

Sat Jun 1, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.8'		SD = 15.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	249°11.3'	180°34.0'	N 21°58.9'	209°45.7'	12.5'	N 10°21.4'	11.0'	56.5'
1	264°13.8'	195°33.9'	N 21°59.2'	224°17.2'	12.5'	N 10°32.4'	10.9'	56.5'
2	279°16.3'	210°33.8'	N 21°59.6'	238°48.7'	12.4'	N 10°43.4'	10.9'	56.6'
3	294°18.7'	225°33.7'	N 21°59.9'	253°20.1'	12.3'	N 10°54.3'	10.9'	56.6'
4	309°21.2'	240°33.6'	N 22°00.3'	267°51.4'	12.3'	N 11°05.1'	10.8'	56.6'
5	324°23.7'	255°33.5'	N 22°00.6'	282°22.7'	12.2'	N 11°16.0'	10.8'	56.6'
6	339°26.1'	270°33.4'	N 22°01.0'	296°53.9'	12.1'	N 11°26.7'	10.7'	56.7'
7	354°28.6'	285°33.3'	N 22°01.3'	311°25.0'	12.0'	N 11°37.5'	10.7'	56.7'
8	9°31.0'	300°33.2'	N 22°01.7'	325°56.0'	12.0'	N 11°48.2'	10.6'	56.7'
9	24°33.5'	315°33.1'	N 22°02.0'	340°27.0'	11.9'	N 11°58.8'	10.6'	56.8'
10	39°36.0'	330°33.0'	N 22°02.3'	354°57.9'	11.8'	N 12°09.4'	10.5'	56.8'
11	54°38.4'	345°32.9'	N 22°02.7'	9°28.7'	11.7'	N 12°20.0'	10.5'	56.8'
12	69°40.9'	0°32.8'	N 22°03.0'	23°59.4'	11.7'	N 12°30.5'	10.4'	56.8'
13	84°43.4'	15°32.7'	N 22°03.4'	38°30.1'	11.6'	N 12°40.9'	10.4'	56.9'
14	99°45.8'	30°32.7'	N 22°03.7'	53°00.7'	11.5'	N 12°51.3'	10.3'	56.9'
15	114°48.3'	45°32.6'	N 22°04.0'	67°31.2'	11.4'	N 13°01.6'	10.3'	56.9'
16	129°50.8'	60°32.5'	N 22°04.4'	82°01.6'	11.3'	N 13°11.9'	10.2'	57.0'
17	144°53.2'	75°32.4'	N 22°04.7'	96°31.9'	11.3'	N 13°22.2'	10.2'	57.0'
18	159°55.7'	90°32.3'	N 22°05.0'	111°02.2'	11.2'	N 13°32.4'	10.1'	57.0'
19	174°58.2'	105°32.2'	N 22°05.4'	125°32.4'	11.1'	N 13°42.5'	10.1'	57.0'
20	190°00.6'	120°32.1'	N 22°05.7'	140°02.5'	11.0'	N 13°52.5'	10.0'	57.1'
21	205°03.1'	135°32.0'	N 22°06.0'	154°32.5'	10.9'	N 14°02.5'	9.9'	57.1'
22	220°05.5'	150°31.9'	N 22°06.4'	169°02.5'	10.9'	N 14°12.5'	9.9'	57.1'
23	235°08.0'	165°31.8'	N 22°06.7'	183°32.3'	10.8'	N 14°22.4'	9.8'	57.2'

Sun Jun 2, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.8'		SD = 15.7'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	250°10.5'	180°31.7'	N 22°07.0'	198°02.1'	10.7'	N 14°32.2'	9.7'	57.2'
1	265°12.9'	195°31.6'	N 22°07.4'	212°31.8'	10.6'	N 14°41.9'	9.7'	57.2'
2	280°15.4'	210°31.5'	N 22°07.7'	227°01.4'	10.5'	N 14°51.6'	9.6'	57.2'
3	295°17.9'	225°31.4'	N 22°08.0'	241°31.0'	10.5'	N 15°01.2'	9.5'	57.3'
4	310°20.3'	240°31.3'	N 22°08.4'	256°00.4'	10.4'	N 15°10.8'	9.5'	57.3'
5	325°22.8'	255°31.2'	N 22°08.7'	270°29.8'	10.3'	N 15°20.2'	9.4'	57.3'
6	340°25.3'	270°31.1'	N 22°09.0'	284°59.1'	10.2'	N 15°29.6'	9.3'	57.4'
7	355°27.7'	285°31.0'	N 22°09.4'	299°28.3'	10.1'	N 15°39.0'	9.3'	57.4'
8	10°30.2'	300°30.9'	N 22°09.7'	313°57.4'	10.0'	N 15°48.2'	9.2'	57.4'
9	25°32.6'	315°30.8'	N 22°10.0'	328°26.4'	9.9'	N 15°57.4'	9.1'	57.4'
10	40°35.1'	330°30.7'	N 22°10.3'	342°55.4'	9.9'	N 16°06.5'	9.0'	57.5'
11	55°37.6'	345°30.6'	N 22°10.7'	357°24.2'	9.8'	N 16°15.5'	8.9'	57.5'
12	70°40.0'	0°30.5'	N 22°11.0'	11°53.0'	9.7'	N 16°24.5'	8.9'	57.5'
13	85°42.5'	15°30.4'	N 22°11.3'	26°21.7'	9.6'	N 16°33.3'	8.8'	57.6'
14	100°45.0'	30°30.3'	N 22°11.6'	40°50.3'	9.5'	N 16°42.1'	8.7'	57.6'
15	115°47.4'	45°30.2'	N 22°11.9'	55°18.8'	9.4'	N 16°50.8'	8.6'	57.6'
16	130°49.9'	60°30.1'	N 22°12.3'	69°47.3'	9.4'	N 16°59.4'	8.5'	57.6'
17	145°52.4'	75°30.0'	N 22°12.6'	84°15.6'	9.3'	N 17°08.0'	8.4'	57.7'
18	160°54.8'	90°29.9'	N 22°12.9'	98°43.9'	9.2'	N 17°16.4'	8.4'	57.7'
19	175°57.3'	105°29.8'	N 22°13.2'	113°12.0'	9.1'	N 17°24.8'	8.3'	57.7'
20	190°59.8'	120°29.7'	N 22°13.5'	127°40.1'	9.0'	N 17°33.0'	8.2'	57.7'
21	206°02.2'	135°29.6'	N 22°13.9'	142°08.2'	8.9'	N 17°41.2'	8.1'	57.8'
22	221°04.7'	150°29.5'	N 22°14.2'	156°36.1'	8.8'	N 17°49.3'	8.0'	57.8'
23	236°07.1'	165°29.4'	N 22°14.5'	171°03.9'	8.8'	N 17°57.3'	7.9'	57.8'

Mon Jun 3, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.8'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	251°09.6'	180°29.3'	N 22°14.8'	185°31.7'	8.7'	N 18°05.2'	7.8'	57.9'
1	266°12.1'	195°29.2'	N 22°15.1'	199°59.3'	8.6'	N 18°13.0'	7.7'	57.9'
2	281°14.5'	210°29.1'	N 22°15.4'	214°26.9'	8.5'	N 18°20.7'	7.6'	57.9'
3	296°17.0'	225°29.0'	N 22°15.8'	228°54.4'	8.4'	N 18°28.3'	7.5'	57.9'
4	311°19.5'	240°28.9'	N 22°16.1'	243°21.9'	8.3'	N 18°35.8'	7.4'	58.0'
5	326°21.9'	255°28.8'	N 22°16.4'	257°49.2'	8.3'	N 18°43.2'	7.3'	58.0'
6	341°24.4'	270°28.7'	N 22°16.7'	272°16.5'	8.2'	N 18°50.5'	7.2'	58.0'
7	356°26.9'	285°28.6'	N 22°17.0'	286°43.6'	8.1'	N 18°57.7'	7.1'	58.0'
8	11°29.3'	300°28.5'	N 22°17.3'	301°10.7'	8.0'	N 19°04.8'	7.0'	58.1'
9	26°31.8'	315°28.4'	N 22°17.6'	315°37.7'	7.9'	N 19°11.8'	6.9'	58.1'
10	41°34.3'	330°28.2'	N 22°17.9'	330°04.7'	7.9'	N 19°18.6'	6.8'	58.1'
11	56°36.7'	345°28.1'	N 22°18.2'	344°31.5'	7.8'	N 19°25.4'	6.7'	58.1'
12	71°39.2'	0°28.0'	N 22°18.5'	358°58.3'	7.7'	N 19°32.1'	6.5'	58.2'
13	86°41.6'	15°27.9'	N 22°18.9'	13°25.0'	7.6'	N 19°38.6'	6.4'	58.2'
14	101°44.1'	30°27.8'	N 22°19.2'	27°51.6'	7.5'	N 19°45.0'	6.3'	58.2'
15	116°46.6'	45°27.7'	N 22°19.5'	42°18.1'	7.5'	N 19°51.4'	6.2'	58.2'
16	131°49.0'	60°27.6'	N 22°19.8'	56°44.6'	7.4'	N 19°57.6'	6.1'	58.3'
17	146°51.5'	75°27.5'	N 22°20.1'	71°11.0'	7.3'	N 20°03.7'	6.0'	58.3'
18	161°54.0'	90°27.4'	N 22°20.4'	85°37.3'	7.2'	N 20°09.6'	5.9'	58.3'
19	176°56.4'	105°27.3'	N 22°20.7'	100°03.5'	7.2'	N 20°15.5'	5.7'	58.3'
20	191°58.9'	120°27.2'	N 22°21.0'	114°29.7'	7.1'	N 20°21.2'	5.6'	58.3'
21	207°01.4'	135°27.1'	N 22°21.3'	128°55.8'	7.0'	N 20°26.8'	5.5'	58.4'
22	222°03.8'	150°27.0'	N 22°21.6'	143°21.8'	6.9'	N 20°32.3'	5.4'	58.4'
23	237°06.3'	165°26.9'	N 22°21.9'	157°47.7'	6.9'	N 20°37.7'	5.2'	58.4'

Tue Jun 4, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.8'		SD = 16.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	252°08.8'	180°26.8'	N 22°22.2'	172°13.6'	6.8'	N 20°42.9'	5.1'	58.4'
1	267°11.2'	195°26.7'	N 22°22.5'	186°39.4'	6.7'	N 20°48.1'	5.0'	58.5'
2	282°13.7'	210°26.6'	N 22°22.8'	201°05.1'	6.7'	N 20°53.1'	4.9'	58.5'
3	297°16.1'	225°26.5'	N 22°23.1'	215°30.8'	6.6'	N 20°57.9'	4.7'	58.5'
4	312°18.6'	240°26.4'	N 22°23.4'	229°56.4'	6.5'	N 21°02.7'	4.6'	58.5'
5	327°21.1'	255°26.3'	N 22°23.7'	244°21.9'	6.5'	N 21°07.3'	4.5'	58.5'
6	342°23.5'	270°26.1'	N 22°24.0'	258°47.4'	6.4'	N 21°11.8'	4.4'	58.6'
7	357°26.0'	285°26.0'	N 22°24.3'	273°12.8'	6.3'	N 21°16.1'	4.2'	58.6'
8	12°28.5'	300°25.9'	N 22°24.6'	287°38.1'	6.3'	N 21°20.3'	4.1'	58.6'
9	27°30.9'	315°25.8'	N 22°24.9'	302°03.4'	6.2'	N 21°24.4'	4.0'	58.6'
10	42°33.4'	330°25.7'	N 22°25.1'	316°28.6'	6.2'	N 21°28.4'	3.8'	58.7'
11	57°35.9'	345°25.6'	N 22°25.4'	330°53.8'	6.1'	N 21°32.2'	3.7'	58.7'
12	72°38.3'	0°25.5'	N 22°25.7'	345°18.9'	6.1'	N 21°35.9'	3.5'	58.7'
13	87°40.8'	15°25.4'	N 22°26.0'	359°44.0'	6.0'	N 21°39.4'	3.4'	58.7'
14	102°43.3'	30°25.3'	N 22°26.3'	14°09.0'	5.9'	N 21°42.8'	3.3'	58.7'
15	117°45.7'	45°25.2'	N 22°26.6'	28°33.9'	5.9'	N 21°46.1'	3.1'	58.8'
16	132°48.2'	60°25.1'	N 22°26.9'	42°58.8'	5.8'	N 21°49.2'	3.0'	58.8'
17	147°50.6'	75°25.0'	N 22°27.2'	57°23.7'	5.8'	N 21°52.2'	2.8'	58.8'
18	162°53.1'	90°24.9'	N 22°27.5'	71°48.5'	5.8'	N 21°55.1'	2.7'	58.8'
19	177°55.6'	105°24.7'	N 22°27.7'	86°13.2'	5.7'	N 21°57.8'	2.6'	58.8'
20	192°58.0'	120°24.6'	N 22°28.0'	100°37.9'	5.7'	N 22°00.3'	2.4'	58.8'
21	208°00.5'	135°24.5'	N 22°28.3'	115°02.6'	5.6'	N 22°02.8'	2.3'	58.9'
22	223°03.0'	150°24.4'	N 22°28.6'	129°27.2'	5.6'	N 22°05.0'	2.1'	58.9'
23	238°05.4'	165°24.3'	N 22°28.9'	143°51.8'	5.5'	N 22°07.2'	2.0'	58.9'

