

Tue Oct 1, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	9°26.3'	182°31.5'	S 2°59.2'	151°34.2'	8.8'	S 10°07.4'	12.7'	60.0'
1	24°28.7'	197°31.7'	S 3°00.2'	166°02.0'	8.8'	S 10°20.1'	12.6'	59.9'
2	39°31.2'	212°31.9'	S 3°01.1'	180°29.8'	8.8'	S 10°32.7'	12.6'	59.9'
3	54°33.7'	227°32.1'	S 3°02.1'	194°57.7'	8.8'	S 10°45.3'	12.5'	59.9'
4	69°36.1'	242°32.3'	S 3°03.1'	209°25.4'	8.8'	S 10°57.8'	12.4'	59.8'
5	84°38.6'	257°32.5'	S 3°04.0'	223°53.2'	8.8'	S 11°10.2'	12.3'	59.8'
6	99°41.1'	272°32.8'	S 3°05.0'	238°21.0'	8.8'	S 11°22.5'	12.2'	59.8'
7	114°43.5'	287°33.0'	S 3°06.0'	252°48.8'	8.8'	S 11°34.7'	12.2'	59.7'
8	129°46.0'	302°33.2'	S 3°06.9'	267°16.6'	8.8'	S 11°46.9'	12.1'	59.7'
9	144°48.4'	317°33.4'	S 3°07.9'	281°44.3'	8.8'	S 11°58.9'	12.0'	59.7'
10	159°50.9'	332°33.6'	S 3°08.9'	296°12.1'	8.7'	S 12°10.9'	11.9'	59.6'
11	174°53.4'	347°33.8'	S 3°09.9'	310°39.8'	8.7'	S 12°22.8'	11.8'	59.6'
12	189°55.8'	2°34.0'	S 3°10.8'	325°07.6'	8.7'	S 12°34.6'	11.7'	59.5'
13	204°58.3'	17°34.2'	S 3°11.8'	339°35.3'	8.7'	S 12°46.3'	11.6'	59.5'
14	220°00.8'	32°34.4'	S 3°12.8'	354°03.0'	8.7'	S 12°58.0'	11.5'	59.5'
15	235°03.2'	47°34.6'	S 3°13.7'	8°30.7'	8.7'	S 13°09.5'	11.4'	59.4'
16	250°05.7'	62°34.8'	S 3°14.7'	22°58.5'	8.7'	S 13°20.9'	11.3'	59.4'
17	265°08.2'	77°35.0'	S 3°15.7'	37°26.2'	8.7'	S 13°32.3'	11.3'	59.4'
18	280°10.6'	92°35.2'	S 3°16.6'	51°53.9'	8.7'	S 13°43.5'	11.2'	59.3'
19	295°13.1'	107°35.4'	S 3°17.6'	66°21.5'	8.7'	S 13°54.7'	11.1'	59.3'
20	310°15.5'	122°35.6'	S 3°18.6'	80°49.2'	8.7'	S 14°05.8'	11.0'	59.2'
21	325°18.0'	137°35.8'	S 3°19.5'	95°16.9'	8.7'	S 14°16.7'	10.9'	59.2'
22	340°20.5'	152°36.0'	S 3°20.5'	109°44.5'	8.7'	S 14°27.6'	10.8'	59.2'
23	355°22.9'	167°36.2'	S 3°21.5'	124°12.2'	8.6'	S 14°38.4'	10.7'	59.1'

Wed Oct 2, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 16.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	10°25.4'	182°36.4'	S 3°22.5'	138°39.8'	8.6'	S 14°49.0'	10.6'	59.1'
1	25°27.9'	197°36.6'	S 3°23.4'	153°07.5'	8.6'	S 14°59.6'	10.5'	59.0'
2	40°30.3'	212°36.8'	S 3°24.4'	167°35.1'	8.6'	S 15°10.0'	10.4'	59.0'
3	55°32.8'	227°37.0'	S 3°25.4'	182°02.7'	8.6'	S 15°20.4'	10.3'	59.0'
4	70°35.3'	242°37.2'	S 3°26.3'	196°30.3'	8.6'	S 15°30.6'	10.1'	58.9'
5	85°37.7'	257°37.4'	S 3°27.3'	210°57.9'	8.6'	S 15°40.8'	10.0'	58.9'
6	100°40.2'	272°37.6'	S 3°28.3'	225°25.5'	8.6'	S 15°50.8'	9.9'	58.9'
7	115°42.7'	287°37.8'	S 3°29.2'	239°53.1'	8.6'	S 16°00.8'	9.8'	58.8'
8	130°45.1'	302°38.0'	S 3°30.2'	254°20.7'	8.6'	S 16°10.6'	9.7'	58.8'
9	145°47.6'	317°38.2'	S 3°31.2'	268°48.2'	8.6'	S 16°20.3'	9.6'	58.7'
10	160°50.0'	332°38.4'	S 3°32.1'	283°15.8'	8.6'	S 16°29.9'	9.5'	58.7'
11	175°52.5'	347°38.6'	S 3°33.1'	297°43.3'	8.5'	S 16°39.4'	9.4'	58.7'
12	190°55.0'	2°38.8'	S 3°34.1'	312°10.9'	8.5'	S 16°48.8'	9.3'	58.6'
13	205°57.4'	17°39.0'	S 3°35.0'	326°38.4'	8.5'	S 16°58.1'	9.2'	58.6'
14	220°59.9'	32°39.2'	S 3°36.0'	341°06.0'	8.5'	S 17°07.2'	9.1'	58.5'
15	236°02.4'	47°39.4'	S 3°37.0'	355°33.5'	8.5'	S 17°16.3'	8.9'	58.5'
16	251°04.8'	62°39.6'	S 3°37.9'	10°01.0'	8.5'	S 17°25.2'	8.8'	58.5'
17	266°07.3'	77°39.8'	S 3°38.9'	24°28.5'	8.5'	S 17°34.1'	8.7'	58.4'
18	281°09.8'	92°40.0'	S 3°39.9'	38°56.0'	8.5'	S 17°42.8'	8.6'	58.4'
19	296°12.2'	107°40.2'	S 3°40.9'	53°23.5'	8.5'	S 17°51.4'	8.5'	58.3'
20	311°14.7'	122°40.4'	S 3°41.8'	67°51.0'	8.5'	S 17°59.8'	8.4'	58.3'
21	326°17.2'	137°40.5'	S 3°42.8'	82°18.5'	8.5'	S 18°08.2'	8.2'	58.3'
22	341°19.6'	152°40.7'	S 3°43.8'	96°46.0'	8.5'	S 18°16.4'	8.1'	58.2'
23	356°22.1'	167°40.9'	S 3°44.7'	111°13.5'	8.5'	S 18°24.6'	8.0'	58.2'

Thu Oct 3, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	11°24.5'	182°41.1'	S 3°45.7'	125°41.0'	8.5'	S 18°32.6'	7.9'	58.1'
1	26°27.0'	197°41.3'	S 3°46.7'	140°08.4'	8.5'	S 18°40.5'	7.8'	58.1'
2	41°29.5'	212°41.5'	S 3°47.6'	154°35.9'	8.5'	S 18°48.2'	7.7'	58.1'
3	56°31.9'	227°41.7'	S 3°48.6'	169°03.4'	8.5'	S 18°55.9'	7.5'	58.0'
4	71°34.4'	242°41.9'	S 3°49.6'	183°30.8'	8.5'	S 19°03.4'	7.4'	58.0'
5	86°36.9'	257°42.1'	S 3°50.5'	197°58.3'	8.5'	S 19°10.8'	7.3'	57.9'
6	101°39.3'	272°42.3'	S 3°51.5'	212°25.8'	8.5'	S 19°18.1'	7.2'	57.9'
7	116°41.8'	287°42.5'	S 3°52.5'	226°53.2'	8.5'	S 19°25.3'	7.0'	57.9'
8	131°44.3'	302°42.7'	S 3°53.4'	241°20.7'	8.5'	S 19°32.3'	6.9'	57.8'
9	146°46.7'	317°42.9'	S 3°54.4'	255°48.2'	8.5'	S 19°39.3'	6.8'	57.8'
10	161°49.2'	332°43.1'	S 3°55.4'	270°15.6'	8.5'	S 19°46.1'	6.7'	57.7'
11	176°51.7'	347°43.3'	S 3°56.3'	284°43.1'	8.5'	S 19°52.7'	6.6'	57.7'
12	191°54.1'	2°43.5'	S 3°57.3'	299°10.5'	8.5'	S 19°59.3'	6.4'	57.7'
13	206°56.6'	17°43.7'	S 3°58.3'	313°38.0'	8.5'	S 20°05.7'	6.3'	57.6'
14	221°59.0'	32°43.9'	S 3°59.2'	328°05.5'	8.5'	S 20°12.0'	6.2'	57.6'
15	237°01.5'	47°44.1'	S 4°00.2'	342°33.0'	8.5'	S 20°18.2'	6.1'	57.5'
16	252°04.0'	62°44.3'	S 4°01.2'	357°00.4'	8.5'	S 20°24.3'	5.9'	57.5'
17	267°06.4'	77°44.5'	S 4°02.1'	11°27.9'	8.5'	S 20°30.2'	5.8'	57.5'
18	282°08.9'	92°44.7'	S 4°03.1'	25°55.4'	8.5'	S 20°36.0'	5.7'	57.4'
19	297°11.4'	107°44.9'	S 4°04.1'	40°22.9'	8.5'	S 20°41.7'	5.6'	57.4'
20	312°13.8'	122°45.1'	S 4°05.0'	54°50.4'	8.5'	S 20°47.3'	5.4'	57.3'
21	327°16.3'	137°45.3'	S 4°06.0'	69°17.9'	8.5'	S 20°52.7'	5.3'	57.3'
22	342°18.8'	152°45.4'	S 4°07.0'	83°45.4'	8.5'	S 20°58.0'	5.2'	57.3'
23	357°21.2'	167°45.6'	S 4°07.9'	98°13.0'	8.5'	S 21°03.2'	5.1'	57.2'

Fri Oct 4, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	12°23.7'	182°45.8'	S 4°08.9'	112°40.5'	8.5'	S 21°08.3'	4.9'	57.2'
1	27°26.1'	197°46.0'	S 4°09.8'	127°08.0'	8.6'	S 21°13.2'	4.8'	57.1'
2	42°28.6'	212°46.2'	S 4°10.8'	141°35.6'	8.6'	S 21°18.0'	4.7'	57.1'
3	57°31.1'	227°46.4'	S 4°11.8'	156°03.1'	8.6'	S 21°22.7'	4.6'	57.1'
4	72°33.5'	242°46.6'	S 4°12.7'	170°30.7'	8.6'	S 21°27.2'	4.4'	57.0'
5	87°36.0'	257°46.8'	S 4°13.7'	184°58.3'	8.6'	S 21°31.6'	4.3'	57.0'
6	102°38.5'	272°47.0'	S 4°14.7'	199°25.9'	8.6'	S 21°35.9'	4.2'	57.0'
7	117°40.9'	287°47.2'	S 4°15.6'	213°53.5'	8.6'	S 21°40.1'	4.0'	56.9'
8	132°43.4'	302°47.4'	S 4°16.6'	228°21.1'	8.6'	S 21°44.2'	3.9'	56.9'
9	147°45.9'	317°47.6'	S 4°17.6'	242°48.8'	8.7'	S 21°48.1'	3.8'	56.8'
10	162°48.3'	332°47.8'	S 4°18.5'	257°16.4'	8.7'	S 21°51.9'	3.7'	56.8'
11	177°50.8'	347°48.0'	S 4°19.5'	271°44.1'	8.7'	S 21°55.5'	3.5'	56.8'
12	192°53.3'	2°48.2'	S 4°20.5'	286°11.8'	8.7'	S 21°59.1'	3.4'	56.7'
13	207°55.7'	17°48.3'	S 4°21.4'	300°39.5'	8.7'	S 22°02.5'	3.3'	56.7'
14	222°58.2'	32°48.5'	S 4°22.4'	315°07.2'	8.7'	S 22°05.8'	3.2'	56.7'
15	238°00.6'	47°48.7'	S 4°23.3'	329°35.0'	8.8'	S 22°08.9'	3.0'	56.6'
16	253°03.1'	62°48.9'	S 4°24.3'	344°02.8'	8.8'	S 22°12.0'	2.9'	56.6'
17	268°05.6'	77°49.1'	S 4°25.3'	358°30.5'	8.8'	S 22°14.9'	2.8'	56.6'
18	283°08.0'	92°49.3'	S 4°26.2'	12°58.3'	8.8'	S 22°17.6'	2.7'	56.5'
19	298°10.5'	107°49.5'	S 4°27.2'	27°26.2'	8.9'	S 22°20.3'	2.5'	56.5'
20	313°13.0'	122°49.7'	S 4°28.2'	41°54.0'	8.9'	S 22°22.8'	2.4'	56.5'
21	328°15.4'	137°49.9'	S 4°29.1'	56°21.9'	8.9'	S 22°25.2'	2.3'	56.4'
22	343°17.9'	152°50.1'	S 4°30.1'	70°49.8'	8.9'	S 22°27.5'	2.2'	56.4'
23	358°20.4'	167°50.3'	S 4°31.1'	85°17.7'	9.0'	S 22°29.7'	2.0'	56.3'

