ASTRONOMICAL EPHEMERIS

of

Geocentric Places of Planets

for

1948

With Tables of Houses for

MADRAS AND BOMBAY.

Indian Standard Time observed througout.

Published by

Shree Jiwaji Observatory, Ujjain

with the sanction of Education Department,

Gwalior Government.

Price Rupee One only.

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The longitudes of the Sun are calculated according to the elliptic theory and are quite satisfactory for all practical purposes. If greater accuracy is desired the following quantities, which are the combined effects of perturbations, nutation and aberration, should be *subtracted* from the longitudes given in the following pages. The quantities given are for the *first day* of each month. Those for the intermediate days can easily be guessed.

Month.	Correction.	Month.	Correction.	Month.	Correction.
Jan. ..	34″	May ..	30″	Sep. ..	46″
Feb. ..	29″	June ..	34″	Oct. ..	45″
Mar. ..	27″	July ..	41″	Nov. ..	39″
Apl. ..	27″	Aug. ..	44″	Dec. ..	32″

Times of Planetary Aspects were first roughly determined graphically. This method served as a check over the final calculations.

A proposal to furnish this Institution with proper equipment such as the latest mathematical and astronomical Tables, calculating machines etc., has already been submitted to the authorities. It is our aim to give the planetary places correct to a second of arc and also to insert such useful matter as the elements of eclipses for all places in India, lunar occultations, daily Right Ascensions of all planets, etc. The governments of all civilised countries publish their own almanac for the use of sea and air navigation. India with her glorious past, should no longer lag behind other countries in this respect.

It is my pleasant duty to thank my assistants *viz.*, Messers Purshottam Joshi, L. B. Padhye, Tej Kiran, P. S. Karkhanis, S. N. Vyas and others for their whole-hearted co-operation. Despite various difficulties, the zeal shown by these computors is worthy of admiration. Thanks are also due to Mr. N. C. Lahiri M. A. for supplying me with the revised elements of Pluto, to Prof. G. R. Inamdar M. A., B. Sc., for his valuable suggestions and to Mr. A. K. Shirke, Manager, A. D. Press, and his staff, for the utmost care taken by them during the printing of this book.

D. K. BELEKAR,
Offig. Superintendent,
S. J. Observatory,
Ujjain.

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PREFACE.

The general arrangement of matter is practically the same as that in our past numbers. Most of the calculations required for the longitudes of Planets are based on methods devised by the late Principal G. S. Apte. I have, however, noticed that due to secular variations of the elements of the orbits; the results in some cases are not as accurate as they ought to be. In case of Uranus the error in longitude is found to be too large to be neglected. This year the position of this planet is computed from Newcomb's Tables. The slight (though negligible) errors in the positions of Jupiter, Saturn and Neptune are due to mutual perturbations of these bodies. As yet no Indian astronomer has given a satisfactory method of computing these perturbations. It is, therefore, our aim to compute in future the positions of these planets also from the Tables by Newcomb and Hill.

Positions of Pluto were computed *ab initio* from the revised elements of this planet. Owing to its very slow motion the eccentric and true anomalies were first calculated at the interval of twenty days, and the ten-day values were derived therefrom by graphical interpolations.

For the first time the half-day lngitudes and latitudes of Moon are calculated from the Brown's Tables. This is a great achievement because the tremendous wark involving many intricate operations was performed without the aid of mechanical calculating machines. All the places of moon were computed correct to a second of arc, but, for want of space, they are given correct to the minutes only. For the same reason the effect of Nutation (which varies from 13″ to 9″ for this year) is also neglected.

Mean Places of Principal Stars on 1st January 1948.

Names.	Stars.	Mag.	R. A.		Decl.		Long.		Lat.	
			H.	M.	°	′	°	′	°	′
α Andromeda	U. Bhadra	2·1	0	6	+ 28	47	13	33	+ 25	41
γ Pegasi ..	U. Bhadra	2·8	0	10	+ 14	53	8	26	+ 12	36
ξ Piscium ..	Revati.	5·6	1	11	+ 7	17	19	9	— 0	13
α Eridani ..	Acherner.	0·6	1	36	— 57	31	344	35	— 59	23
Polaris ..	Dhruva.	2·1	1	45	+ 89	0	87	51	+ 66	6
β Arietes ..	Ashvini.	2·7	1	52	+ 20	32	33	15	+ 8	29
α Arietes ..	Ashvini.	2·2	2	4	+ 23	12	36	57	+ 9	58
41 Arietes ..	Bharani.	3·7	2	47	+ 27	2	47	29	+ 10	27
β Persei ..	Algol′	Var	3	5	+ 40	45	45	27	+ 22	25
η Tauri ..	Krittika.	3·0	3	44	+ 23	56	59	16	+ 4	3
α Tauri ..	Rohini.	1·1	4	33	+ 16	24	69	4	— 5	28
β Orionis ..	Rigel′	0·3	5	12	— 8	16	76	7	— 31	8
α Aurigee ..	Capella.	0·2	5	13	+ 45	57	81	8	+ 22	52
γ Orionis ..	Bellatrix.	1·7	5	22	+ 6	18	80	14	— 16	49
λ Orionis ..	Mrigashirsh	4·5	5	32	+ 9	27	82	53	— 13	50
ε Orionis ..	Mrig Bana	1·7	5	33	— 1	14	82	45	— 24	31
α Orionis ..	Ardra.	0·9	5	52	+ 7	24	88	2	— 16	2
α Carinae ..	Agastya.	0·9	6	23	— 52	40	104	15	— 75	50
α Canis Majori	Vyadha	1·6	6	43	— 16	38	103	22	— 39	36
α Geminorum	Castor′	2·0	7	31	+ 32	1	109	31	+ 10	5
α Canis Minor	Prashva.	0·5	7	36	+ 5	22	115	5	— 16	0
β Geminorum	Punarvasu	1·2	7	42	+ 28	10	112	31	+ 6	41
δ Cancri ..	Pushya.	4·1	8	42	+ 18	21	127	60	+ 0	4
α Cancri ..	Ashlesha.	4·3	8	55	+ 12	4	132	55	— 5	5
α Leonis ..	Magha.	1·3	10	5	+ 12	4	149	7	+ 0	27
δ Leonis ..	Purva.	2·6	11	11	+ 20	49	160	36	+ 14	20
β Leonis ..	Uttara.	2·2	11	46	+ 14	53	170	54	+ 12	16
δ Corvi ..	Hasta.	3·1	12	27	— 16	12	192	44	— 12	11
α Virginis ..	Chitra	1·2	13	22	— 10	52	203	7	— 2	3
α Bootes ..	Swati.	0·2	14	13	+ 19	28	203	31	+ 30	46
α Libra ..	Vishakaha	2·9	14	48	— 15	49	224	22	+ 0	20
δ Scorpii ..	Anuradha.	2·5	15	57	— 22	28	241	51	— 1	59
α Scorpii ..	Jyeshtha.	1·2	16	26	— 26	19	249	3	— 4	34
λ Scorpii ..	Mool.	1·7	17	30	— 37	4	263	52	— 13	47
δ Sagittarus..	P. Shadha.	2·8	18	17	— 29	51	273	52	— 6	28
ε Sagittarus	P. Shadha.	1·9	18	21	— 34	25	274	22	— 11	2
σ Sagittarus..	U. Shadha.	2·1	18	52	— 26	22	281	40	— 3	26
α Lyrae ..	Abhijit	0·1	18	35	+ 38	44	284	36	+ 61	44
α Aquillae ..	Shravana	0·9	19	48	+ 8	43	301	3	+ 29	18
β Delphini ..	Dhanistha	3·7	20	35	+ 14	24	315	37	+ 31	55
α Delphini ..	Dhanistha	3·8	20	37	+ 15	43	316	40	+ 33	2
α Cygni ..	Deneb.	1·3	20	40	+ 45	5	334	37	+ 59	55
α Aquarii ..	Shatabhij.	3·8	22	50	— 7	52	340	51	— 0	23
α Piscis Astr.	Fomalhaut	1·3	22	55	— 29	55	333	8	— 21	8
β Pegasi ..	P. Bhadra	2·6	23	1	+ 27	47	358	39	+ 31	8
α Pegasi ..	P. Bhadra	2·6	23	2	+ 14	55	352	46	+ 19	24

EPHEMERIS

OF

Planets' Places for 1948.

INTRODUCTION.

THE places of the Sun, Moon and the Planets given in the following pages are *Sayan* and are true for the mean equinox of 1948. They are given for 12 o'clock noon Indian Standard Time (I.S.T.) which is 5½ hours in advance of Greenwich Mean Time, but, for convenience, the *Sidereal Time* is given for the *Mean Noon, Ujjain Local Time.*

Nirayana places are obtained by subtracting the *Ayanamshas* from the *Sayan* places. These *Ayanamshas*, according to different systems prevalent in India, are as follows :—

Grahalaghava	23° 44′ 25″	*Chitra*	23° 6′ 7″
Raivat (Zeta Pisc.)	19° 7′ 55″	*Madras*	21° 40′

It should be noted that the *Tithis* are the same both in the *Sayan* and the *Nirayana* systems.

EXPLANATION OF SYMBOLS.

Planets.	Signs.	Aspects.	
☉ Sun.	♈ Aries.	☌ Conjunction	= 0°
☽ Moon.	♉ Taurus.	⚺ Semi-Sextile	= 30°
Pl Pluto.	♊ Gemini.	⊥ Semi-Quintile	= 36°
♆ Neptune.	♋ Cancer.	∠ Semi-Square	= 45°
♅ Herschel (Uranus).	♌ Leo.	⚹ Sextile	= 60°
♄ Saturn.	♍ Virgo.	Q Quintile	= 72°
♃ Jupiter.	♎ Libra.	□ Square	= 90°
♂ Mars.	♏ Scorpio.	△ Trine	= 120°
♀ Venus.	♐ Sagittarus.	⚻ Sesqui-quadrate	= 135°
☿ Mercury.	♑ Capricornus.	⚼ Bi-quintile	= 144°
⊗ Earth.	♒ Aquarius.	⚻ Quincunx	= 150°
☊ Rahu.	♓ Pisces.	☍ Opposition	= 180°

Date	Day	Sidereal Time	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	°
1	Th.	18 39 22	9♑45	23 S 5	11♒21	4N 51	11N 48	18♒31	13♎ 0
2	F.	43 19	10 47	0	25 33	4 17	5 42	2♎30	0
3	S.	47 15	11 48	10 22 55	9♎20	3 30	0S 29	16 5	0
4	Su.	51 12	12 49	19 50	22 43	2 32	6 29	29 16	1
5	M.	55 8	13 50	28 44	5♒45	1 28	12 3	12♏ 8	1
6	Tu.	59 5	14 51	37 37	18 28	0 21	17 0	24 44	1
7	W.	19 3 1	15 52	46 30	0♐57	0 S47	21 7	7♐ 7	2
8	Th.	6 57	16 53	55 23	13 14	1 50	24 13	19 20	2
9	F.	10 54	17 55	4 15	25 23	2 48	26 9	1♑ 25	2
10	S.	14 51	18 56	13 6	7♑26	3 38	26 51	13 25	2
11	Su.	18 47	19 57	22 21 58	19 23	4 1	26 12	25 20	2
12	M.	22 44	20 58	31 49	1♒17	4 47	24 33	7♒14	2
13	Tu.	26 40	21 59	39 39	13 0	5 0	21 39	19 5	3
14	W.	30 37	23 0	47 29	25 1	5 2	17 56	0♓57	3
15	Th.	34 33	24 1	24 19	6♓54	4 52	13 29	12 51	3
16	F.	38 30	25 3	0 8	18 50	4 28	8 32	24 51	3
17	S.	42 26	26 4	6 20 56	0♈54	3 53	3 11	7♈ 0	3
18	Su.	46 23	27 5	12 45	13 9	3 6	2N20	19 20	3
19	M.	50 19	28 6	17 33	25 39	2 9	7 55	2♉ 2	3
20	Tu.	54 16	29 7	22 20	8♉31	1 5	13 20	15 4	3
21	W.	58 12	0 ♒8	26 8	21 45	0 N 5	18 18	28 33	R 2
22	Th.	20 2 9	1 9	29 19 54	5♊29	1 17	22 29	12♊32	2
23	F.	6 5	2 10	32 40	19 43	2 27	25 29	27 0	2
24	S.	10 2	3 11	34 27	4♋25	3 39	26 52	11♋55	1
25	Su.	13 58	4 12	35 13	19 30	4 18	26 17	27 9	1
26	M.	17 55	5 13	36 18 5[illegible]	4♌49	4 50	23 45	12♌31	1
27	Tu.	21 51	6 14	36 43	20 12	5 1	19 30	27 50	0
28	W.	25 48	7 15	35 28	5♍25	4 50	14 1	12♍54	0
29	Th.	29 45	8 16	33 12	20 18	4 20	7 51	27 37	0
30	F.	33 42	9 17	30 17 56	4♎47	3 3[illegible]	2 31	11♎54	12 59
31	S.	37 38	10 18	26 40	18 45	2 33	4 S 59	25 34	58

Date	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	1N 32	3 S 42	0 N 9	23 N26	1 N 8	15 N14	0 N33	22 S 5	3 N20	11 N 56
3	,,	42	,,	26	9	16	,,	8	24	56
5	,,	42	,,	26	9	19	,,	11	29	58
7	1 33	42	,,	25	9	22	,,	13	33	12 1
9	,,	42	,,	25	10	24	,,	16	37	5
11	,,	42	,,	25	10	27	0 32	18	41	9
13	,,	42	,,	25	10	29	,,	21	46	16
15	,,	42	,,	25	11	32	,,	23	50	23
17	,,	42	,,	24	11	35	,,	25	54	33
19	,,	42	,,	24	11	38	,,	27	58	41
21	,,	42	,,	24	12	41	,,	29	4 2	52
23	1 34	42	,,	24	12	44	,,	31	6	13 3
25	,,	42	,,	24	12	47	,,	33	9	16
27	,,	42	,,	23	12	50	,,	35	13	30
29	,,	41	,,	23	13	54	,,	36	16	44
31	,,	40	,,	23	13	57	,,	38	19	59

Date	♅	♄	♃	♂	♀	☿	☉	☿	♅	♄	♃	♂	♀	☿	Pl
	Longitudes.						Lunar Aspects.								
	° ′	° ′	° ′	° ′	° ′	° ′									
1	23♊30	22♌4	15♐14	7♒17	9♎16	8♑27	△	⚹		□		π	△	⚹	
2	R 27	R 1	27	22	10 30	10 1			□	⚹		☋		∠	
3	25	21 58	40	26	11 45	11 36	□	☌		∠	✶	⚹	△	□	
4	23	55	54	29	12 59	13 12			△	✶		∠			✶
5	20	52	16 6	33	14 14	14 49			☋		∠	✶			
6	18	48	19	35	15 27	16 26	✶	⚹	π	□	⚹		□	✶	□
7	16	45	32	36	16 41	18 5	∠	∠						∠	
8	13	41	44	36	17 55	19 44	⚹	✶			☌	□	✶		△
9	11	37	56	36	19 9	21 24			☌	△				⚹	☋
10	9	34	17 9	R 35	20 23	23 4		□		☋		△	∠		
11	7	30	21	34	21 37	24 44	☌		π	π	⚹	☋	⚹		π
12	5	26	34	31	22 51	26 25					∠			☌	
13	2	22	46	28	24 5	28 5		△	☋		✶	π			☌
14	0	18	58	23	25 19	29 46	⚹	☋	△	☌			☌	⚹	
15	22 58	14 18	10	19	26 32	1♒27	∠				☌				π
16	56	10	22	13	27 46	3 8		π	□	π	□			∠	☋
17	54	6	34	7	29 0	4 50	✶			☋			⚹	✶	
18	52	2	47 6	59	0♓14	6 32		☌			△	π	∠		△
19	50	20 57	58	51	1 28	8 13	□		✶	△		☋			
20	48	53 19	10	41	2 41	9 55		π	∠		☋	☌	✶	□	□
21	46	49	22	32	3 54	11 37		☋	⚹	□	π				
22	44	45	34	22	5 8	13 18	△					□	□		✶
23	43	40	46	11	6 21	14 59	☋	△	☌	✶	☌			△	∠
24	41	35	57 5	59	7 34	16 39	π			∠		✶	△	☋	
25	39	30 20	9	46	8 48	18 19		□	⚹	⚹	π	∠	☋	π	⚹
26	37	25	20	32	10 1	19 57	☌		∠		☋	⚹	π		
27	36	20	32	18	11 14	21 35		✶	✶	☌	△			☌	☌
28	34	15	43	2	12 27	23 10	π	∠				☌			
29	33	11	54 4	47	13 41	24 43	☋	⚹	□	⚹	□		☌	π	⚹
30	31	7 21	5	30	14 53	26 13	△			∠		⚹			∠
31	30	2	16	13	16 6	27 38		☌	△	✶	✶		π	☋	✶

Date	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊	Date	Time.	Phenomena.
	° ′	° ′	° ′	° ′	° ′		H. M.	
1	1 S 45	19S 38	1 S 39	24 S 49	20 ♉ 43	2	22 40	♀ at Aphelion.
3	,,	18 57	47	43	43	3	10 8	☽ on Equator.
5	,,	17	53	29	37	3	16 42	☽ at Last Quarter.
7	,,	17 30	59	11	30	3	19 46	☿ Superior ☌ ☉
9	44	16 43	2 3	23 47	24	6	19 25	☽ at ♉
11	42	15 55	5	14	18	11	13 14	New Mn., ☽ Decl. 26°S7′
13	41	5	6	22 37	11	18	1 51	☽ on Equator.
15	39	14 12	6	21 53	5	19	16 58	☽ at First Quarter.
17	37	13 20	3	3	19 59	21	8 50	☉ enters ♒
19	34	12 26	1 58	20 7	52	21	10 19	☽ at ☊
21	31	11 30	51	19 5	46	26	12 41	Full Mn., ☽ Decl. 20°N38′
23	28	10 33	41	17 57	40	30	20 3	☽ on Equator.
25	25	9 35	28	16 44	33			
27	21	8 37	13	15 28	27			
29	17	7 36	0 54	14 8	20			
31	12	6 35	32	12 48	14			

Date	Day	Sidereal Time			☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H.	M.	S.	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	Su.	20	41	35	11 ♒ 19	17 S 23	2 ♏ 15	1 N 2	11 S 18	8 ♏ 48	12 ♎ 57
2	M.		45	31	12 20	15 6	15 17	0 23	16 4	21 40	57
3	Tu.		49	28	13 21	8 16 49	27 58	0 S 44	20 26	4 ♐ 11	R 56
4	W.		53	24	14 21	59 32	10 ♐ 20	1 47	23 47	16 26	56
5	Th.		57	21	15 22	49 14	22 29	2 44	25 58	28 30	55
6	F.	21	1	17	16 23	38 15 56	4 ♑ 30	3 23	26 45	10 ♑ 28	54
7	S.		5	14	17 24	24 37	16 25	4 12	26 36	22 21	53
8	Su.		9	10	18 25	9 19	28 17	4 40	25 5	4 ♒ 13	53
9	M.		13	7	19 25	53 0	10 ♒ [illegible]	4 53	22 24	16 4	52
10	Tu.		17	3	20 26	37 14 41	22 1	4 58	18 52	27 58	51
11	W.		21	0	21 27	20 21	3 ♓ [illegible]	4 41	14 25	9 ♓ 54	50
12	Th.		24	56	22 28	[illegible] 2	15 53	4 33	9 46	21 54	49
13	F.		28	53	23 28	42 13 42	27 55	3 57	4 27	3 ♈ 59	48
14	S.		32	49	24 29	21 22	10 ♈ 5	3 4	0 N 29	16 13	48
15	Su.		36	46	25 29	59 1	22 24	2 9	6 43	28 38	47
16	M.		40	43	26 30	36 12 41	4 ♉ 55	1 7	12 7	11 ♉ 17	46
17	Tu.		44	40	27 31	13 20	17 44	0 N 1	17 8	24 15	45
18	W.		4[illegible]	36	28 31	46 11 59	0 ♊ 53	1 7	21 26	7 ♊ 36	43
19	Th.		52	33	29 32	18 38	14 26	2 1[illegible]	24 48	21 22	42
20	F.		56	29	0 ♓ 2	48 17	28 26	3 16	26 43	5 ♋ 36	41
21	S.	22	0	25	1 33	16 10 56	12 ♋ 53	4 9	26 57	20 16	40
22	Su.		4	22	2 33	42 34	27 45	4 44	25 15	5 ♌ 17	39
23	M.		8	18	3 34	7 12	12 ♌ 53	5 0	21 45	20 32	38
24	Tu.		12	15	4 34	30 9 50	28 10	4 56	16 44	5 ♍ 49	36
25	W.		16	11	5 34	51 28	13 ♍ 25	4 36	10 46	20 57	35
26	Th.		20	8	6 35	10 6	28 25	3 [illegible]	4 8	5 ♎ 46	34
27	F.		24	5	7 35	28 8 43	13 ♎ 2	2 4[illegible]	2[illegible] 27	20 10	33
28	S.		28	2	8 35	44 21	27 11	1 41	8 54	4 ♏ 4	32
29	Su		31	58	9 35	59 7 58	10 ♏ 50	0 33	14 33	17 29	30

Date.	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
2	1N 34	3 S 40	0 N 9	23 N23	1N 13	16N 1	0 N32	22 S 39	4 N22	14N 15
4	,,	39	,,	23	1[illegible]	4	,,	40	24	31
6	,,	38	,,	23	14	7	,,	42	26	48
8	1 35	38	,,	23	14	11	,,	43	28	15 5
10	,,	38	,,	22	14	14	,,	44	29	22
12	,,	37	,,	22	14	17	,,	45	29	39
14	,,	36	,,	22	14	20	,,	46	30	56
16	,,	35	,,	22	15	24	,,	47	30	16 14
18	,,	34	,,	22	15	2[illegible]	,,	48	30	31
20	,,	33	,,	22	15	30	,,	48	29	46
22	,,	32	,,	22	15	33	,,	49	27	17 1
24	,,	31	,,	22	15	36	,,	50	25	15
26	,,	30	,,	22	15	39	,,	51	23	28
28	,,	29	,,	22	15	42	,,	51	21	41

Date	♅	♄	♃	♂	♀	☿	☉	♆	♅	♄	♃	♂	♀	☿	P
	° ′	° ′	° ′	°	° ′	° ′									
1	22 ♊ 28	19 ♌ 59	21 ♐ 27	3 ♏ 55	17 ♓ 20	28 ♒ 58		☍		∠	✶	☍	△		
2	R 26	R 54	37	R 37	18 33	0 ♓ 15	□	π	□			△		□	
3	25	48	48	18	19 45	1 32		∠	π	⚻	□		□		
4	24	43	59	2 58	20 57	2 42	✶	✶							△
5	23	38	22 9	37	22 10	3 43			☌	△	☌		□		
6	22	33	20	17	23 33	4 34	∠			☍		△		✶	☍
7	20	28	31	1 56	24 35	5 16	⚻	□	π	π		☍	✶	∠	π
8	19	23	41	34	25 47	5 50					⚻	π			☌
9	18	18	51	11	26 59	6 15		△	☍		∠		∠	⚻	
10	17	14	23 1	0 49	28 11	6 26	☌	☍	△	☌	✶				
11	16	9	11	26	29 23	6 31						☌	⚻	☌	
12	15	4	21	3	0 ♈ 36	6R 24		π		π					π
13	14	18 59	31	29 ♌ 40	1 47	6 7	⚻		□	☍	□	π	☌		☍
14	14	54	41	16	2 59	5 39	∠	☌				☍		⚻	△
15	13	49	51	28 53	4 11	5 2	✶		✶	△	△			∠	
16	12	44	24 0	29	5 23	4 16			∠		☍	△	⚻	✶	
17	11	39	9	4	6 34	3 22		π	⚻	□	π		∠		□
18	10	34	18	27 40	7 45	2 23	□	☍				□		□	
19	10	30	27	17	8 47	1 20		△		✶			✶		✶
20	10	25	36	26 53	10 S	0 13	△		☌	∠	☌	✶		△	∠
21	9	20	45	30	11 19	29 ♒ 6	☍	□		⚻		∠	□	☍	⚻
22	9	16	54	6	12 30	27 59			⚻		π	⚻		π	
23	9	11	25 3	25 3	13 41	26 56	π	✶	∠	☌	☍		△		☌
24	8	6	11	20	14 52	25 56	☌	∠	✶		△	☌	☍	☌	
25	8	1	19	24 57	16 2	25 3		⚻		⚻			π		⚻
26	7	17 57	28	34	17 12	24 10			□	∠	□	⚻		π	∠
27	7	52	36	12	18 23	23 27	π	☌		✶		∠	☌	☍	✶
28	D 8	48	44	23 50	19 32	22 51	☍		△		✶	✶		△	
29	8	44	52	28	20 43	22 21	△	⚻	☍		∠				□

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean. ☊
	° ′	° ′	° ′	° ′	° ′
2	1 S 7	5 S34	0 S 7	11 S 30	19 ♉ 8
4	2	4 32	0N 22	10 12	1
6	0 56	3 29	53	9 2	18 55
8	51	2 27	1 26	8 3	49
10	45	1 24	59	7 19	42
12	39	0 22	2 31	6 49	36
14	33	0N 41	3 0	39	30
16	25	1 45	23	48	23
18	19	2 47	38	7 14	17
20	12	3 50	44	33	11
22	4	4 53	41	8 43	4
24	0 N 3	5 54	30	9 35	17 58
26	11	6 55	11	10 28	52
28	19	7 56	2 49	11 15	45

Date.	Time.	Phenomena.
	H. M.	
2	6 2	☽ at Last Quarter.
2	20 14	☽ at ♉
4	..	☿ Max. Elong. 18° E 21′.
8	8 31	New Mn. ☽ Decl 21°S37′.
10	13 4 45	♀ on Equator.
14	9 40	☽ on Equator.
17	11 39	☽ at ♌
18	7 22	☽ at First Quarter.
19	23 0	☉ enters ♓
20	8 26	☿ Inf. ☌ ☉
24	22 45	Full Mn.; ☽ Decl 16°N29′
27	1 21	☽ on Equator.
29	22 51	☽ at ♉

Date	Day.	Sidereal Time.	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′ ″	° ′	° ′	° ′	° ′	° ′	° ′
1	M.	22 35 54	10 ♈ 36 12	7 S 36	24 ♏ 1	0 S 40	19 S 26	0 ♐ 26	12 ♒ 29
2	Tu.	39 50	11 36 22	13	6 ♐ 46	1 46	23 11	13 1	R 28
3	W.	43 47	12 36 31	6 49	19 11	2 45	25 45	25 17	26
4	Th.	47 43	13 36 38	26	1 ♑ 20	3 35	27 2	7 ♑ 21	25
5	F.	51 40	14 36 44	4	13 18	4 15	27 1	19 16	23
6	S.	55 36	15 36 48	5 40	25 12	4 43	25 45	1 ♒ 7	22
7	Su.	59 33	16 36 51	17	7 ♒ 2	5 0	23 21	12 58	21
8	M.	23 3 30	17 36 52	4 54	18 54	5 3	19 58	24 51	19
9	Tu.	7 27	18 36 52	30	0 ♓ 49	4 53	15 45	6 ♓ 48	18
10	W.	11 24	19 36 50	7	12 48	4 30	11 4	18 50	16
11	Th.	15 20	20 36 45	3 43	24 54	3 55	5 37	1 ♈ 0	15
12	F.	19 17	21 36 38	20	7 ♈ 8	3 9	0 4	13 17	13
13	S.	23 13	22 36 29	2 56	19 31	2 13	5 N35	25 45	11
14	Su.	27 10	23 36 18	32	2 ♉ 1	1 10	11 5	8 ♉ 21	10
15	M.	31 6	24 36 5	9	14 44	0 2	16 14	21 11	9
16	Tu.	35 3	25 35 49	1 45	27 41	1 N 7	20 22	4 ♊ 15	7
17	W.	38 59	26 35 31	21	10 ♊ 54	2 15	24 18	17 37	5
18	Th.	42 56	27 35 11	0 58	24 25	3 16	26 35	1 ♋ 19	4
19	F.	46 52	28 34 49	34	8 ♋ 17	4 7	27 17	15 21	2
20	S.	50 49	29 34 25	10	22 30	4 45	26 35	29 43	1
21	Su.	54 45	0 ♈ 33 59	0 N14	7 ♌ 1	5 6	23 27	14 ♌ 23	11 59
22	M.	58 42	1 33 31	37	21 48	5 6	19 4	29 15	57
23	Tu.	0 2 38	2 33 2	1 1	6 ♍ 43	4 46	13 29	14 ♍ 12	56
24	W.	6 35	3 32 31	24	21 39	4 7	7 6	29 4	54
25	Th.	10 31	4 31 58	48	6 ♎ 26	3 12	0 23	13 ♎ 42	53
26	F.	14 28	5 31 23	2 12	20 56	2 5	6 S 18	28 3	51
27	S.	18 24	6 30 46	33	5 ♏ 4	0 51	12 24	11 ♏ 58	49
28	Su.	22 21	7 30 6	58	18 46	0 S 23	17 47	25 28	47
29	M.	26 18	8 29 24	3 22	2 ♐ 0	1 34	22 6	8 ♐ 31	46
30	Tu.	30 15	9 28 40	45	14 54	2 38	25 12	21 12	44
31	W.	34 11	10 27 54	4 8	27 24	3 32	26 58	27 24	43

Date.	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
1	1 N35	3 S28	0 N 9	23 N22	1 N 15	16 N44	0 N32	22 S 52	4 N 18	17 N 53
3	,,	27	,,	2	15	47	32	52	16	18 4
5	,,	26	,,	22	16	50	32	52	12	12
7	,,	25	,,	22	16	52	32	53	8	20
9	,,	23	,,	22	16	55	32	53	4	27
11	1 36	22	,,	22	16	57	32	53	0	32
13	,,	21	,,	22	16	59	32	54	3 55	37
15	,,	20	,,	22	16	17 1	32	54	51	41
17	,,	18	,,	22	16	3	32	54	46	43
19	,,	17	,,	22	16	5	32	54	41	43
21	,,	16	,,	23	16	6	32	54	37	43
23	,,	15	,,	23	16	8	32	55	32	42
25	,,	13	,,	23	16	10	31	55	27	40
27	,,	12	,,	23	15	11	31	55	22	37
29	,,	11	,,	23	15	12	31	55	17	33
31	,,	9		23	15	13	31	55	13	29

Date	♅	♄	♃	♂	♀	☿	☉	♆	♅	♄	♃	♂	♀	☿	P
	Longitudes						Lunar Aspects.								
	° ′	° ′	° ′	° ′	° ′	° ′									
1	22 ♊ 8	17 ♌ 39	25 ♐ 59	23 ♌ 7	21 ♈ 53	21 ♒ 59		∠	π	□	⚻	□	π	♂	
2	8	35	26 7	22 R 47	23 3	44	□	✱					☋		△
3	8	31	14	28	24 13	35			♂	△		△	△	✱	
4	8	26	21	9	25 22	33				☋	♂	☋		∠	☋
5	8	22	28	21 50	26 32	D 39	✱	□		π					π
6	8	18	35	32	27 41	54	∠		π		⚻	π	□	⚻	
7	9	15	42	15	28 50	22 11		△	☋		∠				♂
8	9	11	49	20 59	29 59	31	⚻		△	♂		♂		♂	
9	10	7	56	43	1 ♉ 8	55		☋			✱		✱		
10	10	3	27	28	2 16	23 26		π		π			∠		
11	11	16 59	9	14	3 24	24 2	♂		□		□	π		⚻	π
12	11	55	14	0	4 33	43		♂		☋		☋	⚻	∠	☋
13	11	52	20	19 46	5 41	25 27	⚻		✱	△		△			△
14	12	49	26	33	6 49	26 14			∠		△		♂	✱	
15	13	46	32	21	7 57	27 4		π		□	☋	□			
16	14	42	37	11	9 5	59	✱	☋	⚻		π		□		□
17	15	39	42	1	10 12	28 56		△		✱			⚻		
18	16	36	48	18 52	11 19	29 56	□		♂		♂		∠	△	✱
19	17	33	53	44	12 26	0 ♓ 59		□		∠		✱	✱		∠
20	18	30	57	37	13 32	2 4			⚻	⚻	π	∠		☋	⚻
21	19	27	28 1	30	14 39	3 11	△	✱	∠		☋			π	♂
22	20	24	5	24	15 45	4 20	☋	∠	✱	♂	△	♂	□		
23	21	22	10	19	16 51	5 32	π	⚻						♂	⚻
24	23	19	15	15	17 57	6 46			□	⚻	□	⚻	△		∠
25	24	7	19	11	19 3	8 2	♂	♂		∠		∠	☋	π	✱
26	25	14	22	8	20 8	9 19			△	✱		✱	⚻	☋	
27	27	12	26	6	21 13	10 39	⚻	⚻	☋		✱			△	
28	28	9	29	5	22 18	12 0	☋		π	□	∠	□	♂		□
29	29	7	33	4	23 23	13 23		∠			⚻				
30	31	6	36	4	24 28	14 47	△	✱		△		△		□	△
31	32	4	39	D 5	25 32	16 13			♂	☋	♂		π		☋

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean. ☊	Date	Time. H. M.	Phenomena.
	° ′	° ′	° ′	° ′	° ′			
1	0 N27	8 N59	2 N24	11 S 55	17 ♉ 39	2	22 4	☽ at Last Quarter.
3	35	9 56	1 56	12 29	32	11	2 43	New Mn. ☽ Decl. 7°S45′
5	43	10 55	28	54	26	12	12 16	☽ on Equator.
7	50	11 51	5	13 4	20	15	12 35	☽ at ♌
9	1 0	12 49	0 34	21	13	17	..	☿ Max. Elong. 27°W39′
11	12	13 47	10	21	7	18	17 57	☽ at First Quarter.
13	17	14 38	0 S 14	16	1	20	22 18	☉ enters ♈
15	26	15 32	34	2	16 54	25	8 42	Full Mn. ☽ Decl. 1°N18′.
17	34	16 22	55	12 42	48	25	13 22	☽ on Equator.
19	43	17 12	1 7	10	42	28	4 32	☽ at ♉
21	51	18 3	28	11 43	35			
23	2 0	18 47	42	4	29			
25	8	19 32	54	10 19	23			
27	16	20 16	2 5	9 30	16			
29	24	57	13	8 35	10			
31	32	21 22	20	7 35	4			

Date	Day.	Sidereal Time.	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′ ″	° ′	° ′	° ′	° ′	° ′	° ′
1	Th.	0 38 8	11 ♈ 27 5	4N 31	9 ♋ 38	4 S 16	27 S 21	15 ♋ 40	11 ♎ 41
2	F.	42 4	12 26 15	55	21 40	47	26 25	27 37	R 39
3	S.	46 1	13 25 24	5 18	3 ♒ 34	5 6	24 20	9 ♒ 30	38
4	Su.	49 57	14 24 31	41	15 25	12	21 11	21 21	36
5	M.	53 54	15 23 35	6 4	27 18	4	17 10	3 ♓ 16	34
6	Tu.	57 50	16 22 37	27	9 ♓ 16	4 43	12 28	15 18	31
7	W.	1 1 47	17 21 37	40	21 21	10	7 15	27 28	30
8	Th.	5 44	18 20 35	7 12	3 ♈ 37	3 24	1 45	9 ♈ 48	29
9	F.	9 40	19 19 30	34	16 4	2 28	4 N 2	22 21	28
10	S.	13 37	20 18 23	56	28 41	1 23	9 43	5 ♉ 5	26
11	Su.	17 33	21 17 14	8 18	11 ♉ 32	0 14	15 4	18 2	24
12	M.	21 30	22 16 8	41	24 36	0 N 57	19 24	1 ♊ 14	23
13	Tu.	25 26	23 14 49	9 2	7 ♊ 52	2 7	23 43	14 35	21
14	W.	29 23	24 13 34	24	21 21	3 11	26 21	28 11	20
15	Th.	33 19	25 12 8	45	5 ♋ 4	4 5	27 26	12 ♋ 0	18
16	F.	37 16	26 11 0	10 7	18 59	46	26 49	26 0	16
17	S.	41 13	27 9 40	28	3 ♌ 6	5 10	24 37	10 ♌ 13	15
18	Su.	45 10	28 8 18	49	17 23	15	20 37	24 35	14
19	M.	49 6	29 6 54	11 10	1 ♍ 49	1	15 31	9 ♍ 3	12
20	Tu.	53 3	0 ♉ 5 28	30	16 17	4 24	9 28	23 31	10
21	W.	57 0	1 4 0	1	0 ♎ 45	3 37	3 1	7 ♎ 56	8
22	Th.	2 0 56	2 2 31	12 11	15 5	2 33	3 S 36	22 12	7
23	F.	4 53	3 1 0	31	29 14	1 21	9 57	6 ♏ 13	5
24	S.	8 49	3 59 27	51	13 ♏ 7	0 5	15 42	19 54	4
25	Su.	12 46	4 57 52	13 11	26 40	1 S 10	20 33	3 ♐ 18	3
26	M.	16 42	5 56 15	30	9 ♐ 35	2 17	24 9	16 5	2
27	Tu.	20 39	6 54 37	49	22 44	3 18	26 33	29 2	0
28	W.	24 36	7 52 57	14 9	5 ♑ 16	4 7	27 27	11 ♑ 26	10 58
29	Tu.	28 33	8 51 15	27	17 33	44	26 59	23 36	57
30	F.	32 30	9 49 31	46	29 37	5 7	25 14	5 ♒ 36	55