Wed Jun 5, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.8'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	253°07.9'	180°24.2'	N 22°29.2'	158°16.3'	5.5'	N 22°09.2'	1.8'	58.9'
1	268°10.4'	195°24.1'	N 22°29.5'	172°40.8'	5.5'	N 22°11.0'	1.7'	58.9'
2	283°12.8'	210°24.0'	N 22°29.7'	187°05.3'	5.4'	N 22°12.7'	1.6'	58.9'
3	298°15.3'	225°23.9'	N 22°30.0'	201°29.7'	5.4'	N 22°14.3'	1.4'	59.0'
4	313°17.7'	240°23.8'	N 22°30.3'	215°54.1'	5.4'	N 22°15.7'	1.3'	59.0'
5	328°20.2'	255°23.6'	N 22°30.6'	230°18.5'	5.3'	N 22°16.9'	1.1'	59.0'
6	343°22.7'	270°23.5'	N 22°30.9'	244°42.8'	5.3'	N 22°18.1'	1.0'	59.0'
7	358°25.1'	285°23.4'	N 22°31.1'	259°07.1'	5.3'	N 22°19.0'	0.8'	59.0'
8	13°27.6'	300°23.3'	N 22°31.4'	273°31.4'	5.3'	N 22°19.8'	0.7'	59.0'
9	28°30.1'	315°23.2'	N 22°31.7'	287°55.7'	5.2'	N 22°20.5'	0.5'	59.1'
10	43°32.5'	330°23.1'	N 22°32.0'	302°19.9'	5.2'	N 22°21.0'	0.4'	59.1'
11	58°35.0'	345°23.0'	N 22°32.2'	316°44.1'	5.2'	N 22°21.4'	0.2'	59.1'
12	73°37.5'	0°22.9'	N 22°32.5'	331°08.3'	5.2'	N 22°21.6'	0.1'	59.1'
13	88°39.9'	15°22.8'	N 22°32.8'	345°32.5'	5.2'	N 22°21.7'	0.1'	59.1'
14	103°42.4'	30°22.7'	N 22°33.1'	359°56.6'	5.1'	N 22°21.6'	0.2'	59.1'
15	118°44.9'	45°22.5'	N 22°33.3'	14°20.8'	5.1'	N 22°21.4'	0.4'	59.1'
16	133°47.3'	60°22.4'	N 22°33.6'	28°44.9'	5.1'	N 22°21.0'	0.5'	59.2'
17	148°49.8'	75°22.3'	N 22°33.9'	43°09.0'	5.1'	N 22°20.5'	0.7'	59.2'
18	163°52.2'	90°22.2'	N 22°34.2'	57°33.2'	5.1'	N 22°19.8'	0.8'	59.2'
19	178°54.7'	105°22.1'	N 22°34.4'	71°57.3'	5.1'	N 22°19.0'	1.0'	59.2'
20	193°57.2'	120°22.0'	N 22°34.7'	86°21.4'	5.1'	N 22°18.0'	1.1'	59.2'
21	208°59.6'	135°21.9'	N 22°35.0'	100°45.5'	5.1'	N 22°16.9'	1.3'	59.2'
22	224°02.1'	150°21.8'	N 22°35.2'	115°09.6'	5.1'	N 22°15.6'	1.4'	59.2'
23	239°04.6'	165°21.6'	N 22°35.5'	129°33.7'	5.1'	N 22°14.2'	1.6'	59.2'

Thu Jun 6, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.3' SD = 15.8'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	254°07.0'	180°21.5'	N 22°35.8'	143°57.7'	5.1'	N 22°12.6'	1.7'	59.3'
1	269°09.5'	195°21.4'	N 22°36.0'	158°21.8'	5.1'	N 22°10.9'	1.9'	59.3'
2	284°12.0'	210°21.3'	N 22°36.3'	172°46.0'	5.1'	N 22°09.0'	2.0'	59.3'
3	299°14.4'	225°21.2'	N 22°36.6'	187°10.1'	5.1'	N 22°07.0'	2.2'	59.3'
4	314°16.9'	240°21.1'	N 22°36.8'	201°34.2'	5.1'	N 22°04.8'	2.3'	59.3'
5	329°19.4'	255°21.0'	N 22°37.1'	215°58.3'	5.1'	N 22°02.4'	2.5'	59.3'
6	344°21.8'	270°20.9'	N 22°37.3'	230°22.4'	5.2'	N 21°60.0'	2.6'	59.3'
7	359°24.3'	285°20.7'	N 22°37.6'	244°46.6'	5.2'	N 21°57.3'	2.8'	59.3'
8	14°26.7'	300°20.6'	N 22°37.9'	259°10.8'	5.2'	N 21°54.6'	2.9'	59.3'
9	29°29.2'	315°20.5'	N 22°38.1'	273°34.9'	5.2'	N 21°51.6'	3.1'	59.3'
10	44°31.7'	330°20.4'	N 22°38.4'	287°59.1'	5.2'	N 21°48.6'	3.2'	59.4'
11	59°34.1'	345°20.3'	N 22°38.7'	302°23.4'	5.2'	N 21°45.4'	3.4'	59.4'
12	74°36.6'	0°20.2'	N 22°38.9'	316°47.6'	5.3'	N 21°42.0'	3.5'	59.4'
13	89°39.1'	15°20.1'	N 22°39.2'	331°11.9'	5.3'	N 21°38.5'	3.7'	59.4'
14	104°41.5'	30°19.9'	N 22°39.4'	345°36.2'	5.3'	N 21°34.8'	3.8'	59.4'
15	119°44.0'	45°19.8'	N 22°39.7'	0°00.5'	5.3'	N 21°31.0'	3.9'	59.4'
16	134°46.5'	60°19.7'	N 22°39.9'	14°24.8'	5.4'	N 21°27.1'	4.1'	59.4'
17	149°48.9'	75°19.6'	N 22°40.2'	28°49.2'	5.4'	N 21°23.0'	4.2'	59.4'
18	164°51.4'	90°19.5'	N 22°40.4'	43°13.6'	5.4'	N 21°18.7'	4.4'	59.4'
19	179°53.9'	105°19.4'	N 22°40.7'	57°38.0'	5.5'	N 21°14.4'	4.5'	59.4'
20	194°56.3'	120°19.3'	N 22°41.0'	72°02.5'	5.5'	N 21°09.8'	4.7'	59.4'
21	209°58.8'	135°19.1'	N 22°41.2'	86°27.0'	5.5'	N 21°05.2'	4.8'	59.4'
22	225°01.2'	150°19.0'	N 22°41.5'	100°51.5'	5.6'	N 21°00.4'	4.9'	59.4'
23	240°03.7'	165°18.9'	N 22°41.7'	115°16.1'	5.6'	N 20°55.4'	5.1'	59.4'

Fri Jun 7, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.8'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	255°06.2'	180°18.8'	N 22°42.0'	129°40.7'	5.6'	N 20°50.3'	5.2'	59.4'
1	270°08.6'	195°18.7'	N 22°42.2'	144°05.3'	5.7'	N 20°45.1'	5.4'	59.5'
2	285°11.1'	210°18.6'	N 22°42.5'	158°30.0'	5.7'	N 20°39.8'	5.5'	59.5'
3	300°13.6'	225°18.4'	N 22°42.7'	172°54.7'	5.8'	N 20°34.3'	5.6'	59.5'
4	315°16.0'	240°18.3'	N 22°43.0'	187°19.5'	5.8'	N 20°28.6'	5.8'	59.5'
5	330°18.5'	255°18.2'	N 22°43.2'	201°44.3'	5.9'	N 20°22.8'	5.9'	59.5'
6	345°21.0'	270°18.1'	N 22°43.4'	216°09.1'	5.9'	N 20°16.9'	6.0'	59.5'
7	0°23.4'	285°18.0'	N 22°43.7'	230°34.1'	6.0'	N 20°10.9'	6.2'	59.5'
8	15°25.9'	300°17.9'	N 22°43.9'	244°59.0'	6.0'	N 20°04.7'	6.3'	59.5'
9	30°28.4'	315°17.7'	N 22°44.2'	259°24.0'	6.0'	N 19°58.4'	6.4'	59.5'
10	45°30.8'	330°17.6'	N 22°44.4'	273°49.0'	6.1'	N 19°52.0'	6.6'	59.5'
11	60°33.3'	345°17.5'	N 22°44.7'	288°14.1'	6.1'	N 19°45.4'	6.7'	59.5'
12	75°35.7'	0°17.4'	N 22°44.9'	302°39.3'	6.2'	N 19°38.7'	6.8'	59.5'
13	90°38.2'	15°17.3'	N 22°45.1'	317°04.5'	6.3'	N 19°31.9'	6.9'	59.5'
14	105°40.7'	30°17.2'	N 22°45.4'	331°29.7'	6.3'	N 19°25.0'	7.1'	59.5'
15	120°43.1'	45°17.0'	N 22°45.6'	345°55.1'	6.4'	N 19°17.9'	7.2'	59.5'
16	135°45.6'	60°16.9'	N 22°45.9'	0°20.4'	6.4'	N 19°10.7'	7.3'	59.5'
17	150°48.1'	75°16.8'	N 22°46.1'	14°45.8'	6.5'	N 19°03.4'	7.4'	59.5'
18	165°50.5'	90°16.7'	N 22°46.3'	29°11.3'	6.5'	N 18°55.9'	7.6'	59.5'
19	180°53.0'	105°16.6'	N 22°46.6'	43°36.8'	6.6'	N 18°48.3'	7.7'	59.5'
20	195°55.5'	120°16.5'	N 22°46.8'	58°02.4'	6.6'	N 18°40.7'	7.8'	59.5'
21	210°57.9'	135°16.3'	N 22°47.1'	72°28.0'	6.7'	N 18°32.8'	7.9'	59.5'
22	226°00.4'	150°16.2'	N 22°47.3'	86°53.7'	6.8'	N 18°24.9'	8.0'	59.5'
23	241°02.9'	165°16.1'	N 22°47.5'	101°19.5'	6.8'	N 18°16.9'	8.2'	59.5'

Sat Jun 8, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.8'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	256°05.3'	180°16.0'	N 22°47.8'	115°45.3'	6.9'	N 18°08.7'	8.3'	59.5'
1	271°07.8'	195°15.9'	N 22°48.0'	130°11.2'	6.9'	N 18°00.4'	8.4'	59.5'
2	286°10.2'	210°15.7'	N 22°48.2'	144°37.1'	7.0'	N 17°52.0'	8.5'	59.5'
3	301°12.7'	225°15.6'	N 22°48.5'	159°03.1'	7.1'	N 17°43.5'	8.6'	59.5'
4	316°15.2'	240°15.5'	N 22°48.7'	173°29.2'	7.1'	N 17°34.9'	8.7'	59.5'
5	331°17.6'	255°15.4'	N 22°48.9'	187°55.3'	7.2'	N 17°26.2'	8.8'	59.5'
6	346°20.1'	270°15.3'	N 22°49.1'	202°21.5'	7.2'	N 17°17.4'	8.9'	59.5'
7	1°22.6'	285°15.1'	N 22°49.4'	216°47.7'	7.3'	N 17°08.4'	9.0'	59.5'
8	16°25.0'	300°15.0'	N 22°49.6'	231°14.1'	7.4'	N 16°59.4'	9.1'	59.5'
9	31°27.5'	315°14.9'	N 22°49.8'	245°40.4'	7.4'	N 16°50.3'	9.3'	59.5'
10	46°30.0'	330°14.8'	N 22°50.1'	260°06.9'	7.5'	N 16°41.0'	9.4'	59.5'
11	61°32.4'	345°14.7'	N 22°50.3'	274°33.4'	7.6'	N 16°31.6'	9.5'	59.5'
12	76°34.9'	0°14.5'	N 22°50.5'	288°59.9'	7.6'	N 16°22.2'	9.6'	59.5'
13	91°37.3'	15°14.4'	N 22°50.7'	303°26.5'	7.7'	N 16°12.6'	9.7'	59.5'
14	106°39.8'	30°14.3'	N 22°51.0'	317°53.2'	7.7'	N 16°03.0'	9.8'	59.5'
15	121°42.3'	45°14.2'	N 22°51.2'	332°20.0'	7.8'	N 15°53.2'	9.8'	59.5'
16	136°44.7'	60°14.1'	N 22°51.4'	346°46.8'	7.9'	N 15°43.4'	9.9'	59.5'
17	151°47.2'	75°13.9'	N 22°51.6'	1°13.6'	7.9'	N 15°33.4'	10.0'	59.5'
18	166°49.7'	90°13.8'	N 22°51.8'	15°40.6'	8.0'	N 15°23.4'	10.1'	59.5'
19	181°52.1'	105°13.7'	N 22°52.1'	30°07.6'	8.1'	N 15°13.3'	10.2'	59.5'
20	196°54.6'	120°13.6'	N 22°52.3'	44°34.7'	8.1'	N 15°03.1'	10.3'	59.5'
21	211°57.1'	135°13.5'	N 22°52.5'	59°01.8'	8.2'	N 14°52.7'	10.4'	59.4'
22	226°59.5'	150°13.3'	N 22°52.7'	73°29.0'	8.3'	N 14°42.4'	10.5'	59.4'
23	242°02.0'	165°13.2'	N 22°52.9'	87°56.2'	8.3'	N 14°31.9'	10.6'	59.4'