Sat Oct 5, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	13°22.8'	182°50.4'	S 4°32.0'	99°45.7'	9.0'	S 22°31.7'	1.9'	56.3'
1	28°25.3'	197°50.6'	S 4°33.0'	114°13.7'	9.0'	S 22°33.6'	1.8'	56.3'
2	43°27.8'	212°50.8'	S 4°33.9'	128°41.7'	9.0'	S 22°35.4'	1.7'	56.2'
3	58°30.2'	227°51.0'	S 4°34.9'	143°09.7'	9.1'	S 22°37.0'	1.5'	56.2'
4	73°32.7'	242°51.2'	S 4°35.9'	157°37.8'	9.1'	S 22°38.5'	1.4'	56.2'
5	88°35.1'	257°51.4'	S 4°36.8'	172°05.9'	9.1'	S 22°40.0'	1.3'	56.1'
6	103°37.6'	272°51.6'	S 4°37.8'	186°34.0'	9.2'	S 22°41.2'	1.2'	56.1'
7	118°40.1'	287°51.8'	S 4°38.8'	201°02.1'	9.2'	S 22°42.4'	1.0'	56.1'
8	133°42.5'	302°52.0'	S 4°39.7'	215°30.3'	9.2'	S 22°43.4'	0.9'	56.0'
9	148°45.0'	317°52.2'	S 4°40.7'	229°58.5'	9.2'	S 22°44.3'	0.8'	56.0'
10	163°47.5'	332°52.3'	S 4°41.6'	244°26.8'	9.3'	S 22°45.1'	0.7'	56.0'
11	178°49.9'	347°52.5'	S 4°42.6'	258°55.0'	9.3'	S 22°45.8'	0.5'	56.0'
12	193°52.4'	2°52.7'	S 4°43.6'	273°23.4'	9.3'	S 22°46.3'	0.4'	55.9'
13	208°54.9'	17°52.9'	S 4°44.5'	287°51.7'	9.4'	S 22°46.8'	0.3'	55.9'
14	223°57.3'	32°53.1'	S 4°45.5'	302°20.1'	9.4'	S 22°47.1'	0.2'	55.9'
15	238°59.8'	47°53.3'	S 4°46.5'	316°48.5'	9.5'	S 22°47.2'	0.1'	55.8'
16	254°02.3'	62°53.5'	S 4°47.4'	331°17.0'	9.5'	S 22°47.3'	0.1'	55.8'
17	269°04.7'	77°53.7'	S 4°48.4'	345°45.5'	9.5'	S 22°47.3'	0.2'	55.8'
18	284°07.2'	92°53.9'	S 4°49.3'	0°14.0'	9.6'	S 22°47.1'	0.3'	55.7'
19	299°09.6'	107°54.0'	S 4°50.3'	14°42.6'	9.6'	S 22°46.8'	0.4'	55.7'
20	314°12.1'	122°54.2'	S 4°51.3'	29°11.2'	9.7'	S 22°46.4'	0.5'	55.7'
21	329°14.6'	137°54.4'	S 4°52.2'	43°39.8'	9.7'	S 22°45.8'	0.7'	55.6'
22	344°17.0'	152°54.6'	S 4°53.2'	58°08.5'	9.7'	S 22°45.2'	0.8'	55.6'
23	359°19.5'	167°54.8'	S 4°54.1'	72°37.3'	9.8'	S 22°44.4'	0.9'	55.6'

Sun Oct 6, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	14°22.0'	182°55.0'	S 4°55.1'	87°06.0'	9.8'	S 22°43.5'	1.0'	55.6'
1	29°24.4'	197°55.2'	S 4°56.1'	101°34.8'	9.9'	S 22°42.5'	1.1'	55.5'
2	44°26.9'	212°55.3'	S 4°57.0'	116°03.7'	9.9'	S 22°41.4'	1.2'	55.5'
3	59°29.4'	227°55.5'	S 4°58.0'	130°32.6'	9.9'	S 22°40.2'	1.4'	55.5'
4	74°31.8'	242°55.7'	S 4°58.9'	145°01.5'	10.0'	S 22°38.8'	1.5'	55.4'
5	89°34.3'	257°55.9'	S 4°59.9'	159°30.5'	10.0'	S 22°37.3'	1.6'	55.4'
6	104°36.7'	272°56.1'	S 5°00.9'	173°59.6'	10.1'	S 22°35.8'	1.7'	55.4'
7	119°39.2'	287°56.3'	S 5°01.8'	188°28.6'	10.1'	S 22°34.1'	1.8'	55.4'
8	134°41.7'	302°56.5'	S 5°02.8'	202°57.8'	10.2'	S 22°32.3'	1.9'	55.3'
9	149°44.1'	317°56.6'	S 5°03.7'	217°26.9'	10.2'	S 22°30.3'	2.0'	55.3'
10	164°46.6'	332°56.8'	S 5°04.7'	231°56.2'	10.3'	S 22°28.3'	2.1'	55.3'
11	179°49.1'	347°57.0'	S 5°05.7'	246°25.4'	10.3'	S 22°26.2'	2.3'	55.3'
12	194°51.5'	2°57.2'	S 5°06.6'	260°54.7'	10.4'	S 22°23.9'	2.4'	55.2'
13	209°54.0'	17°57.4'	S 5°07.6'	275°24.1'	10.4'	S 22°21.6'	2.5'	55.2'
14	224°56.5'	32°57.6'	S 5°08.5'	289°53.5'	10.5'	S 22°19.1'	2.6'	55.2'
15	239°58.9'	47°57.8'	S 5°09.5'	304°23.0'	10.5'	S 22°16.5'	2.7'	55.2'
16	255°01.4'	62°57.9'	S 5°10.5'	318°52.5'	10.6'	S 22°13.8'	2.8'	55.1'
17	270°03.9'	77°58.1'	S 5°11.4'	333°22.0'	10.6'	S 22°11.0'	2.9'	55.1'
18	285°06.3'	92°58.3'	S 5°12.4'	347°51.6'	10.7'	S 22°08.1'	3.0'	55.1'
19	300°08.8'	107°58.5'	S 5°13.3'	2°21.3'	10.7'	S 22°05.1'	3.1'	55.1'
20	315°11.2'	122°58.7'	S 5°14.3'	16°51.0'	10.8'	S 22°02.0'	3.2'	55.0'
21	330°13.7'	137°58.9'	S 5°15.3'	31°20.8'	10.8'	S 21°58.7'	3.3'	55.0'
22	345°16.2'	152°59.0'	S 5°16.2'	45°50.6'	10.9'	S 21°55.4'	3.4'	55.0'
23	0°18.6'	167°59.2'	S 5°17.2'	60°20.4'	10.9'	S 21°52.0'	3.5'	55.0'

Mon Oct 7, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	15°21.1'	182°59.4'	S 5°18.1'	74°50.4'	11.0'	S 21°48.4'	3.6'	55.0'
1	30°23.6'	197°59.6'	S 5°19.1'	89°20.3'	11.0'	S 21°44.8'	3.7'	54.9'
2	45°26.0'	212°59.8'	S 5°20.0'	103°50.3'	11.1'	S 21°41.0'	3.8'	54.9'
3	60°28.5'	227°60.0'	S 5°21.0'	118°20.4'	11.1'	S 21°37.2'	4.0'	54.9'
4	75°31.0'	243°00.1'	S 5°22.0'	132°50.5'	11.2'	S 21°33.2'	4.1'	54.9'
5	90°33.4'	258°00.3'	S 5°22.9'	147°20.7'	11.2'	S 21°29.2'	4.2'	54.8'
6	105°35.9'	273°00.5'	S 5°23.9'	161°50.9'	11.3'	S 21°25.0'	4.3'	54.8'
7	120°38.4'	288°00.7'	S 5°24.8'	176°21.2'	11.3'	S 21°20.8'	4.4'	54.8'
8	135°40.8'	303°00.9'	S 5°25.8'	190°51.6'	11.4'	S 21°16.4'	4.5'	54.8'
9	150°43.3'	318°01.1'	S 5°26.7'	205°22.0'	11.4'	S 21°12.0'	4.5'	54.8'
10	165°45.7'	333°01.2'	S 5°27.7'	219°52.4'	11.5'	S 21°07.4'	4.6'	54.7'
11	180°48.2'	348°01.4'	S 5°28.7'	234°22.9'	11.6'	S 21°02.8'	4.7'	54.7'
12	195°50.7'	3°01.6'	S 5°29.6'	248°53.5'	11.6'	S 20°58.0'	4.8'	54.7'
13	210°53.1'	18°01.8'	S 5°30.6'	263°24.1'	11.7'	S 20°53.2'	4.9'	54.7'
14	225°55.6'	33°02.0'	S 5°31.5'	277°54.7'	11.7'	S 20°48.3'	5.0'	54.7'
15	240°58.1'	48°02.1'	S 5°32.5'	292°25.4'	11.8'	S 20°43.2'	5.1'	54.7'
16	256°00.5'	63°02.3'	S 5°33.4'	306°56.2'	11.8'	S 20°38.1'	5.2'	54.6'
17	271°03.0'	78°02.5'	S 5°34.4'	321°27.0'	11.9'	S 20°32.9'	5.3'	54.6'
18	286°05.5'	93°02.7'	S 5°35.3'	335°57.9'	11.9'	S 20°27.6'	5.4'	54.6'
19	301°07.9'	108°02.9'	S 5°36.3'	350°28.9'	12.0'	S 20°22.2'	5.5'	54.6'
20	316°10.4'	123°03.0'	S 5°37.3'	4°59.9'	12.0'	S 20°16.7'	5.6'	54.6'
21	331°12.8'	138°03.2'	S 5°38.2'	19°30.9'	12.1'	S 20°11.1'	5.7'	54.6'
22	346°15.3'	153°03.4'	S 5°39.2'	34°02.0'	12.2'	S 20°05.5'	5.8'	54.5'
23	1°17.8'	168°03.6'	S 5°40.1'	48°33.2'	12.2'	S 19°59.7'	5.8'	54.5'

Tue Oct 8, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 1.0' SD = 16.0'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	16°20.2'	183°03.8'	S 5°41.1'	63°04.4'	12.3'	S 19°53.9'	5.9'	54.5'
1	31°22.7'	198°03.9'	S 5°42.0'	77°35.6'	12.3'	S 19°47.9'	6.0'	54.5'
2	46°25.2'	213°04.1'	S 5°43.0'	92°07.0'	12.4'	S 19°41.9'	6.1'	54.5'
3	61°27.6'	228°04.3'	S 5°43.9'	106°38.3'	12.4'	S 19°35.8'	6.2'	54.5'
4	76°30.1'	243°04.5'	S 5°44.9'	121°09.8'	12.5'	S 19°29.6'	6.3'	54.4'
5	91°32.6'	258°04.6'	S 5°45.8'	135°41.3'	12.5'	S 19°23.3'	6.4'	54.4'
6	106°35.0'	273°04.8'	S 5°46.8'	150°12.8'	12.6'	S 19°16.9'	6.5'	54.4'
7	121°37.5'	288°05.0'	S 5°47.8'	164°44.4'	12.6'	S 19°10.5'	6.5'	54.4'
8	136°40.0'	303°05.2'	S 5°48.7'	179°16.0'	12.7'	S 19°03.9'	6.6'	54.4'
9	151°42.4'	318°05.4'	S 5°49.7'	193°47.7'	12.8'	S 18°57.3'	6.7'	54.4'
10	166°44.9'	333°05.5'	S 5°50.6'	208°19.5'	12.8'	S 18°50.6'	6.8'	54.4'
11	181°47.3'	348°05.7'	S 5°51.6'	222°51.3'	12.9'	S 18°43.9'	6.9'	54.3'
12	196°49.8'	3°05.9'	S 5°52.5'	237°23.2'	12.9'	S 18°37.0'	6.9'	54.3'
13	211°52.3'	18°06.1'	S 5°53.5'	251°55.1'	13.0'	S 18°30.1'	7.0'	54.3'
14	226°54.7'	33°06.2'	S 5°54.4'	266°27.0'	13.0'	S 18°23.0'	7.1'	54.3'
15	241°57.2'	48°06.4'	S 5°55.4'	280°59.1'	13.1'	S 18°15.9'	7.2'	54.3'
16	256°59.7'	63°06.6'	S 5°56.3'	295°31.1'	13.1'	S 18°08.8'	7.3'	54.3'
17	272°02.1'	78°06.8'	S 5°57.3'	310°03.3'	13.2'	S 18°01.5'	7.3'	54.3'
18	287°04.6'	93°06.9'	S 5°58.2'	324°35.4'	13.2'	S 17°54.2'	7.4'	54.3'
19	302°07.1'	108°07.1'	S 5°59.2'	339°07.7'	13.3'	S 17°46.8'	7.5'	54.3'
20	317°09.5'	123°07.3'	S 6°00.1'	353°40.0'	13.3'	S 17°39.3'	7.6'	54.2'
21	332°12.0'	138°07.5'	S 6°01.1'	8°12.3'	13.4'	S 17°31.7'	7.6'	54.2'
22	347°14.5'	153°07.6'	S 6°02.0'	22°44.7'	13.4'	S 17°24.1'	7.7'	54.2'
23	2°16.9'	168°07.8'	S 6°03.0'	37°17.1'	13.5'	S 17°16.4'	7.8'	54.2'

