 23 39.0	+00.2
19	96 46.2	+00.5	S 23 39.2	+00.2
20	111 46.7	+00.4	S 23 39.4	+00.2
21	126 47.1	+00.5	S 23 39.6	+00.1
22	141 47.6	+00.4	S 23 39.7	+00.2
23	156 48.0	+00.5	S 23 39.9	+00.2

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	102°	102°	102°	102°	102°	102°

Greenwich Culmination Time: 12:33

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	312 34.5	+02.7	N 21 21.4	+00.1
01	327 37.2	+02.6	N 21 21.5	+00.0
02	342 39.8	+02.6	N 21 21.5	+00.0
03	357 42.4	+02.6	N 21 21.5	+00.1
04	12 45.0	+02.7	N 21 21.6	+00.0
05	27 47.7	+02.6	N 21 21.6	+00.0
06	42 50.3	+02.6	N 21 21.6	+00.1
07	57 52.9	+02.6	N 21 21.7	+00.0
08	72 55.5	+02.6	N 21 21.7	+00.0
09	87 58.1	+02.7	N 21 21.7	+00.1
10	103 00.8	+02.6	N 21 21.8	+00.0
11	118 03.4	+02.6	N 21 21.8	+00.0
12	133 06.0	+02.6	N 21 21.8	+00.1
13	148 08.6	+02.7	N 21 21.9	+00.0
14	163 11.3	+02.6	N 21 21.9	+00.0
15	178 13.9	+02.6	N 21 21.9	+00.1
16	193 16.5	+02.7	N 21 22.0	+00.0
17	208 19.2	+02.6	N 21 22.0	+00.0
18	223 21.8	+02.6	N 21 22.0	+00.1
19	238 24.4	+02.6	N 21 22.1	+00.0
20	253 27.0	+02.7	N 21 22.1	+00.0
21	268 29.7	+02.6	N 21 22.1	+00.1
22	283 32.3	+02.6	N 21 22.2	+00.0
23	298 34.9	+02.7	N 21 22.2	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	243°	243°	243°	243°	244°	244°

Greenwich Culmination Time: 03:09

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	72 37.2	+02.5	S 04 06.0	+00.0
01	87 39.7	+02.4	S 04 06.0	+00.0
02	102 42.1	+02.5	S 04 06.0	−00.1
03	117 44.6	+02.4	S 04 05.9	+00.0
04	132 47.0	+02.5	S 04 05.9	+00.0
05	147 49.5	+02.5	S 04 05.9	+00.0
06	162 52.0	+02.4	S 04 05.9	+00.0
07	177 54.4	+02.5	S 04 05.9	+00.0
08	192 56.9	+02.4	S 04 05.9	+00.0
09	207 59.3	+02.5	S 04 05.9	+00.0
10	223 01.8	+02.5	S 04 05.9	+00.0
11	238 04.3	+02.4	S 04 05.9	−00.1
12	253 06.7	+02.5	S 04 05.8	+00.0
13	268 09.2	+02.4	S 04 05.8	+00.0
14	283 11.6	+02.5	S 04 05.8	+00.0
15	298 14.1	+02.4	S 04 05.8	+00.0
16	313 16.5	+02.5	S 04 05.8	+00.0
17	328 19.0	+02.5	S 04 05.8	+00.0
18	343 21.5	+02.4	S 04 05.8	−00.1
19	358 23.9	+02.5	S 04 05.7	+00.0
20	13 26.4	+02.4	S 04 05.7	+00.0
21	28 28.8	+02.5	S 04 05.7	+00.0
22	43 31.3	+02.4	S 04 05.7	+00.0
23	58 33.7	+02.5	S 04 05.7	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:06

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2025 December 1 Monday

(day 335 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 46.1	−00.2	S 21 48.3	+00.3	00
01	197 45.9	−00.3	S 21 48.6	+00.4	01
02	212 45.6	−00.2	S 21 49.0	+00.4	02
03	227 45.4	−00.2	S 21 49.4	+00.4	03
04	242 45.2	−00.3	S 21 49.8	+00.4	04
05	257 44.9	−00.2	S 21 50.2	+00.4	05
06	272 44.7	−00.2	S 21 50.6	+00.4	06
07	287 44.5	−00.3	S 21 51.0	+00.3	07
08	302 44.2	−00.2	S 21 51.3	+00.4	08
09	317 44.0	−00.2	S 21 51.7	+00.4	09
10	332 43.8	−00.3	S 21 52.1	+00.4	10
11	347 43.5	−00.2	S 21 52.5	+00.4	11
12	2 43.3	−00.2	S 21 52.9	+00.3	12
13	17 43.1	−00.3	S 21 53.2	+00.4	13
14	32 42.8	−00.2	S 21 53.6	+00.4	14
15	47 42.6	−00.3	S 21 54.0	+00.4	15
16	62 42.3	−00.2	S 21 54.4	+00.4	16
17	77 42.1	−00.2	S 21 54.8	+00.3	17
18	92 41.9	−00.3	S 21 55.1	+00.4	18
19	107 41.6	−00.2	S 21 55.5	+00.4	19
20	122 41.4	−00.2	S 21 55.9	+00.3	20
21	137 41.2	−00.3	S 21 56.2	+00.4	21
22	152 40.9	−00.2	S 21 56.6	+00.4	22
23	167 40.7	−00.3	S 21 57.0	+00.4	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	113°	112°	112°	112°	112°	112°

Greenwich Culmination Time: 11:49

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	191 55.5	−00.8	S 19 30.1	+00.8	00
01	206 54.7	−00.8	S 19 30.9	+00.7	01
02	221 53.9	−00.8	S 19 31.6	+00.8	02
03	236 53.1	−00.7	S 19 32.4	+00.7	03
04	251 52.4	−00.8	S 19 33.1	+00.8	04
05	266 51.6	−00.8	S 19 33.9	+00.7	05
06	281 50.8	−00.8	S 19 34.6	+00.8	06
07	296 50.0	−00.8	S 19 35.4	+00.7	07
08	311 49.2	−00.7	S 19 36.1	+00.7	08
09	326 48.5	−00.8	S 19 36.8	+00.8	09
10	341 47.7	−00.8	S 19 37.6	+00.7	10
11	356 46.9	−00.8	S 19 38.3	+00.8	11
12	11 46.1	−00.8	S 19 39.1	+00.7	12
13	26 45.3	−00.7	S 19 39.8	+00.7	13
14	41 44.6	−00.8	S 19 40.5	+00.8	14
15	56 43.8	−00.8	S 19 41.3	+00.7	15
16	71 43.0	−00.8	S 19 42.0	+00.7	16
17	86 42.2	−00.8	S 19 42.7	+00.8	17
18	101 41.4	−00.8	S 19 43.5	+00.7	18
19	116 40.6	−00.7	S 19 44.2	+00.7	19
20	131 39.9	−00.8	S 19 44.9	+00.7	20
21	146 39.1	−00.8	S 19 45.6	+00.8	21
22	161 38.3	−00.8	S 19 46.4	+00.7	22
23	176 37.5	−00.8	S 19 47.1	+00.7	23

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	122°	121°	121°	121°	121°	121°

Greenwich Culmination Time: 11:12

Moon

A: 36%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	58 41.1	−29.8	N 07 34.2	+16.5	00
01	73 11.3	−29.8	N 07 50.7	+16.5	01
02	87 41.5	−29.9	N 08 07.2	+16.5	02
03	102 11.6	−30.0	N 08 23.7	+16.4	03
04	116 41.6	−30.1	N 08 40.1	+16.4	04
05	131 11.5	−30.2	N 08 56.5	+16.4	05
06	145 41.3	−30.3	N 09 12.9	+16.3	06
07	160 11.0	−30.4	N 09 29.2	+16.3	07
08	174 40.6	−30.5	N 09 45.5	+16.3	08
09	189 10.1	−30.5	N 10 01.8	+16.2	09
10	203 39.6	−30.7	N 10 18.0	+16.3	10
11	218 08.9	−30.7	N 10 34.3	+16.1	11
12	232 38.2	−30.9	N 10 50.4	+16.1	12
13	247 07.3	−30.9	N 11 06.5	+16.1	13
14	261 36.4	−31.1	N 11 22.6	+16.1	14
15	276 05.3	−31.2	N 11 38.7	+16.0	15
16	290 34.1	−31.2	N 11 54.7	+15.9	16
17	305 02.9	−31.4	N 12 10.6	+15.9	17
18	319 31.5	−31.5	N 12 26.5	+15.9	18
19	334 00.0	−31.5	N 12 42.4	+15.7	19
20	348 28.5	−31.7	N 12 58.1	+15.8	20
21	2 56.8	−31.9	N 13 13.9	+15.6	21
22	17 24.9	−31.9	N 13 29.5	+15.7	22
23	31 53.0	−32.0	N 13 45.2	+15.5	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′4	16′4	16′5
HP	59′7	59′9	60′0	60′1	60′3	60′4
SHA	348°	345°	343°	341°	339°	336°

Greenwich Culmination Time: 20:47

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	171 48.5	+00.4	S 23 40.1	+00.1	00
01	186 48.9	+00.5	S 23 40.2	+00.2	01
02	201 49.4	+00.4	S 23 40.4	+00.2	02
03	216 49.8	+00.5	S 23 40.6	+00.2	03
04	231 50.3	+00.4	S 23 40.8	+00.1	04
05	246 50.7	+00.4	S 23 40.9	+00.2	05
06	261 51.1	+00.5	S 23 41.1	+00.2	06
07	276 51.6	+00.4	S 23 41.3	+00.1	07
08	291 52.0	+00.5	S 23 41.4	+00.2	08
09	306 52.5	+00.4	S 23 41.6	+00.2	09
10	321 52.9	+00.5	S 23 41.8	+00.1	10
11	336 53.4	+00.4	S 23 41.9	+00.2	11
12	351 53.8	+00.5	S 23 42.1	+00.2	12
13	6 54.3	+00.4	S 23 42.3	+00.1	13
14	21 54.7	+00.5	S 23 42.4	+00.2	14
15	36 55.2	+00.4	S 23 42.6	+00.1	15
16	51 55.6	+00.5	S 23 42.7	+00.2	16
17	66 56.1	+00.4	S 23 42.9	+00.2	17
18	81 56.5	+00.4	S 23 43.1	+00.1	18
19	96 56.9	+00.5	S 23 43.2	+00.2	19
20	111 57.4	+00.4	S 23 43.4	+00.2	20
21	126 57.8	+00.5	S 23 43.6	+00.1	21
22	141 58.3	+00.4	S 23 43.7	+00.2	22
23	156 58.7	+00.5	S 23 43.9	+00.1	23

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	102°	101°	101°	101°	101°	101°

Greenwich Culmination Time: 12:32

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	313 37.6	+02.6	N 21 22.2	+00.1	00
01	328 40.2	+02.6	N 21 22.3	+00.0	01
02	343 42.8	+02.6	N 21 22.3	+00.0	02
03	358 45.4	+02.7	N 21 22.3	+00.1	03
04	13 48.1	+02.6	N 21 22.4	+00.0	04
05	28 50.7	+02.6	N 21 22.4	+00.0	05
06	43 53.3	+02.7	N 21 22.4	+00.1	06
07	58 56.0	+02.6	N 21 22.5	+00.0	07
08	73 58.6	+02.6	N 21 22.5	+00.0	08
09	89 01.2	+02.7	N 21 22.5	+00.1	09
10	104 03.9	+02.6	N 21 22.6	+00.0	10
11	119 06.5	+02.6	N 21 22.6	+00.0	11
12	134 09.1	+02.7	N 21 22.6	+00.1	12
13	149 11.8	+02.6	N 21 22.7	+00.0	13
14	164 14.4	+02.6	N 21 22.7	+00.1	14
15	179 17.0	+02.7	N 21 22.8	+00.0	15
16	194 19.7	+02.6	N 21 22.8	+00.0	16
17	209 22.3	+02.6	N 21 22.8	+00.1	17
18	224 24.9	+02.7	N 21 22.9	+00.0	18
19	239 27.6	+02.6	N 21 22.9	+00.0	19
20	254 30.2	+02.7	N 21 22.9	+00.1	20
21	269 32.9	+02.6	N 21 23.0	+00.0	21
22	284 35.5	+02.6	N 21 23.0	+00.0	22
23	299 38.1	+02.7	N 21 23.0	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 03:04

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	73 36.2	+02.5	S 04 05.7	+00.0	00
01	88 38.7	+02.4	S 04 05.7	+00.0	01
02	103 41.1	+02.5	S 04 05.7	−00.1	02
03	118 43.6	+02.4	S 04 05.6	+00.0	03
04	133 46.0	+02.5	S 04 05.6	+00.0	04
05	148 48.5	+02.4	S 04 05.6	+00.0	05
06	163 50.9	+02.5	S 04 05.6	+00.0	06
07	178 53.4	+02.4	S 04 05.6	+00.0	07
08	193 55.8	+02.5	S 04 05.6	+00.0	08
09	208 58.3	+02.5	S 04 05.6	−00.1	09
10	224 00.8	+02.4	S 04 05.5	+00.0	10
11	239 03.2	+02.5	S 04 05.5	+00.0	11
12	254 05.7	+02.4	S 04 05.5	+00.0	12
13	269 08.1	+02.5	S 04 05.5	+00.0	13
14	284 10.6	+02.4	S 04 05.5	+00.0	14
15	299 13.0	+02.5	S 04 05.5	+00.0	15
16	314 15.5	+02.4	S 04 05.5	−00.1	16
17	329 17.9	+02.5	S 04 05.4	+00.0	17
18	344 20.4	+02.4	S 04 05.4	+00.0	18
19	359 22.8	+02.5	S 04 05.4	+00.0	19
20	14 25.3	+02.4	S 04 05.4	+00.0	20
21	29 27.7	+02.5	S 04 05.4	+00.0	21
22	44 30.2	+02.4	S 04 05.4	+00.0	22
23	59 32.6	+02.5	S 04 05.4	−00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 19:02

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 December 2 Tuesday

(day 336 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 40.4	-00.2	S 21 57.4	+00.3	00
01	197 40.2	-00.2	S 21 57.7	+00.4	01
02	212 40.0	-00.3	S 21 58.1	+00.4	02
03	227 39.7	-00.2	S 21 58.5	+00.3	03
04	242 39.5	-00.2	S 21 58.8	+00.4	04
05	257 39.3	-00.3	S 21 59.2	+00.4	05
06	272 39.0	-00.2	S 21 59.6	+00.3	06
07	287 38.8	-00.3	S 21 59.9	+00.4	07
08	302 38.5	-00.2	S 22 00.3	+00.4	08
09	317 38.3	-00.2	S 22 00.7	+00.3	09
10	332 38.1	-00.3	S 22 01.0	+00.4	10
11	347 37.8	-00.2	S 22 01.4	+00.4	11
12	2 37.6	-00.3	S 22 01.8	+00.3	12
13	17 37.3	-00.2	S 22 02.1	+00.4	13
14	32 37.1	-00.3	S 22 02.5	+00.3	14
15	47 36.8	-00.2	S 22 02.8	+00.4	15
16	62 36.6	-00.2	S 22 03.2	+00.4	16
17	77 36.4	-00.3	S 22 03.6	+00.3	17
18	92 36.1	-00.2	S 22 03.9	+00.4	18
19	107 35.9	-00.3	S 22 04.3	+00.3	19
20	122 35.6	-00.2	S 22 04.6	+00.4	20
21	137 35.4	-00.3	S 22 05.0	+00.3	21
22	152 35.1	-00.2	S 22 05.3	+00.4	22
23	167 34.9	-00.2	S 22 05.7	+00.3	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	111°	111°	111°	111°	111°	111°

Greenwich Culmination Time: 11:49

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	191 36.7	-00.8	S 19 47.8	+00.7	00
01	206 35.9	-00.8	S 19 48.5	+00.8	01
02	221 35.1	-00.8	S 19 49.3	+00.7	02
03	236 34.3	-00.8	S 19 50.0	+00.7	03
04	251 33.5	-00.7	S 19 50.7	+00.7	04
05	266 32.8	-00.8	S 19 51.4	+00.7	05
06	281 32.0	-00.8	S 19 52.1	+00.8	06
07	296 31.2	-00.8	S 19 52.9	+00.7	07
08	311 30.4	-00.8	S 19 53.6	+00.7	08
09	326 29.6	-00.8	S 19 54.3	+00.7	09
10	341 28.8	-00.8	S 19 55.0	+00.7	10
11	356 28.0	-00.8	S 19 55.7	+00.7	11
12	11 27.2	-00.8	S 19 56.4	+00.8	12
13	26 26.4	-00.8	S 19 57.2	+00.7	13
14	41 25.6	-00.8	S 19 57.9	+00.7	14
15	56 24.8	-00.8	S 19 58.6	+00.7	15
16	71 24.0	-00.8	S 19 59.3	+00.7	16
17	86 23.2	-00.8	S 19 60.0	+00.7	17
18	101 22.4	-00.8	S 20 00.7	+00.7	18
19	116 21.6	-00.8	S 20 01.4	+00.7	19
20	131 20.8	-00.8	S 20 02.1	+00.7	20
21	146 20.0	-00.7	S 20 02.8	+00.7	21
22	161 19.3	-00.8	S 20 03.5	+00.7	22
23	176 18.5	-00.8	S 20 04.2	+00.7	23

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	120°	120°	120°	120°	120°	119°

Greenwich Culmination Time: 11:14

Moon

A: 39%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	46 21.0	-32.1	N 14 00.7	+15.5	00
01	60 48.9	-32.3	N 14 16.2	+15.4	01
02	75 16.6	-32.4	N 14 31.6	+15.3	02
03	89 44.2	-32.5	N 14 46.9	+15.3	03
04	104 11.7	-32.6	N 15 02.2	+15.2	04
05	118 39.1	-32.7	N 15 17.4	+15.1	05
06	133 06.4	-32.9	N 15 32.5	+15.1	06
07	147 33.5	-33.0	N 15 47.6	+14.9	07
08	162 00.5	-33.1	N 16 02.5	+14.9	08
09	176 27.4	-33.2	N 16 17.4	+14.8	09
10	190 54.2	-33.3	N 16 32.2	+14.7	10
11	205 20.9	-33.5	N 16 46.9	+14.6	11
12	219 47.4	-33.6	N 17 01.5	+14.5	12
13	234 13.8	-33.7	N 17 16.0	+14.5	13
14	248 40.1	-33.9	N 17 30.5	+14.3	14
15	263 06.2	-34.0	N 17 44.8	+14.2	15
16	277 32.2	-34.1	N 17 59.0	+14.1	16
17	291 58.1	-34.2	N 18 13.1	+14.0	17
18	306 23.9	-34.4	N 18 27.1	+14.0	18
19	320 49.5	-34.5	N 18 41.1	+13.8	19
20	335 15.0	-34.6	N 18 54.9	+13.6	20
21	349 40.4	-34.7	N 19 08.5	+13.6	21
22	4 05.7	-34.9	N 19 22.1	+13.5	22
23	18 30.8	-35.0	N 19 35.6	+13.3	23

UT	02	06	10	14	18	22
SD	16′5	16′5	16′5	16′6	16′6	16′6
HP	60′5	60′6	60′7	60′8	60′9	61′0
SHA	334°	332°	329°	327°	325°	322°

Greenwich Culmination Time: 21:42

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	171 59.2	+00.4	S 23 44.0	+00.2	00
01	186 59.6	+00.5	S 23 44.2	+00.2	01
02	202 00.1	+00.4	S 23 44.4	+00.1	02
03	217 00.5	+00.4	S 23 44.5	+00.2	03
04	232 00.9	+00.5	S 23 44.7	+00.1	04
05	247 01.4	+00.4	S 23 44.8	+00.2	05
06	262 01.8	+00.5	S 23 45.0	+00.2	06
07	277 02.3	+00.4	S 23 45.2	+00.1	07
08	292 02.7	+00.5	S 23 45.3	+00.2	08
09	307 03.2	+00.4	S 23 45.5	+00.1	09
10	322 03.6	+00.4	S 23 45.6	+00.2	10
11	337 04.0	+00.5	S 23 45.8	+00.1	11
12	352 04.5	+00.4	S 23 45.9	+00.2	12
13	7 04.9	+00.5	S 23 46.1	+00.1	13
14	22 05.4	+00.4	S 23 46.2	+00.2	14
15	37 05.8	+00.5	S 23 46.4	+00.1	15
16	52 06.3	+00.4	S 23 46.5	+00.2	16
17	67 06.7	+00.4	S 23 46.7	+00.2	17
18	82 07.1	+00.5	S 23 46.9	+00.1	18
19	97 07.6	+00.4	S 23 47.0	+00.2	19
20	112 08.0	+00.5	S 23 47.2	+00.1	20
21	127 08.5	+00.4	S 23 47.3	+00.2	21
22	142 08.9	+00.4	S 23 47.5	+00.1	22
23	157 09.3	+00.5	S 23 47.6	+00.2	23

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	101°	101°	101°	100°	100°	100°

Greenwich Culmination Time: 12:31

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	314 40.8	+02.6	N 21 23.1	+00.0	00
01	329 43.4	+02.6	N 21 23.1	+00.0	01
02	344 46.0	+02.7	N 21 23.1	+00.1	02
03	359 48.7	+02.6	N 21 23.2	+00.0	03
04	14 51.3	+02.7	N 21 23.2	+00.1	04
05	29 54.0	+02.6	N 21 23.3	+00.0	05
06	44 56.6	+02.6	N 21 23.3	+00.0	06
07	59 59.2	+02.7	N 21 23.3	+00.1	07
08	75 01.9	+02.6	N 21 23.4	+00.0	08
09	90 04.5	+02.7	N 21 23.4	+00.0	09
10	105 07.2	+02.6	N 21 23.4	+00.1	10
11	120 09.8	+02.6	N 21 23.5	+00.0	11
12	135 12.4	+02.7	N 21 23.5	+00.0	12
13	150 15.1	+02.6	N 21 23.5	+00.1	13
14	165 17.7	+02.7	N 21 23.6	+00.0	14
15	180 20.4	+02.6	N 21 23.6	+00.0	15
16	195 23.0	+02.7	N 21 23.6	+00.1	16
17	210 25.7	+02.6	N 21 23.7	+00.0	17
18	225 28.3	+02.6	N 21 23.7	+00.1	18
19	240 30.9	+02.7	N 21 23.8	+00.0	19
20	255 33.6	+02.6	N 21 23.8	+00.0	20
21	270 36.2	+02.7	N 21 23.8	+00.1	21
22	285 38.9	+02.6	N 21 23.9	+00.0	22
23	300 41.5	+02.7	N 21 23.9	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 03:00

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	74 35.1	+02.4	S 04 05.3	+00.0	00
01	89 37.5	+02.5	S 04 05.3	+00.0	01
02	104 40.0	+02.4	S 04 05.3	+00.0	02
03	119 42.4	+02.5	S 04 05.3	+00.0	03
04	134 44.9	+02.5	S 04 05.3	+00.0	04
05	149 47.4	+02.4	S 04 05.3	+00.0	05
06	164 49.8	+02.5	S 04 05.3	-00.1	06
07	179 52.3	+02.4	S 04 05.2	+00.0	07
08	194 54.7	+02.5	S 04 05.2	+00.0	08
09	209 57.2	+02.4	S 04 05.2	+00.0	09
10	224 59.6	+02.5	S 04 05.2	+00.0	10
11	240 02.1	+02.4	S 04 05.2	+00.0	11
12	255 04.5	+02.5	S 04 05.2	-00.1	12
13	270 07.0	+02.4	S 04 05.1	+00.0	13
14	285 09.4	+02.5	S 04 05.1	+00.0	14
15	300 11.9	+02.4	S 04 05.1	+00.0	15
16	315 14.3	+02.5	S 04 05.1	+00.0	16
17	330 16.8	+02.4	S 04 05.1	+00.0	17
18	345 19.2	+02.4	S 04 05.1	-00.1	18
19	0 21.6	+02.5	S 04 05.0	+00.0	19
20	15 24.1	+02.4	S 04 05.0	+00.0	20
21	30 26.5	+02.5	S 04 05.0	+00.0	21
22	45 29.0	+02.4	S 04 05.0	+00.0	22
23	60 31.4	+02.5	S 04 05.0	+00.0	23

UT	02	06	10	14	18	22
SD	00′2	00′2	00′2	00′2	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:58

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!

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 34.7	-00.3	S 22 06.0	+00.4
01	197 34.4	-00.2	S 22 06.4	+00.4
02	212 34.2	-00.3	S 22 06.8	+00.3
03	227 33.9	-00.2	S 22 07.1	+00.4
04	242 33.7	-00.3	S 22 07.5	+00.3
05	257 33.4	-00.2	S 22 07.8	+00.4
06	272 33.2	-00.3	S 22 08.2	+00.3
07	287 32.9	-00.2	S 22 08.5	+00.3
08	302 32.7	-00.3	S 22 08.8	+00.4
09	317 32.4	-00.2	S 22 09.2	+00.3
10	332 32.2	-00.2	S 22 09.5	+00.4
11	347 32.0	-00.3	S 22 09.9	+00.3
12	2 31.7	-00.2	S 22 10.2	+00.4
13	17 31.5	-00.3	S 22 10.6	+00.3
14	32 31.2	-00.2	S 22 10.9	+00.4
15	47 31.0	-00.3	S 22 11.3	+00.3
16	62 30.7	-00.2	S 22 11.6	+00.3
17	77 30.5	-00.3	S 22 11.9	+00.4
18	92 30.2	-00.2	S 22 12.3	+00.3
19	107 30.0	-00.3	S 22 12.6	+00.4
20	122 29.7	-00.2	S 22 13.0	+00.3
21	137 29.5	-00.3	S 22 13.3	+00.3
22	152 29.2	-00.2	S 22 13.6	+00.4
23	167 29.0	-00.3	S 22 14.0	+00.3

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	110°	110°	110°	110°	110°	110°

Greenwich Culmination Time: 11:49

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	191 17.7	-00.8	S 20 04.9	+00.7
01	206 16.9	-00.8	S 20 05.6	+00.7
02	221 16.1	-00.8	S 20 06.3	+00.7
03	236 15.3	-00.9	S 20 07.0	+00.7
04	251 14.4	-00.8	S 20 07.7	+00.7
05	266 13.6	-00.8	S 20 08.4	+00.7
06	281 12.8	-00.8	S 20 09.1	+00.7
07	296 12.0	-00.8	S 20 09.8	+00.7
08	311 11.2	-00.8	S 20 10.5	+00.7
09	326 10.4	-00.8	S 20 11.2	+00.7
10	341 09.6	-00.8	S 20 11.9	+00.7
11	356 08.8	-00.8	S 20 12.6	+00.7
12	11 08.0	-00.8	S 20 13.3	+00.7
13	26 07.2	-00.8	S 20 14.0	+00.6
14	41 06.4	-00.8	S 20 14.6	+00.7
15	56 05.6	-00.8	S 20 15.3	+00.7
16	71 04.8	-00.8	S 20 16.0	+00.7
17	86 04.0	-00.8	S 20 16.7	+00.7
18	101 03.2	-00.8	S 20 17.4	+00.7
19	116 02.4	-00.8	S 20 18.1	+00.7
20	131 01.6	-00.9	S 20 18.8	+00.6
21	146 00.7	-00.8	S 20 19.4	+00.7
22	160 59.9	-00.8	S 20 20.1	+00.7
23	175 59.1	-00.8	S 20 20.8	+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	119°	119°	119°	118°	118°	118°

Greenwich Culmination Time: 11:15

Moon

A: 43%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	32 55.8	-35.2	N 19 48.9	+13.2
01	47 20.6	-35.3	N 20 02.1	+13.1
02	61 45.3	-35.4	N 20 15.2	+13.0
03	76 09.9	-35.5	N 20 28.2	+12.8
04	90 34.4	-35.7	N 20 41.0	+12.7
05	104 58.7	-35.8	N 20 53.7	+12.6
06	119 22.9	-35.9	N 21 06.3	+12.4
07	133 47.0	-36.1	N 21 18.7	+12.3
08	148 10.9	-36.2	N 21 31.0	+12.2
09	162 34.7	-36.3	N 21 43.2	+12.0
10	176 58.4	-36.4	N 21 55.2	+11.9
11	191 22.0	-36.6	N 22 07.1	+11.7
12	205 45.4	-36.7	N 22 18.8	+11.5
13	220 08.7	-36.9	N 22 30.3	+11.5
14	234 31.8	-36.9	N 22 41.8	+11.2
15	248 54.9	-37.1	N 22 53.0	+11.1
16	263 17.8	-37.2	N 23 04.1	+10.9
17	277 40.6	-37.4	N 23 15.0	+10.8
18	292 03.2	-37.4	N 23 25.8	+10.6
19	306 25.8	-37.6	N 23 36.4	+10.5
20	320 48.2	-37.7	N 23 46.9	+10.2
21	335 10.5	-37.8	N 23 57.1	+10.1
22	349 32.7	-37.9	N 24 07.2	+10.0
23	3 54.8	-38.1	N 24 17.2	+09.7

UT	02	06	10	14	18	22
SD	16′6	16′7	16′7	16′7	16′7	16′7
HP	61′1	61′2	61′2	61′3	61′3	61′3
SHA	320°	317°	314°	312°	309°	307°

Greenwich Culmination Time: 22:43

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	172 09.8	+00.4	S 23 47.8	+00.1
01	187 10.2	+00.5	S 23 47.9	+00.2
02	202 10.7	+00.4	S 23 48.1	+00.1
03	217 11.1	+00.4	S 23 48.2	+00.2
04	232 11.5	+00.5	S 23 48.4	+00.1
05	247 12.0	+00.4	S 23 48.5	+00.1
06	262 12.4	+00.5	S 23 48.6	+00.2
07	277 12.9	+00.4	S 23 48.8	+00.1
08	292 13.3	+00.4	S 23 48.9	+00.2
09	307 13.7	+00.5	S 23 49.1	+00.1
10	322 14.2	+00.4	S 23 49.2	+00.2
11	337 14.6	+00.4	S 23 49.4	+00.1
12	352 15.0	+00.5	S 23 49.5	+00.2
13	7 15.5	+00.4	S 23 49.7	+00.1
14	22 15.9	+00.5	S 23 49.8	+00.2
15	37 16.4	+00.4	S 23 50.0	+00.1
16	52 16.8	+00.4	S 23 50.1	+00.1
17	67 17.2	+00.5	S 23 50.2	+00.2
18	82 17.7	+00.4	S 23 50.4	+00.1
19	97 18.1	+00.4	S 23 50.5	+00.2
20	112 18.5	+00.5	S 23 50.7	+00.1
21	127 19.0	+00.4	S 23 50.8	+00.2
22	142 19.4	+00.4	S 23 51.0	+00.1
23	157 19.8	+00.5	S 23 51.1	+00.1

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	100°	100°	100°	100°	099°	099°

Greenwich Culmination Time: 12:30

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	315 44.2	+02.6	N 21 23.9	+00.1
01	330 46.8	+02.7	N 21 24.0	+00.0
02	345 49.5	+02.6	N 21 24.0	+00.1
03	0 52.1	+02.6	N 21 24.1	+00.0
04	15 54.7	+02.7	N 21 24.1	+00.0
05	30 57.4	+02.6	N 21 24.1	+00.1
06	46 00.0	+02.7	N 21 24.2	+00.0
07	61 02.7	+02.6	N 21 24.2	+00.0
08	76 05.3	+02.7	N 21 24.2	+00.1
09	91 08.0	+02.6	N 21 24.3	+00.0
10	106 10.6	+02.7	N 21 24.3	+00.0
11	121 13.3	+02.6	N 21 24.3	+00.1
12	136 15.9	+02.7	N 21 24.4	+00.0
13	151 18.6	+02.6	N 21 24.4	+00.1
14	166 21.2	+02.7	N 21 24.5	+00.0
15	181 23.9	+02.6	N 21 24.5	+00.0
16	196 26.5	+02.7	N 21 24.5	+00.1
17	211 29.2	+02.6	N 21 24.6	+00.0
18	226 31.8	+02.7	N 21 24.6	+00.1
19	241 34.5	+02.6	N 21 24.7	+00.0
20	256 37.1	+02.7	N 21 24.7	+00.0
21	271 39.8	+02.6	N 21 24.7	+00.1
22	286 42.4	+02.7	N 21 24.8	+00.0
23	301 45.1	+02.7	N 21 24.8	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:56

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	75 33.9	+02.4	S 04 05.0	-00.1
01	90 36.3	+02.5	S 04 04.9	+00.0
02	105 38.8	+02.4	S 04 04.9	+00.0
03	120 41.2	+02.5	S 04 04.9	+00.0
04	135 43.7	+02.4	S 04 04.9	+00.0
05	150 46.1	+02.5	S 04 04.9	+00.0
06	165 48.6	+02.4	S 04 04.9	-00.1
07	180 51.0	+02.5	S 04 04.8	+00.0
08	195 53.5	+02.4	S 04 04.8	+00.0
09	210 55.9	+02.5	S 04 04.8	+00.0
10	225 58.4	+02.4	S 04 04.8	+00.0
11	241 00.8	+02.4	S 04 04.8	+00.0
12	256 03.2	+02.5	S 04 04.8	-00.1
13	271 05.7	+02.4	S 04 04.7	+00.0
14	286 08.1	+02.5	S 04 04.7	+00.0
15	301 10.6	+02.4	S 04 04.7	+00.0
16	316 13.0	+02.5	S 04 04.7	+00.0
17	331 15.5	+02.4	S 04 04.7	-00.1
18	346 17.9	+02.5	S 04 04.6	+00.0
19	1 20.4	+02.4	S 04 04.6	+00.0
20	16 22.8	+02.5	S 04 04.6	+00.0
21	31 25.3	+02.4	S 04 04.6	+00.0
22	46 27.7	+02.4	S 04 04.6	-00.1
23	61 30.1	+02.5	S 04 04.5	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:54

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 December 4 Thursday

(day 338 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 28.7	-00.2	S 22 14.3	+00.3	00
01	197 28.5	-00.3	S 22 14.6	+00.4	01
02	212 28.2	-00.2	S 22 15.0	+00.3	02
03	227 28.0	-00.3	S 22 15.3	+00.3	03
04	242 27.7	-00.2	S 22 15.6	+00.4	04
05	257 27.5	-00.3	S 22 16.0	+00.3	05
06	272 27.2	-00.2	S 22 16.3	+00.3	06
07	287 27.0	-00.3	S 22 16.6	+00.4	07
08	302 26.7	-00.2	S 22 17.0	+00.3	08
09	317 26.5	-00.3	S 22 17.3	+00.3	09
10	332 26.2	-00.2	S 22 17.6	+00.3	10
11	347 26.0	-00.3	S 22 17.9	+00.4	11
12	2 25.7	-00.3	S 22 18.3	+00.3	12
13	17 25.4	-00.2	S 22 18.6	+00.3	13
14	32 25.2	-00.3	S 22 18.9	+00.3	14
15	47 24.9	-00.2	S 22 19.2	+00.4	15
16	62 24.7	-00.3	S 22 19.6	+00.3	16
17	77 24.4	-00.2	S 22 19.9	+00.3	17
18	92 24.2	-00.3	S 22 20.2	+00.3	18
19	107 23.9	-00.2	S 22 20.5	+00.4	19
20	122 23.7	-00.3	S 22 20.9	+00.3	20
21	137 23.4	-00.2	S 22 21.2	+00.3	21
22	152 23.2	-00.3	S 22 21.5	+00.3	22
23	167 22.9	-00.3	S 22 21.8	+00.3	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	109°	109°	109°	109°	109°	108°

Greenwich Culmination Time: 11:50

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	190 58.3	-00.8	S 20 21.5	+00.6	00
01	205 57.5	-00.8	S 20 22.1	+00.7	01
02	220 56.7	-00.8	S 20 22.8	+00.7	02
03	235 55.9	-00.8	S 20 23.5	+00.7	03
04	250 55.1	-00.9	S 20 24.2	+00.6	04
05	265 54.2	-00.8	S 20 24.8	+00.7	05
06	280 53.4	-00.8	S 20 25.5	+00.7	06
07	295 52.6	-00.8	S 20 26.2	+00.7	07
08	310 51.8	-00.8	S 20 26.9	+00.6	08
09	325 51.0	-00.8	S 20 27.5	+00.7	09
10	340 50.2	-00.8	S 20 28.2	+00.7	10
11	355 49.4	-00.9	S 20 28.9	+00.6	11
12	10 48.5	-00.8	S 20 29.5	+00.7	12
13	25 47.7	-00.8	S 20 30.2	+00.7	13
14	40 46.9	-00.8	S 20 30.9	+00.6	14
15	55 46.1	-00.8	S 20 31.5	+00.7	15
16	70 45.3	-00.9	S 20 32.2	+00.6	16
17	85 44.4	-00.8	S 20 32.8	+00.7	17
18	100 43.6	-00.8	S 20 33.5	+00.7	18
19	115 42.8	-00.8	S 20 34.2	+00.6	19
20	130 42.0	-00.8	S 20 34.8	+00.7	20
21	145 41.2	-00.9	S 20 35.5	+00.6	21
22	160 40.3	-00.8	S 20 36.1	+00.7	22
23	175 39.5	-00.8	S 20 36.8	+00.6	23

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	118°	118°	117°	117°	117°	117°

Greenwich Culmination Time: 11:16

Moon

A: 47%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	18 16.7	-38.1	N 24 26.9	+09.6	00
01	32 38.6	-38.3	N 24 36.5	+09.4	01
02	47 00.3	-38.4	N 24 45.9	+09.2	02
03	61 21.9	-38.5	N 24 55.1	+09.0	03
04	75 43.4	-38.6	N 25 04.1	+08.8	04
05	90 04.8	-38.7	N 25 12.9	+08.7	05
06	104 26.1	-38.8	N 25 21.6	+08.4	06
07	118 47.3	-38.9	N 25 30.0	+08.3	07
08	133 08.4	-39.0	N 25 38.3	+08.1	08
09	147 29.4	-39.1	N 25 46.4	+07.9	09
10	161 50.3	-39.2	N 25 54.3	+07.6	10
11	176 11.1	-39.3	N 26 01.9	+07.5	11
12	190 31.8	-39.4	N 26 09.4	+07.3	12
13	204 52.4	-39.4	N 26 16.7	+07.0	13
14	219 13.0	-39.6	N 26 23.7	+06.9	14
15	233 33.4	-39.6	N 26 30.6	+06.7	15
16	247 53.8	-39.7	N 26 37.3	+06.4	16
17	262 14.1	-39.8	N 26 43.7	+06.3	17
18	276 34.3	-39.8	N 26 50.0	+06.0	18
19	290 54.5	-39.9	N 26 56.0	+05.8	19
20	305 14.6	-40.0	N 27 01.8	+05.6	20
21	319 34.6	-40.0	N 27 07.4	+05.4	21
22	333 54.6	-40.1	N 27 12.8	+05.2	22
23	348 14.5	-40.2	N 27 18.0	+05.0	23