Sun Jun 9, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.8'		SD = 16.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	257°04.5'	180°13.1'	N 22°53.2'	102°23.5'	8.4'	N 14°21.3'	10.7'	59.4'
1	272°06.9'	195°13.0'	N 22°53.4'	116°50.9'	8.4'	N 14°10.7'	10.7'	59.4'
2	287°09.4'	210°12.9'	N 22°53.6'	131°18.4'	8.5'	N 13°59.9'	10.8'	59.4'
3	302°11.8'	225°12.7'	N 22°53.8'	145°45.9'	8.6'	N 13°49.1'	10.9'	59.4'
4	317°14.3'	240°12.6'	N 22°54.0'	160°13.4'	8.6'	N 13°38.2'	11.0'	59.4'
5	332°16.8'	255°12.5'	N 22°54.2'	174°41.1'	8.7'	N 13°27.2'	11.1'	59.4'
6	347°19.2'	270°12.4'	N 22°54.4'	189°08.7'	8.7'	N 13°16.2'	11.1'	59.4'
7	2°21.7'	285°12.3'	N 22°54.6'	203°36.5'	8.8'	N 13°05.1'	11.2'	59.4'
8	17°24.2'	300°12.1'	N 22°54.9'	218°04.3'	8.9'	N 12°53.8'	11.3'	59.4'
9	32°26.6'	315°12.0'	N 22°55.1'	232°32.2'	8.9'	N 12°42.6'	11.3'	59.4'
10	47°29.1'	330°11.9'	N 22°55.3'	247°00.1'	9.0'	N 12°31.2'	11.4'	59.4'
11	62°31.6'	345°11.8'	N 22°55.5'	261°28.1'	9.0'	N 12°19.8'	11.5'	59.4'
12	77°34.0'	0°11.6'	N 22°55.7'	275°56.1'	9.1'	N 12°08.3'	11.6'	59.4'
13	92°36.5'	15°11.5'	N 22°55.9'	290°24.2'	9.2'	N 11°56.8'	11.6'	59.4'
14	107°39.0'	30°11.4'	N 22°56.1'	304°52.4'	9.2'	N 11°45.1'	11.7'	59.4'
15	122°41.4'	45°11.3'	N 22°56.3'	319°20.6'	9.3'	N 11°33.5'	11.7'	59.3'
16	137°43.9'	60°11.2'	N 22°56.5'	333°48.9'	9.3'	N 11°21.7'	11.8'	59.3'
17	152°46.3'	75°11.0'	N 22°56.7'	348°17.2'	9.4'	N 11°09.9'	11.9'	59.3'
18	167°48.8'	90°10.9'	N 22°56.9'	2°45.6'	9.4'	N 10°58.0'	11.9'	59.3'
19	182°51.3'	105°10.8'	N 22°57.1'	17°14.0'	9.5'	N 10°46.1'	12.0'	59.3'
20	197°53.7'	120°10.7'	N 22°57.3'	31°42.5'	9.5'	N 10°34.1'	12.0'	59.3'
21	212°56.2'	135°10.5'	N 22°57.5'	46°11.1'	9.6'	N 10°22.1'	12.1'	59.3'
22	227°58.7'	150°10.4'	N 22°57.7'	60°39.7'	9.7'	N 10°09.9'	12.2'	59.3'
23	243°01.1'	165°10.3'	N 22°57.9'	75°08.3'	9.7'	N 9°57.8'	12.2'	59.3'

Mon Jun 10, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.8'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	258°03.6'	180°10.2'	N 22°58.1'	89°37.0'	9.8'	N 9°45.6'	12.3'	59.3'
1	273°06.1'	195°10.0'	N 22°58.3'	104°05.8'	9.8'	N 9°33.3'	12.3'	59.3'
2	288°08.5'	210°09.9'	N 22°58.5'	118°34.6'	9.9'	N 9°21.0'	12.4'	59.3'
3	303°11.0'	225°09.8'	N 22°58.7'	133°03.5'	9.9'	N 9°08.6'	12.4'	59.2'
4	318°13.4'	240°09.7'	N 22°58.9'	147°32.4'	10.0'	N 8°56.2'	12.5'	59.2'
5	333°15.9'	255°09.6'	N 22°59.1'	162°01.3'	10.0'	N 8°43.8'	12.5'	59.2'
6	348°18.4'	270°09.4'	N 22°59.3'	176°30.3'	10.0'	N 8°31.3'	12.5'	59.2'
7	3°20.8'	285°09.3'	N 22°59.5'	190°59.4'	10.1'	N 8°18.7'	12.6'	59.2'
8	18°23.3'	300°09.2'	N 22°59.7'	205°28.5'	10.1'	N 8°06.1'	12.6'	59.2'
9	33°25.8'	315°09.1'	N 22°59.9'	219°57.6'	10.2'	N 7°53.5'	12.7'	59.2'
10	48°28.2'	330°08.9'	N 23°00.1'	234°26.8'	10.2'	N 7°40.8'	12.7'	59.2'
11	63°30.7'	345°08.8'	N 23°00.3'	248°56.0'	10.3'	N 7°28.1'	12.7'	59.2'
12	78°33.2'	0°08.7'	N 23°00.5'	263°25.3'	10.3'	N 7°15.4'	12.8'	59.2'
13	93°35.6'	15°08.6'	N 23°00.7'	277°54.6'	10.4'	N 7°02.6'	12.8'	59.1'
14	108°38.1'	30°08.4'	N 23°00.9'	292°24.0'	10.4'	N 6°49.8'	12.8'	59.1'
15	123°40.6'	45°08.3'	N 23°01.1'	306°53.4'	10.4'	N 6°36.9'	12.9'	59.1'
16	138°43.0'	60°08.2'	N 23°01.2'	321°22.8'	10.5'	N 6°24.1'	12.9'	59.1'
17	153°45.5'	75°08.1'	N 23°01.4'	335°52.3'	10.5'	N 6°11.1'	12.9'	59.1'
18	168°47.9'	90°07.9'	N 23°01.6'	350°21.8'	10.6'	N 5°58.2'	13.0'	59.1'
19	183°50.4'	105°07.8'	N 23°01.8'	4°51.3'	10.6'	N 5°45.2'	13.0'	59.1'
20	198°52.9'	120°07.7'	N 23°02.0'	19°20.9'	10.6'	N 5°32.2'	13.0'	59.1'
21	213°55.3'	135°07.6'	N 23°02.2'	33°50.6'	10.7'	N 5°19.2'	13.0'	59.1'
22	228°57.8'	150°07.4'	N 23°02.4'	48°20.2'	10.7'	N 5°06.2'	13.1'	59.1'
23	244°00.3'	165°07.3'	N 23°02.5'	62°49.9'	10.7'	N 4°53.1'	13.1'	59.0'

Tue Jun 11, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.8'		SD = 16.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	259°02.7'	180°07.2'	N 23°02.7'	77°19.6'	10.8'	N 4°40.0'	13.1'	59.0'
1	274°05.2'	195°07.1'	N 23°02.9'	91°49.4'	10.8'	N 4°26.9'	13.1'	59.0'
2	289°07.7'	210°06.9'	N 23°03.1'	106°19.2'	10.8'	N 4°13.8'	13.1'	59.0'
3	304°10.1'	225°06.8'	N 23°03.3'	120°49.0'	10.8'	N 4°00.6'	13.2'	59.0'
4	319°12.6'	240°06.7'	N 23°03.5'	135°18.9'	10.9'	N 3°47.5'	13.2'	59.0'
5	334°15.1'	255°06.6'	N 23°03.6'	149°48.7'	10.9'	N 3°34.3'	13.2'	59.0'
6	349°17.5'	270°06.4'	N 23°03.8'	164°18.6'	10.9'	N 3°21.1'	13.2'	59.0'
7	4°20.0'	285°06.3'	N 23°04.0'	178°48.6'	11.0'	N 3°07.9'	13.2'	58.9'
8	19°22.4'	300°06.2'	N 23°04.2'	193°18.5'	11.0'	N 2°54.6'	13.2'	58.9'
9	34°24.9'	315°06.0'	N 23°04.3'	207°48.5'	11.0'	N 2°41.4'	13.2'	58.9'
10	49°27.4'	330°05.9'	N 23°04.5'	222°18.5'	11.0'	N 2°28.2'	13.2'	58.9'
11	64°29.8'	345°05.8'	N 23°04.7'	236°48.6'	11.1'	N 2°14.9'	13.3'	58.9'
12	79°32.3'	0°05.7'	N 23°04.9'	251°18.6'	11.1'	N 2°01.7'	13.3'	58.9'
13	94°34.8'	15°05.5'	N 23°05.0'	265°48.7'	11.1'	N 1°48.4'	13.3'	58.9'
14	109°37.2'	30°05.4'	N 23°05.2'	280°18.8'	11.1'	N 1°35.1'	13.3'	58.9'
15	124°39.7'	45°05.3'	N 23°05.4'	294°48.9'	11.1'	N 1°21.9'	13.3'	58.8'
16	139°42.2'	60°05.2'	N 23°05.6'	309°19.0'	11.2'	N 1°08.6'	13.3'	58.8'
17	154°44.6'	75°05.0'	N 23°05.7'	323°49.2'	11.2'	N 0°55.3'	13.3'	58.8'
18	169°47.1'	90°04.9'	N 23°05.9'	338°19.4'	11.2'	N 0°42.1'	13.3'	58.8'
19	184°49.5'	105°04.8'	N 23°06.1'	352°49.5'	11.2'	N 0°28.8'	13.3'	58.8'
20	199°52.0'	120°04.7'	N 23°06.2'	7°19.7'	11.2'	N 0°15.5'	13.3'	58.8'
21	214°54.5'	135°04.5'	N 23°06.4'	21°50.0'	11.2'	N 0°02.3'	13.3'	58.8'
22	229°56.9'	150°04.4'	N 23°06.6'	36°20.2'	11.2'	S 0°11.0'	13.3'	58.8'
23	244°59.4'	165°04.3'	N 23°06.7'	50°50.4'	11.3'	S 0°24.2'	13.2'	58.7'