Wed Oct 9, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	17°19.4'	183°08.0'	S 6°04.0'	51°49.6'	13.5'	S 17°08.6'	7.8'	54.2'
1	32°21.8'	198°08.2'	S 6°04.9'	66°22.1'	13.6'	S 17°00.8'	7.9'	54.2'
2	47°24.3'	213°08.3'	S 6°05.9'	80°54.7'	13.6'	S 16°52.9'	8.0'	54.2'
3	62°26.8'	228°08.5'	S 6°06.8'	95°27.3'	13.7'	S 16°44.9'	8.1'	54.2'
4	77°29.2'	243°08.7'	S 6°07.8'	110°00.0'	13.7'	S 16°36.8'	8.1'	54.2'
5	92°31.7'	258°08.9'	S 6°08.7'	124°32.8'	13.8'	S 16°28.7'	8.2'	54.2'
6	107°34.2'	273°09.0'	S 6°09.7'	139°05.5'	13.8'	S 16°20.5'	8.3'	54.2'
7	122°36.6'	288°09.2'	S 6°10.6'	153°38.4'	13.9'	S 16°12.3'	8.3'	54.1'
8	137°39.1'	303°09.4'	S 6°11.6'	168°11.2'	13.9'	S 16°03.9'	8.4'	54.1'
9	152°41.6'	318°09.6'	S 6°12.5'	182°44.2'	14.0'	S 15°55.5'	8.5'	54.1'
10	167°44.0'	333°09.7'	S 6°13.5'	197°17.1'	14.0'	S 15°47.1'	8.5'	54.1'
11	182°46.5'	348°09.9'	S 6°14.4'	211°50.2'	14.1'	S 15°38.6'	8.6'	54.1'
12	197°48.9'	3°10.1'	S 6°15.4'	226°23.2'	14.1'	S 15°30.0'	8.7'	54.1'
13	212°51.4'	18°10.2'	S 6°16.3'	240°56.3'	14.2'	S 15°21.3'	8.7'	54.1'
14	227°53.9'	33°10.4'	S 6°17.3'	255°29.5'	14.2'	S 15°12.6'	8.8'	54.1'
15	242°56.3'	48°10.6'	S 6°18.2'	270°02.7'	14.2'	S 15°03.8'	8.8'	54.1'
16	257°58.8'	63°10.8'	S 6°19.2'	284°35.9'	14.3'	S 14°55.0'	8.9'	54.1'
17	273°01.3'	78°10.9'	S 6°20.1'	299°09.2'	14.3'	S 14°46.1'	9.0'	54.1'
18	288°03.7'	93°11.1'	S 6°21.1'	313°42.5'	14.4'	S 14°37.1'	9.0'	54.1'
19	303°06.2'	108°11.3'	S 6°22.0'	328°15.9'	14.4'	S 14°28.1'	9.1'	54.1'
20	318°08.7'	123°11.4'	S 6°23.0'	342°49.3'	14.5'	S 14°19.0'	9.1'	54.1'
21	333°11.1'	138°11.6'	S 6°23.9'	357°22.8'	14.5'	S 14°09.9'	9.2'	54.1'
22	348°13.6'	153°11.8'	S 6°24.9'	1°56.3'	14.5'	S 14°00.7'	9.3'	54.1'
23	3°16.1'	168°12.0'	S 6°25.8'	26°29.8'	14.6'	S 13°51.5'	9.3'	54.1'

Thu Oct 10, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	18°18.5'	183°12.1'	S 6°26.7'	41°03.4'	14.6'	S 13°42.1'	9.4'	54.1'
1	33°21.0'	198°12.3'	S 6°27.7'	55°37.0'	14.7'	S 13°32.8'	9.4'	54.0'
2	48°23.4'	213°12.5'	S 6°28.6'	70°10.7'	14.7'	S 13°23.4'	9.5'	54.0'
3	63°25.9'	228°12.6'	S 6°29.6'	84°44.4'	14.7'	S 13°13.9'	9.5'	54.0'
4	78°28.4'	243°12.8'	S 6°30.5'	99°18.1'	14.8'	S 13°04.4'	9.6'	54.0'
5	93°30.8'	258°13.0'	S 6°31.5'	113°51.9'	14.8'	S 12°54.8'	9.6'	54.0'
6	108°33.3'	273°13.1'	S 6°32.4'	128°25.7'	14.8'	S 12°45.2'	9.7'	54.0'
7	123°35.8'	288°13.3'	S 6°33.4'	142°59.6'	14.9'	S 12°35.5'	9.7'	54.0'
8	138°38.2'	303°13.5'	S 6°34.3'	157°33.4'	14.9'	S 12°25.7'	9.8'	54.0'
9	153°40.7'	318°13.7'	S 6°35.3'	172°07.4'	15.0'	S 12°16.0'	9.8'	54.0'
10	168°43.2'	333°13.8'	S 6°36.2'	186°41.3'	15.0'	S 12°06.1'	9.9'	54.0'
11	183°45.6'	348°14.0'	S 6°37.2'	201°15.3'	15.0'	S 11°56.2'	9.9'	54.0'
12	198°48.1'	3°14.2'	S 6°38.1'	215°49.3'	15.1'	S 11°46.3'	10.0'	54.0'
13	213°50.5'	18°14.3'	S 6°39.1'	230°23.4'	15.1'	S 11°36.3'	10.0'	54.0'
14	228°53.0'	33°14.5'	S 6°40.0'	244°57.5'	15.1'	S 11°26.3'	10.1'	54.0'
15	243°55.5'	48°14.7'	S 6°41.0'	259°31.6'	15.2'	S 11°16.2'	10.1'	54.0'
16	258°57.9'	63°14.8'	S 6°41.9'	274°05.8'	15.2'	S 11°06.1'	10.2'	54.0'
17	274°00.4'	78°15.0'	S 6°42.8'	288°39.9'	15.2'	S 10°56.0'	10.2'	54.0'
18	289°02.9'	93°15.2'	S 6°43.8'	303°14.2'	15.2'	S 10°45.7'	10.3'	54.0'
19	304°05.3'	108°15.3'	S 6°44.7'	317°48.4'	15.3'	S 10°35.5'	10.3'	54.0'
20	319°07.8'	123°15.5'	S 6°45.7'	332°22.7'	15.3'	S 10°25.2'	10.3'	54.0'
21	334°10.3'	138°15.7'	S 6°46.6'	346°57.0'	15.3'	S 10°14.9'	10.4'	54.0'
22	349°12.7'	153°15.8'	S 6°47.6'	1°31.3'	15.4'	S 10°04.5'	10.4'	54.0'
23	4°15.2'	168°16.0'	S 6°48.5'	16°05.7'	15.4'	S 9°54.1'	10.5'	54.0'

Fri Oct 11, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 14.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	19°17.7'	183°16.2'	S 6°49.5'	30°40.1'	15.4'	S 9°43.6'	10.5'	54.0'
1	34°20.1'	198°16.3'	S 6°50.4'	45°14.5'	15.4'	S 9°33.1'	10.5'	54.0'
2	49°22.6'	213°16.5'	S 6°51.3'	59°48.9'	15.5'	S 9°22.6'	10.6'	54.0'
3	64°25.0'	228°16.6'	S 6°52.3'	74°23.4'	15.5'	S 9°12.0'	10.6'	54.0'
4	79°27.5'	243°16.8'	S 6°53.2'	88°57.8'	15.5'	S 9°01.4'	10.7'	54.0'
5	94°30.0'	258°17.0'	S 6°54.2'	103°32.4'	15.5'	S 8°50.7'	10.7'	54.0'
6	109°32.4'	273°17.1'	S 6°55.1'	118°06.9'	15.6'	S 8°40.0'	10.7'	54.0'
7	124°34.9'	288°17.3'	S 6°56.1'	132°41.4'	15.6'	S 8°29.3'	10.8'	54.0'
8	139°37.4'	303°17.5'	S 6°57.0'	147°16.0'	15.6'	S 8°18.6'	10.8'	54.0'
9	154°39.8'	318°17.6'	S 6°57.9'	161°50.6'	15.6'	S 8°07.8'	10.8'	54.0'
10	169°42.3'	333°17.8'	S 6°58.9'	176°25.2'	15.6'	S 7°56.9'	10.9'	54.0'
11	184°44.8'	348°18.0'	S 6°59.8'	190°59.9'	15.7'	S 7°46.1'	10.9'	54.0'
12	199°47.2'	3°18.1'	S 7°00.8'	205°34.5'	15.7'	S 7°35.2'	10.9'	54.1'
13	214°49.7'	18°18.3'	S 7°01.7'	220°09.2'	15.7'	S 7°24.3'	11.0'	54.1'
14	229°52.2'	33°18.4'	S 7°02.7'	234°43.9'	15.7'	S 7°13.3'	11.0'	54.1'
15	244°54.6'	48°18.6'	S 7°03.6'	249°18.6'	15.7'	S 7°02.3'	11.0'	54.1'
16	259°57.1'	63°18.8'	S 7°04.5'	263°53.3'	15.7'	S 6°51.3'	11.0'	54.1'
17	274°59.5'	78°18.9'	S 7°05.5'	278°28.1'	15.8'	S 6°40.3'	11.1'	54.1'
18	290°02.0'	93°19.1'	S 7°06.4'	293°02.8'	15.8'	S 6°29.2'	11.1'	54.1'
19	305°04.5'	108°19.3'	S 7°07.4'	307°37.6'	15.8'	S 6°18.1'	11.1'	54.1'
20	320°06.9'	123°19.4'	S 7°08.3'	322°12.4'	15.8'	S 6°07.0'	11.2'	54.1'
21	335°09.4'	138°19.6'	S 7°09.3'	336°47.2'	15.8'	S 5°55.8'	11.2'	54.1'
22	350°11.9'	153°19.7'	S 7°10.2'	351°22.0'	15.8'	S 5°44.6'	11.2'	54.1'
23	5°14.3'	168°19.9'	S 7°11.1'	5°56.8'	15.8'	S 5°33.4'	11.2'	54.1'

Sat Oct 12, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	20°16.8'	183°20.1'	S 7°12.1'	20°31.6'	15.8'	S 5°22.2'	11.3'	54.1'
1	35°19.3'	198°20.2'	S 7°13.0'	35°06.5'	15.9'	S 5°10.9'	11.3'	54.1'
2	50°21.7'	213°20.4'	S 7°14.0'	49°41.3'	15.9'	S 4°59.6'	11.3'	54.1'
3	65°24.2'	228°20.5'	S 7°14.9'	64°16.2'	15.9'	S 4°48.3'	11.3'	54.1'
4	80°26.6'	243°20.7'	S 7°15.8'	78°51.1'	15.9'	S 4°37.0'	11.3'	54.1'
5	95°29.1'	258°20.9'	S 7°16.8'	93°25.9'	15.9'	S 4°25.7'	11.4'	54.1'
6	110°31.6'	273°21.0'	S 7°17.7'	108°00.8'	15.9'	S 4°14.3'	11.4'	54.1'
7	125°34.0'	288°21.2'	S 7°18.7'	122°35.7'	15.9'	S 4°02.9'	11.4'	54.1'
8	140°36.5'	303°21.3'	S 7°19.6'	137°10.6'	15.9'	S 3°51.5'	11.4'	54.2'
9	155°39.0'	318°21.5'	S 7°20.5'	151°45.5'	15.9'	S 3°40.1'	11.4'	54.2'
10	170°41.4'	333°21.7'	S 7°21.5'	166°20.4'	15.9'	S 3°28.6'	11.5'	54.2'
11	185°43.9'	348°21.8'	S 7°22.4'	180°55.3'	15.9'	S 3°17.2'	11.5'	54.2'
12	200°46.4'	3°22.0'	S 7°23.3'	195°30.2'	15.9'	S 3°05.7'	11.5'	54.2'
13	215°48.8'	18°22.1'	S 7°24.3'	210°05.1'	15.9'	S 2°54.2'	11.5'	54.2'
14	230°51.3'	33°22.3'	S 7°25.2'	224°40.0'	15.9'	S 2°42.7'	11.5'	54.2'
15	245°53.8'	48°22.4'	S 7°26.2'	239°14.9'	15.9'	S 2°31.2'	11.5'	54.2'
16	260°56.2'	63°22.6'	S 7°27.1'	253°49.8'	15.9'	S 2°19.7'	11.5'	54.2'
17	275°58.7'	78°22.8'	S 7°28.0'	268°24.7'	15.9'	S 2°08.1'	11.6'	54.2'
18	291°01.1'	93°22.9'	S 7°29.0'	282°59.6'	15.9'	S 1°56.5'	11.6'	54.2'
19	306°03.6'	108°23.1'	S 7°29.9'	297°34.5'	15.9'	S 1°45.0'	11.6'	54.2'
20	321°06.1'	123°23.2'	S 7°30.8'	312°09.4'	15.9'	S 1°33.4'	11.6'	54.2'
21	336°08.5'	138°23.4'	S 7°31.8'	326°44.3'	15.9'	S 1°21.8'	11.6'	54.3'
22	351°11.0'	153°23.5'	S 7°32.7'	341°19.2'	15.9'	S 1°10.2'	11.6'	54.3'
23	6°13.5'	168°23.7'	S 7°33.7'	355°54.1'	15.9'	S 0°58.6'	11.6'	54.3'