UT	02	06	10	14	18	22
SD	16′7	16′7	16′7	16′7	16′7	16′7
HP	61′4	61′4	61′4	61′4	61′4	61′4
SHA	304°	301°	298°	296°	293°	290°

Greenwich Culmination Time: 23:49

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	172 20.3	+00.4	S 23 51.2	+00.2	00
01	187 20.7	+00.5	S 23 51.4	+00.1	01
02	202 21.2	+00.4	S 23 51.5	+00.1	02
03	217 21.6	+00.4	S 23 51.6	+00.2	03
04	232 22.0	+00.5	S 23 51.8	+00.1	04
05	247 22.5	+00.4	S 23 51.9	+00.2	05
06	262 22.9	+00.4	S 23 52.1	+00.1	06
07	277 23.3	+00.5	S 23 52.2	+00.1	07
08	292 23.8	+00.4	S 23 52.3	+00.2	08
09	307 24.2	+00.4	S 23 52.5	+00.1	09
10	322 24.6	+00.5	S 23 52.6	+00.1	10
11	337 25.1	+00.4	S 23 52.7	+00.2	11
12	352 25.5	+00.4	S 23 52.9	+00.1	12
13	7 25.9	+00.5	S 23 53.0	+00.1	13
14	22 26.4	+00.4	S 23 53.1	+00.2	14
15	37 26.8	+00.4	S 23 53.3	+00.1	15
16	52 27.2	+00.5	S 23 53.4	+00.1	16
17	67 27.7	+00.4	S 23 53.5	+00.2	17
18	82 28.1	+00.4	S 23 53.7	+00.1	18
19	97 28.5	+00.5	S 23 53.8	+00.1	19
20	112 29.0	+00.4	S 23 53.9	+00.2	20
21	127 29.4	+00.4	S 23 54.1	+00.1	21
22	142 29.8	+00.5	S 23 54.2	+00.1	22
23	157 30.3	+00.4	S 23 54.3	+00.2	23

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	099°	099°	099°	099°	099°	099°

Greenwich Culmination Time: 12:30

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	316 47.8	+02.6	N 21 24.8	+00.1	00
01	331 50.4	+02.7	N 21 24.9	+00.0	01
02	346 53.1	+02.6	N 21 24.9	+00.1	02
03	1 55.7	+02.7	N 21 25.0	+00.0	03
04	16 58.4	+02.6	N 21 25.0	+00.0	04
05	32 01.0	+02.7	N 21 25.0	+00.1	05
06	47 03.7	+02.6	N 21 25.1	+00.0	06
07	62 06.3	+02.7	N 21 25.1	+00.0	07
08	77 09.0	+02.7	N 21 25.1	+00.1	08
09	92 11.7	+02.6	N 21 25.2	+00.0	09
10	107 14.3	+02.7	N 21 25.2	+00.1	10
11	122 17.0	+02.6	N 21 25.3	+00.0	11
12	137 19.6	+02.7	N 21 25.3	+00.0	12
13	152 22.3	+02.6	N 21 25.3	+00.1	13
14	167 24.9	+02.7	N 21 25.4	+00.0	14
15	182 27.6	+02.7	N 21 25.4	+00.1	15
16	197 30.3	+02.6	N 21 25.5	+00.0	16
17	212 32.9	+02.7	N 21 25.5	+00.0	17
18	227 35.6	+02.6	N 21 25.5	+00.1	18
19	242 38.2	+02.7	N 21 25.6	+00.0	19
20	257 40.9	+02.7	N 21 25.6	+00.1	20
21	272 43.6	+02.6	N 21 25.7	+00.0	21
22	287 46.2	+02.7	N 21 25.7	+00.0	22
23	302 48.9	+02.6	N 21 25.7	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:52

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	76 32.6	+02.4	S 04 04.5	+00.0	00
01	91 35.0	+02.5	S 04 04.5	+00.0	01
02	106 37.5	+02.4	S 04 04.5	+00.0	02
03	121 39.9	+02.5	S 04 04.5	+00.0	03
04	136 42.4	+02.4	S 04 04.5	-00.1	04
05	151 44.8	+02.4	S 04 04.4	+00.0	05
06	166 47.2	+02.5	S 04 04.4	+00.0	06
07	181 49.7	+02.4	S 04 04.4	+00.0	07
08	196 52.1	+02.5	S 04 04.4	+00.0	08
09	211 54.6	+02.4	S 04 04.4	-00.1	09
10	226 57.0	+02.5	S 04 04.3	+00.0	10
11	241 59.5	+02.4	S 04 04.3	+00.0	11
12	257 01.9	+02.4	S 04 04.3	+00.0	12
13	272 04.3	+02.5	S 04 04.3	+00.0	13
14	287 06.8	+02.4	S 04 04.3	-00.1	14
15	302 09.2	+02.5	S 04 04.2	+00.0	15
16	317 11.7	+02.4	S 04 04.2	+00.0	16
17	332 14.1	+02.4	S 04 04.2	+00.0	17
18	347 16.5	+02.5	S 04 04.2	+00.0	18
19	2 19.0	+02.4	S 04 04.2	-00.1	19
20	17 21.4	+02.5	S 04 04.1	+00.0	20
21	32 23.9	+02.4	S 04 04.1	+00.0	21
22	47 26.3	+02.4	S 04 04.1	+00.0	22
23	62 28.7	+02.5	S 04 04.1	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:50

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 December 5 Friday

(day 339 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 22.6	−00.2	S 22 22.1	+00.3
01	197 22.4	−00.3	S 22 22.4	+00.4
02	212 22.1	−00.2	S 22 22.8	+00.3
03	227 21.9	−00.3	S 22 23.1	+00.3
04	242 21.6	−00.2	S 22 23.4	+00.3
05	257 21.4	−00.3	S 22 23.7	+00.3
06	272 21.1	−00.3	S 22 24.0	+00.3
07	287 20.8	−00.2	S 22 24.3	+00.3
08	302 20.6	−00.3	S 22 24.6	+00.4
09	317 20.3	−00.2	S 22 25.0	+00.3
10	332 20.1	−00.3	S 22 25.3	+00.3
11	347 19.8	−00.3	S 22 25.6	+00.3
12	2 19.5	−00.2	S 22 25.9	+00.3
13	17 19.3	−00.3	S 22 26.2	+00.3
14	32 19.0	−00.2	S 22 26.5	+00.3
15	47 18.8	−00.3	S 22 26.8	+00.3
16	62 18.5	−00.2	S 22 27.1	+00.3
17	77 18.3	−00.3	S 22 27.4	+00.3
18	92 18.0	−00.3	S 22 27.7	+00.3
19	107 17.7	−00.2	S 22 28.0	+00.3
20	122 17.5	−00.3	S 22 28.3	+00.3
21	137 17.2	−00.3	S 22 28.6	+00.3
22	152 16.9	−00.2	S 22 28.9	+00.3
23	167 16.7	−00.3	S 22 29.2	+00.3

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	108°	108°	108°	108°	108°	107°

Greenwich Culmination Time: 11:50

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	190 38.7	−00.8	S 20 37.4	+00.7
01	205 37.9	−00.9	S 20 38.1	+00.6
02	220 37.0	−00.8	S 20 38.7	+00.7
03	235 36.2	−00.8	S 20 39.4	+00.6
04	250 35.4	−00.8	S 20 40.0	+00.7
05	265 34.6	−00.9	S 20 40.7	+00.6
06	280 33.7	−00.8	S 20 41.3	+00.7
07	295 32.9	−00.8	S 20 42.0	+00.6
08	310 32.1	−00.8	S 20 42.6	+00.7
09	325 31.3	−00.9	S 20 43.3	+00.6
10	340 30.4	−00.8	S 20 43.9	+00.7
11	355 29.6	−00.8	S 20 44.6	+00.6
12	10 28.8	−00.9	S 20 45.2	+00.6
13	25 27.9	−00.8	S 20 45.8	+00.7
14	40 27.1	−00.8	S 20 46.5	+00.6
15	55 26.3	−00.8	S 20 47.1	+00.7
16	70 25.5	−00.9	S 20 47.8	+00.6
17	85 24.6	−00.8	S 20 48.4	+00.6
18	100 23.8	−00.8	S 20 49.0	+00.7
19	115 23.0	−00.9	S 20 49.7	+00.6
20	130 22.1	−00.8	S 20 50.3	+00.6
21	145 21.3	−00.8	S 20 50.9	+00.7
22	160 20.5	−00.9	S 20 51.6	+00.6
23	175 19.6	−00.8	S 20 52.2	+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	116°	116°	116°	116°	116°	115°

Greenwich Culmination Time: 11:18

Moon

A: 52%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	2 34.3	−40.2	N 27 23.0	+04.7
01	16 54.1	−40.2	N 27 27.7	+04.5
02	31 13.9	−40.3	N 27 32.2	+04.3
03	45 33.6	−40.4	N 27 36.5	+04.1
04	59 53.2	−40.3	N 27 40.6	+03.9
05	74 12.9	−40.4	N 27 44.5	+03.6
06	88 32.5	−40.5	N 27 48.1	+03.4
07	102 52.0	−40.4	N 27 51.5	+03.2
08	117 11.6	−40.5	N 27 54.7	+03.0
09	131 31.1	−40.5	N 27 57.7	+02.7
10	145 50.6	−40.6	N 28 00.4	+02.6
11	160 10.0	−40.5	N 28 03.0	+02.3
12	174 29.5	−40.5	N 28 05.3	+02.0
13	188 49.0	−40.6	N 28 07.3	+01.9
14	203 08.4	−40.5	N 28 09.2	+01.6
15	217 27.9	−40.6	N 28 10.8	+01.4
16	231 47.3	−40.5	N 28 12.2	+01.2
17	246 06.8	−40.5	N 28 13.4	+00.9
18	260 26.3	−40.6	N 28 14.3	+00.8
19	274 45.7	−40.4	N 28 15.1	+00.5
20	289 05.3	−40.5	N 28 15.6	+00.2
21	303 24.8	−40.5	N 28 15.8	+00.1
22	317 44.3	−40.4	N 28 15.9	−00.2
23	332 03.9	−40.3	N 28 15.7	−00.4

UT	02	06	10	14	18	22
SD	16′7	16′7	16′7	16′7	16′7	16′6
HP	61′3	61′3	61′2	61′2	61′1	61′0
SHA	287°	284°	281°	279°	276°	273°

Greenwich Culmination Time: −1:00

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	172 30.7	+00.4	S 23 54.5	+00.1
01	187 31.1	+00.5	S 23 54.6	+00.1
02	202 31.6	+00.4	S 23 54.7	+00.1
03	217 32.0	+00.4	S 23 54.8	+00.2
04	232 32.4	+00.4	S 23 55.0	+00.1
05	247 32.8	+00.5	S 23 55.1	+00.1
06	262 33.3	+00.4	S 23 55.2	+00.1
07	277 33.7	+00.4	S 23 55.3	+00.2
08	292 34.1	+00.5	S 23 55.5	+00.1
09	307 34.6	+00.4	S 23 55.6	+00.1
10	322 35.0	+00.4	S 23 55.7	+00.1
11	337 35.4	+00.5	S 23 55.8	+00.2
12	352 35.9	+00.4	S 23 56.0	+00.1
13	7 36.3	+00.4	S 23 56.1	+00.1
14	22 36.7	+00.4	S 23 56.2	+00.1
15	37 37.1	+00.5	S 23 56.3	+00.2
16	52 37.6	+00.4	S 23 56.5	+00.1
17	67 38.0	+00.4	S 23 56.6	+00.1
18	82 38.4	+00.5	S 23 56.7	+00.1
19	97 38.9	+00.4	S 23 56.8	+00.2
20	112 39.3	+00.4	S 23 57.0	+00.1
21	127 39.7	+00.4	S 23 57.1	+00.1
22	142 40.1	+00.5	S 23 57.2	+00.1
23	157 40.6	+00.4	S 23 57.3	+00.1

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	098°	098°	098°	098°	098°	098°

Greenwich Culmination Time: 12:29

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	317 51.5	+02.7	N 21 25.8	+00.0
01	332 54.2	+02.7	N 21 25.8	+00.0
02	347 56.9	+02.6	N 21 25.8	+00.1
03	2 59.5	+02.7	N 21 25.9	+00.0
04	18 02.2	+02.6	N 21 25.9	+00.1
05	33 04.8	+02.7	N 21 26.0	+00.0
06	48 07.5	+02.7	N 21 26.0	+00.0
07	63 10.2	+02.6	N 21 26.0	+00.1
08	78 12.8	+02.7	N 21 26.1	+00.0
09	93 15.5	+02.7	N 21 26.1	+00.1
10	108 18.2	+02.6	N 21 26.2	+00.0
11	123 20.8	+02.7	N 21 26.2	+00.0
12	138 23.5	+02.7	N 21 26.2	+00.1
13	153 26.2	+02.6	N 21 26.3	+00.0
14	168 28.8	+02.7	N 21 26.3	+00.1
15	183 31.5	+02.7	N 21 26.4	+00.0
16	198 34.2	+02.6	N 21 26.4	+00.0
17	213 36.8	+02.7	N 21 26.4	+00.1
18	228 39.5	+02.7	N 21 26.5	+00.0
19	243 42.2	+02.6	N 21 26.5	+00.1
20	258 44.8	+02.7	N 21 26.6	+00.0
21	273 47.5	+02.7	N 21 26.6	+00.0
22	288 50.2	+02.6	N 21 26.6	+00.1
23	303 52.8	+02.7	N 21 26.7	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:48

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	77 31.2	+02.4	S 04 04.1	−00.1
01	92 33.6	+02.5	S 04 04.0	+00.0
02	107 36.1	+02.4	S 04 04.0	+00.0
03	122 38.5	+02.4	S 04 04.0	+00.0
04	137 40.9	+02.5	S 04 04.0	+00.0
05	152 43.4	+02.4	S 04 04.0	−00.1
06	167 45.8	+02.5	S 04 03.9	+00.0
07	182 48.3	+02.4	S 04 03.9	+00.0
08	197 50.7	+02.4	S 04 03.9	+00.0
09	212 53.1	+02.5	S 04 03.9	+00.0
10	227 55.6	+02.4	S 04 03.9	−00.1
11	242 58.0	+02.4	S 04 03.8	+00.0
12	258 00.4	+02.5	S 04 03.8	+00.0
13	273 02.9	+02.4	S 04 03.8	+00.0
14	288 05.3	+02.5	S 04 03.8	−00.1
15	303 07.8	+02.4	S 04 03.7	+00.0
16	318 10.2	+02.4	S 04 03.7	+00.0
17	333 12.6	+02.5	S 04 03.7	+00.0
18	348 15.1	+02.4	S 04 03.7	+00.0
19	3 17.5	+02.4	S 04 03.7	−00.1
20	18 19.9	+02.5	S 04 03.6	+00.0
21	33 22.4	+02.4	S 04 03.6	+00.0
22	48 24.8	+02.4	S 04 03.6	+00.0
23	63 27.2	+02.5	S 04 03.6	−00.1

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:46

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 December 6 Saturday

(day 340 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 16.4	−00.2	S 22 29.5	+00.3
01	197 16.2	−00.3	S 22 29.8	+00.3
02	212 15.9	−00.3	S 22 30.1	+00.3
03	227 15.6	−00.2	S 22 30.4	+00.3
04	242 15.4	−00.3	S 22 30.7	+00.3
05	257 15.1	−00.3	S 22 31.0	+00.3
06	272 14.8	−00.2	S 22 31.3	+00.3
07	287 14.6	−00.3	S 22 31.6	+00.3
08	302 14.3	−00.2	S 22 31.9	+00.3
09	317 14.1	−00.3	S 22 32.2	+00.3
10	332 13.8	−00.3	S 22 32.5	+00.3
11	347 13.5	−00.2	S 22 32.8	+00.3
12	2 13.3	−00.3	S 22 33.1	+00.2
13	17 13.0	−00.3	S 22 33.3	+00.3
14	32 12.7	−00.2	S 22 33.6	+00.3
15	47 12.5	−00.3	S 22 33.9	+00.3
16	62 12.2	−00.3	S 22 34.2	+00.3
17	77 11.9	−00.2	S 22 34.5	+00.3
18	92 11.7	−00.3	S 22 34.8	+00.3
19	107 11.4	−00.3	S 22 35.1	+00.3
20	122 11.1	−00.2	S 22 35.4	+00.2
21	137 10.9	−00.3	S 22 35.6	+00.3
22	152 10.6	−00.3	S 22 35.9	+00.3
23	167 10.3	−00.2	S 22 36.2	+00.3

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	107°	107°	107°	107°	106°	106°

Greenwich Culmination Time: 11:51

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	190 18.8	−00.8	S 20 52.8	+00.6
01	205 18.0	−00.9	S 20 53.4	+00.7
02	220 17.1	−00.8	S 20 54.1	+00.6
03	235 16.3	−00.8	S 20 54.7	+00.6
04	250 15.5	−00.9	S 20 55.3	+00.6
05	265 14.6	−00.8	S 20 55.9	+00.7
06	280 13.8	−00.9	S 20 56.6	+00.6
07	295 12.9	−00.8	S 20 57.2	+00.6
08	310 12.1	−00.8	S 20 57.8	+00.6
09	325 11.3	−00.9	S 20 58.4	+00.6
10	340 10.4	−00.8	S 20 59.0	+00.7
11	355 09.6	−00.9	S 20 59.7	+00.6
12	10 08.7	−00.8	S 21 00.3	+00.6
13	25 07.9	−00.8	S 21 00.9	+00.6
14	40 07.1	−00.9	S 21 01.5	+00.6
15	55 06.2	−00.8	S 21 02.1	+00.6
16	70 05.4	−00.9	S 21 02.7	+00.6
17	85 04.5	−00.8	S 21 03.3	+00.7
18	100 03.7	−00.9	S 21 04.0	+00.6
19	115 02.8	−00.8	S 21 04.6	+00.6
20	130 02.0	−00.8	S 21 05.2	+00.6
21	145 01.2	−00.9	S 21 05.8	+00.6
22	160 00.3	−00.8	S 21 06.4	+00.6
23	174 59.5	−00.9	S 21 07.0	+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	115°	115°	115°	115°	114°	114°

Greenwich Culmination Time: 11:19

Moon

A: 56%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	346 23.6	−40.4	N 28 15.3	−00.6
01	0 43.2	−40.3	N 28 14.7	−00.9
02	15 02.9	−40.2	N 28 13.8	−01.0
03	29 22.7	−40.2	N 28 12.8	−01.3
04	43 42.5	−40.2	N 28 11.5	−01.5
05	58 02.3	−40.1	N 28 10.0	−01.7
06	72 22.2	−40.0	N 28 08.3	−02.0
07	86 42.2	−40.0	N 28 06.3	−02.1
08	101 02.2	−39.9	N 28 04.2	−02.4
09	115 22.3	−39.8	N 28 01.8	−02.6
10	129 42.5	−39.8	N 27 59.2	−02.8
11	144 02.7	−39.7	N 27 56.4	−03.0
12	158 23.0	−39.6	N 27 53.4	−03.2
13	172 43.4	−39.5	N 27 50.2	−03.5
14	187 03.9	−39.4	N 27 46.7	−03.6
15	201 24.5	−39.4	N 27 43.1	−03.8
16	215 45.1	−39.2	N 27 39.3	−04.1
17	230 05.9	−39.2	N 27 35.2	−04.3
18	244 26.7	−39.0	N 27 30.9	−04.4
19	258 47.7	−39.0	N 27 26.5	−04.7
20	273 08.7	−38.9	N 27 21.8	−04.8
21	287 29.8	−38.7	N 27 17.0	−05.1
22	301 51.1	−38.7	N 27 11.9	−05.2
23	316 12.4	−38.5	N 27 06.7	−05.5

UT	02	06	10	14	18	22
SD	16′6	16′6	16′6	16′5	16′5	16′5
HP	61′0	60′9	60′8	60′7	60′5	60′4
SHA	270°	267°	264°	261°	259°	256°

Greenwich Culmination Time: 00:56

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	172 41.0	+00.4	S 23 57.4	+00.1
01	187 41.4	+00.5	S 23 57.5	+00.2
02	202 41.9	+00.4	S 23 57.7	+00.1
03	217 42.3	+00.4	S 23 57.8	+00.1
04	232 42.7	+00.4	S 23 57.9	+00.1
05	247 43.1	+00.5	S 23 58.0	+00.1
06	262 43.6	+00.4	S 23 58.1	+00.2
07	277 44.0	+00.4	S 23 58.3	+00.1
08	292 44.4	+00.4	S 23 58.4	+00.1
09	307 44.8	+00.5	S 23 58.5	+00.1
10	322 45.3	+00.4	S 23 58.6	+00.1
11	337 45.7	+00.4	S 23 58.7	+00.1
12	352 46.1	+00.4	S 23 58.8	+00.1
13	7 46.5	+00.5	S 23 58.9	+00.2
14	22 47.0	+00.4	S 23 59.1	+00.1
15	37 47.4	+00.4	S 23 59.2	+00.1
16	52 47.8	+00.4	S 23 59.3	+00.1
17	67 48.2	+00.5	S 23 59.4	+00.1
18	82 48.7	+00.4	S 23 59.5	+00.1
19	97 49.1	+00.4	S 23 59.6	+00.1
20	112 49.5	+00.4	S 23 59.7	+00.1
21	127 49.9	+00.5	S 23 59.8	+00.1
22	142 50.4	+00.4	S 23 59.9	+00.1
23	157 50.8	+00.4	S 24 00.0	+00.2

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	098°	097°	097°	097°	097°	097°

Greenwich Culmination Time: 12:28

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	318 55.5	+02.7	N 21 26.7	+00.1
01	333 58.2	+02.6	N 21 26.8	+00.0
02	349 00.8	+02.7	N 21 26.8	+00.0
03	4 03.5	+02.7	N 21 26.8	+00.1
04	19 06.2	+02.6	N 21 26.9	+00.0
05	34 08.8	+02.7	N 21 26.9	+00.1
06	49 11.5	+02.7	N 21 27.0	+00.0
07	64 14.2	+02.7	N 21 27.0	+00.1
08	79 16.9	+02.6	N 21 27.1	+00.0
09	94 19.5	+02.7	N 21 27.1	+00.0
10	109 22.2	+02.7	N 21 27.1	+00.1
11	124 24.9	+02.6	N 21 27.2	+00.0
12	139 27.5	+02.7	N 21 27.2	+00.1
13	154 30.2	+02.7	N 21 27.3	+00.0
14	169 32.9	+02.7	N 21 27.3	+00.0
15	184 35.6	+02.6	N 21 27.3	+00.1
16	199 38.2	+02.7	N 21 27.4	+00.0
17	214 40.9	+02.7	N 21 27.4	+00.1
18	229 43.6	+02.7	N 21 27.5	+00.0
19	244 46.3	+02.6	N 21 27.5	+00.0
20	259 48.9	+02.7	N 21 27.5	+00.1
21	274 51.6	+02.7	N 21 27.6	+00.0
22	289 54.3	+02.7	N 21 27.6	+00.1
23	304 57.0	+02.6	N 21 27.7	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:43

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	78 29.7	+02.4	S 04 03.5	+00.0
01	93 32.1	+02.5	S 04 03.5	+00.0
02	108 34.6	+02.4	S 04 03.5	+00.0
03	123 37.0	+02.4	S 04 03.5	+00.0
04	138 39.4	+02.5	S 04 03.5	−00.1
05	153 41.9	+02.4	S 04 03.4	+00.0
06	168 44.3	+02.4	S 04 03.4	+00.0
07	183 46.7	+02.5	S 04 03.4	+00.0
08	198 49.2	+02.4	S 04 03.4	−00.1
09	213 51.6	+02.4	S 04 03.3	+00.0
10	228 54.0	+02.5	S 04 03.3	+00.0
11	243 56.5	+02.4	S 04 03.3	+00.0
12	258 58.9	+02.4	S 04 03.3	−00.1
13	274 01.3	+02.5	S 04 03.2	+00.0
14	289 03.8	+02.4	S 04 03.2	+00.0
15	304 06.2	+02.4	S 04 03.2	+00.0
16	319 08.6	+02.5	S 04 03.2	+00.0
17	334 11.1	+02.4	S 04 03.2	−00.1
18	349 13.5	+02.4	S 04 03.1	+00.0
19	4 15.9	+02.5	S 04 03.1	+00.0
20	19 18.4	+02.4	S 04 03.1	+00.0
21	34 20.8	+02.4	S 04 03.1	−00.1
22	49 23.2	+02.4	S 04 03.0	+00.0
23	64 25.6	+02.5	S 04 03.0	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:42

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2025 December 7 Sunday

(day 341 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 10.1	-00.3	S 22 36.5	+00.3	00
01	197 09.8	-00.3	S 22 36.8	+00.2	01
02	212 09.5	-00.2	S 22 37.0	+00.3	02
03	227 09.3	-00.3	S 22 37.3	+00.3	03
04	242 09.0	-00.3	S 22 37.6	+00.3	04
05	257 08.7	-00.2	S 22 37.9	+00.3	05
06	272 08.5	-00.3	S 22 38.2	+00.2	06
07	287 08.2	-00.3	S 22 38.4	+00.3	07
08	302 07.9	-00.2	S 22 38.7	+00.3	08
09	317 07.7	-00.3	S 22 39.0	+00.2	09
10	332 07.4	-00.3	S 22 39.2	+00.3	10
11	347 07.1	-00.3	S 22 39.5	+00.3	11
12	2 06.8	-00.2	S 22 39.8	+00.3	12
13	17 06.6	-00.3	S 22 40.1	+00.2	13
14	32 06.3	-00.3	S 22 40.3	+00.3	14
15	47 06.0	-00.2	S 22 40.6	+00.3	15
16	62 05.8	-00.3	S 22 40.9	+00.2	16
17	77 05.5	-00.3	S 22 41.1	+00.3	17
18	92 05.2	-00.2	S 22 41.4	+00.3	18
19	107 05.0	-00.3	S 22 41.7	+00.2	19
20	122 04.7	-00.3	S 22 41.9	+00.3	20
21	137 04.4	-00.3	S 22 42.2	+00.3	21
22	152 04.1	-00.2	S 22 42.5	+00.2	22
23	167 03.9	-00.3	S 22 42.7	+00.3	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	106°	106°	106°	106°	105°	105°

Greenwich Culmination Time: 11:51

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	189 58.6	-00.8	S 21 07.6	+00.6	00
01	204 57.8	-00.9	S 21 08.2	+00.6	01
02	219 56.9	-00.8	S 21 08.8	+00.6	02
03	234 56.1	-00.9	S 21 09.4	+00.6	03
04	249 55.2	-00.8	S 21 10.0	+00.6	04
05	264 54.4	-00.9	S 21 10.6	+00.6	05
06	279 53.5	-00.8	S 21 11.2	+00.6	06
07	294 52.7	-00.9	S 21 11.8	+00.6	07
08	309 51.8	-00.8	S 21 12.4	+00.6	08
09	324 51.0	-00.9	S 21 13.0	+00.6	09
10	339 50.1	-00.8	S 21 13.6	+00.6	10
11	354 49.3	-00.9	S 21 14.2	+00.5	11
12	9 48.4	-00.8	S 21 14.7	+00.6	12
13	24 47.6	-00.9	S 21 15.3	+00.6	13
14	39 46.7	-00.8	S 21 15.9	+00.6	14
15	54 45.9	-00.9	S 21 16.5	+00.6	15
16	69 45.0	-00.8	S 21 17.1	+00.6	16
17	84 44.2	-00.9	S 21 17.7	+00.6	17
18	99 43.3	-00.8	S 21 18.3	+00.6	18
19	114 42.5	-00.9	S 21 18.9	+00.5	19
20	129 41.6	-00.8	S 21 19.4	+00.6	20
21	144 40.8	-00.9	S 21 20.0	+00.6	21
22	159 39.9	-00.9	S 21 20.6	+00.6	22
23	174 39.0	-00.8	S 21 21.2	+00.6	23

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	114°	114°	113°	113°	113°	113°

Greenwich Culmination Time: 11:20

Moon

A: 60%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	330 33.9	-38.4	N 27 01.2	-05.6	00
01	344 55.5	-38.3	N 26 55.6	-05.8	01
02	359 17.2	-38.2	N 26 49.8	-06.0	02
03	13 39.0	-38.1	N 26 43.8	-06.2	03
04	28 00.9	-37.9	N 26 37.6	-06.4	04
05	42 23.0	-37.9	N 26 31.2	-06.6	05
06	56 45.1	-37.7	N 26 24.6	-06.7	06
07	71 07.4	-37.5	N 26 17.9	-06.9	07
08	85 29.9	-37.5	N 26 11.0	-07.1	08
09	99 52.4	-37.3	N 26 03.9	-07.3	09
10	114 15.1	-37.2	N 25 56.6	-07.5	10
11	128 37.9	-37.0	N 25 49.1	-07.6	11
12	143 00.9	-36.9	N 25 41.5	-07.7	12
13	157 24.0	-36.8	N 25 33.8	-08.0	13
14	171 47.2	-36.6	N 25 25.8	-08.1	14
15	186 10.6	-36.6	N 25 17.7	-08.3	15
16	200 34.0	-36.3	N 25 09.4	-08.4	16
17	214 57.7	-36.2	N 25 01.0	-08.6	17
18	229 21.5	-36.1	N 24 52.4	-08.7	18
19	243 45.4	-36.0	N 24 43.7	-08.9	19
20	258 09.4	-35.8	N 24 34.8	-09.1	20
21	272 33.6	-35.6	N 24 25.7	-09.1	21
22	286 58.0	-35.5	N 24 16.6	-09.4	22
23	301 22.5	-35.4	N 24 07.2	-09.5	23

UT	02	06	10	14	18	22
SD	16′4	16′4	16′4	16′3	16′3	16′2
HP	60′3	60′2	60′0	59′9	59′7	59′6
SHA	253°	250°	248°	245°	243°	240°

Greenwich Culmination Time: 02:02

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	172 51.2	+00.4	S 24 00.2	+00.1	00
01	187 51.6	+00.5	S 24 00.3	+00.1	01
02	202 52.1	+00.4	S 24 00.4	+00.1	02
03	217 52.5	+00.4	S 24 00.5	+00.1	03
04	232 52.9	+00.4	S 24 00.6	+00.1	04
05	247 53.3	+00.5	S 24 00.7	+00.1	05
06	262 53.8	+00.4	S 24 00.8	+00.1	06
07	277 54.2	+00.4	S 24 00.9	+00.1	07
08	292 54.6	+00.4	S 24 01.0	+00.1	08
09	307 55.0	+00.4	S 24 01.1	+00.1	09
10	322 55.4	+00.5	S 24 01.2	+00.1	10
11	337 55.9	+00.4	S 24 01.3	+00.1	11
12	352 56.3	+00.4	S 24 01.4	+00.1	12
13	7 56.7	+00.4	S 24 01.5	+00.1	13
14	22 57.1	+00.5	S 24 01.6	+00.1	14
15	37 57.6	+00.4	S 24 01.7	+00.1	15
16	52 58.0	+00.4	S 24 01.8	+00.1	16
17	67 58.4	+00.4	S 24 01.9	+00.1	17
18	82 58.8	+00.4	S 24 02.0	+00.1	18
19	97 59.2	+00.5	S 24 02.1	+00.1	19
20	112 59.7	+00.4	S 24 02.2	+00.1	20
21	128 00.1	+00.4	S 24 02.3	+00.1	21
22	143 00.5	+00.4	S 24 02.4	+00.1	22
23	158 00.9	+00.4	S 24 02.5	+00.1	23

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	097°	097°	096°	096°	096°	096°

Greenwich Culmination Time: 12:28

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	319 59.6	+02.7	N 21 27.7	+00.1	00
01	335 02.3	+02.7	N 21 27.8	+00.0	01
02	350 05.0	+02.7	N 21 27.8	+00.0	02
03	5 07.7	+02.7	N 21 27.8	+00.1	03
04	20 10.4	+02.6	N 21 27.9	+00.0	04
05	35 13.0	+02.7	N 21 27.9	+00.1	05
06	50 15.7	+02.7	N 21 28.0	+00.0	06
07	65 18.4	+02.7	N 21 28.0	+00.0	07
08	80 21.1	+02.6	N 21 28.0	+00.1	08
09	95 23.7	+02.7	N 21 28.1	+00.0	09
10	110 26.4	+02.7	N 21 28.1	+00.1	10
11	125 29.1	+02.7	N 21 28.2	+00.0	11
12	140 31.8	+02.7	N 21 28.2	+00.1	12
13	155 34.5	+02.6	N 21 28.3	+00.0	13
14	170 37.1	+02.7	N 21 28.3	+00.0	14
15	185 39.8	+02.7	N 21 28.3	+00.1	15
16	200 42.5	+02.7	N 21 28.4	+00.0	16
17	215 45.2	+02.7	N 21 28.4	+00.1	17
18	230 47.9	+02.7	N 21 28.5	+00.0	18
19	245 50.6	+02.6	N 21 28.5	+00.1	19
20	260 53.2	+02.7	N 21 28.6	+00.0	20
21	275 55.9	+02.7	N 21 28.6	+00.0	21
22	290 58.6	+02.7	N 21 28.6	+00.1	22
23	306 01.3	+02.7	N 21 28.7	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:39

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	79 28.1	+02.4	S 04 03.0	+00.0	00
01	94 30.5	+02.4	S 04 03.0	-00.1	01
02	109 32.9	+02.5	S 04 02.9	+00.0	02
03	124 35.4	+02.4	S 04 02.9	+00.0	03
04	139 37.8	+02.4	S 04 02.9	+00.0	04
05	154 40.2	+02.5	S 04 02.9	-00.1	05
06	169 42.7	+02.4	S 04 02.8	+00.0	06
07	184 45.1	+02.4	S 04 02.8	+00.0	07
08	199 47.5	+02.5	S 04 02.8	+00.0	08
09	214 50.0	+02.4	S 04 02.8	-00.1	09
10	229 52.4	+02.4	S 04 02.7	+00.0	10
11	244 54.8	+02.4	S 04 02.7	+00.0	11
12	259 57.2	+02.5	S 04 02.7	+00.0	12
13	274 59.7	+02.4	S 04 02.7	-00.1	13
14	290 02.1	+02.4	S 04 02.6	+00.0	14
15	305 04.5	+02.5	S 04 02.6	+00.0	15
16	320 07.0	+02.4	S 04 02.6	+00.0	16
17	335 09.4	+02.4	S 04 02.6	-00.1	17
18	350 11.8	+02.4	S 04 02.5	+00.0	18
19	5 14.2	+02.5	S 04 02.5	+00.0	19
20	20 16.7	+02.4	S 04 02.5	+00.0	20
21	35 19.1	+02.4	S 04 02.5	-00.1	21
22	50 21.5	+02.5	S 04 02.4	+00.0	22
23	65 24.0	+02.4	S 04 02.4	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:39

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 December 8 Monday

(day 342 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 03.6	-00.3	S 22 43.0	+00.3	00
01	197 03.3	-00.3	S 22 43.3	+00.2	01
02	212 03.0	-00.2	S 22 43.5	+00.3	02
03	227 02.8	-00.3	S 22 43.8	+00.2	03
04	242 02.5	-00.3	S 22 44.0	+00.3	04
05	257 02.2	-00.2	S 22 44.3	+00.3	05
06	272 02.0	-00.3	S 22 44.6	+00.2	06
07	287 01.7	-00.3	S 22 44.8	+00.3	07
08	302 01.4	-00.3	S 22 45.1	+00.2	08
09	317 01.1	-00.2	S 22 45.3	+00.3	09
10	332 00.9	-00.3	S 22 45.6	+00.2	10
11	347 00.6	-00.3	S 22 45.8	+00.3	11
12	2 00.3	-00.3	S 22 46.1	+00.2	12
13	17 00.0	-00.2	S 22 46.3	+00.3	13
14	31 59.8	-00.3	S 22 46.6	+00.2	14
15	46 59.5	-00.3	S 22 46.8	+00.3	15
16	61 59.2	-00.3	S 22 47.1	+00.2	16
17	76 58.9	-00.2	S 22 47.3	+00.3	17
18	91 58.7	-00.3	S 22 47.6	+00.2	18
19	106 58.4	-00.3	S 22 47.8	+00.3	19
20	121 58.1	-00.3	S 22 48.1	+00.2	20
21	136 57.8	-00.3	S 22 48.3	+00.3	21
22	151 57.5	-00.2	S 22 48.6	+00.2	22
23	166 57.3	-00.3	S 22 48.8	+00.3	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	105°	105°	105°	104°	104°	104°

Greenwich Culmination Time: 11:51

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	189 38.2	-00.9	S 21 21.8	+00.5	00
01	204 37.3	-00.8	S 21 22.3	+00.6	01
02	219 36.5	-00.9	S 21 22.9	+00.6	02
03	234 35.6	-00.8	S 21 23.5	+00.6	03
04	249 34.8	-00.9	S 21 24.1	+00.5	04
05	264 33.9	-00.9	S 21 24.6	+00.6	05
06	279 33.0	-00.8	S 21 25.2	+00.6	06
07	294 32.2	-00.9	S 21 25.8	+00.5	07
08	309 31.3	-00.8	S 21 26.3	+00.6	08
09	324 30.5	-00.9	S 21 26.9	+00.6	09
10	339 29.6	-00.9	S 21 27.5	+00.5	10
11	354 28.7	-00.8	S 21 28.0	+00.6	11
12	9 27.9	-00.9	S 21 28.6	+00.6	12
13	24 27.0	-00.8	S 21 29.2	+00.5	13
14	39 26.2	-00.9	S 21 29.7	+00.6	14
15	54 25.3	-00.9	S 21 30.3	+00.6	15
16	69 24.4	-00.8	S 21 30.9	+00.5	16
17	84 23.6	-00.9	S 21 31.4	+00.6	17
18	99 22.7	-00.9	S 21 32.0	+00.5	18
19	114 21.8	-00.8	S 21 32.5	+00.6	19
20	129 21.0	-00.9	S 21 33.1	+00.5	20
21	144 20.1	-00.9	S 21 33.6	+00.6	21
22	159 19.2	-00.8	S 21 34.2	+00.5	22
23	174 18.4	-00.9	S 21 34.7	+00.6	23

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	113°	112°	112°	112°	112°	111°

Greenwich Culmination Time: 11:22

Moon

A: 64%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	315 47.1	-35.2	N 23 57.7	-09.6	00
01	330 11.9	-35.1	N 23 48.1	-09.7	01
02	344 36.8	-34.9	N 23 38.4	-09.9	02
03	359 01.9	-34.8	N 23 28.5	-10.1	03
04	13 27.1	-34.6	N 23 18.4	-10.1	04
05	27 52.5	-34.5	N 23 08.3	-10.3	05
06	42 18.0	-34.3	N 22 58.0	-10.4	06
07	56 43.7	-34.2	N 22 47.6	-10.6	07
08	71 09.5	-34.1	N 22 37.0	-10.6	08
09	85 35.4	-33.9	N 22 26.4	-10.8	09
10	100 01.5	-33.8	N 22 15.6	-10.9	10
11	114 27.7	-33.6	N 22 04.7	-11.1	11
12	128 54.1	-33.4	N 21 53.6	-11.1	12
13	143 20.7	-33.4	N 21 42.5	-11.3	13
14	157 47.3	-33.1	N 21 31.2	-11.3	14
15	172 14.2	-33.1	N 21 19.9	-11.5	15
16	186 41.1	-32.9	N 21 08.4	-11.6	16
17	201 08.2	-32.7	N 20 56.8	-11.7	17
18	215 35.5	-32.6	N 20 45.1	-11.8	18
19	230 02.9	-32.5	N 20 33.3	-11.8	19
20	244 30.4	-32.3	N 20 21.5	-12.0	20
21	258 58.1	-32.2	N 20 09.5	-12.1	21
22	273 25.9	-32.0	N 19 57.4	-12.2	22
23	287 53.9	-31.9	N 19 45.2	-12.2	23