Wed Jun 12, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.8'		SD = 16.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	260°01.9'	180°04.1'	N 23°06.9'	65°20.7'	11.3'	S 0°37.5'	13.2'	58.7'
1	275°04.3'	195°04.0'	N 23°07.1'	79°51.0'	11.3'	S 0°50.7'	13.2'	58.7'
2	290°06.8'	210°03.9'	N 23°07.2'	94°21.2'	11.3'	S 1°03.9'	13.2'	58.7'
3	305°09.3'	225°03.8'	N 23°07.4'	108°51.5'	11.3'	S 1°17.2'	13.2'	58.7'
4	320°11.7'	240°03.6'	N 23°07.6'	123°21.8'	11.3'	S 1°30.4'	13.2'	58.7'
5	335°14.2'	255°03.5'	N 23°07.7'	137°52.1'	11.3'	S 1°43.5'	13.2'	58.7'
6	350°16.7'	270°03.4'	N 23°07.9'	152°22.4'	11.3'	S 1°56.7'	13.2'	58.6'
7	5°19.1'	285°03.3'	N 23°08.0'	166°52.7'	11.3'	S 2°09.9'	13.1'	58.6'
8	20°21.6'	300°03.1'	N 23°08.2'	181°23.0'	11.3'	S 2°23.0'	13.1'	58.6'
9	35°24.0'	315°03.0'	N 23°08.4'	195°53.4'	11.3'	S 2°36.1'	13.1'	58.6'
10	50°26.5'	330°02.9'	N 23°08.5'	210°23.7'	11.3'	S 2°49.2'	13.1'	58.6'
11	65°29.0'	345°02.7'	N 23°08.7'	224°54.0'	11.3'	S 3°02.3'	13.1'	58.6'
12	80°31.4'	0°02.6'	N 23°08.8'	239°24.3'	11.3'	S 3°15.4'	13.0'	58.5'
13	95°33.9'	15°02.5'	N 23°09.0'	253°54.7'	11.3'	S 3°28.4'	13.0'	58.5'
14	110°36.4'	30°02.4'	N 23°09.2'	268°25.0'	11.3'	S 3°41.4'	13.0'	58.5'
15	125°38.8'	45°02.2'	N 23°09.3'	282°55.3'	11.3'	S 3°54.4'	13.0'	58.5'
16	140°41.3'	60°02.1'	N 23°09.5'	297°25.7'	11.3'	S 4°07.4'	12.9'	58.5'
17	155°43.8'	75°02.0'	N 23°09.6'	311°56.0'	11.3'	S 4°20.3'	12.9'	58.5'
18	170°46.2'	90°01.8'	N 23°09.8'	326°26.3'	11.3'	S 4°33.2'	12.9'	58.5'
19	185°48.7'	105°01.7'	N 23°09.9'	340°56.6'	11.3'	S 4°46.1'	12.8'	58.4'
20	200°51.1'	120°01.6'	N 23°10.1'	355°26.9'	11.3'	S 4°58.9'	12.8'	58.4'
21	215°53.6'	135°01.5'	N 23°10.2'	9°57.2'	11.3'	S 5°11.7'	12.8'	58.4'
22	230°56.1'	150°01.3'	N 23°10.4'	24°27.5'	11.3'	S 5°24.5'	12.7'	58.4'
23	245°58.5'	165°01.2'	N 23°10.5'	38°57.8'	11.3'	S 5°37.3'	12.7'	58.4'

Thu Jun 13, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	261°01.0'	180°01.1'	N 23°10.7'	53°28.1'	11.3'	S 5°50.0'	12.7'	58.4'
1	276°03.5'	195°00.9'	N 23°10.8'	67°58.4'	11.3'	S 6°02.7'	12.6'	58.3'
2	291°05.9'	210°00.8'	N 23°11.0'	82°28.7'	11.3'	S 6°15.3'	12.6'	58.3'
3	306°08.4'	225°00.7'	N 23°11.1'	96°58.9'	11.2'	S 6°27.9'	12.6'	58.3'
4	321°10.9'	240°00.6'	N 23°11.3'	111°29.2'	11.2'	S 6°40.4'	12.5'	58.3'
5	336°13.3'	255°00.4'	N 23°11.4'	125°59.4'	11.2'	S 6°53.0'	12.5'	58.3'
6	351°15.8'	270°00.3'	N 23°11.6'	140°29.6'	11.2'	S 7°05.4'	12.4'	58.3'
7	6°18.3'	285°00.2'	N 23°11.7'	154°59.8'	11.2'	S 7°17.9'	12.4'	58.2'
8	21°20.7'	300°00.0'	N 23°11.8'	169°30.0'	11.2'	S 7°30.3'	12.3'	58.2'
9	36°23.2'	314°59.9'	N 23°12.0'	184°00.2'	11.2'	S 7°42.6'	12.3'	58.2'
10	51°25.6'	329°59.8'	N 23°12.1'	198°30.4'	11.2'	S 7°54.9'	12.2'	58.2'
11	66°28.1'	344°59.6'	N 23°12.3'	213°00.5'	11.1'	S 8°07.1'	12.2'	58.2'
12	81°30.6'	359°59.5'	N 23°12.4'	227°30.6'	11.1'	S 8°19.3'	12.1'	58.2'
13	96°33.0'	14°59.4'	N 23°12.5'	242°00.8'	11.1'	S 8°31.5'	12.1'	58.1'
14	111°35.5'	29°59.3'	N 23°12.7'	256°30.9'	11.1'	S 8°43.6'	12.0'	58.1'
15	126°38.0'	44°59.1'	N 23°12.8'	271°01.0'	11.1'	S 8°55.6'	12.0'	58.1'
16	141°40.4'	59°59.0'	N 23°13.0'	285°31.0'	11.0'	S 9°07.6'	11.9'	58.1'
17	156°42.9'	74°58.9'	N 23°13.1'	300°01.1'	11.0'	S 9°19.6'	11.9'	58.1'
18	171°45.4'	89°58.7'	N 23°13.2'	314°31.1'	11.0'	S 9°31.5'	11.8'	58.1'
19	186°47.8'	104°58.6'	N 23°13.4'	329°01.1'	11.0'	S 9°43.3'	11.8'	58.0'
20	201°50.3'	119°58.5'	N 23°13.5'	343°31.1'	11.0'	S 9°55.1'	11.7'	58.0'
21	216°52.8'	134°58.3'	N 23°13.6'	358°01.0'	10.9'	S 10°06.8'	11.7'	58.0'
22	231°55.2'	149°58.2'	N 23°13.8'	12°31.0'	10.9'	S 10°18.4'	11.6'	58.0'
23	246°57.7'	164°58.1'	N 23°13.9'	27°00.9'	10.9'	S 10°30.0'	11.5'	58.0'

Fri Jun 14, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	262°00.1'	179°58.0'	N 23°14.0'	41°30.8'	10.9'	S 10°41.5'	11.5'	57.9'
1	277°02.6'	194°57.8'	N 23°14.2'	56°00.7'	10.9'	S 10°53.0'	11.4'	57.9'
2	292°05.1'	209°57.7'	N 23°14.3'	70°30.5'	10.8'	S 11°04.4'	11.3'	57.9'
3	307°07.5'	224°57.6'	N 23°14.4'	85°00.4'	10.8'	S 11°15.8'	11.3'	57.9'
4	322°10.0'	239°57.4'	N 23°14.6'	99°30.2'	10.8'	S 11°27.0'	11.2'	57.9'
5	337°12.5'	254°57.3'	N 23°14.7'	113°59.9'	10.8'	S 11°38.2'	11.1'	57.9'
6	352°14.9'	269°57.2'	N 23°14.8'	128°29.7'	10.7'	S 11°49.4'	11.1'	57.8'
7	7°17.4'	284°57.0'	N 23°14.9'	142°59.4'	10.7'	S 12°00.4'	11.0'	57.8'
8	22°19.9'	299°56.9'	N 23°15.1'	157°29.1'	10.7'	S 12°11.4'	10.9'	57.8'
9	37°22.3'	314°56.8'	N 23°15.2'	171°58.8'	10.7'	S 12°22.4'	10.9'	57.8'
10	52°24.8'	329°56.6'	N 23°15.3'	186°28.5'	10.6'	S 12°33.2'	10.8'	57.8'
11	67°27.2'	344°56.5'	N 23°15.4'	200°58.1'	10.6'	S 12°44.0'	10.7'	57.7'
12	82°29.7'	359°56.4'	N 23°15.6'	215°27.7'	10.6'	S 12°54.7'	10.6'	57.7'
13	97°32.2'	14°56.2'	N 23°15.7'	229°57.2'	10.5'	S 13°05.4'	10.6'	57.7'
14	112°34.6'	29°56.1'	N 23°15.8'	244°26.8'	10.5'	S 13°15.9'	10.5'	57.7'
15	127°37.1'	44°56.0'	N 23°15.9'	258°56.3'	10.5'	S 13°26.4'	10.4'	57.7'
16	142°39.6'	59°55.9'	N 23°16.1'	273°25.8'	10.5'	S 13°36.8'	10.3'	57.6'
17	157°42.0'	74°55.7'	N 23°16.2'	287°55.3'	10.4'	S 13°47.2'	10.2'	57.6'
18	172°44.5'	89°55.6'	N 23°16.3'	302°24.7'	10.4'	S 13°57.4'	10.2'	57.6'
19	187°47.0'	104°55.5'	N 23°16.4'	316°54.1'	10.4'	S 14°07.6'	10.1'	57.6'
20	202°49.4'	119°55.3'	N 23°16.5'	331°23.5'	10.3'	S 14°17.7'	10.0'	57.6'
21	217°51.9'	134°55.2'	N 23°16.6'	345°52.8'	10.3'	S 14°27.7'	9.9'	57.5'
22	232°54.4'	149°55.1'	N 23°16.8'	0°22.1'	10.3'	S 14°37.6'	9.8'	57.5'
23	247°56.8'	164°54.9'	N 23°16.9'	14°51.4'	10.3'	S 14°47.4'	9.8'	57.5'

Sat Jun 15, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	262°59.3'	179°54.8'	N 23°17.0'	29°20.7'	10.2'	S 14°57.2'	9.7'	57.5'
1	278°01.7'	194°54.7'	N 23°17.1'	43°49.9'	10.2'	S 15°06.9'	9.6'	57.5'
2	293°04.2'	209°54.5'	N 23°17.2'	58°19.1'	10.2'	S 15°16.4'	9.5'	57.4'
3	308°06.7'	224°54.4'	N 23°17.3'	72°48.3'	10.1'	S 15°25.9'	9.4'	57.4'
4	323°09.1'	239°54.3'	N 23°17.4'	87°17.4'	10.1'	S 15°35.3'	9.3'	57.4'
5	338°11.6'	254°54.1'	N 23°17.6'	101°46.5'	10.1'	S 15°44.6'	9.2'	57.4'
6	353°14.1'	269°54.0'	N 23°17.7'	116°15.6'	10.1'	S 15°53.9'	9.1'	57.4'
7	8°16.5'	284°53.9'	N 23°17.8'	130°44.7'	10.0'	S 16°03.0'	9.0'	57.3'
8	23°19.0'	299°53.7'	N 23°17.9'	145°13.7'	10.0'	S 16°12.0'	8.9'	57.3'
9	38°21.5'	314°53.6'	N 23°18.0'	159°42.7'	10.0'	S 16°21.0'	8.9'	57.3'
10	53°23.9'	329°53.5'	N 23°18.1'	174°11.7'	9.9'	S 16°29.8'	8.8'	57.3'
11	68°26.4'	344°53.3'	N 23°18.2'	188°40.6'	9.9'	S 16°38.6'	8.7'	57.3'
12	83°28.9'	359°53.2'	N 23°18.3'	203°09.5'	9.9'	S 16°47.3'	8.6'	57.2'
13	98°31.3'	14°53.1'	N 23°18.4'	217°38.4'	9.9'	S 16°55.8'	8.5'	57.2'
14	113°33.8'	29°53.0'	N 23°18.5'	232°07.3'	9.8'	S 17°04.3'	8.4'	57.2'
15	128°36.2'	44°52.8'	N 23°18.6'	246°36.1'	9.8'	S 17°12.7'	8.3'	57.2'
16	143°38.7'	59°52.7'	N 23°18.7'	261°04.9'	9.8'	S 17°20.9'	8.2'	57.1'
17	158°41.2'	74°52.6'	N 23°18.8'	275°33.7'	9.7'	S 17°29.1'	8.1'	57.1'
18	173°43.6'	89°52.4'	N 23°18.9'	290°02.4'	9.7'	S 17°37.2'	8.0'	57.1'
19	188°46.1'	104°52.3'	N 23°19.0'	304°31.2'	9.7'	S 17°45.2'	7.9'	57.1'
20	203°48.6'	119°52.2'	N 23°19.1'	318°59.8'	9.7'	S 17°53.0'	7.8'	57.1'
21	218°51.0'	134°52.0'	N 23°19.2'	333°28.5'	9.6'	S 18°00.8'	7.7'	57.0'
22	233°53.5'	149°51.9'	N 23°19.3'	347°57.2'	9.6'	S 18°08.5'	7.6'	57.0'
23	248°56.0'	164°51.8'	N 23°19.4'	2°25.8'	9.6'	S 18°16.0'	7.5'	57.0'