Sun Oct 13, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	21°15.9'	183°23.8'	S 7°34.6'	10°29.0'	15.9'	S 0°47.0'	11.6'	54.3'
1	36°18.4'	198°24.0'	S 7°35.5'	25°03.8'	15.9'	S 0°35.3'	11.6'	54.3'
2	51°20.9'	213°24.2'	S 7°36.5'	39°38.7'	15.9'	S 0°23.7'	11.6'	54.3'
3	66°23.3'	228°24.3'	S 7°37.4'	54°13.5'	15.8'	S 0°12.1'	11.6'	54.3'
4	81°25.8'	243°24.5'	S 7°38.3'	68°48.4'	15.8'	S 0°00.4'	11.7'	54.3'
5	96°28.2'	258°24.6'	S 7°39.3'	83°23.2'	15.8'	N 0°11.2'	11.7'	54.3'
6	111°30.7'	273°24.8'	S 7°40.2'	97°58.0'	15.8'	N 0°22.9'	11.7'	54.3'
7	126°33.2'	288°24.9'	S 7°41.1'	112°32.8'	15.8'	N 0°34.6'	11.7'	54.4'
8	141°35.6'	303°25.1'	S 7°42.1'	127°07.6'	15.8'	N 0°46.2'	11.7'	54.4'
9	156°38.1'	318°25.2'	S 7°43.0'	141°42.4'	15.8'	N 0°57.9'	11.7'	54.4'
10	171°40.6'	333°25.4'	S 7°43.9'	156°17.2'	15.8'	N 1°09.6'	11.7'	54.4'
11	186°43.0'	348°25.5'	S 7°44.9'	170°51.9'	15.7'	N 1°21.2'	11.7'	54.4'
12	201°45.5'	3°25.7'	S 7°45.8'	185°26.7'	15.7'	N 1°32.9'	11.7'	54.4'
13	216°48.0'	18°25.8'	S 7°46.7'	200°01.4'	15.7'	N 1°44.6'	11.7'	54.4'
14	231°50.4'	33°26.0'	S 7°47.7'	214°36.1'	15.7'	N 1°56.2'	11.7'	54.4'
15	246°52.9'	48°26.1'	S 7°48.6'	229°10.8'	15.7'	N 2°07.9'	11.7'	54.4'
16	261°55.4'	63°26.3'	S 7°49.5'	243°45.5'	15.7'	N 2°19.5'	11.7'	54.4'
17	276°57.8'	78°26.4'	S 7°50.5'	258°20.1'	15.6'	N 2°31.2'	11.6'	54.5'
18	292°00.3'	93°26.6'	S 7°51.4'	272°54.8'	15.6'	N 2°42.8'	11.6'	54.5'
19	307°02.7'	108°26.7'	S 7°52.3'	287°29.4'	15.6'	N 2°54.5'	11.6'	54.5'
20	322°05.2'	123°26.9'	S 7°53.3'	302°04.0'	15.6'	N 3°06.1'	11.6'	54.5'
21	337°07.7'	138°27.1'	S 7°54.2'	316°38.5'	15.5'	N 3°17.8'	11.6'	54.5'
22	352°10.1'	153°27.2'	S 7°55.1'	331°13.1'	15.5'	N 3°29.4'	11.6'	54.5'
23	7°12.6'	168°27.4'	S 7°56.1'	345°47.6'	15.5'	N 3°41.0'	11.6'	54.5'

Mon Oct 14, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	22°15.1'	183°27.5'	S 7°57.0'	0°22.1'	15.5'	N 3°52.6'	11.6'	54.5'
1	37°17.5'	198°27.6'	S 7°57.9'	14°56.6'	15.4'	N 4°04.2'	11.6'	54.6'
2	52°20.0'	213°27.8'	S 7°58.9'	29°31.0'	15.4'	N 4°15.8'	11.6'	54.6'
3	67°22.5'	228°27.9'	S 7°59.8'	44°05.4'	15.4'	N 4°27.4'	11.6'	54.6'
4	82°24.9'	243°28.1'	S 8°00.7'	58°39.8'	15.4'	N 4°38.9'	11.5'	54.6'
5	97°27.4'	258°28.2'	S 8°01.7'	73°14.2'	15.3'	N 4°50.5'	11.5'	54.6'
6	112°29.8'	273°28.4'	S 8°02.6'	87°48.5'	15.3'	N 5°02.0'	11.5'	54.6'
7	127°32.3'	288°28.5'	S 8°03.5'	102°22.9'	15.3'	N 5°13.5'	11.5'	54.6'
8	142°34.8'	303°28.7'	S 8°04.5'	116°57.1'	15.2'	N 5°25.0'	11.5'	54.6'
9	157°37.2'	318°28.8'	S 8°05.4'	131°31.4'	15.2'	N 5°36.5'	11.5'	54.7'
10	172°39.7'	333°29.0'	S 8°06.3'	146°05.6'	15.2'	N 5°48.0'	11.5'	54.7'
11	187°42.2'	348°29.1'	S 8°07.2'	160°39.8'	15.2'	N 5°59.4'	11.4'	54.7'
12	202°44.6'	3°29.3'	S 8°08.2'	175°13.9'	15.1'	N 6°10.9'	11.4'	54.7'
13	217°47.1'	18°29.4'	S 8°09.1'	189°48.1'	15.1'	N 6°22.3'	11.4'	54.7'
14	232°49.6'	33°29.6'	S 8°10.0'	204°22.1'	15.0'	N 6°33.7'	11.4'	54.7'
15	247°52.0'	48°29.7'	S 8°11.0'	218°56.2'	15.0'	N 6°45.1'	11.4'	54.7'
16	262°54.5'	63°29.9'	S 8°11.9'	233°30.2'	15.0'	N 6°56.4'	11.3'	54.7'
17	277°57.0'	78°30.0'	S 8°12.8'	248°04.2'	14.9'	N 7°07.8'	11.3'	54.8'
18	292°59.4'	93°30.2'	S 8°13.7'	262°38.1'	14.9'	N 7°19.1'	11.3'	54.8'
19	308°01.9'	108°30.3'	S 8°14.7'	277°12.0'	14.9'	N 7°30.4'	11.3'	54.8'
20	323°04.3'	123°30.4'	S 8°15.6'	291°45.9'	14.8'	N 7°41.6'	11.2'	54.8'
21	338°06.8'	138°30.6'	S 8°16.5'	306°19.7'	14.8'	N 7°52.9'	11.2'	54.8'
22	353°09.3'	153°30.7'	S 8°17.5'	320°53.5'	14.7'	N 8°04.1'	11.2'	54.8'
23	8°11.7'	168°30.9'	S 8°18.4'	335°27.2'	14.7'	N 8°15.2'	11.2'	54.9'

Tue Oct 15, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	23°14.2'	183°31.0'	S 8°19.3'	350°00.9'	14.7'	N 8°26.4'	11.1'	54.9'
1	38°16.7'	198°31.2'	S 8°20.2'	4°34.6'	14.6'	N 8°37.5'	11.1'	54.9'
2	53°19.1'	213°31.3'	S 8°21.2'	19°08.2'	14.6'	N 8°48.6'	11.1'	54.9'
3	68°21.6'	228°31.5'	S 8°22.1'	33°41.8'	14.5'	N 8°59.7'	11.0'	54.9'
4	83°24.1'	243°31.6'	S 8°23.0'	48°15.3'	14.5'	N 9°10.7'	11.0'	54.9'
5	98°26.5'	258°31.7'	S 8°23.9'	62°48.8'	14.4'	N 9°21.7'	11.0'	54.9'
6	113°29.0'	273°31.9'	S 8°24.9'	77°22.3'	14.4'	N 9°32.7'	10.9'	55.0'
7	128°31.4'	288°32.0'	S 8°25.8'	91°55.6'	14.3'	N 9°43.6'	10.9'	55.0'
8	143°33.9'	303°32.2'	S 8°26.7'	106°29.0'	14.3'	N 9°54.5'	10.9'	55.0'
9	158°36.4'	318°32.3'	S 8°27.6'	121°02.3'	14.3'	N 10°05.4'	10.8'	55.0'
10	173°38.8'	333°32.5'	S 8°28.6'	135°35.5'	14.2'	N 10°16.2'	10.8'	55.0'
11	188°41.3'	348°32.6'	S 8°29.5'	150°08.8'	14.2'	N 10°27.0'	10.7'	55.0'
12	203°43.8'	3°32.7'	S 8°30.4'	164°41.9'	14.1'	N 10°37.7'	10.7'	55.1'
13	218°46.2'	18°32.9'	S 8°31.3'	179°15.0'	14.1'	N 10°48.4'	10.7'	55.1'
14	233°48.7'	33°33.0'	S 8°32.3'	193°48.1'	14.0'	N 10°59.1'	10.6'	55.1'
15	248°51.2'	48°33.2'	S 8°33.2'	208°21.1'	14.0'	N 11°09.7'	10.6'	55.1'
16	263°53.6'	63°33.3'	S 8°34.1'	222°54.0'	13.9'	N 11°20.3'	10.5'	55.1'
17	278°56.1'	78°33.4'	S 8°35.0'	237°26.9'	13.8'	N 11°30.9'	10.5'	55.1'
18	293°58.6'	93°33.6'	S 8°36.0'	251°59.8'	13.8'	N 11°41.4'	10.5'	55.2'
19	309°01.0'	108°33.7'	S 8°36.9'	266°32.6'	13.7'	N 11°51.8'	10.4'	55.2'
20	324°03.5'	123°33.9'	S 8°37.8'	281°05.3'	13.7'	N 12°02.2'	10.4'	55.2'
21	339°05.9'	138°34.0'	S 8°38.7'	295°38.0'	13.6'	N 12°12.6'	10.3'	55.2'
22	354°08.4'	153°34.1'	S 8°39.6'	310°10.6'	13.6'	N 12°22.9'	10.3'	55.2'
23	9°10.9'	168°34.3'	S 8°40.6'	324°43.2'	13.5'	N 12°33.2'	10.2'	55.2'

Wed Oct 16, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	24°13.3'	183°34.4'	S 8°41.5'	339°15.7'	13.5'	N 12°43.4'	10.2'	55.3'
1	39°15.8'	198°34.5'	S 8°42.4'	353°48.2'	13.4'	N 12°53.6'	10.1'	55.3'
2	54°18.3'	213°34.7'	S 8°43.3'	8°20.6'	13.3'	N 13°03.7'	10.1'	55.3'
3	69°20.7'	228°34.8'	S 8°44.3'	22°52.9'	13.3'	N 13°13.8'	10.0'	55.3'
4	84°23.2'	243°35.0'	S 8°45.2'	37°25.2'	13.2'	N 13°23.8'	10.0'	55.3'
5	99°25.7'	258°35.1'	S 8°46.1'	51°57.4'	13.2'	N 13°33.7'	9.9'	55.3'
6	114°28.1'	273°35.2'	S 8°47.0'	66°29.6'	13.1'	N 13°43.7'	9.9'	55.4'
7	129°30.6'	288°35.4'	S 8°47.9'	81°01.7'	13.0'	N 13°53.5'	9.8'	55.4'
8	144°33.1'	303°35.5'	S 8°48.9'	95°33.8'	13.0'	N 14°03.3'	9.7'	55.4'
9	159°35.5'	318°35.6'	S 8°49.8'	110°05.7'	12.9'	N 14°13.0'	9.7'	55.4'
10	174°38.0'	333°35.8'	S 8°50.7'	124°37.7'	12.9'	N 14°22.7'	9.6'	55.4'
11	189°40.4'	348°35.9'	S 8°51.6'	139°09.5'	12.8'	N 14°32.3'	9.6'	55.5'
12	204°42.9'	3°36.0'	S 8°52.5'	153°41.3'	12.7'	N 14°41.9'	9.5'	55.5'
13	219°45.4'	18°36.2'	S 8°53.5'	168°13.1'	12.7'	N 14°51.4'	9.4'	55.5'
14	234°47.8'	33°36.3'	S 8°54.4'	182°44.7'	12.6'	N 15°00.8'	9.4'	55.5'
15	249°50.3'	48°36.5'	S 8°55.3'	197°16.4'	12.5'	N 15°10.2'	9.3'	55.5'
16	264°52.8'	63°36.6'	S 8°56.2'	211°47.9'	12.5'	N 15°19.5'	9.2'	55.5'
17	279°55.2'	78°36.7'	S 8°57.1'	226°19.4'	12.4'	N 15°28.7'	9.2'	55.6'
18	294°57.7'	93°36.9'	S 8°58.1'	240°50.8'	12.4'	N 15°37.9'	9.1'	55.6'
19	310°00.2'	108°37.0'	S 8°59.0'	255°22.2'	12.3'	N 15°47.0'	9.0'	55.6'
20	325°02.6'	123°37.1'	S 8°59.9'	269°53.4'	12.2'	N 15°56.1'	9.0'	55.6'
21	340°05.1'	138°37.3'	S 9°00.8'	284°24.7'	12.2'	N 16°05.0'	8.9'	55.6'
22	355°07.5'	153°37.4'	S 9°01.7'	298°55.8'	12.1'	N 16°14.0'	8.8'	55.7'
23	10°10.0'	168°37.5'	S 9°02.6'	313°26.9'	12.0'	N 16°22.8'	8.8'	55.7'