Date.	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
2	1N 36	3 S 8	0 N 9	23 N24	1 N15	17 N14	0N 31	22 S 55	3 N 7	18 N 21
4	,,	6	,,	24	15	15	,,	,,	3	16
6	,,	5	,,	24	15	16	,,	,,	2 58	8
8	,,	4	,,	24	15	16	,,	,,	53	0
10	,,	3	,,	24	15	17	,,	,,	49	17 50
12	,,	2	,,	25	15	17	,,	,,	44	41
14	,,	1	,,	25	15	17	,,	,,	40	31
16	,,	0	,,	25	15	17	,,	,,	36	20
18	,,	2 58	,,	25	15	17	,,	,,	31	8
20	,,	57	,,	26	14	17	,,	,,	27	16 55
22	,,	56	,,	26	14	17	,,	,,	23	45
24	,,	55	,,	26	14	16	,,	22 56	19	29
26	,,	53	,,	26	14	16	,,	,,	15	15
28	,,	52	,,	27	14	15	,,	,,	11	0
30	,,	51	,,	27	14	14	,,	,,	7	15 45

Date	♅	♄	♃	♂	♀	☿	☉	☽	♅	♄	♃	♂	♀	☿	Pl
	Longitudes.						Lunar Aspects.								
	° ′	° ′	° ′	° ′	° ′	° ′									
1	22 ♊ 34	16 ♌ 2	28 ♐ 41	18 ♌ 7	26 ♉ 36	17 ♓ 41	□	□				•	☍		☍
2	35	R 1	44	9	27 39	19 11			☍	☍		☍		✶	
3	37	15 59	46	12	28 42	20 41			☍		☌		△	∠	
4	39	58	48	16	29 44	22 13	✶	△		☌	∠	☌			☌
5	40	56	50	21	0 ♊ 47	23 47	∠	☍	△		✶		□	☌	
6	41	55	52	26	1 49	25 23		☍							☍
7	44	54	54	32	2 51	27 0	☌		□	☍		☍			
8	46	53	55	38	3 52	28 38				☍	□	☍	7	☌	☍
9	48	53	56	45	4 53	0 ♈ 18	☌	☌		△		△	✶		△
10	50	51	57	53	5 53	2 0			✶		△			☌	
11	52	50	58	19 1	6 53	3 43		☍	∠	□	☍			☌	□
12	55	50	59	10	7 54	5 27	☌	☍	☌		☍	□		∠	
13	58	49	59	19	8 54	7 13	∠	△					☌	✶	✶
14	59	49	59	29	9 53	9 1	✶		☌	✶		✶			∠
15	23 1	48	59	40	10 52	10 50		□		∠	☌	∠	☌	□	
16	4	48	59	51	11 50	12 40			☌	☌		☌			☌
17	6	48	59	20 3	12 47	14 33	□		∠		☍		∠		
18	8	48	59	15	13 45	16 27		✶	✶	☌	☍	☌	✶	△	☌
19	11	48 R	58	28	14 42	18 21	△	∠			△			☍	
20	13	48	58	41	15 38	20 15	☍	☌	□	☌		☌	□	☍	☌
21	15	49	57	55	16 34	22 9	☍			∠	□	∠			∠
22	18	50	55	21 9	17 29	24 3		☌		✶		✶	△		✶
23	20	51	54	24	18 25	26 5	☌		△		✶		☍	☌	
24	23	51	52	40	19 20	28 13		☌	☍	□	∠		☍		□
25	26	51	51	55	20 13	0 ♉ 21		∠	☍		☌	□		☌	
26	29	52	49	22 11	21 6	2 29	☍	✶		△					△
27	32	53	47	28	57	4 38	☍		☌		☌	△	☌	☍	☍
28	34	54	44	45	22 47	6 46	△	□		☍		☍		△	
29	36	56	41	23 2	23 38	8 54				☍		☍			☍
30	39	58	39	20	24 28	11 4			☍		☌		☍		

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊	Date.	Time.	Phenomena.
	° ′	° ′	° ′	° ′	° ′		H. M.	
2	2N 40	22N 15	2 S 24	6 S 30	15 ♉ 57	1	15 56	☽ at Last Quarter.
4	48	48	27	5 20	51	8	19 13	☽ on Equator.
6	55	23 24	27	4 5	44	9	18 45	New Mn.; ☽ Decl.4°N32′
8	3 2	55	26	2 47	38	11	16 50	☽ at ☊
10	9	24 24	23	1 24	32	12	9 50	☿ on Equator.
12	16	51	17	0 N 4	25	17	1 12	☽ at First Quarter.
14	22	25 16	10	1 35	19	20	9 45	☉ enters ♉.
16	28	38	1	3 9	13	21	3 0	♀ at ♊
18	33	59	1 49	4 47	6	21	22 56	☽ on Equator.
20	38	26 17	36	6 28	0	23	13 36	☽ at ♋
22	43	34	21	8 5	14 54	23	17 0	Full Mn.; ☽ Decl.9°S3
24	46	48	4	9 51	47	28	11 0	☿ Superior ☌ ☉
26	50	58	0 45	11 39	41			
28	53	27 7	25	13 22	35			
30	55	14	4	15 4	28			

Date	Day	Sidereal Time	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	S.	2 36 27	10 ♉ 47	15 N 4	11 ♎ 34	5 S 17	22 S 23	17 ♎ 31	10 ♏ 54
2	Su.	40 23	11 45	56	22	23 27	5 13	18 37	29 23	R 53
3	M.	44 20	12 44	6	40	5 ♐ 21	4 55	14 8	11 ♐ 20	52
4	Tu.	48 17	13 42	14	58	17 21	4 24	9 4	23 25	50
5	W.	52 13	14 40	20	16 15	29 31	3 42	3 35	5 ♈ 40	49
6	Th.	56 10	15 38	25	32	11 ♈ 53	2 49	2 N 5	18 9	48
7	F.	3 0 6	16 36	29	48	24 30	1 47	7 50	0 ♉ 55	46
8	S.	4 2	17 34	31	17 5	7 ♉ 24	0 37	13 24	13 58	45
9	Su.	7 58	18 32	32	21	20 36	0 N36	18 29	27 17	44
10	M.	11 54	19 30	31	37	4 ♊ 3	1 48	22 44	10 ♊ 53	43
11	Tu.	15 51	20 28	28	52	17 44	2 56	25 48	24 42	41
12	W.	19 47	21 26	23	18 8	1 ♋ 40	3 54	27 21	8 ♋ 41	39
13	Th.	23 44	22 24	16	23	15 44	4 39	27 8	22 49	38
14	F.	27 41	23 22	8	37	29 55	5 7	25 10	7 2	37
15	S.	31 37	24 19	58	52	14 ♌ 9	5 15	21 38	21 16	36
16	Su.	35 34	25 17	47	19 6	28 23	5 6	16 49	5 ♍ 29	35
17	M.	39 30	26 15	35	19	12 ♍ 35	4 38	11 7	19 40	35
18	Tu.	43 26	27 13	21	33	26 43	3 45	4 45	3 ♎ 44	34
19	W.	47 23	28 11	5	46	10 ♎ 44	2 55	1 S34	17 41	34
20	Th.	51 19	29 8	48	58	24 36	1 47	7 53	1 ♏ 28	32
21	F.	55 16	0 ♊ 6	30	20 11	8 ♏ 17	0 32	13 46	15 4	31
22	S.	59 12	1 4	11	23	21 46	0 S 42	18 54	28 36	30
23	Su.	4 3 9	2 1	51	34	5 ♐ 1	1 51	22 58	11 ♐ 32	29
24	M.	7 5	2 59	30	46	18 0	2 51	25 45	24 23	28
25	Tu.	11 2	3 57	8	57	0 ♑ 43	3 49	27 16	7 ♑ 0	28
26	W.	15 58	4 54	45	21 7	13 12	4 30	27 16	19 21	26
27	Th.	19 55	5 52	21	18	25 ♑ 27	4 58	25 56	1 ♒ 30	25
28	F.	23 51	6 49	26	27	7 ♒ 32	5 12	23 25	13 31	25
29	S.	27 48	7 47	30	37	19 28	5 11	20 13	25 25	24
30	Su.	31 45	8 45	30	46	1 ♓ 22	4 53	15 37	7 ♓ 18	23
31	M.	35 41	9 42	35	55	13 16	4 34	10 47	19 14	22

Date	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
2	1N 36	2 S 50	0 N 9	23 N 27	1 N 14	17 N 13	0 N 31	22 S 56	2 N 3	15 N 30
4	,,	49	,,	27	,,	12	,,	,,	0	13
6	,,	48	,,	28	,,	11	,,	,,	1 56	14 N 56
8	,,	47	,,	28	,,	9	0 30	,,	53	38
10	,,	46	,,	28	,,	7	,,	,,	49	21
12	,,	45	,,	28	1 13	6	,,	,,	46	3
14	,,	44	,,	29	,,	5	,,	,,	43	13 44
16	,,	43	,,	29	,,	2	,,	,,	40	24
18	,,	42	,,	29	,,	0	,,	,,	37	4
20	,,	42	,,	30	,,	16 58	0 29	,,	34	12 44
22	,,	41	,,	30	,,	56	,,	22 55	31	24
24	1N 35	41	,,	30	,,	54	,,	,,	28	3
26	,,	40	,,	31	,,	52	,,	,,	25	11 42
28	,,	39	,,	31	,,	49	,,	,,	22	20
30	,,	38	,,	31	,,	46	,,	22 54	19	10 57
			,,							

Date	♅	♄	♃	♂	♀	☿
	° ′	° ′	° ′	° ′	° ′	° ′
1	23 ♊ 42	16 ♌ 0	28 ♐ 36	23 ♋ 39	25 ♊ 18	13 ♉ 15
2	45	1	R 33	58	26 6	15 25
3	48	3	30	24 17	54	17 35
4	51	4	27	36	27 41	19 43
5	54	5	23	56	28 27	21 50
6	57	7	19	25 16	29 13	23 57
7	24 0	9	15	37	57	26 3
8	2	12	11	58	0 ♏ 40	28 5
9	6	14	7	26 19	1 22	0 ♊ 7
10	9	17	3	40	2 3	2 9
11	12	20	27 59	27 2	43	4 9
12	16	22	54	24	3 22	6 5
13	19	24	49	46	4 0	7 58
14	23	27	44	28 9	36	9 49
15	26	30	38	32	5 11	11 36
16	29	34	33	56	45	13 20
17	32	37	28	29 20	6 18	15 0
18	36	40	22	45	50	16 39
19	39	43	16	0 ♍ 10	7 19	18 11
20	42	46	10	35	47	19 42
21	45	50	4	1 0	8 14	21 10
22	48	54	26 58	25	39	22 37
23	51	57	52	50	9 2	23 58
24	54	17 0	46	2 15	23	25 15
25	57	4	40	40	43	26 29
26	25 1	8	33	3 6	10 0	27 40
27	4	12	26	32	16	28 46
28	8	16	20	58	30	29 49
29	11	20	13	4 25	42	0 ♏ 48
30	15	24	6	53	52	1 44
31	18	28	25 59	5 20	59	2 37

Lunar Aspects: ☉ ☽ ♅ ♄ ♃ ♂ ♀ ☿ P

Date	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊	Date	Time H. M.	Phenomena
	° ′	° ′	° ′	° ′	° ′			
2	3N 56	27 N19	0N 16	16 N 42	14 ♉ 22	1	10 16	☽ at Last Quarter.
4	57	23	38	18 17	16	3	13 20	☿ at ♋
6	57	24	58	19 42	9	6	3 19	☽ on Equator.
8	57	23	1 17	20 59	3	9	0 10	☽ at ♋
10	55	22	34	22 8	13 56	9	8 0	New Mn. ☽ Decl. 17°N3
12	52	16	49	23 7	50	16	6 25	☽ at First Quarter.
14	49	12	2 1	56	44	18	12 0	☿ at Perihelion.
16	44	3	11	24 34	37	19	5 43	☽ on Equator.
18	38	26 54	17	25 3	31	21	9 18	☉ enters ♊.
20	32	44	19	21	25	21	22 23	☽ at ♉
22	23	33	19	33	18	23	6 8	Full Mn. ☽ Decl. 21°S58′
24	14	20	15	37	12	29	..	☿ Max. Elogn. 23°E0′
26	2	6	7	33	6	31	4 14	☽ at Last Quarter.
28	2 50	25 51	1 56	23	12 59			
30	36	35	41	9	53			

Date	Day.	Sidereal Time.	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′ ″	° ′	° ′	° ′	° ′	° ′	° ′
1	Tu.	4 38 38	10 ♊ 40 6	22 N 3	25 ♐ 15	3 S 56	5 S 29	1 ♈ 19	10 ♎ 22
2	W.	42 35	11 37 36	11	7 ♈ 24	3 5	0 6	13 36	R 21
3	Th.	46 32	12 35 5	19	19 50	2 8	5N 47	26 10	21
4	F.	50 28	13 32 33	26	2 ♉ 34	1 18	11 9	9 ♉ 3	20
5	S.	54 25	14 30 0	33	15 38	0 N 10	16 41	22 19	20
6	Su.	58 21	15 27 26	39	29 6	1 22	21 18	5 ♊ 57	19
7	M.	5 2 18	16 24 51	45	12 ♊ 54	2 32	24 52	19 58	19
8	Tu.	6 14	17 22 15	51	27 2	3 34	26 58	4 ♋ 12	19
9	W.	10 10	18 19 38	56	11 ♋ 25	4 22	27 18	18 40	18
10	Th.	14 7	19 17 0	23 1	25 57	4 56	25 49	3 ♌ 13	18
11	F.	18 3	20 14 21	5	10 ♌ 30	5 10	22 35	17 46	18
12	S.	22 0	21 11 41	9	25 1	5 4	17 58	2 ♍ 13	17
13	Su.	25 56	22 9 0	13	9 ♍ 21	4 39	12 22	16 30	17
14	M.	29 52	23 6 18	16	23 33	3 58	6 12	0 ♎ 33	17
15	Tu.	33 49	24 3 35	19	7 ♎ 30	3 2	0 S 11	14 24	17
16	W.	37 46	25 0 52	21	21 14	1 58	6 28	28 0	16
17	Th.	41 43	25 58 7	23	4 ♏ 44	0 45	12 23	11 ♏ 24	16
18	F.	45 40	26 55 21	25	18 1	0 S 25	17 35	24 35	16
19	S.	49 36	27 52 35	26	1 ♐ 6	1 34	21 55	7 ♐ 34	16
20	Su.	53 33	28 49 48	26	13 59	2 37	25 5	20 22	16
21	M.	57 29	29 47 1	27	26 41	3 32	26 56	2 ♑ 57	16
22	Tu.	6 1 26	0 ♋ 44 14	27	9 ♑ 11	4 15	27 22	15 22	16
23	W.	5 22	1 41 27	26	21 30	4 46	26 24	27 36	16
24	Th.	9 18	2 38 40	25	3 ♒ 39	5 2	24 14	9 ♒ 41	16
25	F.	13 15	3 35 53	25	15 40	5 6	21 0	21 37	16
26	S.	17 12	4 33 6	22	27 35	4 59	16 24	3 ♓ 31	16
27	Su.	21 8	5 30 19	20	9 ♓ 27	4 33	12 15	15 23	16
28	M.	25 5	6 27 32	17	21 20	3 59	7 6	27 18	D 17
29	T.	29 1	7 24 45	14	3 ♈ 18	3 14	1 39	9 ♈ 20	17
30	W.	32 58	8 21 58	11	15 26	2 20	3N 56	21 35	17

Date.	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	1 N35	2 S 38	0 N 9	23 N31	1 N13	16N44	0 N 29	22 S 54	1 N16	10 N34
3	,,	38	,,	32	12	41	0 28	,,	13	11
5	,,	37	,,	32	12	38	,,	,,	11	9 47
7	,,	37	,,	32	12	35	,,	,,	8	23
9	,,	37	,,	32	12	32	,,	22 53	5	8 59
11	,,	37	,,	32	12	29	0 27	,,	3	33
13	,,	37	,,	33	12	25	,,	,,	0	9
15	1 34	37	,,	33	12	22	,,	22 52	0 58	7 44
17	,,	37	0 10	33	12	18	,,	22 51	55	18
19	,,	37	,,	33	12	14	0 26	,,	53	6 52
21	,,	37	,,	33	12	9	,,	,,	51	26
23	,,	38	,,	34	12	4	,,	22 50	49	5 59
25	,,	38	,,	34	12	3	0 25	,,	46	32
27	,,	38	,,	34	12	0	,,	22 49	44	6
29	,,	38	,,	34	12	15 56	,,	,,	42	4 39

Date	Longitudes. ♅	♄	♃	♂	♀	☿	Lunar Aspects. ☉	♆	♅	♄	♃	♂	♀	☿	P
	° ′	° ′	° ′	° ′	° ′	° ′									
1	25 ♊ 21	17 ♌ 33	25 ♐ 52	5 ♏ 48	11 ♋ 4	3 ♋ 26			□		□				☍
2	☽ 25	☽ 38	45	6 ☽ 16	☽ 7	4 ☽ 8	✶	☌		☍		π	□	□	△
3	29	42	39	44	7	44			✶	△	△	☍			
4	32	46	31	7 12	R 6	5 18	∠					△		✶	
5	36	51	23	41	2	49	⚺	π	∠	□	☍		✶	∠	□
6	39	56	15	8 9	10 56	6 15		☍	⚺		π		∠		
7	43	18 1	8	38	48	36	☌	△		✶		□	⚺	⚺	✶
8	46	5	0	9 7	36	53			☌	∠	☌			⚺	∠
9	49	11	24 53	36	22	7 6		□		⚺		✶	☌	☌	⚺
10	53	16	45	10 5	8	13	⚺		⚺		π	∠			
11	57	21	37	35	9 51	16	∠	✶	∠		☍	⚺	⚺	⚺	☌
12	26 0	27	30	11 5	29	20	✶	∠	✶	☌	△		∠	∠	
13	4	32	22	35	5	R 9		⚺				☌	✶	✶	⚺
14	7	37	14	12 5	8 40	6 59	□		□	⚺	□				∠
15	11	43	7	35	13	45		☌		∠		⚺	□	□	✶
16	14	48	23 59	13 5	7 44	27	△		△	✶	✶				
17	18	53	51	36	14	5	☍	⚺	☍		∠	∠	△	△	
18	21	59	44	14 7	6 41	5 40	☍			□	⚺	✶	☍	☍	□
19	25	19 5	36	38	8	12	π	∠	π				π	π	
20	29	11	28	15 9	5 33	4 41		✶		△		□			△
21	32	17	21	40	4 57	9	☌		☌		☌				☍
22	36	23	13	16 11	20	3 35		□		☍			☌	☌	π
23	40	28	5	43	3 43	0			π	π	⚺	△			
24	43	34	22 58	17 15	5	2 24	π				∠	☍	π	π	
25	47	40	51	46	2 28	1 48	☍	△	☍	☌		π	☍	☍	☌
26	50	47	43	18 18	1 50	15		☍	△		✶		△	△	
27	54	53	36	51	14	0 44	△	π							π
28	57	59	29	19 23	0 39	14			□	π	□	☌			
29	27 1	20 5	21	56	4	29 ♊ 46	□			☍			□	□	☍
30	5	12	14	20 28	29 ♊ 30	22		☌		△		π			△

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean. ☊	Date.	Time.	Phenomena.
	° ′	° ′	° ′	° ′	° ′		H. M.	
1	2 N20	25N 18	1 N23	24 N47	12 ♉ 47	2	..	☽ on Equator.
3	2	1	2	24	40	5	9 23	☽ at ♌
5	1 43	24 41	0 38	23 57	34	7	18 23	New Mn; ☽ Decl. 25°N25′
7	1 22	22	11	28	27	14	23 11	☽ at First Quarter.
9	0 59	1	0 S 18	22 57	21	15	5 42	☽ on Equator.
11	34	23 39	50	25	15	18	3 26	☽ at ♉
13	9	17	1 23	21 52	8	21	17 47	☉ enters ♋
15	0 S 18	22 54	57	21	2	21	18 25	Full Moon; ☽ Decl. 27°S3′
17	45	30	2 30	20 49	11 56	23	22 25	♀ Inf. ☌ ☉
19	1 14	5	3 2	19	49	24	18 30	♀ Inf. ☌ ☉
21	42	21 40	32	19 51	43	29	19 5	☽ on Equator.
23	2 10	14	57	28	37	29	20 54	☽ at Last Quarter.
25	37	20 48	4 18	8	30			
27	3 3	24	32	18 55	24			
29	27	0	41	46	18			

Date	Day.	Sidereal Time.	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	
1	Th.	6 36 55	9 ♋ 19	11 23 N 7	27 ♈ 51	1 S 17	9 N 30	4 ♉ 8	10 ♎ 17
2	F.	40 51	10 16	24 3	10 ♉ 33	0 10	14 49	17 4	D 18
3	S.	44 48	11 13	37 22 58	23 39	1 N 14	19 53	0 ♊ 22	18
4	Su.	48 45	12 10	50 53	7 ♊ 15	2 8	23 38	14 12	18
5	M.	52 41	13 8	3 48	21 14	3 15	26 24	28 26	19
6	Tu.	56 38	14 5	16 42	5 ♋ 42	4 4	27 24	13 ♋ 2	19
7	W.	7 0 34	15 2	29 36	20 27	4 42	26 32	27 53	19
8	Th.	4 31	15 59	42 29	5 ♌ 22	5 1	23 N 52	12 ♌ 52	20
9	F.	8 27	16 56	55 22	20 21	5 0	19 27	27 48	21
10	S.	12 24	17 54	8 15	5 ♍ 12	4 38	13 55	12 ♍ 33	22
11	Su.	16 21	18 51	21 7	19 50	3 54	7 26	27 2	22
12	M.	20 17	19 48	34 21 59	4 ♎ 8	3 5	1 55	11 ♎ 9	23
13	Tu.	24 14	20 45	47 51	18 6	2 1	5 S 14	24 57	24
14	W.	28 10	21 43	0 42	1 ♏ 42	0 52	11 16	8 ♏ 24	25
15	Th.	32 7	22 40	13 32	15 0	0 S 19	16 38	21 33	25
16	F.	36 3	23 37	27 23	28 2	1 43	21 24	4 ♐ 27	26
17	S.	40 0	24 34	42 13	10 ♐ 46	2 29	24 31	17 8	27
18	Su.	43 56	25 31	57 2	23 24	3 23	26 39	29 37	28
19	M.	47 52	26 29	12 20 52	5 ♑ 49	4 6	27 25	11 ♑ 58	29
20	Tu.	51 49	27 26	28 41	18 6	4 37	26 48	24 11	30
21	W.	55 45	28 23	44 29	0 ♒ 14	4 55	24 54	6 ♒ 14	31
22	Th.	59 42	29 21	1 18	12 16	5 0	21 55	18 15	32
23	F.	8 3 38	0 ♌ 18	19 6	24 12	4 51	18 3	0 ♓ 9	33
24	S.	7 35	1 15	38 19 53	6 ♓ 4	4 30	13 28	12 0	34
25	Su.	11 32	2 12	58 40	17 55	3 58	8 26	23 51	35
26	M.	15 28	3 10	18 27	29 47	3 15	3 4	5 ♈ 44	36
27	Tu.	19 25	4 7	38 14	11 ♈ 43	2 23	0 N 44	17 45	37
28	W.	23 21	5 4	59 0	23 50	1 22	7 59	29 58	38
29	Th.	27 18	6 2	21 18 46	6 ♉ 10	0 19	13 17	12 ♉ 28	39
30	F.	31 15	6 59	44 32	18 51	0 N 48	18 12	25 20	41
31	S.	35 11	7 57	8 17	1 ♊ 56	1 54	22 25	8 ♊ 38	42

Date.	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	1 N 33	2 S 39	0 N 10	23 N 34	1 N 12	15 N 52	0 N 24	22 S 48	0 N 40	4 N 11
3	,,	,,	,,	35	,,	47	,,	,,	38	3 43
5	,,	,,	,,	35	,,	43	,,	22 47	36	14
7	,,	,,	,,	35	,,	39	0 23	,,	34	2 39
9	,,	2 40	,,	35	,,	35	,,	22 46	32	14
11	,,	41	,,	35	,,	30	,,	,,	30	1 48
13	,,	41	,,	35	,,	26	0 22	22 45	27	19
15	,,	42	,,	35	,,	21	,,	,,	26	0 50
17	,,	43	,,	35	,,	17	,,	22 44	24	15
19	,,	44	,,	36	,,	12	0 21	,,	22	0 S 11
21	,,	45	,,	36	,,	7	,,	,,	20	38
23	,,	46	,,	36	,,	3	,,	22 43	18	1 8
25	1 32	47	,,	36	,,	14 58	,,	,,	16	38
27	,,	48	,,	36	,,	53	0 20	22 42	14	2 8
29	,,	49	,,	36	,,	48	,,	,,	13	38
31		50		36		43	,,	,,	11	3 8

Date	♅	♄	♃	♂	♀	☿	☉	☽	♅	♄	♃	♂	♀	☿	P
	Longitudes.						Lunar Aspects.								
	° ′	° ′	° ′	° ′	° ′	° ′									
1	27 ♊ 8	20 ♌ 18	22 ♐ 7	21 ♏ 1	28 ♊ 56	29 ♊ 1			*		△		*	*	
2	D 12	D 25	R 0	D 34	R 24	28 R 43	*	π	∠	☐	☐		∠	∠	□
3	15	31	21 53	22 7	27 53	30	∠	☐	⚻	□	π	△	⚻	⚻	
4	19	38	46	40	25	23	⚻	△							*
5	22	44	40	23 13	26 59	21			☌	*	☍	□	☌	☌	
6	26	50	33	46	35	21		□		∠					∠
7	29	57	26	24 20	13	D 25	☌		⚻	⚻	π	*	⚻		⚻
8	32	21 4	20	53	25 53	38		*	∠		☐	∠		⚻	
9	36	11	14	25 27	35	57	⚻	∠	*	☌	△	⚻	*	∠	☌
10	39	18	7	26 1	20	29 18	∠	⚻						*	
11	43	25	1	35	7	44	*			⚻	□	☌	□		⚻
12	46	32	20 55	27 9	24 57	0 ♋ 16		☌	□	∠				□	∠
13	49	38	50	43	49	53	□			*	*		△		*
14	53	46	44	28 17	43	1 35			△		∠	⚻		△	
15	56	53	38	52	40	2 22		⚻	☐		⚻	∠	☐	☐	□
16	59	22 0	33	29 27	39	3 14	△	∠	π						
17	28 3	7	28	0 ♎ 2	D 40	4 12	☐	*					☌		△
18	6	14	23	37	44	5 13	π		☌	△	☌	□			☐
19	9	22	18	1 12	50	6 19		□		☐					
20	12	29	13	47	58	7 31				π	⚻				π
21	15	35	8	2 22	25 8	8 49	☌		π		∠	△	π		
22	19	42	4	57	20	10 11		△	☐			☐	☐	π	☌
23	22	50	19 59	3 32	34	11 39	π	☐	△	☌	*		△	☐	
24	25	57	55	4 7	50	13 10		π				π			
25	28	23 4	51	43	26 8	14 44	☐			π	□			△	π
26	31	12	47	5 19	28	16 22	⚻		□			☌	□		☐
27	34	19	44	55	50	18 2		☌		☐					△
28	37	27	40	6 31	27 13	19 47			*	△	△		*	□	
29	40	34	36	7 7	39	21 40	□	π			☐	π			
30	43	41	33	43	28 5	23 33			∠	☐	π	☐	∠	*	□
31	46	49	31	8 20	34	25 27	*	☐	⚻			⚻			

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊	Date.	Time.	Phenomena.
	° ′	° ′	° ′	° ′	° ′		H. M.	
1	3 S 50	19 N 36	4 S 41	18 N 46	11 ♉ 11	2	14 52	☽ at ☊
3	4 10	16	37	49	5	7	2 38	New Mn. ☽ Decl. 26°N52′
5	28	18 58	29	57	10 59	9	14 37	☽ at Apogee.
7	44	40	15	19 11	52	12	13 21	☽ on Equator.
9	56	26	3 57	29	46	13	17 2	☽ at First Quarter.
11	5 7	15	38	49	40	15	5 35	☽ at ♉
13	16	5	14	20 13	33	16	..	☿ Max. Elon. 20°W23′
15	20	1	2 49	36	27	21	8 2	Full Mn. ☽ Decl. 25°S13′
17	27	17 58	22	21 1	20	23	4 20	☉ enters ♌
19	29	51	1 55	23	14	23	10 3	☽ at Perigee.
21	30	51	27	42	8	27	7 23	☽ on Equator.
23	31	52	0 58	58	1	29	11 43	☽ at Last Quarter.
25	31	54	31	22 7	9 55	29	18 48	☽ at ☊
27	29	58	7	8	49			
29	24	18 2	0 N 19	1	42			
31	18	7	41	21 44	36			

Date	Day	Sidereal Time	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♀
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	Su.	8 39 8	8 ♌ 54	18 N 2	15 ♊ 28	2 N 56	25 N 35	22 ♊ 26	10 ♎ 43
2	M.	43 4	9 51	57 17 47	29 30	3 50	26 56	6 ♋ 42	☽ 44
3	Tu.	47 1	10 49	23 31	14 ♋ 1	4 32	27 12	21 24	45
4	W.	50 58	11 46	50 16	28 55	55	25 11	6 ♌ 29	47
5	Th.	54 54	12 44	18 16 59	14 ♌ 5	59	21 19	21 43	48
6	F.	58 50	13 41	47 43	29 22	42	16 5	6 ♍ 57	50
7	S.	9 2 46	14 39	17 27	14 ♍ 30	5	9 52	21 59	51
8	Su.	6 43	15 36	47 19	29 24	3 11	3 10	6 ♎ 42	52
9	M.	10 39	16 34	18 15 52	13 ♎ 55	2 7	3 S 33	21 1	53
10	Tu.	14 36	17 31	50 35	28 1	0 56	9 39	4 ♏ 54	55
11	W.	18 32	18 29	23 17	11 ♏ 41	0 S 12	15 10	18 22	56
12	Th.	22 29	19 26	57 14 59	24 57	1 24	20 22	1 ♐ 27	57
13	F.	26 25	20 24	33 41	7 ♐ 24	2 28	24 4	14 13	59
14	S.	30 22	21 22	10 23	20 30	3 22	26 28	26 44	11 1
15	Su.	34 19	22 19	48 4	2 ♑ 54	4 6	27 30	9 ♑ 2	2
16	M.	38 16	23 17	28 13 46	15 8	4 37	27 10	21 12	4
17	Tu.	42 12	24 15	9 27	27 14	4 55	25 33	3 ♒ 12	5
18	W.	46 9	25 12	51 7	9 ♒ 14	5 1	22 47	15 12	7
19	Th.	50 5	26 10	35 12 48	21 9	4 53	19 4	27 6	9
20	F.	54 2	27 8	20 28	3 ♓ 2	4 32	14 37	8 ♓ 56	11
21	S.	57 59	28 6	7 8	14 53	4 0	9 38	20 48	12
22	Su.	10 1 55	29 3	55 11 48	26 45	3 17	3 8	2 ♈ 41	14
23	M.	5 52	0 ♍ 1	45 28	8 ♈ 39	2 25	1 N 13	14 38	16
24	Tu.	9 48	0 59	36 7	20 38	1 26	6 44	26 41	18
25	W.	13 45	1 57	28 10 47	2 ♉ 46	0 23	12 5	8 ♉ 55	20
26	Th.	17 42	2 55	22 26	15 8	0 N 43	17 4	21 25	21
27	F.	21 38	3 53	18 5	27 46	1 48	21 26	4 ♊ 14	23
28	S.	25 34	4 51	16 9 44	10 ♊ 47	2 50	24 52	17 27	25
29	Su.	29 31	5 49	16 23	24 14	3 44	27 3	1 ♋ 7	27
30	M.	33 27	6 47	18 2	8 ♋ 8	4 28	29 26	15 17	29
31	Tu.	37 24	7 45	21 8 40	22 32	4 55	26 25	29 52	31

Date	♀ Lat.	♀ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
2	1 N 32	2 S 51	0 N 10	23 N 37	1 N 13	14 N 39	0 N 19	22 S 42	0 N 9	3 S 39
4	,,	52	,,	37	,,	34	,,	,,	7	4 9
6	,,	53	,,	37	,,	29	0 18	,,	6	39
8	,,	54	,,	37	,,	24	,,	,,	4	5 9
10	,,	55	,,	37	,,	19	,,	,,	3	39
12	,,	56	,,	37	,,	14	0 17	22 43	2	6 9
14	,,	57	,,	37	,,	9	,,	,,	0 S 0	40
16	,,	58	,,	37	,,	4	,,	,,	2	7 10
18	1 31	3 0	,,	37	,, 13	59	0 16	,,	4	41
20	,,	1	,,	37	1 14	53	,,	22 44	5	8 11
22	,,	2	,,	37	,,	48	,,	,,	7	41
24	,,	4	,,	37	,,	43	0 15	22 45	8	9 11
26	,,	5	,,	37	,,	38	,,	,,	10	41
28	,,	7	0 11	37	,,	33	,,	22 46	11	10 11
30	,,	8	,,	37	,,	28	0 14	22 47	13	41
	,,									

Date	♅	♄	♃	♂	♀	☿	☉	♀	♅	♄	♃	♂	♀	☿	pl
	Longitudes.						Lunar Aspects.								
1	28 ♊ 49	23 ♌ 56	19 ♐ 28	8 ♎ 56	29 ♊ 3	27 ♋ 24		△			☌	△		∠	✶
2	D 52	24 D 4	R 25	9 D 33	29 D 34	29 D 23	∠		☌	✶			☌	⚻	∠
3	55	11	23	10 9	0 ♋ 7	1 ♌ 23	⚻	□		∠	☍	□			⚻
4	58	18	21	46	41	3 28			⚻	⚻	☍		⚻	☌	
5	29 1	26	19	11 22	1 16	5 35	☌	✶	∠		△	✶	∠		☌
6	4	34	17	59	52	7 44		∠	✶	☌		∠	✶		
7	7	41	15	12 36	2 30	9 52	⚻	⚻			□	⚻		⚻	⚻
8	9	49	13	13 13	3 9	12 0	∠		□	⚻			□	∠	∠
9	12	57	12	50	49	14 6	✶	☌		∠	✶	☌		✶	✶
10	15 25	4	11	14 27	4 30	16 9			△	✶	∠		△		
11	18	12	10	15 4	5 12	18 8		⚻				⚻			□
12	21	20	9	42	55	20 7	□	∠	⚹	□	⚻	∠	☍	□	
13	23	27	8	16 20	6 38	22 6		✶					⚹		
14	25	35	8	58	7 23	24 5	△		☌	△	☌	✶		△	△
15	28	43	7	17 36	8 8	26 3	☍						☌		☍
16	30	50	7	18 30	54	28 0		□		☍	⚻	□		☍	⚹
17	32	58	D 8	51	9 42	29 54	⚹		⚹	⚹				⚹	
18	34 26	5	8	19 28	10 30	1 ♏ 45		△	☍		∠		⚹		☌
19	37	13	8	20 6	11 19	1 39	☌	☍	△	☌	✶	△	☍		
20	39	21	9	44	12 8	5 31						☍		☌	
21	41	29	10	21 22	59	7 23		⚹			□		△		⚹
22	43	37	11	22 1	13 50	9 12	⚹		□	⚹		⚹			☍
23	45	44	12	39	14 43	11 0		☌		☍				⚹	
24	47	52	14	23 18	15 34	12 47	☍				△	☌	□		△
25	50 27	0	15	57	16 27	14 33	△		✶	△	☍			☍	
26	52	7	17	24 36	17 21	16 17		⚹	∠		⚹		✶	△	□
27	54	15	19	25 14	18 15	17 58	□	☍	⚻	□		⚹	∠		
28	56	22	21	53	19 9	19 39		△				☍			✶
29	58	30	24	26 32	20 5	21 20			☌	✶	☌	△	⚻	□	∠
30	59	38	26	27 11	21 1	23 1	✶	□		∠					⚻
31	0 ♋ 1	45	29	50	57	24 39	∠			⚻	⚹	□	☌	✶	

Date	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊	Date	Time	Phenomena
	° ′	° ′	° ′	° ′	° ′		H. M.	
2	5 S 12	18 N 14	0 N 59	21 N 15	9 ♉ 30	5	9 42	New Mn; ☽ Decl. 21°N41′
4	6	21	1 15	20 36	23	6	3 46	☽ at Apogee.
6	4 59	27	28	19 46	17	8	21 51	☽ on Equator.
8	51	33	36	18 44	11	11	7 46	☽ at ♉
10	43	39	42	17 37	4	11	20 8	☿ Sup. ☌ ☉
12	35	44	45	16 25	8 58	12	1 11	☽ at First Quarter.
14	26	49	45	15 9	51	19	23 2	Full Mn; ☽ Decl. 17°S 2′
16	16	53	42	13 46	45	20	1 34	☽ at Perigee.
18	7	56	37	12 22	39	23	5 17	☽ on Equator.
20	3 57	58	27	10 50	32	23	11 17	☉ enters ♍
22	46	58	17	9 19	26	25	20 21	☽ at ♌
24	36	58	12	7 52	20	27	0 16	☽ at Last Quarter.
26	26	55	1	6 21	13			
28	15	52	0 48	4 50	7			
30	4	46	35	3 19	1			