UT	02	06	10	14	18	22
SD	16′2	16′1	16′1	16′1	16′0	16′0
HP	59′4	59′3	59′1	59′0	58′8	58′6
SHA	238°	235°	233°	230°	228°	226°

Greenwich Culmination Time: 03:04

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	173 01.3	+00.5	S 24 02.6	+00.1	00
01	188 01.8	+00.4	S 24 02.7	+00.1	01
02	203 02.2	+00.4	S 24 02.8	+00.1	02
03	218 02.6	+00.4	S 24 02.9	+00.1	03
04	233 03.0	+00.4	S 24 03.0	+00.1	04
05	248 03.4	+00.5	S 24 03.1	+00.1	05
06	263 03.9	+00.4	S 24 03.2	+00.1	06
07	278 04.3	+00.4	S 24 03.3	+00.1	07
08	293 04.7	+00.4	S 24 03.4	+00.1	08
09	308 05.1	+00.4	S 24 03.5	+00.1	09
10	323 05.5	+00.5	S 24 03.6	+00.1	10
11	338 06.0	+00.4	S 24 03.7	+00.1	11
12	353 06.4	+00.4	S 24 03.8	+00.1	12
13	8 06.8	+00.4	S 24 03.9	+00.1	13
14	23 07.2	+00.4	S 24 04.0	+00.0	14
15	38 07.6	+00.4	S 24 04.0	+00.1	15
16	53 08.0	+00.5	S 24 04.1	+00.1	16
17	68 08.5	+00.4	S 24 04.2	+00.1	17
18	83 08.9	+00.4	S 24 04.3	+00.1	18
19	98 09.3	+00.4	S 24 04.4	+00.1	19
20	113 09.7	+00.4	S 24 04.5	+00.1	20
21	128 10.1	+00.5	S 24 04.6	+00.1	21
22	143 10.6	+00.4	S 24 04.7	+00.1	22
23	158 11.0	+00.4	S 24 04.8	+00.0	23

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	096°	096°	096°	096°	095°	095°

Greenwich Culmination Time: 12:27

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	321 04.0	+02.7	N 21 28.7	+00.1	00
01	336 06.7	+02.6	N 21 28.8	+00.0	01
02	351 09.3	+02.7	N 21 28.8	+00.1	02
03	6 12.0	+02.7	N 21 28.9	+00.0	03
04	21 14.7	+02.7	N 21 28.9	+00.0	04
05	36 17.4	+02.7	N 21 28.9	+00.1	05
06	51 20.1	+02.7	N 21 29.0	+00.0	06
07	66 22.8	+02.7	N 21 29.0	+00.1	07
08	81 25.5	+02.6	N 21 29.1	+00.0	08
09	96 28.1	+02.7	N 21 29.1	+00.1	09
10	111 30.8	+02.7	N 21 29.2	+00.0	10
11	126 33.5	+02.7	N 21 29.2	+00.0	11
12	141 36.2	+02.7	N 21 29.2	+00.1	12
13	156 38.9	+02.7	N 21 29.3	+00.0	13
14	171 41.6	+02.7	N 21 29.3	+00.1	14
15	186 44.3	+02.7	N 21 29.4	+00.0	15
16	201 47.0	+02.6	N 21 29.4	+00.1	16
17	216 49.6	+02.7	N 21 29.5	+00.0	17
18	231 52.3	+02.7	N 21 29.5	+00.0	18
19	246 55.0	+02.7	N 21 29.5	+00.1	19
20	261 57.7	+02.7	N 21 29.6	+00.0	20
21	277 00.4	+02.7	N 21 29.6	+00.1	21
22	292 03.1	+02.7	N 21 29.7	+00.0	22
23	307 05.8	+02.7	N 21 29.7	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:35

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	80 26.4	+02.4	S 04 02.4	+00.0	00
01	95 28.8	+02.4	S 04 02.4	-00.1	01
02	110 31.2	+02.5	S 04 02.3	+00.0	02
03	125 33.7	+02.4	S 04 02.3	+00.0	03
04	140 36.1	+02.4	S 04 02.3	+00.0	04
05	155 38.5	+02.4	S 04 02.3	-00.1	05
06	170 40.9	+02.5	S 04 02.2	+00.0	06
07	185 43.4	+02.4	S 04 02.2	+00.0	07
08	200 45.8	+02.4	S 04 02.2	+00.0	08
09	215 48.2	+02.4	S 04 02.2	-00.1	09
10	230 50.6	+02.5	S 04 02.1	+00.0	10
11	245 53.1	+02.4	S 04 02.1	+00.0	11
12	260 55.5	+02.4	S 04 02.1	-00.1	12
13	275 57.9	+02.4	S 04 02.0	+00.0	13
14	291 00.3	+02.5	S 04 02.0	+00.0	14
15	306 02.8	+02.4	S 04 02.0	+00.0	15
16	321 05.2	+02.4	S 04 02.0	-00.1	16
17	336 07.6	+02.4	S 04 01.9	+00.0	17
18	351 10.0	+02.5	S 04 01.9	+00.0	18
19	6 12.5	+02.4	S 04 01.9	+00.0	19
20	21 14.9	+02.4	S 04 01.9	-00.1	20
21	36 17.3	+02.4	S 04 01.8	+00.0	21
22	51 19.7	+02.5	S 04 01.8	+00.0	22
23	66 22.2	+02.4	S 04 01.8	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:35

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2025 December 9 Tuesday

(day 343 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 57.0	-00.3	S 22 49.1	+00.2	00
01	196 56.7	-00.3	S 22 49.3	+00.3	01
02	211 56.4	-00.2	S 22 49.6	+00.2	02
03	226 56.2	-00.3	S 22 49.8	+00.2	03
04	241 55.9	-00.3	S 22 50.0	+00.3	04
05	256 55.6	-00.3	S 22 50.3	+00.2	05
06	271 55.3	-00.3	S 22 50.5	+00.3	06
07	286 55.0	-00.2	S 22 50.8	+00.2	07
08	301 54.8	-00.3	S 22 51.0	+00.2	08
09	316 54.5	-00.3	S 22 51.2	+00.3	09
10	331 54.2	-00.3	S 22 51.5	+00.2	10
11	346 53.9	-00.3	S 22 51.7	+00.2	11
12	1 53.6	-00.2	S 22 51.9	+00.3	12
13	16 53.4	-00.3	S 22 52.2	+00.2	13
14	31 53.1	-00.3	S 22 52.4	+00.2	14
15	46 52.8	-00.3	S 22 52.6	+00.3	15
16	61 52.5	-00.3	S 22 52.9	+00.2	16
17	76 52.2	-00.2	S 22 53.1	+00.2	17
18	91 52.0	-00.3	S 22 53.3	+00.3	18
19	106 51.7	-00.3	S 22 53.6	+00.2	19
20	121 51.4	-00.3	S 22 53.8	+00.2	20
21	136 51.1	-00.3	S 22 54.0	+00.2	21
22	151 50.8	-00.2	S 22 54.2	+00.3	22
23	166 50.6	-00.3	S 22 54.5	+00.2	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	104°	104°	104°	103°	103°	103°

Greenwich Culmination Time: 11:52

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	189 17.5	-00.9	S 21 35.3	+00.5	00
01	204 16.6	-00.8	S 21 35.8	+00.6	01
02	219 15.8	-00.9	S 21 36.4	+00.5	02
03	234 14.9	-00.9	S 21 36.9	+00.6	03
04	249 14.0	-00.8	S 21 37.5	+00.5	04
05	264 13.2	-00.9	S 21 38.0	+00.6	05
06	279 12.3	-00.9	S 21 38.6	+00.5	06
07	294 11.4	-00.9	S 21 39.1	+00.6	07
08	309 10.5	-00.8	S 21 39.7	+00.5	08
09	324 09.7	-00.9	S 21 40.2	+00.6	09
10	339 08.8	-00.9	S 21 40.8	+00.5	10
11	354 07.9	-00.8	S 21 41.3	+00.5	11
12	9 07.1	-00.9	S 21 41.8	+00.6	12
13	24 06.2	-00.9	S 21 42.4	+00.5	13
14	39 05.3	-00.9	S 21 42.9	+00.5	14
15	54 04.4	-00.8	S 21 43.4	+00.6	15
16	69 03.6	-00.9	S 21 44.0	+00.5	16
17	84 02.7	-00.9	S 21 44.5	+00.5	17
18	99 01.8	-00.9	S 21 45.0	+00.6	18
19	114 00.9	-00.8	S 21 45.6	+00.5	19
20	129 00.1	-00.9	S 21 46.1	+00.5	20
21	143 59.2	-00.9	S 21 46.6	+00.6	21
22	158 58.3	-00.9	S 21 47.2	+00.5	22
23	173 57.4	-00.8	S 21 47.7	+00.5	23

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	111°	111°	111°	111°	110°	110°

Greenwich Culmination Time: 11:23

Moon

A: 68%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	302 22.0	-31.8	N 19 33.0	-12.4	00
01	316 50.2	-31.6	N 19 20.6	-12.4	01
02	331 18.6	-31.5	N 19 08.2	-12.6	02
03	345 47.1	-31.4	N 18 55.6	-12.6	03
04	0 15.7	-31.2	N 18 43.0	-12.7	04
05	14 44.5	-31.1	N 18 30.3	-12.8	05
06	29 13.4	-30.9	N 18 17.5	-12.8	06
07	43 42.5	-30.9	N 18 04.7	-12.9	07
08	58 11.6	-30.7	N 17 51.8	-13.1	08
09	72 40.9	-30.5	N 17 38.7	-13.0	09
10	87 10.4	-30.5	N 17 25.7	-13.2	10
11	101 39.9	-30.3	N 17 12.5	-13.2	11
12	116 09.6	-30.2	N 16 59.3	-13.3	12
13	130 39.4	-30.0	N 16 46.0	-13.3	13
14	145 09.4	-30.0	N 16 32.7	-13.5	14
15	159 39.4	-29.8	N 16 19.2	-13.4	15
16	174 09.6	-29.7	N 16 05.8	-13.6	16
17	188 39.9	-29.6	N 15 52.2	-13.6	17
18	203 10.3	-29.4	N 15 38.6	-13.6	18
19	217 40.9	-29.4	N 15 25.0	-13.7	19
20	232 11.5	-29.2	N 15 11.3	-13.8	20
21	246 42.3	-29.1	N 14 57.5	-13.8	21
22	261 13.2	-29.0	N 14 43.7	-13.9	22
23	275 44.2	-28.9	N 14 29.8	-13.9	23

UT	02	06	10	14	18	22
SD	15′9	15′9	15′8	15′8	15′7	15′7
HP	58′5	58′3	58′1	58′0	57′8	57′6
SHA	223°	221°	219°	217°	214°	212°

Greenwich Culmination Time: 03:58

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	173 11.4	+00.4	S 24 04.8	+00.1	00
01	188 11.8	+00.4	S 24 04.9	+00.1	01
02	203 12.2	+00.4	S 24 05.0	+00.1	02
03	218 12.6	+00.5	S 24 05.1	+00.1	03
04	233 13.1	+00.4	S 24 05.2	+00.1	04
05	248 13.5	+00.4	S 24 05.3	+00.1	05
06	263 13.9	+00.4	S 24 05.4	+00.0	06
07	278 14.3	+00.4	S 24 05.4	+00.1	07
08	293 14.7	+00.4	S 24 05.5	+00.1	08
09	308 15.1	+00.4	S 24 05.6	+00.1	09
10	323 15.5	+00.5	S 24 05.7	+00.1	10
11	338 16.0	+00.4	S 24 05.8	+00.1	11
12	353 16.4	+00.4	S 24 05.9	+00.0	12
13	8 16.8	+00.4	S 24 05.9	+00.1	13
14	23 17.2	+00.4	S 24 06.0	+00.1	14
15	38 17.6	+00.4	S 24 06.1	+00.1	15
16	53 18.0	+00.4	S 24 06.2	+00.1	16
17	68 18.4	+00.5	S 24 06.3	+00.0	17
18	83 18.9	+00.4	S 24 06.3	+00.1	18
19	98 19.3	+00.4	S 24 06.4	+00.1	19
20	113 19.7	+00.4	S 24 06.5	+00.1	20
21	128 20.1	+00.4	S 24 06.6	+00.1	21
22	143 20.5	+00.4	S 24 06.7	+00.0	22
23	158 20.9	+00.4	S 24 06.7	+00.1	23

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	095°	095°	095°	095°	095°	094°

Greenwich Culmination Time: 12:26

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	322 08.5	+02.7	N 21 29.8	+00.0	00
01	337 11.2	+02.7	N 21 29.8	+00.1	01
02	352 13.9	+02.7	N 21 29.9	+00.0	02
03	7 16.6	+02.7	N 21 29.9	+00.0	03
04	22 19.3	+02.6	N 21 29.9	+00.1	04
05	37 21.9	+02.7	N 21 30.0	+00.0	05
06	52 24.6	+02.7	N 21 30.0	+00.1	06
07	67 27.3	+02.7	N 21 30.1	+00.0	07
08	82 30.0	+02.7	N 21 30.1	+00.1	08
09	97 32.7	+02.7	N 21 30.2	+00.0	09
10	112 35.4	+02.7	N 21 30.2	+00.1	10
11	127 38.1	+02.7	N 21 30.3	+00.0	11
12	142 40.8	+02.7	N 21 30.3	+00.0	12
13	157 43.5	+02.7	N 21 30.3	+00.1	13
14	172 46.2	+02.7	N 21 30.4	+00.0	14
15	187 48.9	+02.7	N 21 30.4	+00.1	15
16	202 51.6	+02.7	N 21 30.5	+00.0	16
17	217 54.3	+02.7	N 21 30.5	+00.1	17
18	232 57.0	+02.7	N 21 30.6	+00.0	18
19	247 59.7	+02.7	N 21 30.6	+00.1	19
20	263 02.4	+02.7	N 21 30.7	+00.0	20
21	278 05.1	+02.7	N 21 30.7	+00.0	21
22	293 07.8	+02.7	N 21 30.7	+00.1	22
23	308 10.5	+02.7	N 21 30.8	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:30

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	81 24.6	+02.4	S 04 01.7	+00.0	00
01	96 27.0	+02.4	S 04 01.7	+00.0	01
02	111 29.4	+02.5	S 04 01.7	+00.0	02
03	126 31.9	+02.4	S 04 01.7	-00.1	03
04	141 34.3	+02.4	S 04 01.6	+00.0	04
05	156 36.7	+02.4	S 04 01.6	+00.0	05
06	171 39.1	+02.4	S 04 01.6	+00.0	06
07	186 41.5	+02.5	S 04 01.6	-00.1	07
08	201 44.0	+02.4	S 04 01.5	+00.0	08
09	216 46.4	+02.4	S 04 01.5	+00.0	09
10	231 48.8	+02.4	S 04 01.5	-00.1	10
11	246 51.2	+02.5	S 04 01.4	+00.0	11
12	261 53.7	+02.4	S 04 01.4	+00.0	12
13	276 56.1	+02.4	S 04 01.4	+00.0	13
14	291 58.5	+02.4	S 04 01.4	-00.1	14
15	307 00.9	+02.4	S 04 01.3	+00.0	15
16	322 03.3	+02.5	S 04 01.3	+00.0	16
17	337 05.8	+02.4	S 04 01.3	-00.1	17
18	352 08.2	+02.4	S 04 01.2	+00.0	18
19	7 10.6	+02.4	S 04 01.2	+00.0	19
20	22 13.0	+02.4	S 04 01.2	+00.0	20
21	37 15.4	+02.5	S 04 01.2	-00.1	21
22	52 17.9	+02.4	S 04 01.1	+00.0	22
23	67 20.3	+02.4	S 04 01.1	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:31

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2025 December 10 Wednesday (day 344 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 50.3	-00.3	S 22 54.7	+00.2
01	196 50.0	-00.3	S 22 54.9	+00.2
02	211 49.7	-00.3	S 22 55.1	+00.3
03	226 49.4	-00.3	S 22 55.4	+00.2
04	241 49.1	-00.2	S 22 55.6	+00.2
05	256 48.9	-00.3	S 22 55.8	+00.2
06	271 48.6	-00.3	S 22 56.0	+00.2
07	286 48.3	-00.3	S 22 56.2	+00.3
08	301 48.0	-00.3	S 22 56.5	+00.2
09	316 47.7	-00.3	S 22 56.7	+00.2
10	331 47.4	-00.2	S 22 56.9	+00.2
11	346 47.2	-00.3	S 22 57.1	+00.2
12	1 46.9	-00.3	S 22 57.3	+00.3
13	16 46.6	-00.3	S 22 57.6	+00.2
14	31 46.3	-00.3	S 22 57.8	+00.2
15	46 46.0	-00.3	S 22 58.0	+00.2
16	61 45.7	-00.2	S 22 58.2	+00.2
17	76 45.5	-00.3	S 22 58.4	+00.2
18	91 45.2	-00.3	S 22 58.6	+00.2
19	106 44.9	-00.3	S 22 58.8	+00.2
20	121 44.6	-00.3	S 22 59.0	+00.2
21	136 44.3	-00.3	S 22 59.2	+00.3
22	151 44.0	-00.3	S 22 59.5	+00.2
23	166 43.7	-00.2	S 22 59.7	+00.2

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	103°	103°	102°	102°	102°	102°

Greenwich Culmination Time: 11:52

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	188 56.6	-00.9	S 21 48.2	+00.5
01	203 55.7	-00.9	S 21 48.7	+00.6
02	218 54.8	-00.9	S 21 49.3	+00.5
03	233 53.9	-00.9	S 21 49.8	+00.5
04	248 53.0	-00.8	S 21 50.3	+00.5
05	263 52.2	-00.9	S 21 50.8	+00.5
06	278 51.3	-00.9	S 21 51.3	+00.6
07	293 50.4	-00.9	S 21 51.9	+00.5
08	308 49.5	-00.9	S 21 52.4	+00.5
09	323 48.6	-00.8	S 21 52.9	+00.5
10	338 47.8	-00.9	S 21 53.4	+00.5
11	353 46.9	-00.9	S 21 53.9	+00.5
12	8 46.0	-00.9	S 21 54.4	+00.5
13	23 45.1	-00.9	S 21 54.9	+00.5
14	38 44.2	-00.9	S 21 55.4	+00.6
15	53 43.3	-00.8	S 21 56.0	+00.5
16	68 42.5	-00.9	S 21 56.5	+00.5
17	83 41.6	-00.9	S 21 57.0	+00.5
18	98 40.7	-00.9	S 21 57.5	+00.5
19	113 39.8	-00.9	S 21 58.0	+00.5
20	128 38.9	-00.9	S 21 58.5	+00.5
21	143 38.0	-00.9	S 21 59.0	+00.5
22	158 37.1	-00.8	S 21 59.5	+00.5
23	173 36.3	-00.9	S 21 60.0	+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	110°	110°	109°	109°	109°	109°

Greenwich Culmination Time: 11:24

Moon

A: 71%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	290 15.3	-28.7	N 14 15.9	-14.0
01	304 46.6	-28.7	N 14 01.9	-14.0
02	319 17.9	-28.6	N 13 47.9	-14.0
03	333 49.3	-28.4	N 13 33.9	-14.1
04	348 20.9	-28.4	N 13 19.8	-14.2
05	2 52.5	-28.2	N 13 05.6	-14.2
06	17 24.3	-28.2	N 12 51.4	-14.2
07	31 56.1	-28.0	N 12 37.2	-14.3
08	46 28.1	-28.0	N 12 22.9	-14.3
09	61 00.1	-27.8	N 12 08.6	-14.3
10	75 32.3	-27.8	N 11 54.3	-14.4
11	90 04.5	-27.6	N 11 39.9	-14.4
12	104 36.9	-27.6	N 11 25.5	-14.4
13	119 09.3	-27.5	N 11 11.1	-14.4
14	133 41.8	-27.3	N 10 56.7	-14.5
15	148 14.5	-27.3	N 10 42.2	-14.5
16	162 47.2	-27.2	N 10 27.7	-14.6
17	177 20.0	-27.2	N 10 13.1	-14.6
18	191 52.8	-27.0	N 09 58.5	-14.5
19	206 25.8	-26.9	N 09 44.0	-14.7
20	220 58.9	-26.9	N 09 29.3	-14.6
21	235 32.0	-26.8	N 09 14.7	-14.6
22	250 05.2	-26.7	N 09 00.1	-14.7
23	264 38.5	-26.6	N 08 45.4	-14.7

UT	02	06	10	14	18	22
SD	15′7	15′6	15′6	15′5	15′5	15′5
HP	57′5	57′3	57′2	57′0	56′9	56′7
SHA	210°	208°	206°	204°	202°	200°

Greenwich Culmination Time: 04:48

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	173 21.3	+00.5	S 24 06.8	+00.1
01	188 21.8	+00.4	S 24 06.9	+00.1
02	203 22.2	+00.4	S 24 07.0	+00.0
03	218 22.6	+00.4	S 24 07.0	+00.1
04	233 23.0	+00.4	S 24 07.1	+00.1
05	248 23.4	+00.4	S 24 07.2	+00.1
06	263 23.8	+00.4	S 24 07.3	+00.0
07	278 24.2	+00.4	S 24 07.3	+00.1
08	293 24.6	+00.5	S 24 07.4	+00.1
09	308 25.1	+00.4	S 24 07.5	+00.0
10	323 25.5	+00.4	S 24 07.5	+00.1
11	338 25.9	+00.4	S 24 07.6	+00.1
12	353 26.3	+00.4	S 24 07.7	+00.1
13	8 26.7	+00.4	S 24 07.8	+00.0
14	23 27.1	+00.4	S 24 07.8	+00.1
15	38 27.5	+00.4	S 24 07.9	+00.1
16	53 27.9	+00.4	S 24 08.0	+00.0
17	68 28.3	+00.5	S 24 08.0	+00.1
18	83 28.8	+00.4	S 24 08.1	+00.1
19	98 29.2	+00.4	S 24 08.2	+00.0
20	113 29.6	+00.4	S 24 08.2	+00.1
21	128 30.0	+00.4	S 24 08.3	+00.1
22	143 30.4	+00.4	S 24 08.4	+00.0
23	158 30.8	+00.4	S 24 08.4	+00.1

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	094°	094°	094°	094°	094°	094°

Greenwich Culmination Time: 12:26

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	323 13.2	+02.7	N 21 30.8	+00.1
01	338 15.9	+02.7	N 21 30.9	+00.0
02	353 18.6	+02.7	N 21 30.9	+00.1
03	8 21.3	+02.7	N 21 31.0	+00.0
04	23 24.0	+02.7	N 21 31.0	+00.1
05	38 26.7	+02.7	N 21 31.1	+00.0
06	53 29.4	+02.7	N 21 31.1	+00.0
07	68 32.1	+02.7	N 21 31.1	+00.1
08	83 34.8	+02.7	N 21 31.2	+00.0
09	98 37.5	+02.7	N 21 31.2	+00.1
10	113 40.2	+02.7	N 21 31.3	+00.0
11	128 42.9	+02.7	N 21 31.3	+00.1
12	143 45.6	+02.7	N 21 31.4	+00.0
13	158 48.3	+02.7	N 21 31.4	+00.1
14	173 51.0	+02.7	N 21 31.5	+00.0
15	188 53.7	+02.7	N 21 31.5	+00.1
16	203 56.4	+02.7	N 21 31.6	+00.0
17	218 59.1	+02.7	N 21 31.6	+00.0
18	234 01.8	+02.7	N 21 31.6	+00.1
19	249 04.5	+02.7	N 21 31.7	+00.0
20	264 07.2	+02.7	N 21 31.7	+00.1
21	279 09.9	+02.7	N 21 31.8	+00.0
22	294 12.6	+02.7	N 21 31.8	+00.1
23	309 15.3	+02.7	N 21 31.9	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:26

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	82 22.7	+02.4	S 04 01.1	-00.1
01	97 25.1	+02.4	S 04 01.0	+00.0
02	112 27.5	+02.4	S 04 01.0	+00.0
03	127 29.9	+02.5	S 04 01.0	-00.1
04	142 32.4	+02.4	S 04 00.9	+00.0
05	157 34.8	+02.4	S 04 00.9	+00.0
06	172 37.2	+02.4	S 04 00.9	+00.0
07	187 39.6	+02.4	S 04 00.9	-00.1
08	202 42.0	+02.5	S 04 00.8	+00.0
09	217 44.5	+02.4	S 04 00.8	+00.0
10	232 46.9	+02.4	S 04 00.8	-00.1
11	247 49.3	+02.4	S 04 00.7	+00.0
12	262 51.7	+02.4	S 04 00.7	+00.0
13	277 54.1	+02.4	S 04 00.7	-00.1
14	292 56.5	+02.5	S 04 00.6	+00.0
15	307 59.0	+02.4	S 04 00.6	+00.0
16	323 01.4	+02.4	S 04 00.6	+00.0
17	338 03.8	+02.4	S 04 00.6	-00.1
18	353 06.2	+02.4	S 04 00.5	+00.0
19	8 08.6	+02.4	S 04 00.5	+00.0
20	23 11.0	+02.5	S 04 00.5	-00.1
21	38 13.5	+02.4	S 04 00.4	+00.0
22	53 15.9	+02.4	S 04 00.4	+00.0
23	68 18.3	+02.4	S 04 00.4	-00.1

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:27

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 December 11 Thursday

(day 345 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 43.5	-00.3	S 22 59.9	+00.2
01	196 43.2	-00.3	S 23 00.1	+00.2
02	211 42.9	-00.3	S 23 00.3	+00.2
03	226 42.6	-00.3	S 23 00.5	+00.2
04	241 42.3	-00.3	S 23 00.7	+00.2
05	256 42.0	-00.3	S 23 00.9	+00.2
06	271 41.7	-00.3	S 23 01.1	+00.2
07	286 41.4	-00.2	S 23 01.3	+00.2
08	301 41.2	-00.3	S 23 01.5	+00.2
09	316 40.9	-00.3	S 23 01.7	+00.2
10	331 40.6	-00.3	S 23 01.9	+00.2
11	346 40.3	-00.3	S 23 02.1	+00.2
12	1 40.0	-00.3	S 23 02.3	+00.2
13	16 39.7	-00.3	S 23 02.5	+00.2
14	31 39.4	-00.3	S 23 02.7	+00.2
15	46 39.1	-00.3	S 23 02.9	+00.2
16	61 38.8	-00.2	S 23 03.1	+00.2
17	76 38.6	-00.3	S 23 03.3	+00.1
18	91 38.3	-00.3	S 23 03.4	+00.2
19	106 38.0	-00.3	S 23 03.6	+00.2
20	121 37.7	-00.3	S 23 03.8	+00.2
21	136 37.4	-00.3	S 23 04.0	+00.2
22	151 37.1	-00.3	S 23 04.2	+00.2
23	166 36.8	-00.3	S 23 04.4	+00.2

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	102°	101°	101°	101°	101°	101°

Greenwich Culmination Time: 11:53

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	188 35.4	-00.9	S 22 00.5	+00.5
01	203 34.5	-00.9	S 22 01.0	+00.5
02	218 33.6	-00.9	S 22 01.5	+00.5
03	233 32.7	-00.9	S 22 02.0	+00.5
04	248 31.8	-00.9	S 22 02.5	+00.4
05	263 30.9	-00.9	S 22 02.9	+00.5
06	278 30.0	-00.9	S 22 03.4	+00.5
07	293 29.1	-00.8	S 22 03.9	+00.5
08	308 28.3	-00.9	S 22 04.4	+00.5
09	323 27.4	-00.9	S 22 04.9	+00.5
10	338 26.5	-00.9	S 22 05.4	+00.5
11	353 25.6	-00.9	S 22 05.9	+00.5
12	8 24.7	-00.9	S 22 06.4	+00.4
13	23 23.8	-00.9	S 22 06.8	+00.5
14	38 22.9	-00.9	S 22 07.3	+00.5
15	53 22.0	-00.9	S 22 07.8	+00.5
16	68 21.1	-00.9	S 22 08.3	+00.5
17	83 20.2	-00.9	S 22 08.8	+00.5
18	98 19.3	-00.9	S 22 09.3	+00.4
19	113 18.4	-00.9	S 22 09.7	+00.5
20	128 17.5	-00.9	S 22 10.2	+00.5
21	143 16.6	-00.9	S 22 10.7	+00.4
22	158 15.7	-00.9	S 22 11.1	+00.5
23	173 14.8	-00.9	S 22 11.6	+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	109°	108°	108°	108°	108°	107°

Greenwich Culmination Time: 11:26

Moon

A: 74%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	279 11.9	-26.6	N 08 30.7	-14.7
01	293 45.3	-26.5	N 08 16.0	-14.7
02	308 18.8	-26.4	N 08 01.3	-14.8
03	322 52.4	-26.3	N 07 46.5	-14.7
04	337 26.1	-26.3	N 07 31.8	-14.8
05	351 59.8	-26.2	N 07 17.0	-14.7
06	6 33.6	-26.2	N 07 02.3	-14.8
07	21 07.4	-26.0	N 06 47.5	-14.8
08	35 41.4	-26.0	N 06 32.7	-14.8
09	50 15.4	-26.0	N 06 17.9	-14.8
10	64 49.4	-25.9	N 06 03.1	-14.8
11	79 23.5	-25.8	N 05 48.3	-14.9
12	93 57.7	-25.7	N 05 33.4	-14.8
13	108 32.0	-25.8	N 05 18.6	-14.8
14	123 06.2	-25.6	N 05 03.8	-14.8
15	137 40.6	-25.6	N 04 49.0	-14.9
16	152 15.0	-25.5	N 04 34.1	-14.8
17	166 49.5	-25.5	N 04 19.3	-14.8
18	181 24.0	-25.5	N 04 04.5	-14.8
19	195 58.5	-25.4	N 03 49.7	-14.9
20	210 33.1	-25.3	N 03 34.8	-14.8
21	225 07.8	-25.3	N 03 20.0	-14.8
22	239 42.5	-25.3	N 03 05.2	-14.8
23	254 17.2	-25.2	N 02 50.4	-14.8

UT	02	06	10	14	18	22
SD	15′4	15′4	15′3	15′3	15′3	15′2
HP	56′6	56′4	56′3	56′1	56′0	55′9
SHA	198°	196°	194°	193°	191°	189°

Greenwich Culmination Time: 05:32

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	173 31.2	+00.4	S 24 08.5	+00.1
01	188 31.6	+00.4	S 24 08.6	+00.0
02	203 32.0	+00.4	S 24 08.6	+00.1
03	218 32.4	+00.5	S 24 08.7	+00.1
04	233 32.9	+00.4	S 24 08.8	+00.0
05	248 33.3	+00.4	S 24 08.8	+00.1
06	263 33.7	+00.4	S 24 08.9	+00.1
07	278 34.1	+00.4	S 24 09.0	+00.0
08	293 34.5	+00.4	S 24 09.0	+00.1
09	308 34.9	+00.4	S 24 09.1	+00.0
10	323 35.3	+00.4	S 24 09.1	+00.1
11	338 35.7	+00.4	S 24 09.2	+00.1
12	353 36.1	+00.4	S 24 09.3	+00.0
13	8 36.5	+00.4	S 24 09.3	+00.1
14	23 36.9	+00.5	S 24 09.4	+00.0
15	38 37.4	+00.4	S 24 09.4	+00.1
16	53 37.8	+00.4	S 24 09.5	+00.1
17	68 38.2	+00.4	S 24 09.6	+00.0
18	83 38.6	+00.4	S 24 09.6	+00.1
19	98 39.0	+00.4	S 24 09.7	+00.0
20	113 39.4	+00.4	S 24 09.7	+00.1
21	128 39.8	+00.4	S 24 09.8	+00.0
22	143 40.2	+00.4	S 24 09.8	+00.1
23	158 40.6	+00.4	S 24 09.9	+00.1

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	093°	093°	093°	093°	093°	093°

Greenwich Culmination Time: 12:25

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	324 18.0	+02.7	N 21 31.9	+00.1
01	339 20.7	+02.7	N 21 32.0	+00.0
02	354 23.4	+02.7	N 21 32.0	+00.1
03	9 26.1	+02.7	N 21 32.1	+00.0
04	24 28.8	+02.8	N 21 32.1	+00.1
05	39 31.6	+02.7	N 21 32.2	+00.0
06	54 34.3	+02.7	N 21 32.2	+00.0
07	69 37.0	+02.7	N 21 32.2	+00.1
08	84 39.7	+02.7	N 21 32.3	+00.0
09	99 42.4	+02.7	N 21 32.3	+00.1
10	114 45.1	+02.7	N 21 32.4	+00.0
11	129 47.8	+02.7	N 21 32.4	+00.1
12	144 50.5	+02.7	N 21 32.5	+00.0
13	159 53.2	+02.7	N 21 32.5	+00.1
14	174 55.9	+02.7	N 21 32.6	+00.0
15	189 58.6	+02.8	N 21 32.6	+00.1
16	205 01.4	+02.7	N 21 32.7	+00.0
17	220 04.1	+02.7	N 21 32.7	+00.1
18	235 06.8	+02.7	N 21 32.8	+00.0
19	250 09.5	+02.7	N 21 32.8	+00.1
20	265 12.2	+02.7	N 21 32.9	+00.0
21	280 14.9	+02.7	N 21 32.9	+00.0
22	295 17.6	+02.7	N 21 32.9	+00.1
23	310 20.3	+02.7	N 21 33.0	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	244°	244°

Greenwich Culmination Time: 02:22

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	83 20.7	+02.4	S 04 00.3	+00.0
01	98 23.1	+02.4	S 04 00.3	+00.0
02	113 25.5	+02.4	S 04 00.3	-00.1
03	128 27.9	+02.5	S 04 00.2	+00.0
04	143 30.4	+02.4	S 04 00.2	+00.0
05	158 32.8	+02.4	S 04 00.2	+00.0
06	173 35.2	+02.4	S 04 00.2	-00.1
07	188 37.6	+02.4	S 04 00.1	+00.0
08	203 40.0	+02.4	S 04 00.1	+00.0
09	218 42.4	+02.4	S 04 00.1	-00.1
10	233 44.8	+02.5	S 04 00.0	+00.0
11	248 47.3	+02.4	S 03 60.0	+00.0
12	263 49.7	+02.4	S 03 60.0	-00.1
13	278 52.1	+02.4	S 03 59.9	+00.0
14	293 54.5	+02.4	S 03 59.9	+00.0
15	308 56.9	+02.4	S 03 59.9	-00.1
16	323 59.3	+02.4	S 03 59.8	+00.0
17	339 01.7	+02.4	S 03 59.8	+00.0
18	354 04.1	+02.5	S 03 59.8	-00.1
19	9 06.6	+02.4	S 03 59.7	+00.0
20	24 09.0	+02.4	S 03 59.7	+00.0
21	39 11.4	+02.4	S 03 59.7	-00.1
22	54 13.8	+02.4	S 03 59.6	+00.0
23	69 16.2	+02.4	S 03 59.6	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:23

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2025 December 12 Friday

(day 346 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 36.5	−00.3	S 23 04.6	+00.2
01	196 36.2	−00.3	S 23 04.8	+00.2
02	211 35.9	−00.2	S 23 05.0	+00.1
03	226 35.7	−00.3	S 23 05.1	+00.2
04	241 35.4	−00.3	S 23 05.3	+00.2
05	256 35.1	−00.3	S 23 05.5	+00.2
06	271 34.8	−00.3	S 23 05.7	+00.2
07	286 34.5	−00.3	S 23 05.9	+00.2
08	301 34.2	−00.3	S 23 06.1	+00.1
09	316 33.9	−00.3	S 23 06.2	+00.2
10	331 33.6	−00.3	S 23 06.4	+00.2
11	346 33.3	−00.3	S 23 06.6	+00.2
12	1 33.0	−00.3	S 23 06.8	+00.1
13	16 32.7	−00.3	S 23 06.9	+00.2
14	31 32.4	−00.3	S 23 07.1	+00.2
15	46 32.1	−00.2	S 23 07.3	+00.2
16	61 31.9	−00.3	S 23 07.5	+00.1
17	76 31.6	−00.3	S 23 07.6	+00.2
18	91 31.3	−00.3	S 23 07.8	+00.2
19	106 31.0	−00.3	S 23 08.0	+00.2
20	121 30.7	−00.3	S 23 08.2	+00.1
21	136 30.4	−00.3	S 23 08.3	+00.2
22	151 30.1	−00.3	S 23 08.5	+00.2
23	166 29.8	−00.3	S 23 08.7	+00.1

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	101°	100°	100°	100°	100°	100°

Greenwich Culmination Time: 11:53

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	188 13.9	−00.8	S 22 12.1	+00.5
01	203 13.1	−00.9	S 22 12.6	+00.4
02	218 12.2	−00.9	S 22 13.0	+00.5
03	233 11.3	−00.9	S 22 13.5	+00.5
04	248 10.4	−00.9	S 22 14.0	+00.4
05	263 09.5	−00.9	S 22 14.4	+00.5
06	278 08.6	−00.9	S 22 14.9	+00.5
07	293 07.7	−00.9	S 22 15.4	+00.4
08	308 06.8	−00.9	S 22 15.8	+00.5
09	323 05.9	−00.9	S 22 16.3	+00.4
10	338 05.0	−00.9	S 22 16.7	+00.5
11	353 04.1	−00.9	S 22 17.2	+00.5
12	8 03.2	−00.9	S 22 17.7	+00.4
13	23 02.3	−00.9	S 22 18.1	+00.5
14	38 01.4	−01.0	S 22 18.6	+00.4
15	53 00.4	−00.9	S 22 19.0	+00.5
16	67 59.5	−00.9	S 22 19.5	+00.4
17	82 58.6	−00.9	S 22 19.9	+00.5
18	97 57.7	−00.9	S 22 20.4	+00.4
19	112 56.8	−00.9	S 22 20.8	+00.5
20	127 55.9	−00.9	S 22 21.3	+00.4
21	142 55.0	−00.9	S 22 21.7	+00.5
22	157 54.1	−00.9	S 22 22.2	+00.4
23	172 53.2	−00.9	S 22 22.6	+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	107°	107°	107°	106°	106°	106°

Greenwich Culmination Time: 11:27

Moon

A: 77%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	268 52.0	−25.2	N 02 35.6	−14.8
01	283 26.8	−25.1	N 02 20.8	−14.8
02	298 01.7	−25.1	N 02 06.0	−14.8
03	312 36.6	−25.1	N 01 51.2	−14.8
04	327 11.5	−25.0	N 01 36.4	−14.8
05	341 46.5	−25.0	N 01 21.6	−14.7
06	356 21.5	−24.9	N 01 06.9	−14.8
07	10 56.6	−24.9	N 00 52.1	−14.7
08	25 31.7	−24.9	N 00 37.4	−14.7
09	40 06.8	−24.9	N 00 22.7	−14.7
10	54 41.9	−24.8	N 00 08.0	−14.7
11	69 17.1	−24.8	S 00 06.7	+14.7
12	83 52.3	−24.8	S 00 21.4	+14.7
13	98 27.5	−24.7	S 00 36.1	+14.6
14	113 02.8	−24.8	S 00 50.7	+14.6
15	127 38.0	−24.7	S 01 05.3	+14.6
16	142 13.3	−24.7	S 01 19.9	+14.6
17	156 48.6	−24.6	S 01 34.5	+14.6
18	171 24.0	−24.7	S 01 49.1	+14.6
19	185 59.3	−24.6	S 02 03.7	+14.5
20	200 34.7	−24.6	S 02 18.2	+14.5
21	215 10.1	−24.6	S 02 32.7	+14.5
22	229 45.5	−24.6	S 02 47.2	+14.4
23	244 20.9	−24.6	S 03 01.6	+14.5