Thu Oct 17, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.0'		SD = 15.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	25°12.5'	183°37.7'	S 9°03.6'	327°57.9'	12.0'	N 16°31.5'	8.7'	55.7'
1	40°14.9'	198°37.8'	S 9°04.5'	342°28.9'	11.9'	N 16°40.2'	8.6'	55.7'
2	55°17.4'	213°37.9'	S 9°05.4'	356°59.8'	11.8'	N 16°48.8'	8.5'	55.7'
3	70°19.9'	228°38.0'	S 9°06.3'	11°30.6'	11.8'	N 16°57.4'	8.5'	55.8'
4	85°22.3'	243°38.2'	S 9°07.2'	26°01.3'	11.7'	N 17°05.9'	8.4'	55.8'
5	100°24.8'	258°38.3'	S 9°08.1'	40°32.0'	11.6'	N 17°14.2'	8.3'	55.8'
6	115°27.3'	273°38.4'	S 9°09.1'	55°02.6'	11.5'	N 17°22.6'	8.2'	55.8'
7	130°29.7'	288°38.6'	S 9°10.0'	69°33.2'	11.5'	N 17°30.8'	8.2'	55.8'
8	145°32.2'	303°38.7'	S 9°10.9'	84°03.7'	11.4'	N 17°38.9'	8.1'	55.9'
9	160°34.7'	318°38.8'	S 9°11.8'	98°34.1'	11.3'	N 17°47.0'	8.0'	55.9'
10	175°37.1'	333°39.0'	S 9°12.7'	113°04.4'	11.3'	N 17°55.0'	7.9'	55.9'
11	190°39.6'	348°39.1'	S 9°13.6'	127°34.7'	11.2'	N 18°02.9'	7.8'	55.9'
12	205°42.0'	3°39.2'	S 9°14.5'	142°04.9'	11.1'	N 18°10.7'	7.7'	55.9'
13	220°44.5'	18°39.3'	S 9°15.5'	156°35.0'	11.1'	N 18°18.5'	7.7'	56.0'
14	235°47.0'	33°39.5'	S 9°16.4'	171°05.1'	11.0'	N 18°26.1'	7.6'	56.0'
15	250°49.4'	48°39.6'	S 9°17.3'	185°35.1'	10.9'	N 18°33.7'	7.5'	56.0'
16	265°51.9'	63°39.7'	S 9°18.2'	200°05.0'	10.9'	N 18°41.2'	7.4'	56.0'
17	280°54.4'	78°39.9'	S 9°19.1'	214°34.8'	10.8'	N 18°48.6'	7.3'	56.1'
18	295°56.8'	93°40.0'	S 9°20.0'	229°04.6'	10.7'	N 18°55.9'	7.2'	56.1'
19	310°59.3'	108°40.1'	S 9°20.9'	243°34.3'	10.6'	N 19°03.1'	7.1'	56.1'
20	326°01.8'	123°40.2'	S 9°21.8'	258°04.0'	10.6'	N 19°10.2'	7.0'	56.1'
21	341°04.2'	138°40.4'	S 9°22.8'	272°33.5'	10.5'	N 19°17.2'	6.9'	56.1'
22	356°06.7'	153°40.5'	S 9°23.7'	287°03.0'	10.4'	N 19°24.2'	6.8'	56.2'
23	11°09.2'	168°40.6'	S 9°24.6'	301°32.5'	10.4'	N 19°31.0'	6.7'	56.2'

Fri Oct 18, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	26°11.6'	183°40.7'	S 9°25.5'	316°01.8'	10.3'	N 19°37.8'	6.7'	56.2'
1	41°14.1'	198°40.9'	S 9°26.4'	330°31.1'	10.2'	N 19°44.4'	6.6'	56.2'
2	56°16.5'	213°41.0'	S 9°27.3'	345°00.3'	10.2'	N 19°51.0'	6.5'	56.3'
3	71°19.0'	228°41.1'	S 9°28.2'	359°29.5'	10.1'	N 19°57.4'	6.4'	56.3'
4	86°21.5'	243°41.2'	S 9°29.1'	13°58.6'	10.0'	N 20°03.8'	6.3'	56.3'
5	101°23.9'	258°41.4'	S 9°30.0'	28°27.6'	9.9'	N 20°10.0'	6.2'	56.3'
6	116°26.4'	273°41.5'	S 9°31.0'	42°56.5'	9.9'	N 20°16.2'	6.1'	56.3'
7	131°28.9'	288°41.6'	S 9°31.9'	57°25.4'	9.8'	N 20°22.2'	6.0'	56.4'
8	146°31.3'	303°41.7'	S 9°32.8'	71°54.2'	9.7'	N 20°28.2'	5.8'	56.4'
9	161°33.8'	318°41.9'	S 9°33.7'	86°23.0'	9.7'	N 20°34.0'	5.7'	56.4'
10	176°36.3'	333°42.0'	S 9°34.6'	100°51.6'	9.6'	N 20°39.8'	5.6'	56.4'
11	191°38.7'	348°42.1'	S 9°35.5'	115°20.2'	9.5'	N 20°45.4'	5.5'	56.5'
12	206°41.2'	3°42.2'	S 9°36.4'	129°48.8'	9.5'	N 20°51.0'	5.4'	56.5'
13	221°43.7'	18°42.4'	S 9°37.3'	144°17.3'	9.4'	N 20°56.4'	5.3'	56.5'
14	236°46.1'	33°42.5'	S 9°38.2'	158°45.7'	9.3'	N 21°01.7'	5.2'	56.5'
15	251°48.6'	48°42.6'	S 9°39.1'	173°14.0'	9.3'	N 21°06.9'	5.1'	56.6'
16	266°51.0'	63°42.7'	S 9°40.0'	187°42.3'	9.2'	N 21°12.0'	5.0'	56.6'
17	281°53.5'	78°42.8'	S 9°40.9'	202°10.5'	9.1'	N 21°17.0'	4.9'	56.6'
18	296°56.0'	93°43.0'	S 9°41.9'	216°38.6'	9.1'	N 21°21.9'	4.8'	56.6'
19	311°58.4'	108°43.1'	S 9°42.8'	231°06.7'	9.0'	N 21°26.7'	4.7'	56.7'
20	327°00.9'	123°43.2'	S 9°43.7'	245°34.7'	9.0'	N 21°31.3'	4.5'	56.7'
21	342°03.4'	138°43.3'	S 9°44.6'	260°02.7'	8.9'	N 21°35.8'	4.4'	56.7'
22	357°05.8'	153°43.4'	S 9°45.5'	274°30.6'	8.8'	N 21°40.3'	4.3'	56.7'
23	12°08.3'	168°43.6'	S 9°46.4'	288°58.4'	8.8'	N 21°44.6'	4.2'	56.8'

Sat Oct 19, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	27°10.8'	183°43.7'	S 9°47.3'	303°26.2'	8.7'	N 21°48.8'	4.1'	56.8'
1	42°13.2'	198°43.8'	S 9°48.2'	317°53.9'	8.6'	N 21°52.8'	4.0'	56.8'
2	57°15.7'	213°43.9'	S 9°49.1'	332°21.5'	8.6'	N 21°56.8'	3.8'	56.8'
3	72°18.1'	228°44.0'	S 9°50.0'	346°49.1'	8.5'	N 22°00.6'	3.7'	56.9'
4	87°20.6'	243°44.2'	S 9°50.9'	1°16.6'	8.5'	N 22°04.3'	3.6'	56.9'
5	102°23.1'	258°44.3'	S 9°51.8'	15°44.1'	8.4'	N 22°07.9'	3.5'	56.9'
6	117°25.5'	273°44.4'	S 9°52.7'	30°11.5'	8.3'	N 22°11.4'	3.4'	56.9'
7	132°28.0'	288°44.5'	S 9°53.6'	44°38.8'	8.3'	N 22°14.8'	3.2'	57.0'
8	147°30.5'	303°44.6'	S 9°54.5'	59°06.1'	8.2'	N 22°18.0'	3.1'	57.0'
9	162°32.9'	318°44.7'	S 9°55.4'	73°33.4'	8.2'	N 22°21.1'	3.0'	57.0'
10	177°35.4'	333°44.9'	S 9°56.3'	88°00.5'	8.1'	N 22°24.1'	2.9'	57.0'
11	192°37.9'	348°45.0'	S 9°57.2'	102°27.7'	8.1'	N 22°26.9'	2.7'	57.1'
12	207°40.3'	3°45.1'	S 9°58.1'	116°54.7'	8.0'	N 22°29.6'	2.6'	57.1'
13	222°42.8'	18°45.2'	S 9°59.0'	131°21.8'	8.0'	N 22°32.2'	2.5'	57.1'
14	237°45.3'	33°45.3'	S 9°59.9'	145°48.7'	7.9'	N 22°34.7'	2.3'	57.1'
15	252°47.7'	48°45.4'	S 10°00.8'	160°15.7'	7.9'	N 22°37.1'	2.2'	57.2'
16	267°50.2'	63°45.6'	S 10°01.7'	174°42.5'	7.8'	N 22°39.3'	2.1'	57.2'
17	282°52.6'	78°45.7'	S 10°02.6'	189°09.3'	7.8'	N 22°41.4'	2.0'	57.2'
18	297°55.1'	93°45.8'	S 10°03.6'	203°36.1'	7.7'	N 22°43.3'	1.8'	57.2'
19	312°57.6'	108°45.9'	S 10°04.5'	218°02.8'	7.7'	N 22°45.2'	1.7'	57.3'
20	328°00.0'	123°46.0'	S 10°05.4'	232°29.5'	7.6'	N 22°46.9'	1.6'	57.3'
21	343°02.5'	138°46.1'	S 10°06.3'	246°56.1'	7.6'	N 22°48.4'	1.4'	57.3'
22	358°05.0'	153°46.2'	S 10°07.2'	261°22.7'	7.5'	N 22°49.9'	1.3'	57.3'
23	13°07.4'	168°46.3'	S 10°08.1'	275°49.3'	7.5'	N 22°51.2'	1.2'	57.4'