Date	Day.	Sidereal Time.	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♀
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	
1	W.	10 41 21	8♍ 43	26 8N 18	7♌ 21	5N 5	23N 21	14♌ 53	11♎ 33
2	Th.	45 18	9 41	32 7 58	22 28	4 53	18 39	0♍ 6	D 35
3	F.	49 14	10 39	40 34	7♍ 45	4 21	12 42	15 24	37
4	S.	53 11	11 37	49 12	23 1	3N 31	6 1	0♎ 34	39
5	Su.	57 7	12 36	1 6 50	8♎ 7	2N 25	1S 0	15 28	41
6	M.	11 1 4	13 34	18 28	22 46	1 11	7 42	29 58	43
7	Tu.	5 0	14 32	27 5	7♏ 3	0S 5	13 57	14♏ 0	45
8	W.	8 57	15 30	43 5 23	20 51	1 18	19 14	27 35	47
9	Th.	12 53	16 29	1 20	4♐ 13	2 25	23 22	10♐ 44	49
10	F.	16 50	17 27	21 4 57	17 10	3 23	26 11	24 31	51
11	S.	20 47	18 25	43 35	29 46	4 8	27 35	5♑ 57	53
12	Su.	24 43	19 24	7 12	12♑ 7	4 42	27 34	18 11	55
13	M.	28 50	20 22	33 3 49	24 15	5 2	26 2	0♒ 16	57
14	Tu.	32 36	21 21	0 26	6♒ 15	5 8	23 41	12 13	59
15	W.	36 33	22 19	29 3	18 10	5 1	20 10	24 4	12 1
16	Th.	40 30	23 18	0 2 40	0♓ 2	4 41	15 51	5♓ 57	3
17	F.	44 26	24 16	32 16	11 53	4 9	10 56	17 50	5
18	S.	48 23	25 15	5 1 53	23 46	3 26	5 37	29 44	7
19	Su.	52 19	26 13	40 30	5♈ 43	2 32	0N 3	11♈ 43	10
20	M.	56 16	27 12	18 7	17 44	1 37	5 28	23 47	12
21	Tu.	12 0 13	28 10	59 0 43	29 52	0 29	10 58	6♉ 0	14
22	W.	4 9	29 9	42 20	12♉ 10	0N 39	16 7	18 22	16
23	Th.	8 6	0♎ 8	27 0S 3	24 39	1 42	20 35	0♊ 58	18
24	F.	12 2	1 7	14 27	7♊ 23	2 46	24 17	13 50	21
25	S.	15 59	2 6	1 50	20 25	3 42	26 47	27 4	23
26	Su.	19 55	3 4	51 1 14	3♋ 48	4 27	27 50	10♋ 38	25
27	M.	23 52	4 3	43 37	17 35	4 58	27 13	24 35	27
28	Tu.	27 48	5 2	37 2 0	1♌ 45	5 12	24 51	8♌ 59	30
29	W.	31 45	6 1	34 24	16 18	5 7	20 50	23 41	32
30	Th.	35 41	7 0	33 47	1♍ 9	4 42	15 24	8♍ 39	34

Date.	♀ Lat.	♀ Decl.	♂ Lat.	♂ Decl.	♃ Lat.	♃ Decl.	♄ Lat.	♄ Decl.	♅ Lat.	♅ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
1	1N 31	3S 10	0 N11	23N 37	1 N15	13N 22	0 N14	22 S 48	0 S 14	11S 10
3	,,	12	,,	37	,,	17	,,	49	16	40
5	,,	13	,,	37	,,	13	0 13	50	17	12 9
7	,,	14	,,	37	,,	8	,,	51	19	37
9	,,	16	,,	37	,,	3	,,	52	20	13 6
11	,,	18	,,	38	1 16	12 58	0 12	53	21	34
13	,,	20	,,	38	,,	53	,,	54	23	14 2
15	,,	22	,,	38	,,	48	,,	55	25	31
17	,,	24	,,	38	,,	43	,,	56	26	57
19	,,	25	,,	38	1 17	38	0 11	57	27	15 24
21	,,	27	,,	38	,,	33	,,	58	28	51
23	,,	28	,,	38	,,	29	,,	59	29	16 17
25	,,	30	,,	38	,,	25	0 10	23 0	30	43
27	,,	31	,,	38	1 18	19	,,	1	32	17 8
29	,,	31	,,	38	,,	15	,,	2	33	33

Date	♅	♄	♃	♂	♀	☿	☉	☽	♅	♄	♃	♂	♀	☿	Pl
	Longitudes.						Lunar Aspects.								
	° ′	° ′	° ′	° ′	° ′	° ′									
1	0♎ 3	27♌ 52	19♐ 32	28♎ 30	22 ♎ 54	26♍ 15	♃	✱	♃		☐			∠	
2	D 5	28 D 0	D 35	29 9	23 51	27 51		∠	∠	♂	△	✱	♃	♃	♂
3	7	8	38	49	24 49	29 25	♂	♃	✱			∠	∠		
4	8	15	41	0♏ 28	25 47	0♎ 58			□	♃	□		✱		♃
5	10	23	45	1 8	26 45	2 29	♃	♂		∠		♃		♂	∠
6	12	31	49	47	27 44	3 59	∠			✱	✱		□		✱
7	13	38	53	2 27	28 44	5 28		♃	△		∠	♂		♃	
8	14	45	57	3 7	29 44	6 56	✱	∠	☐		♃			∠	□
9	16	53	20 2	47	0♌ 44	8 23			♇	□		♃	△	✱	
10	17	29 0	6	4 27	1 44	9 48	□	✱			♂	∠	☐		△
11	18	8	10	5 7	2 45	11 12			♂	△		✱	♇		☐
12	20	15	15	47	3 46	12 36		□		☐				□	♇
13	21	22	20	6 27	4 47	13 57	△			♇	♃				
14	22	30	25	7 7	5 49	15 17	☐	△	♇		∠	□	♂		
15	23	37	31	48	6 52	16 35	♇		☐		✱			△	♂
16	24	44	36	8 28	7 54	17 52		☐	△	♂				☐	
17	25	52	42	9 9	8 57	19 8		♇				△	♇		♇
18	26	59	47	50	10 1	20 22	♂				□	☐	☐	♇	
19	27	0♍ 6	53	10 31	11 4	21 34		♇	□			♇	△		☐
20	29	13	21 0	11 12	12 8	22 45		♂		☐	△			♂	△
21	29	20	6	53	13 11	23 53	♇		✱	△					
22	30	27	12	12 34	14 16	25 0	☐	♇	∠		☐	♂	□		□
23	30	34	18	13 15	15 21	26 5	△	☐	♃	□	♇		♇		
24	31	41	25	56	16 26	27 7		△						☐	
25	31	48	32	14 37	17 31	28 7					♂	♇	✱		✱
26	32	55	39	15 18	18 37	29 5	□		♂	✱		☐	∠	△	∠
27	33 1	2	46	16 0	19 43	59		□		∠	♇	△	♃		♃
28	33	9	54	41	20 49	0♏ 50	✱		♃	♃	☐			□	
29	34	16	22 1	17 23	21 55	1 38	∠	✱	∠		△	□	♂		♂
30	34	22	8	18 4	23 1	2 23	♃	∠	✱	♂				✱	

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean. ☊	Date.	Time.	Phenomena.
	° ′	° ′	° ′	° ′	° ′		H. M.	
1	2 S 57	18N 38	0 N21	1 N49	7 ♉ 54	3	6 37	☽ at Apogee.
3	43	30	6	0 20	48	3	16 53	New Mn., ☽ Decl. 11°N51′
5	31	20	0 S 10	1 S 8	42	3	23 0	☿ on Equator.
7	21	8	26	2 34	35	5	8 35	☽ on Equator.
9	10	17 53	42	3 58	29	7	10 26	☽ at ☊
11	1 59	37	58	5 19	23	10	12 34	☽ at First Quarter.
13	48	20	1 14	6 38	16	16	..	☿ Max. Eng. 24°E34′.
15	38	2	31	7 56	10	17	1 50	☽ at Perigee.
17	27	16 38	47	9 9	3	18	15 15	Full Mn., ☽ Decl. 41°S33′
19	16	14	2 2	10 18	6 57	19	11 50	Moon on Equator.
21	6	15 49	16	48	51	19	7 40	♀ at Perihelion.
23	0 56	21	32	12 26	44	21	22 23	☽ at ☊
25	46	14 51	46	13 23	38	23	8 32	☉ enters ♎
27	36	20	57	14 14	32	26	10 37	☽ at Last Quarter.
29	26	13 47	3 9	15 0	25	30	22 50	☽ at Apogee.

Date	Day	Sidereal Time	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	F.	12 39 38	7♎59	3 S 10	16♏10	3 N57	9 N 5	23♏43	12♎36
2	S.	43 35	8 58	36	1♎16	2 55	2 11	8♎46	D 38
3	Su.	47 31	9 57	40	57 16	12	1 53	4 S 38	23 37	41
4	M.	51 28	10 56	46	4 20	0♏56	0 23	11 27	8♏ 9	43
5	Tu.	55 24	11 55	55	43	15 17	0 S 56	17 19	22 16	44
6	W.	59 21	12 55	5	5 6	29 12	2 9	22 5	6♐ 0	47
7	Th.	13 3 17	13 54	7	29	12♐41	3 13	25 37	19 15	49
8	F.	7 14	14 53	31	52	25 43	4 4	27 27	2♑ 5	52
9	S.	11 10	15 52	47	6 15	8♑25	4 42	27 53	14 38	54
10	Su.	15 7	16 52	6	38	20 47	5 6	26 53	26 53	56
11	M.	19 4	17 51	27	7 1	2♒55	5 15	24 38	8♒55	58
12	Tu.	23 0	18 50	50	23	14 53	5 11	21 20	20 50	13 1
13	W.	26 56	19 50	15	46	26 46	4 53	17 11	2♓41	3
14	Th.	30 53	20 49	43	8 8	8♓37	4 23	12 24	14 33	5
15	F.	34 49	21 49	13	30	20 30	3 42	7 9	26 28	7
16	S.	38 46	22 48	45	52	2♈27	2 50	1 38	8♈28	10
17	Su.	42 43	23 48	18	9 15	14 31	1 51	4 N 2	20 36	13
18	M.	46 40	24 47	53	36	26 43	0 45	9 36	2♉53	15
19	Tu.	50 36	25 47	30	58	9♉ 6	0 N 23	14 54	15 21	16
20	W.	54 33	26 47	9	10 20	21 38	1 32	17 36	28 0	18
21	Th.	58 30	27 46	50	41	4♊25	2 37	23 36	10♊53	21
22	F.	14 2 26	28 46	33	11 3	17 25	3 35	25 4	24 0	23
23	S.	6 23	29 46	18	24	0♋39	4 22	27 49	7♋21	25
24	Su.	10 19	0♏46	5	45	14 8	4 57	26 58	20 58	27
25	M.	14 16	1 45	54	12 5	27 53	5 15	25 43	4♌52	29
26	Tu.	18 13	2 45	45	26	11♌51	5 15	22 17	19 1	31
27	W	22 9	3 45	38	46	26 10	4 56	17 26	3♍23	33
28	Th.	26 6	4 45	33	13 7	10♍39	4 18	11 33	17 56	35
29	F.	30 3	5 45	30	27	25 14	3 23	5 0	2♎36	37
30	S.	33 59	6 45	30	47	9♎56	2 15	1 S 52	17 15	40
31		37 56	7 45	32	14 0	24 33	0 58	8 35	1♏48	42

Date	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	1N 31	3 S34	0 N11	23N 38	1 N18	12N 10	0N 10	23 S 4	0 S 34	17 S 58
3	,,	36	,,	38	1 19	6	9	5	35	18 21
5	,,	38	,,	38	,,	1	9	6	36	45
7	,,	40	,,	3	,,	11 57	9	7	38	19 8
9	,,	41	,,	38	1 20	53	8	9	39	30
11	,,	43	,,	38	,,	49	8	10	40	53
13	,,	45	,,	38	,,	45	8	11	41	20 12
15	,,	47	,,	38	,,	41	7	12	42	33
17	,,	49	,,	38	1 21	37	7	13	43	53
19	,,	51	,,	38	,,	33	7	14	44	21 18
21	,,	53	0 12	38	1 22	29	7	15	45	29
23	,,	55	,,	38	,,	26	7	16	46	47
25	,,	56	,,	38	,,	22	6	16	47	22 3
27	,,	59	,,	38	1 23	19	6	17	48	19
29	,,	4 0	,,	38	,,	16	6	18	49	34
31	,,	1	,,	38	,,	12	6	19	50	48

Date	♅	♄	♃	♂	♀	☿	☉	♆	♅	♄	♃	♂	♀	☿	Pl
	Longitudes.						Lunar Aspects.								
	° ′	° ′	° ′	° ′	° ′	° ′									
1	0♋ 34	1♏ 29	22♐ 16	18♏ 46	24 ♌ 8	3♏ 4		☍			□	✶		∠	☍
2	D 34	D 36	D 24	19 D 27	25 15	D 40			□	☍		∠	☍	☍	∠
3	34	42	32	20 9	26 22	4 12	♂	♂		∠	✶	☍	∠		✶
4	34	49	40	51	27 29	38			△	✶	∠		✶	♂	
5	35	55	48	21 33	28 36	59	☍	☍	☍			♂			□
6	35	2 2	56	22 15	29 44	5 14	∠	∠	π	□	☍		□	☍	
7	35	8	23 5	58	0♏ 51	23	✶	✶							△
8	35	14	14	23 40	1 59	25		♂		♂	☍		∠		☍
9	R 34	20	22	24 22	3 8	R 20		□	△		∠	△	✶		
10	34	26	31	25 4	4 16	5	□		☍	☍	✶	☍			π
11	34	32	40	47	5 25	4 44			π	π	∠		π	□	
12	33	39	49	26 29	6 34	15	△	△	☍						♂
13	33	45	58	27 11	7 43	3 39		☍	△		✶	□			
14	32	51	24 8	54	8 52	2 53	☍	π		♂			♂	△	
15	32	57	17	28 37	10 1	1 59	π				□			☍	π
16	31	3 3	27	29 20	11 10	0♎58			□	π		△		π	☍
17	31	9	37	0♐ 3	12 20	29 51		♂		☍		☍	π		△
18	30	15	46	46	13 30	28 40	♂		✶		△	π	☍	♂	
19	30	20	56	1 29	14 40	27 26		π		△	☍		△		□
20	29	26	25 6	2 12	15 50	26 12	π		∠		π			π	
21	29	31	16	55	17 0	24 59		☍	☍	□		♂		☍	
22	29	37	27	3 38	18 10	23 49	☍	△					□	△	✶
23	28	42	37	4 22	19 20	22 46	△		♂	✶	♂	π			∠
24	28	47	47	5 5	20 31	21 49		□		∠		☍			☍
25	27	53	58	48	21 42	4	□		☍	☍	π		✶	□	
26	25	58	26 9	6 31	22 53	20 36		✶	∠		☍	△	∠		♂
27	25	4 3	19	7 15	24 4	17		∠	✶		△		☍	✶	
28	23	8	30	59	25 15	19 57	✶	☍		♂		□		∠	☍
29	22	13	41	8 4	26 26	4 6	∠		□		□	✶	♂	☍	∠
30	21	17	52	9 27	27 37	D 54	☍	♂		☍					✶
31	20	22	27 3	10 11	28 49	20D 15			△	∠	✶	∠	☍	♂	

Date	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊	Date	Time H. M.	Phenomena
	° ′	° ′	° ′	° ′	° ′			
1	0 S 17	13 N13	3 S 19	15 S 39	6 8 19	2	22 53	☽ on Equator.
3	8	12 36	26	16 9	13	3	1 12	New Mn; ☽ Decl. 2°S 28′
5	0 N 0	11 58	30	29	6	4	18 58	☽ at ♉
7	10	20	30	37	0	10	3 41	☽ at First Quarter.
9	17	10 38	26	32	5 54	14	13 25	☽ at Perigee
11	23	9 54	16	10	47	16	18 54	☽ on Equator.
13	33	1	0	15 33	41	18	7 54	Full Mn; ☽ Decl. 8 °N 49′
15	41	8 26	2 37	14 37	35	19	3 53	☽ at ♌
17	47	7 40	6	13 23	28	20	18 19	☿ Inf. ☍ ☉
19	54	6 53	1 30	11 58	22	23	17 40	☉ enters ♏
21	1 1	4	0 49	10 26	15	25	19 11	☽ at Last Quarter.
23	6	5 14	8	8 59	9	28	13 22	☽ at Apogee.
25	12	4 19	0 N31	7 45	3	30	5 20	☽ on Equator.
27	18	3 33	1 2	6 58	4 56			
29	23	2 41	31	20	50			
31	27	1 49	51	12	44			

Date	Day.	Sidereal Time. H.	M.	S.	☉ Long. °	′	″	☉ Decl. °	′	☽ Long. °	′	☽ Lat. °	′	☽ Decl. °	′	Midnight ☽ °	′	♀ °
1	M.	14	41	52	8	45	35	14 S	25	9 ♏	0	0 S	22	14 S	51	16 ♏	9	13 ♎ 44
2	Tu.		45	49	9	45	39		45	23	13	1	40	20	11	0 ♐	12	D 46
3	W.		49	45	10	45	45	15	3	7 ♐	5	2	49	26	21	13	53	48
4	Th.		53	42	11	45	53		22	20	35	3	47	26	53	27	12	50
5	F.		57	39	12	46	2		40	3 ♑	42	4	31	27	55	10 ♑	7	52
6	S.	15	1	35	13	46	12		59	16	27	5	1	27	24	22	42	54
7	Su.		5	31	14	46	24	16	16	28	53	5	15	25	32	5 ♒	0	56
8	M.		9	28	15	46	38		34	11 ♒	3	5	15	22	30	17	4	58
9	Tu.		13	24	16	46	56		51	23	2	5	1	18	35	28	59	14 2
10	W.		17	21	17	47	12	17	8	4 ♓	55	4	35	13	58	10 ♓	50	2
11	Th.		21	18	18	47	32		25	16	46	3	56	8	51	22	42	4
12	F.		25	14	19	47	53		42	28	39	3	8	3	24	4 ♈	39	6
13	S.		29	11	20	48	16		58	10 ♈	40	2	7	2 N	17	16	44	8
14	Su.		33	8	21	48	41	18	13	22	51	1	6	7	51	29	1	10
15	M.		37	4	22	49	8		29	5 ♉	15	0 N	2	13	17	11 ♉	32	12
16	Tu.		41	0	23	49	37		44	17	54	1	11	18	24	24	19	14
17	W.		44	56	24	50	8		59	0 ♊	50	2	18	22	35	7 ♊	21	16
18	Th.		48	53	25	50	46	19	13	13	59	3	25	25	53	20	38	17
19	F.		52	49	26	51	14		28	27	20	4	10	27	35	4 ♋	9	19
20	S.		56	46	27	51	50		41	10 ♋	57	4	48	27	46	17	51	21
21	Su.	16	0	42	28	52	28		55	24	47	5	9	26	15	1 ♌	45	23
22	M.		4	39	29	53	8	20	8	8 ♌	43	5	13	23	7	15	44	24
23	Tu.		8	35	0 ♐	53	49		21	22	46	4	59	18	38	29	50	26
24	W.		12	32	1	54	30		33	6 ♍	54	4	26	13	5	14 ♍	0	28
25	Th.		16	28	2	55	12		45	21	6	3	37	6	51	28	12	30
26	F.		20	25	3	55	55		56	5 ♎	18	2	34	0	15	12 ♎	25	31
27	S.		24	21	4	56	39	21	8	19	30	1	23	6 S	22	26	35	33
28	Su.		28	18	5	57	24		18	3 ♏	38	0 S	6	12	50	10 ♏	40	34
29	M.		32	14	6	58	11		29	17	40	1	10	18	14	24	37	36
30	Tu.		36	11	7	59	0		39	1 ♐	31	2	21	22	46	8 ♐	21	37

Date.	♀ Lat.	♀ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
2	1 N31	4 S 2	0 N12	23 N38	1 N 24	11 N ♑	0 N 5	23 S20	0 S 51	23 S 4
4	,,	4	,,	38	24	7	,,	,,	51	15
6	1 32	5	,,	38	25	4	,,	23 21	52	26
8	,,	6	,,	38	25	1	,,	23 22	53	36
10	,,	7	,,	38	26	10 59	,,	,,	54	44
12	,,	9	,,	38	26	56	,,	23 23	55	52
14	,,	10	,,	38	27	54	0 4	,,	55	24 9
16	,,	11	,,	39	27	52	,,	,,	56	14
18	,,	12	,,	39	28	50	,,	,,	57	19
20	,,	13	,,	39	28	48	0 3	,,	58	23
22	1 33	14	,,	39	29	47	,,	,,	58	25
24	,,	16	,,	39	29	45	,,	,,	59	27
26	,,	17	,,	39	29	44	,,	,,	59	27
28	,,	19	,,	39	30	43	,,	,,	1 0	27
30	,,	20	,,	39	30	42	,,	23 22	1	26

Date	♅ °	′	♄ °	′	♃ °	′	♂ °	′	♀ °	′	☿ °	′	☉	☿	♅	♄	♃	♂	♀	☽	Pl
1	0 ♋	18	4 ♏	27	27 ♐	14	10 ♎	55	0 ♎	0	20 ♎	44	☌	⚹	☍	✶	∠	⚹	∠		
2	R	16	4 D	32	D	25	11 D	39	1	12	21	23		∠			⚹			π	□
3		15		36		36	12	22	2	23	22	8	⚹	✶	π	□		☌	✶	∠	
4		13		41		47	13	6	3	35	23	3								✶	△
5		12		45		59		50	4	48	24	4	∠		☌	△	☌		□		☍
6		10		49	28	12	14	35	6	0	25	9	✶	□		☍		⚹			π
7		9		53		23	15	19	7	12	26	20			π	π	⚹	∠			
8		8		58		35	16	3	8	24	27	35	□	△	☍		∠	✶	△		☌
9		6	5	2		47		47	9	36	28	54					✶		☍		
10		4		5		59	17	31	10	49	0 ♏	15		☍	△	☌				△	
11		2		9	29	11	18	15	12	1	1	39	△	π				□	π	☍	π
12		0		13		23	19	0	13	14	3	4	☍		□		□			π	☍
13	29 ♊	59		17		35		45	14	27	4	25		☌		π			☌		△
14		56		20		47	20	30	15	39	5	50	π			☍		△			
15		55		24	0 ♑	0	21	15	16	52	7	26			✶	△	△	☍		☌	
16		53		27		12	22	0	18	5	9	5		π	∠		☍	π	π		□
17		51		30		24		45	19	18	10	38	☌	☍	⚹	□	π		☍		
18		49		33		37	23	30	20	31	12	10		△						π	✶
19		47		36		49	24	15	21	44	13	44	π		☌		☌	☌	△	☍	∠
20		45		39	1	1	25	0	22	58	15	17	☍	□		✶				△	⚹
21		43		42		14		45	24	11	16	51	△		⚹	∠	π	π	□		
22		41		44		28	26	31	25	24	18	26		✶	∠	⚹		∠			
23		39		47		40	27	16	26	38	20	6		∠	✶		☍	△	✶	□	☌
24		37		50		53	28	1	27	51	21	34	□			☌	△		∠		
25		35		53	2	6		46	29	5	23	9		⚹						✶	⚹
26		33		55		19	29	32	0 ♏	18	24	44	✶		□	⚹	□	□	⚹	∠	∠
27		31		57		31	0 ♑	17	1	32	26	18	∠	☌		∠				⚹	✶
28		29		59		43	1	3	2	45	27	52	⚹		△	✶	✶	✶	☌		
29		27	6	1		57		48	3	59	29	27		⚹	☍		∠	∠			□
30		25		3	3	11	2	34	5	13	1 ♐	1		∠	π	□	⚹	⚹	⚹	☌	

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean. ☊	Date.	Time. H.	M.	Phenomena.
	° ′	° ′	° ′	° ′	° ′				
2	1 N31	0 N55	2 N 4	6 S25	4 ♉ 37	1	5	24	☽ at ♉
4	35	0 2	12	55	31	1	11	34	New Mn., ☽ Decl. 14°S44′
6	39	0 S 52	14	7 39	25	4	13	45	♀ on Equator.
8	42	1 46	12	8 34	18	4	..		☿ Max. Elong. 18°W43′
10	45	2 40	7	9 35	12	8	23	0	☽ at First Quarter.
12	48	3 34	1 59	10 41	6	11	3	25	☽ at Perigee.
14	49	4 29	50	11 44	3 59	13	2	32	☽ on Equator.
16	51	5 23	39	12 58	53	15	11	18	☽ at ♌
18	52	6 17	27	14 7	47	17	0	2	Full Mn., ☽ D. cl. 20°N29′
20	53	7 11	14	15 15	40	2/	1	10	☿ at ♉
22	53	8 5	0	16 21	34	22	14	40	☉ enters ♐
24	53	8 57	0 47	17 24	27	24	2	52	☽ at Last Quarter.
26	53	9 49	33	18 25	21	25	0	56	☽ at Apogee.
28	52	10 40	19	19 23	15	26	12	54	☽ on Equator.
30	52	11 31	5	20 17	8	28	10	22	☽ at ♉

Date	Day.	Sidereal Time.	☉ Long.	☉ Decl.	☽ Long.	☽ Lat.	☽ Decl.	Midnight ☽	♆
		H. M. S.	° ′	° ′	° ′	° ′	° ′	° ′	° ′
1	W.	16 40 8	8 ♐ 59	21 S 48	15 ♐ 8	3 S 23	26 S 2	21 ♐ 51	14 ♎ 39
2	Th.	44 5	10 0	57	28 27	4 12	27 38	5 ♑ 3	D 41
3	F.	48 1	11 1	22 6	11 ♑ 31	4 46	27 17	17 56	42
4	S.	51 57	12 2	23	24 15	5 6	26 17	0 ♒ 31	43
5	Su.	55 54	13 3	16	6 ♒ 41	5 10	23 36	12 47	44
6	M.	59 51	14 4	10	18 52	5 0	19 55	24 53	46
7	Tu.	17 3 48	15 5	5	0 ♓ 52	4 37	15 29	6 ♓ 49	47
8	W.	7 44	16 6	1	12 44	4 2	10 31	18 39	48
9	Th.	11 40	17 6	58	24 34	3 21	5 14	0 ♈ 27	49
10	F.	15 37	18 7	56	55	6 ♈ 27	2 24	0N 21	12 26	51
11	S.	19 33	19 8	55	23 0	18 28	1 S 24	5N 48	24 33	52
12	Su.	23 30	20 9	55	4	0 ♉ 42	0 19	11 26	6 ♉ 55	53
13	M.	27 26	21 10	56	9	13 13	0N 49	16 35	19 36	54
14	Tu.	31 22	22 11	58	13	26 4	1 55	21 8	2 ♊ 37	55
15	W.	35 19	23 13	1	16	9 ♊ 16	2 58	24 31	16 0	56
16	Th.	39 15	24 14	5	19	22 49	3 52	27 6	29 43	57
17	F.	43 12	25 15	10	22	6 ♋ 40	4 33	27 49	1 ♋ 40	58
18	S.	47 9	26 16	16	24	20 47	4 58	26 45	27 54	59
19	Su.	51 5	27 17	22	25	5 ♌ 2	5 6	23 57	12 ♌ 12	15 0
20	M.	55 2	28 18	29	26	19 22	4 54	19 40	26 32	1
21	Tu.	58 58	29 19	37	27	3 ♍ 40	4 25	14 16	10 ♍ 50	2
22	W.	18 2 55	0 ♑ 20	45	27	17 56	3 38	S 7	25 2	3
23	Th.	6 51	1 21	54	26	2 ♎ 4	2 39	1 36	9 ♎ 5	3
24	F.	10 48	2 23	4	25	16 4	1 30	4 S 56	23 1	4
25	S.	14 45	3 24	14	24	29 55	0 18	10 24	6 ♏ 48	5
26	Su.	18 42	4 25	24	22	13 ♏ 38	0 S 54	16 45	20 26	6
27	M.	22 38	5 26	34	20	27 12	2 5	21 34	3 ♐ 58	7
28	Tu.	26 35	6 27	44	17	10 ♐ 36	3 6	25 6	17 16	7
29	W.	30 31	7 28	54	14	23 51	3 56	27 14	0 ♑ 27	8
30	Tu.	34 28	8 30	4	10	6 ♑ 53	4 32	27 48	13 19	9
31	F.	38 25	9 31	14	6	19 42	4 55	26 51	26 8	9

Date.	♆ Lat.	♆ Decl.	♅ Lat.	♅ Decl.	♄ Lat.	♄ Decl.	♃ Lat.	♃ Decl.	♂ Lat.	♂ Decl.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	°
2	1N 33	4 S 21	0N 12	23N 39	1N 31	10N 41	0N 2	23 S 22	1 S 1	24 S 24
4	,,	22	,,	39	31	40	,,	21	2	21
6	,,	23	,,	39	32	39	,,	20	2	17
8	,,	24	,,	39	32	39	,,	19	3	12
10	,,	25	,,	39	33	39	,,	19	3	6
12	,,	26	,,	39	33	39	0 1	18	3	23 59
14	,,	27	,,	39	34	39	,,	17	4	51
16	,,	28	,,	39	34	39	,,	15	4	41
18	,,	28	,,	39	35	40	,,	14	5	31
20	,,	28	,,	39	35	41	,,	13	5	18
22	,,	29	,,	39	36	41	0 0	11	5	6
24	1 34	29	,,	39	36	42	0 S 0	9	5	22 53
26	,,	30	0 13	39	37	43	0 0	23 N 7	6	38
28	,,	30	,,	39	37	44	0 0	6	6	22
30	,,	31	,,	39	38	45	0 0	4	6	5
31	,,	31	,,	39	38	45	0 0	1	6	21 57

Date	Longitudes. ♅	♄	♃	♂	♀	☿	Lunar Aspects. ☉	♆	♅	♄	♃	♂	♀	☿	☽
	° ′	° ′	° ′	° ′	° ′	° ′									
1	29 ♊ 23	6 ♏ 5	3 ♑ 25	3 ♑ 19	6 ♏ 27	2 ♐ 35	☌	✶							△
2	R 21	D 7	D 38	4 D 5	7 D 40	4 D 9			☍		☌	☌	∠	⚻	☍
3	18	8	51	51	8 54	5 44	⚻	□		△		✶	✶		π
4	15	10	4 4	5 37	10 8	7 18	∠		π	☍				∠	
5	13	11	18	6 23	11 22	8 53				π	⚻	⚻	□	✶	
6	10	13	31	7 9	12 36	10 27	✶	△	☍		∠	∠			☌
7	7	14	45	55	13 50	12 0		☍		△	☌	✶			
8	5	14	59	8 41	15 5	13 35	□	π					△	□	π
9	2	15	5 12	9 27	16 19	15 9			□						
10	28 59	16	25	10 13	17 33	16 44				π	□	□	☍		☍
11	57	17	39	59	18 48	18 18	△	☌		☍			π	△	△
12	54	17	52	11 45	20 2	19 52	☍		✶	△	△			☍	
13	51	18	6 6	12 31	21 17	21 26		π	∠			△			□
14	49	18	19	13 18	22 31	23 1	π	☍	⚻		☍	☍	☌	π	
15	46	18	33	14 4	23 45	24 35		△		□	π	π			
16	44	18	47	51	25 0	26 10	☌		☌				π	☌	✶
17	41	18	7 0	15 37	26 14	27 46				✶	☌		☍		∠
18	38	18	14	16 23	27 29	29 20	π	□		∠		☌			⚻
19	36	18	29	17 9	28 43	0 ♑ 56			⚻	⚻	π		△	π	
20	33	18	43	56	29 58	2 31	☍	✶	∠		☍	π		☍	☌
21	32	18	56	18 43	1 ♐ 12	4 6	△	∠	✶	☌	△	☍	□	△	
22	29	R 17 8	9	19 30	2 27	5 42		⚻				△			⚻
23	26	16	23	20 17	3 42	7 18	□		□	⚻	□		✶	□	∠
24	23	16	37	21 3	4 57	8 54		☌		∠		□	∠		✶
25	21	15	51	49	6 11	10 30	✶		△	✶					
26	18	14	9 4	22 36	7 26	12 6	∠	⚻	☍		✶			⚻	✶	□
27	15	13	19	23 23	8 40	13 43		∠	π		∠	✶			∠	
28	13	12	33	24 10	9 54	15 21	⚻	✶		□	⚻	∠	☌	⚻	△
29	10	12	47	57	11 9	16 58			☌			⚻			
30	8	12	10 0	25 44	12 24	18 35	☌			△	☌		⚻		☍
31	5	12	14	26 31	13 39	20 12		□		☍		☌		☌	π

Date.	♀ Lat.	♀ Decl.	☿ Lat.	☿ Decl.	Mean ☊
	° ′	° ′	° ′	° ′	° ′
2	1 N50	12 S20	0 S 9	21 S 8	3 ♉ 2
4	49	13 8	22	54	2 56
6	47	13 55	35	22 36	49
8	45	14 42	48	23 14	43
10	43	15 26	59	46	37
12	40	16 9	1 11	24 14	30
14	37	16 51	21	37	24
16	34	17 30	31	54	18
18	30	18 8	41	25 7	11
20	27	18 44	48	13	5
22	23	19 19	55	14	1 59
24	19	19 50	2 1	10	52
26	14	20 20	5	24 58	46
28	10	20 48	8	41	39
30	5	21 13	10	17	33
31	3	21 25	10	7	30

Date.	Time. H.	Time. M.	Phenomena.
1	0	17	New Mn., ☽ Decl. 24°S16′
8	17	45	☽ at Perigee.
8	18	48	☽ at First Quarter.
10	10	30	♀ at Aphelion.
10	10	30	☽ on Equator.
12	18	42	☽ at ☊
13	1	5	☿ Sup., ☌ ☉
16	14	40	Full Mn., ☽ Decl. 27°N9′.
22	10	35	☽ at Apogee.
22	3	51	☉ entrs ♑
23	10	45	☽ at Last Quarter.
23	17	53	☽ on Equator.
25	18	0	☽ at ♉
30	15	16	New Mn., ☽ Decl. 27°S41′

Months and Dates.	Latitudes.										
	+5°	+8°	+11°	+14°	+17°	+20°	+23°	+26°	+29°	+32°	+35°
Jan. 4	6 10	6 15	6 20	6 25	6 30	6 36	6 42	6 48	6 55	7 2	7 9
11	12	17	22	27	32	37	43	49	55	2	9
18	14	19	24	28	33	38	44	49	55	1	7
25	16	20	25	29	34	38	43	48	53	6 59	4
Feb. 1	17	20	24	28	32	36	41	45	50	55	0
8	17	20	23	27	30	34	38	42	46	50	6 54
15	16	18	21	24	27	30	33	37	40	44	48
22	14	16	19	21	24	26	29	31	34	37	40
29	12	14	16	17	19	21	23	25	27	29	31
Mar. 7	10	11	12	13	14	15	16	18	19	21	22
14	7	8	8	9	9	10	11	11	12	12	13
21	4	5	4	4	4	4	4	3	3	3	3
28	1	1	0	5 59	5 58	5 57	5 56	5 55	5 55	5 54	5 53
Apr. 4	5 58	5 57	5 56	54	53	51	49	48	47	45	43
11	55	53	51	49	48	46	44	42	40	37	34
18	52	50	47	45	43	40	37	34	31	28	25
25	50	47	44	41	38	35	31	28	24	20	16
May 2	48	44	41	37	33	30	26	22	18	14	9
9	47	42	39	35	31	27	22	17	12	8	3
16	46	42	37	33	28	24	18	12	7	2	4 56
23	46	41	36	31	26	21	15	9	3	4 58	51
30	46	41	35	30	25	20	14	8	2	55	48
June 6	47	41	35	30	25	20	13	6	0	53	46
13	47	42	36	31	26	20	13	6	0	53	45
20	48	43	38	32	27	21	14	7	1	54	46
27	50	45	40	34	28	23	16	9	2	56	48
July 4	52	47	42	36	31	25	18	11	4	58	51
11	54	49	44	38	33	27	21	15	9	5 2	54
18	55	50	45	40	35	30	24	18	12	6	59
25	55	51	46	42	37	32	27	22	16	10	5 4
Aug. 1	55	51	47	43	39	35	30	25	20	14	9
8	55	52	49	45	41	37	33	29	25	19	14
15	55	53	50	47	44	40	36	32	28	24	19
22	54	53	50	47	44	42	39	36	32	29	25
29	53	52	50	47	45	43	41	38	36	33	30
Sep. 5	52	51	49	48	46	45	43	41	40	38	35
12	51	51	50	49	48	47	46	45	43	42	40
19	50	50	49	49	48	48	48	47	46	46	45
26	49	49	49	49	50	50	50	50	50	50	50
Oct. 3	48	48	49	49	50	51	52	53	54	55	56
10	46	47	48	50	51	53	54	56	58	59	6 1
17	45	48	50	51	53	55	57	6 0	6 2	6 5	7
24	45	48	50	53	55	58	6 1	4	7	10	13
31	45	48	51	54	57	6 1	5	8	12	16	20
Nov. 7	46	50	53	57	6 0	4	8	12	17	21	26
14	48	51	55	6 0	4	8	13	18	22	28	33
21	50	54	59	3	8	12	17	23	23	34	40
28	52	57	6 1	7	12	17	23	28	34	40	47
Dec. 5	55	6 1	5	11	16	21	27	33	49	46	53
12	59	4	9	14	20	25	31	38	46	51	58
19	6 2	7	13	18	24	29	36	42	49	56	7 3
26	6	11	16	22	27	33	39	46	52	59	6

Months and Dates.	Latitudes.										
	+5°	+8°	+11°	+14°	+17°	+19°	+23°	+26°	+29°	+32°	+35°
Jan. 4	18 0	17 54	17 49	17 44	17 39	17 34	17 28	17 21	17 15	17 8	17 1
11	3	58	53	48	43	38	3	26	20	14	7
18	6	18 2	57	53	48	43	37	32	26	20	13
25	9	5	8 0	56	51	47	42	37	32	26	20
Feb. 1	11	7	3	59	55	51	46	42	37	33	28
8	13	9	6	18 2	59	55	51	47	43	39	35
15	14	11	8	5	18 2	59	56	52	49	46	42
22	14	11	9	7	4	18 2	59	57	54	51	48
29	14	12	10	9	7	5	18 3	18 1	59	57	55
Mar. 7	13	12	10	9	8	7	6	5	18 3	18 2	18 1
14	12	11	11	10	9	9	9	8	8	7	7
21	11	11	11	11	11	11	11	12	12	12	12
28	10	10	11	12	12	13	14	15	16	17	18
Apr. 4	9	10	11	13	14	15	16	18	19	21	23
11	8	9	11	14	15	17	19	22	24	25	29
18	7	9	12	13	17	19	22	25	28	31	35
25	5	8	12	15	18	21	25	28	32	36	40
May 2	6	10	13	17	20	24	28	32	37	41	46
9	7	10	14	18	22	26	31	36	40	46	52
16	7	11	15	20	25	29	34	40	45	51	57
23	8	13	17	22	27	32	38	43	49	55	19 2
30	9	14	19	24	30	35	41	47	53	19 0	7
June 6	10	16	21	26	32	37	44	50	57	4	11
13	12	18	23	29	34	40	47	53	19 0	7	14
20	14	19	25	31	36	42	49	55	2	9	17
27	15	20	26	32	37	43	50	56	3	10	18
July 4	16	21	27	32	38	43	50	56	3	10	17
11	17	22	27	32	38	43	49	55	2	8	16
18	18	22	27	32	37	42	48	53	18 59	6	13
25	17	21	26	31	35	40	46	51	56	2	9
Aug. 1	16	20	24	29	33	37	41	45	50	18 57	3
8	15	19	22	26	29	33	37	42	47	51	18 56
15	13	16	19	22	26	29	33	36	40	44	49
22	10	12	15	18	21	24	27	30	33	36	40
29	7	9	12	14	16	18	20	23	25	28	31
Sep. 5	4	6	8	9	11	12	14	16	17	20	22
12	0	1	2	4	5	6	7	8	9	10	12
19	17 57	17 57	17 58	17 58	17 59	17 59	17 59	0	1	2	3
26	55	54	54	54	53	53	53	17 52	17 52	17 52	17 52
Oct. 3	50	50	49	48	48	47	46	45	44	43	42
10	48	47	45	44	42	41	39	37	36	34	32
17	45	43	41	39	37	35	33	30	28	25	23
24	43	41	38	35	33	30	27	24	21	18	15
31	42	39	36	33	30	26	23	19	15	11	7
Nov. 7	41	37	34	30	27	23	19	15	10	6	1
14	41	38	34	29	25	21	16	11	7	1	16 55
21	42	38	34	29	24	19	14	9	4	16 58	52
28	44	39	34	29	24	19	13	8	2	56	49
Dec. 5	46	41	36	31	25	20	14	8	2	55	48
12	49	44	38	33	27	22	16	9	3	56	49
19	52	47	41	36	30	25	19	12	6	59	51
26	55	50	45	40	35	29	22	16	9	17 2	55

Geocentric position of Pluto and Mean Longitudes of the Sun and the Moon.