Sun Jun 16, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.5'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	263°58.4'	179°51.6'	N 23°19.5'	16°54.4'	9.6'	S 18°23.5'	7.4'	57.0'
1	279°00.9'	194°51.5'	N 23°19.6'	31°22.9'	9.5'	S 18°30.8'	7.2'	57.0'
2	294°03.4'	209°51.4'	N 23°19.7'	45°51.5'	9.5'	S 18°38.1'	7.1'	56.9'
3	309°05.8'	224°51.2'	N 23°19.8'	60°20.0'	9.5'	S 18°45.2'	7.0'	56.9'
4	324°08.3'	239°51.1'	N 23°19.9'	74°48.5'	9.5'	S 18°52.3'	6.9'	56.9'
5	339°10.7'	254°51.0'	N 23°20.0'	89°17.0'	9.5'	S 18°59.2'	6.8'	56.9'
6	354°13.2'	269°50.8'	N 23°20.1'	103°45.5'	9.4'	S 19°06.0'	6.7'	56.8'
7	9°15.7'	284°50.7'	N 23°20.2'	118°13.9'	9.4'	S 19°12.7'	6.6'	56.8'
8	24°18.1'	299°50.6'	N 23°20.3'	132°42.3'	9.4'	S 19°19.3'	6.5'	56.8'
9	39°20.6'	314°50.4'	N 23°20.4'	147°10.7'	9.4'	S 19°25.8'	6.4'	56.8'
10	54°23.1'	329°50.3'	N 23°20.5'	161°39.1'	9.4'	S 19°32.2'	6.3'	56.8'
11	69°25.5'	344°50.2'	N 23°20.6'	176°07.4'	9.3'	S 19°38.4'	6.2'	56.7'
12	84°28.0'	359°50.0'	N 23°20.6'	190°35.8'	9.3'	S 19°44.6'	6.0'	56.7'
13	99°30.5'	14°49.9'	N 23°20.7'	205°04.1'	9.3'	S 19°50.6'	5.9'	56.7'
14	114°32.9'	29°49.8'	N 23°20.8'	219°32.4'	9.3'	S 19°56.6'	5.8'	56.7'
15	129°35.4'	44°49.6'	N 23°20.9'	234°00.7'	9.3'	S 20°02.4'	5.7'	56.7'
16	144°37.9'	59°49.5'	N 23°21.0'	248°28.9'	9.3'	S 20°08.1'	5.6'	56.6'
17	159°40.3'	74°49.4'	N 23°21.1'	262°57.2'	9.2'	S 20°13.7'	5.5'	56.6'
18	174°42.8'	89°49.2'	N 23°21.2'	277°25.4'	9.2'	S 20°19.2'	5.4'	56.6'
19	189°45.2'	104°49.1'	N 23°21.2'	291°53.7'	9.2'	S 20°24.5'	5.2'	56.6'
20	204°47.7'	119°49.0'	N 23°21.3'	306°21.9'	9.2'	S 20°29.8'	5.1'	56.5'
21	219°50.2'	134°48.8'	N 23°21.4'	320°50.1'	9.2'	S 20°34.9'	5.0'	56.5'
22	234°52.6'	149°48.7'	N 23°21.5'	335°18.2'	9.2'	S 20°39.9'	4.9'	56.5'
23	249°55.1'	164°48.6'	N 23°21.6'	349°46.4'	9.2'	S 20°44.8'	4.8'	56.5'

Mon Jun 17, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.3'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	264°57.6'	179°48.4'	N 23°21.7'	4°14.6'	9.2'	S 20°49.6'	4.7'	56.5'
1	280°00.0'	194°48.3'	N 23°21.7'	18°42.7'	9.1'	S 20°54.3'	4.5'	56.4'
2	295°02.5'	209°48.2'	N 23°21.8'	33°10.9'	9.1'	S 20°58.8'	4.4'	56.4'
3	310°05.0'	224°48.0'	N 23°21.9'	47°39.0'	9.1'	S 21°03.2'	4.3'	56.4'
4	325°07.4'	239°47.9'	N 23°22.0'	62°07.2'	9.1'	S 21°07.5'	4.2'	56.4'
5	340°09.9'	254°47.8'	N 23°22.0'	76°35.3'	9.1'	S 21°11.7'	4.1'	56.3'
6	355°12.3'	269°47.6'	N 23°22.1'	91°03.4'	9.1'	S 21°15.8'	4.0'	56.3'
7	10°14.8'	284°47.5'	N 23°22.2'	105°31.5'	9.1'	S 21°19.7'	3.8'	56.3'
8	25°17.3'	299°47.4'	N 23°22.3'	119°59.7'	9.1'	S 21°23.6'	3.7'	56.3'
9	40°19.7'	314°47.2'	N 23°22.3'	134°27.8'	9.1'	S 21°27.3'	3.6'	56.3'
10	55°22.2'	329°47.1'	N 23°22.4'	148°55.9'	9.1'	S 21°30.9'	3.5'	56.2'
11	70°24.7'	344°46.9'	N 23°22.5'	163°24.0'	9.1'	S 21°34.4'	3.4'	56.2'
12	85°27.1'	359°46.8'	N 23°22.6'	177°52.1'	9.1'	S 21°37.7'	3.2'	56.2'
13	100°29.6'	14°46.7'	N 23°22.6'	192°20.2'	9.1'	S 21°41.0'	3.1'	56.2'
14	115°32.1'	29°46.5'	N 23°22.7'	206°48.3'	9.1'	S 21°44.1'	3.0'	56.1'
15	130°34.5'	44°46.4'	N 23°22.8'	221°16.5'	9.1'	S 21°47.1'	2.9'	56.1'
16	145°37.0'	59°46.3'	N 23°22.8'	235°44.6'	9.1'	S 21°49.9'	2.8'	56.1'
17	160°39.5'	74°46.1'	N 23°22.9'	250°12.7'	9.1'	S 21°52.7'	2.6'	56.1'
18	175°41.9'	89°46.0'	N 23°23.0'	264°40.8'	9.1'	S 21°55.3'	2.5'	56.1'
19	190°44.4'	104°45.9'	N 23°23.1'	279°09.0'	9.1'	S 21°57.8'	2.4'	56.0'
20	205°46.8'	119°45.7'	N 23°23.1'	293°37.1'	9.2'	S 22°00.2'	2.3'	56.0'
21	220°49.3'	134°45.6'	N 23°23.2'	308°05.3'	9.2'	S 22°02.5'	2.2'	56.0'
22	235°51.8'	149°45.5'	N 23°23.2'	322°33.4'	9.2'	S 22°04.7'	2.0'	56.0'
23	250°54.2'	164°45.3'	N 23°23.3'	337°01.6'	9.2'	S 22°06.7'	1.9'	55.9'

Tue Jun 18, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	265°56.7'	179°45.2'	N 23°23.4'	351°29.8'	9.2'	S 22°08.6'	1.8'	55.9'
1	280°59.2'	194°45.1'	N 23°23.4'	5°58.0'	9.2'	S 22°10.4'	1.7'	55.9'
2	296°01.6'	209°44.9'	N 23°23.5'	20°26.2'	9.2'	S 22°12.0'	1.5'	55.9'
3	311°04.1'	224°44.8'	N 23°23.6'	34°54.5'	9.2'	S 22°13.6'	1.4'	55.9'
4	326°06.6'	239°44.7'	N 23°23.6'	49°22.7'	9.3'	S 22°15.0'	1.3'	55.8'
5	341°09.0'	254°44.5'	N 23°23.7'	63°51.0'	9.3'	S 22°16.3'	1.2'	55.8'
6	356°11.5'	269°44.4'	N 23°23.7'	78°19.2'	9.3'	S 22°17.5'	1.1'	55.8'
7	11°14.0'	284°44.3'	N 23°23.8'	92°47.5'	9.3'	S 22°18.6'	0.9'	55.8'
8	26°16.4'	299°44.1'	N 23°23.9'	107°15.8'	9.3'	S 22°19.5'	0.8'	55.7'
9	41°18.9'	314°44.0'	N 23°23.9'	121°44.2'	9.4'	S 22°20.4'	0.7'	55.7'
10	56°21.3'	329°43.9'	N 23°24.0'	136°12.5'	9.4'	S 22°21.1'	0.6'	55.7'
11	71°23.8'	344°43.7'	N 23°24.0'	150°40.9'	9.4'	S 22°21.7'	0.5'	55.7'
12	86°26.3'	359°43.6'	N 23°24.1'	165°09.3'	9.4'	S 22°22.1'	0.4'	55.7'
13	101°28.7'	14°43.4'	N 23°24.1'	179°37.7'	9.5'	S 22°22.5'	0.2'	55.6'
14	116°31.2'	29°43.3'	N 23°24.2'	194°06.2'	9.5'	S 22°22.7'	0.1'	55.6'
15	131°33.7'	44°43.2'	N 23°24.2'	208°34.7'	9.5'	S 22°22.8'	0.0'	55.6'
16	146°36.1'	59°43.0'	N 23°24.3'	223°03.2'	9.5'	S 22°22.8'	0.1'	55.6'
17	161°38.6'	74°42.9'	N 23°24.3'	237°31.7'	9.6'	S 22°22.7'	0.2'	55.6'
18	176°41.1'	89°42.8'	N 23°24.4'	252°00.3'	9.6'	S 22°22.5'	0.4'	55.5'
19	191°43.5'	104°42.6'	N 23°24.4'	266°28.8'	9.6'	S 22°22.1'	0.5'	55.5'
20	206°46.0'	119°42.5'	N 23°24.5'	280°57.5'	9.6'	S 22°21.6'	0.6'	55.5'
21	221°48.5'	134°42.4'	N 23°24.5'	295°26.1'	9.7'	S 22°21.0'	0.7'	55.5'
22	236°50.9'	149°42.2'	N 23°24.6'	309°54.8'	9.7'	S 22°20.3'	0.8'	55.5'
23	251°53.4'	164°42.1'	N 23°24.6'	324°23.5'	9.7'	S 22°19.5'	0.9'	55.4'

Wed Jun 19, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.0' SD = 15.7'		SD = 15.1'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	266°55.8'	179°42.0'	N 23°24.7'	338°52.3'	9.8'	S 22°18.6'	1.1'	55.4'
1	281°58.3'	194°41.8'	N 23°24.7'	353°21.0'	9.8'	S 22°17.5'	1.2'	55.4'
2	297°00.8'	209°41.7'	N 23°24.8'	7°49.9'	9.9'	S 22°16.3'	1.3'	55.4'
3	312°03.2'	224°41.6'	N 23°24.8'	22°18.7'	9.9'	S 22°15.1'	1.4'	55.4'
4	327°05.7'	239°41.4'	N 23°24.9'	36°47.6'	9.9'	S 22°13.7'	1.5'	55.3'
5	342°08.2'	254°41.3'	N 23°24.9'	51°16.5'	10.0'	S 22°12.2'	1.6'	55.3'
6	357°10.6'	269°41.2'	N 23°24.9'	65°45.5'	10.0'	S 22°10.5'	1.7'	55.3'
7	12°13.1'	284°41.0'	N 23°25.0'	80°14.5'	10.0'	S 22°08.8'	1.8'	55.3'
8	27°15.6'	299°40.9'	N 23°25.0'	94°43.5'	10.1'	S 22°07.0'	2.0'	55.3'
9	42°18.0'	314°40.7'	N 23°25.1'	109°12.6'	10.1'	S 22°05.0'	2.1'	55.2'
10	57°20.5'	329°40.6'	N 23°25.1'	123°41.8'	10.2'	S 22°02.9'	2.2'	55.2'
11	72°23.0'	344°40.5'	N 23°25.1'	138°10.9'	10.2'	S 22°00.7'	2.3'	55.2'
12	87°25.4'	359°40.3'	N 23°25.2'	152°40.1'	10.3'	S 21°58.5'	2.4'	55.2'
13	102°27.9'	14°40.2'	N 23°25.2'	167°09.4'	10.3'	S 21°56.1'	2.5'	55.2'
14	117°30.3'	29°40.1'	N 23°25.2'	181°38.7'	10.3'	S 21°53.5'	2.6'	55.1'
15	132°32.8'	44°39.9'	N 23°25.3'	196°08.0'	10.4'	S 21°50.9'	2.7'	55.1'
16	147°35.3'	59°39.8'	N 23°25.3'	210°37.4'	10.4'	S 21°48.2'	2.8'	55.1'
17	162°37.7'	74°39.7'	N 23°25.4'	225°06.9'	10.5'	S 21°45.4'	2.9'	55.1'
18	177°40.2'	89°39.5'	N 23°25.4'	239°36.4'	10.5'	S 21°42.4'	3.0'	55.1'
19	192°42.7'	104°39.4'	N 23°25.4'	254°05.9'	10.6'	S 21°39.4'	3.2'	55.0'
20	207°45.1'	119°39.3'	N 23°25.4'	268°35.5'	10.6'	S 21°36.2'	3.3'	55.0'
21	222°47.6'	134°39.1'	N 23°25.5'	283°05.1'	10.7'	S 21°33.0'	3.4'	55.0'
22	237°50.1'	149°39.0'	N 23°25.5'	297°34.8'	10.7'	S 21°29.6'	3.5'	55.0'
23	252°52.5'	164°38.9'	N 23°25.5'	312°04.5'	10.8'	S 21°26.2'	3.6'	55.0'