Sun Oct 20, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	28°09.9'	183°46.5'	S 10°09.0'	290°15.8'	7.5'	N 22°52.3'	1.0'	57.4'
1	43°12.4'	198°46.6'	S 10°09.9'	304°42.2'	7.4'	N 22°53.4'	0.9'	57.4'
2	58°14.8'	213°46.7'	S 10°10.8'	319°08.6'	7.4'	N 22°54.3'	0.8'	57.5'
3	73°17.3'	228°46.8'	S 10°11.6'	333°35.0'	7.3'	N 22°55.0'	0.6'	57.5'
4	88°19.8'	243°46.9'	S 10°12.5'	348°01.4'	7.3'	N 22°55.7'	0.5'	57.5'
5	103°22.2'	258°47.0'	S 10°13.4'	2°27.7'	7.3'	N 22°56.2'	0.4'	57.5'
6	118°24.7'	273°47.1'	S 10°14.3'	16°53.9'	7.2'	N 22°56.5'	0.2'	57.6'
7	133°27.1'	288°47.2'	S 10°15.2'	31°20.1'	7.2'	N 22°56.7'	0.1'	57.6'
8	148°29.6'	303°47.4'	S 10°16.1'	45°46.3'	7.2'	N 22°56.8'	0.1'	57.6'
9	163°32.1'	318°47.5'	S 10°17.0'	60°12.5'	7.1'	N 22°56.8'	0.2'	57.6'
10	178°34.5'	333°47.6'	S 10°17.9'	74°38.6'	7.1'	N 22°56.6'	0.3'	57.7'
11	193°37.0'	348°47.7'	S 10°18.8'	89°04.7'	7.1'	N 22°56.3'	0.5'	57.7'
12	208°39.5'	3°47.8'	S 10°19.7'	103°30.8'	7.0'	N 22°55.8'	0.6'	57.7'
13	223°41.9'	18°47.9'	S 10°20.6'	117°56.8'	7.0'	N 22°55.2'	0.7'	57.8'
14	238°44.4'	33°48.0'	S 10°21.5'	132°22.8'	7.0'	N 22°54.4'	0.9'	57.8'
15	253°46.9'	48°48.1'	S 10°22.4'	146°48.8'	7.0'	N 22°53.6'	1.0'	57.8'
16	268°49.3'	63°48.2'	S 10°23.3'	161°14.8'	6.9'	N 22°52.5'	1.2'	57.8'
17	283°51.8'	78°48.3'	S 10°24.2'	175°40.7'	6.9'	N 22°51.4'	1.3'	57.9'
18	298°54.3'	93°48.4'	S 10°25.1'	190°06.6'	6.9'	N 22°50.1'	1.4'	57.9'
19	313°56.7'	108°48.5'	S 10°26.0'	204°32.5'	6.9'	N 22°48.6'	1.6'	57.9'
20	328°59.2'	123°48.7'	S 10°26.9'	218°58.4'	6.8'	N 22°47.0'	1.7'	58.0'
21	344°01.6'	138°48.8'	S 10°27.8'	233°24.2'	6.8'	N 22°45.3'	1.9'	58.0'
22	359°04.1'	153°48.9'	S 10°28.7'	247°50.1'	6.8'	N 22°43.4'	2.0'	58.0'
23	14°06.6'	168°49.0'	S 10°29.6'	262°15.9'	6.8'	N 22°41.4'	2.1'	58.0'

Mon Oct 21, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	29°09.0'	183°49.1'	S 10°30.5'	276°41.7'	6.8'	N 22°39.3'	2.3'	58.1'
1	44°11.5'	198°49.2'	S 10°31.4'	291°07.4'	6.8'	N 22°37.0'	2.4'	58.1'
2	59°14.0'	213°49.3'	S 10°32.3'	305°33.2'	6.8'	N 22°34.6'	2.6'	58.1'
3	74°16.4'	228°49.4'	S 10°33.1'	319°58.9'	6.7'	N 22°32.0'	2.7'	58.2'
4	89°18.9'	243°49.5'	S 10°34.0'	334°24.7'	6.7'	N 22°29.3'	2.9'	58.2'
5	104°21.4'	258°49.6'	S 10°34.9'	348°50.4'	6.7'	N 22°26.4'	3.0'	58.2'
6	119°23.8'	273°49.7'	S 10°35.8'	3°16.1'	6.7'	N 22°23.4'	3.1'	58.2'
7	134°26.3'	288°49.8'	S 10°36.7'	17°41.8'	6.7'	N 22°20.3'	3.3'	58.3'
8	149°28.7'	303°49.9'	S 10°37.6'	32°07.5'	6.7'	N 22°17.0'	3.4'	58.3'
9	164°31.2'	318°50.0'	S 10°38.5'	46°33.2'	6.7'	N 22°13.6'	3.6'	58.3'
10	179°33.7'	333°50.1'	S 10°39.4'	60°58.9'	6.7'	N 22°10.0'	3.7'	58.4'
11	194°36.1'	348°50.2'	S 10°40.3'	75°24.6'	6.7'	N 22°06.3'	3.8'	58.4'
12	209°38.6'	3°50.3'	S 10°41.2'	89°50.3'	6.7'	N 22°02.5'	4.0'	58.4'
13	224°41.1'	18°50.4'	S 10°42.1'	104°16.0'	6.7'	N 21°58.5'	4.1'	58.4'
14	239°43.5'	33°50.5'	S 10°42.9'	118°41.6'	6.7'	N 21°54.4'	4.3'	58.5'
15	254°46.0'	48°50.6'	S 10°43.8'	133°07.3'	6.7'	N 21°50.1'	4.4'	58.5'
16	269°48.5'	63°50.7'	S 10°44.7'	147°33.0'	6.7'	N 21°45.7'	4.5'	58.5'
17	284°50.9'	78°50.8'	S 10°45.6'	161°58.7'	6.7'	N 21°41.2'	4.7'	58.6'
18	299°53.4'	93°50.9'	S 10°46.5'	176°24.4'	6.7'	N 21°36.5'	4.8'	58.6'
19	314°55.9'	108°51.0'	S 10°47.4'	190°50.1'	6.7'	N 21°31.7'	5.0'	58.6'
20	329°58.3'	123°51.1'	S 10°48.3'	205°15.8'	6.7'	N 21°26.7'	5.1'	58.6'
21	345°00.8'	138°51.2'	S 10°49.2'	219°41.5'	6.7'	N 21°21.6'	5.2'	58.7'
22	0°03.2'	153°51.3'	S 10°50.1'	234°07.2'	6.7'	N 21°16.4'	5.4'	58.7'
23	15°05.7'	168°51.4'	S 10°50.9'	248°32.9'	6.7'	N 21°11.0'	5.5'	58.7'

Tue Oct 22, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	30°08.2'	183°51.5'	S 10°51.8'	262°58.6'	6.7'	N 21°05.5'	5.7'	58.8'
1	45°10.6'	198°51.6'	S 10°52.7'	277°24.3'	6.7'	N 20°59.8'	5.8'	58.8'
2	60°13.1'	213°51.7'	S 10°53.6'	291°50.1'	6.8'	N 20°54.0'	5.9'	58.8'
3	75°15.6'	228°51.8'	S 10°54.5'	306°15.8'	6.8'	N 20°48.1'	6.1'	58.8'
4	90°18.0'	243°51.9'	S 10°55.4'	320°41.6'	6.8'	N 20°42.0'	6.2'	58.9'
5	105°20.5'	258°52.0'	S 10°56.3'	335°07.4'	6.8'	N 20°35.8'	6.3'	58.9'
6	120°23.0'	273°52.1'	S 10°57.1'	349°33.2'	6.8'	N 20°29.5'	6.5'	58.9'
7	135°25.4'	288°52.2'	S 10°58.0'	3°59.0'	6.8'	N 20°23.0'	6.6'	59.0'
8	150°27.9'	303°52.3'	S 10°58.9'	18°24.8'	6.8'	N 20°16.4'	6.7'	59.0'
9	165°30.4'	318°52.4'	S 10°59.8'	32°50.7'	6.9'	N 20°09.7'	6.9'	59.0'
10	180°32.8'	333°52.5'	S 11°00.7'	47°16.5'	6.9'	N 20°02.8'	7.0'	59.0'
11	195°35.3'	348°52.6'	S 11°01.6'	61°42.4'	6.9'	N 19°55.8'	7.1'	59.1'
12	210°37.7'	3°52.7'	S 11°02.4'	76°08.3'	6.9'	N 19°48.7'	7.3'	59.1'
13	225°40.2'	18°52.8'	S 11°03.3'	90°34.2'	6.9'	N 19°41.4'	7.4'	59.1'
14	240°42.7'	33°52.9'	S 11°04.2'	105°00.2'	7.0'	N 19°34.0'	7.5'	59.1'
15	255°45.1'	48°53.0'	S 11°05.1'	119°26.1'	7.0'	N 19°26.5'	7.7'	59.2'
16	270°47.6'	63°53.1'	S 11°06.0'	133°52.1'	7.0'	N 19°18.9'	7.8'	59.2'
17	285°50.1'	78°53.2'	S 11°06.9'	148°18.1'	7.0'	N 19°11.1'	7.9'	59.2'
18	300°52.5'	93°53.3'	S 11°07.7'	162°44.1'	7.0'	N 19°03.2'	8.0'	59.3'
19	315°55.0'	108°53.3'	S 11°08.6'	177°10.2'	7.1'	N 18°55.1'	8.2'	59.3'
20	330°57.5'	123°53.4'	S 11°09.5'	191°36.3'	7.1'	N 18°47.0'	8.3'	59.3'
21	345°59.9'	138°53.5'	S 11°10.4'	206°02.4'	7.1'	N 18°38.7'	8.4'	59.3'
22	1°02.4'	153°53.6'	S 11°11.3'	220°28.5'	7.1'	N 18°30.3'	8.5'	59.4'
23	16°04.9'	168°53.7'	S 11°12.1'	234°54.6'	7.2'	N 18°21.7'	8.7'	59.4'

Wed Oct 23, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 16.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	31°07.3'	183°53.8'	S 11°13.0'	249°20.8'	7.2'	N 18°13.1'	8.8'	59.4'
1	46°09.8'	198°53.9'	S 11°13.9'	263°47.0'	7.2'	N 18°04.3'	8.9'	59.4'
2	61°12.2'	213°54.0'	S 11°14.8'	278°13.2'	7.3'	N 17°55.4'	9.0'	59.5'
3	76°14.7'	228°54.1'	S 11°15.7'	292°39.5'	7.3'	N 17°46.4'	9.1'	59.5'
4	91°17.2'	243°54.2'	S 11°16.5'	307°05.8'	7.3'	N 17°37.3'	9.3'	59.5'
5	106°19.6'	258°54.3'	S 11°17.4'	321°32.1'	7.3'	N 17°28.0'	9.4'	59.5'
6	121°22.1'	273°54.4'	S 11°18.3'	335°58.4'	7.4'	N 17°18.6'	9.5'	59.6'
7	136°24.6'	288°54.4'	S 11°19.2'	350°24.8'	7.4'	N 17°09.1'	9.6'	59.6'
8	151°27.0'	303°54.5'	S 11°20.1'	4°51.2'	7.4'	N 16°59.5'	9.7'	59.6'
9	166°29.5'	318°54.6'	S 11°20.9'	19°17.6'	7.5'	N 16°49.8'	9.8'	59.6'
10	181°32.0'	333°54.7'	S 11°21.8'	33°44.1'	7.5'	N 16°40.0'	9.9'	59.7'
11	196°34.4'	348°54.8'	S 11°22.7'	48°10.6'	7.5'	N 16°30.0'	10.1'	59.7'
12	211°36.9'	3°54.9'	S 11°23.6'	62°37.1'	7.5'	N 16°19.9'	10.2'	59.7'
13	226°39.3'	18°55.0'	S 11°24.4'	77°03.6'	7.6'	N 16°09.8'	10.3'	59.7'
14	241°41.8'	33°55.1'	S 11°25.3'	91°30.2'	7.6'	N 15°59.5'	10.4'	59.8'
15	256°44.3'	48°55.1'	S 11°26.2'	105°56.8'	7.6'	N 15°49.1'	10.5'	59.8'
16	271°46.7'	63°55.2'	S 11°27.1'	120°23.5'	7.7'	N 15°38.6'	10.6'	59.8'
17	286°49.2'	78°55.3'	S 11°27.9'	134°50.1'	7.7'	N 15°28.0'	10.7'	59.8'
18	301°51.7'	93°55.4'	S 11°28.8'	149°16.8'	7.7'	N 15°17.3'	10.8'	59.9'
19	316°54.1'	108°55.5'	S 11°29.7'	163°43.6'	7.8'	N 15°06.5'	10.9'	59.9'
20	331°56.6'	123°55.6'	S 11°30.6'	178°10.3'	7.8'	N 14°55.6'	11.0'	59.9'
21	346°59.1'	138°55.7'	S 11°31.4'	192°37.1'	7.8'	N 14°44.6'	11.1'	59.9'
22	2°01.5'	153°55.7'	S 11°32.3'	207°04.0'	7.9'	N 14°33.5'	11.2'	60.0'
23	17°04.0'	168°55.8'	S 11°33.2'	221°30.8'	7.9'	N 14°22.2'	11.3'	60.0'