Month and Date.		Pluto. Long.	Pluto. Lat.	Pluto. Decl.	Sun. Mean Long.	Moon. Mean Long.	Moon. Hor Dia.	Moon. Semi-Par.
		° R ′	° ′	° ′	° ′ ″	° ′ °	′	′
Jan.	1	14 ♌ 28	7N 19	23N 29	279 50 24	156 0 17	59·3	16·1
	11	14	20	34	289 41 48	287 46 7	54·2	14·8
	21	1	22	40	299 33 11	59 31 58	58·2	15·9
	31	13 48	23	45	309 24 34	191 17 48	57·7	15·7
Feb.	10	35	24	49	319 15 58	323 3 29	54·2	14·8
	20	21	24	53	329 7 21	94 49 29	59·8	16·3
March	1	8	24	57	338 58 44	226 35 19	56·2	15·3
	11	12 57	24	24 0	348 50 7	358 21 10	55·0	15·0
	21	48	23	3	358 41 31	130 7 0	60·5	16·5
	31	40	22	4	8 32 54	261 52 51	55·0	15 0
April	10	35	21	5	18 24 17	33 38 41	56·2	15·3
	20	32	20	4	28 15 41	165 24 31	59·8	16·3
	30	D 32	18	3	38 7 4	297 10 22	54·3	14·9
May	10	36	17	1	47 58 27	68 56 12	58·2	15·9
	20	43	16	23 58	57 49 51	200 42 30	58·2	15·9
	30	51	15	54	67 41 14	332 27 53	54·2	14·8
June	9	13 0	14	51	77 32 37	104 13 43	60·0	16·3
	19	11	13	46	87 24 1	235 59 34	56·4	15·4
	29	25	12	41	97 15 24	7 45 24	54·8	14·9
July	9	40	12	36	107 6 47	139 31 15	60·6	16·6
	19	58	12	31	116 58 10	271 17 5	55·1	15·0
	29	14 16	13	27	126 49 33	43 2 55	56·0	15·1
August	8	34	13	22	136 40 56	174 48 46	60·0	16·3
	18	52	14	17	146 32 20	306 34 36	54·3	14·9
	28	15 10	15	13	156 23 43	78 20 27	57 7	15·7
Sep.	7	26	17	9	166 15 6	210 6 17	58·2	15·9
	17	42	18	6	176 6 30	341 52 7	54·2	14·8
	27	56	21	4	185 57 53	113 37 58	59·2	16·1
Oct.	7	16 8	23	2	195 49 16	245 23 48	56·8	15·5
	17	18	25	2	205 40 40	17 9 39	54·9	15·0
	27	25	28	2	215 32 3	148 55 29	59·8	14·3
Nov.	6	30	31	4	225 23 26	280 41 19	53·2	14·5
	16	32	34	5	235 14 50	52 27 10	56·5	15·5
	26	R 30	36	8	245 6 13	184 13 0	59·3	16·1
Dec.	6	26	39	11	254 57 36	315 58 51	54·5	14·8
	16	19	42	16	264 49 0	87 44 41	58·6	16·0
	26	11	44	21	274 40 23	219 30 31	57·9	15·8
	31	16 ♌ 7	7N 45	23 N24	279 36 5	285 23 26	55·8	15·2

Ending Moments of Tithis for each date in 1948 (calculated in I. S. T.)

Date.	January Ti.	January Time.	February Ti.	February Time.	March Ti.	March Time.	April Ti.	April Time.	May Ti.	May Time.	June Ti.	June Time.
		H. M.		H. M.		H. M.		H. M.		H. M		H M.
1	20	9 9	22	18 3	21	9 18	22	3 6	23	23 29	24	19 19
2	21	6 53	23	18 11	22	9 35	23	4 58	24	..	25	..
3	22	5 15	24	19 5	23	10 45	24	7 17	24	1 53	26	21 45
4	23	4 11	25	20 36	24	12 35	25	9 48	25	4 5	27	21 58
5	24	4 7	26	22 38	25	14 52	26	12 13	26	5 54	28	21 25
6	25	4 33	27	..	26	17 39	27	14 14	27	7 18	29	0 12
7	26	5 33	27	0 55	27	19 52	28	16 18	28	8 7	30	18 23
8	27	6 57	28	3 18	28	22 20	29	17 45	29	8 22	1	16 12
9	28	8 49	29	5 56	29	..	30	18 45	30	7 59	2	13 37
10	29	10 52	30	8 31	29	0 39	1	19 40	1	7 9	3	10 49
11	30	13 14	1	10 56	30	2 43	2	19 29	2	5 51	4	7 57
12	1	15 43	2	13 14	1	4 29	3	19 9	3	4 12	5	5 14
13	2	18 14	3	15 18	2	5 51	4	18 31	4	2 14	6	2 37
14	3	20 46	4	17 4	3	6 56	5	17 27	5	0 7	7	0 13
									6		8	22 15
15	4	23 12	5	18 28	4	7 38	6	16 0	7	19 34	9	20 31
16	5	.. ..	6	19 14	5	7 48	7	14 19	8	17 18	10	19 12
17	5	1 27	7	19 22	6	7 32	8	12 7	9	15 4	11	18 15
18	6	3 12	8	19 1	7	6 36	9	9 46	10	12 55	12	17 47
19	7	4 44	9	17 44	8	5 7	10	7 11	11	11 0	13	17 35
20	8	5 12	10	15 48	9	3 5	11	4 33	12	9 18	14	17 48
21	9	5 4	11	13 8	10	0 37	12	1 54	13	7 54	15	18 25
					11	21 32	13	23 22				
22	10	3 37	12	9 57	12	18 25	14	21 59	14	6 51	16	19 28
23	11	1 46	13	6 22	13	15 10	15	17 0	15	6 8	17	20 56
24	12	23 11										
	13	20 5	14	2 45	14	11 50	16	17 28	16	5 59	18	22 47
			15	22 45								
25	14	16 31	16	20 15	15	8 42	17	16 30	17	6 20	19	.. ..
26	15	12 41	17	15 48	16	5 55	18	16 39	18	7 13	19	0 58
27	16	8 41	18	12 58	17	3 38	19	16 54	19	8 30	20	3 18
28	17	4 55	19	10 54	18	1 59	20	17 32	20	10 30	21	5 42
29	18	1 32	20	9 29	19	1 1	21	19 7	21	12 44	22	7 54
	19	22 46										
30	20	20 26			20	0 59	22	21 9	22	15 3	23	9 44
31	21	18 46			21	1 39			23	17 21		

Ending Moments of Tithis for each date in 1948 (calculated in I. S. T.)—(*concld.*).

Date	July. Ti.	July. Time.	August. Ti.	August. Time.	September. Ti.	September. Time.	October. Ti.	October. Time.	November. Ti.	November. Time.	December. Ti.	December. Time.
		H. M.		H. M.		H. M.		H. M.		H. M.		H. M.
1	24	10 54	26	22 3	27	4 3	28	7 18	30	11 35	30 1	0 15 23 19
2	25	11 26	27	19 48	28 29	0 32 20 46	29	4 44	1	9 21	2	22 57
3	26	11 11	28	16 52	30	16 54	30 1	1 14 21 59	2	7 38	3	23 11
4	27	10 1	29	13 27	1	13 3	2	19 11	3	6 34	4	.. .
5	28	8 10	30	9 43	2	9 25	3	16 55	4	6 8	4	0 2
6	29	5 38	1	5 57	3	6 21	4	15 16	5	6 29	5	1 41
7	30 1	2 39 22 5	2 3	2 4 22 33	4	3 47	5	14 25	6	7 32	6	3 43
8	2	20 6	4	19 24	5	1 56	6	14 24	7	9 15	7	6 8
9	3	16 15	5	16 48	6	0 49	7	15 5	8	11 27	8	8 47
10	4	13 12	6	14 5	7	0 28	8	16 28	9	13 53	9	11 18
11	5	10 17	7	13 32	8	0 54	9	18 23	10	16 29	10	13 27
12	6	7 48	8	13 0	9	2 4	10	20 42	11	18 52	11	15 5
13	7	5 49	9	13 4	10	3 41	11	23 14	12	20 56	12	16 0
14	8	4 22	10	13 32	11	5 41	12	.. ..	13	22 29	13	16 14
15	9	3 27	11	15 3	12	7 57	12	1 41	14	23 35	14	15 45
16	10	3 10	12	16 37	13	10 23	13	4 3	15	.. ..	15	14 40
17	11	3 24	13	18 36	14	12 53	14	6 9	15	0 2	16	13 4
18	12	3 59	14	20 43	15	15 15	15	7 53	16 17	0 0 23 27	17	11 3
19	13	5 0	15	22 58	16	17 28	16	9 16	18	22 31	18	8 49
20	14	7 2	16	.. ..	17	19 30	17	10 15	19	21 14	19	6 28
21	15	7 3	16	1 31	18	21 11	18	10 43	20	19 37	20	4 7
22	16	10 1	17	3 55	19	22 30	19	10 44	21	17 50	21 22	1 49 23 40
23	17	12 13	18	6 17	20	23 19	20	10 7	22	15 55	23	21 45
24	18	14 38	19	8 28	21	23 34	21	9 24	23	13 51	24	20 3
25	19	17 3	20	10 16	22	23 5	22	8 2	24	11 40	25	18 33
26	20	19 26	21	11 33	23	22 1	23	6 18	25	9 33	26	17 19
27	21	21 21	22	12 14	24	20 16	24	4 4	26	7 26	27	16 19
28	22	23 49	23	12 8	25	17 53	25 26	1 34 22 49	27	5 15	28	15 38
29	23	.. ..	24	11 13	26	13 16	27	19 55	28	3 19	29	15 13
30	23	0 6	25	9 13	27	11 46	28	16 59	29	1 37	30	15 16
31	24 25	0 16 23 37	26	7 2	..		29	1 37	..		1	.. ..

January. Sign.	Date.	Time. H.	M.	February. Sign.	Date.	Time. H.	M.	March. Sign.	Date.	Time. H.	M.	April. Sign.	Date.	Time. H.	M.	May. Sign.	Date.	Time H.	M.	June. Sign.	Date.	Time H.	M.
♎	2	19	41	♏	1	7	57	♐	1	23	11	♒	3	4	49	♓	3	1	14	♈	1	21	23
♏	5	1	22	♐	3	15	55	♑	4	9	22	♓	5	17	26	♈	5	12	57	♉	4	7	12
♐	7	10	10	♑	6	3	1	♒	6	21	44	♈	8	5	51	♉	7	22	17	♊	6	13	35
♑	9	21	11	♒	8	15	27	♓	8	22	41	♉	10	14	23	♊	10	4	49	♋	8	16	55
♒	12	9	45	♓	11	4	5	♈	11	22	2	♊	12	21	46	♋	12	9	8	♌	10	18	41
♓	14	22	5	♈	13	16	5	♉	14	8	11	♋	15	3	9	♌	14	12	0	♍	12	20	18
♈	17	10	13	♉	16	2	36	♊	16	16	14	♌	17	6	47	♍	16	14	44	♎	14	23	4
♉	19	20	10	♊	18	10	24	♋	19	2	17	♍	19	9	1	♎	18	17	35	♏	17	3	35
♊	22	2	31	♋	20	14	38	♌	21	0	28	♎	21	10	45	♏	20	21	28	♐	19	10	1
♋	24	4	52	♌	22	15	85	♍	23	1	12	♏	23	13	19	♐	23	2	51	♑	21	18	21
♌	26	4	28	♍	24	14	53	♎	25	1	31	♐	25	18	1	♑	25	10	18	♒	24	2	43
♍	28	3	26	♎	26	14	35	♏	27	3	21	♑	27	1	51	♒	27	21	2	♓	26	16	53
♎	30	3	59	♏	28	16	55	♐	29	8	20	♒	30	12	46	♓	30	8	56	♈	29	5	26
								♑	31	17	6												

July. Sign.	Date.	Time. H.	M.	August. Sign.	Date.	Time. H.	M.	September Sign.	Date.	Time. H.	M.	October. Sign.	Date.	Time. H.	M.	November Sign.	Date.	Time. H.	M.	December Sign.	Date.	Time. H.	M.
♉	1	16	6	♋	2	12	50	♌	1	0	13	♎	2	9	59	♐	2	21	40	♑	2	14	49
♊	3	23	20	♌	4	13	43	♍	2	23	51	♏	4	10	14	♑	5	5	10	♒	4	23	0
♋	6	2	39	♍	6	13	1	♎	4	23	6	♐	6	13	23	♒	7	14	12	♓	7	10	16
♌	8	3	38	♎	8	12	59	♏	7	0	3	♑	8	20		♓	10	2	4	♈	9	23	4
♍	10	3	34	♏	10	15	27	♐	9	4	40	♒	11	6	11	♈	12	14	42	♉	12	10	38
♎	12	5	1	♐	12	21	20	♑	11	12	27	♓	13	18	33	♉	15	1	53	♊	14	19	13
♏	14	8	57	♑	15	6	20	♒	13	23	57	♈	16	7	5	♊	17	10	34	♋	17	1	29
♐	16	15	41	♒	17	17	34	♓	16	0	32	♉	19	18	24	♋	19	16	42	♌	19	3	32
♑	19	0	44	♓	20	5	52	♈	19	12	16	♊	21	3	45	♌	21	21	0	♍	21	5	51
♒	21	12	32	♈	22	18	33	♉	21	22	9	♋	23	10	50	♍	24	0	17	♎	23	8	28
♓	23	23	42	♉	25	6	32	♊	23	5	14	♌	25	14	7	♎	26	3	3	♏	25	12	9
♈	26	12	26	♊	27	16	9	♋	26	14	57	♍	27	18	22	♏	28	5	49	♐	27	16	59
♉	29	0	4	♋	29	22	4	♌	28	10	10	♎	29	19	45	♐	30	9	22	♑	29	23	10
♊	31	8	28					♍	30			♏	31	21									

January.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
3	☽ ☌ ♆	18	31	1	33
	☿ ☌ ☉	19	46	1	54
8	☽ ☍ ♃	13	0	2	3
9	☽ ☍ ♅	7	39	2	23
11	☽ ☌ ☉	13	14	—	
12	☽ ☌ ☿	0	33	2	19
	☿ ☍ ♄	2	16	0	16
14	☽ ☍ ♄	4	31	3	33
	☽ ☌ ♀	12	41	3	10
15	☽ ☍ ♂	12	50	0	56
18	☽ ☍ ♆	11	49	1	26
20	☽ ☍ ♂	8	38	0	12
23	☽ ☍ ♃	12	5	9	45
	♀ ☍ ♂	14	51	2	34
	☽ ☌ ♅	16	55	2	22
26	☽ ☍ ☉	12	41	..	
27	☽ ☌ ♄	12	12	3	37
	☽ ☍ ☿	14	25	3	12
28	☽ ☌ ♂	11	24	0	33
29	☽ ☍ ♀	0	18	3	7
30	♃ ☍ ♅	16	0	0	46
31	☽ ☌ ♆	1	58	1	49

February.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
4	☿ ☍ ♂	16	41	4	28
5	☽ ☌ ♃	11	20	3	13
	☽ ☍ ♅	11	48	2	34
9	☉ ☍ ♄	14	33	1	11
10	☽ ☍ ♄	6	25	3	28
	☽ ☌ ☉	8	31	..	
11	☽ ☍ ♂	5	12	0	11
	☽ ☌ ☿	17	10	6	25
13	☽ ☌ ♀	20	29	2	17
14	☽ ☍ ♆	17	19	1	44
17	☉ ☍ ♂	21	36	5	6
20	☽ ☌ ♅	1	22	2	30
	☽ ☍ ♃	5	25	3	24
	☿ ☌ ☉	8	26	4	8
22	♀ ☍ ♆	15	0	1	25
23	☽ ☌ ♄	20	15	3	26
24	☽ ☍ ☿	4	21	8	42
	☽ ☌ ♂	9	11	0	5
	☿ ☍ ♂	11	55	7	40
	☽ ☍ ☉	22	45	..	
27	☽ ☌ ♆	11	14	1	16
	☽ ☍ ♀	21	47	2	36

March.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
3	☽ ☍ ♅	17	28	2	41
4	☽ ☌ ♃	2	2	3	38
8	☽ ☍ ♄	8	32	3	39
	☽ ☍ ♂	16	7	0	50
	☽ ☌ ☿	19	34	5	23
11	☽ ☌ ☉	2	43	..	
12	☽ ☍ ♆	21	54	2	15
14	☽ ☌ ♀	22	0	2	2
18	☽ ☌ ♅	8	12	3	2
	☽ ☍ ♃	17	55	3	46
22	☽ ☌ ♄	3	17	3	33
	☽ ☌ ♂	6	31	1	22
23	☽ ☍ ☿	9	56	1	18
25	☽ ☍ ☉	8	42	..	
	☽ ☌ ♆	20	59	1	6
28	☽ ☍ ♀	18	54	1	38
31	☽ ☍ ♅	2	34	2	54
	☽ ☌ ♃	14	28	4	5

April.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
1	☉ ☍ ♆	17	30	1	38
4	☽ ☍ ♄	13	7	3	34
	☽ ☍ ♂	17	48	2	28
8	☽ ☌ ☿	0	47	1	14
9	☽ ☍ ♆	3	11	1	0
	☽ ☌ ☉	18	45	2	0
13	☽ ☌ ♀	13	58	6	20
14	☽ ☌ ♅	15	10	3	4
15	☽ ☍ ♃	1	23	4	14
16	☿ ☍ ♆	1	11	0	10
18	☽ ☌ ♄	9	22	3	46
	☽ ☌ ♂	16	51	2	30
22	☽ ☌ ♆	5	22	1	9
23	☽ ☍ ☿	5	43	18	23
	☽ ☍ ☉	17	0	..	
29	☿ ☌ ☉	11	0	1	5
	♀ ☌ ♅	12	59	3	43

May.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
1	☽ ☍ ♄	20	56	3	50
2	☽ ☍ ♂	13	4	2	55
5	☿ ☍ ♃	13	55	4	28
6	☽ ☍ ♆	9	55	0	0
9	☽ ☌ ☉	7	59	0	14
10	☽ ☌ ☿	8	2	0	1
11	☽ ☌ ♅	23	14	3	0
12	☽ ☍ ♃	5	34	0	0
	☽ ☌ ♀	15	3	0	5
15	☽ ☌ ♄	16	0	3	45
16	☽ ☌ ♂	12	57	3	10
19	☽ ☌ ♆	11	42	1	15
23	☽ ☍ ☉	6	8	1	25
24	☿ ☌ ♅	5	11	2	54
25	☽ ☍ ♅	0	59	3	5
	☽ ☍ ☿	3	7	1	5
	☽ ☌ ♃	4	24	3	50
26	☽ ☍ ♀	5	40	1	10
29	☽ ☍ ♄	7	44	4	0
30	☽ ☍ ♂	19	24	3	15

June.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
2	☽ ☍ ♆	5	42	1	5
4	♃ ☍ ♅	14	10	0	38
7	☽ ☌ ☉	18	23	2	38
8	☽ ☍ ♃	8	35	3	46
	☽ ☌ ♅	9	50	3	13
9	☽ ☌ ☿	4	44	4	13
	☽ ☌ ♀	10	17	3	17
12	☽ ☌ ♄	1	14	3	34
13	☽ ☌ ♂	15	51	3	15
15	☉ ☍ ♃	13	7	0	27
	☽ ☌ ♆	16	50	1	11
17	☉ ☌ ♅	21	3	0	9
21	☽ ☌ ♃	5	42	3	36
	☽ ☍ ☉	18	25	3	36
22	☽ ☍ ☿	1	41	7	27
	☽ ☍ ♀	3	7	5	41
23	☿ ☌ ☉	22	25	4	1
24	♀ ☌ ☉	18	30	3	1
25	☽ ☍ ♄	20	8	3	22
28	☽ ☍ ♂	7	53	3	2
30	☽ ☍ ♆	1	53	0	21

July.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
1	☿ ☌ ♀	2	46	0	57
4	♀ ☌ ♅	7	30	4	25
5	☽ ☍ ♃	12	43	3	41
	☽ ☌ ♀	21	19	7	53
	☽ ☌ ♅	22	19	3	15
	☽ ☌ ☿	23	52	7	56
7	☽ ☌ ☉	2	38	4	14
9	☽ ☌ ♄	13	11	3	35
11	☽ ☌ ♂	23	42	3	7
12	☽ ☌ ♆	22	42	5	44
18	☽ ☌ ♃	5	53	3	22
	☽ ☍ ♀	14	36	8	40
	☽ ☍ ♅	21	8	3	21
19	☽ ☍ ☿	13	5	5	59
21	☽ ☍ ☉	8	2	4	54

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
23	☽ ☍ ♄	9	12	3	27
26	☽ ☍ ♂	23	45	0	47
27	☽ ☍ ♆	9	41	1	43

August.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
1	♀ ☌ ♅	23	5	5	24
2	☽ ☌ ♀	12	7	8	42
3	♂ ☌ ♆	12	40	1	2
4	☽ ☌ ☿	20	22	3	21
5	☽ ☌ ☉	9	42	4	42
6	☽ ☌ ♄	4	25	3	12
9	☽ ☌ ♆	6	58	0	23
	☽ ☌ ♂	11	50	2	6
11	☿ ☌ ☉	20	8	1	38
14	☽ ☌ ♃	9	24	3	29
15	☿ ☌ ♄	7	38	0	34
	☽ ☍ ♀	22	55	8	27
19	☉ ☌ ♄	12	51	1	9
	☽ ☍ ♄	22	20	3	14
	☽ ☍ ☉	23	2	4	20
20	☽ ☍ ☿	18	0	2	45
23	☽ ☍ ♆	17	16	0	38
24	☽ ☍ ♂	17	35	1	26
29	☽ ☍ ♃	3	25	3	29
31	☽ ☌ ♀	10	59	7	48

September.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
2	☽ ☍ ♄	20	46	6	24
3	☽ ☌ ☉	16	53	3	50
5	☽ ☌ ☿	2	1	1	0
	☽ ☌ ♆	17	50	0	43
7	☽ ☌ ♂	3	49	0	42
10	☽ ☌ ♃	17	34	3	9
12	☿ ☌ ♆	0	0	2	20
14	☽ ☍ ♀	11	2	..	
16	☽ ☍ ♄	11	23	3	13
18	☽ ☍ ☉	15	15	2	0
20	☽ ☍ ♆	0	56	0	30
	☽ ☍ ☿	22	58	2	41
22	☽ ☍ ♂	12	49	0	0
25	☽ ☍ ♃	14	2	3	52
29	☽ ☌ ♀	21	51	3	59
30	☽ ☌ ♄	13	58	1	36

October.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
3	☽ ☌ ☉	1	12	3	46
	☽ ☌ ♆	6	18	0	35
4	☽ ☌ ☿	18	18	3	27
5	☽ ☌ ♂	23	20	0	45
6	☉ ☌ ♆	8	34	1	1
8	☽ ☌ ♃	7	20	3	56
	♀ ☌ ♄	17	43	1	1
14	☽ ☍ ♄	0	14	3	10
	☽ ☍ ♀	12	33	4	10
17	☽ ☍ ♆	9	25	0	24
18	☽ ☍ ☉	7	54	1	56
	☽ ☍ ☿	15	27	2	22
20	☿ ☌ ☉	18	19	0	32
21	☽ ☍ ♂	9	2	1	23
23	☽ ☍ ♃	2	48	0	21
28	☽ ☌ ♄	1	10	2	55
29	☽ ☌ ♀	14	8	1	45
30	☽ ☌ ♆	18	8	0	26
31	☽ ☌ ☿	3	4	0	3

November.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
1	☽ ☌ ☉	11	34	0	21
3	☽ ☌ ♂	9	52	2	37
5	☽ ☌ ♃	1	17	4	5
10	☽ ☍ ♄	12	20	2	55
13	♀ ☌ ♆	5	55	0	13
13	☽ ☍ ♆	18	53	0	17
	☽ ☍ ♀	20	18	0	6
15	♃ ☍ ♅	3	32	0	14
	☽ ☍ ☿	16	47	0	27
17	☽ ☌ ☉	0	2	1	34
19	☽ ☍ ♂	6	9	2	27
	☽ ☍ ♃	18	13	4	14
24	☽ ☌ ♄	10	11	2	45
26	♂ ☍ ♅	12	31	0	51
27	☽ ☌ ♆	3	34	0	14
28	☽ ☌ ♀	10	21	1	45
30	☽ ☌ ☿	11	1	1	19

December.

Date.	Aspect	Time. H.	Time. M.	Distance. °	Distance. ′
1	☽ ☌ ☉	0	17	2	38
	♂ ☌ ♃	16	22	1	3
2	☽ ☌ ♃	21	32	4	8
	☽ ☌ ♂	22	50	3	4
7	☽ ☍ ♄	22	50	3	3
11	☽ ☍ ♆	4	50	0	21
13	☿ ☌ ☉	1	5	1	15
14	☽ ☍ ♀	4	42	3	1
16	☽ ☍ ☉	14	40	3	57
	☽ ☍ ☿	18	36	2	13
17	☽ ☍ ♃	12	35	4	33
18	☿ ☍ ♅	1	5	1	25
	☽ ☍ ♂	4	10	3	33
20	☉ ☍ ♅	17	38	0	9
21	☽ ☌ ♄	16	25	2	29
24	☽ ☌ ♆	8	34	0	28
	☿ ☌ ♃	16	55	2	8
28	☽ ☌ ♀	10	37	4	0
30	☽ ☌ ☉	15	16	4	37
	☽ ☌ ♃	17	55	4	30

January.

Date.	Aspect	Time. H.	M.
3	☿ ☍ ♅	2	20
	♀ ♒ ☉	15	42
	☿ ☌ ☉	19	46
4	☿ □ ♆	9	15
	♀ △ ♆	12	39
	☉ □ ♆	17	0
	☿ ♒ ♀	21	49
6	☿ ⚹ ♄	3	1
	☿ ♒ ♃	10	0
7	☉ ⚹ ♄	14	45
	♀ ✶ ♃	15	33
8	☉ ♒ ♃	16	24
9	☿ ☍ ♅	15	1
10	☿ ☍ ♂	5	6
	☿ ☍ ♅	13	11
	☿ ⊥ ♃	13	24
12	♀ ♂ ♄	2	16
	♀ △ ♅	16	32
13	☉ ☍ ♄	21	3
	☉ ☍ ♂	23	20
14	☿ ⚹ ♅	1	20
	☉ ☍ ♅	12	0
15	☿ ⚹ ♂	9	13
	☉ ⊥ ♃	16	14
16	☿ ∠ ♃	15	44
	♀ ☍ ♆	17	31
18	♂ ⊥ ♆	0	0
19	☿ ☍ ♅	6	16
	☿ ☍ ♂	17	5
20	☉ ⚹ ♅	5	8
21	☉ ⚹ ♂	23	40
22	☿ △ ♆	8	11
23	♀ ♂ ♂	14	51
24	♀ ⚹ ♆	22	51
26	☉ ∠ ♃	15	26
	☉ ☍ ♂	18	5
	☿ ✶ ♃	18	25
	☿ ♂ ♄	18	25
28	☿ △ ♅	3	5
	☉ ☍ ♅	19	14
	♀ ☍ ♆	22	50
30	♃ ♂ ♅	16	0
31	☿ ☍ ♆	17	56

February.

Date.	Aspect	Time. H.	M.
1	♀ ⊥ ☉	8	19
3	☉ △ ♆	3	7
	♀ ☍ ♄	12	55
4	☿ ♂ ♂	16	41
5	♀ □ ♅	12	11
	♀ □ ♃	12	23
8	♀ ⚹ ♄	19	29
9	☉ ♂ ♄	14	33
12	☉ △ ♅	16	39
	♀ ☍ ♂	20	15
13	☉ ✶ ♃	13	25
15	♀ ☍ ♄	18	51
	☿ ♒ ♂	22	22
	♀ ⚹ ♂	22	30
17	☉ ☍ ♆	18	0
	☉ ♂ ♂	21	36
18	♂ ∠ ♆	8	44
	☿ ⊥ ♀	18	45
20	☿ ☌ ☉	[illegible]	26
21	♀ ☍ ♂	14	50
22	♀ ♂ ♆	15	0
	☿ ∠ ♀	17	12
	☿ ☍ ♆	19	4
24	☿ ♂ ♂	11	55
	♂ △ ♃	19	0
25	☿ ✶ ♃	5	42
26	☉ ⚹ ♆	12	0
27	♀ △ ♄	21	46

March.

Date.	Aspect	Time. H.	M.
1	☿ ✶ ♀	13	42
	♀ ✶ ♅	17	19
2	♀ △ ♂	16	19
3	☉ π ♆	8	11
4	♂ ✶ ♅	13	16
5	♀ △ ♃	13	31
7	☿ △ ♅	9	0
8	☉ π ♄	2	51
11	☉ π ♂	19	8
13	☉ ⚹ ♄	18	30
	☉ □ ♅	21	36
14	☿ ☍ ♆	14	34
	♀ ∠ ♅	20	14
16	☿ ✶ ♃	1	26
	☉ ⚹ ♂	20	24
18	☉ □ ♃	17	47
19	♀ π ♆	20	21
	♀ ☍ ♃	22	27
22	☉ ⊥ ♅	15	19
23	♀ ⊥ ♅	0	45
	♀ □ ♄	1	34
	☿ ⚹ ♆	19	40
24	♀ ⚹ ♆	13	5
	♀ □ ♂	18	10
	☉ ☍ ♂	13	45
28	☿ π ♆	8	14
28	♀ ♒ ♅	15	45
	♀ ⚹ ♃	16	15
30	♀ ∠ ☉	16	48
31	☿ π ♄	9	36

April

Date.	Aspect	Time. H.	M.
1	♀ ☍ ♆	13	51
	☉ ♂ ♆	17	30
	☿ π ♂	19	6
3	♀ π ♃	13	34
4	☿ ⚹ ♄	8	17
	☿ □ ♅	1[illegible]	43
5	☿ ⚹ ♂	21	10
6	☉ △ ♄	0	23
8	☿ ☍ ♂	5	53
	☿ □ ♃	15	5
9	☿ ☍ ♄	20	46
10	☉ △ ♂	3	51
12	☉ ☉ ♅	4	8
15	☿ ✶ ♀	12	56
	♀ △ ♆	22	24
16	☿ ♂ ♆	1	11
18	☿ △ ♄	3	38
19	☉ △ ♃	15	43
20	☿ △ ♂	13	43
	♀ ✶ ♄	16	17
21	☿ ✶ ♅	13	17
25	☿ △ ♃	1	38
28	♀ ✶ ♂	13	21
29	☿ ∠ ♀	6	32
	☿ ∠ ♅	8	35
	☿ ♂ ☉	11	0
	♀ ♂ ♅	12	59
	☉ ∠ ♅	18	26
30	☿ π ♆	9	0

May.

Date.	Aspect	Time. H.	M.
1	☉ π ♆	14	51
	☿ ☍ ♃	15	47
	♂ ✶ ♅	16	30
3	☿ ⚹ ♆	4	7
	☿ □ ♄	4	45
	☿ ⊥ ♅	14	2[illegible]
4	☉ ☍ ♃	6	6
5	♀ ♂ ♃	13	55
	☿ ⚹ ♃	13	3
	☿ ⊥ ♀	22	58
6	☿ ♒ ♅	12	20
7	☉ □ ♄	0	26
	☿ □ ♂	6	57
	☿ ☍ ♆	8	47
	☉ ⚹ ♆	16	0
	♂ ∠ ♆	21	24
8	☿ π ♃	13	19
9	☉ ⊥ ♅	0	0
	♀ ∠ ♄	16	48
10	☿ ♒ ♀	10	12
12	☉ ⚹ ♃	22	40
13	♂ △ ♃	14	40
14	☿ △ ♆	22	40
15	☉ ♒ ♅	14	37
16	☉ ☍ ♆	18	55
18	☿ ✶ ♄	12	18
	☉ π ♃	16	14
23	☉ □ ♂	3	16
24	☿ ♂ ♅	5	11
25	♀ ⊥ ☉	2	56
28	♀ □ ♆	20	34
30	♂ ⊥ ♆	12	51
31	☿ ∠ ♄	7	35

June.

Date.	Aspect	Time. H.	M.
1	☉ △ ♆	19	27
	♀ π ☉	22	28
4	♃ ♂ ♅	14	10
9	☉ ✶ ♄	7	51
10	♂ ♒ ♆	1	14
	♀ ✶ ♂	10	20
15	☉ ♂ ♃	13	37
17	☉ ♂ ♅	21	3
20	☿ ∠ ♄	9	11
22	♀ ∠ ♄	15	26
23	☿ ♂ ☉	22	25
24	♀ ♂ ☉	18	30
26	☉ ∠ ♄	21	43
30	♂ ♒ ♄	8	38

July.

Date.	Aspect	Time. H.	M.
1	☿ ♂ ♀	2	46
2	☉ □ ♆	12	51
3	♂ □ ♃	0	0
4	♀ ♂ ♅	7	30
7	☉ ⊥ ♄	9	36
9	♀ □ ♂	9	38
	♃ △ ♄	17	9
13	☉ ♒ ♄	13	28
	☉ π ♃	13	32
	♂ ⊥ ♄	16	17
	♂ □ ♅	16	39
17	♀ ♒ ☉	14	6
20	☿ ∠ ♄	11	16

Date.	Aspect	Time. H.	M.
21	☉ ♒ ♅	8	4
22	☿ □ ♆	17	39
23	☉ ⚹ ♃	13	33
25	☿ ⊥ ☉	8	55
26	☿ ⊥ ☉	0	54
27	☉ ⊥ ♅	23	21
28	☉ ☍ ♃	2	10
	☿ π ♃	10	27
30	☿ ♒ ♄	1[illegible]	55
31	☿ ⚹ ♃	12	48

August.