UT	02	06	10	14	18	22
SD	15′2	15′2	15′1	15′1	15′1	15′0
HP	55′8	55′6	55′5	55′4	55′3	55′2
SHA	187°	185°	183°	182°	180°	178°

Greenwich Culmination Time: 06:14

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	173 41.0	+00.4	S 24 10.0	+00.0
01	188 41.4	+00.4	S 24 10.0	+00.1
02	203 41.8	+00.4	S 24 10.1	+00.0
03	218 42.2	+00.4	S 24 10.1	+00.1
04	233 42.6	+00.4	S 24 10.2	+00.0
05	248 43.0	+00.5	S 24 10.2	+00.1
06	263 43.5	+00.4	S 24 10.3	+00.0
07	278 43.9	+00.4	S 24 10.3	+00.1
08	293 44.3	+00.4	S 24 10.4	+00.0
09	308 44.7	+00.4	S 24 10.4	+00.1
10	323 45.1	+00.4	S 24 10.5	+00.0
11	338 45.5	+00.4	S 24 10.5	+00.1
12	353 45.9	+00.4	S 24 10.6	+00.0
13	8 46.3	+00.4	S 24 10.6	+00.1
14	23 46.7	+00.4	S 24 10.7	+00.0
15	38 47.1	+00.4	S 24 10.7	+00.1
16	53 47.5	+00.4	S 24 10.8	+00.0
17	68 47.9	+00.4	S 24 10.8	+00.1
18	83 48.3	+00.4	S 24 10.9	+00.0
19	98 48.7	+00.4	S 24 10.9	+00.1
20	113 49.1	+00.4	S 24 11.0	+00.0
21	128 49.5	+00.4	S 24 11.0	+00.1
22	143 49.9	+00.4	S 24 11.1	+00.0
23	158 50.3	+00.4	S 24 11.1	+00.0

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	093°	093°	092°	092°	092°	092°

Greenwich Culmination Time: 12:24

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	325 23.0	+02.8	N 21 33.0	+00.1
01	340 25.8	+02.7	N 21 33.1	+00.0
02	355 28.5	+02.7	N 21 33.1	+00.1
03	10 31.2	+02.7	N 21 33.2	+00.0
04	25 33.9	+02.7	N 21 33.2	+00.1
05	40 36.6	+02.7	N 21 33.3	+00.0
06	55 39.3	+02.7	N 21 33.3	+00.1
07	70 42.0	+02.8	N 21 33.4	+00.0
08	85 44.8	+02.7	N 21 33.4	+00.1
09	100 47.5	+02.7	N 21 33.5	+00.0
10	115 50.2	+02.7	N 21 33.5	+00.1
11	130 52.9	+02.7	N 21 33.6	+00.0
12	145 55.6	+02.7	N 21 33.6	+00.1
13	160 58.3	+02.8	N 21 33.7	+00.0
14	176 01.1	+02.7	N 21 33.7	+00.0
15	191 03.8	+02.7	N 21 33.7	+00.1
16	206 06.5	+02.7	N 21 33.8	+00.0
17	221 09.2	+02.7	N 21 33.8	+00.1
18	236 11.9	+02.7	N 21 33.9	+00.0
19	251 14.6	+02.8	N 21 33.9	+00.1
20	266 17.4	+02.7	N 21 34.0	+00.0
21	281 20.1	+02.7	N 21 34.0	+00.1
22	296 22.8	+02.7	N 21 34.1	+00.0
23	311 25.5	+02.7	N 21 34.1	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	244°	244°	244°	244°	245°	245°

Greenwich Culmination Time: 02:18

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	84 18.6	+02.4	S 03 59.6	−00.1
01	99 21.0	+02.4	S 03 59.5	+00.0
02	114 23.4	+02.4	S 03 59.5	+00.0
03	129 25.8	+02.5	S 03 59.5	−00.1
04	144 28.3	+02.4	S 03 59.4	+00.0
05	159 30.7	+02.4	S 03 59.4	+00.0
06	174 33.1	+02.4	S 03 59.4	−00.1
07	189 35.5	+02.4	S 03 59.3	+00.0
08	204 37.9	+02.4	S 03 59.3	+00.0
09	219 40.3	+02.4	S 03 59.3	−00.1
10	234 42.7	+02.4	S 03 59.2	+00.0
11	249 45.1	+02.4	S 03 59.2	+00.0
12	264 47.5	+02.4	S 03 59.2	−00.1
13	279 49.9	+02.4	S 03 59.1	+00.0
14	294 52.3	+02.5	S 03 59.1	+00.0
15	309 54.8	+02.4	S 03 59.1	−00.1
16	324 57.2	+02.4	S 03 59.0	+00.0
17	339 59.6	+02.4	S 03 59.0	+00.0
18	355 02.0	+02.4	S 03 59.0	−00.1
19	10 04.4	+02.4	S 03 58.9	+00.0
20	25 06.8	+02.4	S 03 58.9	+00.0
21	40 09.2	+02.4	S 03 58.9	−00.1
22	55 11.6	+02.4	S 03 58.8	+00.0
23	70 14.0	+02.4	S 03 58.8	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:19

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 December 13 Saturday

(day 347 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 29.5	-00.3	S 23 08.8	+00.2	00
01	196 29.2	-00.3	S 23 09.0	+00.2	01
02	211 28.9	-00.3	S 23 09.2	+00.1	02
03	226 28.6	-00.3	S 23 09.3	+00.2	03
04	241 28.3	-00.3	S 23 09.5	+00.2	04
05	256 28.0	-00.3	S 23 09.7	+00.1	05
06	271 27.7	-00.3	S 23 09.8	+00.2	06
07	286 27.4	-00.3	S 23 10.0	+00.2	07
08	301 27.1	-00.3	S 23 10.2	+00.1	08
09	316 26.8	-00.2	S 23 10.3	+00.2	09
10	331 26.6	-00.3	S 23 10.5	+00.1	10
11	346 26.3	-00.3	S 23 10.6	+00.2	11
12	1 26.0	-00.3	S 23 10.8	+00.2	12
13	16 25.7	-00.3	S 23 11.0	+00.1	13
14	31 25.4	-00.3	S 23 11.1	+00.2	14
15	46 25.1	-00.3	S 23 11.3	+00.1	15
16	61 24.8	-00.3	S 23 11.4	+00.2	16
17	76 24.5	-00.3	S 23 11.6	+00.1	17
18	91 24.2	-00.3	S 23 11.7	+00.2	18
19	106 23.9	-00.3	S 23 11.9	+00.1	19
20	121 23.6	-00.3	S 23 12.0	+00.2	20
21	136 23.3	-00.3	S 23 12.2	+00.1	21
22	151 23.0	-00.3	S 23 12.3	+00.2	22
23	166 22.7	-00.3	S 23 12.5	+00.1	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	099°	099°	099°	099°	099°	099°

Greenwich Culmination Time: 11:54

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	187 52.3	-00.9	S 22 23.0	+00.5	00
01	202 51.4	-00.9	S 22 23.5	+00.4	01
02	217 50.5	-00.9	S 22 23.9	+00.5	02
03	232 49.6	-00.9	S 22 24.4	+00.4	03
04	247 48.7	-00.9	S 22 24.8	+00.4	04
05	262 47.8	-00.9	S 22 25.2	+00.5	05
06	277 46.9	-00.9	S 22 25.7	+00.4	06
07	292 46.0	-01.0	S 22 26.1	+00.5	07
08	307 45.0	-00.9	S 22 26.6	+00.4	08
09	322 44.1	-00.9	S 22 27.0	+00.4	09
10	337 43.2	-00.9	S 22 27.4	+00.4	10
11	352 42.3	-00.9	S 22 27.8	+00.5	11
12	7 41.4	-00.9	S 22 28.3	+00.4	12
13	22 40.5	-00.9	S 22 28.7	+00.4	13
14	37 39.6	-00.9	S 22 29.1	+00.5	14
15	52 38.7	-00.9	S 22 29.6	+00.4	15
16	67 37.8	-01.0	S 22 30.0	+00.4	16
17	82 36.8	-00.9	S 22 30.4	+00.4	17
18	97 35.9	-00.9	S 22 30.8	+00.5	18
19	112 35.0	-00.9	S 22 31.3	+00.4	19
20	127 34.1	-00.9	S 22 31.7	+00.4	20
21	142 33.2	-00.9	S 22 32.1	+00.4	21
22	157 32.3	-00.9	S 22 32.5	+00.4	22
23	172 31.4	-00.9	S 22 32.9	+00.4	23

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	106°	106°	105°	105°	105°	105°

Greenwich Culmination Time: 11:29

Moon

A: 79%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	258 56.3	-24.6	S 03 16.1	+14.4	00
01	273 31.7	-24.5	S 03 30.5	+14.4	01
02	288 07.2	-24.6	S 03 44.9	+14.3	02
03	302 42.6	-24.5	S 03 59.2	+14.4	03
04	317 18.1	-24.6	S 04 13.6	+14.3	04
05	331 53.5	-24.5	S 04 27.9	+14.2	05
06	346 29.0	-24.5	S 04 42.1	+14.3	06
07	1 04.5	-24.6	S 04 56.4	+14.2	07
08	15 39.9	-24.5	S 05 10.6	+14.2	08
09	30 15.4	-24.5	S 05 24.8	+14.2	09
10	44 50.9	-24.6	S 05 39.0	+14.1	10
11	59 26.3	-24.5	S 05 53.1	+14.1	11
12	74 01.8	-24.5	S 06 07.2	+14.0	12
13	88 37.3	-24.6	S 06 21.2	+14.1	13
14	103 12.7	-24.5	S 06 35.3	+14.0	14
15	117 48.2	-24.6	S 06 49.3	+13.9	15
16	132 23.6	-24.5	S 07 03.2	+13.9	16
17	146 59.1	-24.6	S 07 17.1	+13.9	17
18	161 34.5	-24.6	S 07 31.0	+13.9	18
19	176 09.9	-24.6	S 07 44.9	+13.8	19
20	190 45.3	-24.6	S 07 58.7	+13.8	20
21	205 20.7	-24.6	S 08 12.5	+13.7	21
22	219 56.1	-24.7	S 08 26.2	+13.7	22
23	234 31.4	-24.6	S 08 39.9	+13.6	23

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	14′9	14′9	14′9
HP	55′1	55′0	54′9	54′8	54′7	54′7
SHA	176°	174°	173°	171°	169°	167°

Greenwich Culmination Time: 06:55

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	173 50.7	+00.4	S 24 11.1	+00.1	00
01	188 51.1	+00.4	S 24 11.2	+00.0	01
02	203 51.5	+00.5	S 24 11.2	+00.1	02
03	218 52.0	+00.4	S 24 11.3	+00.0	03
04	233 52.4	+00.4	S 24 11.3	+00.1	04
05	248 52.8	+00.4	S 24 11.4	+00.0	05
06	263 53.2	+00.4	S 24 11.4	+00.0	06
07	278 53.6	+00.4	S 24 11.4	+00.1	07
08	293 54.0	+00.4	S 24 11.5	+00.0	08
09	308 54.4	+00.4	S 24 11.5	+00.1	09
10	323 54.8	+00.4	S 24 11.6	+00.0	10
11	338 55.2	+00.4	S 24 11.6	+00.0	11
12	353 55.6	+00.4	S 24 11.6	+00.1	12
13	8 56.0	+00.4	S 24 11.7	+00.0	13
14	23 56.4	+00.4	S 24 11.7	+00.1	14
15	38 56.8	+00.4	S 24 11.8	+00.0	15
16	53 57.2	+00.4	S 24 11.8	+00.0	16
17	68 57.6	+00.4	S 24 11.8	+00.1	17
18	83 58.0	+00.4	S 24 11.9	+00.0	18
19	98 58.4	+00.4	S 24 11.9	+00.0	19
20	113 58.8	+00.4	S 24 11.9	+00.1	20
21	128 59.2	+00.4	S 24 12.0	+00.0	21
22	143 59.6	+00.4	S 24 12.0	+00.0	22
23	158 60.0	+00.4	S 24 12.0	+00.1	23

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	092°	092°	092°	091°	091°	091°

Greenwich Culmination Time: 12:24

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	326 28.2	+02.8	N 21 34.2	+00.0	00
01	341 31.0	+02.7	N 21 34.2	+00.1	01
02	356 33.7	+02.7	N 21 34.3	+00.0	02
03	11 36.4	+02.7	N 21 34.3	+00.1	03
04	26 39.1	+02.7	N 21 34.4	+00.0	04
05	41 41.8	+02.8	N 21 34.4	+00.1	05
06	56 44.6	+02.7	N 21 34.5	+00.0	06
07	71 47.3	+02.7	N 21 34.5	+00.1	07
08	86 50.0	+02.7	N 21 34.6	+00.0	08
09	101 52.7	+02.7	N 21 34.6	+00.1	09
10	116 55.4	+02.8	N 21 34.7	+00.0	10
11	131 58.2	+02.7	N 21 34.7	+00.1	11
12	147 00.9	+02.7	N 21 34.8	+00.0	12
13	162 03.6	+02.7	N 21 34.8	+00.0	13
14	177 06.3	+02.8	N 21 34.8	+00.1	14
15	192 09.1	+02.7	N 21 34.9	+00.0	15
16	207 11.8	+02.7	N 21 34.9	+00.1	16
17	222 14.5	+02.7	N 21 35.0	+00.0	17
18	237 17.2	+02.8	N 21 35.0	+00.1	18
19	252 20.0	+02.7	N 21 35.1	+00.0	19
20	267 22.7	+02.7	N 21 35.1	+00.1	20
21	282 25.4	+02.7	N 21 35.2	+00.0	21
22	297 28.1	+02.8	N 21 35.2	+00.1	22
23	312 30.9	+02.7	N 21 35.3	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 02:13

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	85 16.4	+02.4	S 03 58.8	-00.1	00
01	100 18.8	+02.4	S 03 58.7	+00.0	01
02	115 21.2	+02.4	S 03 58.7	+00.0	02
03	130 23.6	+02.5	S 03 58.7	-00.1	03
04	145 26.1	+02.4	S 03 58.6	+00.0	04
05	160 28.5	+02.4	S 03 58.6	+00.0	05
06	175 30.9	+02.4	S 03 58.6	-00.1	06
07	190 33.3	+02.4	S 03 58.5	+00.0	07
08	205 35.7	+02.4	S 03 58.5	+00.0	08
09	220 38.1	+02.4	S 03 58.5	-00.1	09
10	235 40.5	+02.4	S 03 58.4	+00.0	10
11	250 42.9	+02.4	S 03 58.4	-00.1	11
12	265 45.3	+02.4	S 03 58.3	+00.0	12
13	280 47.7	+02.4	S 03 58.3	+00.0	13
14	295 50.1	+02.4	S 03 58.3	-00.1	14
15	310 52.5	+02.4	S 03 58.2	+00.0	15
16	325 54.9	+02.4	S 03 58.2	+00.0	16
17	340 57.3	+02.4	S 03 58.2	-00.1	17
18	355 59.7	+02.4	S 03 58.1	+00.0	18
19	11 02.1	+02.4	S 03 58.1	+00.0	19
20	26 04.5	+02.4	S 03 58.1	-00.1	20
21	41 06.9	+02.4	S 03 58.0	+00.0	21
22	56 09.3	+02.4	S 03 58.0	+00.0	22
23	71 11.7	+02.4	S 03 58.0	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:15

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 December 14 Sunday

(day 348 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 22.4	-00.3	S 23 12.6	+00.2	00
01	196 22.1	-00.3	S 23 12.8	+00.1	01
02	211 21.8	-00.3	S 23 12.9	+00.2	02
03	226 21.5	-00.3	S 23 13.1	+00.1	03
04	241 21.2	-00.3	S 23 13.2	+00.2	04
05	256 20.9	-00.3	S 23 13.4	+00.1	05
06	271 20.6	-00.3	S 23 13.5	+00.2	06
07	286 20.3	-00.3	S 23 13.7	+00.1	07
08	301 20.0	-00.3	S 23 13.8	+00.1	08
09	316 19.7	-00.3	S 23 13.9	+00.2	09
10	331 19.4	-00.3	S 23 14.1	+00.1	10
11	346 19.1	-00.3	S 23 14.2	+00.2	11
12	1 18.8	-00.3	S 23 14.4	+00.1	12
13	16 18.5	-00.3	S 23 14.5	+00.1	13
14	31 18.2	-00.3	S 23 14.6	+00.2	14
15	46 17.9	-00.3	S 23 14.8	+00.1	15
16	61 17.6	-00.3	S 23 14.9	+00.2	16
17	76 17.3	-00.3	S 23 15.1	+00.1	17
18	91 17.0	-00.3	S 23 15.2	+00.1	18
19	106 16.7	-00.3	S 23 15.3	+00.2	19
20	121 16.4	-00.3	S 23 15.5	+00.1	20
21	136 16.1	-00.3	S 23 15.6	+00.1	21
22	151 15.8	-00.3	S 23 15.7	+00.2	22
23	166 15.5	-00.3	S 23 15.9	+00.1	23

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	098°	098°	098°	098°	098°	097°

Greenwich Culmination Time: 11:54

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	187 30.5	-01.0	S 22 33.3	+00.5	00
01	202 29.5	-00.9	S 22 33.8	+00.4	01
02	217 28.6	-00.9	S 22 34.2	+00.4	02
03	232 27.7	-00.9	S 22 34.6	+00.4	03
04	247 26.8	-00.9	S 22 35.0	+00.4	04
05	262 25.9	-00.9	S 22 35.4	+00.4	05
06	277 25.0	-01.0	S 22 35.8	+00.4	06
07	292 24.0	-00.9	S 22 36.2	+00.4	07
08	307 23.1	-00.9	S 22 36.6	+00.4	08
09	322 22.2	-00.9	S 22 37.0	+00.4	09
10	337 21.3	-00.9	S 22 37.4	+00.4	10
11	352 20.4	-00.9	S 22 37.8	+00.4	11
12	7 19.5	-01.0	S 22 38.2	+00.4	12
13	22 18.5	-00.9	S 22 38.6	+00.4	13
14	37 17.6	-00.9	S 22 39.0	+00.4	14
15	52 16.7	-00.9	S 22 39.4	+00.4	15
16	67 15.8	-00.9	S 22 39.8	+00.4	16
17	82 14.9	-01.0	S 22 40.2	+00.4	17
18	97 13.9	-00.9	S 22 40.6	+00.4	18
19	112 13.0	-00.9	S 22 41.0	+00.4	19
20	127 12.1	-00.9	S 22 41.4	+00.4	20
21	142 11.2	-01.0	S 22 41.8	+00.4	21
22	157 10.2	-00.9	S 22 42.2	+00.4	22
23	172 09.3	-00.9	S 22 42.6	+00.3	23

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	104°	104°	104°	104°	104°	103°

Greenwich Culmination Time: 11:30

Moon

A: 82%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	249 06.8	-24.7	S 08 53.5	+13.7	00
01	263 42.1	-24.7	S 09 07.2	+13.5	01
02	278 17.4	-24.7	S 09 20.7	+13.6	02
03	292 52.7	-24.7	S 09 34.3	+13.4	03
04	307 28.0	-24.8	S 09 47.7	+13.5	04
05	322 03.2	-24.7	S 10 01.2	+13.4	05
06	336 38.5	-24.8	S 10 14.6	+13.3	06
07	351 13.7	-24.9	S 10 27.9	+13.3	07
08	5 48.8	-24.8	S 10 41.2	+13.3	08
09	20 24.0	-24.9	S 10 54.5	+13.2	09
10	34 59.1	-24.9	S 11 07.7	+13.2	10
11	49 34.2	-24.9	S 11 20.9	+13.1	11
12	64 09.3	-25.0	S 11 34.0	+13.0	12
13	78 44.3	-25.0	S 11 47.0	+13.1	13
14	93 19.3	-25.0	S 12 00.1	+12.9	14
15	107 54.3	-25.0	S 12 13.0	+12.9	15
16	122 29.3	-25.1	S 12 25.9	+12.9	16
17	137 04.2	-25.1	S 12 38.8	+12.8	17
18	151 39.1	-25.2	S 12 51.6	+12.7	18
19	166 13.9	-25.2	S 13 04.3	+12.7	19
20	180 48.7	-25.2	S 13 17.0	+12.7	20
21	195 23.5	-25.3	S 13 29.7	+12.6	21
22	209 58.2	-25.3	S 13 42.3	+12.5	22
23	224 32.9	-25.4	S 13 54.8	+12.5	23

UT	02	06	10	14	18	22
SD	14′9	14′9	14′8	14′8	14′8	14′8
HP	54′6	54′5	54′4	54′4	54′3	54′3
SHA	165°	163°	162°	160°	158°	156°

Greenwich Culmination Time: 07:36

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	174 00.4	+00.4	S 24 12.1	+00.0	00
01	189 00.8	+00.4	S 24 12.1	+00.0	01
02	204 01.2	+00.4	S 24 12.1	+00.1	02
03	219 01.6	+00.4	S 24 12.2	+00.0	03
04	234 02.0	+00.4	S 24 12.2	+00.0	04
05	249 02.4	+00.4	S 24 12.2	+00.1	05
06	264 02.8	+00.4	S 24 12.3	+00.0	06
07	279 03.2	+00.4	S 24 12.3	+00.0	07
08	294 03.6	+00.4	S 24 12.3	+00.0	08
09	309 04.0	+00.4	S 24 12.3	+00.1	09
10	324 04.4	+00.4	S 24 12.4	+00.0	10
11	339 04.8	+00.4	S 24 12.4	+00.0	11
12	354 05.2	+00.4	S 24 12.4	+00.1	12
13	9 05.6	+00.4	S 24 12.5	+00.0	13
14	24 06.0	+00.4	S 24 12.5	+00.0	14
15	39 06.4	+00.4	S 24 12.5	+00.0	15
16	54 06.8	+00.4	S 24 12.5	+00.1	16
17	69 07.2	+00.4	S 24 12.6	+00.0	17
18	84 07.6	+00.4	S 24 12.6	+00.0	18
19	99 08.0	+00.4	S 24 12.6	+00.0	19
20	114 08.4	+00.4	S 24 12.6	+00.1	20
21	129 08.8	+00.4	S 24 12.7	+00.0	21
22	144 09.2	+00.4	S 24 12.7	+00.0	22
23	159 09.6	+00.4	S 24 12.7	+00.0	23

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	091°	091°	091°	091°	090°	090°

Greenwich Culmination Time: 12:23

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	327 33.6	+02.7	N 21 35.3	+00.1	00
01	342 36.3	+02.7	N 21 35.4	+00.0	01
02	357 39.0	+02.8	N 21 35.4	+00.1	02
03	12 41.8	+02.7	N 21 35.5	+00.0	03
04	27 44.5	+02.7	N 21 35.5	+00.1	04
05	42 47.2	+02.7	N 21 35.6	+00.0	05
06	57 49.9	+02.8	N 21 35.6	+00.1	06
07	72 52.7	+02.7	N 21 35.7	+00.0	07
08	87 55.4	+02.7	N 21 35.7	+00.1	08
09	102 58.1	+02.8	N 21 35.8	+00.0	09
10	118 00.9	+02.7	N 21 35.8	+00.1	10
11	133 03.6	+02.7	N 21 35.9	+00.0	11
12	148 06.3	+02.8	N 21 35.9	+00.1	12
13	163 09.1	+02.7	N 21 36.0	+00.0	13
14	178 11.8	+02.7	N 21 36.0	+00.1	14
15	193 14.5	+02.7	N 21 36.1	+00.0	15
16	208 17.2	+02.8	N 21 36.1	+00.1	16
17	223 20.0	+02.7	N 21 36.2	+00.0	17
18	238 22.7	+02.7	N 21 36.2	+00.1	18
19	253 25.4	+02.8	N 21 36.3	+00.0	19
20	268 28.2	+02.7	N 21 36.3	+00.1	20
21	283 30.9	+02.7	N 21 36.4	+00.0	21
22	298 33.6	+02.8	N 21 36.4	+00.1	22
23	313 36.4	+02.7	N 21 36.5	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 02:09

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	86 14.1	+02.4	S 03 57.9	+00.0	00
01	101 16.5	+02.4	S 03 57.9	-00.1	01
02	116 18.9	+02.4	S 03 57.8	+00.0	02
03	131 21.3	+02.4	S 03 57.8	+00.0	03
04	146 23.7	+02.5	S 03 57.8	-00.1	04
05	161 26.2	+02.4	S 03 57.7	+00.0	05
06	176 28.6	+02.4	S 03 57.7	+00.0	06
07	191 31.0	+02.4	S 03 57.7	-00.1	07
08	206 33.4	+02.4	S 03 57.6	+00.0	08
09	221 35.8	+02.4	S 03 57.6	+00.0	09
10	236 38.2	+02.4	S 03 57.6	-00.1	10
11	251 40.6	+02.4	S 03 57.5	+00.0	11
12	266 43.0	+02.4	S 03 57.5	-00.1	12
13	281 45.4	+02.4	S 03 57.4	+00.0	13
14	296 47.8	+02.4	S 03 57.4	+00.0	14
15	311 50.2	+02.4	S 03 57.4	-00.1	15
16	326 52.6	+02.4	S 03 57.3	+00.0	16
17	341 55.0	+02.4	S 03 57.3	+00.0	17
18	356 57.4	+02.4	S 03 57.3	-00.1	18
19	11 59.8	+02.4	S 03 57.2	+00.0	19
20	27 02.2	+02.4	S 03 57.2	-00.1	20
21	42 04.6	+02.4	S 03 57.1	+00.0	21
22	57 07.0	+02.4	S 03 57.1	+00.0	22
23	72 09.4	+02.4	S 03 57.1	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:12

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2025 December 15 Monday

(day 349 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 15.2	−00.3	S 23 16.0	+00.1
01	196 14.9	−00.3	S 23 16.1	+00.1
02	211 14.6	−00.3	S 23 16.2	+00.2
03	226 14.3	−00.3	S 23 16.4	+00.1
04	241 14.0	−00.3	S 23 16.5	+00.1
05	256 13.7	−00.3	S 23 16.6	+00.1
06	271 13.4	−00.3	S 23 16.7	+00.2
07	286 13.1	−00.3	S 23 16.9	+00.1
08	301 12.8	−00.3	S 23 17.0	+00.1
09	316 12.5	−00.3	S 23 17.1	+00.1
10	331 12.2	−00.3	S 23 17.2	+00.2
11	346 11.9	−00.3	S 23 17.4	+00.1
12	1 11.6	−00.3	S 23 17.5	+00.1
13	16 11.3	−00.3	S 23 17.6	+00.1
14	31 11.0	−00.3	S 23 17.7	+00.1
15	46 10.7	−00.3	S 23 17.8	+00.1
16	61 10.4	−00.3	S 23 17.9	+00.2
17	76 10.1	−00.3	S 23 18.1	+00.1
18	91 09.8	−00.3	S 23 18.2	+00.1
19	106 09.5	−00.3	S 23 18.3	+00.1
20	121 09.2	−00.3	S 23 18.4	+00.1
21	136 08.9	−00.3	S 23 18.5	+00.1
22	151 08.6	−00.3	S 23 18.6	+00.1
23	166 08.3	−00.3	S 23 18.7	+00.2

UT	02	06	10	14	18	22
SD	16′2	16′2	16′2	16′2	16′2	16′2
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	097°	097°	097°	097°	097°	096°

Greenwich Culmination Time: 11:55

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	187 08.4	−00.9	S 22 42.9	+00.4
01	202 07.5	−00.9	S 22 43.3	+00.4
02	217 06.6	−01.0	S 22 43.7	+00.4
03	232 05.6	−00.9	S 22 44.1	+00.4
04	247 04.7	−00.9	S 22 44.5	+00.4
05	262 03.8	−00.9	S 22 44.9	+00.3
06	277 02.9	−01.0	S 22 45.2	+00.4
07	292 01.9	−00.9	S 22 45.6	+00.4
08	307 01.0	−00.9	S 22 46.0	+00.4
09	322 00.1	−00.9	S 22 46.4	+00.4
10	336 59.2	−01.0	S 22 46.8	+00.3
11	351 58.2	−00.9	S 22 47.1	+00.4
12	6 57.3	−00.9	S 22 47.5	+00.4
13	21 56.4	−01.0	S 22 47.9	+00.3
14	36 55.4	−00.9	S 22 48.2	+00.4
15	51 54.5	−00.9	S 22 48.6	+00.4
16	66 53.6	−00.9	S 22 49.0	+00.3
17	81 52.7	−01.0	S 22 49.3	+00.4
18	96 51.7	−00.9	S 22 49.7	+00.4
19	111 50.8	−00.9	S 22 50.1	+00.3
20	126 49.9	−01.0	S 22 50.4	+00.4
21	141 48.9	−00.9	S 22 50.8	+00.4
22	156 48.0	−00.9	S 22 51.2	+00.3
23	171 47.1	−00.9	S 22 51.5	+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	103°	103°	103°	102°	102°	102°

Greenwich Culmination Time: 11:32

Moon

A: 85%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	239 07.5	−25.3	S 14 07.3	+12.4
01	253 42.2	−25.5	S 14 19.7	+12.4
02	268 16.7	−25.4	S 14 32.1	+12.3
03	282 51.3	−25.6	S 14 44.4	+12.2
04	297 25.7	−25.5	S 14 56.6	+12.2
05	312 00.2	−25.6	S 15 08.8	+12.1
06	326 34.6	−25.7	S 15 20.9	+12.0
07	341 08.9	−25.7	S 15 32.9	+12.0
08	355 43.2	−25.7	S 15 44.9	+11.9
09	10 17.5	−25.8	S 15 56.8	+11.9
10	24 51.7	−25.8	S 16 08.7	+11.8
11	39 25.9	−25.9	S 16 20.5	+11.7
12	53 60.0	−26.0	S 16 32.2	+11.7
13	68 34.0	−26.0	S 16 43.9	+11.6
14	83 08.0	−26.0	S 16 55.5	+11.5
15	97 42.0	−26.1	S 17 07.0	+11.5
16	112 15.9	−26.2	S 17 18.5	+11.3
17	126 49.7	−26.2	S 17 29.8	+11.3
18	141 23.5	−26.2	S 17 41.1	+11.3
19	155 57.3	−26.3	S 17 52.4	+11.2
20	170 31.0	−26.4	S 18 03.6	+11.1
21	185 04.6	−26.4	S 18 14.7	+11.0
22	199 38.2	−26.5	S 18 25.7	+10.9
23	214 11.7	−26.6	S 18 36.6	+10.9

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′7	14′7	14′7
HP	54′2	54′2	54′1	54′1	54′1	54′0
SHA	154°	152°	151°	149°	147°	145°

Greenwich Culmination Time: 08:17

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	174 10.0	+00.4	S 24 12.7	+00.1
01	189 10.4	+00.4	S 24 12.8	+00.0
02	204 10.8	+00.4	S 24 12.8	+00.0
03	219 11.2	+00.4	S 24 12.8	+00.0
04	234 11.6	+00.4	S 24 12.8	+00.0
05	249 12.0	+00.4	S 24 12.8	+00.1
06	264 12.4	+00.4	S 24 12.9	+00.0
07	279 12.8	+00.4	S 24 12.9	+00.0
08	294 13.2	+00.4	S 24 12.9	+00.0
09	309 13.6	+00.4	S 24 12.9	+00.0
10	324 14.0	+00.4	S 24 12.9	+00.0
11	339 14.4	+00.4	S 24 12.9	+00.1
12	354 14.8	+00.4	S 24 13.0	+00.0
13	9 15.2	+00.4	S 24 13.0	+00.0
14	24 15.6	+00.3	S 24 13.0	+00.0
15	39 15.9	+00.4	S 24 13.0	+00.0
16	54 16.3	+00.4	S 24 13.0	+00.0
17	69 16.7	+00.4	S 24 13.0	+00.1
18	84 17.1	+00.4	S 24 13.1	+00.0
19	99 17.5	+00.4	S 24 13.1	+00.0
20	114 17.9	+00.4	S 24 13.1	+00.0
21	129 18.3	+00.4	S 24 13.1	+00.0
22	144 18.7	+00.4	S 24 13.1	+00.0
23	159 19.1	+00.4	S 24 13.1	+00.0

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	090°	090°	090°	090°	090°	090°

Greenwich Culmination Time: 12:23

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	328 39.1	+02.7	N 21 36.5	+00.1
01	343 41.8	+02.8	N 21 36.6	+00.0
02	358 44.6	+02.7	N 21 36.6	+00.1
03	13 47.3	+02.7	N 21 36.7	+00.0
04	28 50.0	+02.8	N 21 36.7	+00.1
05	43 52.8	+02.7	N 21 36.8	+00.0
06	58 55.5	+02.7	N 21 36.8	+00.1
07	73 58.2	+02.8	N 21 36.9	+00.0
08	89 01.0	+02.7	N 21 36.9	+00.1
09	104 03.7	+02.7	N 21 37.0	+00.0
10	119 06.4	+02.8	N 21 37.0	+00.1
11	134 09.2	+02.7	N 21 37.1	+00.0
12	149 11.9	+02.7	N 21 37.1	+00.1
13	164 14.6	+02.8	N 21 37.2	+00.0
14	179 17.4	+02.7	N 21 37.2	+00.1
15	194 20.1	+02.8	N 21 37.3	+00.0
16	209 22.9	+02.7	N 21 37.3	+00.1
17	224 25.6	+02.7	N 21 37.4	+00.0
18	239 28.3	+02.8	N 21 37.4	+00.1
19	254 31.1	+02.7	N 21 37.5	+00.0
20	269 33.8	+02.7	N 21 37.5	+00.1
21	284 36.5	+02.8	N 21 37.6	+00.0
22	299 39.3	+02.7	N 21 37.6	+00.1
23	314 42.0	+02.8	N 21 37.7	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 02:05

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	87 11.8	+02.4	S 03 57.0	+00.0
01	102 14.2	+02.4	S 03 57.0	+00.0
02	117 16.6	+02.4	S 03 57.0	−00.1
03	132 19.0	+02.4	S 03 56.9	+00.0
04	147 21.4	+02.3	S 03 56.9	−00.1
05	162 23.7	+02.4	S 03 56.8	+00.0
06	177 26.1	+02.4	S 03 56.8	+00.0
07	192 28.5	+02.4	S 03 56.8	−00.1
08	207 30.9	+02.4	S 03 56.7	+00.0
09	222 33.3	+02.4	S 03 56.7	−00.1
10	237 35.7	+02.4	S 03 56.6	+00.0
11	252 38.1	+02.4	S 03 56.6	+00.0
12	267 40.5	+02.4	S 03 56.6	−00.1
13	282 42.9	+02.4	S 03 56.5	+00.0
14	297 45.3	+02.4	S 03 56.5	+00.0
15	312 47.7	+02.4	S 03 56.5	−00.1
16	327 50.1	+02.4	S 03 56.4	+00.0
17	342 52.5	+02.4	S 03 56.4	−00.1
18	357 54.9	+02.4	S 03 56.3	+00.0
19	12 57.3	+02.4	S 03 56.3	+00.0
20	27 59.7	+02.4	S 03 56.3	−00.1
21	43 02.1	+02.4	S 03 56.2	+00.0
22	58 04.5	+02.4	S 03 56.2	−00.1
23	73 06.9	+02.4	S 03 56.1	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:08

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2025 December 16 Tuesday

(day 350 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 08.0	-00.3	S 23 18.9	+00.1	00
01	196 07.7	-00.3	S 23 19.0	+00.1	01
02	211 07.4	-00.4	S 23 19.1	+00.1	02
03	226 07.0	-00.3	S 23 19.2	+00.1	03
04	241 06.7	-00.3	S 23 19.3	+00.1	04
05	256 06.4	-00.3	S 23 19.4	+00.1	05
06	271 06.1	-00.3	S 23 19.5	+00.1	06
07	286 05.8	-00.3	S 23 19.6	+00.1	07
08	301 05.5	-00.3	S 23 19.7	+00.1	08
09	316 05.2	-00.3	S 23 19.8	+00.1	09
10	331 04.9	-00.3	S 23 19.9	+00.1	10
11	346 04.6	-00.3	S 23 20.0	+00.1	11
12	1 04.3	-00.3	S 23 20.1	+00.1	12
13	16 04.0	-00.3	S 23 20.2	+00.1	13
14	31 03.7	-00.3	S 23 20.3	+00.1	14
15	46 03.4	-00.3	S 23 20.4	+00.1	15
16	61 03.1	-00.3	S 23 20.5	+00.1	16
17	76 02.8	-00.3	S 23 20.6	+00.1	17
18	91 02.5	-00.3	S 23 20.7	+00.1	18
19	106 02.2	-00.3	S 23 20.8	+00.1	19
20	121 01.9	-00.3	S 23 20.9	+00.1	20
21	136 01.6	-00.3	S 23 21.0	+00.1	21
22	151 01.3	-00.3	S 23 21.1	+00.1	22
23	166 01.0	-00.4	S 23 21.2	+00.1	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	096°	096°	096°	096°	095°	095°

Greenwich Culmination Time: 11:55

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	186 46.2	-01.0	S 22 51.9	+00.3	00
01	201 45.2	-00.9	S 22 52.2	+00.4	01
02	216 44.3	-00.9	S 22 52.6	+00.3	02
03	231 43.4	-01.0	S 22 52.9	+00.4	03
04	246 42.4	-00.9	S 22 53.3	+00.3	04
05	261 41.5	-00.9	S 22 53.6	+00.4	05
06	276 40.6	-01.0	S 22 54.0	+00.3	06
07	291 39.6	-00.9	S 22 54.3	+00.4	07
08	306 38.7	-00.9	S 22 54.7	+00.3	08
09	321 37.8	-01.0	S 22 55.0	+00.4	09
10	336 36.8	-00.9	S 22 55.4	+00.3	10
11	351 35.9	-00.9	S 22 55.7	+00.4	11
12	6 35.0	-01.0	S 22 56.1	+00.3	12
13	21 34.0	-00.9	S 22 56.4	+00.4	13
14	36 33.1	-00.9	S 22 56.8	+00.3	14
15	51 32.2	-01.0	S 22 57.1	+00.3	15
16	66 31.2	-00.9	S 22 57.4	+00.4	16
17	81 30.3	-00.9	S 22 57.8	+00.3	17
18	96 29.4	-01.0	S 22 58.1	+00.4	18
19	111 28.4	-00.9	S 22 58.5	+00.3	19
20	126 27.5	-00.9	S 22 58.8	+00.3	20
21	141 26.6	-01.0	S 22 59.1	+00.4	21
22	156 25.6	-00.9	S 22 59.5	+00.3	22
23	171 24.7	-01.0	S 22 59.8	+00.3	23

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	102°	102°	101°	101°	101°	101°