Thu Oct 24, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	32°06.5'	183°55.9'	S 11°34.1'	235°57.7'	7.9'	N 14°10.9'	11.4'	60.0'
1	47°08.9'	198°56.0'	S 11°34.9'	250°24.6'	8.0'	N 13°59.5'	11.5'	60.0'
2	62°11.4'	213°56.1'	S 11°35.8'	264°51.6'	8.0'	N 13°48.0'	11.6'	60.0'
3	77°13.8'	228°56.2'	S 11°36.7'	279°18.6'	8.0'	N 13°36.4'	11.7'	60.1'
4	92°16.3'	243°56.2'	S 11°37.6'	293°45.6'	8.0'	N 13°24.7'	11.8'	60.1'
5	107°18.8'	258°56.3'	S 11°38.4'	308°12.6'	8.1'	N 13°12.9'	11.9'	60.1'
6	122°21.2'	273°56.4'	S 11°39.3'	322°39.7'	8.1'	N 13°01.1'	12.0'	60.1'
7	137°23.7'	288°56.5'	S 11°40.2'	337°06.8'	8.1'	N 12°49.1'	12.0'	60.1'
8	152°26.2'	303°56.6'	S 11°41.0'	351°33.9'	8.2'	N 12°37.1'	12.1'	60.2'
9	167°28.6'	318°56.7'	S 11°41.9'	6°01.1'	8.2'	N 12°24.9'	12.2'	60.2'
10	182°31.1'	333°56.7'	S 11°42.8'	20°28.3'	8.2'	N 12°12.7'	12.3'	60.2'
11	197°33.6'	348°56.8'	S 11°43.6'	34°55.5'	8.3'	N 12°00.4'	12.4'	60.2'
12	212°36.0'	3°56.9'	S 11°44.5'	49°22.8'	8.3'	N 11°48.0'	12.5'	60.2'
13	227°38.5'	18°57.0'	S 11°45.4'	63°50.1'	8.3'	N 11°35.5'	12.5'	60.3'
14	242°41.0'	33°57.1'	S 11°46.3'	78°17.4'	8.3'	N 11°23.0'	12.6'	60.3'
15	257°43.4'	48°57.1'	S 11°47.1'	92°44.7'	8.4'	N 11°10.4'	12.7'	60.3'
16	272°45.9'	63°57.2'	S 11°48.0'	107°12.1'	8.4'	N 10°57.7'	12.8'	60.3'
17	287°48.3'	78°57.3'	S 11°48.9'	121°39.5'	8.4'	N 10°44.9'	12.9'	60.3'
18	302°50.8'	93°57.4'	S 11°49.7'	136°06.9'	8.4'	N 10°32.0'	12.9'	60.3'
19	317°53.3'	108°57.5'	S 11°50.6'	150°34.3'	8.5'	N 10°19.1'	13.0'	60.4'
20	332°55.7'	123°57.5'	S 11°51.5'	165°01.8'	8.5'	N 10°06.1'	13.1'	60.4'
21	347°58.2'	138°57.6'	S 11°52.3'	179°29.3'	8.5'	N 9°53.0'	13.1'	60.4'
22	3°00.7'	153°57.7'	S 11°53.2'	193°56.8'	8.6'	N 9°39.9'	13.2'	60.4'
23	18°03.1'	168°57.8'	S 11°54.1'	208°24.4'	8.6'	N 9°26.7'	13.3'	60.4'

Fri Oct 25, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	33°05.6'	183°57.8'	S 11°54.9'	222°52.0'	8.6'	N 9°13.4'	13.3'	60.4'
1	48°08.1'	198°57.9'	S 11°55.8'	237°19.6'	8.6'	N 9°00.1'	13.4'	60.5'
2	63°10.5'	213°58.0'	S 11°56.7'	251°47.2'	8.7'	N 8°46.7'	13.5'	60.5'
3	78°13.0'	228°58.1'	S 11°57.5'	266°14.9'	8.7'	N 8°33.3'	13.5'	60.5'
4	93°15.4'	243°58.1'	S 11°58.4'	280°42.5'	8.7'	N 8°19.8'	13.6'	60.5'
5	108°17.9'	258°58.2'	S 11°59.2'	295°10.2'	8.7'	N 8°06.2'	13.6'	60.5'
6	123°20.4'	273°58.3'	S 12°00.1'	309°37.9'	8.7'	N 7°52.6'	13.7'	60.5'
7	138°22.8'	288°58.4'	S 12°01.0'	324°05.7'	8.8'	N 7°38.9'	13.7'	60.5'
8	153°25.3'	303°58.4'	S 12°01.8'	338°33.4'	8.8'	N 7°25.2'	13.8'	60.5'
9	168°27.8'	318°58.5'	S 12°02.7'	353°01.2'	8.8'	N 7°11.4'	13.8'	60.5'
10	183°30.2'	333°58.6'	S 12°03.6'	7°29.0'	8.8'	N 6°57.5'	13.9'	60.6'
11	198°32.7'	348°58.7'	S 12°04.4'	21°56.8'	8.8'	N 6°43.7'	13.9'	60.6'
12	213°35.2'	3°58.7'	S 12°05.3'	36°24.7'	8.9'	N 6°29.7'	14.0'	60.6'
13	228°37.6'	18°58.8'	S 12°06.1'	50°52.5'	8.9'	N 6°15.8'	14.0'	60.6'
14	243°40.1'	33°58.9'	S 12°07.0'	65°20.4'	8.9'	N 6°01.7'	14.1'	60.6'
15	258°42.6'	48°58.9'	S 12°07.9'	79°48.3'	8.9'	N 5°47.7'	14.1'	60.6'
16	273°45.0'	63°59.0'	S 12°08.7'	94°16.2'	8.9'	N 5°33.6'	14.1'	60.6'
17	288°47.5'	78°59.1'	S 12°09.6'	108°44.1'	8.9'	N 5°19.4'	14.2'	60.6'
18	303°49.9'	93°59.2'	S 12°10.5'	123°12.1'	9.0'	N 5°05.3'	14.2'	60.6'
19	318°52.4'	108°59.2'	S 12°11.3'	137°40.0'	9.0'	N 4°51.1'	14.2'	60.6'
20	333°54.9'	123°59.3'	S 12°12.2'	152°08.0'	9.0'	N 4°36.8'	14.3'	60.6'
21	348°57.3'	138°59.4'	S 12°13.0'	166°36.0'	9.0'	N 4°22.5'	14.3'	60.6'
22	3°59.8'	153°59.4'	S 12°13.9'	181°04.0'	9.0'	N 4°08.2'	14.3'	60.7'
23	19°02.3'	168°59.5'	S 12°14.7'	195°32.0'	9.0'	N 3°53.9'	14.4'	60.7'

Sat Oct 26, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.9' SD = 16.1'		SD = 16.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	34°04.7'	183°59.6'	S 12°15.6'	210°00.0'	9.0'	N 3°39.5'	14.4'	60.7'
1	49°07.2'	198°59.6'	S 12°16.5'	224°28.0'	9.0'	N 3°25.1'	14.4'	60.7'
2	64°09.7'	213°59.7'	S 12°17.3'	238°56.1'	9.0'	N 3°10.7'	14.4'	60.7'
3	79°12.1'	228°59.8'	S 12°18.2'	253°24.1'	9.1'	N 2°56.3'	14.5'	60.7'
4	94°14.6'	243°59.9'	S 12°19.0'	267°52.2'	9.1'	N 2°41.8'	14.5'	60.7'
5	109°17.0'	258°59.9'	S 12°19.9'	282°20.2'	9.1'	N 2°27.4'	14.5'	60.7'
6	124°19.5'	273°60.0'	S 12°20.7'	296°48.3'	9.1'	N 2°12.9'	14.5'	60.7'
7	139°22.0'	289°00.1'	S 12°21.6'	311°16.4'	9.1'	N 1°58.4'	14.5'	60.7'
8	154°24.4'	304°00.1'	S 12°22.5'	325°44.5'	9.1'	N 1°43.9'	14.5'	60.7'
9	169°26.9'	319°00.2'	S 12°23.3'	340°12.6'	9.1'	N 1°29.3'	14.5'	60.7'
10	184°29.4'	334°00.3'	S 12°24.2'	354°40.7'	9.1'	N 1°14.8'	14.6'	60.7'
11	199°31.8'	349°00.3'	S 12°25.0'	9°08.8'	9.1'	N 1°00.2'	14.6'	60.7'
12	214°34.3'	4°00.4'	S 12°25.9'	23°36.9'	9.1'	N 0°45.7'	14.6'	60.7'
13	229°36.8'	19°00.4'	S 12°26.7'	38°05.0'	9.1'	N 0°31.1'	14.6'	60.7'
14	244°39.2'	34°00.5'	S 12°27.6'	52°33.1'	9.1'	N 0°16.5'	14.6'	60.7'
15	259°41.7'	49°00.6'	S 12°28.4'	67°01.2'	9.1'	N 0°02.0'	14.6'	60.7'
16	274°44.2'	64°00.6'	S 12°29.3'	81°29.3'	9.1'	S 0°12.6'	14.6'	60.7'
17	289°46.6'	79°00.7'	S 12°30.1'	95°57.4'	9.1'	S 0°27.2'	14.6'	60.7'
18	304°49.1'	94°00.8'	S 12°31.0'	110°25.6'	9.1'	S 0°41.7'	14.6'	60.7'
19	319°51.5'	109°00.8'	S 12°31.8'	124°53.7'	9.1'	S 0°56.3'	14.6'	60.7'
20	334°54.0'	124°00.9'	S 12°32.7'	139°21.8'	9.1'	S 1°10.9'	14.5'	60.7'
21	349°56.5'	139°01.0'	S 12°33.5'	153°49.9'	9.1'	S 1°25.4'	14.5'	60.7'
22	4°58.9'	154°01.0'	S 12°34.4'	168°18.0'	9.1'	S 1°39.9'	14.5'	60.6'
23	20°01.4'	169°01.1'	S 12°35.3'	182°46.1'	9.1'	S 1°54.5'	14.5'	60.6'

Sun Oct 27, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	35°03.9'	184°01.1'	S 12°36.1'	197°14.2'	9.1'	S 2°09.0'	14.5'	60.6'
1	50°06.3'	199°01.2'	S 12°37.0'	211°42.3'	9.1'	S 2°23.5'	14.5'	60.6'
2	65°08.8'	214°01.3'	S 12°37.8'	226°10.4'	9.1'	S 2°37.9'	14.5'	60.6'
3	80°11.3'	229°01.3'	S 12°38.6'	240°38.5'	9.1'	S 2°52.4'	14.4'	60.6'
4	95°13.7'	244°01.4'	S 12°39.5'	255°06.5'	9.1'	S 3°06.8'	14.4'	60.6'
5	110°16.2'	259°01.4'	S 12°40.3'	269°34.6'	9.1'	S 3°21.3'	14.4'	60.6'
6	125°18.6'	274°01.5'	S 12°41.2'	284°02.7'	9.1'	S 3°35.7'	14.4'	60.6'
7	140°21.1'	289°01.6'	S 12°42.0'	298°30.7'	9.0'	S 3°50.0'	14.3'	60.6'
8	155°23.6'	304°01.6'	S 12°42.9'	312°58.8'	9.0'	S 4°04.4'	14.3'	60.6'
9	170°26.0'	319°01.7'	S 12°43.7'	327°26.8'	9.0'	S 4°18.7'	14.3'	60.6'
10	185°28.5'	334°01.7'	S 12°44.6'	341°54.8'	9.0'	S 4°33.0'	14.3'	60.5'
11	200°31.0'	349°01.8'	S 12°45.4'	356°22.8'	9.0'	S 4°47.2'	14.2'	60.5'
12	215°33.4'	4°01.9'	S 12°46.3'	10°50.8'	9.0'	S 5°01.5'	14.2'	60.5'
13	230°35.9'	19°01.9'	S 12°47.1'	25°18.8'	9.0'	S 5°15.6'	14.1'	60.5'
14	245°38.4'	34°02.0'	S 12°48.0'	39°46.8'	9.0'	S 5°29.8'	14.1'	60.5'
15	260°40.8'	49°02.0'	S 12°48.8'	54°14.7'	8.9'	S 5°43.9'	14.1'	60.5'
16	275°43.3'	64°02.1'	S 12°49.7'	68°42.7'	8.9'	S 5°58.0'	14.0'	60.5'
17	290°45.8'	79°02.1'	S 12°50.5'	83°10.6'	8.9'	S 6°12.0'	14.0'	60.5'
18	305°48.2'	94°02.2'	S 12°51.3'	97°38.5'	8.9'	S 6°26.0'	13.9'	60.4'
19	320°50.7'	109°02.2'	S 12°52.2'	112°06.4'	8.9'	S 6°39.9'	13.9'	60.4'
20	335°53.1'	124°02.3'	S 12°53.0'	126°34.3'	8.9'	S 6°53.8'	13.8'	60.4'
21	350°55.6'	139°02.4'	S 12°53.9'	141°02.2'	8.9'	S 7°07.7'	13.8'	60.4'
22	5°58.1'	154°02.4'	S 12°54.7'	155°30.1'	8.8'	S 7°21.5'	13.7'	60.4'
23	21°00.5'	169°02.5'	S 12°55.6'	169°57.9'	8.8'	S 7°35.2'	13.7'	60.4'