Date.	Aspect	Time. H.	M.
1	♂ ∠ ♄	12	0
	☉ ✶ ♂	13	12
	♀ ♂ ♅	23	5
2	☿ ♒ ♅	5	35
	☿ ♒ ♀	15	2
3	☉ ✶ ♆	10	18
	♂ ♂ ♆	12	40
4	☿ ☍ ♃	21	52
5	☿ ⊥ ♅	6	0
6	☿ ⊥ ♀	18	24
	☉ ∠ ♅	21	47
7	☿ ✶ ♆	22	58
9	☿ ✶ ♂	7	41
	☿ ∠ ♅	13	21
11	☿ △ ♃	18	18
	☿ ♂ ☉	20	8
12	☉ △ ♃	4	10
13	☿ ∠ ♀	13	19
15	☿ ♂ ♄	7	31
	☿ ∠ ♆	11	36
17	☿ ✶ ♅	7	17
	♂ ✶ ♃	23	2
19	♄ ∠ ♆	4	0
	♀ □ ♆	5	47
	♀ ∠ ♄	8	29
	☉ ∠ ♆	11	18
	☉ ♂ ♄	12	51
20	☿ ⊥ ♆	7	38
	♀ ∠ ☉	12	0
	☿ ∠ ♂	15	28
23	☉ ✶ ♅	4	43
	☿ ♒ ♆	17	49
27	☿ ✶ ♀	19	9
28	☉ ⊥ ♆	0	51
	☿ □ ♃	7	38
	☿ ⊥ ♂	17	25
	♀ △ ♃	17	26
31	♀ ⊥ ♄	4	5
	♂ ✶ ♄	8	15

September.

Date.	Aspect	Time. H.	M.
2	☿ ♒ ♄	14	31
3	☿ ♒ ♂	22	40
	☿ □ ♅	22	57
	☿ △ ♅	23	22
4	♀ ⚹ ♃	9	23
	☉ ♒ ♆	12	2[illegible]
6	☿ ⊥ ♄	21	22
7	♀ ♒ ♄	9	17
9	♀ ♒ ♅	0	25
11	♂ ∠ ♃	14	3
12	☿ ♂ ♆	0	0
13	☉ □ ♃	10	40
	☿ ∠ ♄	23	0
14	♀ ☍ ♃	1	53
15	♀ ⊥ ♅	10	46
17	☉ ∠ ♂	9	20
18	♀ □ ♂	18	0
	☿ ✶ ♃	21	5
20	♀ ✶ ♆	13	34
21	♀ ∠ ☉	12	0
22	♂ ♒ ♆	0	55
	♄ ✶ ♅	22	17
23	♀ ∠ ♅	15	2
	☉ □ ♅	21	6
24	☉ ♒ ♄	0	0
26	♂ ☍ ♅	20	12
27	♂ ⊥ ♃	2	24
28	☿ △ ♅	4	0
	☿ ✶ ♄	23	7
29	♀ △ ♃	14	26
30	☉ ⊥ ♄	21	20

October.

Date.	Aspect	Time. H.	M.
1	♂ ⊥ ♆	6	0
4	♀ ∠ ♆	17	5
6	☉ ♂ ♆	8	34
7	☿ ✶ ♅	6	9
	♂ ♒ ♃	16	56
8	♀ ♂ ♄	17	43
9	♂ ⚹ ♅	7	10
10	☉ ∠ ♄	0	14
12	♀ ⊥ ♆	21	22
14	♂ ∠ ♆	17	55
16	☿ △ ♅	22	48
18	♂ π ♅	3	55
	♀ ♒ ♆	6	56
	☿ ∠ ♀	10	18
	☉ ✶ ♃	11	4
20	☿ ♂ ☉	18	19
21	☿ ✶ ♃	7	7
22	☿ ⊥ ♀	8	24
	♂ □ ♄	11	22
24	☉ △ ♅	4	31
25	☿ ♒ ♀	4	50
29	♀ □ ♃	18	0
31	☿ ∠ ♄	9	46

November.

Date.	Aspect	Time. H.	M.
1	♀ □ ♅	17	50
5	♀ ♒ ♄	10	57
	♂ ✶ ♆	13	7
	☉ ∠ ♃	18	39
6	☉ ♒ ♆	15	19
7	☉ ☍ ♅	20	56
9	☿ ✶ ♃	9	30
10	☿ △ ♅	8	44
	♀ ⊥ ♄	17	28
12	☉ ⊥ ♆	18	57
13	♀ ♂ ♆	5	55
	☉ ♒ ♂	7	12
14	☿ ✶ ♄	3	13
15	♃ ♂ ♅	3	32
	♀ ⊥ ☉	6	27
16	☉ ⚹ ♅	13	9
18	☉ ⊥ ♃	5	0
	♀ ∠ ♄	12	41
19	☿ ♒ ♆	21	24
20	☿ ☍ ♅	4	37
21	☿ ∠ ♃	1	2
22	☉ ∠ ♆	0	0
	☉ π ♅	7	26
23	☿ ⊥ ♆	18	47
24	☉ ♒ ♃	11	0
	♀ ✶ ♂	20	17
25	☿ ⚹ ♅	18	26
	♀ △ ♅	21	56
26	♂ ♂ ♅	12	31
28	♀ ✶ ♃	12	46
	☉ □ ♄	12	49
	☿ ⊥ ♃	15	48
29	☿ π ♅	12	0
	☿ ∠ ♆	14	19

December.

Date.	Aspect	Time. H.	M.
1	♂ ♂ ♃	16	22
2	☿ ♒ ♂	10	0
	☿ ♒ ♃	2	24
3	☿ □ ♄	18	16
5	♂ △ ♄	5	36
7	☉ ✶ ♆	4	48
	♀ ☍ ♅	17	18
8	♀ ♒ ♆	6	29
9	☿ ✶ ♆	6	51
	☿ ⊥ ♂	20	49
13	☿ ♂ ☉	1	5
	♀ ♒ ☉	1	43
	♀ ⊥ ♆	4	46
	♀ ∠ ♃	7	40
	☿ ♒ ♀	22	48
14	♃ △ ♄	13	42
	♀ ⚹ ♅	17	36
16	♂ □ ♆	15	12
18	☿ ♂ ♅	1	5
19	♀ π ♅	10	14
20	♀ ∠ ♆	12	59
	☉ ♂ ♅	17	38
21	☿ ∠ ♂	0	30
22	♀ ⊥ ♃	5	2
	☿ △ ♄	20	39
24	☿ ♂ ♃	16	55
25	♀ ✶ ♄	13	19
26	♀ ∠ ♂	20	53
28	♀ ♒ ♃	3	36
	☉ △ ♄	5	42
	☿ □ ♆	8	30
30	☿ ⊥ ♀	0	0

Heliacal Risings and Settings of the Planets in 1948.

(For the latitude 23°11′ N).

Mercury.

Sets.	*Rises.*
13th Feb. in West	23rd Jan. in West
10th April in East	25th Feb. in East
14th June in West	10th May in West
31st July in East	5th July in East
5th Oct. in West	3rd Sept. in West
26th Nov. in East	26th Oct. in East

Venus.

Sets.	*Rises.*
18th June in West	2nd July in East

Saturn.

Sets.	Rises.
28th July 1948.	5th Sept. 1948.

Moonrise.

13th January.	8th July.
11th February.	6th August.
12th March.	5th September.
11th April.	4th October.
10th May.	3rd November.
8th June.	2nd December.

Jupiter.

Sets on 18th December.

Mars.

Visible throughout the year.

Date.	Aspect	Time. H.	Time. M.
January.			
9	☉ ∥ ♃	8	0
10	☿ ∥ ♅	20	0
12	♀ ∥ ♄	13	5
14	☿ ∥ ♃	4	40
17	☿ ∥ ☉	22	30
19	♀ ∥ ♂	0	25
26	☿ ∥ ♄	22	40
February.			
5	☉ ∥ ♄	22	30
6	♀ ∥ ♆	5	0
9	☉ ∥ ♂	0	15
17	♂ ∥ ♄	22	20
24	☿ ∥ ☉	18	35
March.			
10	☿ ∥ ♀	14	30
12	☉ ∥ ♆	9	55
18	♀ ∥ ♄	15	20
23	♀ ∥ ♂	6	40
April.			
4	☿ ∥ ☉	3	20
,,	♀ ∥ ♃	21	0
6	♀ ∥ ♅	12	0
7	☿ ∥ ♆	0	50
17	♂ ∥ ♄	0	0
29	☿ ∥ ☉	22	40
May.			
2	☉ ∥ ♂	19	15
3	☿ ∥ ♄	3	30
8	☉ ∥ ♄	17	40
12	☿ ∥ ♃	3	5
13	☿ ∥ ♅	9	0
June.			
7	☿ ∥ ♅	5	20
9	☉ ∥ ♃	0	0
,,	☿ ∥ ☉	13	10
12	♀ ∥ ♅	4	0
13	♀ ∥ ☉	18	50
15	♀ ∥ ♃	7	40
July.			
5	☉ ∥ ♃	7	40
5	☿ ∥ ♀	14	20
7	♂ ∥ ♆	12	0
18	☿ ∥ ☉	1	25
August.			
8	☿ ∥ ♀	19	15
15	☿ ∥ ☉	8	50
16	☿ ∥ ♄	0	55
18	☉ ∥ ♄	16	5
23	☿ ∥ ♂	20	0
27	☉ ∥ ♂	18	0
September.			
8	☿ ∥ ♆	11	25
9	♂ ∥ ♄	7	45
10	☿ ∥ ☉	19	15
14	☉ ∥ ♆	17	0
21	♀ ∥ ♂	9	55
October.			
2	☉ ∥ ♆	13	35
5	♀ ∥ ♄	8	40
15	♀ ∥ ☉	9	40
20	☿ ∥ ♄	1	40
21	☿ ∥ ☉	6	40
23	☉ ∥ ♄	14	10
26	♀ ∥ ♆	11	10
November.			
5	♂ ∥ ♃	16	50
8	♂ ∥ ♅	12	0
12	☿ ∥ ♄	23	5
13	♀ ∥ ♆	19	5
28	♀ ∥ ♄	14	45
December.			
6	☿ ∥ ☉	1	0
8	☿ ∥ ♃	19	30
9	☿ ∥ ♅	21	0
15	☉ ∥ ♃	12	0
17	♂ ∥ ♅	12	0
19	☉ ∥ ♂	9	35
21	♂ ∥ ♃	12	0

January.

Date.	Aspect	Time. H.	M.
1	☿ △	6	10
	♀ ☍	7	55
	☉ △	9	9
	♆ ⚹	14	46
	♃ □	18	35
2	♄ ⚹	5	59
	♋ □	8	26
	♀ ☌	11	54
3	♄ ∠	7	51
	♂ ⚹	8	39
	☿ □	16	34
	☉ □	16	42
	♀ △	16	43
	♆ ♂	18	31
	♃ ✶	23	27
4	♄ ✶	10	33
	♂ ∠	11	35
	♋ △	13	13
5	♃ ∠	3	15
	♂ ✶	15	24
	♋ ☌	16	48
6	♆ ⚹	1	40
	☉ ✶	4	33
	♀ □	5	40
	☿ ✶	7	34
	♃ ⚹	7	52
	♄ □	18	21
	♋ ☍	21	12
7	♆ ∠	6	21
	☉ ∠	11	46
	☿ ∠	16	47
8	♂ □	0	57
	♀ ✶	10	14
	♆ ✶	11	36
	♃ ♂	13	0
	☉ ⚹	19	49
9	☿ ⚹	2	50
	♄ △	4	35
	♋ ☌	7	39
10	♀ ∠	7	26
	♄ ☌	10	17
	♂ △	12	18
	♆ □	23	14
11	♃ ⚹	7	51
	☉ ♂	13	14
	♄ ☍	16	15
12	♀ ⚹	17	2
	♋ ☍	19	9
	♂ ☌	20	32
	☿ ♂	0	33
	♃ ∠	14	37
13	♂ ☍	0	32
	♋ ☌	1	42
	♆ △	11	45
	♃ ✶	21	29
14	♄ ☌	4	31
	☉ ⚹	7	42
	♋ △	7	56
	♀ ♂	12	41
	♆ ☌	18	8
	☿ ⚹	23	11
15	♂ ☌	12	50
	☉ ∠	16	39
16	♆ ☍	0	24
	☿ ∠	5	42
	♃ □	11	3
	♄ ☍	16	38
	♋ □	20	8
17	☉ ✶	1	27
	♀ ⚹	7	47
	☿ ✶	21	0
	♄ ☌	22	11
18	♂ ☍	0	6
	♆ ☌	11	49
	♀ ∠	16	30
	♃ △	23	7
19	♄ △	3	9
	♂ ☌	4	51
	♋ ✶	6	41
20	☉ □	16	58
	♀ ✶	0	6
	♂ ☌	8	38
	♋ ∠	10	43
	☿ □	14	56
	♃ ☌	15	50
	♆ ☍	20	17
21	♃ ☍	7	39
	♄ □	10	20
	♋ ⚹	13	47
	♆ ☌	23	5
22	☉ △	3	37
	♀ □	11	18
	♂ □	13	28
23	♆ △	0	48
	☿ △	3	1
24	☉ ☌	7	25
	♃ ☌	12	5
	♄ ✶	13	33
	♋ ♂	16	55
	☿ ☌	6	57
	☉ ☍	9	50
	♄ ∠	13	51
	♂ ✶	14	28
	♀ △	17	30
25	♆ □	1	44
	♀ ☌	7	20
	☿ ☍	9	58
	♃ ☍	13	2
	♄ ⚹	13	23
	♂ ∠	13	57
	♋ ⚹	16	55
26	☉ ☌	12	41
	♃ ☌	12	49
	♂ ⚹	13	6
	♋ ∠	16	22
	♀ ☍	20	48
27	♆ ✶	0	45
	♄ ♂	12	12
	♃ △	12	32
	☿ ♂	14	25
	♋ ✶	15	46
28	♆ ∠	1	51
	♂ ♂	11	24
	☉ ☍	15	10
29	♃ ⚹	0	8
	♀ ♂	0	18
	♄ ⚹	11	49
	♃ □	13	0
	♋ □	15	40
	☉ ☌	17	13
	☿ ☍	20	4
30	♄ ∠	14	15
	♂ ⚹	18	32
	☉ △	20	26
31	☿ ☌	0	12
	♆ ♂	1	58
	♀ ☍	6	59
	♄ ✶	14	15
	♃ ✶	16	30
	♋ △	18	36

February.

Date.	Aspect	Time. H.	M.
1	☿ △	5	27
	♀ ☌	12	10
	♂ ✶	14	59
	♃ ∠	19	48
	♋ ☌	21	32
2	☉ □	6	2
	♆ ⚹	7	41
	♀ △	18	41
	♄ □	20	37
3	♃ ⚹	0	6
	♋ ☍	1	27
	♆ ∠	11	56
	☿ □	19	35
	♂ □	22	3
4	♆ ✶	17	6
	☉ ✶	20	26
5	♄ △	6	23
	♀ □	11	17
	♃ ♂	11	20
	♋ ♂	11	48
6	☉ ∠	5	11
	♂ △	7	41
	♄ ☌	12	6
	☿ ✶	12	8
7	♆ □	4	54
	♂ ☌	13	1
	☉ ⚹	14	8
	♀ ✶	14	2
	♄ ☍	18	7
	☿ ∠	20	11
	♋ ☍	23	54
8	♃ ⚹	0	30
	♂ ☍	18	27
9	☿ ⚹	3	51
	♋ ☌	6	18
	♃ ∠	7	18
	♀ ∠	16	15
	♆ △	17	31
10	♄ ♂	6	25
	☉ ♂	8	31
	♋ △	12	32
	♃ ✶	14	3
	♆ ☌	23	46
11	♀ ⚹	1	51
	♂ ♂	5	12
	☿ ♂	17	10
12	♆ ☍	17	53
	♄ ☍	18	18
13	♋ □	0	42
	☉ ⚹	2	18
	♃ □	3	7

Date.	Aspect	Time. H.	M.
	♂ ☍	15	21
	♀ ♂	20	29
	♄ ☌	23	54
14	☿ ⚹	3	36
	☉ ∠	10	39
	♆ ♂	17	19
	♂ ☌	19	56
15	♄ △	5	5
	♋ ✶	11	39
	♃ △	14	50
	☉ ✶	18	28
16	♂ △	0	6
	☿ ✶	10	50
	♀ ⚹	12	58
	♋ ∠	16	18
	♃ ☌	19	49
17	♃ ☍	2	45
	♄ □	13	40
	♀ ∠	19	47
	♋ ⚹	20	11
	♃ ☍	23	58
18	♆ ☌	6	17
	♂ □	6	21
	☉ □	7	22
	☿ □	14	29
19	♀ ✶	1	27
	♃ △	8	59
	♄ ✶	18	59
20	♋ ♂	1	22
	♃ ♂	5	25
	♂ ✶	9	26
	☿ △	14	47
	☉ △	15	48
	♄ ∠	20	17
21	♀ □	9	11
	♂ ∠	9	47
	♆ □	11	40
	☿ ☌	14	51
	☉ ☌	18	22
	♄ ∠	20	49
22	♋ ⚹	3	2
	♃ ☍	7	25
	♂ ⚹	9	25
	☿ ☍	12	10
23	♋ ∠	2	56
	♃ ☌	7	29
	♆ ✶	11	38
	♀ △	13	22
	☉ ☍	20	11
24	♄ ♂	20	15
	♋ ✶	2	32
	☿ ♂	4	21
	♃ △	7	16
	♂ ♂	9	11
	♆ ∠	11	9
	♀ ☌	14	55
	☉ ♂	22	45
25	♆ ⚹	10	43
	♀ ☍	16	31
	♄ ⚹	19	18
26	♋ □	1	54
	☿ ☍	5	33
	♂ ⚹	5	59
	♃ □	7	13
	♄ ∠	19	21
27	☉ ☍	2	18
	☿ ☌	4	47
	♂ ∠	6	5
	♆ ♂	11	14
	♄ ✶	20	5
	♀ ♂	21	47
28	♋ △	3	21
	☿ △	4	53
	☉ ☌	5	21
	♂ ✶	6	25
	♃ ✶	9	30
29	♋ ☌	5	26
	☉ △	9	29
	♃ ∠	12	4
	♆ ⚹	15	1

March.

Date.	Aspect	Time. H.	M.
1	♄ □	0	22
	♀ ☍	7	42
	☿ □	8	43
	♋ ☍	9	38
	♂ □	10	23
	♃ ⚹	15	43
	♆ ∠	18	29
2	♀ ☌	14	43
	☉ □	22	4
	♆ ✶	22	55
3	♄ △	8	47
	☿ ✶	16	24
	♋ ♂	17	28
	♂ △	18	17
	♀ △	22	57
4	♃ ♂	2	2
	♄ ☌	14	11
	☿ ∠	22	29
	♂ ☌	23	17
5	♃ □	9	57
	☉ ✶	14	52
	♄ ☍	20	9
6	♂ ☍	4	46
	☿ ⚹	4	56
	♋ ☍	5	48
	♃ ⚹	14	50
	♀ □	17	25
	☉ ∠	23	58
7	♋ ☌	12	14
	♃ ∠	21	32
	♆ △	22	43
8	♄ ♂	8	32
	☉ ⚹	9	8
	♂ ♂	16	7
	♋ △	18	34
	☿ ♂	19	34
9	♃ ✶	4	8
	♆ ☌	4	58
	♀ ✶	12	42
10	♆ ☍	11	0
	♀ ∠	22	10
	♄ ☍	20	24
11	☉ ♂	2	43
	♂ ☍	2	57
	♋ □	6	37
	☿ ⚹	10	12
	♃ □	16	28
12	♄ ☌	1	56
	♀ ⚹	6	26
	♂ ☌	7	54
	☿ ∠	17	21
	♆ ♂	21	54
13	♄ △	6	55
	♂ △	12	28
	♋ ✶	17	10
	☉ ♃	18	25
14	☿ ✶	0	10
	♃ △	3	9
	♋ ∠	21	52
	♀ ♂	22	0
15	♃ ☍	7	10
	♃ ☌	7	50
	♄ □	15	52
	♂ □	20	42
16	♋ ⚹	1	55
	☉ ✶	7	48
	♆ ☌	11	15
	♃ ☍	11	52
	☿ □	12	36
17	♀ ⚹	10	37
	♃ △	14	7
	♄ ✶	22	16
18	♂ ✶	4	3
	♋ ♂	8	12
	♀ ∠	15	36
	♃ ♂	17	55
	☉ □	17	57
	☿ △	23	23
19	♄ ∠	0	26
	♂ ∠	4	14
	♆ □	18	22
	♀ ✶	19	39
20	♄ ⚹	1	57
	☿ ☌	2	7
	♂ ⚹	5	32
	♋ ⚹	11	39
	♃ ☍	21	6
21	☉ △	0	37
	♋ ∠	12	30
	☿ ☍	17	10
	♆ ✶	20	5
	♃ ☌	21	49
22	☉ ☌	1	9
	♀ □	1	25
	♄ ♂	3	17
	♂ ♂	6	31
	♋ ✶	12	51
	♆ ∠	20	18
	♃ △	22	10
23	☉ ☍	0	29
	☿ ♂	9	56
	♃ ⚹	20	22
24	♄ ⚹	3	27
	♀ △	5	33
	♂ ⚹	6	34
	♋ □	13	10
	♋ □	22	44
25	♂ ∠	6	44
	♄ ∠	6	51
	♀ ☌	7	48

Date.	Aspect		Time. H.	M.
	☉	♂	8	42
	♅	☍	14	54
	♆	♂	20	59
26	♄	✶	4	13
	♂	✶	7	22
	♀	☍	10	34
	♇	△	14	29
	♅	☍	18	18
27	♃	✶	0	36
	☉	☍	14	43
	♇	☍	16	10
	♅	△	22	45
	♆	♒	23	42
28	♃	∠	2	39
	♄	□	7	24
	♂	□	10	47
	♀	♂	18	54
	♇	☍	18	58
	☉	☍	19	14
29	♆	∠	2	43
	♃	♒	5	38
30	☉	△	0	59
	♆	✶	6	5
	♅	□	11	45
	♄	△	14	15
	♂	△	18	2
31	♇	♂	2	34
	♀	☍	8	3
	♃	☍	14	28
	♄	♂	19	11

April.

Date.	Aspect		Time. H.	M.
1	☉	□	15	56
	♆	□	16	2
	♀	☍	16	18
2	♄	☍	0	42
	♂	☍	4	57
	♅	✶	6	17
	♇	☍	13	52
3	♀	△	1	15
	♃	♒	2	17
	♅	∠	16	55
	♇	☍	20	14
4	♆	△	4	18
	♃	∠	8	42
	☉	✶	9	48
	♄	♂	13	7
	♂	♂	17	48
5	♇	△	2	38
	♅	♒	3	50
	♆	☍	10	35
	♃	✶	15	6
	☉	∠	18	48
	♀	□	19	40
6	♀	☍	16	28
7	♄	☍	1	13
	☉	♒	3	25
	♂	☍	6	22
	♇	□	14	44
8	♅	♂	0	47
	♃	□	2	48
	♄	☍	6	40
	♂	☍	12	2
	♀	✶	12	32
9	♆	♂	3	11
	♄	△	11	37
	♂	△	17	41
	☉	♂	18	45
	♀	∠	19	56
10	♇	✶	0	51
	♃	△	12	30
	♅	♒	19	10
11	♀	♒	2	37
	♇	∠	5	8
	♆	☍	11	59
	♃	☍	16	30
	♄	□	19	56
12	♂	□	1	57
	♅	∠	3	15
	☉	♒	7	24
	♇	♒	8	54
	♆	☍	15	14
	♃	☍	19	53
13	♅	✶	10	39
	☉	∠	12	45
	♀	♂	13	58
	♆	△	18	13
14	♄	✶	2	11
	♂	✶	8	39
	♇	♂	15	10
	☉	✶	17	27
15	♃	♂	1	23
	♄	∠	4	34
	♂	∠	11	17
	♆	□	22	46
	♀	♒	22	48
	♅	□	23	30
16	♄	♒	6	31
	♂	♒	13	30
	♇	♒	17	18
17	☉	□	1	12
	♀	∠	2	22
	♃	☍	5	2
	♇	∠	20	28
18	♆	✶	1	42
	♀	✶	3	3
	♃	☍	6	19
	♄	♂	9	22
	♅	△	10	12
	♂	♂	16	51
	♇	✶	21	40
19	♆	∠	2	42
	☉	△	7	11
	♃	△	7	18
	♅	☍	14	56
20	♆	♒	3	32
	☉	☍	9	54
	♀	□	10	50
	♄	♒	11	12
	♂	☍	19	26
	♅	☍	19	35
	♇	□	23	23
21	♃	□	9	2
	♄	∠	12	7
	☉	☍	12	34
	♂	∠	20	46
22	♆	♂	5	22
	♄	✶	13	16
	♀	△	16	20
	♂	✶	22	24
23	♇	△	1	53
	♅	♂	5	43
	♃	✶	11	28
	☉	♂	17	0
	♀	☍	19	42
24	♇	☍	3	43
	♆	♒	8	34
	♃	∠	13	20
	♄	□	16	53
	♀	☍	23	47
25	♂	□	3	24
	♇	☍	6	13
	♆	∠	10	54
	♃	♒	15	57
	♅	☍	19	57
26	☉	☍	5	27
	♆	✶	14	39
	♄	△	23	36
27	♅	☍	5	19
	♀	♂	10	29
	☉	☍	11	21
	♂	△	11	30
	♇	♂	13	31
	♃	♂	23	28
28	♄	☍	3	37
	♅	△	15	32
	♂	☍	16	56
	☉	△	17	32
	♆	□	23	5
29	♄	☍	8	49
	♂	☍	23	9
30	♇	☍	0	0
	♀	☍	0	58
	♃	♒	10	5

May.

Date.	Aspect		Time. H.	M.
1	♇	☍	7	44
	♀	☍	9	16
	☉	□	10	16
	♆	△	10	39
	♃	∠	16	5
	♅	□	16	8
	♄	♂	20	56
2	♇	△	12	57
	♂	♂	13	4
	♆	☍	16	55
	♀	△	17	44
	♃	✶	22	15
3	♆	☍	23	2
4	☉	✶	4	5
	♄	☍	9	29
	♅	✶	17	41
5	♇	□	0	51
	♂	☍	2	43
	♀	□	9	46
	♃	□	9	47
	☉	∠	12	19
	♄	☍	15	3
6	♅	∠	5	11

Date.	Aspect		Time. H.	M.
	♂	☍	8	48
	♆	♂	9	55
	☉	♒	19	47
	♄	△	20	8
7	♇	✶	11	3
	♂	△	14	8
	♅	♅	15	27
	♃	△	18	59
	♀	✶	22	48
8	♇	∠	14	57
	♃	☍	18	8
	♃	☍	22	30
9	♀	∠	3	55
	♄	□	4	5
	☉	♂	7	59
	♇	♒	18	14
	♆	☍	21	12
	♂	□	22	34
10	♃	☍	1	25
	♅	♂	8	2
	♀	♒	8	17
	♆	△	23	42
11	♄	✶	9	32
	☉	♒	17	4
	♇	♂	23	14
12	♂	✶	4	29
	♃	♂	5	34
	♄	∠	10	54
	♀	♂	15	3
	☉	∠	20	34
	♅	♒	20	44
13	♆	□	3	20
	♂	∠	6	48
	♄	♒	14	50
14	☉	✶	0	7
	♅	∠	2	6
	♇	♒	2	33
	♃	☍	8	21
	♂	♒	8	56
15	♇	∠	4	35
	♆	✶	6	3
	♅	✶	7	19
	♃	☍	9	33
	♄	♂	16	5
	♀	∠	22	35
16	♇	✶	5	22
	☉	□	6	25
	♆	∠	10	39
	♃	△	10	42
	♂	♂	12	57
17	♀	✶	0	56
	♆	♒	8	37
	♅	□	16	38
	♄	♒	18	51
18	♇	□	8	20
	☉	△	12	55
	♃	□	13	7
	♂	♒	17	21
	♄	∠	20	29
19	♀	□	5	56
	♆	♂	11	42
	☉	☍	16	32
	♂	∠	19	53
	♄	✶	22	22
20	♅	△	2	28
	♇	△	12	10
	♃	✶	16	28
	☉	♂	20	34
	♂	✶	22	46
21	♅	☍	7	49
	♀	△	11	55
	♇	☍	14	35
	♆	♒	15	57
	♃	∠	18	39
22	♄	□	3	14
	♅	♂	13	42
	♀	☍	15	29
	♇	♂	17	22
	♆	∠	18	43
	♃	♒	21	18
23	♂	□	6	0
	☉	♂	6	8
	♀	♂	19	57
	♆	✶	22	6
24	♄	△	10	8
25	♇	♂	0	59
	♅	♂	3	7
	♃	♂	4	24
	☉	♂	12	2[illegible]
	♄	☍	14	36
	♂	△	15	51
26	♀	♂	5	40
	♆	□	6	40
	♄	♂	17	45
	♂	☍	21	55
27	☉	☍	2	14
	♇	♂	11	14
	♃	♒	13	56
	♅	♂	19	13
28	♂	♂	4	39
	☉	△	10	30
	♇	☍	16	50
	♆	△	17	57
	♀	♂	18	3
	♃	∠	19	34
29	♅	☍	3	57
	♄	♂	7	44
	♇	△	23	26
	♆	☍	23	58
30	♀	☍	0	45
	♃	✶	1	28
	♅	△	13	48
	♂	♂	19	24
31	☉	□	4	14
	♆	♂	6	10
	♀	△	7	22
	♄	♂	20	29

June.

Date.	Aspect		Time. H.	M.
1	♇	□	0	12
	♃	□	13	12
2	♅	□	6	50
	♂	♂	9	12
	♄	☍	9	29
	♆	♂	17	42
	♀	□	19	6
	☉	✶	20	53
3	♄	△	7	48
	♂	☍	15	44
	♇	✶	22	48
	♃	△	22	55
4	☉	∠	3	52
	♅	✶	17	17
	♂	△	20	53
5	♆	♂	2	20
	♃	☍	2	31
	♇	∠	2	43
	♀	✶	3	40
	☉	♒	9	45
	♄	□	16	0
	♅	∠	21	38
6	♃	♂	5	15
	♆	☍	5	18
	♇	♒	5	52
	♀	∠	6	27
7	♅	♒	0	51
	♂	□	4	22
	♆	△	7	32
	♀	♒	8	25
	☉	♂	18	23
	♄	✶	20	43
8	♃	♂	8	35
	♇	♂	9	50
	♄	∠	22	12
9	♅	♂	4	44
	♂	✶	8	52
	♆	□	10	9
	♀	♂	10	17
	♄	♒	21	37
10	☉	♒	0	16
	♃	♂	10	3
	♂	∠	10	32
	♇	♒	11	54
11	☉	∠	2	43
	♅	♒	6	39
	♃	☍	10	34
	♀	♒	10	57
	♆	✶	11	40
	♂	♒	12	9
	♇	∠	12	45
12	♄	♂	1	14
	☉	✶	5	14
	♅	∠	7	28
	♀	∠	11	8
	♃	△	11	9
	♆	∠	12	27
	♇	✶	13	39
13	♅	✶	8	32
	♀	✶	11	30
	♆	♒	13	31
	♂	♂	15	51
14	♄	♒	3	33
	♃	□	13	27
	♇	□	16	29
	☉	□	23	11
15	♄	∠	5	25
	♅	□	10	43
	♀	□	13	12
	♆	♂	16	50
	♂	♒	21	11
16	♄	✶	7	25

Date.	Aspect	Time. H.	M.
	♃ ✱	16	50
	☉ △	19	12
	♅ △	20	57
17	♂ ∠	0	37
	☿ △	14	21
	♀ △	16	20
	♃ ∠	19	20
	♆ ⚺	21	58
	♅ ☍	23	55
18	☉ ☍	0	6
	♂ ✱	4	38
	♄ □	13	46
	☿ ☍	16	41
	♀ ☍	18	27
	♃ ⚺	22	20
19	♆ ∠	1	15
	♅ ☌	3	17
	☉ ☌	5	38
	☿ ☌	19	20
	♀ ☌	20	58
20	♆ ✱	5	3
	♂ □	14	17
	♄ △	21	52
21	♃ ♂	5	43
	♅ ☌	11	42
	☉ ☌	18	25
22	☿ ☌	1	41
	♄ ☍	2	41
	♀ ☌	3	7
	♆ □	14	6
23	♂ △	2	13
	♄ ☌	8	0
	♃ ⚺	15	5
	♅ ☌	22	15
24	♂ ☍	9	6
	☿ ☌	9	39
	☉ ☌	9	50
	♀ ☌	10	56
	♃ ∠	20	30
25	♆ △	1	10
	♅ ☍	4	8
	☿ ☍	14	10
	♀ ☍	15	26
	♂ ☌	16	26
	☉ ☍	18	26
	♄ ☌	20	8
26	♃ ✱	2	19
	♆ ☍	7	20
	♅ △	10	29

Date.	Aspect	Time. H.	M.
	☿ △	19	7
	♀ △	20	11
27	☉ △	3	18
	♆ ☌	13	39
28	♂ ☌	7	53
	♄ ☌	9	15
	♃ □	14	17
	♅ □	23	25
	☿ □	5	12
	♀ □	5	50
	♄ ☍	15	35
	☉ □	20	54
30	♆ ☌	1	53
	♄ △	21	25
	♂ ☌	22	16

July.

Date.	Aspect	Time. H.	M.
1	♃ △	1	6
	♅ △	10	39
	♀ ✱	13	59
	☿ ✱	14	11
2	♂ ☍	4	13
	♃ ☍	5	25
	☉ ✱	11	26
	♆ ☌	11	32
	♅ ∠	15	4
	♀ ∠	17	2
	☿ ∠	17	44
3	♄ □	6	15
	♃ ☌	8	49
	♂ △	9	4
	♆ ☍	14	57
	♅ ⚺	18	29
	♀ ⚺	19	8
	☿ ⚺	20	35
	☉ ∠	20	50
4	♆ △	17	16
	☉ ⚺	21	10
5	♄ ✱	11	9
	♃ ☍	12	43
	♂ □	15	26
	♀ ☍	21	19
	♅ ☍	22	19
	☿ ☍	23	52
6	♄ ∠	12	13

Date.	Aspect	Time. H.	M.
	♆ □	19	34
7	☉ ☍	2	38
	♄ ⚺	12	49
	♃ ☌	13	34
	♂ ✱	18	30
	♀ ⚺	21	6
	♅ ⚺	23	26
8	☿ ⚺	1	5
	♃ ☍	13	53
	♂ ∠	19	40
	♆ ✱	20	5
	♀ ∠	21	7
9	☿ ∠	1	26
	☉ ⚺	6	11
	♄ ☍	13	11
	♃ △	13	25
	♆ ∠	20	4
	♀ ✱	20	17
	♂ ⚺	20	32
	♅ ✱	23	45
10	♀ ✱	2	10
	☉ ∠	8	1
	♆ ⚺	20	26
11	♄ ⚺	2	40
	☉ ✱	20	16
	♃ □	13	57
	♀ □	20	42
	♂ ☍	23	42
12	♅ □	1	22
	☿ □	5	13
	♄ ∠	16	8
	♆ ☍	22	42
13	♃ ✱	16	46
	☉ □	17	2
	♄ ✱	18	15
	♀ △	23	39
14	♅ △	5	3
	♂ ⚺	5	40
	☿ △	11	47
	♃ ∠	19	9
15	♀ ☍	2	20
	♆ ⚺	3	40
	♅ ☍	8	14
	♂ ∠	9	51
	☿ ☍	16	40
	♃ ⚺	22	14
16	♄ □	1	44
	☉ △	3	12
	♀ ☍	5	44

Date.	Aspect	Time. H.	M.
	♆ ∠	7	11
	♅ ☍	11	41
	♂ ✱	14	46
	☉ ☍	9	33
	♆ ✱	11	24
	♃ ♂	5	53
	♄ △	9	45
	♀ ♂	14	36
	☉ ☍	16	28
	♅ ♂	21	8
19	♂ □	2	34
	☿ ♂	13	5
	♄ ☍	15	4
	♆ □	21	6
20	♃ ⚺	16	9
	♄ ☌	20	43
21	♀ ☌	1	59
	☉ ♂	8	2
	♅ ☍	8	2
	♂ △	16	29
	♃ ∠	21	45
22	☿ ☌	7	21
	♀ ☍	8	5
	♆ △	8	33
	♅ ☍	14	7
	♂ ☍	23	58
23	☉ ☌	1	24
	♃ ✱	3	33
	♄ ♂	9	12
	♆ ☍	14	43
	♀ △	14	49
	☿ ☍	17	39
24	♂ ☌	7	50
	♆ ☌	21	6
25	☿ △	4	34
	☉ ☍	10	27
	♃ □	15	53
	♄ ☌	22	34
26	♀ □	5	6
	♅ □	9	14
	☉ ⚺	19	26
	♂ ♂	23	45
27	♄ ☍	5	7
	♆ ♂	9	47
28	☿ □	2	39
	♃ △	3	50
	♄ △	11	14
	♀ ✱	19	2
	♅ ✱	21	28

Date.	Aspect	Time. H.	M.
29	♃ ☍	8	59
	☉ □	11	43
	♂ ☌	13	54
	♃ ☌	20	34
30	♀ ∠	0	46
	♅ ∠	2	15
	♃ ☌	13	17
	♂ ☍	19	31
	♄ ☍	21	3
	☿ ✱	22	11
31	♆ ☍	0	39
	♀ ⚺	5	21
	♅ ⚺	6	12
	☉ ✱	23	37

August.