Thu Jun 20, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.0' SD = 15.7'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	267°55.0'	179°38.7'	N 23°25.6'	326°34.3'	10.8'	S 21°22.6'	3.7'	55.0'
1	282°57.5'	194°38.6'	N 23°25.6'	341°04.1'	10.9'	S 21°18.9'	3.8'	54.9'
2	297°59.9'	209°38.5'	N 23°25.6'	355°33.9'	10.9'	S 21°15.1'	3.9'	54.9'
3	313°02.4'	224°38.3'	N 23°25.7'	10°03.9'	11.0'	S 21°11.3'	4.0'	54.9'
4	328°04.8'	239°38.2'	N 23°25.7'	24°33.8'	11.0'	S 21°07.3'	4.1'	54.9'
5	343°07.3'	254°38.0'	N 23°25.7'	39°03.9'	11.1'	S 21°03.2'	4.2'	54.9'
6	358°09.8'	269°37.9'	N 23°25.7'	53°34.0'	11.1'	S 20°59.0'	4.3'	54.9'
7	13°12.2'	284°37.8'	N 23°25.8'	68°04.1'	11.2'	S 20°54.8'	4.4'	54.8'
8	28°14.7'	299°37.6'	N 23°25.8'	82°34.3'	11.2'	S 20°50.4'	4.5'	54.8'
9	43°17.2'	314°37.5'	N 23°25.8'	97°04.5'	11.3'	S 20°45.9'	4.6'	54.8'
10	58°19.6'	329°37.4'	N 23°25.8'	111°34.8'	11.3'	S 20°41.4'	4.7'	54.8'
11	73°22.1'	344°37.2'	N 23°25.8'	126°05.2'	11.4'	S 20°36.7'	4.8'	54.8'
12	88°24.6'	359°37.1'	N 23°25.9'	140°35.6'	11.5'	S 20°31.9'	4.9'	54.8'
13	103°27.0'	14°37.0'	N 23°25.9'	155°06.0'	11.5'	S 20°27.1'	4.9'	54.7'
14	118°29.5'	29°36.8'	N 23°25.9'	169°36.5'	11.6'	S 20°22.1'	5.0'	54.7'
15	133°31.9'	44°36.7'	N 23°25.9'	184°07.1'	11.6'	S 20°17.1'	5.1'	54.7'
16	148°34.4'	59°36.6'	N 23°25.9'	198°37.7'	11.7'	S 20°12.0'	5.2'	54.7'
17	163°36.9'	74°36.4'	N 23°26.0'	213°08.4'	11.7'	S 20°06.8'	5.3'	54.7'
18	178°39.3'	89°36.3'	N 23°26.0'	227°39.1'	11.8'	S 20°01.4'	5.4'	54.7'
19	193°41.8'	104°36.1'	N 23°26.0'	242°09.9'	11.8'	S 19°56.0'	5.5'	54.7'
20	208°44.3'	119°36.0'	N 23°26.0'	256°40.7'	11.9'	S 19°50.5'	5.6'	54.6'
21	223°46.7'	134°35.9'	N 23°26.0'	271°11.6'	12.0'	S 19°44.9'	5.7'	54.6'
22	238°49.2'	149°35.7'	N 23°26.0'	285°42.6'	12.0'	S 19°39.3'	5.8'	54.6'
23	253°51.7'	164°35.6'	N 23°26.0'	300°13.6'	12.1'	S 19°33.5'	5.8'	54.6'

Fri Jun 21, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.0' SD = 15.7'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	268°54.1'	179°35.5'	N 23°26.0'	314°44.7'	12.1'	S 19°27.7'	5.9'	54.6'
1	283°56.6'	194°35.3'	N 23°26.1'	329°15.8'	12.2'	S 19°21.7'	6.0'	54.6'
2	298°59.1'	209°35.2'	N 23°26.1'	343°47.0'	12.2'	S 19°15.7'	6.1'	54.6'
3	314°01.5'	224°35.1'	N 23°26.1'	358°18.2'	12.3'	S 19°09.6'	6.2'	54.5'
4	329°04.0'	239°34.9'	N 23°26.1'	12°49.5'	12.3'	S 19°03.4'	6.3'	54.5'
5	344°06.4'	254°34.8'	N 23°26.1'	27°20.8'	12.4'	S 18°57.1'	6.4'	54.5'
6	359°08.9'	269°34.7'	N 23°26.1'	41°52.2'	12.5'	S 18°50.8'	6.4'	54.5'
7	14°11.4'	284°34.5'	N 23°26.1'	56°23.7'	12.5'	S 18°44.3'	6.5'	54.5'
8	29°13.8'	299°34.4'	N 23°26.1'	70°55.2'	12.6'	S 18°37.8'	6.6'	54.5'
9	44°16.3'	314°34.3'	N 23°26.1'	85°26.8'	12.6'	S 18°31.2'	6.7'	54.5'
10	59°18.8'	329°34.1'	N 23°26.1'	99°58.4'	12.7'	S 18°24.5'	6.8'	54.5'
11	74°21.2'	344°34.0'	N 23°26.1'	114°30.1'	12.7'	S 18°17.8'	6.8'	54.5'
12	89°23.7'	359°33.8'	N 23°26.1'	129°01.8'	12.8'	S 18°10.9'	6.9'	54.4'
13	104°26.2'	14°33.7'	N 23°26.1'	143°33.6'	12.8'	S 18°04.0'	7.0'	54.4'
14	119°28.6'	29°33.6'	N 23°26.1'	158°05.4'	12.9'	S 17°57.0'	7.1'	54.4'
15	134°31.1'	44°33.4'	N 23°26.1'	172°37.3'	13.0'	S 17°50.0'	7.1'	54.4'
16	149°33.6'	59°33.3'	N 23°26.1'	187°09.3'	13.0'	S 17°42.8'	7.2'	54.4'
17	164°36.0'	74°33.2'	N 23°26.1'	201°41.3'	13.1'	S 17°35.6'	7.3'	54.4'
18	179°38.5'	89°33.0'	N 23°26.1'	216°13.4'	13.1'	S 17°28.3'	7.4'	54.4'
19	194°40.9'	104°32.9'	N 23°26.1'	230°45.5'	13.2'	S 17°20.9'	7.4'	54.4'
20	209°43.4'	119°32.8'	N 23°26.1'	245°17.7'	13.2'	S 17°13.5'	7.5'	54.4'
21	224°45.9'	134°32.6'	N 23°26.1'	259°49.9'	13.3'	S 17°06.0'	7.6'	54.4'
22	239°48.3'	149°32.5'	N 23°26.1'	274°22.2'	13.3'	S 16°58.4'	7.7'	54.3'
23	254°50.8'	164°32.4'	N 23°26.1'	288°54.5'	13.4'	S 16°50.7'	7.7'	54.3'

Sat Jun 22, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.0' SD = 15.7'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	269°53.3'	179°32.2'	N 23°26.1'	303°26.9'	13.4'	S 16°43.0'	7.8'	54.3'
1	284°55.7'	194°32.1'	N 23°26.1'	317°59.3'	13.5'	S 16°35.2'	7.9'	54.3'
2	299°58.2'	209°32.0'	N 23°26.1'	332°31.8'	13.5'	S 16°27.3'	7.9'	54.3'
3	315°00.7'	224°31.8'	N 23°26.1'	347°04.4'	13.6'	S 16°19.4'	8.0'	54.3'
4	330°03.1'	239°31.7'	N 23°26.1'	1°37.0'	13.6'	S 16°11.4'	8.1'	54.3'
5	345°05.6'	254°31.5'	N 23°26.1'	16°09.6'	13.7'	S 16°03.3'	8.1'	54.3'
6	0°08.1'	269°31.4'	N 23°26.1'	30°42.3'	13.7'	S 15°55.2'	8.2'	54.3'
7	15°10.5'	284°31.3'	N 23°26.1'	45°15.0'	13.8'	S 15°47.0'	8.3'	54.3'
8	30°13.0'	299°31.1'	N 23°26.0'	59°47.8'	13.8'	S 15°38.8'	8.3'	54.3'
9	45°15.4'	314°31.0'	N 23°26.0'	74°20.7'	13.9'	S 15°30.4'	8.4'	54.3'
10	60°17.9'	329°30.9'	N 23°26.0'	88°53.6'	13.9'	S 15°22.0'	8.4'	54.3'
11	75°20.4'	344°30.7'	N 23°26.0'	103°26.5'	14.0'	S 15°13.6'	8.5'	54.3'
12	90°22.8'	359°30.6'	N 23°26.0'	117°59.5'	14.0'	S 15°05.1'	8.6'	54.2'
13	105°25.3'	14°30.5'	N 23°26.0'	132°32.5'	14.1'	S 14°56.5'	8.6'	54.2'
14	120°27.8'	29°30.3'	N 23°26.0'	147°05.6'	14.1'	S 14°47.9'	8.7'	54.2'
15	135°30.2'	44°30.2'	N 23°25.9'	161°38.7'	14.2'	S 14°39.2'	8.8'	54.2'
16	150°32.7'	59°30.1'	N 23°25.9'	176°11.9'	14.2'	S 14°30.4'	8.8'	54.2'
17	165°35.2'	74°29.9'	N 23°25.9'	190°45.1'	14.3'	S 14°21.6'	8.9'	54.2'
18	180°37.6'	89°29.8'	N 23°25.9'	205°18.4'	14.3'	S 14°12.8'	8.9'	54.2'
19	195°40.1'	104°29.7'	N 23°25.9'	219°51.7'	14.4'	S 14°03.8'	9.0'	54.2'
20	210°42.5'	119°29.5'	N 23°25.9'	234°25.1'	14.4'	S 13°54.8'	9.0'	54.2'
21	225°45.0'	134°29.4'	N 23°25.8'	248°58.5'	14.4'	S 13°45.8'	9.1'	54.2'
22	240°47.5'	149°29.3'	N 23°25.8'	263°31.9'	14.5'	S 13°36.7'	9.1'	54.2'
23	255°49.9'	164°29.1'	N 23°25.8'	278°05.4'	14.5'	S 13°27.6'	9.2'	54.2'

Sun Jun 23, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.0' SD = 15.7'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	270°52.4'	179°29.0'	N 23°25.8'	292°38.9'	14.6'	S 13°18.4'	9.3'	54.2'
1	285°54.9'	194°28.9'	N 23°25.7'	307°12.5'	14.6'	S 13°09.1'	9.3'	54.2'
2	300°57.3'	209°28.7'	N 23°25.7'	321°46.1'	14.6'	S 12°59.8'	9.4'	54.2'
3	315°59.8'	224°28.6'	N 23°25.7'	336°19.7'	14.7'	S 12°50.5'	9.4'	54.2'
4	331°02.3'	239°28.4'	N 23°25.7'	350°53.4'	14.7'	S 12°41.1'	9.5'	54.2'
5	346°04.7'	254°28.3'	N 23°25.6'	5°27.1'	14.8'	S 12°31.6'	9.5'	54.2'
6	1°07.2'	269°28.2'	N 23°25.6'	20°00.9'	14.8'	S 12°22.1'	9.6'	54.2'
7	16°09.7'	284°28.0'	N 23°25.6'	34°34.7'	14.8'	S 12°12.5'	9.6'	54.2'
8	31°12.1'	299°27.9'	N 23°25.6'	49°08.5'	14.9'	S 12°02.9'	9.7'	54.2'
9	46°14.6'	314°27.8'	N 23°25.5'	63°42.4'	14.9'	S 11°53.3'	9.7'	54.2'
10	61°17.0'	329°27.6'	N 23°25.5'	78°16.3'	14.9'	S 11°43.6'	9.7'	54.2'
11	76°19.5'	344°27.5'	N 23°25.5'	92°50.2'	15.0'	S 11°33.8'	9.8'	54.2'
12	91°22.0'	359°27.4'	N 23°25.4'	107°24.2'	15.0'	S 11°24.0'	9.8'	54.2'
13	106°24.4'	14°27.2'	N 23°25.4'	121°58.2'	15.0'	S 11°14.2'	9.9'	54.2'
14	121°26.9'	29°27.1'	N 23°25.4'	136°32.3'	15.1'	S 11°04.3'	9.9'	54.2'
15	136°29.4'	44°27.0'	N 23°25.3'	151°06.3'	15.1'	S 10°54.4'	10.0'	54.2'
16	151°31.8'	59°26.8'	N 23°25.3'	165°40.4'	15.1'	S 10°44.4'	10.0'	54.2'
17	166°34.3'	74°26.7'	N 23°25.3'	180°14.6'	15.2'	S 10°34.4'	10.1'	54.2'
18	181°36.8'	89°26.6'	N 23°25.2'	194°48.7'	15.2'	S 10°24.3'	10.1'	54.2'
19	196°39.2'	104°26.4'	N 23°25.2'	209°22.9'	15.2'	S 10°14.2'	10.1'	54.2'
20	211°41.7'	119°26.3'	N 23°25.2'	223°57.1'	15.2'	S 10°04.1'	10.2'	54.2'
21	226°44.2'	134°26.2'	N 23°25.1'	238°31.4'	15.3'	S 9°53.9'	10.2'	54.2'
22	241°46.6'	149°26.0'	N 23°25.1'	253°05.7'	15.3'	S 9°43.7'	10.3'	54.2'
23	256°49.1'	164°25.9'	N 23°25.0'	267°40.0'	15.3'	S 9°33.4'	10.3'	54.2'