Mon Oct 28, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	36°03.0'	184°02.5'	S 12°56.4'	184°25.7'	8.8'	S 7°48.9'	13.6'	60.3'
1	51°05.5'	199°02.6'	S 12°57.2'	198°53.5'	8.8'	S 8°02.5'	13.6'	60.3'
2	66°07.9'	214°02.6'	S 12°58.1'	213°21.3'	8.8'	S 8°16.1'	13.5'	60.3'
3	81°10.4'	229°02.7'	S 12°58.9'	227°49.1'	8.7'	S 8°29.6'	13.5'	60.3'
4	96°12.9'	244°02.7'	S 12°59.8'	242°16.8'	8.7'	S 8°43.1'	13.4'	60.3'
5	111°15.3'	259°02.8'	S 13°00.6'	256°44.6'	8.7'	S 8°56.5'	13.3'	60.2'
6	126°17.8'	274°02.8'	S 13°01.4'	271°12.3'	8.7'	S 9°09.9'	13.3'	60.2'
7	141°20.3'	289°02.9'	S 13°02.3'	285°40.0'	8.7'	S 9°23.1'	13.2'	60.2'
8	156°22.7'	304°02.9'	S 13°03.1'	300°07.6'	8.6'	S 9°36.4'	13.1'	60.2'
9	171°25.2'	319°03.0'	S 13°04.0'	314°35.3'	8.6'	S 9°49.5'	13.1'	60.2'
10	186°27.6'	334°03.0'	S 13°04.8'	329°02.9'	8.6'	S 10°02.6'	13.0'	60.1'
11	201°30.1'	349°03.1'	S 13°05.6'	343°30.5'	8.6'	S 10°15.6'	12.9'	60.1'
12	216°32.6'	4°03.1'	S 13°06.5'	357°58.1'	8.6'	S 10°28.5'	12.9'	60.1'
13	231°35.0'	19°03.2'	S 13°07.3'	12°25.7'	8.5'	S 10°41.4'	12.8'	60.1'
14	246°37.5'	34°03.2'	S 13°08.2'	26°53.2'	8.5'	S 10°54.2'	12.7'	60.0'
15	261°40.0'	49°03.3'	S 13°09.0'	41°20.7'	8.5'	S 11°06.9'	12.6'	60.0'
16	276°42.4'	64°03.3'	S 13°09.8'	55°48.2'	8.5'	S 11°19.5'	12.6'	60.0'
17	291°44.9'	79°03.4'	S 13°10.7'	70°15.7'	8.5'	S 11°32.1'	12.5'	60.0'
18	306°47.4'	94°03.4'	S 13°11.5'	84°43.1'	8.4'	S 11°44.6'	12.4'	59.9'
19	321°49.8'	109°03.5'	S 13°12.3'	99°10.6'	8.4'	S 11°57.0'	12.3'	59.9'
20	336°52.3'	124°03.5'	S 13°13.2'	113°38.0'	8.4'	S 12°09.3'	12.2'	59.9'
21	351°54.7'	139°03.6'	S 13°14.0'	128°05.4'	8.4'	S 12°21.5'	12.1'	59.9'
22	6°57.2'	154°03.6'	S 13°14.8'	142°32.7'	8.3'	S 12°33.7'	12.1'	59.8'
23	21°59.7'	169°03.7'	S 13°15.7'	157°00.1'	8.3'	S 12°45.7'	12.0'	59.8'

Tue Oct 29, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	37°02.1'	184°03.7'	S 13°16.5'	171°27.4'	8.3'	S 12°57.7'	11.9'	59.8'
1	52°04.6'	199°03.7'	S 13°17.3'	185°54.7'	8.3'	S 13°09.6'	11.8'	59.8'
2	67°07.1'	214°03.8'	S 13°18.2'	200°21.9'	8.2'	S 13°21.4'	11.7'	59.7'
3	82°09.5'	229°03.8'	S 13°19.0'	214°49.2'	8.2'	S 13°33.1'	11.6'	59.7'
4	97°12.0'	244°03.9'	S 13°19.8'	229°16.4'	8.2'	S 13°44.7'	11.5'	59.7'
5	112°14.5'	259°03.9'	S 13°20.7'	243°43.6'	8.2'	S 13°56.2'	11.4'	59.6'
6	127°16.9'	274°04.0'	S 13°21.5'	258°10.8'	8.2'	S 14°07.6'	11.3'	59.6'
7	142°19.4'	289°04.0'	S 13°22.3'	272°37.9'	8.1'	S 14°18.9'	11.2'	59.6'
8	157°21.9'	304°04.1'	S 13°23.2'	287°05.1'	8.1'	S 14°30.1'	11.1'	59.6'
9	172°24.3'	319°04.1'	S 13°24.0'	301°32.2'	8.1'	S 14°41.2'	11.0'	59.5'
10	187°26.8'	334°04.1'	S 13°24.8'	315°59.2'	8.1'	S 14°52.3'	10.9'	59.5'
11	202°29.2'	349°04.2'	S 13°25.6'	330°26.3'	8.0'	S 15°03.2'	10.8'	59.5'
12	217°31.7'	4°04.2'	S 13°26.5'	344°53.3'	8.0'	S 15°14.0'	10.7'	59.4'
13	232°34.2'	19°04.3'	S 13°27.3'	359°20.4'	8.0'	S 15°24.7'	10.6'	59.4'
14	247°36.6'	34°04.3'	S 13°28.1'	13°47.4'	8.0'	S 15°35.3'	10.5'	59.4'
15	262°39.1'	49°04.3'	S 13°29.0'	28°14.3'	8.0'	S 15°45.8'	10.4'	59.3'
16	277°41.6'	64°04.4'	S 13°29.8'	42°41.3'	7.9'	S 15°56.2'	10.3'	59.3'
17	292°44.0'	79°04.4'	S 13°30.6'	57°08.2'	7.9'	S 16°06.5'	10.2'	59.3'
18	307°46.5'	94°04.5'	S 13°31.4'	71°35.1'	7.9'	S 16°16.7'	10.1'	59.2'
19	322°49.0'	109°04.5'	S 13°32.3'	86°02.0'	7.9'	S 16°26.8'	10.0'	59.2'
20	337°51.4'	124°04.5'	S 13°33.1'	100°28.9'	7.9'	S 16°36.7'	9.8'	59.2'
21	352°53.9'	139°04.6'	S 13°33.9'	114°55.7'	7.8'	S 16°46.6'	9.7'	59.1'
22	7°56.4'	154°04.6'	S 13°34.7'	129°22.6'	7.8'	S 16°56.3'	9.6'	59.1'
23	22°58.8'	169°04.7'	S 13°35.6'	143°49.4'	7.8'	S 17°05.9'	9.5'	59.1'

Wed Oct 30, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 16.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	38°01.3'	184°04.7'	S 13°36.4'	158°16.2'	7.8'	S 17°15.4'	9.4'	59.0'
1	53°03.7'	199°04.7'	S 13°37.2'	172°43.0'	7.8'	S 17°24.8'	9.3'	59.0'
2	68°06.2'	214°04.8'	S 13°38.0'	187°09.7'	7.7'	S 17°34.1'	9.2'	59.0'
3	83°08.7'	229°04.8'	S 13°38.9'	201°36.5'	7.7'	S 17°43.2'	9.0'	58.9'
4	98°11.1'	244°04.8'	S 13°39.7'	216°03.2'	7.7'	S 17°52.2'	8.9'	58.9'
5	113°13.6'	259°04.9'	S 13°40.5'	230°29.9'	7.7'	S 18°01.2'	8.8'	58.9'
6	128°16.1'	274°04.9'	S 13°41.3'	244°56.6'	7.7'	S 18°09.9'	8.7'	58.8'
7	143°18.5'	289°05.0'	S 13°42.2'	259°23.3'	7.7'	S 18°18.6'	8.6'	58.8'
8	158°21.0'	304°05.0'	S 13°43.0'	273°49.9'	7.7'	S 18°27.2'	8.4'	58.8'
9	173°23.5'	319°05.0'	S 13°43.8'	288°16.6'	7.6'	S 18°35.6'	8.3'	58.7'
10	188°25.9'	334°05.1'	S 13°44.6'	302°43.2'	7.6'	S 18°43.9'	8.2'	58.7'
11	203°28.4'	349°05.1'	S 13°45.4'	317°09.9'	7.6'	S 18°52.1'	8.1'	58.7'
12	218°30.8'	4°05.1'	S 13°46.3'	331°36.5'	7.6'	S 19°00.1'	7.9'	58.6'
13	233°33.3'	19°05.2'	S 13°47.1'	346°03.1'	7.6'	S 19°08.1'	7.8'	58.6'
14	248°35.8'	34°05.2'	S 13°47.9'	0°29.7'	7.6'	S 19°15.9'	7.7'	58.6'
15	263°38.2'	49°05.2'	S 13°48.7'	14°56.3'	7.6'	S 19°23.6'	7.6'	58.5'
16	278°40.7'	64°05.3'	S 13°49.5'	29°22.8'	7.6'	S 19°31.1'	7.4'	58.5'
17	293°43.2'	79°05.3'	S 13°50.4'	43°49.4'	7.6'	S 19°38.5'	7.3'	58.4'
18	308°45.6'	94°05.3'	S 13°51.2'	58°16.0'	7.6'	S 19°45.8'	7.2'	58.4'
19	323°48.1'	109°05.4'	S 13°52.0'	72°42.5'	7.5'	S 19°53.0'	7.0'	58.4'
20	338°50.6'	124°05.4'	S 13°52.8'	87°09.1'	7.5'	S 20°00.1'	6.9'	58.3'
21	353°53.0'	139°05.4'	S 13°53.6'	101°35.6'	7.5'	S 20°07.0'	6.8'	58.3'
22	8°55.5'	154°05.4'	S 13°54.4'	116°02.1'	7.5'	S 20°13.7'	6.7'	58.3'
23	23°58.0'	169°05.5'	S 13°55.3'	130°28.7'	7.5'	S 20°20.4'	6.5'	58.2'

Thu Oct 31, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.8' SD = 16.1'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	39°00.4'	184°05.5'	S 13°56.1'	144°55.2'	7.5'	S 20°26.9'	6.4'	58.2'
1	54°02.9'	199°05.5'	S 13°56.9'	159°21.7'	7.5'	S 20°33.3'	6.3'	58.1'
2	69°05.3'	214°05.6'	S 13°57.7'	173°48.3'	7.5'	S 20°39.6'	6.1'	58.1'
3	84°07.8'	229°05.6'	S 13°58.5'	188°14.8'	7.5'	S 20°45.7'	6.0'	58.1'
4	99°10.3'	244°05.6'	S 13°59.3'	202°41.3'	7.5'	S 20°51.7'	5.9'	58.0'
5	114°12.7'	259°05.6'	S 14°00.1'	217°07.9'	7.5'	S 20°57.5'	5.7'	58.0'
6	129°15.2'	274°05.7'	S 14°01.0'	231°34.4'	7.5'	S 21°03.3'	5.6'	58.0'
7	144°17.7'	289°05.7'	S 14°01.8'	246°00.9'	7.5'	S 21°08.9'	5.5'	57.9'
8	159°20.1'	304°05.7'	S 14°02.6'	260°27.5'	7.5'	S 21°14.3'	5.3'	57.9'
9	174°22.6'	319°05.8'	S 14°03.4'	274°54.0'	7.6'	S 21°19.6'	5.2'	57.8'
10	189°25.1'	334°05.8'	S 14°04.2'	289°20.6'	7.6'	S 21°24.8'	5.1'	57.8'
11	204°27.5'	349°05.8'	S 14°05.0'	303°47.2'	7.6'	S 21°29.9'	4.9'	57.8'
12	219°30.0'	4°05.8'	S 14°05.8'	318°13.7'	7.6'	S 21°34.8'	4.8'	57.7'
13	234°32.5'	19°05.9'	S 14°06.6'	332°40.3'	7.6'	S 21°39.6'	4.7'	57.7'
14	249°34.9'	34°05.9'	S 14°07.4'	347°06.9'	7.6'	S 21°44.2'	4.5'	57.7'
15	264°37.4'	49°05.9'	S 14°08.3'	1°33.5'	7.6'	S 21°48.8'	4.4'	57.6'
16	279°39.8'	64°05.9'	S 14°09.1'	16°00.1'	7.6'	S 21°53.2'	4.2'	57.6'
17	294°42.3'	79°06.0'	S 14°09.9'	30°26.7'	7.6'	S 21°57.4'	4.1'	57.5'
18	309°44.8'	94°06.0'	S 14°10.7'	44°53.4'	7.7'	S 22°01.5'	4.0'	57.5'
19	324°47.2'	109°06.0'	S 14°11.5'	59°20.0'	7.7'	S 22°05.5'	3.8'	57.5'
20	339°49.7'	124°06.0'	S 14°12.3'	73°46.7'	7.7'	S 22°09.3'	3.7'	57.4'
21	354°52.2'	139°06.1'	S 14°13.1'	88°13.4'	7.7'	S 22°13.0'	3.6'	57.4'
22	9°54.6'	154°06.1'	S 14°13.9'	102°40.1'	7.7'	S 22°16.6'	3.4'	57.4'
23	24°57.1'	169°06.1'	S 14°14.7'	117°06.9'	7.8'	S 22°20.1'	3.3'	57.3'