Date.	Aspect	Time. H.	M.
1	♂ △	0	0
	♆ △	3	40
	☿ ∠	5	42
	♃ ♂	18	51
2	☉ ∠	2	34
	♅ ♂	2	34
	♄ ✱	2	41
	☿ ⚺	11	46
	♀ ♂	12	7
3	♄ ∠	4	0
	♂ □	5	23
	☉ ⚺	6	24
	♆ □	6	37
	♃ ☌	20	45
4	♄ ⚺	4	35
	♅ ⚺	12	5
	♀ ⚺	14	54
	☿ ♂	20	22
	♃ ☍	20	37
5	♆ ✱	6	49
	♂ ✱	7	32
	☉ ♂	9	42
	♅ ∠	11	54
	♀ ∠	15	34
	♃ △	20	13
6	♄ ♂	4	25
	♆ ∠	6	26
	♂ ∠	8	6
	♅ ✱	11	32
	♀ ✱	16	8

Date.	Aspect	Time. H.	M.
7	☿ ⚺	3	25
	♆ ⚺	6	12
	♂ ⚺	8	51
	☉ ⚺	12	15
	♃ □	19	36
8	♄ ⚺	4	31
	☿ ∠	7	28
	♅ □	9	46
	☉ ∠	14	8
	♀ □	18	27
9	♄ ∠	5	22
	♆ ♂	6	58
	♂ ♂	11	50
	☿ ✱	13	22
	☉ ✱	16	48
	♃ ✱	20	56
10	♄ ✱	6	54
	♅ △	14	10
	♃ ∠	22	44
	♀ △	23	54
11	♆ ⚺	10	41
	♂ ⚺	18	23
	♅ ☍	16	44
12	☉ □	1	11
	♃ ⚺	1	28
	☿ □	1	38
	♀ ☍	4	13
	♄ □	12	43
	♆ ∠	13	51
	♅ ☌	20	14
	♂ ∠	23	10
13	♀ ☌	9	31
	♆ ✱	17	53
14	♂ ✱	14	54
	♅ ♂	5	16
	♃ ♂	9	24
	☉ △	13	48
	☿ △	20	12
	♄ △	21	54
15	☉ ☍	21	26
	♀ ♂	22	55
16	♄ ☍	3	27
	♆ □	3	59
	☿ ☍	7	1
	♂ □	18	26
	♃ ⚺	19	52
17	☉ ☌	5	33
	♄ ☌	9	27
	♅ ☌	16	39

Date.	Aspect	Time. H.	M.
	☿ ☌	18	22
18	♃ ∠	1	51
	♀ ☌	14	44
	♅ △	15	47
	♅ ☍	22	47
19	♅ △	5	8
	♃ ✱	7	56
	♂ △	9	46
	♆ ☍	22	7
	♄ ♂	22	20
	☉ ♂	23	2
	♀ ☍	23	11
20	♂ ☍	17	48
	☿ ♂	18	0
21	♆ ☌	4	33
	♀ △	7	51
	♃ □	20	42
22	♂ ☌	1	53
	♄ ☌	11	43
	☉ ☌	17	6
	♅ □	18	2
23	♆ ♂	17	16
	☿ ☌	17	31
	♄ ☍	18	15
24	♀ □	1	6
	☉ ☍	1	54
	♃ △	9	17
	♂ ♂	17	35
25	♄ △	0	30
	☿ ☍	4	35
	♅ ✱	6	10
	☉ △	10	15
	♃ ☍	14	54
26	♆ ☌	4	42
	♅ ∠	11	29
	☿ △	14	32
	♀ ✱	16	34
	♃ ☌	19	57
27	☉ □	0	16
	♂ ☌	6	58
	♆ ☍	9	23
	♄ □	11	1
	♅ ⚺	15	57
	♀ ∠	22	56
28	♂ ☍	12	12
	♆ △	13	8
29	♃ ♂	3	25
	♀ ⚺	4	7
	☿ □	6	9

Date.	Aspect	Time. H.	M.
	♂ △	16	13
	♄ ✱	17	46
	♅ ♂	22	3
30	☉ ✱	9	39
	♆ □	17	39
	♄ ∠	19	38
31	♃ ☌	6	56
	♂ □	9	5
	♀ ♂	10	59
	☉ ∠	12	22
	☿ ✱	15	53
	♄ ⚺	20	36

September.

Date.	Aspect	Time. H.	M.
1	♅ ⚺	0	18
	♃ ☍	7	28
	☉ ⚺	14	19
	♆ ✱	18	42
	☿ ∠	18	57
2	♅ ∠	0	16
	♃ △	7	26
	♀ ⚺	14	19
	☿ ⚺	21	26
	♆ ∠	18	29
	♄ ♂	20	46
	♂ ✱	22	59
3	♅ ✱	0	0
	♀ ∠	15	28
	☉ ♂	16	53
	♆ ⚺	18	4
	♂ ∠	23	34
4	♃ □	6	44
	♀ ✱	16	42
	♄ ⚺	20	23
	♅ □	23	17
5	♂ ⚺	0	24
	☿ △	1	25
	♆ ♂	2	1
	☉ ♂	17	50
	♄ ⚺	19	50
	♀ ∠	20	40
6	♃ ✱	7	7
	♀ □	20	53
	☉ ∠	22	22
	♄ ✱	21	41
7	♅ △	0	21

Date.	Aspect		Time. H.	M.
	♂	☌	3	49
	♃	∠	8	25
	☿	⚺	9	1
	♀	⚺	20	7
8	☉	✶	1	55
	♅	☍	2	8
	♀	∠	4	53
	♃	⚺	10	26
	☿	∠	14	10
9	♄	□	2	14
	♅	⚹	2	49
	♀	△	5	11
	♂	⚺	11	11
10	☿	✶	20	38
	♀	✶	1	59
	♀	☍	10	49
	♀	□	12	34
	♂	∠	16	33
	♃	☌	17	34
11	♄	△	10	47
	♅	☌	13	6
	♀	⚹	20	25
	♂	✶	22	49
12	♀	□	11	37
	☿	□	13	5
	♄	☍	16	16
13	♃	⚺	2	13
	☉	△	3	40
	♄	⚹	22	19
14	♅	⚹	0	10
	♃	∠	10	19
	♀	☌	11	2
	☉	☍	12	13
	♂	□	13	51
	♀	△	23	24
15	♅	☍	6	22
	☿	△	8	25
	♃	✶	16	49
	☉	⚹	21	12
16	♀	☍	5	59
	♄	☌	11	23
	♅	△	12	45
	☿	☍	18	26
17	♀	⚹	5	29
	♂	△	6	7
	♀	⚹	12	24
18	☿	⚹	4	20
	♃	□	5	56
	♂	☍	14	16
	♀	☍	14	45

Date.	Aspect		Time. H.	M.
	☉	☌	15	15
19	♄	⚹	0	38
	♅	□	1	24
	♂	⚹	22	10
	♀	△	23	44
20	♀	☌	0	56
	♄	☍	6	56
	♃	△	18	32
	☿	☌	22	58
21	☉	⚹	8	23
	♄	△	12	55
	♅	✶	13	13
22	♃	☍	0	18
	♀	⚹	12	12
	♂	☌	12	49
	♀	□	13	27
	☉	☍	16	12
	♅	∠	18	28
23	♃	⚹	5	34
	☿	⚹	14	58
	♀	☍	17	3
	☉	△	23	0
	♅	⚺	23	9
	♄	□	23	21
24	♀	△	21	16
	☿	☍	21	33
25	♂	⚹	0	50
	♀	✶	6	14
	♃	☌	14	2
26	☿	△	2	57
	♅	☌	6	10
	♄	✶	6	49
	☉	□	10	37
	♀	∠	11	39
27	♀	□	3	7
	♂	△	9	7
	♄	∠	9	17
	♀	⚺	15	58
	♃	⚹	19	14
28	♅	⚺	10	0
	☿	□	10	25
	♄	⚺	10	59
	☉	✶	17	52
	♃	☍	20	36
29	♀	✶	5	48
	♅	∠	11	48
	♂	□	13	51
	☉	∠	15	0
	♃	△	21	21

Date.	Aspect		Time. H.	M.
	♀	☌	21	51
30	♀	∠	6	14
	♅	✶	11	17
	♄	☌	13	58
	☿	✶	14	4
	☉	⚺	22	2

October.

Date.	Aspect		Time. H.	M.
1	♀	⚺	6	18
	☿	∠	15	9
	♂	✶	16	19
	♃	□	21	48
2	♀	⚺	1	40
	♅	□	10	54
	♄	⚺	12	32
	☿	⚺	15	58
	♂	∠	17	22
3	☉	☌	1	12
	♀	∠	3	33
	♀	☌	6	18
	♄	∠	12	49
	♂	⚺	18	42
	♃	✶	22	21
4	♀	✶	5	52
	♅	△	11	24
	♄	✶	13	28
	☿	☌	18	18
	♃	∠	28	19
5	☉	⚺	5	57
	♀	⚺	7	43
	♅	☍	12	40
	♂	☌	23	20
6	♃	⚺	1	3
	♄	□	5	3
	♀	∠	9	31
	☉	∠	9	37
	♀	□	13	2
	♅	☍	14	26
	☿	⚺	22	48
7	♀	✶	12	15
	☉	✶	14	25
8	☿	∠	2	8
	♃	☌	7	20
	♂	⚺	7	59
	♅	☌	21	11
9	♄	△	0	23
	♀	△	0	59
	☿	✶	6	13
	♂	∠	13	57

Date.	Aspect		Time. H.	M.
	♀	☌	19	41
	♅	△	21	32

November.

Date.	Aspect		Time. H.	M.
1	♄	✶	4	21
	☉	☌	11	34
	♂	⚺	15	23
	♃	∠	17	30
	♀	⚺	19	58
	♅	☍	22	31
	♀	∠	23	0
2	☿	☍	8	44
	♃	⚺	19	18
	♀	∠	21	33
3	♅	☍	0	7
	♀	✶	3	2
	♄	□	6	38
	♂	☌	9	52
	☿	∠	12	6
	☉	⚺	19	1
4	☿	✶	16	50
5	☉	∠	0	8
	♃	☌	1	17
	♅	☌	5	34
	♄	△	13	58
	♀	□	14	16
6	☉	✶	6	28
	♀	□	7	9
	♂	⚺	8	14
	♄	☍	18	31
7	☿	□	6	31
	♃	⚺	11	1
	♅	☍	14	29
	♂	∠	14	59
	♄	⚹	23	50
8	♀	△	6	10
	♃	∠	17	8
	♀	△	17	50
	♅	☍	20	6
	☉	□	22	18
	♂	✶	22	37
9	♀	☍	15	31
	♃	✶	23	47
10	♀	☍	0	2
	☿	△	1	20
	♅	△	2	15
	♄	☌	12	20
11	♀	⚹	1	22

Date.	Aspect		Time. H.	M.
	♅	⚺	4	38
	♂	☌	9	2
	♄	□	10	18
	☿	☍	21	29
22	♀	△	4	34
	☉	☍	4	46
	♀	□	13	30
	☿	△	22	48
23	♃	☌	2	48
	☉	△	10	17
	♅	☌	11	40
	♂	⚹	12	25
	♄	✶	17	29
24	♀	□	10	47
	♄	∠	20	14
	♂	☍	23	1
25	♀	✶	0	15
	☿	□	0	46
	♃	⚹	8	38
	♅	⚺	16	24
	☉	□	19	11
	♄	⚺	22	23
26	♂	△	2	20
	♀	∠	4	33
	♃	☍	10	48
	♀	✶	14	48
	♅	∠	17	59
27	☿	✶	2	20
	♀	⚺	8	10
	♃	△	12	15
	♀	∠	15	58
	♅	✶	18	2
28	♄	☌	1	10
	☉	✶	1	13
	☿	∠	2	49
	♂	□	7	21
	♀	⚺	15	11
29	☿	⚺	3	7
	☉	∠	4	7
	♂	✶	9	22
	♀	☌	14	8
	♃	□	14	24
	♀	□	20	21
30	♄	⚺	2	43
	☉	⚺	6	27
	♀	☌	18	8
31	♄	☌	3	4
	♄	∠	3	26
	♂	∠	13	6
	♃	✶	16	11

Date.	Aspect		Time. H.	M.
	♀	☍	6	31
	☿	☍	11	44
	♂	□	15	12
	☉	△	16	29
12	☉	☍	1	24
	♃	□	13	29
	♅	□	14	42
	☿	⚹	21	59
13	♄	⚹	1	12
	♀	☌	18	53
	♀	☌	20	18
14	♂	△	0	48
	♅	△	7	2
	♄	☍	9	48
15	☉	⚹	1	43
	♃	△	1	45
	♅	✶	12	17
	♄	△	14	3
	♂	☍	16	47
	☿	☌	5	5
16	♀	⚹	6	21
	♅	∠	6	50
	♃	☍	12	23
	♀	⚹	20	6
17	☉	☌	0	2
	♀	☍	9	7
	♅	⚺	10	11
	♃	⚹	10	57
	♀	☍	20	3
	♄	□	20	39
18	☿	⚹	8	17
	♀	△	12	32
19	♀	△	0	57
	♂	☌	6	9
	☉	⚹	11	4
	☿	☍	14	47
	♅	☌	16	18
	♃	☌	18	13
20	♄	✶	2	37
	☉	☍	5	36
	♀	□	17	55
	☿	△	20	38
21	♄	∠	4	56
	♀	□	10	52
	♂	⚹	13	45
	☉	△	19	30
	♅	⚺	20	27
	♃	⚹	23	19
22	♄	⚺	6	51
	♂	∠	17	3

Date.	Aspect		Time. H.	M.
	♀	✶	21	44
23	♅	∠	22	10
	♃	☍	1	27
	☿	□	6	41
	♀	✶	19	10
	♂	△	20	4
	♀	∠	23	51
24	☉	□	2	52
	♃	△	3	20
	♄	☌	10	11
	♅	✶	11	38
	♀	∠	23	1
25	♀	⚺	0	49
	☿	✶	15	54
26	♂	□	1	42
	♅	□	2	19
	♀	⚺	2	45
	♃	□	6	52
	☉	✶	9	32
	♄	⚺	13	2
	☿	∠	19	59
27	♀	☌	3	35
	☉	∠	12	50
	♄	∠	14	28
	☿	⚺	0	57
28	♅	△	4	58
	♂	✶	7	21
	♀	☌	10	21
	♃	✶	10	25
	♄	✶	16	2
	☉	⚺	26	14
29	♅	☍	6	30
	♀	⚺	6	43
	♂	∠	10	25
	♃	∠	12	30
30	♅	☍	8	22
	♀	∠	8	42
	☿	☌	11	1
	♂	⚺	13	57
	♃	⚺	14	59
	♀	⚺	19	9
	♄	□	19	59

December.

Date.	Aspect		Time. H.	M.
1	☉	☌	0	17
	♀	✶	11	8
2	♀	∠	0	24
	♅	⚹	13	24

Date.	Aspect		Time. H.	Time. M.
	♃	☌	21	32
	♂	☌	22	50
	☿	⚺	23	45
3	♄	△	1	58
	♀	⚹	6	37
	☉	☍	11	2
	♆	□	17	58
4	♄	☍	6	8
	☿	∠	7	46
	☉	∠	17	48
	♅	☌	21	32
5	♅	☍	2	48
	♃	⚺	7	17
	♄	☌	11	1
	♂	⚺	11	23
	☿	⚹	16	59
	♀	□	22	14
6	☉	⚹	1	40
	♆	△	3	55
	♃	∠	13	19
	♂	∠	18	59
7	♅	△	8	31
	♆	☍	9	49
	♃	⚹	20	0
	♄	☍	22	50
8	♂	⚹	3	13
	☿	□	13	59
	♆	☌	16	12
	♀	△	17	22
	☉	□	18	48
9	♅	□	21	2
10	♀	☍	3	18
	♃	□	9	54

Date.	Aspect		Time. H.	Time. M.
	♄	☌	11	38
	♂	□	20	4
11	♆	☍	4	50
	☿	△	11	37
	♀	☌	12	44
	☉	△	13	27
	♄	☍	17	34
12	♅	⚹	8	31
	☿	☍	21	12
	☉	☍	21	24
	♃	△	22	10
	♄	△	22	47
13	♂	△	8	33
	♅	∠	13	11
	♆	☌	15	10
14	♃	☍	3	1
	♀	☍	4	42
	☉	☌	4	53
	☿	☌	5	33
	♂	☍	16	21
	♅	⚺	17	0
	♆	☍	19	4
15	♄	□	6	39
	♃	☌	7	19
	♂	☌	21	5
	♆	△	22	6
16	☉	☍	14	40
	♀	☌	16	10
	☿	☍	18	36
	♅	☍	22	13
17	♄	⚹	11	23
	♃	☍	12	35
	♀	☍	20	35

Date.	Aspect		Time. H.	Time. M.
18	♆	□	2	12
	♂	☍	4	10
	♄	∠	12	52
	☉	☌	21	56
19	♀	△	0	22
	♅	⚺	1	14
	☿	☌	2	20
	♄	⚺	14	7
	♃	☌	16	11
20	♅	∠	2	19
	☉	☍	2	52
	♆	⚹	4	43
	☿	☍	8	32
	♂	☌	9	27
	♃	☍	17	41
21	♅	⚹	3	14
	☉	△	4	7
	♆	∠	5	53
	♀	□	7	25
	♂	☍	12	6
	☿	△	12	49
	♄	☍	16	25
	♃	△	19	14
22	♆	⚺	7	8
	♂	△	14	48
23	♅	□	5	52
	♄	⚺	7	12
	☉	□	10	45
	♀	⚹	15	4
	☿	□	22	7
	♃	□	22	58
24	♆	☍	8	34
	♀	∠	19	29

Date.	Aspect		Time. H.	Time. M.
	♄	∠	20	58
	♂	□	21	6
25	♅	△	9	17
	☉	⚹	18	33
	♄	⚹	23	2
26	♀	⚺	0	0
	♃	⚹	3	53
	☿	⚹	8	57
	♅	☍	11	25
	♆	⚺	16	22
	☉	∠	23	3
27	♂	⚹	4	49
	♃	∠	6	47
	♅	☌	13	50
	☿	∠	15	4
	♆	∠	17	10
28	☉	⚺	3	56
	♄	□	4	2
	♂	∠	9	14
	♃	⚺	10	8
	♀	♂	10	37
	♆	⚹	20	8
	☿	⚺	21	42
29	♂	⚺	14	8
	♅	☍	19	48
30	♄	△	10	43
	☉	♂	15	16
	♃	♂	17	55
	♀	⚺	23	23
31	♆	□	3	27

Sid. Time. H.	Sid. Time. M.	M. C. °	M. C. ′	Sid. Time. H.	Sid. Time. M.	M. C. °	M. C. ′	Sid. Time. H.	Sid. Time. M.	M. C. °	M. C. ′	Sid. Time. H.	Sid. Time. M.	M. C. °	M. C. ′
0	0	0 ♈	0	6	0	0 ♋	0	12	0	0 ♎	0	18	0	0 ♑	0
	15	4	5		15	3	26		15	4	5		15	3	26
	30	8	10		30	6	53		30	8	10		30	6	53
	45	12	14		45	10	20		45	12	14		45	10	20
1	0	16	17	7	0	13	48	13	0	16	17	19	0	13	48
	15	20	18		15	17	18		15	20	18		15	17	18
	30	24	18		30	20	48		30	24	18		30	20	48
	45	28	16		45	24	20		45	28	16		45	24	20
2	0	2 ♉	11	8	0	27	54	14	0	2 ♏	11	20	0	27	54
	15	6	4		15	1 ♌	30		15	6	4		15	1 ♒	30
	30	9	54		30	5	9		30	9	54		30	5	9
	45	13	42		45	8	49		45	13	42		45	8	49
3	0	17	28	9	0	12	32	15	0	17	28	21	0	12	32
	15	21	11		15	16	17		15	21	11		15	16	17
	30	24	51		30	20	5		30	24	51		30	20	5
	45	28	29		45	23	56		45	28	29		45	23	56
4	0	2 ♊	5	10	0	27	49	16	0	2 ♐	5	22	0	27	49
	15	5	39		15	1 ♍	44		15	5	39		15	1 ♓	44
	30	9	11		30	5	42		30	9	11		30	5	42
	45	12	42		45	9	42		45	12	42		45	9	42
5	0	16	12	11	0	13	43	17	0	16	12	23	0	13	53
	15	19	39		15	17	46		15	19	39		15	17	46
	30	23	7		30	21	50		30	23	7		30	21	50
	45	26	33		45	25	55		45	26	33		45	25	55

Month and Date.		♃ Long.	♃ Lat.	♃ Radius Vector.	♂ Long.	♂ Lat.	♂ Radius Vector.	♀ Long.	♀ Lat.	♀ Radius Vector.	☿ Long.	☿ Lat.	☿ Radius. Vector.
		° ′	° ′		° ′	° ′		° ′	° ′		° ′	° ′	
January	1 ..	10 ♐ 51	1 N38	5.3230	7 ♌ 0	1N 49	1.6458	21 ♓ 7	3 S 23	.7271	5 ♑ 34	5 S12	.4601
	5 ..	11 10	38	5.3218	8 47	49	1.6481	27 29	20	.7267	17 10	6 2	.4504
	9 ..	29	38	5.3206	10 34	50	1.6504	3 ♈ 51	14	.7262	29 25	6 39	.4364
	13 ..	48	37	5.3194	12 20	50	1.6525	10 13	6	.7258	12 ♒ 37	58	.4189
	17 ..	12 7	37	5.3182	14 7	51	1.6545	16 35	2 55	.7253	27 6	55	.3983
	21 ..	26	36	5.3170	15 53	51	1.6563	22 58	43	.7248	13 ♓ 14	19	.3755
	25 ..	45	36	5.3157	17 39	51	1.6578	29 22	28	.7243	1 ♈ 26	5 4	.3525
	29 ..	13 4	36	5.3144	19 24	51	1.6594	5 ♉ 45	12	.7237	21 58	3 3	.3316
February	2 ..	23	35	5.3131	21 10	51	1.6607	12 10	1 54	.7232	14 ♉ 50	0 21	.3156
	6 ..	42	35	5.3118	22 55	51	1 6619	18 34	35	.7227	9 ♈ 29	2N 36	.3080
	10 ..	14 1	35	5.3105	24 40	51	1.6629	24 59	13	.7220	4 ♋ 42	5 8	.3101
	14 ..	20	34	5.3093	26 25	50	1.6638	1 ♊ 25	0 52	.7216	28 55	6 38	.3218
	18 ..	39	34	5.3080	28 11	50	1.6645	7 51	29	.7210	21 ♌ 2	59	.3405
	22 ..	58	34	5.3068	29 55	49	1.6651	14 18	7	.7206	10 ♍ 37	27	.3628
	26 ..	15 17	33	5.3055	1 ♍ 40	48	1.6653	20 45	0 N16	.7201	27 50	5 22	.3858
March	1 ..	36	33	5.3042	3 25	48	1.6657	27 12	39	.7197	12 ♎ 4	4 0	.4078
	5 ..	56	32	5.3029	5 10	47	1.6657	3 ♋ 40	1 1	.7194	26 46	2 31	.4271
	9 ..	16 15	32	5.3016	6 55	46	1.6657	10 9	23	.7191	9 ♏ 22	1 1	.4431
	13 ..	34	31	5.3003	8 39	45	1.6655	16 37	43	.7188	21 9	0 S 25	.4552
	17 ..	53	31	5.2990	10 24	44	1.6651	23 6	2 2	.7186	2 ♐ 26	1 47	.4631
	21 ..	17 12	31	5.2978	12 9	42	1.6645	29 36	20	.7184	13 29	3 3	.4665

Month and Date.		♃ Long.	♃ Lat.	♃ Radius Vector.	♂ Long.	♂ Lat.	♂ Radius Vector.	♀ Long.	♀ Lat.	♀ Radius Vector.	☿ Long	☿ Lat.	☿ Radius Vector.
		° ′	° ′	° ′	° ′	° ′		° ′	° ′		° ′	° ′	
March	25 ..	17 ♐ 31	0 N30	5.2965	13 ♍ 54	1 N 41	1.6638	6 ♌ 6	2 N 36	.7184	24 ♐ 29	4 S 12	.4655
	29 ..	50	30	5.2952	15 39	39	1.6629	12 36	50	.7184	5 ♑ 40	5 13	.4600
April	2 ..	18 9	29	5.2939	17 24	38	1.6618	19 6	3 1	.7184	17 8	6 3	.4503
	6 ..	29	29	5.2925	19 10	36	1.6606	25 36	11	.7186	29 31	39	.4363
	10 ..	48	29	5.2912	20 55	34	1.6593	2 ♍ 6	17	.7187	12 ♒ 44	58	.4187
	14 ..	19 7	28	5.2899	22 41	33	1.6578	8 36	22	.7190	27 13	54	.3980
	18 ..	26	28	5.2886	24 27	31	1.6561	15 5	23	.7192	13 ♓ 23	19	.3754
	22 ..	46	27	5.2873	26 13	29	1.6545	21 35	23	.7195	0 ♈ 35	5 4	.3523
	26 ..	20 5	27	5.2860	27 59	27	1.6524	28 4	19	.7199	22 8	3 2	.3314
	30 ..	24	27	5.2846	29 46	24	1.6503	4 ♎ 32	3 13	.7203	15 ♉ 2	0 20	.3157
May	4 ..	20 ♐ 43	26	5.2833	1 ♎ 33	22	1.6481	11 ♎ 0	3 N 5	.7208	9 ♊ 41	2 N 38	.3079
	8 ..	21 2	26	5.2820	3 20	20	1.6457	17 27	2 54	.7214	4 ♋ 53	5 9	.3102
	12 ..	22	25	5.2807	5 8	17	1.6431	23 54	41	.7218	29 6	6 38	.3219
	16 ..	41	25	5.2793	6 56	15	1.6404	0 ♏ 20	26	.7224	21 ♌ 14	59	.3404
	20 ..	22 0	24	5.2780	8 44	12	1.6377	6 45	9	.7229	10 ♍ 46	6 27	.3629
	24 ..	20	24	5.2766	10 32	9	1.6347	13 10	1 51	.7234	27 57	5 21	.3859
	28 ..	39	24	5.2752	12 21	7	1.6315	19 33	31	.7239	13 ♎ 11	3 59	.4079
June	1 ..	58	23	5.2738	14 10	4	1.6283	25 57	10	.7244	26 32	2 30	.4273
	5 ..	23 18	23	5.2724	16 1	1	1.6250	2 ♐ 19	0 49	.7250	9 ♏ 27	1 1	.4432
	9 ..	37	22	5.2710	17 51	0 58	1.6215	8 41	26	.7254	21 14	0 S25	.4553
	13 ..	56	22	5.2696	19 42	54	1.6180	15 2	4	.7260	2 ♐ 32	1 48	.4631
	17 ..	24 16	21	5.2682	21 33	51	1.6142	21 23	0 S 19	.7264	13 34	3 4	.4665
	21 ..	35	21	5.2668	23 25	48	1.6102	27 43	41	.7268	24 34	4 13	.4655

Heliocenttic Places of Planets at Noon I. S. T.

Month and Date.		♃ Long.	♃ Lat.	♃ Radius Vector.	♂ Long.	♂ Lat.	♂ Radius Vector.	♀ Long.	♀ Lat.	♀ Radius Vector.	☿ Long.	☿ Lat.	☿ Radius Vector.
		° ′	° ′		° ′	° ′		° ′	° ′		° ′	° ′	
June	25 ..	24♐54	0 N 21	5.2654	25♎17	0 N 45	1.6063	4♑ 3	1 S 3	.7272	5♑45	5 S13	.4600
	29 ..	25 14	20	5.2640	27 10	42	1.6023	10 23	24	.7275	17 21	6 3	.4502
July	3 ..	33	20	5. 628	29 4	38	1.5981	16 42	43	.7278	29 37	39	.4363
	7 ..	53	19	5.2613	0♏58	35	1.5938	23 2	2 2	.7280	12♒51	58	.4186
	11 ..	26 12	19	5.2598	2 53	31	1.5895	29 21	19	.7281	27 20	54	.3979
	15 ..	32	18	5.2585	4 48	28	1.5851	5♒40	35	.7282	13♓31	18	.3751
	19 ..	51	18	5.2572	6 44	24	1.5805	12 0	48	.7282	1♈44	5 3	.3522
	23 ..	27 10	18	5.2558	8 41	20	1.5759	18 19	3 0	.7282	22 18	3 1	.3312
	27 ..	30	17	5.2544	10 39	16	1.5711	24 39	9	.7281	14♉13	0 26	.3154
	31 ..	49	17	5.2530	12 37	13	1.5664	0♓59	16	.7279	9♊53	2N39	.3079
August	4 ..	28 9	16	5.2517	14 36	9	1.5616	7 20	21	.7277	5♋ 5	5 10	.3102
	8 ..	28	16	5.2503	16 35	5	1.5566	13 40	23	.7274	29 17	6 39	.3221
	12 ..	48	16	5.2490	18 3[illegible]	1	1.5516	20 1	23	.7270	20♌22	59	.3408
	16 ..	29 8	15	5.2476	20 37	0 S 3	1.5466	26 23	20	.7267	10♍54	26	.3631
	20 ..	27	15	5.2462	22 39	7	1.5416	2♈43	15	.7263	28 5	5 21	.3862
	24 ..	47	14	5.2448	24 41	10	1.5364	9 6	7	.7258	13♎17	3 58	.4080
	28 ..	0♑ 6	14	5.2434	26 45	14	1.5312	15 29	2 57	.7253	26 59	2 30	.4274
Spetember	1 ..	26	13	5.2420	28 49	18	1.5260	21 52	45	.7247	9♏33	1 1	.4334
	5 ..	0 45	13	5.2406	0♐55	22	1.5209	28♈15	31	.7242	21♏20	0S 27	.4554
	9 ..	1 5	12	5.2392	3 1	27	1.5158	4♉39	14	.7237	2♐37	1 49	.4631
	13 ..	24	12	5.2378	5 7	31	1.5105	11 3	1 57	.7232	13 39	3 4	.4665
	17 ..	44	12	5.2363	7 16	35	1.5052	17 28	38	.7227	24 39	4 13	.4655
	21 ..	2 4	11	5.2349	9 24	39	1.5000	23 53	17	.7222	5♑51	5 13	.4599
	25 ..	23	11	5.2334	11 34	42	1.4948	0♊18	0 56	.7217	17 27	6 3	.4500

Heliocentric Places of Planets at noon I. S. T.

Month and Date.		♃ Long.	♃ Lat.	♃ Radius Vector.	♂ Long.	♂ Lat.	♂ Radius Vector.	♀ Long.	♀ Lat.	♀ Radius Vector.	☿ Long.	☿ Lat.	☿ Radius Vector.
		° ′	° ′		° ′	° ′		° ′	° ′		° ′	° ′	
September	29 ..	2♑43	0N10	5.2320	13♐45	0 S 46	1.4896	6♊44	0 S 32	.7212	29♑43	6 S40	.4361
October	3 ..	3 3	10	5.2305	15 56	50	1.4845	13 11	11	.7207	12♒57	59	.4185
	7 ..	22	9	5.2291	18 9	54	1.4794	19 38	0N 12	.7202	27 28	54	.3977
	11 ..	42	9	5.2277	20 22	57	1.4744	26 5	32	.7198	13♓45	18	.3750
	15 ..	4 2	8	5.2262	22 36	1 1	1.4693	2♋33	57	.7194	1♈53	5 2	3.521
	19 ..	21	8	5.2248	24 51	5	1.4644	9 1	1 19	.7191	22 28	3 0	.3311
	23 ..	41	7	.52234	27 7	8	1.4595	15 30	40	.7189	15♉24	0 17	.3154
	27 ..	5 1	7	5.2219	29 24	12	1.4547	21 59	59	.7187	9♊ 5	2N34	.3079
	31 ..	20	6	5.2205	1♑42	15	1.4500	28 28	2 17	.7185	5♋17	5 11	.3103
November	4 ..	40	6	5.2190	4 1	18	1.4454	4♌58	33	.7184	29 28	6 39	.3222
	8 ..	6 0	5	5.2176	6 20	21	1.4408	11 28	47	.7184	21♌32	59	.3409
	12 ..	20	5	5.2162	8 41	24	1.4365	17 58	3 0	.7184	11♍ 3	26	.3632
	16 ..	39	5	5.2148	11 2	27	1.4222	24 28	9	.7185	28 13	5 20	.3864
	20 ..	59	4	5.2134	13 24	30	1.4281	0♍58	16	.7186	13♎24	3 58	.4083
	24 ..	7 19	4	5.2120	15 47	33	1.4239	7 28	21	.7189	27 5	2 29	.4275
	28 ..	39	3	5.2105	18 11	35	1.4201	13 58	23	.7192	9♏38	0 59	.4432
December	2 ..	59	3	5.2091	20 36	38	1.4163	20 27	23	.7195	21 23	0S 27	.4555
	6 ..	8 18	2	5.2076	23 1	40	1.4126	26 56	20	.7199	2♐42	1 49	.4632
	10 ..	38	2	5.2062	25 27	42	1.4093	3 24	14	.7203	13 44	3 5	.4665
	14 ..	58	1	5.2047	27 54	44	1.4061	9 53	6	.7207	24 45	4 14	.4654
	18 ..	9 18	1	5.2033	0♒21	45	1.4030	16 20	2 56	.7213	5♑56	5 14	.4599
	22 ..	38	0	5.2018	2 49	47	1.4002	22 47	43	.7218	17 33	6 4	.4500
	26. ..	58	0 S 0	5.2004	5 18	48	1.3975	29 13	29	.7223	29 49	40	.4360
	30 ..	10 18	1	5.1988	7 47	49	1.3950	5♎39	12	.7228	13♒ 4	6 59	.4182
	31	23	1	5.1984	8 24	49	1.3944	7 15	2 8	.7230	16 36	59	.4132

Month an Date.	♄ Long.	♄ Lat.	♄ Radius Vector.	♅ Long.	♅ Lat.	♅ Radius Vector.	♆ Long.	♆ Lat.	♆ Radius Vector.
	° ′	° ′		° ′	° ′		° ′	° ′	
	♌	N		♊	N		♎	N	
Jan. 1	17 55	1 3	9.1316	24 19	0 9	19.0792	11 8	1 32	30.2617
9	18 11	3	9.1333	25	9	19.0779	11	32	30.2618
17	18 29	4	9.1350	31	9	19.0762	14	33	30.2619
25	18 46	5	9.1367	36	9	19.0744	17	33	30.2621
Feb. 2	19 8	6	9.1385	42	9	19.0731	19	33	30.2623
10	19 21	6	9.1403	48	9	19.0718	22	33	30.2624
18	19 39	7	9.1421	54	9	19.0704	25	33	30.2625
26	19 56	7	9.1438	59	9	19.0687	28	33	30.2627
March 5	20 13	8	9.1456	25 5	9	19.0669	31	33	30.2629
13	20 31	9	9.1474	11	9	19.0656	34	33	30.2630
21	20 48	9	9.1493	16	9	19.0638	36	33	30.2632
29	21 5	10	9.1512	22	9	19.0625	39	33	30.2633
April 6	21 22	11	9.1530	28	9	19.0612	42	33	30.2635
14	21 40	11	9.1550	34	10	19.0594	45	33	30.2636
22	21 57	12	9.1569	39	10	19.0577	48	33	30.2637
30	22 15	13	9.1588	45	10	19.0564	51	33	0.2639
May 8	22 32	13	9.1607	51	10	19.0550	54	33	30.2640
16	22 49	14	9.1627	56	10	19.0537	56	33	30.2642
24	23 6	15	9.1646	26 2	10	19.0520	59	33	30.2643
June 1	23 24	15	9.1665	8	10	19.0506	12 2	33	30.2644
9	23 41	16	9.1684	13	10	19.0493	5	33	30.2645
17	23 58	17	9.1704	19	10	19.0476	8	33	30.2646
25	24 15	17	9.1723	25	10	19.0462	11	33	30.2648
July 3	24 33	18	9.1743	31	10	19.0449	13	33	30.2649
11	24 50	19	9.1763	37	10	19.0432	16	33	30.2650
19	25 7	19	9.1782	42	10	19.0414	19	33	30.2651
27	25 24	20	9.1802	48	10	19.0402	22	33	30.2652
Aug. 4	25 41	21	9.1821	54	10	19.0389	25	34	30.2653
12	25 59	21	9.1842	27 0	11	19.0375	28	34	30.2654
20	26 16	22	9.1863	5	11	19.0358	31	34	30.2655
28	26 33	22	9.1884	11	11	19.0345	33	34	30.2657
Sept. 5	26 50	23	9.1905	17	11	19.0331	36	34	30.2658
13	27 8	24	9.1926	22	11	19.0314	39	34	30.2659
21	25	24	9.1948	28	11	19.0301	42	34	30.2660
29	42	25	9.1969	34	11	19.0283	45	34	30.2661

Month and Date.	♄ Long.	♄ Lat.	♄ Radius Vector.	♅ Long.	♅ Lat.	♅ Radius Vector.	♆ Long.	♆ Lat.	♆ Radius Vector.
	° ′	° ′		° ′	° ′		° ′	° ′	° ′
	♌	N		♊	N		♎	N	
Oct. 7	27 59	26	9.1990	27 40	0 11	19.0270	12 48	1 34	30.2663
15	28 16	26	9.2012	45	11	19.0257	51	34	30.2664
23	33	27	9.2033	51	11	19.0241	54	34	30.266
31	50	27	9.2054						
Nov. 8	29 7	28	9.2076	57	11	19.0226	56	34	30.2665
16	24	28	9.2097	28 2	11	19.0213	59	34	30.2666
24	42	29	9.2118	8	12	19.0195	13 2	34	30.2667
				14	12	19.0182	5	34	30.2668
Dec. 2	59	30	9.2140	20	12	19.0170	8	34	30.2668
10	0 ♑ 16	30	9.2162	25	12	19.0152	10	34	30.2669
18	33	31	9.2183	31	12	19.0139	13	34	30.2670
26	50	31	9.2205	37	12	19.0121	16	34	30.2671
31	59	32	9.2220	40	12	19.0111	18	34	30.2672

Elements of the Planetary orbits for 12 O'clock noon (I. S. T.) on 1st January 1947.