Greenwich Culmination Time: 11:33

Moon

A: 88%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	228 45.1	-26.6	S 18 47.5	+10.8	00
01	243 18.5	-26.6	S 18 58.3	+10.7	01
02	257 51.9	-26.7	S 19 09.0	+10.6	02
03	272 25.2	-26.8	S 19 19.6	+10.6	03
04	286 58.4	-26.9	S 19 30.2	+10.5	04
05	301 31.5	-26.9	S 19 40.7	+10.4	05
06	316 04.6	-26.9	S 19 51.1	+10.3	06
07	330 37.7	-27.0	S 20 01.4	+10.2	07
08	345 10.7	-27.1	S 20 11.6	+10.2	08
09	359 43.6	-27.2	S 20 21.8	+10.0	09
10	14 16.4	-27.2	S 20 31.8	+10.0	10
11	28 49.2	-27.3	S 20 41.8	+09.9	11
12	43 21.9	-27.3	S 20 51.7	+09.8	12
13	57 54.6	-27.4	S 21 01.5	+09.8	13
14	72 27.2	-27.5	S 21 11.3	+09.6	14
15	86 59.7	-27.5	S 21 20.9	+09.5	15
16	101 32.2	-27.6	S 21 30.4	+09.5	16
17	116 04.6	-27.7	S 21 39.9	+09.3	17
18	130 36.9	-27.7	S 21 49.2	+09.3	18
19	145 09.2	-27.8	S 21 58.5	+09.2	19
20	159 41.4	-27.8	S 22 07.7	+09.1	20
21	174 13.6	-28.0	S 22 16.8	+09.0	21
22	188 45.6	-27.9	S 22 25.8	+08.9	22
23	203 17.7	-28.1	S 22 34.7	+08.8	23

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′0	53′9
SHA	143°	141°	139°	137°	135°	133°

Greenwich Culmination Time: 09:01

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	174 19.5	+00.4	S 24 13.1	+00.0	00
01	189 19.9	+00.4	S 24 13.1	+00.0	01
02	204 20.3	+00.4	S 24 13.1	+00.1	02
03	219 20.7	+00.4	S 24 13.2	+00.0	03
04	234 21.1	+00.4	S 24 13.2	+00.0	04
05	249 21.5	+00.4	S 24 13.2	+00.0	05
06	264 21.9	+00.4	S 24 13.2	+00.0	06
07	279 22.3	+00.4	S 24 13.2	+00.0	07
08	294 22.7	+00.4	S 24 13.2	+00.0	08
09	309 23.1	+00.4	S 24 13.2	+00.0	09
10	324 23.5	+00.4	S 24 13.2	+00.0	10
11	339 23.9	+00.4	S 24 13.2	+00.0	11
12	354 24.3	+00.3	S 24 13.2	+00.0	12
13	9 24.6	+00.4	S 24 13.2	+00.0	13
14	24 25.0	+00.4	S 24 13.2	+00.0	14
15	39 25.4	+00.4	S 24 13.2	+00.0	15
16	54 25.8	+00.4	S 24 13.2	+00.1	16
17	69 26.2	+00.4	S 24 13.3	+00.0	17
18	84 26.6	+00.4	S 24 13.3	+00.0	18
19	99 27.0	+00.4	S 24 13.3	+00.0	19
20	114 27.4	+00.4	S 24 13.3	+00.0	20
21	129 27.8	+00.4	S 24 13.3	+00.0	21
22	144 28.2	+00.4	S 24 13.3	+00.0	22
23	159 28.6	+00.4	S 24 13.3	+00.0	23

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	089°	089°	089°	089°	089°	089°

Greenwich Culmination Time: 12:22

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	329 44.8	+02.7	N 21 37.7	+00.1	00
01	344 47.5	+02.7	N 21 37.8	+00.0	01
02	359 50.2	+02.8	N 21 37.8	+00.1	02
03	14 53.0	+02.7	N 21 37.9	+00.0	03
04	29 55.7	+02.8	N 21 37.9	+00.1	04
05	44 58.5	+02.7	N 21 38.0	+00.0	05
06	60 01.2	+02.7	N 21 38.0	+00.1	06
07	75 03.9	+02.8	N 21 38.1	+00.0	07
08	90 06.7	+02.7	N 21 38.1	+00.1	08
09	105 09.4	+02.8	N 21 38.2	+00.0	09
10	120 12.2	+02.7	N 21 38.2	+00.1	10
11	135 14.9	+02.7	N 21 38.3	+00.0	11
12	150 17.6	+02.8	N 21 38.3	+00.1	12
13	165 20.4	+02.7	N 21 38.4	+00.0	13
14	180 23.1	+02.8	N 21 38.4	+00.1	14
15	195 25.9	+02.7	N 21 38.5	+00.0	15
16	210 28.6	+02.8	N 21 38.5	+00.1	16
17	225 31.4	+02.7	N 21 38.6	+00.0	17
18	240 34.1	+02.7	N 21 38.6	+00.1	18
19	255 36.8	+02.8	N 21 38.7	+00.0	19
20	270 39.6	+02.7	N 21 38.7	+00.1	20
21	285 42.3	+02.8	N 21 38.8	+00.0	21
22	300 45.1	+02.7	N 21 38.8	+00.1	22
23	315 47.8	+02.8	N 21 38.9	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 02:00

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	88 09.3	+02.4	S 03 56.1	+00.0	00
01	103 11.7	+02.4	S 03 56.1	-00.1	01
02	118 14.1	+02.4	S 03 56.0	+00.0	02
03	133 16.5	+02.4	S 03 56.0	-00.1	03
04	148 18.9	+02.4	S 03 55.9	+00.0	04
05	163 21.3	+02.3	S 03 55.9	+00.0	05
06	178 23.6	+02.4	S 03 55.9	-00.1	06
07	193 26.0	+02.4	S 03 55.8	+00.0	07
08	208 28.4	+02.4	S 03 55.8	-00.1	08
09	223 30.8	+02.4	S 03 55.7	+00.0	09
10	238 33.2	+02.4	S 03 55.7	+00.0	10
11	253 35.6	+02.4	S 03 55.7	-00.1	11
12	268 38.0	+02.4	S 03 55.6	+00.0	12
13	283 40.4	+02.4	S 03 55.6	-00.1	13
14	298 42.8	+02.4	S 03 55.5	+00.0	14
15	313 45.2	+02.4	S 03 55.5	+00.0	15
16	328 47.6	+02.4	S 03 55.5	-00.1	16
17	343 50.0	+02.4	S 03 55.4	+00.0	17
18	358 52.4	+02.3	S 03 55.4	-00.1	18
19	13 54.7	+02.4	S 03 55.3	+00.0	19
20	28 57.1	+02.4	S 03 55.3	-00.1	20
21	43 59.5	+02.4	S 03 55.2	+00.0	21
22	59 01.9	+02.4	S 03 55.2	+00.0	22
23	74 04.3	+02.4	S 03 55.2	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:04

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2025 December 17 Wednesday

(day 351 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 00.6	-00.3	S 23 21.3	+00.1	00
01	196 00.3	-00.3	S 23 21.4	+00.0	01
02	211 00.0	-00.3	S 23 21.4	+00.1	02
03	225 59.7	-00.3	S 23 21.5	+00.1	03
04	240 59.4	-00.3	S 23 21.6	+00.1	04
05	255 59.1	-00.3	S 23 21.7	+00.1	05
06	270 58.8	-00.3	S 23 21.8	+00.1	06
07	285 58.5	-00.3	S 23 21.9	+00.1	07
08	300 58.2	-00.3	S 23 22.0	+00.0	08
09	315 57.9	-00.3	S 23 22.0	+00.1	09
10	330 57.6	-00.3	S 23 22.1	+00.1	10
11	345 57.3	-00.3	S 23 22.2	+00.1	11
12	0 57.0	-00.3	S 23 22.3	+00.1	12
13	15 56.7	-00.3	S 23 22.4	+00.0	13
14	30 56.4	-00.4	S 23 22.4	+00.1	14
15	45 56.0	-00.3	S 23 22.5	+00.1	15
16	60 55.7	-00.3	S 23 22.6	+00.1	16
17	75 55.4	-00.3	S 23 22.7	+00.1	17
18	90 55.1	-00.3	S 23 22.8	+00.0	18
19	105 54.8	-00.3	S 23 22.8	+00.1	19
20	120 54.5	-00.3	S 23 22.9	+00.1	20
21	135 54.2	-00.3	S 23 23.0	+00.1	21
22	150 53.9	-00.3	S 23 23.1	+00.0	22
23	165 53.6	-00.3	S 23 23.1	+00.1	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	095°	095°	095°	094°	094°	094°

Greenwich Culmination Time: 11:56

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	186 23.7	-00.9	S 23 00.1	+00.3	00
01	201 22.8	-00.9	S 23 00.4	+00.4	01
02	216 21.9	-01.0	S 23 00.8	+00.3	02
03	231 20.9	-00.9	S 23 01.1	+00.3	03
04	246 20.0	-01.0	S 23 01.4	+00.3	04
05	261 19.0	-00.9	S 23 01.7	+00.4	05
06	276 18.1	-00.9	S 23 02.1	+00.3	06
07	291 17.2	-01.0	S 23 02.4	+00.3	07
08	306 16.2	-00.9	S 23 02.7	+00.3	08
09	321 15.3	-01.0	S 23 03.0	+00.3	09
10	336 14.3	-00.9	S 23 03.3	+00.4	10
11	351 13.4	-00.9	S 23 03.7	+00.3	11
12	6 12.5	-01.0	S 23 04.0	+00.3	12
13	21 11.5	-00.9	S 23 04.3	+00.3	13
14	36 10.6	-01.0	S 23 04.6	+00.3	14
15	51 09.6	-00.9	S 23 04.9	+00.3	15
16	66 08.7	-00.9	S 23 05.2	+00.3	16
17	81 07.8	-01.0	S 23 05.5	+00.3	17
18	96 06.8	-00.9	S 23 05.8	+00.3	18
19	111 05.9	-01.0	S 23 06.1	+00.3	19
20	126 04.9	-00.9	S 23 06.4	+00.3	20
21	141 04.0	-01.0	S 23 06.7	+00.3	21
22	156 03.0	-00.9	S 23 07.0	+00.3	22
23	171 02.1	-00.9	S 23 07.3	+00.3	23

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	100°	100°	100°	100°	099°	099°

Greenwich Culmination Time: 11:35

Moon

A: 91%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	217 49.6	-28.1	S 22 43.5	+08.7	00
01	232 21.5	-28.2	S 22 52.2	+08.6	01
02	246 53.3	-28.3	S 23 00.8	+08.5	02
03	261 25.0	-28.3	S 23 09.3	+08.4	03
04	275 56.7	-28.4	S 23 17.7	+08.3	04
05	290 28.3	-28.5	S 23 26.0	+08.2	05
06	304 59.8	-28.5	S 23 34.2	+08.1	06
07	319 31.3	-28.6	S 23 42.3	+08.0	07
08	334 02.7	-28.6	S 23 50.3	+07.9	08
09	348 34.1	-28.8	S 23 58.2	+07.8	09
10	3 05.3	-28.7	S 24 06.0	+07.7	10
11	17 36.6	-28.9	S 24 13.7	+07.6	11
12	32 07.7	-28.9	S 24 21.3	+07.5	12
13	46 38.8	-29.0	S 24 28.8	+07.3	13
14	61 09.8	-29.1	S 24 36.1	+07.3	14
15	75 40.7	-29.1	S 24 43.4	+07.2	15
16	90 11.6	-29.2	S 24 50.6	+07.0	16
17	104 42.4	-29.2	S 24 57.6	+06.9	17
18	119 13.2	-29.3	S 25 04.5	+06.8	18
19	133 43.9	-29.4	S 25 11.3	+06.8	19
20	148 14.5	-29.5	S 25 18.1	+06.5	20
21	162 45.0	-29.5	S 25 24.6	+06.5	21
22	177 15.5	-29.5	S 25 31.1	+06.4	22
23	191 46.0	-29.7	S 25 37.5	+06.2	23

UT	02	06	10	14	18	22
SD	14′7	14′7	14′7	14′7	14′7	14′7
HP	53′9	53′9	53′9	53′9	54′0	54′0
SHA	131°	129°	127°	125°	123°	120°

Greenwich Culmination Time: 09:47

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	174 29.0	+00.4	S 24 13.3	+00.0	00
01	189 29.4	+00.4	S 24 13.3	+00.0	01
02	204 29.8	+00.4	S 24 13.3	+00.0	02
03	219 30.2	+00.4	S 24 13.3	+00.0	03
04	234 30.6	+00.3	S 24 13.3	+00.0	04
05	249 30.9	+00.4	S 24 13.3	+00.0	05
06	264 31.3	+00.4	S 24 13.3	+00.0	06
07	279 31.7	+00.4	S 24 13.3	-00.1	07
08	294 32.1	+00.4	S 24 13.2	+00.0	08
09	309 32.5	+00.4	S 24 13.2	+00.0	09
10	324 32.9	+00.4	S 24 13.2	+00.0	10
11	339 33.3	+00.4	S 24 13.2	+00.0	11
12	354 33.7	+00.4	S 24 13.2	+00.0	12
13	9 34.1	+00.4	S 24 13.2	+00.0	13
14	24 34.5	+00.4	S 24 13.2	+00.0	14
15	39 34.9	+00.4	S 24 13.2	+00.0	15
16	54 35.3	+00.4	S 24 13.2	+00.0	16
17	69 35.7	+00.3	S 24 13.2	+00.0	17
18	84 36.0	+00.4	S 24 13.2	+00.0	18
19	99 36.4	+00.4	S 24 13.2	+00.0	19
20	114 36.8	+00.4	S 24 13.2	+00.0	20
21	129 37.2	+00.4	S 24 13.2	+00.0	21
22	144 37.6	+00.4	S 24 13.2	-00.1	22
23	159 38.0	+00.4	S 24 13.1	+00.0	23

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	089°	088°	088°	088°	088°	088°

Greenwich Culmination Time: 12:21

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	330 50.6	+02.7	N 21 38.9	+00.1	00
01	345 53.3	+02.8	N 21 39.0	+00.0	01
02	0 56.1	+02.7	N 21 39.0	+00.1	02
03	15 58.8	+02.8	N 21 39.1	+00.0	03
04	31 01.6	+02.7	N 21 39.1	+00.1	04
05	46 04.3	+02.7	N 21 39.2	+00.0	05
06	61 07.0	+02.8	N 21 39.2	+00.1	06
07	76 09.8	+02.7	N 21 39.3	+00.0	07
08	91 12.5	+02.8	N 21 39.3	+00.1	08
09	106 15.3	+02.7	N 21 39.4	+00.0	09
10	121 18.0	+02.8	N 21 39.4	+00.1	10
11	136 20.8	+02.7	N 21 39.5	+00.0	11
12	151 23.5	+02.8	N 21 39.5	+00.1	12
13	166 26.3	+02.7	N 21 39.6	+00.1	13
14	181 29.0	+02.8	N 21 39.7	+00.0	14
15	196 31.8	+02.7	N 21 39.7	+00.1	15
16	211 34.5	+02.8	N 21 39.8	+00.0	16
17	226 37.3	+02.7	N 21 39.8	+00.1	17
18	241 40.0	+02.8	N 21 39.9	+00.0	18
19	256 42.8	+02.7	N 21 39.9	+00.1	19
20	271 45.5	+02.8	N 21 40.0	+00.0	20
21	286 48.3	+02.7	N 21 40.0	+00.1	21
22	301 51.0	+02.8	N 21 40.1	+00.0	22
23	316 53.8	+02.7	N 21 40.1	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 01:56

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	89 06.7	+02.4	S 03 55.1	+00.0	00
01	104 09.1	+02.4	S 03 55.1	-00.1	01
02	119 11.5	+02.4	S 03 55.0	+00.0	02
03	134 13.9	+02.4	S 03 55.0	+00.0	03
04	149 16.3	+02.4	S 03 55.0	-00.1	04
05	164 18.7	+02.3	S 03 54.9	+00.0	05
06	179 21.0	+02.4	S 03 54.9	-00.1	06
07	194 23.4	+02.4	S 03 54.8	+00.0	07
08	209 25.8	+02.4	S 03 54.8	-00.1	08
09	224 28.2	+02.4	S 03 54.7	+00.0	09
10	239 30.6	+02.4	S 03 54.7	+00.0	10
11	254 33.0	+02.4	S 03 54.7	-00.1	11
12	269 35.4	+02.4	S 03 54.6	+00.0	12
13	284 37.8	+02.4	S 03 54.6	-00.1	13
14	299 40.2	+02.3	S 03 54.5	+00.0	14
15	314 42.5	+02.4	S 03 54.5	-00.1	15
16	329 44.9	+02.4	S 03 54.4	+00.0	16
17	344 47.3	+02.4	S 03 54.4	+00.0	17
18	359 49.7	+02.4	S 03 54.4	-00.1	18
19	14 52.1	+02.4	S 03 54.3	+00.0	19
20	29 54.5	+02.4	S 03 54.3	-00.1	20
21	44 56.9	+02.4	S 03 54.2	+00.0	21
22	59 59.3	+02.3	S 03 54.2	+00.0	22
23	75 01.6	+02.4	S 03 54.2	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 18:00

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2025 December 18 Thursday

(day 352 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	180 53.3	-00.3	S 23 23.2	+00.1	00
01	195 53.0	-00.3	S 23 23.3	+00.0	01
02	210 52.7	-00.3	S 23 23.3	+00.1	02
03	225 52.4	-00.3	S 23 23.4	+00.1	03
04	240 52.1	-00.4	S 23 23.5	+00.0	04
05	255 51.7	-00.3	S 23 23.5	+00.1	05
06	270 51.4	-00.3	S 23 23.6	+00.1	06
07	285 51.1	-00.3	S 23 23.7	+00.0	07
08	300 50.8	-00.3	S 23 23.7	+00.1	08
09	315 50.5	-00.3	S 23 23.8	+00.1	09
10	330 50.2	-00.3	S 23 23.9	+00.0	10
11	345 49.9	-00.3	S 23 23.9	+00.1	11
12	0 49.6	-00.3	S 23 24.0	+00.1	12
13	15 49.3	-00.3	S 23 24.1	+00.0	13
14	30 49.0	-00.3	S 23 24.1	+00.1	14
15	45 48.7	-00.4	S 23 24.2	+00.0	15
16	60 48.3	-00.3	S 23 24.2	+00.1	16
17	75 48.0	-00.3	S 23 24.3	+00.0	17
18	90 47.7	-00.3	S 23 24.3	+00.1	18
19	105 47.4	-00.3	S 23 24.4	+00.1	19
20	120 47.1	-00.3	S 23 24.5	+00.0	20
21	135 46.8	-00.3	S 23 24.5	+00.1	21
22	150 46.5	-00.3	S 23 24.6	+00.0	22
23	165 46.2	-00.3	S 23 24.6	+00.1	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	094°	094°	094°	093°	093°	093°

Greenwich Culmination Time: 11:56

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	186 01.2	-01.0	S 23 07.6	+00.3	00
01	201 00.2	-00.9	S 23 07.9	+00.3	01
02	215 59.3	-01.0	S 23 08.2	+00.3	02
03	230 58.3	-00.9	S 23 08.5	+00.3	03
04	245 57.4	-01.0	S 23 08.8	+00.3	04
05	260 56.4	-00.9	S 23 09.1	+00.3	05
06	275 55.5	-01.0	S 23 09.4	+00.3	06
07	290 54.5	-00.9	S 23 09.7	+00.3	07
08	305 53.6	-00.9	S 23 10.0	+00.3	08
09	320 52.7	-01.0	S 23 10.3	+00.3	09
10	335 51.7	-00.9	S 23 10.6	+00.3	10
11	350 50.8	-01.0	S 23 10.9	+00.3	11
12	5 49.8	-00.9	S 23 11.2	+00.2	12
13	20 48.9	-01.0	S 23 11.4	+00.3	13
14	35 47.9	-00.9	S 23 11.7	+00.3	14
15	50 47.0	-01.0	S 23 12.0	+00.3	15
16	65 46.0	-00.9	S 23 12.3	+00.3	16
17	80 45.1	-01.0	S 23 12.6	+00.2	17
18	95 44.1	-00.9	S 23 12.8	+00.3	18
19	110 43.2	-01.0	S 23 13.1	+00.3	19
20	125 42.2	-00.9	S 23 13.4	+00.3	20
21	140 41.3	-01.0	S 23 13.7	+00.2	21
22	155 40.3	-00.9	S 23 13.9	+00.3	22
23	170 39.4	-01.0	S 23 14.2	+00.3	23

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	099°	099°	099°	098°	098°	098°

Greenwich Culmination Time: 11:36

Moon

A: 94%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	206 16.3	-29.6	S 25 43.7	+06.2	00
01	220 46.7	-29.8	S 25 49.9	+06.0	01
02	235 16.9	-29.8	S 25 55.9	+05.9	02
03	249 47.1	-29.9	S 26 01.8	+05.7	03
04	264 17.2	-29.9	S 26 07.5	+05.7	04
05	278 47.3	-30.0	S 26 13.2	+05.5	05
06	293 17.3	-30.1	S 26 18.7	+05.4	06
07	307 47.2	-30.1	S 26 24.1	+05.3	07
08	322 17.1	-30.1	S 26 29.4	+05.2	08
09	336 47.0	-30.3	S 26 34.6	+05.1	09
10	351 16.7	-30.2	S 26 39.7	+04.9	10
11	5 46.5	-30.4	S 26 44.6	+04.8	11
12	20 16.1	-30.4	S 26 49.4	+04.6	12
13	34 45.7	-30.4	S 26 54.0	+04.6	13
14	49 15.3	-30.5	S 26 58.6	+04.4	14
15	63 44.8	-30.5	S 27 03.0	+04.3	15
16	78 14.3	-30.6	S 27 07.3	+04.2	16
17	92 43.7	-30.7	S 27 11.5	+04.0	17
18	107 13.0	-30.7	S 27 15.5	+03.9	18
19	121 42.3	-30.7	S 27 19.4	+03.8	19
20	136 11.6	-30.8	S 27 23.2	+03.6	20
21	150 40.8	-30.8	S 27 26.8	+03.5	21
22	165 10.0	-30.9	S 27 30.3	+03.4	22
23	179 39.1	-30.9	S 27 33.7	+03.3	23

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	118°	116°	114°	112°	110°	107°

Greenwich Culmination Time: 10:36

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	174 38.4	+00.4	S 24 13.1	+00.0	00
01	189 38.8	+00.4	S 24 13.1	+00.0	01
02	204 39.2	+00.4	S 24 13.1	+00.0	02
03	219 39.6	+00.4	S 24 13.1	+00.0	03
04	234 40.0	+00.4	S 24 13.1	+00.0	04
05	249 40.4	+00.3	S 24 13.1	+00.0	05
06	264 40.7	+00.4	S 24 13.1	-00.1	06
07	279 41.1	+00.4	S 24 13.0	+00.0	07
08	294 41.5	+00.4	S 24 13.0	+00.0	08
09	309 41.9	+00.4	S 24 13.0	+00.0	09
10	324 42.3	+00.4	S 24 13.0	+00.0	10
11	339 42.7	+00.4	S 24 13.0	+00.0	11
12	354 43.1	+00.4	S 24 13.0	-00.1	12
13	9 43.5	+00.4	S 24 12.9	+00.0	13
14	24 43.9	+00.4	S 24 12.9	+00.0	14
15	39 44.3	+00.3	S 24 12.9	+00.0	15
16	54 44.6	+00.4	S 24 12.9	+00.0	16
17	69 45.0	+00.4	S 24 12.9	+00.0	17
18	84 45.4	+00.4	S 24 12.9	-00.1	18
19	99 45.8	+00.4	S 24 12.8	+00.0	19
20	114 46.2	+00.4	S 24 12.8	+00.0	20
21	129 46.6	+00.4	S 24 12.8	+00.0	21
22	144 47.0	+00.4	S 24 12.8	+00.0	22
23	159 47.4	+00.4	S 24 12.8	-00.1	23

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	088°	088°	087°	087°	087°	087°

Greenwich Culmination Time: 12:21

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	331 56.5	+02.8	N 21 40.2	+00.0	00
01	346 59.3	+02.7	N 21 40.2	+00.1	01
02	2 02.0	+02.8	N 21 40.3	+00.0	02
03	17 04.8	+02.7	N 21 40.3	+00.1	03
04	32 07.5	+02.8	N 21 40.4	+00.0	04
05	47 10.3	+02.7	N 21 40.4	+00.1	05
06	62 13.0	+02.8	N 21 40.5	+00.0	06
07	77 15.8	+02.7	N 21 40.5	+00.1	07
08	92 18.5	+02.8	N 21 40.6	+00.0	08
09	107 21.3	+02.8	N 21 40.6	+00.1	09
10	122 24.1	+02.7	N 21 40.7	+00.0	10
11	137 26.8	+02.8	N 21 40.7	+00.1	11
12	152 29.6	+02.7	N 21 40.8	+00.0	12
13	167 32.3	+02.8	N 21 40.8	+00.1	13
14	182 35.1	+02.7	N 21 40.9	+00.1	14
15	197 37.8	+02.8	N 21 41.0	+00.0	15
16	212 40.6	+02.7	N 21 41.0	+00.1	16
17	227 43.3	+02.8	N 21 41.1	+00.0	17
18	242 46.1	+02.7	N 21 41.1	+00.1	18
19	257 48.8	+02.8	N 21 41.2	+00.0	19
20	272 51.6	+02.8	N 21 41.2	+00.1	20
21	287 54.4	+02.7	N 21 41.3	+00.0	21
22	302 57.1	+02.8	N 21 41.3	+00.1	22
23	317 59.9	+02.7	N 21 41.4	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 01:51

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	90 04.0	+02.4	S 03 54.1	+00.0	00
01	105 06.4	+02.4	S 03 54.1	-00.1	01
02	120 08.8	+02.4	S 03 54.0	+00.0	02
03	135 11.2	+02.4	S 03 54.0	-00.1	03
04	150 13.6	+02.4	S 03 53.9	+00.0	04
05	165 16.0	+02.4	S 03 53.9	-00.1	05
06	180 18.4	+02.3	S 03 53.8	+00.0	06
07	195 20.7	+02.4	S 03 53.8	+00.0	07
08	210 23.1	+02.4	S 03 53.8	-00.1	08
09	225 25.5	+02.4	S 03 53.7	+00.0	09
10	240 27.9	+02.4	S 03 53.7	-00.1	10
11	255 30.3	+02.4	S 03 53.6	+00.0	11
12	270 32.7	+02.3	S 03 53.6	-00.1	12
13	285 35.0	+02.4	S 03 53.5	+00.0	13
14	300 37.4	+02.4	S 03 53.5	+00.0	14
15	315 39.8	+02.4	S 03 53.5	-00.1	15
16	330 42.2	+02.4	S 03 53.4	+00.0	16
17	345 44.6	+02.4	S 03 53.4	-00.1	17
18	0 47.0	+02.4	S 03 53.3	+00.0	18
19	15 49.4	+02.3	S 03 53.3	-00.1	19
20	30 51.7	+02.4	S 03 53.2	+00.0	20
21	45 54.1	+02.4	S 03 53.2	-00.1	21
22	60 56.5	+02.4	S 03 53.1	+00.0	22
23	75 58.9	+02.4	S 03 53.1	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:56

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2025 December 19 Friday

(day 353 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 45.9	-00.3	S 23 24.7	+00.0
01	195 45.6	-00.3	S 23 24.7	+00.1
02	210 45.3	-00.4	S 23 24.8	+00.0
03	225 44.9	-00.3	S 23 24.8	+00.1
04	240 44.6	-00.3	S 23 24.9	+00.0
05	255 44.3	-00.3	S 23 24.9	+00.1
06	270 44.0	-00.3	S 23 25.0	+00.0
07	285 43.7	-00.3	S 23 25.0	+00.1
08	300 43.4	-00.3	S 23 25.1	+00.0
09	315 43.1	-00.3	S 23 25.1	+00.0
10	330 42.8	-00.3	S 23 25.1	+00.1
11	345 42.5	-00.3	S 23 25.2	+00.0
12	0 42.2	-00.3	S 23 25.2	+00.1
13	15 41.9	-00.4	S 23 25.3	+00.0
14	30 41.5	-00.3	S 23 25.3	+00.1
15	45 41.2	-00.3	S 23 25.4	+00.0
16	60 40.9	-00.3	S 23 25.4	+00.0
17	75 40.6	-00.3	S 23 25.4	+00.1
18	90 40.3	-00.3	S 23 25.5	+00.0
19	105 40.0	-00.3	S 23 25.5	+00.0
20	120 39.7	-00.3	S 23 25.5	+00.1
21	135 39.4	-00.3	S 23 25.6	+00.0
22	150 39.1	-00.4	S 23 25.6	+00.0
23	165 38.7	-00.3	S 23 25.6	+00.1

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	093°	093°	092°	092°	092°	092°

Greenwich Culmination Time: 11:57

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	185 38.4	-00.9	S 23 14.5	+00.2
01	200 37.5	-01.0	S 23 14.7	+00.3
02	215 36.5	-00.9	S 23 15.0	+00.3
03	230 35.6	-01.0	S 23 15.3	+00.2
04	245 34.6	-00.9	S 23 15.5	+00.3
05	260 33.7	-01.0	S 23 15.8	+00.3
06	275 32.7	-00.9	S 23 16.1	+00.2
07	290 31.8	-01.0	S 23 16.3	+00.3
08	305 30.8	-00.9	S 23 16.6	+00.3
09	320 29.9	-01.0	S 23 16.9	+00.2
10	335 28.9	-00.9	S 23 17.1	+00.3
11	350 28.0	-01.0	S 23 17.4	+00.2
12	5 27.0	-00.9	S 23 17.6	+00.3
13	20 26.1	-01.0	S 23 17.9	+00.2
14	35 25.1	-00.9	S 23 18.1	+00.3
15	50 24.2	-01.0	S 23 18.4	+00.2
16	65 23.2	-01.0	S 23 18.6	+00.3
17	80 22.2	-00.9	S 23 18.9	+00.2
18	95 21.3	-01.0	S 23 19.1	+00.3
19	110 20.3	-00.9	S 23 19.4	+00.2
20	125 19.4	-01.0	S 23 19.6	+00.3
21	140 18.4	-00.9	S 23 19.9	+00.2
22	155 17.5	-01.0	S 23 20.1	+00.3
23	170 16.5	-00.9	S 23 20.4	+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	098°	097°	097°	097°	097°	097°

Greenwich Culmination Time: 11:38

Moon

A: 97%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	194 08.2	-31.0	S 27 37.0	+03.1
01	208 37.2	-31.0	S 27 40.1	+03.0
02	223 06.2	-31.0	S 27 43.1	+02.8
03	237 35.2	-31.1	S 27 45.9	+02.7
04	252 04.1	-31.1	S 27 48.6	+02.6
05	266 33.0	-31.1	S 27 51.2	+02.4
06	281 01.9	-31.2	S 27 53.6	+02.3
07	295 30.7	-31.3	S 27 55.9	+02.2
08	309 59.4	-31.2	S 27 58.1	+02.1
09	324 28.2	-31.3	S 28 00.2	+01.9
10	338 56.9	-31.3	S 28 02.1	+01.7
11	353 25.6	-31.4	S 28 03.8	+01.6
12	7 54.2	-31.3	S 28 05.4	+01.5
13	22 22.9	-31.5	S 28 06.9	+01.4
14	36 51.4	-31.4	S 28 08.3	+01.2
15	51 20.0	-31.4	S 28 09.5	+01.0
16	65 48.6	-31.5	S 28 10.5	+01.0
17	80 17.1	-31.5	S 28 11.5	+00.8
18	94 45.6	-31.5	S 28 12.3	+00.6
19	109 14.1	-31.5	S 28 12.9	+00.5
20	123 42.6	-31.6	S 28 13.4	+00.4
21	138 11.0	-31.6	S 28 13.8	+00.2
22	152 39.4	-31.5	S 28 14.0	+00.1
23	167 07.9	-31.6	S 28 14.1	+00.0

UT	02	06	10	14	18	22
SD	14′7	14′8	14′8	14′8	14′8	14′8
HP	54′1	54′1	54′2	54′2	54′2	54′3
SHA	105°	103°	101°	098°	096°	094°

Greenwich Culmination Time: 11:27

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	174 47.8	+00.3	S 24 12.7	+00.0
01	189 48.1	+00.4	S 24 12.7	+00.0
02	204 48.5	+00.4	S 24 12.7	+00.0
03	219 48.9	+00.4	S 24 12.7	-00.1
04	234 49.3	+00.4	S 24 12.6	+00.0
05	249 49.7	+00.4	S 24 12.6	+00.0
06	264 50.1	+00.4	S 24 12.6	+00.0
07	279 50.5	+00.4	S 24 12.6	-00.1
08	294 50.9	+00.4	S 24 12.5	+00.0
09	309 51.3	+00.3	S 24 12.5	+00.0
10	324 51.6	+00.4	S 24 12.5	+00.0
11	339 52.0	+00.4	S 24 12.5	-00.1
12	354 52.4	+00.4	S 24 12.4	+00.0
13	9 52.8	+00.4	S 24 12.4	+00.0
14	24 53.2	+00.4	S 24 12.4	-00.1
15	39 53.6	+00.4	S 24 12.3	+00.0
16	54 54.0	+00.4	S 24 12.3	+00.0
17	69 54.4	+00.4	S 24 12.3	+00.0
18	84 54.8	+00.3	S 24 12.3	-00.1
19	99 55.1	+00.4	S 24 12.2	+00.0
20	114 55.5	+00.4	S 24 12.2	+00.0
21	129 55.9	+00.4	S 24 12.2	-00.1
22	144 56.3	+00.4	S 24 12.1	+00.0
23	159 56.7	+00.4	S 24 12.1	+00.0

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	087°	087°	087°	086°	086°	086°

Greenwich Culmination Time: 12:20

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	333 02.6	+02.8	N 21 41.4	+00.1
01	348 05.4	+02.7	N 21 41.5	+00.0
02	3 08.1	+02.8	N 21 41.5	+00.1
03	18 10.9	+02.8	N 21 41.6	+00.0
04	33 13.7	+02.7	N 21 41.6	+00.1
05	48 16.4	+02.8	N 21 41.7	+00.0
06	63 19.2	+02.7	N 21 41.7	+00.1
07	78 21.9	+02.8	N 21 41.8	+00.0
08	93 24.7	+02.8	N 21 41.8	+00.1
09	108 27.5	+02.7	N 21 41.9	+00.1
10	123 30.2	+02.8	N 21 42.0	+00.0
11	138 33.0	+02.7	N 21 42.0	+00.1
12	153 35.7	+02.8	N 21 42.1	+00.0
13	168 38.5	+02.8	N 21 42.1	+00.1
14	183 41.3	+02.7	N 21 42.2	+00.0
15	198 44.0	+02.8	N 21 42.2	+00.1
16	213 46.8	+02.7	N 21 42.3	+00.0
17	228 49.5	+02.8	N 21 42.3	+00.1
18	243 52.3	+02.8	N 21 42.4	+00.0
19	258 55.1	+02.7	N 21 42.4	+00.1
20	273 57.8	+02.8	N 21 42.5	+00.0
21	289 00.6	+02.7	N 21 42.5	+00.1
22	304 03.3	+02.8	N 21 42.6	+00.0
23	319 06.1	+02.8	N 21 42.6	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 01:47

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	91 01.3	+02.4	S 03 53.1	-00.1
01	106 03.7	+02.3	S 03 53.0	+00.0
02	121 06.0	+02.4	S 03 53.0	-00.1
03	136 08.4	+02.4	S 03 52.9	+00.0
04	151 10.8	+02.4	S 03 52.9	-00.1
05	166 13.2	+02.4	S 03 52.8	+00.0
06	181 15.6	+02.3	S 03 52.8	-00.1
07	196 17.9	+02.4	S 03 52.7	+00.0
08	211 20.3	+02.4	S 03 52.7	-00.1
09	226 22.7	+02.4	S 03 52.6	+00.0
10	241 25.1	+02.4	S 03 52.6	+00.0
11	256 27.5	+02.3	S 03 52.6	-00.1
12	271 29.8	+02.4	S 03 52.5	+00.0
13	286 32.2	+02.4	S 03 52.5	-00.1
14	301 34.6	+02.4	S 03 52.4	+00.0
15	316 37.0	+02.4	S 03 52.4	-00.1
16	331 39.4	+02.4	S 03 52.3	+00.0
17	346 41.8	+02.3	S 03 52.3	-00.1
18	1 44.1	+02.4	S 03 52.2	+00.0
19	16 46.5	+02.4	S 03 52.2	-00.1
20	31 48.9	+02.4	S 03 52.1	+00.0
21	46 51.3	+02.3	S 03 52.1	-00.1
22	61 53.6	+02.4	S 03 52.0	+00.0
23	76 56.0	+02.4	S 03 52.0	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:53

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 December 20 Saturday

(day 354 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	180 38.4	-00.3	S 23 25.7	+00.0	00
01	195 38.1	-00.3	S 23 25.7	+00.0	01
02	210 37.8	-00.3	S 23 25.7	+00.1	02
03	225 37.5	-00.3	S 23 25.8	+00.0	03
04	240 37.2	-00.3	S 23 25.8	+00.0	04
05	255 36.9	-00.3	S 23 25.8	+00.0	05
06	270 36.6	-00.3	S 23 25.8	+00.1	06
07	285 36.3	-00.3	S 23 25.9	+00.0	07
08	300 36.0	-00.4	S 23 25.9	+00.0	08
09	315 35.6	-00.3	S 23 25.9	+00.1	09
10	330 35.3	-00.3	S 23 26.0	+00.0	10
11	345 35.0	-00.3	S 23 26.0	+00.0	11
12	0 34.7	-00.3	S 23 26.0	+00.0	12
13	15 34.4	-00.3	S 23 26.0	+00.0	13
14	30 34.1	-00.3	S 23 26.0	+00.1	14
15	45 33.8	-00.3	S 23 26.1	+00.0	15
16	60 33.5	-00.3	S 23 26.1	+00.0	16
17	75 33.2	-00.4	S 23 26.1	+00.0	17
18	90 32.8	-00.3	S 23 26.1	+00.0	18
19	105 32.5	-00.3	S 23 26.1	+00.0	19
20	120 32.2	-00.3	S 23 26.1	+00.1	20
21	135 31.9	-00.3	S 23 26.2	+00.0	21
22	150 31.6	-00.3	S 23 26.2	+00.0	22
23	165 31.3	-00.3	S 23 26.2	+00.0	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	092°	092°	091°	091°	091°	091°