Mon Jun 24, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.0' SD = 15.7'		SD = 14.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	271°51.5'	179°25.8'	N 23°25.0'	282°14.3'	15.3'	S 9°23.1'	10.3'	54.2'
1	286°54.0'	194°25.6'	N 23°25.0'	296°48.6'	15.4'	S 9°12.8'	10.4'	54.2'
2	301°56.5'	209°25.5'	N 23°24.9'	311°23.0'	15.4'	S 9°02.4'	10.4'	54.3'
3	316°58.9'	224°25.4'	N 23°24.9'	325°57.4'	15.4'	S 8°52.0'	10.5'	54.3'
4	332°01.4'	239°25.2'	N 23°24.8'	340°31.8'	15.4'	S 8°41.5'	10.5'	54.3'
5	347°03.9'	254°25.1'	N 23°24.8'	355°06.2'	15.5'	S 8°31.0'	10.5'	54.3'
6	2°06.3'	269°25.0'	N 23°24.8'	9°40.7'	15.5'	S 8°20.5'	10.6'	54.3'
7	17°08.8'	284°24.8'	N 23°24.7'	24°15.2'	15.5'	S 8°10.0'	10.6'	54.3'
8	32°11.3'	299°24.7'	N 23°24.7'	38°49.7'	15.5'	S 7°59.4'	10.6'	54.3'
9	47°13.7'	314°24.5'	N 23°24.6'	53°24.2'	15.5'	S 7°48.7'	10.7'	54.3'
10	62°16.2'	329°24.4'	N 23°24.6'	67°58.7'	15.5'	S 7°38.1'	10.7'	54.3'
11	77°18.6'	344°24.3'	N 23°24.5'	82°33.3'	15.6'	S 7°27.4'	10.7'	54.3'
12	92°21.1'	359°24.1'	N 23°24.5'	97°07.8'	15.6'	S 7°16.7'	10.8'	54.3'
13	107°23.6'	14°24.0'	N 23°24.4'	111°42.4'	15.6'	S 7°05.9'	10.8'	54.3'
14	122°26.0'	29°23.9'	N 23°24.4'	126°17.0'	15.6'	S 6°55.1'	10.8'	54.3'
15	137°28.5'	44°23.7'	N 23°24.3'	140°51.6'	15.6'	S 6°44.3'	10.8'	54.3'
16	152°31.0'	59°23.6'	N 23°24.3'	155°26.2'	15.6'	S 6°33.5'	10.9'	54.4'
17	167°33.4'	74°23.5'	N 23°24.2'	170°00.9'	15.6'	S 6°22.6'	10.9'	54.4'
18	182°35.9'	89°23.3'	N 23°24.2'	184°35.5'	15.6'	S 6°11.7'	10.9'	54.4'
19	197°38.4'	104°23.2'	N 23°24.1'	199°10.1'	15.7'	S 6°00.8'	11.0'	54.4'
20	212°40.8'	119°23.1'	N 23°24.1'	213°44.8'	15.7'	S 5°49.8'	11.0'	54.4'
21	227°43.3'	134°22.9'	N 23°24.0'	228°19.5'	15.7'	S 5°38.8'	11.0'	54.4'
22	242°45.8'	149°22.8'	N 23°24.0'	242°54.1'	15.7'	S 5°27.8'	11.0'	54.4'
23	257°48.2'	164°22.7'	N 23°23.9'	257°28.8'	15.7'	S 5°16.8'	11.1'	54.4'

Tue Jun 25, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 14.9'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	272°50.7'	179°22.5'	N 23°23.8'	272°03.5'	15.7'	S 5°05.7'	11.1'	54.4'
1	287°53.1'	194°22.4'	N 23°23.8'	286°38.2'	15.7'	S 4°54.6'	11.1'	54.5'
2	302°55.6'	209°22.3'	N 23°23.7'	301°12.9'	15.7'	S 4°43.5'	11.1'	54.5'
3	317°58.1'	224°22.1'	N 23°23.7'	315°47.6'	15.7'	S 4°32.4'	11.2'	54.5'
4	333°00.5'	239°22.0'	N 23°23.6'	330°22.3'	15.7'	S 4°21.2'	11.2'	54.5'
5	348°03.0'	254°21.9'	N 23°23.5'	344°57.0'	15.7'	S 4°10.1'	11.2'	54.5'
6	3°05.5'	269°21.7'	N 23°23.5'	359°31.7'	15.7'	S 3°58.9'	11.2'	54.5'
7	18°07.9'	284°21.6'	N 23°23.4'	14°06.4'	15.7'	S 3°47.7'	11.2'	54.5'
8	33°10.4'	299°21.5'	N 23°23.4'	28°41.1'	15.7'	S 3°36.4'	11.3'	54.5'
9	48°12.9'	314°21.3'	N 23°23.3'	43°15.7'	15.7'	S 3°25.2'	11.3'	54.6'
10	63°15.3'	329°21.2'	N 23°23.2'	57°50.4'	15.7'	S 3°13.9'	11.3'	54.6'
11	78°17.8'	344°21.1'	N 23°23.2'	72°25.1'	15.7'	S 3°02.6'	11.3'	54.6'
12	93°20.2'	359°20.9'	N 23°23.1'	86°59.8'	15.7'	S 2°51.3'	11.3'	54.6'
13	108°22.7'	14°20.8'	N 23°23.0'	101°34.5'	15.7'	S 2°39.9'	11.4'	54.6'
14	123°25.2'	29°20.7'	N 23°23.0'	116°09.1'	15.7'	S 2°28.6'	11.4'	54.6'
15	138°27.6'	44°20.5'	N 23°22.9'	130°43.8'	15.6'	S 2°17.2'	11.4'	54.7'
16	153°30.1'	59°20.4'	N 23°22.8'	145°18.4'	15.6'	S 2°05.8'	11.4'	54.7'
17	168°32.6'	74°20.3'	N 23°22.8'	159°53.1'	15.6'	S 1°54.4'	11.4'	54.7'
18	183°35.0'	89°20.2'	N 23°22.7'	174°27.7'	15.6'	S 1°43.0'	11.4'	54.7'
19	198°37.5'	104°20.0'	N 23°22.6'	189°02.3'	15.6'	S 1°31.6'	11.4'	54.7'
20	213°40.0'	119°19.9'	N 23°22.5'	203°36.9'	15.6'	S 1°20.2'	11.5'	54.7'
21	228°42.4'	134°19.8'	N 23°22.5'	218°11.5'	15.6'	S 1°08.7'	11.5'	54.8'
22	243°44.9'	149°19.6'	N 23°22.4'	232°46.1'	15.6'	S 0°57.2'	11.5'	54.8'
23	258°47.4'	164°19.5'	N 23°22.3'	247°20.6'	15.5'	S 0°45.8'	11.5'	54.8'

Wed Jun 26, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.0'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	273°49.8'	179°19.4'	N 23°22.3'	261°55.2'	15.5'	S 0°34.3'	11.5'	54.8'
1	288°52.3'	194°19.2'	N 23°22.2'	276°29.7'	15.5'	S 0°22.8'	11.5'	54.8'
2	303°54.7'	209°19.1'	N 23°22.1'	291°04.2'	15.5'	S 0°11.3'	11.5'	54.9'
3	318°57.2'	224°19.0'	N 23°22.0'	305°38.7'	15.5'	N 0°00.2'	11.5'	54.9'
4	333°59.7'	239°18.8'	N 23°21.9'	320°13.1'	15.4'	N 0°11.8'	11.5'	54.9'
5	349°02.1'	254°18.7'	N 23°21.9'	334°47.6'	15.4'	N 0°23.3'	11.5'	54.9'
6	4°04.6'	269°18.6'	N 23°21.8'	349°22.0'	15.4'	N 0°34.8'	11.5'	54.9'
7	19°07.1'	284°18.4'	N 23°21.7'	3°56.4'	15.4'	N 0°46.4'	11.6'	55.0'
8	34°09.5'	299°18.3'	N 23°21.6'	18°30.7'	15.3'	N 0°57.9'	11.6'	55.0'
9	49°12.0'	314°18.2'	N 23°21.6'	33°05.1'	15.3'	N 1°09.5'	11.6'	55.0'
10	64°14.5'	329°18.0'	N 23°21.5'	47°39.4'	15.3'	N 1°21.1'	11.6'	55.0'
11	79°16.9'	344°17.9'	N 23°21.4'	62°13.7'	15.3'	N 1°32.6'	11.6'	55.0'
12	94°19.4'	359°17.8'	N 23°21.3'	76°48.0'	15.2'	N 1°44.2'	11.6'	55.1'
13	109°21.9'	14°17.6'	N 23°21.2'	91°22.2'	15.2'	N 1°55.8'	11.6'	55.1'
14	124°24.3'	29°17.5'	N 23°21.1'	105°56.4'	15.2'	N 2°07.3'	11.6'	55.1'
15	139°26.8'	44°17.4'	N 23°21.1'	120°30.6'	15.1'	N 2°18.9'	11.6'	55.1'
16	154°29.2'	59°17.2'	N 23°21.0'	135°04.7'	15.1'	N 2°30.5'	11.6'	55.2'
17	169°31.7'	74°17.1'	N 23°20.9'	149°38.8'	15.1'	N 2°42.1'	11.6'	55.2'
18	184°34.2'	89°17.0'	N 23°20.8'	164°12.9'	15.0'	N 2°53.6'	11.6'	55.2'
19	199°36.6'	104°16.9'	N 23°20.7'	178°46.9'	15.0'	N 3°05.2'	11.6'	55.2'
20	214°39.1'	119°16.7'	N 23°20.6'	193°20.9'	15.0'	N 3°16.8'	11.6'	55.2'
21	229°41.6'	134°16.6'	N 23°20.5'	207°54.9'	14.9'	N 3°28.3'	11.6'	55.3'
22	244°44.0'	149°16.5'	N 23°20.4'	222°28.8'	14.9'	N 3°39.9'	11.6'	55.3'
23	259°46.5'	164°16.3'	N 23°20.4'	237°02.7'	14.8'	N 3°51.5'	11.6'	55.3'