Planet.	Mean Daily Motion.	Sidereal Revolution.	Ascending Node.	Eccentricity.	Mean Distance.
Sun ..	0° 59′ 8·19″	365·256 Days.	..	·01673181	1.0000001
Moon ..	13° 10′ 34·89″	27·322 ,,	..	·0549005	238860 (miles).
Mercury ..	4° 5′ 34·42″	87·969 ,,	47° 42′ 10″	·20562362	0·3870984
Venus ..	1° 36′ 7·67″	224·701 ,,	76° 12′ 11″	·00679873	0·7233301
Mars ..	0° 31′ 26·52″	686·980 ,,	49° 8′ 57″	·09335525	1·5236781
Jupiter ..	0° 4′ 59·13″	4332·589 ,,	99° 54′ 46″	·04841027	5·202561
Saturn ..	0° 2′ 0·45″	10759·23 ,,	113° 11′ 38″	·05573338	9·554747
Uranus ..	0° 0′ 42·23″	30688·45 ,,	73° 42′ 30″	·0483322	19·21814
Neptune ..	0° 0′ 21·53″	60181·3 ,,	131° 11′ 44″	·00899995	30·10957
Pluto ..	0° 0′ 14·32″	90469·3 ,,	109° 33′	·24852	39·45743
Rahu ..	0° 3′ 10·7772″	6793·458 ,,	..	..	..
☽'s Perigee ..	0° 6′ 40·92″	3232·591 ,,	..	..	..

Table of Ascendants for Latitudes 7° to 20°.

Sid. Time.		7°		8°		9°		10°		11°		12°		13°		14°		15°		16°		17°		18°		19°		20°	
H.	M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
0	0	92	48	93	12	93	34	94	0	94	25	94	50	95	15	95	40	96	5	96	30	96	56	97	22	97	47	98	14
	15	96	13	96	37	97	1	97	25	97	50	98	14	98	39	99	3	99	28	99	53	100	18	100	44	101	10	101	36
	30	99	39	100	3	100	27	100	50	101	14	101	38	102	2	102	27	102	51	103	15	103	40	104	5	104	31	104	59
	45	102	3	103	28	103	52	104	15	104	39	105	3	105	27	105	50	106	15	106	38	107	3	107	27	107	52	108	17
1	0	106	31	106	54	107	16	107	40	108	3	108	26	108	49	109	13	109	36	110	0	110	23	110	47	111	11	111	36
	15	109	58	110	20	110	42	111	5	111	28	111	51	112	13	112	36	112	59	113	21	113	45	114	8	114	31	114	54
	30	113	24	113	47	114	9	114	31	114	53	115	15	115	37	115	59	116	21	116	43	117	6	117	28	117	51	118	14
	45	116	54	117	14	117	36	117	58	118	19	118	40	119	2	119	23	119	45	120	6	120	27	120	49	121	11	121	32
2	0	120	23	120	44	121	4	121	25	121	45	122	7	122	27	122	47	123	9	123	29	123	50	124	11	124	31	124	53
	15	123	53	124	14	124	34	124	55	125	14	125	34	125	53	126	13	126	33	126	53	127	13	127	33	127	53	128	13
	30	127	26	127	45	128	4	128	24	128	42	129	1	129	24	129	39	129	58	130	17	130	37	130	56	131	15	131	34
	45	131	1	131	18	131	37	131	56	132	13	132	31	132	49	133	7	133	25	133	43	134	1	134	20	134	38	134	56
3	0	134	37	134	54	135	12	135	29	135	45	136	2	136	19	136	36	136	53	137	10	137	26	137	43	138	0	138	17
	15	138	14	138	31	138	47	139	4	139	19	139	35	139	51	140	6	140	22	140	38	140	54	141	10	141	25	141	41
	30	141	53	142	10	142	25	142	40	142	55	143	10	143	25	143	39	143	54	144	8	144	23	144	37	144	52	145	6
	45	145	36	145	50	146	4	146	19	146	31	146	45	146	59	147	12	147	27	147	39	147	52	148	5	148	19	148	33
4	0	149	20	149	33	149	45	149	59	150	10	150	22	150	35	150	47	150	59	151	11	151	23	151	35	151	46	151	58
	15	153	6	153	17	153	29	153	40	153	50	154	0	154	11	154	22	154	33	154	43	154	55	155	5	155	15	155	26
	30	156	54	157	3	157	12	157	22	157	32	157	41	157	51	158	0	158	9	158	19	158	29	158	37	158	46	158	55
	45	160	41	160	51	161	2	161	12	161	18	161	27	161	35	161	42	161	50	161	58	162	5	162	13	162	20	162	28
5	0	164	33	164	39	164	45	164	51	164	58	165	4	165	11	155	17	165	23	165	30	165	36	165	42	165	49	165	55
	15	168	22	168	28	168	33	168	38	168	43	168	47	168	52	168	57	169	2	169	7	169	11	169	16	169	20	169	25
	30	172	16	172	19	172	21	172	24	172	28	172	31	172	35	172	37	172	40	172	44	172	47	172	51	172	54	172	57
	45	176	6	176	9	176	11	176	12	176	14	176	15	176	18	176	19	176	20	176	22	176	23	176	24	176	27	176	28
6	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0

Table of Ascendants for Latitudes 7° to 20°

Sid. Time.	7°		8°		9°		10°		11°		12°		13°		14°		15°		16°		17°		18°		19°		20°	
H. M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
6 0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0
15	183	53	183	51	183	49	183	48	183	46	183	45	183	42	183	41	183	40	183	38	183	37	183	36	183	33	183	32
30	187	45	187	41	187	39	187	36	187	32	187	29	187	25	187	23	187	20	187	16	187	13	187	9	187	6	187	3
45	191	36	191	32	191	27	191	22	191	17	191	13	191	8	191	3	190	58	190	53	190	49	190	44	190	40	190	35
7 0	195	27	195	22	195	15	195	9	195	2	194	56	194	49	194	43	194	37	194	30	194	24	194	18	194	11	194	5
15	199	19	199	10	199	2	198	52	198	46	198	37	198	25	198	18	198	14	198	6	198	0	197	51	197	44	197	32
30	203	7	202	57	202	48	202	38	202	28	202	19	202	9	202	0	201	51	201	41	201	32	201	23	201	14	201	5
45	206	55	206	43	206	31	206	20	206	10	205	59	205	49	205	38	205	27	205	17	205	5	204	55	204	45	204	34
8 0	210	40	210	27	210	15	210	1	209	50	209	38	209	25	209	13	209	1	208	49	208	37	208	25	208	14	208	2
15	214	24	214	10	213	56	213	41	213	29	213	15	213	1	212	48	212	33	212	21	212	8	211	55	211	41	211	28
30	218	4	217	50	217	35	217	20	217	5	216	50	216	35	216	21	216	6	215	52	215	37	215	23	215	8	214	54
45	221	46	221	30	221	13	220	56	220	41	220	25	220	9	219	54	219	38	219	22	219	6	218	50	218	35	218	19
9 0	225	22	225	6	224	49	224	31	224	15	223	58	223	41	223	24	223	7	222	50	222	34	222	17	222	0	221	43
15	229	0	228	42	228	23	228	4	227	47	227	29	227	11	226	53	226	35	226	17	225	59	225	40	225	22	225	4
30	232	34	232	15	231	56	231	36	231	18	230	59	230	56	230	21	230	2	229	43	229	23	229	4	228	45	228	26
45	236	6	235	46	235	26	235	5	234	46	234	26	234	7	233	47	233	27	233	7	232	47	232	27	232	7	231	47
10 0	239	37	239	17	238	56	238	35	238	15	237	53	237	33	237	13	236	51	236	31	236	10	235	49	235	29	235	7
15	243	7	242	46	242	24	242	2	241	41	241	20	240	58	240	37	240	15	239	54	239	33	239	11	238	49	238	28
30	246	36	246	13	245	51	245	29	245	7	244	45	244	23	244	1	243	39	243	17	242	54	242	32	242	9	241	46
45	250	2	249	40	249	18	248	55	248	32	248	9	247	47	247	25	247	1	246	39	246	15	245	52	245	29	245	6
11 0	253	29	253	7	252	44	252	20	251	57	251	34	251	11	250	47	250	24	250	0	249	37	249	13	248	49	248	24
15	256	56	256	32	256	8	255	45	255	21	254	57	254	33	254	10	253	45	253	22	252	57	252	33	252	8	251	43
30	260	21	259	57	259	34	259	10	258	24	258	22	257	58	257	35	257	9	256	45	256	20	255	55	255	29	255	3
45	263	47	263	23	262	59	262	35	262	10	261	46	261	21	260	57	260	32	260	7	259	42	259	16	258	50	258	24
12 0	267	13	266	48	266	23	266	0	265	35	265	10	264	45	264	20	263	55	263	30	263	4	262	38	262	13	261	46

Table of Ascendants for Latitudes 7° to 20°.

Sid. Time.	7°		8°		9°		10°		11°		12°		13°		14°		15°		16°		17°		18°		19°		20°	
H. M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
12 0	267	13	266	48	266	23	266	0	265	35	265	10	264	45	264	20	263	55	263	30	263	4	262	38	262	13	261	46
15	270	38	270	14	269	49	269	25	269	0	268	35	268	10	267	44	267	19	266	53	266	27	266	1	265	34	265	8
30	274	4	273	41	273	17	272	51	272	27	272	2	271	36	271	11	270	47	270	21	269	55	269	27	269	0	268	34
45	277	34	277	9	276	44	276	20	275	55	275	30	275	4	274	39	274	13	273	47	273	21	272	54	272	27	271	59
13 0	281	3	280	38	280	14	279	50	279	25	279	0	278	35	278	9	277	43	277	17	276	51	276	24	275	57	275	29
15	284	34	284	10	283	45	283	21	282	56	282	31	282	6	281	41	281	15	280	48	280	22	279	55	279	28	279	0
30	288	8	287	44	287	19	286	55	286	30	286	6	285	41	285	15	284	50	284	24	283	58	283	30	283	3	282	36
45	291	41	291	19	290	55	290	32	290	7	289	43	289	18	288	53	288	27	288	0	287	35	287	8	286	41	286	15
14 0	295	19	294	56	294	33	294	11	293	46	293	22	292	58	292	34	292	8	291	42	291	17	290	50	290	23	289	56
15	299	0	298	38	298	15	297	52	297	28	297	5	296	41	296	16	295	52	295	27	295	2	294	35	294	9	293	41
30	302	43	302	21	301	59	301	37	301	14	300	51	300	28	300	4	299	40	299	15	298	50	298	25	297	59	297	32
45	306	29	306	8	305	46	305	27	305	3	304	41	304	18	303	55	303	32	303	8	302	44	302	19	301	54	301	28
15 0	310	17	309	59	309	38	309	17	308	56	308	35	308	13	307	51	307	28	307	5	306	41	306	17	305	52	305	27
15	314	11	313	52	313	32	313	12	312	52	312	32	312	12	311	51	311	30	311	6	310	45	310	22	309	58	309	34
30	318	7	317	50	317	32	317	12	316	55	316	34	316	15	315	55	315	35	315	14	314	53	314	31	314	9	313	46
45	322	6	321	50	321	32	321	18	320	58	320	41	320	23	320	3	319	45	319	25	319	5	318	45	318	24	318	3
16 0	326	11	325	55	325	39	325	24	325	7	324	51	324	34	324	17	324	0	323	42	323	23	223	5	322	45	322	25
15	330	14	330	2	329	48	329	33	329	20	329	5	328	49	328	34	328	18	328	2	327	46	327	29	327	10	326	52
30	334	25	334	11	334	0	333	47	333	35	333	22	333	9	332	56	332	41	332	28	332	13	331	58	331	42	331	28
45	338	37	338	25	338	15	338	5	337	54	337	42	337	31	337	19	337	8	336	56	336	43	336	30	336	17	336	2
17 0	342	37	342	41	342	33	342	25	342	15	342	6	341	58	341	48	341	38	341	28	341	17	341	7	340	56	340	45
15	347	5	346	58	346	52	346	47	346	39	346	33	346	25	346	18	346	11	346	3	345	55	345	47	345	39	345	31
30	351	22	351	18	351	15	351	11	451	6	351	1	350	56	350	51	350	46	350	41	350	36	350	30	350	25	350	20
45	355	42	355	40	355	38	355	34	355	33	355	31	355	29	355	26	355	23	355	20	355	17	355	15	355	13	355	9
18 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table of Ascendants for Latitudes 7° to 20°.

Sid. Time.	7°		8°		°9		10°		11°		12°		13°		14°		15°		16°		17°		18°		19°		20°	
H. M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
18 0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	4	19	4		4	23	4	26	4	27	4	29	4	31	4	34	4	37	4	40	4	43	4	45	4	47	4	50
30	8	37	8	20	8	46	8	49	8	54	8	59	9	4	9	9	9	14	9	19	9	24	9	30	9	35	9	40
45	12	56	13	42	13	8	13	13	13	21	13	27	13	35	13	42	13	49	13	57	14	5	14	13	14	21	14	29
19 0	17	14	17	2	17	27	17	35	17	45	17	54	18	2	18	12	18	22	18	32	18	43	18	53	19	4	19	15
15	21	27	2119	8	21	45	21	55	22	6	22	18	22	29	22	41	22	52	23	4	23	17	23	30	23	43	23	58
30	25	35	25	48	26	0	26	13	26	25	26	38	26	51	27	4	27	19	27	32	27	47	28	2	28	18	28	32
45	29	46	29	5	30	12	30	27	30	40	30	55	31	11	31	26	31	42	31	58	32	14	32	31	32	50	33	8
20 0	33	51	34	5	34	21	34	36	34	53	35	9	35	26	35	43	36	0	36	18	36	37	36	55	37	15	37	35
15	37	54	38	10	38	27	38	52	39	2	39	19	39	37	39	57	40	15	40	35	40	55	41	15	41	36	41	57
30	41	53	42	10	42	28	42	48	43	5	43	26	43	45	44	5	44	25	44	46	45	7	45	29	45	51	46	14
45	47	48	46	9	46	28	46	48	47	8	47	28	47	48	48	9	48	30	48	54	49	15	49	38	50	2	50	26
21 0	49	42	50	2	50	22	50	43	51	4	51	25	51	47	52	9	52	32	52	55	53	19	53	43	54	8	54	33
15	53	30	53	52	54	14	54	33	54	57	55	19	55	42	56	5	56	28	56	52	57	16	57	41	58	6	58	32
30	57	17	57	39	58	1	58	23	58	46	59	9	59	32	59	56	60	20	60	45	61	10	61	35	62	1	62	28
45	61	0	61	22	61	45	62	8	62	32	62	55	63	19	63	44	64	8	64	33	64	58	65	25	65	51	66	19
22 0	64	41	65	4	65	27	65	49	66	14	66	38	67	2	67	26	67	52	68	18	68	43	69	10	69	37	70	4
15	68	19	68	41	69	5	69	28	69	53	70	17	70	42	71	7	71	33	72	0	72	25	72	52	73	19	73	45
30	71	53	72	17	72	41	73	5	73	30	73	54	74	19	74	45	75	10	75	36	76	2	76	30	76	57	77	24
45	75	27	75	50	76	15	76	39	77	4	77	29	77	54	78	19	78	45	79	12	79	38	80	5	80	32	81	0
23 0	78	58	79	21	79	46	80	10	80	35	81	0	81	25	81	51	82	17	82	43	83	9	83	36	84	3	84	31
15	82	28	82	51	83	16	83	40	84	5	84	30	84	56	85	21	85	47	86	13	86	39	87	6	87	33	88	1
30	85	45	86	19	86	43	87	9	87	33	87	58	88	24	88	49	89	17	89	39	90	5	90	33	91	0	91	26
45	89	21	89	46	90	11	90	35	91	0	91	25	91	50	92	16	92	41	93	7	93	33	93	59	94	26	94	52
24 0	92	48	93	12	93	34	94	0	94	25	94	50	95	15	95	40	96	5	96	30	96	56	97	22	97	47	98	14

Table of Ascendants for Latitudes 21° to 34°.

Sid. Time.	21°		22°		23°		24°		25°		26°		27°		28°		29°		30°		31°		32°		33°		34°	
H. M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
0 0	98	41	99	8	99	35	100	3	100	31	100	59	101	27	101	56	102	34	102	57	103	26	103	57	104	29	105	2
15	102	2	102	28	102	55	103	22	103	49	104	17	104	45	105	18	105	43	106	12	106	41	107	11	107	42	108	13
30	105	22	105	48	106	14	106	40	107	7	107	33	108	2	108	29	108	58	109	26	109	54	110	24	110	53	111	23
45	108	42	109	7	109	32	109	57	110	23	110	49	111	16	111	43	112	11	112	38	113	6	113	34	114	2	114	31
1 0	112	0	112	24	112	49	113	14	113	39	114	5	114	31	114	56	115	22	115	49	116	16	116	43	117	10	117	38
15	115	18	115	42	116	16	116	30	116	54	117	19	117	44	118	9	118	34	119	0	119	25	119	50	120	18	120	45
30	118	39	119	0	119	23	119	46	120	10	120	33	120	57	121	21	121	46	122	11	122	35	123	0	123	25	123	51
45	121	54	122	17	122	38	123	2	123	24	123	47	124	9	124	32	124	56	125	21	125	44	126	8	126	32	126	56
2 0	125	14	125	35	125	57	126	18	126	39	127	1	127	23	127	45	128	8	128	31	128	54	129	17	129	37	130	1
15	128	31	128	53	129	14	129	34	129	54	130	15	130	36	130	57	131	19	131	40	132	2	132	24	132	45	133	7
30	131	54	132	13	132	35	132	51	133	10	133	30	133	50	134	9	134	29	134	50	135	11	135	30	135	51	136	12
45	135	15	135	32	135	50	136	7	136	26	136	44	137	3	137	22	137	41	138	1	138	18	138	37	138	57	139	15
3 0	138	34	138	52	139	9	139	26	139	43	140	0	140	17	140	34	140	51	141	11	141	28	141	45	142	3	142	21
15	141	57	142	13	142	29	142	45	143	1	143	17	143	33	143	49	144	5	144	23	144	39	144	55	145	12	145	30
30	145	20	145	35	145	50	146	5	146	19	146	33	146	48	147	3	147	18	147	33	147	49	148	4	148	19	148	34
45	148	45	148	59	149	12	149	26	149	38	149	51	150	5	150	19	150	33	150	46	150	59	151	13	151	28	151	40
4 0	152	10	152	22	152	32	152	46	152	58	153	10	153	22	153	35	153	47	153	59	154	11	154	24	154	36	154	48
15	155	36	155	47	155	58	156	8	156	19	156	30	156	40	156	51	157	2	157	13	157	23	157	34	157	45	157	55
30	159	4	159	13	159	22	159	31	159	40	159	50	159	59	160	8	160	18	160	27	160	36	160	46	160	35	161	4
45	162	35	162	44	162	50	162	26	163	3	163	10	163	18	163	25	163	33	163	41	163	49	163	57	164	6	164	12
5 0	166	2	166	8	166	14	166	20	166	26	166	32	166	38	166	44	166	50	166	57	167	3	167	9	167	16	167	22
15	169	30	169	35	169	40	169	44	169	48	169	53	169	58	170	2	170	7	170	13	170	17	170	22	170	26	170	31
30	173	0	173	3	173	6	173	9	173	12	173	15	173	19	173	21	173	24	173	28	173	31	173	34	173	37	173	40
45	176	29	176	32	176	33	176	34	176	36	176	38	176	40	176	41	176	43	176	44	176	45	176	47	176	50	176	50
6 0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0

Table of Ascendants for Latitudes 21° to 34°.

Sid. Time.	21°		22°		23°		24°		25°		26°		27°		28°		29°		30°		31°		32°		33°		34°	
H. M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
6 0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0	180	0
15	183	31	183	28	183	27	183	26	183	24	183	22	183	20	183	19	183	17	183	16	183	15	183	13	183	10	183	10
30	187	0	186	57	186	54	186	51	186	46	186	45	186	41	186	39	186	36	186	32	186	29	186	26	186	23	186	20
45	190	30	190	25	190	20	190	16	190	12	190	7	190	2	189	58	189	53	189	47	189	43	189	38	189	34	189	29
7 0	193	58	193	52	193	46	193	40	193	34	193	28	193	22	193	16	193	10	193	3	192	57	192	51	192	44	192	38
15	197	29	197	20	197	14	197	1	196	57	196	50	196	42	196	35	196	27	196	19	196	11	196	3	195	54	195	48
30	200	56	200	47	200	38	200	29	200	20	200	10	200	1	199	52	199	42	199	33	199	24	199	14	199	5	198	56
45	204	24	204	13	204	2	203	52	203	41	203	30	203	20	203	9	202	58	202	47	202	37	202	26	202	15	202	5
8 0	207	50	207	38	207	27	207	14	207	2	206	50	206	38	206	25	206	13	206	1	205	49	205	36	205	24	205	12
15	211	15	211	1	210	48	210	34	210	22	210	9	209	55	209	41	209	27	209	14	209	1	208	47	208	32	208	20
30	214	40	214	25	214	10	213	55	213	42	213	27	213	12	212	57	212	42	212	27	212	11	211	56	211	41	211	26
45	218	3	217	47	217	31	217	15	216	59	216	43	216	27	216	11	215	55	215	37	215	21	215	5	214	48	214	30
9 0	221	26	221	8	220	51	220	34	220	17	220	0	219	43	219	26	219	9	218	49	218	32	218	15	217	57	217	39
15	224	46	224	28	224	10	223	53	223	34	223	16	222	57	222	38	222	19	221	59	221	42	221	23	221	3	220	45
30	228	4	227	47	227	28	227	9	226	50	226	30	226	10	225	51	225	31	225	10	224	50	224	30	224	9	223	48
45	231	29	231	7	230	46	230	26	230	6	229	45	229	24	229	3	228	41	228	20	227	58	227	37	227	15	226	53
10 0	234	46	234	25	234	3	233	42	233	21	232	59	232	37	232	15	231	52	231	29	231	6	230	45	230	23	229	59
15	238	6	237	43	237	21	236	58	236	36	236	13	235	51	235	28	235	4	234	39	234	16	233	53	233	28	233	4
30	241	22	241	0	240	37	240	14	239	50	239	27	239	3	238	39	238	14	237	49	237	25	237	0	236	35	236	9
45	244	42	244	18	243	54	243	30	243	6	242	41	242	16	241	51	241	26	241	0	240	35	240	9	239	42	239	15
11 0	248	0	247	36	247	11	246	46	246	21	245	55	245	29	245	4	244	38	244	11	243	44	243	17	242	50	242	22
15	251	18	250	53	250	28	250	3	249	37	249	11	248	44	248	17	247	49	247	22	246	54	246	26	245	58	245	29
30	254	38	254	12	253	46	253	20	252	53	252	26	251	58	251	31	251	2	250	34	250	4	249	36	249	7	248	37
45	257	58	257	32	257	5	256	38	256	11	255	43	255	15	254	46	254	17	253	48	253	19	252	49	252	18	251	47
12 0	261	19	260	52	260	25	259	57	259	29	259	1	258	31	258	4	257	34	257	3	256	34	256	3	255	31	254	58

Table of Ascendants for Latitudes 21° to 34°.

Sid. Time.	21°		22°		23°		24°		25°		26°		27°		28°		29°		30°		31°		32°		33°		34°	
H. M.	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′	°	′
12 0	261	19	260	52	260	25	259	57	259	29	259	0	258	31	258	4	257	34	257	3	256	34	256	3	255	31	254	58
15	264	41	264	14	263	45	263	18	262	49	262	20	261	51	261	22	260	51	260	19	259	49	259	18	258	45	258	12
30	268	6	267	38	267	8	266	41	266	12	265	42	265	12	264	42	264	11	263	39	263	8	262	36	262	2	261	29
45	271	32	271	4	270	35	270	6	269	38	269	7	268	37	268	6	267	34	267	1	266	29	265	56	265	22	264	49
13 0	275	1	274	33	274	4	273	34	273	6	272	34	272	4	271	33	271	0	270	27	269	54	269	21	268	46	268	11
15	278	32	278	3	277	35	277	5	276	36	276	4	275	34	275	2	274	29	273	55	273	22	272	48	272	12	271	36
30	282	7	281	38	281	9	280	39	280	10	279	38	279	8	278	35	278	2	277	28	276	54	276	19	275	43	275	8
45	285	46	285	17	284	48	284	18	283	49	283	17	282	47	282	13	281	40	281	5	280	32	279	57	279	20	278	44
14 0	289	28	288	59	288	30	288	0	287	31	286	59	286	29	285	55	285	22	284	48	284	14	283	39	283	1	282	25
15	293	14	292	46	292	17	291	48	291	18	290	46	290	16	289	43	289	10	288	35	288	1	287	25	286	49	286	13
30	297	5	296	38	296	9	295	40	295	11	294	11	294	11	293	38	293	5	292	30	291	57	291	20	290	43	290	6
45	301	2	300	34	300	7	299	38	299	9	298	39	298	10	297	38	297	5	296	31	295	57	295	22	294	45	294	7
15 0	305	2	304	36	304	8	303	41	303	13	302	44	302	14	301	42	301	10	300	36	300	3	299	28	298	52	298	15
15	309	9	308	44	308	18	307	51	307	24	306	55	306	26	305	56	305	24	304	52	304	20	303	46	303	10	302	34
30	313	22	312	59	312	54	312	8	311	42	311	15	310	47	310	18	309	48	309	17	308	45	308	13	307	38	307	5
45	317	41	317	18	316	56	316	31	316	6	315	40	315	14	314	47	314	18	313	48	313	19	312	48	312	15	311	42
16 0	322	5	321	43	321	21	320	59	320	36	320	12	319	48	319	23	318	55	318	27	317	59	317	30	316	59	316	29
15	326	33	326	15	325	56	325	35	325	14	324	52	324	30	324	6	323	42	323	16	322	51	322	24	321	55	321	25
30	331	9	330	53	330	35	330	16	329	57	329	38	329	18	328	57	328	35	328	12	327	50	327	25	326	59	326	32
45	335	49	335	35	335	19	335	3	334	48	334	31	334	14	333	55	333	36	333	17	332	57	333	36	332	13	331	52
17 0	340	34	340	22	340	9	339	56	339	43	339	30	339	16	339	0	338	44	638	29	338	12	337	58	337	35	337	16
15	345	22	345	13	345	3	344	54	344	44	344	33	344	22	344	11	343	59	343	46	343	33	343	19	343	4	342	51
30	350	14	350	7	350	1	349	54	349	47	349	41	349	34	349	25	349	17	349	8	348	59	348	49	348	40	348	29
45	355	7	355	4	354	59	354	56	354	53	354	49	354	46	354	42	354	38	354	33	354	29	354	24	354	19	354	14
18 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table of Ascendants for Latitudes 21° to 34°.

Sid. Time	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°
H. M.	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
18 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
15	4 53	4 56	5 1	5 4	5 7	5 11	5 14	5 18	5 22	5 27	5 31	5 36	5 41	5 46
30	9 46	9 53	9 59	10 6	10 13	10 19	10 26	10 35	10 43	10 52	11 1	11 11	11 20	11 31
45	14 38	14 47	14 57	15 6	15 16	15 27	15 38	15 49	16 1	16 14	16 27	16 41	16 56	17 12
19 0	19 26	19 38	19 51	20 4	20 17	20 30	20 44	21 0	21 16	21 31	21 48	22 6	22 25	22 44
15	24 11	24 25	24 41	24 57	25 12	25 29	25 46	26 5	26 24	26 43	27 3	27 24	27 47	28 8
30	28 51	29 7	29 25	29 44	30 3	30 22	30 42	31 3	31 25	31 48	32 10	32 35	33 1	33 28
45	33 27	33 45	34 4	34 25	34 46	35 8	35 30	35 54	36 18	36 44	37 7	37 36	38 5	38 35
20 0	37 55	38 17	38 39	39 1	39 24	39 48	40 12	40 37	41 5	41 33	42 1	42 30	43 1	43 31
15	42 19	42 42	43 4	43 29	43 54	44 20	44 46	45 13	45 42	46 12	46 41	47 12	47 45	48 18
30	46 38	47 1	47 26	47 52	48 18	48 45	49 13	49 42	50 12	50 43	51 15	51 47	52 22	52 55
45	50 51	51 16	51 42	52 9	52 36	53 5	53 34	54 4	54 36	55 8	55 40	56 14	56 50	57 26
21 0	54 58	55 24	55 52	56 19	56 47	57 17	57 50	58 18	58 50	59 24	59 57	60 32	61 8	61 45
15	58 58	59 26	59 53	60 22	60 51	61 21	61 50	62 22	62 55	63 29	64 3	64 38	65 15	65 53
30	62 55	63 22	63 51	64 20	64 48	65 19	65 49	66 22	66 55	67 30	68 3	68 40	69 17	69 54
45	66 46	67 14	67 43	68 12	68 42	69 14	69 44	70 17	70 50	71 25	71 59	72 35	73 11	73 47
22 0	70 32	71 1	71 30	72 0	72 29	73 1	73 31	74 5	74 38	75 12	75 46	76 24	76 59	77 35
15	74 14	74 43	75 12	75 42	76 11	76 43	77 13	77 47	78 20	78 55	79 28	80 3	80 40	81 16
30	77 53	78 22	78 51	79 21	79 50	80 22	80 52	81 25	81 54	82 32	83 6	83 41	84 17	84 52
45	81 28	81 57	82 25	82 55	83 24	83 56	84 26	84 58	85 31	86 5	86 38	87 12	87 48	88 24
23 0	84 59	85 27	85 56	86 26	86 54	87 26	87 56	88 27	89 0	89 33	90 6	90 39	91 14	91 49
15	88 28	88 56	89 25	89 54	90 22	90 53	91 23	91 54	92 26	92 59	93 31	94 4	94 38	95 11
30	91 54	92 22	92 52	93 19	93 48	94 18	94 48	95 18	95 49	96 4	96 52	97 24	97 58	98 31
45	95 19	95 46	96 15	96 42	97 11	97 40	98 8	98 38	99 9	99 41	100 11	100 42	101 15	101 48
24 0	98 41	99 8	99 35	100 3	100 31	100 59	101 27	101 56	102 26	102 57	103 26	103 57	104 29	105 8

Tables of Houses for Bombay, Lat. 18° N. 57′

Sid. Time.	10	11	12	Asc.	2	3
H. M.	° ′			° ′		
0 0	0 ♈ 0	♉ 4	♊ 7	♋ 7 47	♌ 2	♌ 29
						♍
5	1 22	5	8	8 55	3	0
10	2 43	7	10	10 3	5	2
15	4 5	8	11	11 10	6	3
20	5 27	9	12	12 18	7	5
25	6 48	11	13	13 24	8	6
30	8 10	12	14	14 31	9	7
35	9 31	13	16	15 38	11	8
40	10 53	14	17	16 45	12	9
45	12 14	15	18	17 52	13	10
50	13 35	17	19	18 58	14	12
55	14 56	18	20	20 5	15	13
1 0	16 17	19	21	21 11	16	14
5	17 37	21	23	22 18	18	16
10	18 58	22	24	23 24	19	17
15	20 18	23	25	24 31	20	18
20	21 38	25	26	25 38	21	20
25	22 58	26	27	26 45	22	21
30	24 18	27	28	27 52	23	22
			♋			
35	25 38	29	0	28 57	25	24
		♊		♌		
40	26 57	0	1	0 5	26	25
45	28 16	1	2	1 11	27	26
50	29 34	2	3	2 17	28	28
					♍	
55	0 ♉ 53	3	4	3 24	29	29

Sid. Time.	10	11	12	Asc.	2	3
H. M.	° ′			° ′		
	♉	♊	♋	♌	♍	♎
2 0	2 11	4	5	4 31	0	0
5	3 29	5	7	5 36	2	1
10	4 47	7	8	6 47	3	3
15	6 4	8	9	7 53	4	4
20	7 21	9	10	9 1	5	5
25	8 38	11	11	10 8	7	7
30	9 54	12	12	11 15	8	8
35	11 11	13	13	12 22	9	9
40	12 27	14	14	13 29	11	10
45	13 42	15	15	14 38	12	12
50	14 57	16	16	15 45	13	13
55	16 13	17	17	16 53	14	14
3 0	17 28	18	18	18 0	16	15
5	18 42	20	19	19 9	17	17
10	19 57	21	21	20 17	18	18
15	21 11	22	22	21 25	19	19
20	22 25	23	24	22 34	21	20
25	23 38	24	25	23 42	22	22
30	24 51	26	26	24 52	23	23
35	26 4	27	27	26 0	24	24
40	27 17	28	28	27 9	25	25
45	28 29	29	29	28 19	27	26
		♋	♌			
50	29 42	1	0	29 ♍ 28	28	29
						♎
55	0 ♊ 54	2	1	0 37	29	0

Sid. Time.	10	11	12	Asc.	2	3
H. M.	° ′			° ′		
	♊	♋	♌	♍	♎	♏
4 0	2 5	3	2	1 46	0	1
5	3 17	4	3	2 56	1	2
10	4 28	5	4	4 5	2	3
15	5 39	6	6	5 15	4	5
20	6 50	7	7	6 26	5	6
25	8 1	8	8	7 36	6	7
30	9 11	9	9	8 46	7	8
35	10 22	10	10	9 56	8	9
40	11 32	12	12	11 5	10	11
45	12 42	13	13	12 20	11	12
50	13 52	14	14	13 27	12	13
55	15 2	15	15	14 38	14	14
5 0	16 12	16	16	15 49	15	15
5	17 21	17	17	16 59	16	16
10	18 30	19	19	18 11	18	17
15	19 39	20	20	19 20	19	19
20	20 49	21	21	20 31	20	21
25	21 58	22	22	21 43	21	22
30	23 7	23	23	22 54	22	23
35	24 16	24	24	24 4	23	24
40	25 25	25	25	25 15	24	26
45	26 33	27	27	26 27	26	27
50	27 42	28	28	27 38	27	28
			♍			
55	28 51	29	0	28 49	28	29

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
6	0	0	0	0	1	0	0	29	0
								♍	
	5	1	9	1	2	1	11	0	1
	10	2	18	2	3	2	22	2	2
	15	3	26	3	4	3	33	3	3
	20	4	35	5	5	4	45	5	4
	25	5	44	6	7	5	56	6	5
	30	6	53	7	8	7	6	7	6
	35	8	2	8	9	8	17	8	8
	40	9	11	9	10	9	29	9	9
	45	10	20	11	11	10	40	10	10
	50	11	30	12	13	11	49	12	11
	55	12	39	14	14	13	1	13	13
7	0	13	48	15	15	14	11	14	14
	5	14	58	16	16	15	22	15	15
	10	16	8	17	17	16	33	16	16
	15	17	18	18	18	17	44	17	17
	20	18	28	19	19	18	55	19	18
	25	19	38	21	21	20	4	20	20
	30	20	48	22	23	21	14	21	21
	35	21	59	23	24	22	24	22	22
	40	23	10	24	25	23	34	23	23
	45	24	20	22	26	24	45	24	24
	50	25	32	27	27	25	55	25	25
	55	26	43	28	29	27	4	27	26

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
8	0	27	54	29	0	28	14	28	27
				♏					
	5	29	6	0	1	29	23	29	28
				♎				♐	
	10	0	18	1	2	0	32	0	29
								♑	
	15	1	30	3	3	1	41	1	0
	20	2	43	5	5	2	51	2	2
	25	3	56	6	6	4	0	3	3
	30	5	9	7	7	5	8	5	4
	35	6	22	8	9	6	18	6	5
	40	7	35	10	10	7	26	7	7
	45	8	49	11	11	8	35	8	8
	50	10	3	12	12	9	43	9	9
	55	11	17	13	13	10	51	10	10
9	0	12	32	15	14	12	0	11	12
	5	13	47	16	16	13	7	12	13
	10	15	3	17	17	14	15	13	14
	15	16	17	18	18	15	22	14	15
	20	17	33	19	20	16	31	15	16
	25	18	49	21	21	17	38	17	17
	30	20	5	22	22	18	45	18	18
	35	21	22	23	23	19	52	19	19
	40	22	39	25	24	20	59	20	21
	45	23	56	26	26	22	7	21	22
	50	25	13	27	27	23	13	22	23
	55	26	31	28	29	24	22	24	25

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
10	0	27	49	0	0	25	29	25	26
				♏					
	5	29	7	1	1	26	36	26	27
	10	0	26	2	2	27	43	27	28
	15	1	44	4	3	28	49	28	29
								♑	♒
	20	3	3	5	4	29	55	0	0
	25	4	23	6	6	1	3	1	2
	30	5	42	8	7	2	9	2	3
	35	7	2	9	8	3	15	3	4
	40	8	22	10	9	4	22	4	5
	45	9	42	12	10	5	29	5	7
	50	11	2	13	11	6	36	6	8
	55	12	22	14	13	7	42	7	10
11	0	13	43	16	14	8	49	9	11
	5	15	4	17	15	9	55	10	12
	10	16	25	18	16	11	2	11	13
	15	17	46	20	17	12	8	12	15
	20	19	7	21	18	13	15	13	16
	25	20	29	22	19	14	22	15	17
	30	21	50	23	21	15	29	16	18
	35	23	11	24	22	16	36	17	19
	40	24	33	25	23	17	42	18	20
	45	25	55	27	24	18	50	19	22
	50	27	16	28	25	19	57	20	23
				♏					
	55	28	38	0	26	21	5	22	24