Greenwich Culmination Time: 11:57

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	185 15.6	-01.0	S 23 20.6	+00.2	00
01	200 14.6	-00.9	S 23 20.8	+00.3	01
02	215 13.7	-01.0	S 23 21.1	+00.2	02
03	230 12.7	-01.0	S 23 21.3	+00.3	03
04	245 11.7	-00.9	S 23 21.6	+00.2	04
05	260 10.8	-01.0	S 23 21.8	+00.2	05
06	275 09.8	-00.9	S 23 22.0	+00.3	06
07	290 08.9	-01.0	S 23 22.3	+00.2	07
08	305 07.9	-00.9	S 23 22.5	+00.2	08
09	320 07.0	-01.0	S 23 22.7	+00.2	09
10	335 06.0	-01.0	S 23 22.9	+00.3	10
11	350 05.0	-00.9	S 23 23.2	+00.2	11
12	5 04.1	-01.0	S 23 23.4	+00.2	12
13	20 03.1	-00.9	S 23 23.6	+00.2	13
14	35 02.2	-01.0	S 23 23.8	+00.3	14
15	50 01.2	-00.9	S 23 24.1	+00.2	15
16	65 00.3	-01.0	S 23 24.3	+00.2	16
17	79 59.3	-01.0	S 23 24.5	+00.2	17
18	94 58.3	-00.9	S 23 24.7	+00.2	18
19	109 57.4	-01.0	S 23 24.9	+00.3	19
20	124 56.4	-00.9	S 23 25.2	+00.2	20
21	139 55.5	-01.0	S 23 25.4	+00.2	21
22	154 54.5	-01.0	S 23 25.6	+00.2	22
23	169 53.5	-00.9	S 23 25.8	+00.2	23

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	096°	096°	096°	096°	095°	095°

Greenwich Culmination Time: 11:39

Moon

A: 01%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 36.3	-31.6	S 28 14.1	-00.2	00
01	196 04.7	-31.7	S 28 13.9	-00.4	01
02	210 33.0	-31.6	S 28 13.5	-00.5	02
03	225 01.4	-31.6	S 28 13.0	-00.6	03
04	239 29.8	-31.7	S 28 12.4	-00.7	04
05	253 58.1	-31.6	S 28 11.7	-00.9	05
06	268 26.5	-31.6	S 28 10.8	-01.1	06
07	282 54.9	-31.7	S 28 09.7	-01.2	07
08	297 23.2	-31.6	S 28 08.5	-01.3	08
09	311 51.6	-31.7	S 28 07.2	-01.5	09
10	326 19.9	-31.6	S 28 05.7	-01.6	10
11	340 48.3	-31.7	S 28 04.1	-01.7	11
12	355 16.6	-31.6	S 28 02.4	-01.9	12
13	9 45.0	-31.6	S 28 00.5	-02.1	13
14	24 13.4	-31.7	S 27 58.4	-02.1	14
15	38 41.7	-31.6	S 27 56.3	-02.4	15
16	53 10.1	-31.6	S 27 53.9	-02.4	16
17	67 38.5	-31.6	S 27 51.5	-02.6	17
18	82 06.9	-31.5	S 27 48.9	-02.8	18
19	96 35.4	-31.6	S 27 46.1	-02.8	19
20	111 03.8	-31.5	S 27 43.3	-03.1	20
21	125 32.3	-31.6	S 27 40.2	-03.1	21
22	140 00.7	-31.5	S 27 37.1	-03.3	22
23	154 29.2	-31.5	S 27 33.8	-03.5	23

UT	02	06	10	14	18	22
SD	14′8	14′8	14′8	14′8	14′8	14′9
HP	54′3	54′4	54′4	54′5	54′5	54′6
SHA	092°	089°	087°	085°	083°	080°

Greenwich Culmination Time: 12:19

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	174 57.1	+00.4	S 24 12.1	-00.1	00
01	189 57.5	+00.4	S 24 12.0	+00.0	01
02	204 57.9	+00.3	S 24 12.0	+00.0	02
03	219 58.2	+00.4	S 24 12.0	-00.1	03
04	234 58.6	+00.4	S 24 11.9	+00.0	04
05	249 59.0	+00.4	S 24 11.9	+00.0	05
06	264 59.4	+00.4	S 24 11.9	-00.1	06
07	279 59.8	+00.4	S 24 11.8	+00.0	07
08	295 00.2	+00.4	S 24 11.8	+00.0	08
09	310 00.6	+00.4	S 24 11.8	-00.1	09
10	325 01.0	+00.3	S 24 11.7	+00.0	10
11	340 01.3	+00.4	S 24 11.7	-00.1	11
12	355 01.7	+00.4	S 24 11.6	+00.0	12
13	10 02.1	+00.4	S 24 11.6	+00.0	13
14	25 02.5	+00.4	S 24 11.6	-00.1	14
15	40 02.9	+00.4	S 24 11.5	+00.0	15
16	55 03.3	+00.4	S 24 11.5	-00.1	16
17	70 03.7	+00.3	S 24 11.4	+00.0	17
18	85 04.0	+00.4	S 24 11.4	+00.0	18
19	100 04.4	+00.4	S 24 11.4	-00.1	19
20	115 04.8	+00.4	S 24 11.3	+00.0	20
21	130 05.2	+00.4	S 24 11.3	-00.1	21
22	145 05.6	+00.4	S 24 11.2	+00.0	22
23	160 06.0	+00.4	S 24 11.2	-00.1	23

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	086°	086°	086°	086°	085°	085°

Greenwich Culmination Time: 12:19

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	334 08.9	+02.7	N 21 42.7	+00.0	00
01	349 11.6	+02.8	N 21 42.7	+00.1	01
02	4 14.4	+02.8	N 21 42.8	+00.1	02
03	19 17.2	+02.7	N 21 42.9	+00.0	03
04	34 19.9	+02.8	N 21 42.9	+00.1	04
05	49 22.7	+02.7	N 21 43.0	+00.0	05
06	64 25.4	+02.8	N 21 43.0	+00.1	06
07	79 28.2	+02.8	N 21 43.1	+00.0	07
08	94 31.0	+02.7	N 21 43.1	+00.1	08
09	109 33.7	+02.8	N 21 43.2	+00.0	09
10	124 36.5	+02.8	N 21 43.2	+00.1	10
11	139 39.3	+02.7	N 21 43.3	+00.0	11
12	154 42.0	+02.8	N 21 43.3	+00.1	12
13	169 44.8	+02.8	N 21 43.4	+00.0	13
14	184 47.6	+02.7	N 21 43.4	+00.1	14
15	199 50.3	+02.8	N 21 43.5	+00.0	15
16	214 53.1	+02.8	N 21 43.5	+00.1	16
17	229 55.9	+02.7	N 21 43.6	+00.1	17
18	244 58.6	+02.8	N 21 43.7	+00.0	18
19	260 01.4	+02.8	N 21 43.7	+00.1	19
20	275 04.2	+02.7	N 21 43.8	+00.0	20
21	290 06.9	+02.8	N 21 43.8	+00.1	21
22	305 09.7	+02.8	N 21 43.9	+00.0	22
23	320 12.5	+02.7	N 21 43.9	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	245°	245°	245°

Greenwich Culmination Time: 01:43

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	91 58.4	+02.4	S 03 52.0	-00.1	00
01	107 00.8	+02.4	S 03 51.9	+00.0	01
02	122 03.2	+02.3	S 03 51.9	-00.1	02
03	137 05.5	+02.4	S 03 51.8	+00.0	03
04	152 07.9	+02.4	S 03 51.8	-00.1	04
05	167 10.3	+02.4	S 03 51.7	+00.0	05
06	182 12.7	+02.4	S 03 51.7	-00.1	06
07	197 15.1	+02.3	S 03 51.6	+00.0	07
08	212 17.4	+02.4	S 03 51.6	-00.1	08
09	227 19.8	+02.4	S 03 51.5	+00.0	09
10	242 22.2	+02.4	S 03 51.5	-00.1	10
11	257 24.6	+02.3	S 03 51.4	+00.0	11
12	272 26.9	+02.4	S 03 51.4	-00.1	12
13	287 29.3	+02.4	S 03 51.3	+00.0	13
14	302 31.7	+02.4	S 03 51.3	-00.1	14
15	317 34.1	+02.3	S 03 51.2	+00.0	15
16	332 36.4	+02.4	S 03 51.2	+00.0	16
17	347 38.8	+02.4	S 03 51.2	-00.1	17
18	2 41.2	+02.4	S 03 51.1	+00.0	18
19	17 43.6	+02.4	S 03 51.1	-00.1	19
20	32 46.0	+02.3	S 03 51.0	+00.0	20
21	47 48.3	+02.4	S 03 51.0	-00.1	21
22	62 50.7	+02.4	S 03 50.9	+00.0	22
23	77 53.1	+02.4	S 03 50.9	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:49

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 December 21 Sunday

(day 355 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 31.0	-00.3	S 23 26.2	+00.0
01	195 30.7	-00.3	S 23 26.2	+00.0
02	210 30.4	-00.4	S 23 26.2	+00.0
03	225 30.0	-00.3	S 23 26.2	+00.0
04	240 29.7	-00.3	S 23 26.2	+00.1
05	255 29.4	-00.3	S 23 26.3	+00.0
06	270 29.1	-00.3	S 23 26.3	+00.0
07	285 28.8	-00.3	S 23 26.3	+00.0
08	300 28.5	-00.3	S 23 26.3	+00.0
09	315 28.2	-00.3	S 23 26.3	+00.0
10	330 27.9	-00.3	S 23 26.3	+00.0
11	345 27.6	-00.4	S 23 26.3	+00.0
12	0 27.2	-00.3	S 23 26.3	+00.0
13	15 26.9	-00.3	S 23 26.3	+00.0
14	30 26.6	-00.3	S 23 26.3	+00.0
15	45 26.3	-00.3	S 23 26.3	+00.0
16	60 26.0	-00.3	S 23 26.3	+00.0
17	75 25.7	-00.3	S 23 26.3	+00.0
18	90 25.4	-00.3	S 23 26.3	+00.0
19	105 25.1	-00.4	S 23 26.3	+00.0
20	120 24.7	-00.3	S 23 26.3	+00.0
21	135 24.4	-00.3	S 23 26.3	+00.0
22	150 24.1	-00.3	S 23 26.3	+00.0
23	165 23.8	-00.3	S 23 26.3	+00.0

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	091°	090°	090°	090°	090°	090°

Greenwich Culmination Time: 11:58

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 52.6	-01.0	S 23 26.0	+00.2
01	199 51.6	-00.9	S 23 26.2	+00.2
02	214 50.7	-01.0	S 23 26.4	+00.2
03	229 49.7	-01.0	S 23 26.6	+00.2
04	244 48.7	-00.9	S 23 26.8	+00.2
05	259 47.8	-01.0	S 23 27.0	+00.2
06	274 46.8	-00.9	S 23 27.2	+00.2
07	289 45.9	-01.0	S 23 27.4	+00.2
08	304 44.9	-01.0	S 23 27.6	+00.2
09	319 43.9	-00.9	S 23 27.8	+00.2
10	334 43.0	-01.0	S 23 28.0	+00.2
11	349 42.0	-01.0	S 23 28.2	+00.2
12	4 41.0	-00.9	S 23 28.4	+00.2
13	19 40.1	-01.0	S 23 28.6	+00.2
14	34 39.1	-00.9	S 23 28.8	+00.2
15	49 38.2	-01.0	S 23 29.0	+00.2
16	64 37.2	-01.0	S 23 29.2	+00.2
17	79 36.2	-00.9	S 23 29.4	+00.2
18	94 35.3	-01.0	S 23 29.6	+00.2
19	109 34.3	-01.0	S 23 29.8	+00.2
20	124 33.3	-00.9	S 23 30.0	+00.1
21	139 32.4	-01.0	S 23 30.1	+00.2
22	154 31.4	-00.9	S 23 30.3	+00.2
23	169 30.5	-01.0	S 23 30.5	+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	095°	095°	094°	094°	094°	094°

Greenwich Culmination Time: 11:41

Moon

A: 04%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	168 57.7	-31.4	S 27 30.3	-03.6
01	183 26.3	-31.5	S 27 26.7	-03.7
02	197 54.8	-31.4	S 27 23.0	-03.8
03	212 23.4	-31.4	S 27 19.2	-04.0
04	226 52.0	-31.4	S 27 15.2	-04.2
05	241 20.6	-31.3	S 27 11.0	-04.2
06	255 49.3	-31.3	S 27 06.8	-04.5
07	270 18.0	-31.3	S 27 02.3	-04.5
08	284 46.7	-31.3	S 26 57.8	-04.7
09	299 15.4	-31.2	S 26 53.1	-04.8
10	313 44.2	-31.2	S 26 48.3	-05.0
11	328 13.0	-31.2	S 26 43.3	-05.1
12	342 41.8	-31.1	S 26 38.2	-05.2
13	357 10.7	-31.1	S 26 33.0	-05.3
14	11 39.6	-31.0	S 26 27.7	-05.5
15	26 08.6	-31.1	S 26 22.2	-05.7
16	40 37.5	-30.9	S 26 16.5	-05.7
17	55 06.6	-31.0	S 26 10.8	-05.9
18	69 35.6	-30.9	S 26 04.9	-06.0
19	84 04.7	-30.8	S 25 58.9	-06.2
20	98 33.9	-30.9	S 25 52.7	-06.3
21	113 03.0	-30.7	S 25 46.4	-06.4
22	127 32.3	-30.8	S 25 40.0	-06.5
23	142 01.5	-30.6	S 25 33.5	-06.7

UT	02	06	10	14	18	22
SD	14′9	14′9	14′9	14′9	14′9	15′0
HP	54′6	54′7	54′7	54′8	54′8	54′9
SHA	078°	076°	074°	071°	069°	067°

Greenwich Culmination Time: 13:11

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	175 06.4	+00.3	S 24 11.1	+00.0
01	190 06.7	+00.4	S 24 11.1	-00.1
02	205 07.1	+00.4	S 24 11.0	+00.0
03	220 07.5	+00.4	S 24 11.0	+00.0
04	235 07.9	+00.4	S 24 11.0	-00.1
05	250 08.3	+00.4	S 24 10.9	+00.0
06	265 08.7	+00.4	S 24 10.9	-00.1
07	280 09.1	+00.3	S 24 10.8	+00.0
08	295 09.4	+00.4	S 24 10.8	-00.1
09	310 09.8	+00.4	S 24 10.7	+00.0
10	325 10.2	+00.4	S 24 10.7	-00.1
11	340 10.6	+00.4	S 24 10.6	+00.0
12	355 11.0	+00.4	S 24 10.6	-00.1
13	10 11.4	+00.4	S 24 10.5	+00.0
14	25 11.8	+00.3	S 24 10.5	-00.1
15	40 12.1	+00.4	S 24 10.4	+00.0
16	55 12.5	+00.4	S 24 10.4	-00.1
17	70 12.9	+00.4	S 24 10.3	+00.0
18	85 13.3	+00.4	S 24 10.3	-00.1
19	100 13.7	+00.4	S 24 10.2	+00.0
20	115 14.1	+00.3	S 24 10.2	-00.1
21	130 14.4	+00.4	S 24 10.1	+00.0
22	145 14.8	+00.4	S 24 10.1	-00.1
23	160 15.2	+00.4	S 24 10.0	-00.1

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	085°	085°	085°	085°	085°	085°

Greenwich Culmination Time: 12:19

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	335 15.2	+02.8	N 21 44.0	+00.0
01	350 18.0	+02.8	N 21 44.0	+00.1
02	5 20.8	+02.7	N 21 44.1	+00.0
03	20 23.5	+02.8	N 21 44.1	+00.1
04	35 26.3	+02.8	N 21 44.2	+00.0
05	50 29.1	+02.7	N 21 44.2	+00.1
06	65 31.8	+02.8	N 21 44.3	+00.1
07	80 34.6	+02.8	N 21 44.4	+00.0
08	95 37.4	+02.7	N 21 44.4	+00.1
09	110 40.1	+02.8	N 21 44.5	+00.0
10	125 42.9	+02.8	N 21 44.5	+00.1
11	140 45.7	+02.8	N 21 44.6	+00.0
12	155 48.5	+02.7	N 21 44.6	+00.1
13	170 51.2	+02.8	N 21 44.7	+00.0
14	185 54.0	+02.8	N 21 44.7	+00.1
15	200 56.8	+02.7	N 21 44.8	+00.0
16	215 59.5	+02.8	N 21 44.8	+00.1
17	231 02.3	+02.8	N 21 44.9	+00.1
18	246 05.1	+02.8	N 21 45.0	+00.0
19	261 07.9	+02.7	N 21 45.0	+00.1
20	276 10.6	+02.8	N 21 45.1	+00.0
21	291 13.4	+02.8	N 21 45.1	+00.1
22	306 16.2	+02.7	N 21 45.2	+00.0
23	321 18.9	+02.8	N 21 45.2	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	245°	245°	245°	246°	246°	246°

Greenwich Culmination Time: 01:38

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	92 55.5	+02.3	S 03 50.8	+00.0
01	107 57.8	+02.4	S 03 50.8	-00.1
02	123 00.2	+02.4	S 03 50.7	+00.0
03	138 02.6	+02.3	S 03 50.7	-00.1
04	153 04.9	+02.4	S 03 50.6	+00.0
05	168 07.3	+02.4	S 03 50.6	-00.1
06	183 09.7	+02.4	S 03 50.5	+00.0
07	198 12.1	+02.3	S 03 50.5	-00.1
08	213 14.4	+02.4	S 03 50.4	+00.0
09	228 16.8	+02.4	S 03 50.4	-00.1
10	243 19.2	+02.4	S 03 50.3	+00.0
11	258 21.6	+02.3	S 03 50.3	-00.1
12	273 23.9	+02.4	S 03 50.2	+00.0
13	288 26.3	+02.4	S 03 50.2	-00.1
14	303 28.7	+02.4	S 03 50.1	+00.0
15	318 31.1	+02.3	S 03 50.1	-00.1
16	333 33.4	+02.4	S 03 50.0	+00.0
17	348 35.8	+02.4	S 03 50.0	-00.1
18	3 38.2	+02.3	S 03 49.9	+00.0
19	18 40.5	+02.4	S 03 49.9	-00.1
20	33 42.9	+02.4	S 03 49.8	+00.0
21	48 45.3	+02.4	S 03 49.8	-00.1
22	63 47.7	+02.3	S 03 49.7	+00.0
23	78 50.0	+02.4	S 03 49.7	-00.1

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:45

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2025 December 22 Monday

(day 356 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 23.5	-00.3	S 23 26.3	+00.0
01	195 23.2	-00.3	S 23 26.3	-00.1
02	210 22.9	-00.3	S 23 26.2	+00.0
03	225 22.6	-00.3	S 23 26.2	+00.0
04	240 22.3	-00.4	S 23 26.2	+00.0
05	255 21.9	-00.3	S 23 26.2	+00.0
06	270 21.6	-00.3	S 23 26.2	+00.0
07	285 21.3	-00.3	S 23 26.2	+00.0
08	300 21.0	-00.3	S 23 26.2	+00.0
09	315 20.7	-00.3	S 23 26.2	-00.1
10	330 20.4	-00.3	S 23 26.1	+00.0
11	345 20.1	-00.3	S 23 26.1	+00.0
12	0 19.8	-00.4	S 23 26.1	+00.0
13	15 19.4	-00.3	S 23 26.1	+00.0
14	30 19.1	-00.3	S 23 26.1	+00.0
15	45 18.8	-00.3	S 23 26.1	-00.1
16	60 18.5	-00.3	S 23 26.0	+00.0
17	75 18.2	-00.3	S 23 26.0	+00.0
18	90 17.9	-00.3	S 23 26.0	+00.0
19	105 17.6	-00.3	S 23 26.0	+00.0
20	120 17.3	-00.3	S 23 26.0	-00.1
21	135 17.0	-00.4	S 23 25.9	+00.0
22	150 16.6	-00.3	S 23 25.9	+00.0
23	165 16.3	-00.3	S 23 25.9	-00.1

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	089°	089°	089°	089°	089°	089°

Greenwich Culmination Time: 11:58

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	184 29.5	-01.0	S 23 30.7	+00.2
01	199 28.5	-00.9	S 23 30.9	+00.1
02	214 27.6	-01.0	S 23 31.0	+00.2
03	229 26.6	-01.0	S 23 31.2	+00.2
04	244 25.6	-00.9	S 23 31.4	+00.2
05	259 24.7	-01.0	S 23 31.6	+00.2
06	274 23.7	-01.0	S 23 31.8	+00.1
07	289 22.7	-00.9	S 23 31.9	+00.2
08	304 21.8	-01.0	S 23 32.1	+00.2
09	319 20.8	-01.0	S 23 32.3	+00.1
10	334 19.8	-00.9	S 23 32.4	+00.2
11	349 18.9	-01.0	S 23 32.6	+00.2
12	4 17.9	-01.0	S 23 32.8	+00.1
13	19 16.9	-00.9	S 23 32.9	+00.2
14	34 16.0	-01.0	S 23 33.1	+00.2
15	49 15.0	-00.9	S 23 33.3	+00.1
16	64 14.1	-01.0	S 23 33.4	+00.2
17	79 13.1	-01.0	S 23 33.6	+00.1
18	94 12.1	-00.9	S 23 33.7	+00.2
19	109 11.2	-01.0	S 23 33.9	+00.1
20	124 10.2	-01.0	S 23 34.0	+00.2
21	139 09.2	-00.9	S 23 34.2	+00.2
22	154 08.3	-01.0	S 23 34.4	+00.1
23	169 07.3	-01.0	S 23 34.5	+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	094°	093°	093°	093°	093°	092°

Greenwich Culmination Time: 11:42

Moon

A: 08%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	156 30.9	-30.7	S 25 26.8	-06.8
01	171 00.2	-30.6	S 25 20.0	-06.9
02	185 29.6	-30.5	S 25 13.1	-07.1
03	199 59.1	-30.5	S 25 06.0	-07.1
04	214 28.6	-30.5	S 24 58.9	-07.3
05	228 58.1	-30.4	S 24 51.6	-07.5
06	243 27.7	-30.4	S 24 44.1	-07.5
07	257 57.3	-30.3	S 24 36.6	-07.7
08	272 27.0	-30.2	S 24 28.9	-07.8
09	286 56.8	-30.3	S 24 21.1	-07.9
10	301 26.5	-30.1	S 24 13.2	-08.0
11	315 56.4	-30.1	S 24 05.2	-08.2
12	330 26.3	-30.1	S 23 57.0	-08.3
13	344 56.2	-30.0	S 23 48.7	-08.4
14	359 26.2	-29.9	S 23 40.3	-08.5
15	13 56.3	-29.9	S 23 31.8	-08.6
16	28 26.4	-29.9	S 23 23.2	-08.8
17	42 56.5	-29.8	S 23 14.4	-08.8
18	57 26.7	-29.7	S 23 05.6	-09.0
19	71 57.0	-29.7	S 22 56.6	-09.1
20	86 27.3	-29.7	S 22 47.5	-09.2
21	100 57.6	-29.5	S 22 38.3	-09.3
22	115 28.1	-29.6	S 22 29.0	-09.4
23	129 58.5	-29.5	S 22 19.6	-09.6

UT	02	06	10	14	18	22
SD	15′0	15′0	15′0	15′0	15′0	15′1
HP	55′0	55′0	55′1	55′2	55′2	55′3
SHA	065°	062°	060°	058°	056°	054°

Greenwich Culmination Time: 14:02

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	175 15.6	+00.4	S 24 09.9	+00.0
01	190 16.0	+00.4	S 24 09.9	-00.1
02	205 16.4	+00.4	S 24 09.8	+00.0
03	220 16.8	+00.3	S 24 09.8	-00.1
04	235 17.1	+00.4	S 24 09.7	+00.0
05	250 17.5	+00.4	S 24 09.7	-00.1
06	265 17.9	+00.4	S 24 09.6	-00.1
07	280 18.3	+00.4	S 24 09.5	+00.0
08	295 18.7	+00.4	S 24 09.5	-00.1
09	310 19.1	+00.3	S 24 09.4	+00.0
10	325 19.4	+00.4	S 24 09.4	-00.1
11	340 19.8	+00.4	S 24 09.3	-00.1
12	355 20.2	+00.4	S 24 09.2	+00.0
13	10 20.6	+00.4	S 24 09.2	-00.1
14	25 21.0	+00.4	S 24 09.1	+00.0
15	40 21.4	+00.3	S 24 09.1	-00.1
16	55 21.7	+00.4	S 24 09.0	-00.1
17	70 22.1	+00.4	S 24 08.9	+00.0
18	85 22.5	+00.4	S 24 08.9	-00.1
19	100 22.9	+00.4	S 24 08.8	-00.1
20	115 23.3	+00.4	S 24 08.7	+00.0
21	130 23.7	+00.3	S 24 08.7	-00.1
22	145 24.0	+00.4	S 24 08.6	-00.1
23	160 24.4	+00.4	S 24 08.5	+00.0

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	084°	084°	084°	084°	084°	084°

Greenwich Culmination Time: 12:18

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	336 21.7	+02.8	N 21 45.3	+00.0
01	351 24.5	+02.8	N 21 45.3	+00.1
02	6 27.3	+02.7	N 21 45.4	+00.0
03	21 30.0	+02.8	N 21 45.4	+00.1
04	36 32.8	+02.8	N 21 45.5	+00.1
05	51 35.6	+02.8	N 21 45.6	+00.0
06	66 38.4	+02.7	N 21 45.6	+00.1
07	81 41.1	+02.8	N 21 45.7	+00.0
08	96 43.9	+02.8	N 21 45.7	+00.1
09	111 46.7	+02.8	N 21 45.8	+00.0
10	126 49.5	+02.7	N 21 45.8	+00.1
11	141 52.2	+02.8	N 21 45.9	+00.0
12	156 55.0	+02.8	N 21 45.9	+00.1
13	171 57.8	+02.8	N 21 46.0	+00.0
14	187 00.6	+02.7	N 21 46.0	+00.1
15	202 03.3	+02.8	N 21 46.1	+00.1
16	217 06.1	+02.8	N 21 46.2	+00.0
17	232 08.9	+02.8	N 21 46.2	+00.1
18	247 11.7	+02.7	N 21 46.3	+00.0
19	262 14.4	+02.8	N 21 46.3	+00.1
20	277 17.2	+02.8	N 21 46.4	+00.0
21	292 20.0	+02.8	N 21 46.4	+00.1
22	307 22.8	+02.8	N 21 46.5	+00.0
23	322 25.6	+02.7	N 21 46.5	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:34

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	93 52.4	+02.4	S 03 49.6	+00.0
01	108 54.8	+02.3	S 03 49.6	-00.1
02	123 57.1	+02.4	S 03 49.5	+00.0
03	138 59.5	+02.4	S 03 49.5	-00.1
04	154 01.9	+02.4	S 03 49.4	+00.0
05	169 04.3	+02.3	S 03 49.4	-00.1
06	184 06.6	+02.4	S 03 49.3	+00.0
07	199 09.0	+02.4	S 03 49.3	-00.1
08	214 11.4	+02.3	S 03 49.2	+00.0
09	229 13.7	+02.4	S 03 49.2	-00.1
10	244 16.1	+02.4	S 03 49.1	+00.0
11	259 18.5	+02.3	S 03 49.1	-00.1
12	274 20.8	+02.4	S 03 49.0	+00.0
13	289 23.2	+02.4	S 03 49.0	-00.1
14	304 25.6	+02.3	S 03 48.9	+00.0
15	319 27.9	+02.4	S 03 48.9	-00.1
16	334 30.3	+02.4	S 03 48.8	+00.0
17	349 32.7	+02.4	S 03 48.8	-00.1
18	4 35.1	+02.3	S 03 48.7	+00.0
19	19 37.4	+02.4	S 03 48.7	-00.1
20	34 39.8	+02.4	S 03 48.6	+00.0
21	49 42.2	+02.3	S 03 48.6	-00.1
22	64 44.5	+02.4	S 03 48.5	+00.0
23	79 46.9	+02.4	S 03 48.5	-00.1

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:41

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2025 December 23 Tuesday

(day 357 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	180 16.0	−00.3	S 23 25.8	+00.0	00
01	195 15.7	−00.3	S 23 25.8	+00.0	01
02	210 15.4	−00.3	S 23 25.8	+00.0	02
03	225 15.1	−00.3	S 23 25.8	−00.1	03
04	240 14.8	−00.3	S 23 25.7	+00.0	04
05	255 14.5	−00.3	S 23 25.7	+00.0	05
06	270 14.2	−00.4	S 23 25.7	−00.1	06
07	285 13.8	−00.3	S 23 25.6	+00.0	07
08	300 13.5	−00.3	S 23 25.6	+00.0	08
09	315 13.2	−00.3	S 23 25.6	−00.1	09
10	330 12.9	−00.3	S 23 25.5	+00.0	10
11	345 12.6	−00.3	S 23 25.5	+00.0	11
12	0 12.3	−00.3	S 23 25.5	−00.1	12
13	15 12.0	−00.3	S 23 25.4	+00.0	13
14	30 11.7	−00.4	S 23 25.4	+00.0	14
15	45 11.3	−00.3	S 23 25.4	−00.1	15
16	60 11.0	−00.3	S 23 25.3	+00.0	16
17	75 10.7	−00.3	S 23 25.3	−00.1	17
18	90 10.4	−00.3	S 23 25.2	+00.0	18
19	105 10.1	−00.3	S 23 25.2	−00.1	19
20	120 09.8	−00.3	S 23 25.1	+00.0	20
21	135 09.5	−00.3	S 23 25.1	+00.0	21
22	150 09.2	−00.3	S 23 25.1	−00.1	22
23	165 08.9	−00.4	S 23 25.0	+00.0	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	088°	088°	088°	088°	088°	087°

Greenwich Culmination Time: 11:59

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	184 06.3	−01.0	S 23 34.7	+00.1	00
01	199 05.3	−00.9	S 23 34.8	+00.2	01
02	214 04.4	−01.0	S 23 35.0	+00.1	02
03	229 03.4	−01.0	S 23 35.1	+00.1	03
04	244 02.4	−00.9	S 23 35.2	+00.2	04
05	259 01.5	−01.0	S 23 35.4	+00.1	05
06	274 00.5	−01.0	S 23 35.5	+00.2	06
07	288 59.5	−00.9	S 23 35.7	+00.1	07
08	303 58.6	−01.0	S 23 35.8	+00.2	08
09	318 57.6	−01.0	S 23 36.0	+00.1	09
10	333 56.6	−00.9	S 23 36.1	+00.1	10
11	348 55.7	−01.0	S 23 36.2	+00.2	11
12	3 54.7	−01.0	S 23 36.4	+00.1	12
13	18 53.7	−00.9	S 23 36.5	+00.1	13
14	33 52.8	−01.0	S 23 36.6	+00.2	14
15	48 51.8	−01.0	S 23 36.8	+00.1	15
16	63 50.8	−00.9	S 23 36.9	+00.1	16
17	78 49.9	−01.0	S 23 37.0	+00.1	17
18	93 48.9	−01.0	S 23 37.1	+00.2	18
19	108 47.9	−01.0	S 23 37.3	+00.1	19
20	123 46.9	−00.9	S 23 37.4	+00.1	20
21	138 46.0	−01.0	S 23 37.5	+00.1	21
22	153 45.0	−01.0	S 23 37.6	+00.2	22
23	168 44.0	−00.9	S 23 37.8	+00.1	23

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	092°	092°	092°	092°	091°	091°

Greenwich Culmination Time: 11:44

Moon

A: 11%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	144 29.0	−29.4	S 22 10.0	−09.6	00
01	158 59.6	−29.3	S 22 00.4	−09.8	01
02	173 30.3	−29.4	S 21 50.6	−09.8	02
03	188 00.9	−29.2	S 21 40.8	−10.0	03
04	202 31.7	−29.2	S 21 30.8	−10.1	04
05	217 02.5	−29.2	S 21 20.7	−10.1	05
06	231 33.3	−29.1	S 21 10.6	−10.3	06
07	246 04.2	−29.0	S 21 00.3	−10.4	07
08	260 35.2	−29.0	S 20 49.9	−10.5	08
09	275 06.2	−29.0	S 20 39.4	−10.6	09
10	289 37.2	−28.8	S 20 28.8	−10.7	10
11	304 08.4	−28.9	S 20 18.1	−10.8	11
12	318 39.5	−28.8	S 20 07.3	−10.9	12
13	333 10.7	−28.7	S 19 56.4	−11.0	13
14	347 42.0	−28.7	S 19 45.4	−11.1	14
15	2 13.3	−28.6	S 19 34.3	−11.1	15
16	16 44.7	−28.6	S 19 23.2	−11.3	16
17	31 16.1	−28.5	S 19 11.9	−11.4	17
18	45 47.6	−28.5	S 19 00.5	−11.5	18
19	60 19.1	−28.4	S 18 49.0	−11.5	19
20	74 50.7	−28.4	S 18 37.5	−11.7	20
21	89 22.3	−28.3	S 18 25.8	−11.7	21
22	103 54.0	−28.2	S 18 14.1	−11.9	22
23	118 25.8	−28.3	S 18 02.2	−11.9	23

UT	02	06	10	14	18	22
SD	15′1	15′1	15′1	15′2	15′2	15′2
HP	55′4	55′5	55′5	55′6	55′7	55′8
SHA	052°	050°	047°	045°	043°	041°

Greenwich Culmination Time: 14:50

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	175 24.8	+00.4	S 24 08.5	−00.1	00
01	190 25.2	+00.4	S 24 08.4	−00.1	01
02	205 25.6	+00.4	S 24 08.3	+00.0	02
03	220 26.0	+00.3	S 24 08.3	−00.1	03
04	235 26.3	+00.4	S 24 08.2	−00.1	04
05	250 26.7	+00.4	S 24 08.1	+00.0	05
06	265 27.1	+00.4	S 24 08.1	−00.1	06
07	280 27.5	+00.4	S 24 08.0	−00.1	07
08	295 27.9	+00.4	S 24 07.9	+00.0	08
09	310 28.3	+00.3	S 24 07.9	−00.1	09
10	325 28.6	+00.4	S 24 07.8	−00.1	10
11	340 29.0	+00.4	S 24 07.7	−00.1	11
12	355 29.4	+00.4	S 24 07.6	+00.0	12
13	10 29.8	+00.4	S 24 07.6	−00.1	13
14	25 30.2	+00.4	S 24 07.5	−00.1	14
15	40 30.6	+00.3	S 24 07.4	−00.1	15
16	55 30.9	+00.4	S 24 07.3	+00.0	16
17	70 31.3	+00.4	S 24 07.3	−00.1	17
18	85 31.7	+00.4	S 24 07.2	−00.1	18
19	100 32.1	+00.4	S 24 07.1	−00.1	19
20	115 32.5	+00.3	S 24 07.0	+00.0	20
21	130 32.8	+00.4	S 24 07.0	−00.1	21
22	145 33.2	+00.4	S 24 06.9	−00.1	22
23	160 33.6	+00.4	S 24 06.8	−00.1	23

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	084°	083°	083°	083°	083°	083°

Greenwich Culmination Time: 12:18

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	337 28.3	+02.8	N 21 46.6	+00.0	00
01	352 31.1	+02.8	N 21 46.6	+00.1	01
02	7 33.9	+02.8	N 21 46.7	+00.1	02
03	22 36.7	+02.7	N 21 46.8	+00.0	03
04	37 39.4	+02.8	N 21 46.8	+00.1	04
05	52 42.2	+02.8	N 21 46.9	+00.0	05
06	67 45.0	+02.8	N 21 46.9	+00.1	06
07	82 47.8	+02.8	N 21 47.0	+00.0	07
08	97 50.6	+02.7	N 21 47.0	+00.1	08
09	112 53.3	+02.8	N 21 47.1	+00.0	09
10	127 56.1	+02.8	N 21 47.1	+00.1	10
11	142 58.9	+02.8	N 21 47.2	+00.0	11
12	158 01.7	+02.8	N 21 47.2	+00.1	12
13	173 04.5	+02.7	N 21 47.3	+00.1	13
14	188 07.2	+02.8	N 21 47.4	+00.0	14
15	203 10.0	+02.8	N 21 47.4	+00.1	15
16	218 12.8	+02.8	N 21 47.5	+00.0	16
17	233 15.6	+02.8	N 21 47.5	+00.1	17
18	248 18.4	+02.7	N 21 47.6	+00.0	18
19	263 21.1	+02.8	N 21 47.6	+00.1	19
20	278 23.9	+02.8	N 21 47.7	+00.0	20
21	293 26.7	+02.8	N 21 47.7	+00.1	21
22	308 29.5	+02.8	N 21 47.8	+00.1	22
23	323 32.3	+02.8	N 21 47.9	+00.0	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:29

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	94 49.3	+02.3	S 03 48.4	+00.0	00
01	109 51.6	+02.4	S 03 48.4	−00.1	01
02	124 54.0	+02.4	S 03 48.3	+00.0	02
03	139 56.4	+02.3	S 03 48.3	−00.1	03
04	154 58.7	+02.4	S 03 48.2	+00.0	04
05	170 01.1	+02.4	S 03 48.2	−00.1	05
06	185 03.5	+02.3	S 03 48.1	+00.0	06
07	200 05.8	+02.4	S 03 48.1	−00.1	07
08	215 08.2	+02.4	S 03 48.0	+00.0	08
09	230 10.6	+02.3	S 03 48.0	−00.1	09
10	245 12.9	+02.4	S 03 47.9	+00.0	10
11	260 15.3	+02.4	S 03 47.9	−00.1	11
12	275 17.7	+02.3	S 03 47.8	+00.0	12
13	290 20.0	+02.4	S 03 47.8	−00.1	13
14	305 22.4	+02.3	S 03 47.7	−00.1	14
15	320 24.7	+02.4	S 03 47.6	+00.0	15
16	335 27.1	+02.4	S 03 47.6	−00.1	16
17	350 29.5	+02.3	S 03 47.5	+00.0	17
18	5 31.8	+02.4	S 03 47.5	−00.1	18
19	20 34.2	+02.4	S 03 47.4	+00.0	19
20	35 36.6	+02.3	S 03 47.4	−00.1	20
21	50 38.9	+02.4	S 03 47.3	+00.0	21
22	65 41.3	+02.4	S 03 47.3	−00.1	22
23	80 43.7	+02.3	S 03 47.2	+00.0	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:37

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2025 December 24 Wednesday (day 358 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 08.5	-00.3	S 23 25.0	-00.1
01	195 08.2	-00.3	S 23 24.9	+00.0
02	210 07.9	-00.3	S 23 24.9	-00.1
03	225 07.6	-00.3	S 23 24.8	+00.0
04	240 07.3	-00.3	S 23 24.8	-00.1
05	255 07.0	-00.3	S 23 24.7	+00.0
06	270 06.7	-00.3	S 23 24.7	-00.1
07	285 06.4	-00.3	S 23 24.6	+00.0
08	300 06.1	-00.4	S 23 24.6	-00.1
09	315 05.7	-00.3	S 23 24.5	+00.0
10	330 05.4	-00.3	S 23 24.5	-00.1
11	345 05.1	-00.3	S 23 24.4	-00.1
12	0 04.8	-00.3	S 23 24.3	+00.0
13	15 04.5	-00.3	S 23 24.3	-00.1
14	30 04.2	-00.3	S 23 24.2	+00.0
15	45 03.9	-00.3	S 23 24.2	-00.1
16	60 03.6	-00.3	S 23 24.1	+00.0
17	75 03.3	-00.3	S 23 24.1	-00.1
18	90 03.0	-00.4	S 23 24.0	-00.1
19	105 02.6	-00.3	S 23 23.9	+00.0
20	120 02.3	-00.3	S 23 23.9	-00.1
21	135 02.0	-00.3	S 23 23.8	-00.1
22	150 01.7	-00.3	S 23 23.7	+00.0
23	165 01.4	-00.3	S 23 23.7	-00.1

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	087°	087°	087°	087°	087°	086°