Thu Jun 27, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.2'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	274°49.0'	179°16.2'	N 23°20.3'	251°36.6'	14.8'	N 4°03.0'	11.5'	55.3'
1	289°51.4'	194°16.1'	N 23°20.2'	266°10.4'	14.8'	N 4°14.6'	11.5'	55.4'
2	304°53.9'	209°15.9'	N 23°20.1'	280°44.1'	14.7'	N 4°26.1'	11.5'	55.4'
3	319°56.3'	224°15.8'	N 23°20.0'	295°17.9'	14.7'	N 4°37.6'	11.5'	55.4'
4	334°58.8'	239°15.7'	N 23°19.9'	309°51.5'	14.6'	N 4°49.2'	11.5'	55.5'
5	350°01.3'	254°15.5'	N 23°19.8'	324°25.2'	14.6'	N 5°00.7'	11.5'	55.5'
6	5°03.7'	269°15.4'	N 23°19.7'	338°58.8'	14.5'	N 5°12.2'	11.5'	55.5'
7	20°06.2'	284°15.3'	N 23°19.6'	353°32.3'	14.5'	N 5°23.7'	11.5'	55.5'
8	35°08.7'	299°15.2'	N 23°19.5'	8°05.8'	14.4'	N 5°35.2'	11.5'	55.6'
9	50°11.1'	314°15.0'	N 23°19.4'	22°39.3'	14.4'	N 5°46.7'	11.5'	55.6'
10	65°13.6'	329°14.9'	N 23°19.3'	37°12.6'	14.3'	N 5°58.1'	11.4'	55.6'
11	80°16.1'	344°14.8'	N 23°19.2'	51°46.0'	14.3'	N 6°09.6'	11.4'	55.6'
12	95°18.5'	359°14.6'	N 23°19.1'	66°19.3'	14.2'	N 6°21.0'	11.4'	55.7'
13	110°21.0'	14°14.5'	N 23°19.0'	80°52.5'	14.2'	N 6°32.4'	11.4'	55.7'
14	125°23.5'	29°14.4'	N 23°18.9'	95°25.7'	14.1'	N 6°43.8'	11.4'	55.7'
15	140°25.9'	44°14.2'	N 23°18.8'	109°58.9'	14.1'	N 6°55.2'	11.4'	55.8'
16	155°28.4'	59°14.1'	N 23°18.7'	124°31.9'	14.0'	N 7°06.6'	11.4'	55.8'
17	170°30.8'	74°14.0'	N 23°18.6'	139°05.0'	14.0'	N 7°17.9'	11.3'	55.8'
18	185°33.3'	89°13.9'	N 23°18.5'	153°37.9'	13.9'	N 7°29.3'	11.3'	55.8'
19	200°35.8'	104°13.7'	N 23°18.4'	168°10.8'	13.8'	N 7°40.6'	11.3'	55.9'
20	215°38.2'	119°13.6'	N 23°18.3'	182°43.7'	13.8'	N 7°51.9'	11.3'	55.9'
21	230°40.7'	134°13.5'	N 23°18.2'	197°16.5'	13.7'	N 8°03.1'	11.2'	55.9'
22	245°43.2'	149°13.3'	N 23°18.1'	211°49.2'	13.7'	N 8°14.4'	11.2'	56.0'
23	260°45.6'	164°13.2'	N 23°18.0'	226°21.9'	13.6'	N 8°25.6'	11.2'	56.0'

Fri Jun 28, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.4'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	275°48.1'	179°13.1'	N 23°17.9'	240°54.5'	13.5'	N 8°36.8'	11.2'	56.0'
1	290°50.6'	194°12.9'	N 23°17.7'	255°27.0'	13.5'	N 8°48.0'	11.1'	56.0'
2	305°53.0'	209°12.8'	N 23°17.6'	269°59.5'	13.4'	N 8°59.1'	11.1'	56.1'
3	320°55.5'	224°12.7'	N 23°17.5'	284°31.9'	13.3'	N 9°10.2'	11.1'	56.1'
4	335°58.0'	239°12.6'	N 23°17.4'	299°04.2'	13.3'	N 9°21.3'	11.1'	56.1'
5	351°00.4'	254°12.4'	N 23°17.3'	313°36.5'	13.2'	N 9°32.4'	11.0'	56.2'
6	6°02.9'	269°12.3'	N 23°17.2'	328°08.7'	13.1'	N 9°43.4'	11.0'	56.2'
7	21°05.3'	284°12.2'	N 23°17.1'	342°40.8'	13.1'	N 9°54.4'	11.0'	56.2'
8	36°07.8'	299°12.0'	N 23°17.0'	357°12.9'	13.0'	N 10°05.4'	10.9'	56.3'
9	51°10.3'	314°11.9'	N 23°16.8'	11°44.9'	12.9'	N 10°16.3'	10.9'	56.3'
10	66°12.7'	329°11.8'	N 23°16.7'	26°16.8'	12.9'	N 10°27.2'	10.9'	56.3'
11	81°15.2'	344°11.7'	N 23°16.6'	40°48.7'	12.8'	N 10°38.1'	10.8'	56.4'
12	96°17.7'	359°11.5'	N 23°16.5'	55°20.4'	12.7'	N 10°48.9'	10.8'	56.4'
13	111°20.1'	14°11.4'	N 23°16.4'	69°52.2'	12.6'	N 10°59.7'	10.8'	56.4'
14	126°22.6'	29°11.3'	N 23°16.3'	84°23.8'	12.6'	N 11°10.4'	10.7'	56.5'
15	141°25.1'	44°11.1'	N 23°16.1'	98°55.3'	12.5'	N 11°21.1'	10.7'	56.5'
16	156°27.5'	59°11.0'	N 23°16.0'	113°26.8'	12.4'	N 11°31.8'	10.6'	56.5'
17	171°30.0'	74°10.9'	N 23°15.9'	127°58.2'	12.3'	N 11°42.4'	10.6'	56.6'
18	186°32.4'	89°10.8'	N 23°15.8'	142°29.5'	12.2'	N 11°53.0'	10.5'	56.6'
19	201°34.9'	104°10.6'	N 23°15.7'	157°00.8'	12.2'	N 12°03.6'	10.5'	56.6'
20	216°37.4'	119°10.5'	N 23°15.5'	171°31.9'	12.1'	N 12°14.1'	10.5'	56.7'
21	231°39.8'	134°10.4'	N 23°15.4'	186°03.0'	12.0'	N 12°24.5'	10.4'	56.7'
22	246°42.3'	149°10.2'	N 23°15.3'	200°34.0'	11.9'	N 12°34.9'	10.4'	56.7'
23	261°44.8'	164°10.1'	N 23°15.2'	215°04.9'	11.8'	N 12°45.3'	10.3'	56.8'

Sat Jun 29, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.1' SD = 15.7'		SD = 15.6'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	276°47.2'	179°10.0'	N 23°15.0'	229°35.8'	11.8'	N 12°55.6'	10.3'	56.8'
1	291°49.7'	194°09.9'	N 23°14.9'	244°06.5'	11.7'	N 13°05.8'	10.2'	56.8'
2	306°52.2'	209°09.7'	N 23°14.8'	258°37.2'	11.6'	N 13°16.0'	10.2'	56.9'
3	321°54.6'	224°09.6'	N 23°14.7'	273°07.8'	11.5'	N 13°26.2'	10.1'	56.9'
4	336°57.1'	239°09.5'	N 23°14.5'	287°38.3'	11.4'	N 13°36.3'	10.0'	56.9'
5	351°59.6'	254°09.4'	N 23°14.4'	302°08.7'	11.3'	N 13°46.3'	10.0'	57.0'
6	7°02.0'	269°09.2'	N 23°14.3'	316°39.0'	11.2'	N 13°56.3'	9.9'	57.0'
7	22°04.5'	284°09.1'	N 23°14.1'	331°09.2'	11.1'	N 14°06.2'	9.9'	57.0'
8	37°06.9'	299°09.0'	N 23°14.0'	345°39.4'	11.1'	N 14°16.1'	9.8'	57.1'
9	52°09.4'	314°08.8'	N 23°13.9'	0°09.4'	11.0'	N 14°25.9'	9.7'	57.1'
10	67°11.9'	329°08.7'	N 23°13.7'	14°39.4'	10.9'	N 14°35.7'	9.7'	57.1'
11	82°14.3'	344°08.6'	N 23°13.6'	29°09.3'	10.8'	N 14°45.4'	9.6'	57.2'
12	97°16.8'	359°08.5'	N 23°13.5'	43°39.1'	10.7'	N 14°55.0'	9.6'	57.2'
13	112°19.3'	14°08.3'	N 23°13.3'	58°08.8'	10.6'	N 15°04.5'	9.5'	57.2'
14	127°21.7'	29°08.2'	N 23°13.2'	72°38.4'	10.5'	N 15°14.0'	9.4'	57.3'
15	142°24.2'	44°08.1'	N 23°13.1'	87°07.9'	10.4'	N 15°23.4'	9.4'	57.3'
16	157°26.7'	59°08.0'	N 23°12.9'	101°37.4'	10.3'	N 15°32.8'	9.3'	57.3'
17	172°29.1'	74°07.8'	N 23°12.8'	116°06.7'	10.2'	N 15°42.1'	9.2'	57.4'
18	187°31.6'	89°07.7'	N 23°12.7'	130°35.9'	10.1'	N 15°51.3'	9.1'	57.4'
19	202°34.1'	104°07.6'	N 23°12.5'	145°05.1'	10.1'	N 16°00.4'	9.1'	57.4'
20	217°36.5'	119°07.5'	N 23°12.4'	159°34.1'	10.0'	N 16°09.5'	9.0'	57.5'
21	232°39.0'	134°07.3'	N 23°12.2'	174°03.1'	9.9'	N 16°18.5'	8.9'	57.5'
22	247°41.4'	149°07.2'	N 23°12.1'	188°32.0'	9.8'	N 16°27.4'	8.8'	57.5'
23	262°43.9'	164°07.1'	N 23°12.0'	203°00.7'	9.7'	N 16°36.2'	8.8'	57.6'

Sun Jun 30, 2019 UTC

UTC	Aries	Sun		Moon				
	GHA	d = 0.2' SD = 15.7'		SD = 15.8'				
	GHA	GHA	dec	GHA	v	dec	d	HP
0	277°46.4'	179°07.0'	N 23°11.8'	217°29.4'	9.6'	N 16°45.0'	8.7'	57.6'
1	292°48.8'	194°06.8'	N 23°11.7'	231°58.0'	9.5'	N 16°53.7'	8.6'	57.7'
2	307°51.3'	209°06.7'	N 23°11.5'	246°26.5'	9.4'	N 17°02.2'	8.5'	57.7'
3	322°53.8'	224°06.6'	N 23°11.4'	260°54.9'	9.3'	N 17°10.8'	8.4'	57.7'
4	337°56.2'	239°06.5'	N 23°11.2'	275°23.2'	9.2'	N 17°19.2'	8.3'	57.8'
5	352°58.7'	254°06.3'	N 23°11.1'	289°51.4'	9.1'	N 17°27.5'	8.2'	57.8'
6	8°01.2'	269°06.2'	N 23°11.0'	304°19.5'	9.0'	N 17°35.8'	8.2'	57.8'
7	23°03.6'	284°06.1'	N 23°10.8'	318°47.5'	8.9'	N 17°43.9'	8.1'	57.9'
8	38°06.1'	299°06.0'	N 23°10.7'	333°15.4'	8.8'	N 17°52.0'	8.0'	57.9'
9	53°08.6'	314°05.8'	N 23°10.5'	347°43.3'	8.7'	N 17°60.0'	7.9'	57.9'
10	68°11.0'	329°05.7'	N 23°10.4'	2°11.0'	8.6'	N 18°07.9'	7.8'	58.0'
11	83°13.5'	344°05.6'	N 23°10.2'	16°38.6'	8.5'	N 18°15.7'	7.7'	58.0'
12	98°15.9'	359°05.5'	N 23°10.1'	31°06.1'	8.4'	N 18°23.4'	7.6'	58.0'
13	113°18.4'	14°05.3'	N 23°09.9'	45°33.6'	8.3'	N 18°31.0'	7.5'	58.1'
14	128°20.9'	29°05.2'	N 23°09.8'	60°00.9'	8.3'	N 18°38.5'	7.4'	58.1'
15	143°23.3'	44°05.1'	N 23°09.6'	74°28.2'	8.2'	N 18°45.9'	7.3'	58.1'
16	158°25.8'	59°05.0'	N 23°09.4'	88°55.3'	8.1'	N 18°53.2'	7.2'	58.2'
17	173°28.3'	74°04.8'	N 23°09.3'	103°22.4'	8.0'	N 19°00.4'	7.1'	58.2'
18	188°30.7'	89°04.7'	N 23°09.1'	117°49.4'	7.9'	N 19°07.4'	7.0'	58.2'
19	203°33.2'	104°04.6'	N 23°09.0'	132°16.2'	7.8'	N 19°14.4'	6.9'	58.3'
20	218°35.7'	119°04.5'	N 23°08.8'	146°43.0'	7.7'	N 19°21.3'	6.8'	58.3'
21	233°38.1'	134°04.3'	N 23°08.7'	161°09.7'	7.6'	N 19°28.1'	6.7'	58.3'
22	248°40.6'	149°04.2'	N 23°08.5'	175°36.3'	7.5'	N 19°34.8'	6.6'	58.4'
23	263°43.0'	164°04.1'	N 23°08.4'	190°02.8'	7.4'	N 19°41.3'	6.4'	58.4'