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
12	0	0	0	1	2	22	33	23	26
	5	1	22	2	29	23	19	25	27
					♐				
	10	2	43	3	0	24	26	26	29
									♓
	15	4	5	4	1	25	34	27	0
	20	5	27	5	2	26	44	28	1
	25	6	48	7	3	27	52	29	3
								♒	
	30	8	10	8	4	29	0	0	4
	35	9	31	10	6	0 ♑	9	2	6
	40	10	53	1	7	1	18	3	7
	45	12	14	12	8	2	27	4	8
	50	13	35	13	9	3	36	5	10
	55	14	56	14	10	4	47	7	12
13	0	16	17	15	11	5	57	8	13
	5	17	37	16	12	7	6	9	14
	10	18	58	18	13	8	17	11	16
	15	20	18	19	14	9	28	12	17
	20	21	38	21	16	10	40	14	19
	25	22	58	22	17	11	52	15	20
	30	24	18	23	18	13	3	16	21
	35	25	38	24	19	14	15	18	23
	40	26	57	25	20	15	28	19	24
	45	28	16	26	21	16	41	20	25
	50	28	34	28	23	17	54	21	27
	55	0 ♏	53	29	24	19	8	23	29

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
14	0	2	11	0	25	20	23	24	0
	5	3	29	1	26	21	37	25	2
	10	4	47	2	27	22	53	27	3
	15	6	4	3	28	24	9	29	4
					♑			♓	
	20	7	21	4	0	25	25	0	6
	25	8	38	6	1	26	42	2	8
	30	9	54	7	2	28	59	3	9
	35	11	11	8	3	29	16	4	10
	40	12	27	9	4	0 ♒	33	6	11
	45	13	42	10	5	1	54	8	13
	50	14	57	11	6	3	12	9	14
	55	16	13	12	7	4	33	10	15
15	0	17	28	13	8	5	52	11	17
	5	18	42	14	10	7	15	13	19
	10	19	57	16	11	8	36	15	20
	15	21	11	17	12	9	58	16	21
	20	22	25	19	13	11	21	18	23
	25	23	38	20	15	12	46	20	25
	30	24	51	21	16	14	9	21	26
	35	26	4	22	17	15	32	22	27
	40	27	17	23	18	17	58	24	28
									♉
	45	28	29	24	19	18	24	25	0
	50	29	42	25	21	19	52	27	1
	55	0 ♐	54	26	22	21	8	29	2

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
16	0	2	5	27	23	22	45	0	4
	5	3	17	28	25	24	13	1	6
	10	4	28	29	26	25	42	2	7
				♑					
	15	5	39	0	27	27	10	4	8
	20	6	50	2	28	28	40	6	9
	25	8	1	3	29	0 ♓	12	8	10
					♒				
	30	9	11	4	0	1	42	9	12
	35	10	22	5	2	3	14	10	14
	40	11	32	6	4	4	45	11	15
	45	12	42	8	5	6	17	14	16
	50	13	52	9	6	7	51	15	17
	55	15	2	10	7	9	23	17	18
17	0	16	12	11	8	10	56	18	19
	5	17	21	13	9	12	29	20	20
	10	18	30	14	10	14	4	22	22
	15	19	39	15	12	15	39	23	23
	20	20	49	16	14	17	13	24	25
	25	21	58	17	15	18	49	25	26
	30	23	7	18	16	20	25	27	27
	35	24	16	19	18	22	0	28	28
								♉	
	40	25	25	20	20	23	35	0	29
									♊
	45	26	33	22	21	25	13	2	1
	50	27	42	23	22	26	48	3	2
	55	28	51	24	23	28	24	4	3

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♑	♑	♒		♈	♉	♊
18	0	0	0	25	25	0	0	5	7
	5	1	9	27	26	1	37	7	8
	10	2	18	28	28	3	12	8	10
				♓					
	15	3	26	29	0	4	47	9	11
				♈					
	20	4	35	0	1	6	25	11	12
	25	5	44	2	2	8	0	13	13
	30	6	53	3	3	9	35	14	14
	35	8	2	4	5	11	11	15	15
	40	9	11	5	6	12	47	16	17
	45	10	20	6	8	14	21	17	18
	50	11	30	7	10	15	56	18	19
	55	12	39	8	11	17	31	19	20
19	0	13	48	11	12	19	4	21	21
	5	14	58	12	13	20	37	23	2[illegible]
	10	16	8	13	15	22	9	24	24
	15	17	18	15	16	23	43	26	25
	20	18	28	16	17	25	15	28	26
	25	19	38	17	19	26	46	29	27
								♊	
	30	20	48	18	21	28	18	0	28
	35	21	59	20	22	29	48	1	29
								♋	
	40	23	10	21	24	1 ♉	20	2	1
	45	24	20	22	26	2	50	3	2
	50	25	32	23	28	4	18	4	3
	55	26	43	24	29	5	47	5	4

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	♑ ′	♒	♈	°	♉ ′	♊	♋
20	0	27	54	26	0	7	15	7	3
	5	29	6	28	2	8	52	8	4
	10	0	♒ 18	29	3	10	8	9	5
				♓					
	15	1	30	0	5	11	36	10	6
	20	2	43	2	6	13	2	12	7
	25	3	56	3	8	14	28	13	8
	30	5	9	4	9	15	51	14	9
	35	6	22	6	10	17	14	16	10
	40	7	35	8	12	18	39	17	11
	45	8	49	9	14	20	2	18	13
	50	10	3	10	15	21	24	19	14
	55	11	17	11	16	22	45	20	15
21	0	12	32	13	17	24	8	22	16
	5	13	47	15	19	25	27	23	17
	10	15	3	16	21	26	38	24	19
	15	16	17	18	22	28	6	25	20
	20	17	33	19	23	29	7	26	21
	25	18	49	20	25	0 ♊	44	27	22
	30	20	5	21	27	2	1	28	23
								♋	
	35	21	22	23	28	3	18	0	24
	40	22	39	25	29	4	35	1	25
					♉				
	45	23	56	26	1	5	51	2	27
	50	25	13	27	2	7	7	3	28
	55	26	31	28	4	8	23	4	29

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	♒ ′	♓	♉	°	♊ ′	♋	♌
22	0	27	49	29	5	9	37	5	0
				♈					
	5	29	7	1	7	10	52	6	1
	10	0	♓ 26	2	8	12	6	7	2
	15	1	44	4	9	13	19	8	4
	20	3	3	6	11	14	32	9	5
	25	4	23	7	12	15	45	10	6
	30	5	42	9	14	16	57	12	8
	35	7	2	10	15	18	8	13	9
	40	8	22	11	17	19	20	14	10
	45	9	42	12	18	20	32	15	11
	50	11	2	14	19	21	43	16	12
	55	12	22	15	21	22	54	17	14
23	0	13	43	17	22	24	3	19	15
	5	15	4	18	24	25	13	20	16
	10	16	25	20	25	26	24	22	17
	15	17	46	22	26	27	33	23	18
	20	19	7	23	28	28	42	24	20
	25	20	29	25	29	29	51	25	21
					♊		♋		
	30	21	50	26	0	1	0	26	22
	35	23	11	27	1	2	8	27	24
	40	24	33	29	2	3	16	28	25
				♉					
	45	25	55	0	3	4	26	29	26
								♌	
	50	27	16	1	4	5	34	0	27
	55	28	38	2	6	6	41	1	28

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♈	♉	♊		♋	♌	
0	0	0	0	3	5	5	15	1	29
									♍
	5	1	22	4	6	6	23	2	0
	10	2	43	6	8	7	33	3	2
	15	4	5	7	9	8	39	4	3
	20	5	27	8	11	9	47	5	4
	25	6	48	10	12	10	54	7	5
	30	8	10	11	13	12	2	8	7
	35	9	31	13	14	13	10	10	8
	40	10	53	14	15	14	19	11	9
	45	12	14	15	16	15	27	12	10
	50	13	35	16	18	16	34	13	12
	55	14	56	18	19	17	42	14	13
1	0	16	17	19	20	18	49	15	15
	5	17	37	20	21	19	57	16	16
	10	18	58	21	22	21	5	17	17
	15	20	18	22	23	22	13	18	19
	20	21	38	23	25	23	21	19	20
	25	22	58	25	26	24	29	21	21
	30	24	18	26	27	25	37	22	23
	35	25	38	27	28	26	49	23	24
	40	26	57	29	29	27	54	25	25
				♊	♋				
	45	28	16	0	0	29	2	26	27
	50	29	34	2	1	0	♌ 9	28	28
		♉							
	55	0	53	3	2	1	19	29	29

Sid. Time		10		11	12	Asc.		2	3
H.	M.	°	♉ ′	♊	♋	°	♌ ′	♍	♎
2	0	2	11	4	3	2	27	0	0
	5	3	29	5	4	3	36	1	1
	10	4	47	6	5	4	45	2	2
	15	6	4	7	6	5	53	3	4
	20	7	21	8	8	7	3	4	5
	25	8	38	10	10	8	11	6	7
	30	9	54	11	11	9	24	7	8
	35	11	11	12	12	10	30	8	10
	40	12	27	13	13	11	40	9	11
	45	13	42	14	14	12	49	10	12
	50	14	57	16	15	13	59	12	13
	55	16	13	17	17	15	9	13	15
3	0	17	28	17	18	16	19	14	16
	5	18	42	18	19	17	30	15	17
	10	19	57	20	20	18	40	17	18
	15	21	11	21	21	19	51	19	20
	20	22	25	22	22	21	2	20	21
	25	23	38	23	23	22	13	21	23
	30	24	51	25	24	23	25	22	24
	35	26	4	26	26	24	35	24	25
	40	27	17	27	27	25	47	25	26
	45	28	29	28	28	26	59	26	28
				♋					
	50	29	42	0	29	28	10	28	29
		♊			♌				♍
	55	0	54	1	0	29	22	29	0

Sid Time.		10		11	12	Asc.		2	3
H.	M.	°	♊ ′	♋	♌	°	♍ ′	♎	♏
4	0	2	5	2	1	0	35	0	1
	5	3	17	3	3	1	46	1	2
	10	4	28	4	4	2	59	2	4
	15	5	39	5	5	4	11	3	5
	20	6	50	6	6	5	24	5	6
	25	8	1	7	7	6	37	6	7
	30	9	11	8	9	7	51	7	9
	35	10	22	9	10	9	4	9	11
	40	11	32	10	11	10	17	11	12
	45	12	42	11	12	11	35	12	13
	50	13	52	13	13	12	44	13	14
	55	15	2	14	14	13	57	14	15
5	0	16	12	15	15	15	11	15	16
	5	17	21	16	17	16	24	16	18
	10	18	30	17	18	17	39	17	19
	15	19	39	18	19	18	52	19	20
	20	20	49	20	20	20	6	21	21
	25	21	58	21	21	21	20	22	22
	30	23	7	22	22	22	35	23	23
	35	24	16	24	23	23	49	25	24
	40	25	25	25	24	25	3	26	25
	45	26	33	26	25	26	18	27	26
	50	27	42	27	26	27	31	28	27
	55	28	51	28	28	28	46	29	29

Sid. Time.		10th.		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♋	♋	♍		♎	♏	♐
6	0	0	0	29	0	0	0	0	1
				♌					
	5	1	9	0	1	1	14	1	2
	10	2	18	1	2	2	29	2	3
	15	3	26	3	4	3	42	4	5
	20	4	35	4	5	4	57	5	6
	25	5	44	5	6	6	11	6	7
	30	6	53	7	7	7	25	8	8
	35	8	2	8	8	8	40	9	9
	40	9	11	9	9	9	54	10	10
	45	10	20	10	11	11	8	11	12
	50	11	30	11	13	12	21	12	13
	55	12	39	12	14	13	36	13	14
7	0	13	48	14	15	14	49	15	15
	5	14	58	15	16	16	3	16	16
	10	16	8	16	17	17	16	17	17
	15	17	18	17	18	18	25	18	18
	20	18	28	19	19	19	43	20	19
	25	19	38	20	20	20	56	21	20
	30	20	48	22	22	22	9	22	22
	35	21	59	23	23	23	23	23	23
	40	23	10	24	25	24	36	24	24
	45	24	20	25	26	25	49	25	25
	50	25	32	26	28	27	1	26	26
	55	26	43	28	29	28	14	27	27

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♋	♌	♎		♎	♏	♐
8	0	27	54	29	0	29	25	29	28
				♍			♐		
	5	29	♌ 6	0	1	0	38	0	29
								♑	
	10	0	18	2	2	1	50	2	0
	15	1	30	3	3	3	1	3	1
	20	2	43	4	4	4	13	4	2
	25	3	56	5	6	5	25	5	4
	30	5	9	6	8	6	35	6	5
	35	6	22	8	10	7	47	7	7
	40	7	35	9	11	8	58	9	8
	45	8	49	11	12	10	9	10	9
	50	10	3	12	13	11	20	11	10
	55	11	17	14	15	12	30	12	11
9	0	12	32	15	16	13	41	13	12
	5	13	47	16	17	14	51	14	13
	10	15	3	17	18	16	1	15	14
	15	16	17	18	20	17	11	16	16
	20	17	33	20	21	18	20	18	17
	25	18	49	21	22	19	30	19	18
	30	20	5	22	23	20	39	20	19
	35	21	22	23	24	21	49	21	20
	40	22	39	25	26	22	58	22	21
	45	23	56	26	27	24	7	23	23
	50	25	13	27	28	25	15	25	24
	55	26	31	28	29	26	24	26	25

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♌	♎	♏		♏	♐	♑
10	0	27	49	0	0	27	33	27	26
	5	29	7	1	1	28	41	28	27
			♍						
	10	0	26	3	2	29	51	29	28
							♐	♑	
	15	1	44	4	3	0	58	0	29
									♒
	20	3	3	5	5	2	6	1	1
	25	4	23	7	6	3	16	3	2
	30	5	42	8	7	4	23	4	3
	35	7	2	10	9	5	31	5	5
	40	8	22	11	10	6	39	6	7
	45	9	42	12	11	7	47	7	8
	50	11	2	13	12	8	55	8	9
	55	12	22	15	13	10	3	9	10
11	0	13	43	16	15	11	11	11	11
	5	15	4	17	16	12	18	12	12
	10	16	25	18	17	13	26	13	13
	15	17	46	19	19	14	33	14	15
	20	19	7	21	20	15	41	16	16
	25	20	29	22	21	16	50	17	17
	30	21	50	23	22	17	58	18	19
	35	23	11	25	23	19	6	19	20
	40	24	33	26	25	20	13	20	21
	45	25	55	27	26	21	21	22	23
	50	27	16	28	27	22	27	23	24
				♏					
	55	28	38	0	28	23	37	24	26

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♎	♏	♏		♑	♒	♓
12	0	0	0	1	29	24	46	25	27
					♐				
	5	1	22	2	0	25	53	26	28
	10	2	43	3	1	27	1	27	29
									♈
	15	4	5	5	2	28	10	28	1
	20	5	27	6	3	29	19	29	2
						♑		♒	
	25	6	48	7	4	0	28	1	4
	30	8	10	8	5	1	36	2	5
	35	9	31	10	6	2	45	3	7
	40	10	53	11	8	3	55	5	8
	45	12	14	12	9	5	4	6	10
	50	13	35	13	10	6	14	7	11
	55	14	56	15	12	7	25	8	12
13	0	16	17	16	13	8	35	9	14
	5	17	37	17	14	9	44	10	15
	10	18	58	19	15	10	55	12	16
	15	20	18	20	16	12	6	13	18
	20	21	38	21	17	13	17	14	19
	25	22	58	22	19	14	29	16	20
	30	24	18	23	20	15	41	17	22
	35	25	38	24	21	16	52	18	23
	40	26	57	26	22	18	5	20	24
	45	28	16	27	23	19	18	21	26
	50	29	24	28	24	20	30	22	27
			♏						
	55	0	53	29	25	21	44	24	29

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♏	♐	♐		♒	♈	
14	0	2	11	0	27	22	58	25	0
	5	3	29	2	28	24	12	26	2
	10	4	47	3	29	25	26	28	3
					♑			♈	
	15	6	4	4	0	26	41	0	5
	20	7	21	5	1	27	56	1	6
	25	8	38	6	2	29	11	2	7
							♒		
	30	9	54	8	3	0	28	4	9
	35	11	11	9	4	1	44	5	11
	40	12	17	10	5	3	1	7	12
	45	13	42	11	6	4	18	8	13
	50	14	57	12	8	5	35	10	14
	55	16	13	13	9	6	55	11	16
15	0	17	28	14	10	8	13	13	17
	5	18	42	15	11	9	32	14	19
	10	19	57	17	13	10	52	16	20
	15	21	11	18	14	12	12	17	22
	20	22	25	19	15	13	32	19	23
	25	23	38	20	16	14	53	20	24
	30	24	51	22	18	16	15	21	25
	35	26	4	23	19	17	37	23	27
	40	27	17	24	20	18	59	24	29
									♉
	45	28	29	25	21	20	23	26	0
	50	29	42	26	22	21	47	27	1
			♐						
	55	0	54	27	24	23	10	29	2

Sid. Time.		10		11	12	Asc.		2	3
H.	M.	°	′			°	′		
			♐	♑	♒		♈	♉	
16	0	2	5	29	25	24	34	0	4
				♑					
	5	3	17	0	26	25	58	2	5
	10	4	28	1	27	27	24	3	7
	15	5	39	2	28	28	49	5	8
							♈		
	20	6	50	3	29	0	15	6	9
					♒				
	25	8	1	4	1	1	42	7	10
	30	9	11	5	2	3	9	9	12
	35	10	22	6	3	4	37	10	13
	40	11	32	8	4	6	3	12	14
	45	12	42	9	5	7	31	13	15
	50	13	52	10	7	9	0	15	16
	55	15	2	12	8	10	28	16	18
17	0	16	12	13	9	11	58	17	19
	5	17	21	14	10	13	26	19	20
	10	18	30	15	12	14	55	20	21
	15	19	39	16	13	16	25	22	23
	20	20	49	17	15	17	55	23	24
	25	21	58	18	16	19	25	25	25
	30	23	7	20	18	20	56	26	27
	35	24	16	21	19	22	27	28	28
	40	25	25	22	21	23	57	29	29
								♉	♊
	45	26	33	23	22	25	29	0	0
	50	27	42	24	24	26	58	2	1
	55	28	51	25	25	28	30	3	3

Sid. Time	10		11	12	Asc.		2	3
H. M.	°	′			°	′		
		♑	♑	♒		♈	♉	♊
18 0	0	0	26	26	0	0	4	4
5	1	9	28	27	1	30	6	6
10	2	18	29	29	3	2	7	7
			♒	♓				
15	3	26	0	0	4	31	9	8
20	4	35	1	1	6	3	10	9
25	5	44	2	2	7	33	12	10
30	6	43	3	4	9	4	13	11
35	8	2	5	5	10	35	14	12
40	9	11	7	6	12	5	16	14
45	10	20	8	8	13	35	17	15
50	11	30	9	9	15	5	19	16
55	12	39	10	11	16	34	20	17
19 0	13	48	11	12	18	2	21	18
5	14	58	12	14	19	23	22	19
10	16	8	14	15	21	0	24	21
15	17	18	15	17	22	29	25	22
20	18	28	16	18	23	57	26	23
25	19	38	17	20	25	23	27	24
30	20	48	19	21	26	51	28	25
35	21	59	20	23	28	18	29	26
							♊	
40	23	10	22	24	29	45	1	28
					♉			
45	24	20	23	26	1	11	2	29
							♋	
50	25	32	24	27	2	36	3	0
55	26	43	25	29	4	2	4	1

Sid. Time.	10		11	12	Asc.		2	3
H. M.	°	′			°	′		
		♑	♒	♈		♉	♊	♋
20 0	27	54	27	0	5	26	5	2
5	29	6	28	2	6	50	7	4
			♒	♓				
10	0	18	0	3	8	13	8	5
15	1	30	1	5	9	37	9	6
20	2	43	2	6	11	1	10	7
25	3	56	4	7	12	23	11	8
30	5	9	5	9	13	45	13	9
35	6	22	6	10	15	7	14	10
40	7	35	7	12	16	28	15	11
45	8	49	8	13	17	48	16	12
50	10	3	10	14	19	8	17	13
55	11	17	12	16	20	28	19	15
21 0	12	32	13	17	21	47	20	16
5	13	47	14	19	23	5	21	17
10	15	3	16	20	24	25	22	18
15	16	17	17	22	25	42	24	19
20	17	33	19	23	26	59	25	20
25	18	49	20	25	28	16	26	21
30	20	5	21	26	29	32	27	22
					♊			
35	21	22	23	28	0	49	28	24
40	22	39	24	29	2	4	29	25
				♉			♋	
45	23	56	26	0	3	19	0	26
50	25	13	27	2	4	34	2	27
55	26	31	29	3	5	48	3	28

Sid. Time.	10		11	12	Asc.		2	3
H. M.	°	′			°	′		
		♒	♈	♉		♊	♋	♌
22 0	27	49	0	5	7	2	4	0
5	29	7	2	6	8	16	5	1
10	0	♓ 26	3	8	9	30	6	2
15	1	44	5	9	10	42	7	3
20	3	3	6	10	11	55	8	4
25	4	23	8	12	13	8	9	6
30	5	42	9	13	14	19	10	7
35	7	2	10	14	15	31	11	8
40	8	22	12	16	16	43	13	9
45	9	42	13	17	17	54	14	10
50	11	2	14	18	19	5	15	11
55	12	22	16	20	20	16	16	13
23 0	13	53	17	21	21	25	17	14
5	15	4	18	22	22	35	18	15
10	16	25	20	24	23	46	20	16
15	17	46	21	25	24	56	21	18
20	19	7	22	27	26	5	22	19
25	20	29	24	28	27	15	23	20
30	21	50	25	29	28	24	24	21
				♊				
35	23	17	26	0	29	32	26	22
40	24	33	28	1	0 ♋	41	27	23
45	25	55	29	2	1	50	28	25
				♉				
50	27	16	0	3	2	59	29	26
							♌	
55	28	38	1	4	4	7	0	27
24 0	0	♈ 0	3	5	5	15	1	29

LOGARITHMIC TABLE.

Hours or Degrees.

Min.	0	1	2	3	4	5	6	7	8	9	10	11	Min.
0	3·1584	1·3802	1·0792	·9031	·7781	·6812	·6021	·5351	·4771	·4260	·3802	·3388	0
1	3·1584	1·3730	1·0756	·9007	·7763	·6798	·6009	·5341	·4762	·4252	·3797	·3382	1
2	2·8573	1·3660	1·0720	·8983	·7745	·6784	·5997	·5330	·4753	·4244	·3788	·3375	2
3	2·6812	1·3590	1·0685	·8959	·7728	·6769	·5985	·5320	·4744	·4236	·3780	·3368	3
4	2·5563	1·3522	1·0649	·8935	·7710	·6755	·5973	·5310	·4735	·4228	·3773	·3362	4
5	2·4594	1·3454	1·0614	·8912	·7692	·6741	·5961	·5300	·4726	·4220	·3766	·3355	5
6	2·3802	1·3388	1·0580	·8888	·7674	·6726	·5949	·5289	·4717	·4212	·3759	·3349	6
7	2·3133	1·3323	1·0546	·8865	·7657	·6712	·5937	·5279	·4708	·4204	·3752	·3342	7
8	2·2553	1·3258	1·0511	·8842	·7639	·6698	·5925	·5269	·4699	·4196	·3745	·3336	8
9	2·2041	1·3195	1·0478	·8819	·7622	·6684	·5913	·5259	·4690	·4188	·3737	·3329	9
10	2·1584	1·3133	1·0444	·8796	·7604	·6670	·5902	·5249	·4682	·4180	·3730	·3323	10
11	2·1170	1·3071	1·0411	·8773	·7587	·6656	·5890	·5239	·4673	·4172	·3723	·3316	11
12	2·0792	1·3010	1·0378	·8751	·7570	·6642	·5878	·5229	·4664	·4164	·3716	·3310	12
13	2·0444	1·2950	1·0345	·8728	·7552	·6628	·5866	·5219	·4655	·4156	·3709	·3303	13
14	2·0122	1·2891	1·0313	·8706	·7535	·6614	·5855	·5209	·4646	·4148	·3702	·3297	14
15	1·9823	1·2833	1·0280	·8683	·7518	·6600	·5843	·5199	·4638	·4141	·3695	·3291	15
16	1·9542	1·2775	1·0248	·8661	·7501	·6587	·5832	·5189	·4629	·4133	·3688	·3284	16
17	1·9279	1·2719	1·0216	·8639	·7484	·6573	·5820	·5179	·4620	·5125	·3681	·3278	17
18	1·9031	1·2663	1·0185	·8617	·7467	·6559	·5809	·5169	·4611	·4117	·3674	·3271	18
19	1·8796	1·2607	1·0153	·8595	·7451	·6546	·5797	·5159	·4603	·4109	·3667	·3265	19
20	1·8573	1·2553	1·0122	·8573	·7434	·6532	·5786	·5149	·4594	·4102	·3660	·3258	20
21	1·8361	1·2499	1·0091	·8552	·7417	·6519	·5774	·5139	·4585	·4094	·3653	·3252	21
22	1·8159	1·2445	1·0061	·8530	·7401	·6505	·5761	·5129	·4577	·4086	·3646	·3246	22
23	1·7966	1·2393	1·0030	·8509	·7384	·6492	·5752	·5120	·4568	·4079	·3639	·3239	23
24	1·7781	1·2341	1·0000	·8487	·7368	·6478	·5740	·5110	·4559	·4071	·3632	·3233	24
25	1·7604	1·2289	·9970	·8466	·7351	·6465	·5729	·5100	·4551	·4063	·3625	·3227	25
26	1·7434	1·2239	·9940	·8445	·7335	·6451	·5718	·5090	·4542	·4055	·3618	·3220	26
27	1·7270	1·2188	·9910	·8424	·7318	·6438	·5706	·5081	·4534	·4048	·3611	·3214	27
28	1·7112	1·2139	·9881	·8403	·7302	·6425	·5695	·5071	·4525	·4040	·3604	·3208	28
29	1·6960	1·2090	·9852	·8382	·7286	·6412	·5684	·5061	·4516	·4032	·3597	·3201	29

Hours or Degrees.

Min.	0	1	2	3	4	5	6	7	8	9	10	11	Min.
30	1·6812	1·2041	·9823	·8361	·7270	·6398	·5673	·5051	·4508	·4025	·3590	·3195	30
31	1·6670	1·1993	·9794	·8341	·7254	·6385	·5662	·5042	·4499	·4017	·3583	·3189	31
32	1·6532	1·1946	·9765	·8327	·7238	·6372	·5651	·5032	·4491	·4010	·3576	·3183	32
33	1·6398	1·1899	·9737	·8300	·7222	·6359	·5640	·5023	·4482	·4002	·3570	·3176	33
34	1·6269	1·1852	·9708	·8279	·7206	·6346	·5629	·5013	·4474	.3994	·3563	·3170	34
35	1·6143	1·1806	·9680	·8259	·7190	·6333	·5618	·5003	·4466	.3987	·3556	·3164	35
36	1·6021	1·1761	·9652	·8239	·7174	·6320	·5607	·4994	·4457	.3979	·3549	·3157	36
37	1·5902	1·1716	·9625	·8219	·7159	·6307	·5596	·4984	·4449	.3972	·3542	·3151	37
38	1·5786	1·1671	·9597	·8199	·7143	·6294	·5585	·4975	·4440	·3964	·3535	·3145	38
39	1·5673	1·1627	·9570	·8179	·7128	·6282	·5573	·4965	·4432	·3957	·3529	·3139	39
40	1·5563	1·1584	·9542	·8159	·7112	·6269	·5563	·4956	·4424	·3949	·3522	·3133	40
41	1·5456	1·1540	·9515	·8140	·7097	·6256	·5552	·4947	·4415	·3942	·3515	·3126	41
42	1·5351	1·1498	·9488	·8120	·7081	·6243	·5541	·4937	·4407	·3934	·3508	·3120	42
43	1·5249	1·1455	·9462	·8101	·7066	·6231	·5531	·4928	·4399	·3927	·3501	·3114	43
44	1·5149	1·1413	·9435	·8081	7050	·6218	·5520	·4918	·4390	·3919	·3495	·3108	44
45	1·5051	1·1372	·9409	·8062	·7035	·6205	·5509	·4909	·4382	·3912	·3488	·3102	45
46	1·4956	1.1331	·9383	·8042	·7020	·6193	5498	·4900	·4374	·3905	·3481	·3096	46
47	1·4863	1.1290	·9356	·8023	·7005	·6180	5488	·4890	4365	·3897	·3475	·3089	47
48	1·4771	1.1249	·9330	·8004	·6990	·6168	·5477	·4881	·4357	·3890	·3468	·3083	48
49	1·4682	1.1209	·9305	·7985	·6975	·6155	·5466	·4872	·4349	·3882	·3461	·3077	49
50	1·4594	1.1170	·9279	·7966	·6960	·6143	·5456	·4863	·4341	·3875	·3454	·3071	50
51	1·4508	1·1130	·9254	·7947	·6945	·6131	·5445	·4853	·4333	·3868	·3448	·3065	51
52	1·4424	1·1091	·9228	·7929	6930	6118	·5435	·4844	4324	·3860	·3441	·3059	52
53	1·4341	1 1053	·9203	·7910	·6915	6101	·5424	·4835	·4316	·3853	·3434	·3053	53
54	1·4260	1·1015	9178	·7891	·6900	·6094	·5414	·4826	·4308	·3846	·3428	·3047	54
55	1·4180	1·0977	·9153	·7873	·6885	·6081	·5403	·4817	·4300	·3838	·3421	·3041	55
56	1·4102	1·0939	·9128	·7854	·6871	·6069	·5393	·4808	·4292	·3831	·3415	·3034	56
57	1·4025	1·0902	·9104	·7836	6856	6057	·5382	·4798	·4284	·3824	·3408	·3028	57
58	1·3949	1·0865	·9079	·7818	6841	·6045	·5372	·4789	·4276	·3817	·3401	·3022	58
59	1·3875	1·0828	9055	·7800	6827	6033	·5361	4780	4268	·3809	·3395	·3016	59

Hours or Degrees.

Min.	12	13	14	15	16	17	18	19	20	21	22	23	Min.
0	·3010	·2663	·2341	·2041	·1761	·1498	·1249	·1015	·0792	·0580	·0378	·0185	0
1	·3004	·2657	·2336	·2036	·1756	·1493	·1245	·1011	·0788	·0576	·0375	·0182	1
2	·2998	·2652	·2330	·2032	·1752	·1489	·1241	·1007	·0785	·0573	·0371	·0179	2
3	·2992	·2646	·2325	·2027	·1747	·1485	·1237	·1003	·0781	·0570	·0368	·0175	3
4	·2986	·2640	·2320	·2022	·1743	·1481	·1233	·0999	·0778	·0566	·0363	·0172	4
5	·2980	·2635	·2315	·2017	·1738	·1476	·1229	·0996	·0774	·0563	·0361	·0169	5
6	·2974	·2629	·2310	·2012	·1734	·1472	·1225	·0992	·0770	·0559	·0358	·0166	6
7	·2968	·2624	·2305	·2008	·1729	·1468	·1221	·0988	·0766	·0556	·0355	·0163	7
8	·2962	·2618	·2300	·2003	·1725	·1464	·1217	·0984	·0763	·0552	·0352	·0160	8
9	·2956	·2613	·2295	·1998	·1720	·1459	·1213	0980	·0759	·0549	·0348	·0157	9
10	·2950	·2607	·2289	·1993	·1716	·1455	·1209	.9977	·0756	·0546	.0345	·0154	10
11	·2944	·2602	·2284	·1988	·1711	·1451	·1205	.0973	·0752	·0542	.0342	·0150	11
12	·2938	·2596	·2279	·1984	·1707	·1447	·1201	.0969	·0749	·0539	.0339	·0147	12
13	·2933	·2591	·2274	·1979	·1702	·1443	·1197	.0965	·0745	·0535	.0335	·0144	13
14	·2927	·2585	·2269	·1974	·1698	·1438	·1193	.0962	·0741	·0532	.0332	·0141	14
15	2921	.2580	·2264	·1969	·1694	·1434	·1190	·0958	·0738	·0529	·0329	·0138	15
16	·2915	.2574	·2259	·1965	·1689	·1430	·1186	·0954	·0734	·0525	·0326	·0135	16
17	·2909	.2569	·2253	·1960	·1685	·1426	·1182	·0950	·0731	·0522	·0322	·0132	17
18	·2903	.2564	·2249	·1955	·1680	·1422	·1178	·0947	·0727	0518	·0319	·0129	18
19	·2897	.2558	·2244	·1950	·1676	·1417	·1174	·0943	·0724	·0515	·0316	·0125	19
20	·2891	·2553	·2239	·1946	·1671	·1413	·1170	0939	·0720	·0512	·0313	·0122	20
21	·2885	·2547	·2234	·1941	·1667	·1409	·1166	·0935	·0716	·0508	·0309	·0119	21
22	·2880	·2542	·2229	·1936	·1662	·1405	·1162	·0932	·0713	·0505	·0306	·0116	22
23	·2874	·2536	·2223	·1932	·1658	·1401	·1158	·0928	·0709	·0501	·0303	·0113	23
24	·2868	·2531	·2218	·1927	·1654	·1397	·1154	·0924	·0706	·0498	·0300	·0110	24
25	·2862	·2526	·2213	·1922	·1649	·1392	·1150	·0920	·0702	·0495	·0296	·0107	25
26	·2856	·2520	·2208	·1917	·1645	·1388	·1146	·0917	·0699	·0491	·0293	·0104	26
27	2850	·2515	·2203	·1913	·1640	·1384	·1142	·0913	·0695	·0488	·0290	·0101	27
28	·2845	·2509	·2198	·1908	·1636	·1380	·1138	·0909	·0692	·0484	·0287	·0098	28
29	·2839	·2504	·2193	·1903	·1632	·1376	·1134	·0906	·0688	·0481	·0284	·0095	29

LOGARITHMIC TABLE.

Hours or Degrees.

Min.	12	13	14	15	16	17	18	19	20	21	22	23	Min.
30	·2833	·2499	·2188	·1899	·1627	·1372	·1130	·0902	·0685	·0478	·0280	·0091	30
31	·2827	·2493	·2183	·1894	·1623	·1368	·1127	·0898	·0681	·0474	·0277	·0088	31
32	·2821	·2488	·2178	·1889	·1618	·1363	·1123	·0894	·0678	·0471	·0274	·0085	32
33	·2816	·2483	·2173	·1885	·1614	·1359	·1119	·0891	·0674	·0468	·0271	·0082	33
34	·2810	·2477	·2168	·1880	·1610	·1355	·1115	·0887	·0670	·0464	·0267	·0079	34
35	·2804	·2472	·2164	·1875	·1605	·1351	·1111	·0883	·0667	·0461	·0264	·0076	35
36	·2798	·2467	·2159	·1871	·1601	·1357	·1107	·0880	·0663	·0458	·0261	·0073	36
37	·2793	·2461	·2154	·1866	·1597	·1343	·1103	·0876	·0660	·0454	·0258	·0070	37
38	·2787	·2456	·2149	·1862	·1592	·1339	·1099	·0872	·0656	·0451	·0255	·0067	38
39	·2781	·2451	·2144	·1857	·1588	·1335	·1095	·0869	·0652	·0448	·0251	·0064	39
40	·2775	·2445	·2139	·1852	·1584	·1331	·1091	·0865	·0649	·0444	·0248	·0061	40
41	·2770	·2440	·2134	·1848	·1579	·1326	·1088	·0861	·0646	·0441	·0245	·0058	41
42	·2764	·2435	·2129	·1843	·1575	·1322	·1084	·0857	·0642	·0438	·0242	·0055	42
43	·2758	·2430	·2124	·1838	·1571	·1318	·1080	·0854	·0639	·0434	·0239	·0052	43
44	·2753	·2424	·2119	·1834	1566	·1314	·1076	·0850	·0635	·0431	·0236	·0049	44
45	·2747	·2419	·2114	·1829	·1561	·1310	·1072	·0846	·0632	·0428	·0232	·0046	45
46	·2741	·2414	·2109	·1825	·1558	·1306	·1068	·0843	·0628	·0424	·0229	·0042	46
47	·2736	·2409	·2104	·1820	·1553	·1302	·1064	·0839	·0625	·0421	·0226	·0039	47
48	·2730	·2403	·2099	·1816	·1549	·1298	·1061	·0835	·0622	·0418	·0223	·0036	48
49	·2724	2398	·2095	·1811	·1545	·1294	·1057	·0832	·0618	·0414	·0220	·0033	49
50	·2719	·2393	·2090	·1806	·1540	·1290	·1053	·0828	·0615	·0411	·0216	·0030	50
51	·2713	·2388	·2085	·1802	·1536	·1286	·1049	·0825	·0611	·0408	·0213	·0027	51
52	·2707	·2382	·2080	·1797	·1532	·1282	·1045	·0821	·0608	·0404	·0210	·0024	52
53	·2702	·2377	·2075	·1793	·1528	·1278	·1041	·0817	·0604	·0401	·0207	·0021	53
54	·2696	·2372	·2070	·1788	·1523	·1274	·1038	·0814	·0601	·0398	·0204	·0018	54
55	·2691	·2367	·2065	·1784	·1519	·1270	·1034	·0810	·0597	·0394	·0201	·0015	55
56	·2685	·2362	·2061	·1779	·1515	·1266	·1030	·0806	·0594	·0391	·0197	·0012	56
57	·2679	·2356	·2056	·1774	·1510	·1261	·1026	·0803	·0590	·0388	·0194	·0009	57
58	·2674	·2351	·2051	·1770	·1506	·1257	·1022	·0799	·0587	·0384	·0191	·0006	58
59	·2668	·2346	·2046	·1765	·1502	·1253	·1018	·0795	·0583	·0381	·0188	·0003	59

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