Greenwich Culmination Time: 11:59

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	183 43.1	-01.0	S 23 37.9	+00.1
01	198 42.1	-01.0	S 23 38.0	+00.1
02	213 41.1	-00.9	S 23 38.1	+00.1
03	228 40.2	-01.0	S 23 38.2	+00.2
04	243 39.2	-01.0	S 23 38.4	+00.1
05	258 38.2	-01.0	S 23 38.5	+00.1
06	273 37.2	-00.9	S 23 38.6	+00.1
07	288 36.3	-01.0	S 23 38.7	+00.1
08	303 35.3	-01.0	S 23 38.8	+00.1
09	318 34.3	-00.9	S 23 38.9	+00.1
10	333 33.4	-01.0	S 23 39.0	+00.1
11	348 32.4	-01.0	S 23 39.1	+00.1
12	3 31.4	-01.0	S 23 39.2	+00.1
13	18 30.4	-00.9	S 23 39.3	+00.1
14	33 29.5	-01.0	S 23 39.4	+00.1
15	48 28.5	-01.0	S 23 39.5	+00.1
16	63 27.5	-00.9	S 23 39.6	+00.1
17	78 26.6	-01.0	S 23 39.7	+00.1
18	93 25.6	-01.0	S 23 39.8	+00.1
19	108 24.6	-01.0	S 23 39.9	+00.1
20	123 23.6	-00.9	S 23 40.0	+00.1
21	138 22.7	-01.0	S 23 40.1	+00.1
22	153 21.7	-01.0	S 23 40.2	+00.1
23	168 20.7	-00.9	S 23 40.3	+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	091°	091°	090°	090°	090°	090°

Greenwich Culmination Time: 11:45

Moon

A: 14%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	132 57.5	-28.1	S 17 50.3	-12.0
01	147 29.4	-28.2	S 17 38.3	-12.1
02	162 01.2	-28.1	S 17 26.2	-12.2
03	176 33.1	-28.0	S 17 14.0	-12.3
04	191 05.1	-28.0	S 17 01.7	-12.3
05	205 37.1	-27.9	S 16 49.4	-12.5
06	220 09.2	-27.9	S 16 36.9	-12.5
07	234 41.3	-27.9	S 16 24.4	-12.6
08	249 13.4	-27.8	S 16 11.8	-12.7
09	263 45.6	-27.8	S 15 59.1	-12.7
10	278 17.8	-27.7	S 15 46.4	-12.9
11	292 50.1	-27.7	S 15 33.5	-12.9
12	307 22.4	-27.6	S 15 20.6	-13.0
13	321 54.8	-27.7	S 15 07.6	-13.1
14	336 27.1	-27.5	S 14 54.5	-13.1
15	350 59.6	-27.6	S 14 41.4	-13.2
16	5 32.0	-27.4	S 14 28.2	-13.3
17	20 04.6	-27.5	S 14 14.9	-13.4
18	34 37.1	-27.4	S 14 01.5	-13.4
19	49 09.7	-27.4	S 13 48.1	-13.6
20	63 42.3	-27.4	S 13 34.5	-13.5
21	78 14.9	-27.3	S 13 21.0	-13.7
22	92 47.6	-27.3	S 13 07.3	-13.7
23	107 20.3	-27.2	S 12 53.6	-13.8

UT	02	06	10	14	18	22
SD	15′2	15′2	15′3	15′3	15′3	15′3
HP	55′9	56′0	56′0	56′1	56′2	56′3
SHA	039°	037°	035°	033°	031°	029°

Greenwich Culmination Time: 15:37

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	175 34.0	+00.4	S 24 06.7	+00.0
01	190 34.4	+00.4	S 24 06.7	-00.1
02	205 34.8	+00.3	S 24 06.6	-00.1
03	220 35.1	+00.4	S 24 06.5	-00.1
04	235 35.5	+00.4	S 24 06.4	-00.1
05	250 35.9	+00.4	S 24 06.3	+00.0
06	265 36.3	+00.4	S 24 06.3	-00.1
07	280 36.7	+00.3	S 24 06.2	-00.1
08	295 37.0	+00.4	S 24 06.1	-00.1
09	310 37.4	+00.4	S 24 06.0	-00.1
10	325 37.8	+00.4	S 24 05.9	+00.0
11	340 38.2	+00.4	S 24 05.9	-00.1
12	355 38.6	+00.4	S 24 05.8	-00.1
13	10 39.0	+00.3	S 24 05.7	-00.1
14	25 39.3	+00.4	S 24 05.6	-00.1
15	40 39.7	+00.4	S 24 05.5	-00.1
16	55 40.1	+00.4	S 24 05.4	+00.0
17	70 40.5	+00.4	S 24 05.4	-00.1
18	85 40.9	+00.3	S 24 05.3	-00.1
19	100 41.2	+00.4	S 24 05.2	-00.1
20	115 41.6	+00.4	S 24 05.1	-00.1
21	130 42.0	+00.4	S 24 05.0	-00.1
22	145 42.4	+00.4	S 24 04.9	-00.1
23	160 42.8	+00.3	S 24 04.8	-00.1

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	083°	083°	082°	082°	082°	082°

Greenwich Culmination Time: 12:17

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	338 35.1	+02.7	N 21 47.9	+00.1
01	353 37.8	+02.8	N 21 48.0	+00.0
02	8 40.6	+02.8	N 21 48.0	+00.1
03	23 43.4	+02.8	N 21 48.1	+00.0
04	38 46.2	+02.8	N 21 48.1	+00.1
05	53 49.0	+02.8	N 21 48.2	+00.0
06	68 51.8	+02.7	N 21 48.2	+00.1
07	83 54.5	+02.8	N 21 48.3	+00.1
08	98 57.3	+02.8	N 21 48.4	+00.0
09	114 00.1	+02.8	N 21 48.4	+00.1
10	129 02.9	+02.8	N 21 48.5	+00.0
11	144 05.7	+02.8	N 21 48.5	+00.1
12	159 08.5	+02.7	N 21 48.6	+00.0
13	174 11.2	+02.8	N 21 48.6	+00.1
14	189 14.0	+02.8	N 21 48.7	+00.0
15	204 16.8	+02.8	N 21 48.7	+00.1
16	219 19.6	+02.8	N 21 48.8	+00.1
17	234 22.4	+02.8	N 21 48.9	+00.0
18	249 25.2	+02.8	N 21 48.9	+00.1
19	264 28.0	+02.7	N 21 49.0	+00.0
20	279 30.7	+02.8	N 21 49.0	+00.1
21	294 33.5	+02.8	N 21 49.1	+00.0
22	309 36.3	+02.8	N 21 49.1	+00.1
23	324 39.1	+02.8	N 21 49.2	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:25

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	95 46.0	+02.4	S 03 47.2	-00.1
01	110 48.4	+02.3	S 03 47.1	+00.0
02	125 50.7	+02.4	S 03 47.1	-00.1
03	140 53.1	+02.4	S 03 47.0	+00.0
04	155 55.5	+02.3	S 03 47.0	-00.1
05	170 57.8	+02.4	S 03 46.9	+00.0
06	186 00.2	+02.4	S 03 46.9	-00.1
07	201 02.6	+02.3	S 03 46.8	-00.1
08	216 04.9	+02.4	S 03 46.7	+00.0
09	231 07.3	+02.3	S 03 46.7	-00.1
10	246 09.6	+02.4	S 03 46.6	+00.0
11	261 12.0	+02.4	S 03 46.6	-00.1
12	276 14.4	+02.3	S 03 46.5	+00.0
13	291 16.7	+02.4	S 03 46.5	-00.1
14	306 19.1	+02.4	S 03 46.4	+00.0
15	321 21.5	+02.3	S 03 46.4	-00.1
16	336 23.8	+02.4	S 03 46.3	+00.0
17	351 26.2	+02.3	S 03 46.3	-00.1
18	6 28.5	+02.4	S 03 46.2	+00.0
19	21 30.9	+02.4	S 03 46.2	-00.1
20	36 33.3	+02.3	S 03 46.1	-00.1
21	51 35.6	+02.4	S 03 46.0	+00.0
22	66 38.0	+02.3	S 03 46.0	-00.1
23	81 40.3	+02.4	S 03 45.9	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:34

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2025 December 25 Thursday

(day 359 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	180 01.1	−00.3	S 23 23.6	−00.1	00
01	195 00.8	−00.3	S 23 23.5	+00.0	01
02	210 00.5	−00.3	S 23 23.5	−00.1	02
03	225 00.2	−00.4	S 23 23.4	−00.1	03
04	239 59.8	−00.3	S 23 23.3	+00.0	04
05	254 59.5	−00.3	S 23 23.3	−00.1	05
06	269 59.2	−00.3	S 23 23.2	−00.1	06
07	284 58.9	−00.3	S 23 23.1	+00.0	07
08	299 58.6	−00.3	S 23 23.1	−00.1	08
09	314 58.3	−00.3	S 23 23.0	−00.1	09
10	329 58.0	−00.3	S 23 22.9	−00.1	10
11	344 57.7	−00.3	S 23 22.8	+00.0	11
12	359 57.4	−00.3	S 23 22.8	−00.1	12
13	14 57.1	−00.3	S 23 22.7	−00.1	13
14	29 56.8	−00.4	S 23 22.6	−00.1	14
15	44 56.4	−00.3	S 23 22.5	−00.1	15
16	59 56.1	−00.3	S 23 22.4	+00.0	16
17	74 55.8	−00.3	S 23 22.4	−00.1	17
18	89 55.5	−00.3	S 23 22.3	−00.1	18
19	104 55.2	−00.3	S 23 22.2	−00.1	19
20	119 54.9	−00.3	S 23 22.1	−00.1	20
21	134 54.6	−00.3	S 23 22.0	+00.0	21
22	149 54.3	−00.3	S 23 22.0	−00.1	22
23	164 54.0	−00.3	S 23 21.9	−00.1	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	086°	086°	086°	086°	085°	085°

Greenwich Culmination Time: 12:00

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	183 19.8	−01.0	S 23 40.4	+00.1	00
01	198 18.8	−01.0	S 23 40.5	+00.1	01
02	213 17.8	−01.0	S 23 40.6	+00.1	02
03	228 16.8	−00.9	S 23 40.7	+00.0	03
04	243 15.9	−01.0	S 23 40.7	+00.1	04
05	258 14.9	−01.0	S 23 40.8	+00.1	05
06	273 13.9	−00.9	S 23 40.9	+00.1	06
07	288 13.0	−01.0	S 23 41.0	+00.1	07
08	303 12.0	−01.0	S 23 41.1	+00.0	08
09	318 11.0	−01.0	S 23 41.1	+00.1	09
10	333 10.0	−00.9	S 23 41.2	+00.1	10
11	348 09.1	−01.0	S 23 41.3	+00.1	11
12	3 08.1	−01.0	S 23 41.4	+00.0	12
13	18 07.1	−01.0	S 23 41.4	+00.1	13
14	33 06.1	−00.9	S 23 41.5	+00.1	14
15	48 05.2	−01.0	S 23 41.6	+00.1	15
16	63 04.2	−01.0	S 23 41.7	+00.0	16
17	78 03.2	−00.9	S 23 41.7	+00.1	17
18	93 02.3	−01.0	S 23 41.8	+00.1	18
19	108 01.3	−01.0	S 23 41.9	+00.0	19
20	123 00.3	−01.0	S 23 41.9	+00.1	20
21	137 59.3	−00.9	S 23 42.0	+00.0	21
22	152 58.4	−01.0	S 23 42.0	+00.1	22
23	167 57.4	−01.0	S 23 42.1	+00.1	23

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	089°	089°	089°	089°	089°	088°

Greenwich Culmination Time: 11:47

Moon

A: 17%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	121 53.1	−27.3	S 12 39.8	−13.8	00
01	136 25.8	−27.1	S 12 26.0	−14.0	01
02	150 58.7	−27.2	S 12 12.0	−13.9	02
03	165 31.5	−27.2	S 11 58.1	−14.1	03
04	180 04.3	−27.1	S 11 44.0	−14.1	04
05	194 37.2	−27.1	S 11 29.9	−14.2	05
06	209 10.1	−27.0	S 11 15.7	−14.2	06
07	223 43.1	−27.1	S 11 01.5	−14.3	07
08	238 16.0	−27.0	S 10 47.2	−14.3	08
09	252 49.0	−27.0	S 10 32.9	−14.4	09
10	267 22.0	−26.9	S 10 18.5	−14.5	10
11	281 55.1	−27.0	S 10 04.0	−14.5	11
12	296 28.1	−26.9	S 09 49.5	−14.6	12
13	311 01.2	−27.0	S 09 34.9	−14.6	13
14	325 34.2	−26.9	S 09 20.3	−14.7	14
15	340 07.3	−26.8	S 09 05.6	−14.7	15
16	354 40.5	−26.9	S 08 50.9	−14.8	16
17	9 13.6	−26.9	S 08 36.1	−14.8	17
18	23 46.7	−26.8	S 08 21.3	−14.9	18
19	38 19.9	−26.9	S 08 06.4	−14.9	19
20	52 53.0	−26.8	S 07 51.5	−15.0	20
21	67 26.2	−26.8	S 07 36.5	−15.0	21
22	81 59.4	−26.8	S 07 21.5	−15.1	22
23	96 32.6	−26.8	S 07 06.4	−15.1	23

UT	02	06	10	14	18	22
SD	15′4	15′4	15′4	15′5	15′5	15′5
HP	56′4	56′5	56′6	56′7	56′8	56′9
SHA	027°	025°	023°	021°	019°	017°

Greenwich Culmination Time: 16:21

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	175 43.1	+00.4	S 24 04.7	−00.1	00
01	190 43.5	+00.4	S 24 04.6	+00.0	01
02	205 43.9	+00.4	S 24 04.6	−00.1	02
03	220 44.3	+00.4	S 24 04.5	−00.1	03
04	235 44.7	+00.4	S 24 04.4	−00.1	04
05	250 45.1	+00.3	S 24 04.3	−00.1	05
06	265 45.4	+00.4	S 24 04.2	−00.1	06
07	280 45.8	+00.4	S 24 04.1	−00.1	07
08	295 46.2	+00.4	S 24 04.0	−00.1	08
09	310 46.6	+00.4	S 24 03.9	−00.1	09
10	325 47.0	+00.3	S 24 03.8	−00.1	10
11	340 47.3	+00.4	S 24 03.7	−00.1	11
12	355 47.7	+00.4	S 24 03.6	−00.1	12
13	10 48.1	+00.4	S 24 03.5	−00.1	13
14	25 48.5	+00.4	S 24 03.4	+00.0	14
15	40 48.9	+00.3	S 24 03.4	−00.1	15
16	55 49.2	+00.4	S 24 03.3	−00.1	16
17	70 49.6	+00.4	S 24 03.2	−00.1	17
18	85 50.0	+00.4	S 24 03.1	−00.1	18
19	100 50.4	+00.4	S 24 03.0	−00.1	19
20	115 50.8	+00.3	S 24 02.9	−00.1	20
21	130 51.1	+00.4	S 24 02.8	−00.1	21
22	145 51.5	+00.4	S 24 02.7	−00.1	22
23	160 51.9	+00.4	S 24 02.6	−00.1	23

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	082°	082°	082°	081°	081°	081°

Greenwich Culmination Time: 12:16

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	339 41.9	+02.8	N 21 49.2	+00.1	00
01	354 44.7	+02.8	N 21 49.3	+00.1	01
02	9 47.5	+02.7	N 21 49.4	+00.0	02
03	24 50.2	+02.8	N 21 49.4	+00.1	03
04	39 53.0	+02.8	N 21 49.5	+00.0	04
05	54 55.8	+02.8	N 21 49.5	+00.1	05
06	69 58.6	+02.8	N 21 49.6	+00.0	06
07	85 01.4	+02.8	N 21 49.6	+00.1	07
08	100 04.2	+02.8	N 21 49.7	+00.0	08
09	115 07.0	+02.8	N 21 49.7	+00.1	09
10	130 09.8	+02.8	N 21 49.8	+00.1	10
11	145 12.6	+02.7	N 21 49.9	+00.0	11
12	160 15.3	+02.8	N 21 49.9	+00.1	12
13	175 18.1	+02.8	N 21 50.0	+00.0	13
14	190 20.9	+02.8	N 21 50.0	+00.1	14
15	205 23.7	+02.8	N 21 50.1	+00.0	15
16	220 26.5	+02.8	N 21 50.1	+00.1	16
17	235 29.3	+02.8	N 21 50.2	+00.1	17
18	250 32.1	+02.8	N 21 50.3	+00.0	18
19	265 34.9	+02.8	N 21 50.3	+00.1	19
20	280 37.7	+02.8	N 21 50.4	+00.0	20
21	295 40.5	+02.7	N 21 50.4	+00.1	21
22	310 43.2	+02.8	N 21 50.5	+00.0	22
23	325 46.0	+02.8	N 21 50.5	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:20

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	96 42.7	+02.4	S 03 45.9	−00.1	00
01	111 45.1	+02.3	S 03 45.8	+00.0	01
02	126 47.4	+02.4	S 03 45.8	−00.1	02
03	141 49.8	+02.3	S 03 45.7	+00.0	03
04	156 52.1	+02.4	S 03 45.7	−00.1	04
05	171 54.5	+02.3	S 03 45.6	+00.0	05
06	186 56.8	+02.4	S 03 45.6	−00.1	06
07	201 59.2	+02.4	S 03 45.5	−00.1	07
08	217 01.6	+02.3	S 03 45.4	+00.0	08
09	232 03.9	+02.4	S 03 45.4	−00.1	09
10	247 06.3	+02.3	S 03 45.3	+00.0	10
11	262 08.6	+02.4	S 03 45.3	−00.1	11
12	277 11.0	+02.4	S 03 45.2	+00.0	12
13	292 13.4	+02.3	S 03 45.2	−00.1	13
14	307 15.7	+02.4	S 03 45.1	+00.0	14
15	322 18.1	+02.3	S 03 45.1	−00.1	15
16	337 20.4	+02.4	S 03 45.0	−00.1	16
17	352 22.8	+02.3	S 03 44.9	+00.0	17
18	7 25.1	+02.4	S 03 44.9	−00.1	18
19	22 27.5	+02.3	S 03 44.8	+00.0	19
20	37 29.8	+02.4	S 03 44.8	−00.1	20
21	52 32.2	+02.4	S 03 44.7	+00.0	21
22	67 34.6	+02.3	S 03 44.7	−00.1	22
23	82 36.9	+02.4	S 03 44.6	−00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:30

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2025 December 26 Friday

(day 360 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 53.7	−00.4	S 23 21.8	−00.1
01	194 53.3	−00.3	S 23 21.7	−00.1
02	209 53.0	−00.3	S 23 21.6	−00.1
03	224 52.7	−00.3	S 23 21.5	−00.1
04	239 52.4	−00.3	S 23 21.4	−00.1
05	254 52.1	−00.3	S 23 21.3	+00.0
06	269 51.8	−00.3	S 23 21.3	−00.1
07	284 51.5	−00.3	S 23 21.2	−00.1
08	299 51.2	−00.3	S 23 21.1	−00.1
09	314 50.9	−00.3	S 23 21.0	−00.1
10	329 50.6	−00.3	S 23 20.9	−00.1
11	344 50.3	−00.3	S 23 20.8	−00.1
12	359 50.0	−00.4	S 23 20.7	−00.1
13	14 49.6	−00.3	S 23 20.6	−00.1
14	29 49.3	−00.3	S 23 20.5	−00.1
15	44 49.0	−00.3	S 23 20.4	−00.1
16	59 48.7	−00.3	S 23 20.3	−00.1
17	74 48.4	−00.3	S 23 20.2	−00.1
18	89 48.1	−00.3	S 23 20.1	−00.1
19	104 47.8	−00.3	S 23 20.0	−00.1
20	119 47.5	−00.3	S 23 19.9	−00.1
21	134 47.2	−00.3	S 23 19.8	−00.1
22	149 46.9	−00.3	S 23 19.7	−00.1
23	164 46.6	−00.3	S 23 19.6	−00.1

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	085°	085°	085°	084°	084°	084°

Greenwich Culmination Time: 12:00

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 56.4	−01.0	S 23 42.2	+00.0
01	197 55.4	−00.9	S 23 42.2	+00.1
02	212 54.5	−01.0	S 23 42.3	+00.0
03	227 53.5	−01.0	S 23 42.3	+00.1
04	242 52.5	−01.0	S 23 42.4	+00.0
05	257 51.5	−00.9	S 23 42.4	+00.1
06	272 50.6	−01.0	S 23 42.5	+00.0
07	287 49.6	−01.0	S 23 42.5	+00.1
08	302 48.6	−01.0	S 23 42.6	+00.0
09	317 47.6	−00.9	S 23 42.6	+00.1
10	332 46.7	−01.0	S 23 42.7	+00.0
11	347 45.7	−01.0	S 23 42.7	+00.1
12	2 44.7	−00.9	S 23 42.8	+00.0
13	17 43.8	−01.0	S 23 42.8	+00.1
14	32 42.8	−01.0	S 23 42.9	+00.0
15	47 41.8	−01.0	S 23 42.9	+00.0
16	62 40.8	−00.9	S 23 42.9	+00.1
17	77 39.9	−01.0	S 23 43.0	+00.0
18	92 38.9	−01.0	S 23 43.0	+00.0
19	107 37.9	−01.0	S 23 43.0	+00.1
20	122 36.9	−00.9	S 23 43.1	+00.0
21	137 36.0	−01.0	S 23 43.1	+00.0
22	152 35.0	−01.0	S 23 43.1	+00.1
23	167 34.0	−01.0	S 23 43.2	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	088°	088°	088°	087°	087°	087°

Greenwich Culmination Time: 11:49

Moon

A: 20%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	111 05.8	−26.8	S 06 51.3	−15.1
01	125 39.0	−26.8	S 06 36.2	−15.2
02	140 12.2	−26.8	S 06 21.0	−15.3
03	154 45.4	−26.8	S 06 05.7	−15.2
04	169 18.6	−26.8	S 05 50.5	−15.4
05	183 51.8	−26.8	S 05 35.1	−15.3
06	198 25.0	−26.8	S 05 19.8	−15.4
07	212 58.2	−26.8	S 05 04.4	−15.4
08	227 31.4	−26.8	S 04 49.0	−15.5
09	242 04.6	−26.8	S 04 33.5	−15.5
10	256 37.8	−26.8	S 04 18.0	−15.5
11	271 11.0	−26.9	S 04 02.5	−15.6
12	285 44.1	−26.8	S 03 46.9	−15.6
13	300 17.3	−26.9	S 03 31.3	−15.6
14	314 50.4	−26.8	S 03 15.7	−15.7
15	329 23.6	−26.9	S 03 00.0	−15.6
16	343 56.7	−26.9	S 02 44.4	−15.7
17	358 29.8	−26.9	S 02 28.7	−15.8
18	13 02.9	−26.9	S 02 12.9	−15.7
19	27 36.0	−27.0	S 01 57.2	−15.8
20	42 09.0	−26.9	S 01 41.4	−15.8
21	56 42.1	−27.0	S 01 25.6	−15.9
22	71 15.1	−27.0	S 01 09.7	−15.8
23	85 48.1	−27.1	S 00 53.9	−15.9

UT	02	06	10	14	18	22
SD	15′5	15′6	15′6	15′6	15′7	15′7
HP	57′0	57′2	57′3	57′4	57′5	57′6
SHA	015°	013°	011°	010°	008°	006°

Greenwich Culmination Time: 17:06

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	175 52.3	+00.4	S 24 02.5	−00.1
01	190 52.7	+00.4	S 24 02.4	−00.1
02	205 53.1	+00.3	S 24 02.3	−00.1
03	220 53.4	+00.4	S 24 02.2	−00.1
04	235 53.8	+00.4	S 24 02.1	−00.1
05	250 54.2	+00.4	S 24 02.0	−00.1
06	265 54.6	+00.4	S 24 01.9	−00.1
07	280 55.0	+00.3	S 24 01.8	−00.1
08	295 55.3	+00.4	S 24 01.7	−00.2
09	310 55.7	+00.4	S 24 01.5	−00.1
10	325 56.1	+00.4	S 24 01.4	−00.1
11	340 56.5	+00.4	S 24 01.3	−00.1
12	355 56.9	+00.3	S 24 01.2	−00.1
13	10 57.2	+00.4	S 24 01.1	−00.1
14	25 57.6	+00.4	S 24 01.0	−00.1
15	40 58.0	+00.4	S 24 00.9	−00.1
16	55 58.4	+00.4	S 24 00.8	−00.1
17	70 58.8	+00.3	S 24 00.7	−00.1
18	85 59.1	+00.4	S 24 00.6	−00.1
19	100 59.5	+00.4	S 24 00.5	−00.1
20	115 59.9	+00.4	S 24 00.4	−00.1
21	131 00.3	+00.4	S 24 00.3	−00.2
22	146 00.7	+00.3	S 24 00.1	−00.1
23	161 01.0	+00.4	S 24 00.0	−00.1

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	081°	081°	081°	081°	080°	080°

Greenwich Culmination Time: 12:16

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	340 48.8	+02.8	N 21 50.6	+00.0
01	355 51.6	+02.8	N 21 50.6	+00.1
02	10 54.4	+02.8	N 21 50.7	+00.1
03	25 57.2	+02.8	N 21 50.8	+00.0
04	40 60.0	+02.8	N 21 50.8	+00.1
05	56 02.8	+02.8	N 21 50.9	+00.0
06	71 05.6	+02.8	N 21 50.9	+00.1
07	86 08.4	+02.8	N 21 51.0	+00.0
08	101 11.2	+02.7	N 21 51.0	+00.1
09	116 13.9	+02.8	N 21 51.1	+00.0
10	131 16.7	+02.8	N 21 51.1	+00.1
11	146 19.5	+02.8	N 21 51.2	+00.1
12	161 22.3	+02.8	N 21 51.3	+00.0
13	176 25.1	+02.8	N 21 51.3	+00.1
14	191 27.9	+02.8	N 21 51.4	+00.0
15	206 30.7	+02.8	N 21 51.4	+00.1
16	221 33.5	+02.8	N 21 51.5	+00.0
17	236 36.3	+02.8	N 21 51.5	+00.1
18	251 39.1	+02.8	N 21 51.6	+00.1
19	266 41.9	+02.8	N 21 51.7	+00.0
20	281 44.7	+02.8	N 21 51.7	+00.1
21	296 47.5	+02.8	N 21 51.8	+00.0
22	311 50.3	+02.8	N 21 51.8	+00.1
23	326 53.1	+02.8	N 21 51.9	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:16

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	97 39.3	+02.3	S 03 44.5	+00.0
01	112 41.6	+02.4	S 03 44.5	−00.1
02	127 44.0	+02.3	S 03 44.4	+00.0
03	142 46.3	+02.4	S 03 44.4	−00.1
04	157 48.7	+02.3	S 03 44.3	+00.0
05	172 51.0	+02.4	S 03 44.3	−00.1
06	187 53.4	+02.4	S 03 44.2	+00.0
07	202 55.8	+02.3	S 03 44.2	−00.1
08	217 58.1	+02.4	S 03 44.1	−00.1
09	233 00.5	+02.3	S 03 44.0	+00.0
10	248 02.8	+02.4	S 03 44.0	−00.1
11	263 05.2	+02.3	S 03 43.9	+00.0
12	278 07.5	+02.4	S 03 43.9	−00.1
13	293 09.9	+02.3	S 03 43.8	+00.0
14	308 12.2	+02.4	S 03 43.8	−00.1
15	323 14.6	+02.3	S 03 43.7	−00.1
16	338 16.9	+02.4	S 03 43.6	+00.0
17	353 19.3	+02.3	S 03 43.6	−00.1
18	8 21.6	+02.4	S 03 43.5	+00.0
19	23 24.0	+02.4	S 03 43.5	−00.1
20	38 26.4	+02.3	S 03 43.4	+00.0
21	53 28.7	+02.4	S 03 43.4	−00.1
22	68 31.1	+02.3	S 03 43.3	−00.1
23	83 33.4	+02.4	S 03 43.2	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:26

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2025 December 27 Saturday

(day 361 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 46.3	−00.4	S 23 19.5	−00.1
01	194 45.9	−00.3	S 23 19.4	−00.1
02	209 45.6	−00.3	S 23 19.3	−00.1
03	224 45.3	−00.3	S 23 19.2	−00.1
04	239 45.0	−00.3	S 23 19.1	−00.1
05	254 44.7	−00.3	S 23 19.0	−00.2
06	269 44.4	−00.3	S 23 18.8	−00.1
07	284 44.1	−00.3	S 23 18.7	−00.1
08	299 43.8	−00.3	S 23 18.6	−00.1
09	314 43.5	−00.3	S 23 18.5	−00.1
10	329 43.2	−00.3	S 23 18.4	−00.1
11	344 42.9	−00.3	S 23 18.3	−00.1
12	359 42.6	−00.3	S 23 18.2	−00.1
13	14 42.3	−00.3	S 23 18.1	−00.2
14	29 42.0	−00.3	S 23 17.9	−00.1
15	44 41.7	−00.4	S 23 17.8	−00.1
16	59 41.3	−00.3	S 23 17.7	−00.1
17	74 41.0	−00.3	S 23 17.6	−00.1
18	89 40.7	−00.3	S 23 17.5	−00.2
19	104 40.4	−00.3	S 23 17.3	−00.1
20	119 40.1	−00.3	S 23 17.2	−00.1
21	134 39.8	−00.3	S 23 17.1	−00.1
22	149 39.5	−00.3	S 23 17.0	−00.1
23	164 39.2	−00.3	S 23 16.9	−00.2

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	084°	084°	084°	083°	083°	083°

Greenwich Culmination Time: 12:01

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	182 33.0	−00.9	S 23 43.2	+00.0
01	197 32.1	−01.0	S 23 43.2	+00.1
02	212 31.1	−01.0	S 23 43.3	+00.0
03	227 30.1	−01.0	S 23 43.3	+00.0
04	242 29.1	−00.9	S 23 43.3	+00.0
05	257 28.2	−01.0	S 23 43.3	+00.0
06	272 27.2	−01.0	S 23 43.3	+00.1
07	287 26.2	−01.0	S 23 43.4	+00.0
08	302 25.2	−00.9	S 23 43.4	+00.0
09	317 24.3	−01.0	S 23 43.4	+00.0
10	332 23.3	−01.0	S 23 43.4	+00.0
11	347 22.3	−01.0	S 23 43.4	+00.0
12	2 21.3	−00.9	S 23 43.4	+00.1
13	17 20.4	−01.0	S 23 43.5	+00.0
14	32 19.4	−01.0	S 23 43.5	+00.0
15	47 18.4	−01.0	S 23 43.5	+00.0
16	62 17.4	−00.9	S 23 43.5	+00.0
17	77 16.5	−01.0	S 23 43.5	+00.0
18	92 15.5	−01.0	S 23 43.5	+00.0
19	107 14.5	−01.0	S 23 43.5	+00.0
20	122 13.5	−00.9	S 23 43.5	+00.0
21	137 12.6	−01.0	S 23 43.5	+00.0
22	152 11.6	−01.0	S 23 43.5	+00.0
23	167 10.6	−00.9	S 23 43.5	+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	087°	086°	086°	086°	086°	086°

Greenwich Culmination Time: 11:50

Moon

A: 23%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	100 21.0	−27.0	S 00 38.0	−15.9
01	114 54.0	−27.1	S 00 22.1	−15.9
02	129 26.9	−27.2	S 00 06.2	−15.9
03	143 59.7	−27.1	N 00 09.7	+15.9
04	158 32.6	−27.2	N 00 25.6	+16.0
05	173 05.4	−27.2	N 00 41.6	+15.9
06	187 38.2	−27.3	N 00 57.5	+16.0
07	202 10.9	−27.2	N 01 13.5	+16.0
08	216 43.7	−27.4	N 01 29.5	+16.0
09	231 16.3	−27.3	N 01 45.5	+16.0
10	245 49.0	−27.4	N 02 01.5	+16.0
11	260 21.6	−27.5	N 02 17.5	+16.0
12	274 54.1	−27.5	N 02 33.5	+16.1
13	289 26.6	−27.5	N 02 49.6	+16.0
14	303 59.1	−27.6	N 03 05.6	+16.0
15	318 31.5	−27.6	N 03 21.6	+16.0
16	333 03.9	−27.7	N 03 37.6	+16.1
17	347 36.2	−27.7	N 03 53.7	+16.0
18	2 08.5	−27.8	N 04 09.7	+16.0
19	16 40.7	−27.8	N 04 25.7	+16.1
20	31 12.9	−27.9	N 04 41.8	+16.0
21	45 45.0	−27.9	N 04 57.8	+16.0
22	60 17.1	−28.0	N 05 13.8	+16.0
23	74 49.1	−28.1	N 05 29.8	+16.0

UT	02	06	10	14	18	22
SD	15′7	15′8	15′8	15′8	15′9	15′9
HP	57′7	57′8	58′0	58′1	58′2	58′3
SHA	004°	002°	360°	358°	356°	354°

Greenwich Culmination Time: 17:51

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	176 01.4	+00.4	S 23 59.9	−00.1
01	191 01.8	+00.4	S 23 59.8	−00.1
02	206 02.2	+00.4	S 23 59.7	−00.1
03	221 02.6	+00.3	S 23 59.6	−00.1
04	236 02.9	+00.4	S 23 59.5	−00.1
05	251 03.3	+00.4	S 23 59.4	−00.1
06	266 03.7	+00.4	S 23 59.3	−00.2
07	281 04.1	+00.4	S 23 59.1	−00.1
08	296 04.5	+00.3	S 23 59.0	−00.1
09	311 04.8	+00.4	S 23 58.9	−00.1
10	326 05.2	+00.4	S 23 58.8	−00.1
11	341 05.6	+00.4	S 23 58.7	−00.1
12	356 06.0	+00.4	S 23 58.6	−00.2
13	11 06.4	+00.3	S 23 58.4	−00.1
14	26 06.7	+00.4	S 23 58.3	−00.1
15	41 07.1	+00.4	S 23 58.2	−00.1
16	56 07.5	+00.4	S 23 58.1	−00.1
17	71 07.9	+00.4	S 23 58.0	−00.2
18	86 08.3	+00.3	S 23 57.8	−00.1
19	101 08.6	+00.4	S 23 57.7	−00.1
20	116 09.0	+00.4	S 23 57.6	−00.1
21	131 09.4	+00.4	S 23 57.5	−00.1
22	146 09.8	+00.3	S 23 57.4	−00.2
23	161 10.1	+00.4	S 23 57.2	−00.1

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	080°	080°	080°	080°	080°	080°

Greenwich Culmination Time: 12:15

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	341 55.9	+02.8	N 21 51.9	+00.1
01	356 58.7	+02.7	N 21 52.0	+00.0
02	12 01.4	+02.8	N 21 52.0	+00.1
03	27 04.2	+02.8	N 21 52.1	+00.1
04	42 07.0	+02.8	N 21 52.2	+00.0
05	57 09.8	+02.8	N 21 52.2	+00.1
06	72 12.6	+02.8	N 21 52.3	+00.0
07	87 15.4	+02.8	N 21 52.3	+00.1
08	102 18.2	+02.8	N 21 52.4	+00.0
09	117 21.0	+02.8	N 21 52.4	+00.1
10	132 23.8	+02.8	N 21 52.5	+00.1
11	147 26.6	+02.8	N 21 52.6	+00.0
12	162 29.4	+02.8	N 21 52.6	+00.1
13	177 32.2	+02.8	N 21 52.7	+00.0
14	192 35.0	+02.8	N 21 52.7	+00.1
15	207 37.8	+02.8	N 21 52.8	+00.0
16	222 40.6	+02.8	N 21 52.8	+00.1
17	237 43.4	+02.8	N 21 52.9	+00.1
18	252 46.2	+02.8	N 21 53.0	+00.0
19	267 49.0	+02.8	N 21 53.0	+00.1
20	282 51.8	+02.8	N 21 53.1	+00.0
21	297 54.6	+02.8	N 21 53.1	+00.1
22	312 57.4	+02.8	N 21 53.2	+00.0
23	328 00.2	+02.8	N 21 53.2	+00.1

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:12

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	98 35.8	+02.3	S 03 43.2	−00.1
01	113 38.1	+02.4	S 03 43.1	+00.0
02	128 40.5	+02.3	S 03 43.1	−00.1
03	143 42.8	+02.4	S 03 43.0	−00.1
04	158 45.2	+02.3	S 03 42.9	+00.0
05	173 47.5	+02.4	S 03 42.9	−00.1
06	188 49.9	+02.3	S 03 42.8	+00.0
07	203 52.2	+02.4	S 03 42.8	−00.1
08	218 54.6	+02.3	S 03 42.7	+00.0
09	233 56.9	+02.4	S 03 42.7	−00.1
10	248 59.3	+02.3	S 03 42.6	−00.1
11	264 01.6	+02.4	S 03 42.5	+00.0
12	279 04.0	+02.3	S 03 42.5	−00.1
13	294 06.3	+02.4	S 03 42.4	+00.0
14	309 08.7	+02.3	S 03 42.4	−00.1
15	324 11.0	+02.4	S 03 42.3	−00.1
16	339 13.4	+02.3	S 03 42.2	+00.0
17	354 15.7	+02.4	S 03 42.2	−00.1
18	9 18.1	+02.3	S 03 42.1	+00.0
19	24 20.4	+02.4	S 03 42.1	−00.1
20	39 22.8	+02.3	S 03 42.0	+00.0
21	54 25.1	+02.4	S 03 42.0	−00.1
22	69 27.5	+02.3	S 03 41.9	−00.1
23	84 29.8	+02.4	S 03 41.8	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:22

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2025 December 28 Sunday

(day 362 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	179 38.9	-00.3	S 23 16.7	-00.1	00
01	194 38.6	-00.3	S 23 16.6	-00.1	01
02	209 38.3	-00.3	S 23 16.5	-00.1	02
03	224 38.0	-00.3	S 23 16.4	-00.2	03
04	239 37.7	-00.3	S 23 16.2	-00.1	04
05	254 37.4	-00.3	S 23 16.1	-00.1	05
06	269 37.1	-00.3	S 23 16.0	-00.2	06
07	284 36.8	-00.3	S 23 15.8	-00.1	07
08	299 36.5	-00.3	S 23 15.7	-00.1	08
09	314 36.2	-00.4	S 23 15.6	-00.2	09
10	329 35.8	-00.3	S 23 15.4	-00.1	10
11	344 35.5	-00.3	S 23 15.3	-00.1	11
12	359 35.2	-00.3	S 23 15.2	-00.2	12
13	14 34.9	-00.3	S 23 15.0	-00.1	13
14	29 34.6	-00.3	S 23 14.9	-00.1	14
15	44 34.3	-00.3	S 23 14.8	-00.2	15
16	59 34.0	-00.3	S 23 14.6	-00.1	16
17	74 33.7	-00.3	S 23 14.5	-00.1	17
18	89 33.4	-00.3	S 23 14.4	-00.2	18
19	104 33.1	-00.3	S 23 14.2	-00.1	19
20	119 32.8	-00.3	S 23 14.1	-00.2	20
21	134 32.5	-00.3	S 23 13.9	-00.1	21
22	149 32.2	-00.3	S 23 13.8	-00.2	22
23	164 31.9	-00.3	S 23 13.6	-00.1	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	083°	083°	082°	082°	082°	082°

Greenwich Culmination Time: 12:01

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	182 09.7	-01.0	S 23 43.5	+00.0	00
01	197 08.7	-01.0	S 23 43.5	+00.0	01
02	212 07.7	-01.0	S 23 43.5	+00.0	02
03	227 06.7	-00.9	S 23 43.5	+00.0	03
04	242 05.8	-01.0	S 23 43.5	+00.0	04
05	257 04.8	-01.0	S 23 43.5	+00.0	05
06	272 03.8	-01.0	S 23 43.5	+00.0	06
07	287 02.8	-00.9	S 23 43.5	-00.1	07
08	302 01.9	-01.0	S 23 43.4	+00.0	08
09	317 00.9	-01.0	S 23 43.4	+00.0	09
10	331 59.9	-01.0	S 23 43.4	+00.0	10
11	346 58.9	-00.9	S 23 43.4	+00.0	11
12	1 58.0	-01.0	S 23 43.4	+00.0	12
13	16 57.0	-01.0	S 23 43.4	-00.1	13
14	31 56.0	-01.0	S 23 43.3	+00.0	14
15	46 55.0	-00.9	S 23 43.3	+00.0	15
16	61 54.1	-01.0	S 23 43.3	+00.0	16
17	76 53.1	-01.0	S 23 43.3	-00.1	17
18	91 52.1	-01.0	S 23 43.2	+00.0	18
19	106 51.1	-00.9	S 23 43.2	+00.0	19
20	121 50.2	-01.0	S 23 43.2	+00.0	20
21	136 49.2	-01.0	S 23 43.2	-00.1	21
22	151 48.2	-01.0	S 23 43.1	+00.0	22
23	166 47.2	-00.9	S 23 43.1	+00.0	23

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	085°	085°	085°	085°	084°	084°

Greenwich Culmination Time: 11:52

Moon

A: 26%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	89 21.0	-28.1	N 05 45.8	+16.0	00
01	103 52.9	-28.2	N 06 01.8	+15.9	01
02	118 24.7	-28.2	N 06 17.7	+16.0	02
03	132 56.5	-28.4	N 06 33.7	+15.9	03
04	147 28.1	-28.3	N 06 49.6	+16.0	04
05	161 59.8	-28.5	N 07 05.6	+15.9	05
06	176 31.3	-28.5	N 07 21.5	+15.9	06
07	191 02.8	-28.6	N 07 37.4	+15.8	07
08	205 34.2	-28.6	N 07 53.2	+15.9	08
09	220 05.6	-28.8	N 08 09.1	+15.8	09
10	234 36.8	-28.8	N 08 24.9	+15.8	10
11	249 08.0	-28.9	N 08 40.7	+15.8	11
12	263 39.1	-28.9	N 08 56.5	+15.8	12
13	278 10.2	-29.1	N 09 12.3	+15.7	13
14	292 41.1	-29.1	N 09 28.0	+15.7	14
15	307 12.0	-29.2	N 09 43.7	+15.6	15
16	321 42.8	-29.3	N 09 59.3	+15.7	16
17	336 13.5	-29.4	N 10 15.0	+15.5	17
18	350 44.1	-29.4	N 10 30.5	+15.6	18
19	5 14.7	-29.6	N 10 46.1	+15.5	19
20	19 45.1	-29.6	N 11 01.6	+15.5	20
21	34 15.5	-29.8	N 11 17.1	+15.4	21
22	48 45.7	-29.8	N 11 32.5	+15.4	22
23	63 15.9	-29.9	N 11 47.9	+15.4	23

UT	02	06	10	14	18	22
SD	15′9	16′0	16′0	16′0	16′1	16′1
HP	58′5	58′6	58′7	58′8	58′9	59′1
SHA	352°	350°	347°	345°	343°	341°

Greenwich Culmination Time: 18:38

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	176 10.5	+00.4	S 23 57.1	-00.1	00
01	191 10.9	+00.4	S 23 57.0	-00.1	01
02	206 11.3	+00.4	S 23 56.9	-00.2	02
03	221 11.7	+00.3	S 23 56.7	-00.1	03
04	236 12.0	+00.4	S 23 56.6	-00.1	04
05	251 12.4	+00.4	S 23 56.5	-00.1	05
06	266 12.8	+00.4	S 23 56.4	-00.2	06
07	281 13.2	+00.4	S 23 56.2	-00.1	07
08	296 13.6	+00.3	S 23 56.1	-00.1	08
09	311 13.9	+00.4	S 23 56.0	-00.1	09
10	326 14.3	+00.4	S 23 55.9	-00.2	10
11	341 14.7	+00.4	S 23 55.7	-00.1	11
12	356 15.1	+00.4	S 23 55.6	-00.1	12
13	11 15.5	+00.3	S 23 55.5	-00.1	13
14	26 15.8	+00.4	S 23 55.4	-00.2	14
15	41 16.2	+00.4	S 23 55.2	-00.1	15
16	56 16.6	+00.4	S 23 55.1	-00.1	16
17	71 17.0	+00.4	S 23 55.0	-00.2	17
18	86 17.4	+00.3	S 23 54.8	-00.1	18
19	101 17.7	+00.4	S 23 54.7	-00.1	19
20	116 18.1	+00.4	S 23 54.6	-00.2	20
21	131 18.5	+00.4	S 23 54.4	-00.1	21
22	146 18.9	+00.4	S 23 54.3	-00.1	22
23	161 19.3	+00.3	S 23 54.2	-00.2	23

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	079°	079°	079°	079°	079°	079°

Greenwich Culmination Time: 12:14

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	343 03.0	+02.8	N 21 53.3	+00.0	00
01	358 05.8	+02.8	N 21 53.3	+00.1	01
02	13 08.6	+02.8	N 21 53.4	+00.1	02
03	28 11.4	+02.8	N 21 53.5	+00.0	03
04	43 14.2	+02.8	N 21 53.5	+00.1	04
05	58 17.0	+02.8	N 21 53.6	+00.0	05
06	73 19.8	+02.8	N 21 53.6	+00.1	06
07	88 22.6	+02.8	N 21 53.7	+00.0	07
08	103 25.4	+02.8	N 21 53.7	+00.1	08
09	118 28.2	+02.8	N 21 53.8	+00.1	09
10	133 31.0	+02.8	N 21 53.9	+00.0	10
11	148 33.8	+02.8	N 21 53.9	+00.1	11
12	163 36.6	+02.8	N 21 54.0	+00.0	12
13	178 39.4	+02.8	N 21 54.0	+00.1	13
14	193 42.2	+02.8	N 21 54.1	+00.0	14
15	208 45.0	+02.8	N 21 54.1	+00.1	15
16	223 47.8	+02.8	N 21 54.2	+00.1	16
17	238 50.6	+02.8	N 21 54.3	+00.0	17
18	253 53.4	+02.8	N 21 54.3	+00.1	18
19	268 56.2	+02.8	N 21 54.4	+00.0	19
20	283 59.0	+02.8	N 21 54.4	+00.1	20
21	299 01.8	+02.8	N 21 54.5	+00.0	21
22	314 04.6	+02.8	N 21 54.5	+00.1	22
23	329 07.4	+02.8	N 21 54.6	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	246°	246°	246°	246°

Greenwich Culmination Time: 01:07

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	99 32.2	+02.3	S 03 41.8	-00.1	00
01	114 34.5	+02.4	S 03 41.7	+00.0	01
02	129 36.9	+02.3	S 03 41.7	-00.1	02
03	144 39.2	+02.4	S 03 41.6	-00.1	03
04	159 41.6	+02.3	S 03 41.5	+00.0	04
05	174 43.9	+02.3	S 03 41.5	-00.1	05
06	189 46.2	+02.4	S 03 41.4	+00.0	06
07	204 48.6	+02.3	S 03 41.4	-00.1	07
08	219 50.9	+02.4	S 03 41.3	-00.1	08
09	234 53.3	+02.3	S 03 41.2	+00.0	09
10	249 55.6	+02.4	S 03 41.2	-00.1	10
11	264 58.0	+02.3	S 03 41.1	+00.0	11
12	280 00.3	+02.4	S 03 41.1	-00.1	12
13	295 02.7	+02.3	S 03 41.0	-00.1	13
14	310 05.0	+02.4	S 03 40.9	+00.0	14
15	325 07.4	+02.3	S 03 40.9	-00.1	15
16	340 09.7	+02.4	S 03 40.8	+00.0	16
17	355 12.1	+02.3	S 03 40.8	-00.1	17
18	10 14.4	+02.3	S 03 40.7	-00.1	18
19	25 16.7	+02.4	S 03 40.6	+00.0	19
20	40 19.1	+02.3	S 03 40.6	-00.1	20
21	55 21.4	+02.4	S 03 40.5	+00.0	21
22	70 23.8	+02.3	S 03 40.5	-00.1	22
23	85 26.1	+02.4	S 03 40.4	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:19

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2025 December 29 Monday

(day 363 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 31.6	−00.3	S 23 13.5	−00.1
01	194 31.3	−00.3	S 23 13.4	−00.2
02	209 31.0	−00.3	S 23 13.2	−00.1
03	224 30.7	−00.3	S 23 13.1	−00.2
04	239 30.4	−00.3	S 23 12.9	−00.1
05	254 30.1	−00.3	S 23 12.8	−00.2
06	269 29.8	−00.3	S 23 12.6	−00.1
07	284 29.5	−00.3	S 23 12.5	−00.2
08	299 29.2	−00.3	S 23 12.3	−00.1
09	314 28.9	−00.3	S 23 12.2	−00.2
10	329 28.6	−00.3	S 23 12.0	−00.1
11	344 28.3	−00.3	S 23 11.9	−00.2
12	359 28.0	−00.3	S 23 11.7	−00.1
13	14 27.7	−00.3	S 23 11.6	−00.2
14	29 27.4	−00.3	S 23 11.4	−00.2
15	44 27.1	−00.3	S 23 11.2	−00.1
16	59 26.8	−00.4	S 23 11.1	−00.2
17	74 26.4	−00.3	S 23 10.9	−00.1
18	89 26.1	−00.3	S 23 10.8	−00.2
19	104 25.8	−00.3	S 23 10.6	−00.1
20	119 25.5	−00.3	S 23 10.5	−00.2
21	134 25.2	−00.3	S 23 10.3	−00.2
22	149 24.9	−00.3	S 23 10.1	−00.1
23	164 24.6	−00.3	S 23 10.0	−00.2

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	082°	082°	081°	081°	081°	081°

Greenwich Culmination Time: 12:02

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	181 46.3	−01.0	S 23 43.1	−00.1
01	196 45.3	−01.0	S 23 43.0	+00.0
02	211 44.3	−00.9	S 23 43.0	+00.0
03	226 43.4	−01.0	S 23 43.0	−00.1
04	241 42.4	−01.0	S 23 42.9	+00.0
05	256 41.4	−01.0	S 23 42.9	−00.1
06	271 40.4	−00.9	S 23 42.8	+00.0
07	286 39.5	−01.0	S 23 42.8	+00.0
08	301 38.5	−01.0	S 23 42.8	−00.1
09	316 37.5	−01.0	S 23 42.7	+00.0
10	331 36.5	−00.9	S 23 42.7	−00.1
11	346 35.6	−01.0	S 23 42.6	+00.0
12	1 34.6	−01.0	S 23 42.6	−00.1
13	16 33.6	−01.0	S 23 42.5	+00.0
14	31 32.6	−00.9	S 23 42.5	−00.1
15	46 31.7	−01.0	S 23 42.4	+00.0
16	61 30.7	−01.0	S 23 42.4	−00.1
17	76 29.7	−00.9	S 23 42.3	+00.0
18	91 28.8	−01.0	S 23 42.3	−00.1
19	106 27.8	−01.0	S 23 42.2	−00.1
20	121 26.8	−01.0	S 23 42.1	+00.0
21	136 25.8	−00.9	S 23 42.1	−00.1
22	151 24.9	−01.0	S 23 42.0	+00.0
23	166 23.9	−01.0	S 23 42.0	−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	084°	084°	083°	083°	083°	083°

Greenwich Culmination Time: 11:53

Moon

A: 29%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	77 46.0	−30.0	N 12 03.3	+15.3
01	92 16.0	−30.2	N 12 18.6	+15.2
02	106 45.8	−30.2	N 12 33.8	+15.2
03	121 15.6	−30.3	N 12 49.0	+15.2
04	135 45.3	−30.4	N 13 04.2	+15.0
05	150 14.9	−30.5	N 13 19.2	+15.1
06	164 44.4	−30.6	N 13 34.3	+15.0
07	179 13.8	−30.8	N 13 49.3	+14.9
08	193 43.0	−30.8	N 14 04.2	+14.9
09	208 12.2	−30.9	N 14 19.1	+14.8
10	222 41.3	−31.1	N 14 33.9	+14.7
11	237 10.2	−31.1	N 14 48.6	+14.7
12	251 39.1	−31.3	N 15 03.3	+14.6
13	266 07.8	−31.4	N 15 17.9	+14.5
14	280 36.4	−31.5	N 15 32.4	+14.4
15	295 04.9	−31.6	N 15 46.8	+14.4
16	309 33.3	−31.7	N 16 01.2	+14.3
17	324 01.6	−31.8	N 16 15.5	+14.3
18	338 29.8	−32.0	N 16 29.8	+14.1
19	352 57.8	−32.0	N 16 43.9	+14.1
20	7 25.8	−32.2	N 16 58.0	+14.0
21	21 53.6	−32.3	N 17 12.0	+13.9
22	36 21.3	−32.5	N 17 25.9	+13.8
23	50 48.8	−32.5	N 17 39.7	+13.7

UT	02	06	10	14	18	22
SD	16′1	16′2	16′2	16′2	16′2	16′3
HP	59′2	59′3	59′4	59′5	59′6	59′7
SHA	339°	337°	335°	332°	330°	328°

Greenwich Culmination Time: 19:29

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	176 19.6	+00.4	S 23 54.0	−00.1
01	191 20.0	+00.4	S 23 53.9	−00.1
02	206 20.4	+00.4	S 23 53.8	−00.2
03	221 20.8	+00.4	S 23 53.6	−00.1
04	236 21.2	+00.3	S 23 53.5	−00.1
05	251 21.5	+00.4	S 23 53.4	−00.2
06	266 21.9	+00.4	S 23 53.2	−00.1
07	281 22.3	+00.4	S 23 53.1	−00.1
08	296 22.7	+00.4	S 23 53.0	−00.2
09	311 23.1	+00.3	S 23 52.8	−00.1
10	326 23.4	+00.4	S 23 52.7	−00.2
11	341 23.8	+00.4	S 23 52.5	−00.1
12	356 24.2	+00.4	S 23 52.4	−00.1
13	11 24.6	+00.3	S 23 52.3	−00.2
14	26 24.9	+00.4	S 23 52.1	−00.1
15	41 25.3	+00.4	S 23 52.0	−00.2
16	56 25.7	+00.4	S 23 51.8	−00.1
17	71 26.1	+00.4	S 23 51.7	−00.1
18	86 26.5	+00.3	S 23 51.6	−00.2
19	101 26.8	+00.4	S 23 51.4	−00.1
20	116 27.2	+00.4	S 23 51.3	−00.2
21	131 27.6	+00.4	S 23 51.1	−00.1
22	146 28.0	+00.4	S 23 51.0	−00.2
23	161 28.4	+00.3	S 23 50.8	−00.1

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	079°	078°	078°	078°	078°	078°

Greenwich Culmination Time: 12:14

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	344 10.2	+02.8	N 21 54.7	+00.0
01	359 13.0	+02.8	N 21 54.7	+00.1
02	14 15.8	+02.8	N 21 54.8	+00.0
03	29 18.6	+02.8	N 21 54.8	+00.1
04	44 21.4	+02.8	N 21 54.9	+00.0
05	59 24.2	+02.8	N 21 54.9	+00.1
06	74 27.0	+02.8	N 21 55.0	+00.0
07	89 29.8	+02.8	N 21 55.0	+00.1
08	104 32.6	+02.8	N 21 55.1	+00.1
09	119 35.4	+02.8	N 21 55.2	+00.0
10	134 38.2	+02.8	N 21 55.2	+00.1
11	149 41.0	+02.8	N 21 55.3	+00.0
12	164 43.8	+02.8	N 21 55.3	+00.1
13	179 46.6	+02.8	N 21 55.4	+00.0
14	194 49.4	+02.8	N 21 55.4	+00.1
15	209 52.2	+02.8	N 21 55.5	+00.1
16	224 55.0	+02.8	N 21 55.6	+00.0
17	239 57.8	+02.9	N 21 55.6	+00.1
18	255 00.7	+02.8	N 21 55.7	+00.0
19	270 03.5	+02.8	N 21 55.7	+00.1
20	285 06.3	+02.8	N 21 55.8	+00.0
21	300 09.1	+02.8	N 21 55.8	+00.1
22	315 11.9	+02.8	N 21 55.9	+00.1
23	330 14.7	+02.8	N 21 56.0	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	246°	246°	247°	247°	247°	247°

Greenwich Culmination Time: 01:03

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	100 28.5	+02.3	S 03 40.3	+00.0
01	115 30.8	+02.4	S 03 40.3	−00.1
02	130 33.2	+02.3	S 03 40.2	−00.1
03	145 35.5	+02.3	S 03 40.1	+00.0
04	160 37.8	+02.4	S 03 40.1	−00.1
05	175 40.2	+02.3	S 03 40.0	+00.0
06	190 42.5	+02.4	S 03 40.0	−00.1
07	205 44.9	+02.3	S 03 39.9	−00.1
08	220 47.2	+02.4	S 03 39.8	+00.0
09	235 49.6	+02.3	S 03 39.8	−00.1
10	250 51.9	+02.3	S 03 39.7	+00.0
11	265 54.2	+02.4	S 03 39.7	−00.1
12	280 56.6	+02.3	S 03 39.6	−00.1
13	295 58.9	+02.4	S 03 39.5	+00.0
14	311 01.3	+02.3	S 03 39.5	−00.1
15	326 03.6	+02.4	S 03 39.4	+00.0
16	341 06.0	+02.3	S 03 39.4	−00.1
17	356 08.3	+02.3	S 03 39.3	−00.1
18	11 10.6	+02.4	S 03 39.2	+00.0
19	26 13.0	+02.3	S 03 39.2	−00.1
20	41 15.3	+02.4	S 03 39.1	−00.1
21	56 17.7	+02.3	S 03 39.0	+00.0
22	71 20.0	+02.4	S 03 39.0	−00.1
23	86 22.4	+02.3	S 03 38.9	+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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:15

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2025 December 30 Tuesday

(day 364 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	179 24.3	-00.3	S 23 09.8	-00.2	00
01	194 24.0	-00.3	S 23 09.6	-00.1	01
02	209 23.7	-00.3	S 23 09.5	-00.2	02
03	224 23.4	-00.3	S 23 09.3	-00.2	03
04	239 23.1	-00.3	S 23 09.1	-00.1	04
05	254 22.8	-00.3	S 23 09.0	-00.2	05
06	269 22.5	-00.3	S 23 08.8	-00.2	06
07	284 22.2	-00.3	S 23 08.6	-00.1	07
08	299 21.9	-00.3	S 23 08.5	-00.2	08
09	314 21.6	-00.3	S 23 08.3	-00.2	09
10	329 21.3	-00.3	S 23 08.1	-00.1	10
11	344 21.0	-00.3	S 23 08.0	-00.2	11
12	359 20.7	-00.3	S 23 07.8	-00.2	12
13	14 20.4	-00.3	S 23 07.6	-00.2	13
14	29 20.1	-00.3	S 23 07.4	-00.1	14
15	44 19.8	-00.3	S 23 07.3	-00.2	15
16	59 19.5	-00.3	S 23 07.1	-00.2	16
17	74 19.2	-00.3	S 23 06.9	-00.2	17
18	89 18.9	-00.3	S 23 06.7	-00.1	18
19	104 18.6	-00.2	S 23 06.6	-00.2	19
20	119 18.4	-00.3	S 23 06.4	-00.2	20
21	134 18.1	-00.3	S 23 06.2	-00.2	21
22	149 17.8	-00.3	S 23 06.0	-00.2	22
23	164 17.5	-00.3	S 23 05.8	-00.1	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	081°	080°	080°	080°	080°	080°

Greenwich Culmination Time: 12:02

Venus

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	181 22.9	-00.9	S 23 41.9	-00.1	00
01	196 22.0	-01.0	S 23 41.8	+00.0	01
02	211 21.0	-01.0	S 23 41.8	-00.1	02
03	226 20.0	-01.0	S 23 41.7	-00.1	03
04	241 19.0	-00.9	S 23 41.6	+00.0	04
05	256 18.1	-01.0	S 23 41.6	-00.1	05
06	271 17.1	-01.0	S 23 41.5	-00.1	06
07	286 16.1	-01.0	S 23 41.4	-00.1	07
08	301 15.1	-00.9	S 23 41.3	+00.0	08
09	316 14.2	-01.0	S 23 41.3	-00.1	09
10	331 13.2	-01.0	S 23 41.2	-00.1	10
11	346 12.2	-00.9	S 23 41.1	-00.1	11
12	1 11.3	-01.0	S 23 41.0	+00.0	12
13	16 10.3	-01.0	S 23 41.0	-00.1	13
14	31 09.3	-01.0	S 23 40.9	-00.1	14
15	46 08.3	-00.9	S 23 40.8	-00.1	15
16	61 07.4	-01.0	S 23 40.7	-00.1	16
17	76 06.4	-01.0	S 23 40.6	-00.1	17
18	91 05.4	-00.9	S 23 40.5	-00.1	18
19	106 04.5	-01.0	S 23 40.4	+00.0	19
20	121 03.5	-01.0	S 23 40.4	-00.1	20
21	136 02.5	-01.0	S 23 40.3	-00.1	21
22	151 01.5	-00.9	S 23 40.2	-00.1	22
23	166 00.6	-01.0	S 23 40.1	-00.1	23

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	083°	082°	082°	082°	082°	081°

Greenwich Culmination Time: 11:55

Moon

A: 33%

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	65 16.3	-32.7	N 17 53.4	+13.6	00
01	79 43.6	-32.8	N 18 07.0	+13.6	01
02	94 10.8	-33.0	N 18 20.6	+13.4	02
03	108 37.8	-33.0	N 18 34.0	+13.3	03
04	123 04.8	-33.2	N 18 47.3	+13.3	04
05	137 31.6	-33.3	N 19 00.6	+13.1	05
06	151 58.3	-33.4	N 19 13.7	+13.1	06
07	166 24.9	-33.6	N 19 26.8	+12.9	07
08	180 51.3	-33.7	N 19 39.7	+12.8	08
09	195 17.6	-33.8	N 19 52.5	+12.7	09
10	209 43.8	-33.9	N 20 05.2	+12.6	10
11	224 09.9	-34.1	N 20 17.8	+12.5	11
12	238 35.8	-34.2	N 20 30.3	+12.3	12
13	253 01.6	-34.4	N 20 42.6	+12.3	13
14	267 27.2	-34.4	N 20 54.9	+12.1	14
15	281 52.8	-34.6	N 21 07.0	+12.0	15
16	296 18.2	-34.8	N 21 19.0	+11.9	16
17	310 43.4	-34.8	N 21 30.9	+11.7	17
18	325 08.6	-35.0	N 21 42.6	+11.6	18
19	339 33.6	-35.1	N 21 54.2	+11.5	19
20	353 58.5	-35.3	N 22 05.7	+11.3	20
21	8 23.2	-35.4	N 22 17.0	+11.2	21
22	22 47.8	-35.5	N 22 28.2	+11.1	22
23	37 12.3	-35.6	N 22 39.3	+10.9	23

UT	02	06	10	14	18	22
SD	16′3	16′3	16′4	16′4	16′4	16′4
HP	59′8	59′9	60′0	60′1	60′2	60′3
SHA	325°	323°	321°	318°	316°	313°

Greenwich Culmination Time: 20:25

Mars

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	176 28.7	+00.4	S 23 50.7	-00.1	00
01	191 29.1	+00.4	S 23 50.6	-00.2	01
02	206 29.5	+00.4	S 23 50.4	-00.1	02
03	221 29.9	+00.4	S 23 50.3	-00.2	03
04	236 30.3	+00.3	S 23 50.1	-00.1	04
05	251 30.6	+00.4	S 23 50.0	-00.2	05
06	266 31.0	+00.4	S 23 49.8	-00.1	06
07	281 31.4	+00.4	S 23 49.7	-00.2	07
08	296 31.8	+00.4	S 23 49.5	-00.1	08
09	311 32.2	+00.3	S 23 49.4	-00.2	09
10	326 32.5	+00.4	S 23 49.2	-00.1	10
11	341 32.9	+00.4	S 23 49.1	-00.2	11
12	356 33.3	+00.4	S 23 48.9	-00.1	12
13	11 33.7	+00.4	S 23 48.8	-00.2	13
14	26 34.1	+00.3	S 23 48.6	-00.1	14
15	41 34.4	+00.4	S 23 48.5	-00.2	15
16	56 34.8	+00.4	S 23 48.3	-00.1	16
17	71 35.2	+00.4	S 23 48.2	-00.2	17
18	86 35.6	+00.3	S 23 48.0	-00.1	18
19	101 35.9	+00.4	S 23 47.9	-00.2	19
20	116 36.3	+00.4	S 23 47.7	-00.2	20
21	131 36.7	+00.4	S 23 47.5	-00.1	21
22	146 37.1	+00.4	S 23 47.4	-00.2	22
23	161 37.5	+00.3	S 23 47.2	-00.1	23

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	078°	078°	077°	077°	077°	077°

Greenwich Culmination Time: 12:13

Jupiter

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	345 17.5	+02.8	N 21 56.0	+00.1	00
01	0 20.3	+02.8	N 21 56.1	+00.0	01
02	15 23.1	+02.8	N 21 56.1	+00.1	02
03	30 25.9	+02.8	N 21 56.2	+00.0	03
04	45 28.7	+02.8	N 21 56.2	+00.1	04
05	60 31.5	+02.8	N 21 56.3	+00.1	05
06	75 34.3	+02.8	N 21 56.4	+00.0	06
07	90 37.1	+02.8	N 21 56.4	+00.1	07
08	105 39.9	+02.8	N 21 56.5	+00.0	08
09	120 42.7	+02.8	N 21 56.5	+00.1	09
10	135 45.5	+02.8	N 21 56.6	+00.0	10
11	150 48.3	+02.9	N 21 56.6	+00.1	11
12	165 51.2	+02.8	N 21 56.7	+00.1	12
13	180 54.0	+02.8	N 21 56.8	+00.0	13
14	195 56.8	+02.8	N 21 56.8	+00.1	14
15	210 59.6	+02.8	N 21 56.9	+00.0	15
16	226 02.4	+02.8	N 21 56.9	+00.1	16
17	241 05.2	+02.8	N 21 57.0	+00.0	17
18	256 08.0	+02.8	N 21 57.0	+00.1	18
19	271 10.8	+02.8	N 21 57.1	+00.1	19
20	286 13.6	+02.8	N 21 57.2	+00.0	20
21	301 16.4	+02.8	N 21 57.2	+00.1	21
22	316 19.2	+02.8	N 21 57.3	+00.0	22
23	331 22.0	+02.8	N 21 57.3	+00.1	23

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 00:58

Saturn

UT	GHA	ddGHA	Dec	dDec	UT
	° ′	′	° ′	′	
00	101 24.7	+02.3	S 03 38.9	-00.1	00
01	116 27.0	+02.4	S 03 38.8	-00.1	01
02	131 29.4	+02.3	S 03 38.7	+00.0	02
03	146 31.7	+02.4	S 03 38.7	-00.1	03
04	161 34.1	+02.3	S 03 38.6	-00.1	04
05	176 36.4	+02.3	S 03 38.5	+00.0	05
06	191 38.7	+02.4	S 03 38.5	-00.1	06
07	206 41.1	+02.3	S 03 38.4	+00.0	07
08	221 43.4	+02.4	S 03 38.4	-00.1	08
09	236 45.8	+02.3	S 03 38.3	-00.1	09
10	251 48.1	+02.3	S 03 38.2	+00.0	10
11	266 50.4	+02.4	S 03 38.2	-00.1	11
12	281 52.8	+02.3	S 03 38.1	-00.1	12
13	296 55.1	+02.3	S 03 38.0	+00.0	13
14	311 57.4	+02.4	S 03 38.0	-00.1	14
15	326 59.8	+02.3	S 03 37.9	-00.1	15
16	342 02.1	+02.4	S 03 37.8	+00.0	16
17	357 04.5	+02.3	S 03 37.8	-00.1	17
18	12 06.8	+02.3	S 03 37.7	+00.0	18
19	27 09.1	+02.4	S 03 37.7	-00.1	19
20	42 11.5	+02.3	S 03 37.6	-00.1	20
21	57 13.8	+02.4	S 03 37.5	+00.0	21
22	72 16.2	+02.3	S 03 37.5	-00.1	22
23	87 18.5	+02.3	S 03 37.4	-00.1	23

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	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:11

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2025 December 31 Wednesday

(day 365 of 365)

Sun

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	179 17.2	−00.3	S 23 05.7	−00.2
01	194 16.9	−00.3	S 23 05.5	−00.2
02	209 16.6	−00.3	S 23 05.3	−00.2
03	224 16.3	−00.3	S 23 05.1	−00.2
04	239 16.0	−00.3	S 23 04.9	−00.2
05	254 15.7	−00.3	S 23 04.7	−00.2
06	269 15.4	−00.3	S 23 04.5	−00.1
07	284 15.1	−00.3	S 23 04.4	−00.2
08	299 14.8	−00.3	S 23 04.2	−00.2
09	314 14.5	−00.3	S 23 04.0	−00.2
10	329 14.2	−00.3	S 23 03.8	−00.2
11	344 13.9	−00.3	S 23 03.6	−00.2
12	359 13.6	−00.3	S 23 03.4	−00.2
13	14 13.3	−00.3	S 23 03.2	−00.2
14	29 13.0	−00.3	S 23 03.0	−00.2
15	44 12.7	−00.3	S 23 02.8	−00.2
16	59 12.4	−00.3	S 23 02.6	−00.2
17	74 12.1	−00.3	S 23 02.4	−00.2
18	89 11.8	−00.3	S 23 02.2	−00.2
19	104 11.5	−00.3	S 23 02.0	−00.2
20	119 11.2	−00.3	S 23 01.8	−00.2
21	134 10.9	−00.3	S 23 01.6	−00.2
22	149 10.6	−00.3	S 23 01.4	−00.2
23	164 10.3	−00.2	S 23 01.2	−00.2

UT	02	06	10	14	18	22
SD	16′3	16′3	16′3	16′3	16′3	16′3
HP	00′1	00′1	00′1	00′1	00′1	00′1
SHA	080°	079°	079°	079°	079°	079°

Greenwich Culmination Time: 12:03

Venus

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	180 59.6	−01.0	S 23 40.0	−00.1
01	195 58.6	−00.9	S 23 39.9	−00.1
02	210 57.7	−01.0	S 23 39.8	−00.1
03	225 56.7	−01.0	S 23 39.7	−00.1
04	240 55.7	−00.9	S 23 39.6	−00.1
05	255 54.8	−01.0	S 23 39.5	−00.1
06	270 53.8	−01.0	S 23 39.4	−00.1
07	285 52.8	−01.0	S 23 39.3	−00.1
08	300 51.8	−00.9	S 23 39.2	−00.1
09	315 50.9	−01.0	S 23 39.1	−00.1
10	330 49.9	−01.0	S 23 39.0	−00.1
11	345 48.9	−00.9	S 23 38.9	−00.1
12	0 48.0	−01.0	S 23 38.8	−00.2
13	15 47.0	−01.0	S 23 38.6	−00.1
14	30 46.0	−00.9	S 23 38.5	−00.1
15	45 45.1	−01.0	S 23 38.4	−00.1
16	60 44.1	−01.0	S 23 38.3	−00.1
17	75 43.1	−00.9	S 23 38.2	−00.1
18	90 42.2	−01.0	S 23 38.1	−00.1
19	105 41.2	−01.0	S 23 38.0	−00.2
20	120 40.2	−01.0	S 23 37.8	−00.1
21	135 39.2	−00.9	S 23 37.7	−00.1
22	150 38.3	−01.0	S 23 37.6	−00.1
23	165 37.3	−01.0	S 23 37.5	−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	081°	081°	081°	081°	080°	080°

Greenwich Culmination Time: 11:56

Moon

A: 37%

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	51 36.7	−35.8	N 22 50.2	+10.8
01	66 00.9	−35.9	N 23 01.0	+10.6
02	80 25.0	−36.0	N 23 11.6	+10.5
03	94 49.0	−36.2	N 23 22.1	+10.3
04	109 12.8	−36.3	N 23 32.4	+10.2
05	123 36.5	−36.4	N 23 42.6	+10.0
06	138 00.1	−36.5	N 23 52.6	+09.9
07	152 23.6	−36.7	N 24 02.5	+09.7
08	166 46.9	−36.7	N 24 12.2	+09.6
09	181 10.2	−37.0	N 24 21.8	+09.3
10	195 33.2	−37.0	N 24 31.1	+09.3
11	209 56.2	−37.1	N 24 40.4	+09.0
12	224 19.1	−37.3	N 24 49.4	+08.9
13	238 41.8	−37.4	N 24 58.3	+08.7
14	253 04.4	−37.5	N 25 07.0	+08.5
15	267 26.9	−37.6	N 25 15.5	+08.4
16	281 49.3	−37.7	N 25 23.9	+08.2
17	296 11.6	−37.8	N 25 32.1	+08.0
18	310 33.8	−38.0	N 25 40.1	+07.8
19	324 55.8	−38.0	N 25 47.9	+07.6
20	339 17.8	−38.2	N 25 55.5	+07.5
21	353 39.6	−38.3	N 26 03.0	+07.3
22	8 01.3	−38.3	N 26 10.3	+07.0
23	22 23.0	−38.5	N 26 17.3	+06.9

UT	02	06	10	14	18	22
SD	16′5	16′5	16′5	16′5	16′5	16′5
HP	60′4	60′5	60′5	60′6	60′6	60′7
SHA	311°	308°	305°	303°	300°	297°

Greenwich Culmination Time: 21:26

Mars

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	176 37.8	+00.4	S 23 47.1	−00.2
01	191 38.2	+00.4	S 23 46.9	−00.1
02	206 38.6	+00.4	S 23 46.8	−00.2
03	221 39.0	+00.4	S 23 46.6	−00.1
04	236 39.4	+00.3	S 23 46.5	−00.2
05	251 39.7	+00.4	S 23 46.3	−00.2
06	266 40.1	+00.4	S 23 46.1	−00.1
07	281 40.5	+00.4	S 23 46.0	−00.2
08	296 40.9	+00.4	S 23 45.8	−00.1
09	311 41.3	+00.3	S 23 45.7	−00.2
10	326 41.6	+00.4	S 23 45.5	−00.2
11	341 42.0	+00.4	S 23 45.3	−00.1
12	356 42.4	+00.4	S 23 45.2	−00.2
13	11 42.8	+00.4	S 23 45.0	−00.2
14	26 43.2	+00.3	S 23 44.8	−00.1
15	41 43.5	+00.4	S 23 44.7	−00.2
16	56 43.9	+00.4	S 23 44.5	−00.1
17	71 44.3	+00.4	S 23 44.4	−00.2
18	86 44.7	+00.4	S 23 44.2	−00.2
19	101 45.1	+00.3	S 23 44.0	−00.1
20	116 45.4	+00.4	S 23 43.9	−00.2
21	131 45.8	+00.4	S 23 43.7	−00.2
22	146 46.2	+00.4	S 23 43.5	−00.1
23	161 46.6	+00.4	S 23 43.4	−00.2

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	077°	077°	077°	076°	076°	076°

Greenwich Culmination Time: 12:13

Jupiter

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	346 24.8	+02.9	N 21 57.4	+00.0
01	1 27.7	+02.8	N 21 57.4	+00.1
02	16 30.5	+02.8	N 21 57.5	+00.1
03	31 33.3	+02.8	N 21 57.6	+00.0
04	46 36.1	+02.8	N 21 57.6	+00.1
05	61 38.9	+02.8	N 21 57.7	+00.0
06	76 41.7	+02.8	N 21 57.7	+00.1
07	91 44.5	+02.8	N 21 57.8	+00.0
08	106 47.3	+02.8	N 21 57.8	+00.1
09	121 50.1	+02.8	N 21 57.9	+00.1
10	136 52.9	+02.8	N 21 58.0	+00.0
11	151 55.7	+02.8	N 21 58.0	+00.1
12	166 58.5	+02.9	N 21 58.1	+00.0
13	182 01.4	+02.8	N 21 58.1	+00.1
14	197 04.2	+02.8	N 21 58.2	+00.0
15	212 07.0	+02.8	N 21 58.2	+00.1
16	227 09.8	+02.8	N 21 58.3	+00.0
17	242 12.6	+02.8	N 21 58.3	+00.1
18	257 15.4	+02.8	N 21 58.4	+00.1
19	272 18.2	+02.8	N 21 58.5	+00.0
20	287 21.0	+02.8	N 21 58.5	+00.1
21	302 23.8	+02.9	N 21 58.6	+00.0
22	317 26.7	+02.8	N 21 58.6	+00.1
23	332 29.5	+02.8	N 21 58.7	+00.0

UT	02	06	10	14	18	22
SD	00′4	00′4	00′4	00′4	00′4	00′4
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	247°	247°	247°	247°	247°	247°

Greenwich Culmination Time: 00:54

Saturn

UT	GHA	ddGHA	Dec	dDec
	° ′	′	° ′	′
00	102 20.8	+02.4	S 03 37.3	+00.0
01	117 23.2	+02.3	S 03 37.3	−00.1
02	132 25.5	+02.3	S 03 37.2	−00.1
03	147 27.8	+02.4	S 03 37.1	+00.0
04	162 30.2	+02.3	S 03 37.1	−00.1
05	177 32.5	+02.3	S 03 37.0	+00.0
06	192 34.8	+02.4	S 03 37.0	−00.1
07	207 37.2	+02.3	S 03 36.9	−00.1
08	222 39.5	+02.4	S 03 36.8	+00.0
09	237 41.9	+02.3	S 03 36.8	−00.1
10	252 44.2	+02.3	S 03 36.7	−00.1
11	267 46.5	+02.4	S 03 36.6	+00.0
12	282 48.9	+02.3	S 03 36.6	−00.1
13	297 51.2	+02.3	S 03 36.5	−00.1
14	312 53.5	+02.4	S 03 36.4	+00.0
15	327 55.9	+02.3	S 03 36.4	−00.1
16	342 58.2	+02.3	S 03 36.3	−00.1
17	358 00.5	+02.4	S 03 36.2	+00.0
18	13 02.9	+02.3	S 03 36.2	−00.1
19	28 05.2	+02.3	S 03 36.1	−00.1
20	43 07.5	+02.4	S 03 36.0	+00.0
21	58 09.9	+02.3	S 03 36.0	−00.1
22	73 12.2	+02.3	S 03 35.9	−00.1
23	88 14.5	+02.4	S 03 35.8	+00.0

UT	02	06	10	14	18	22
SD	00′1	00′1	00′1	00′1	00′1	00′1
HP	00′0	00′0	00′0	00′0	00′0	00′0
SHA	003°	003°	003°	003°	003°	003°

Greenwich Culmination Time: 17:07

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