Appendix C

Sample Data

I admit that it is not farfetched that I might err, that some analysis or source elude me—this is not a big matter. I am elated that I am being scrutinized so carefully; whosoever does so merits reward and gratitude. For either he is correct in his critique and I benefit thereby, or, if he is in error, he will derive benefit.

Maimonides: Letter to Joseph ben Judah Ibn Simeon, to whom
The Guide to the Perplexed was addressed (1191)

To aid the reader interested in implementing our functions, we give two sets of tables in this appendix. First, we give tables of 33 dates from the years −1000 to 2100 with their equivalents on all the calendars discussed in the book. For each date we also give the dates of Easter that same year (Orthodox, Gregorian, and astronomical); the ephemeris correction, equation of time, and solar longitude at 12:00:00 U.T.; the moment of the next solstice or equinox (U.T.); the standard times of astronomical dawn in Paris, astronomical midday in Tehran, and astronomical sunset for Jerusalem; the lunar longitude, latitude, and altitude at 00:00:00 U.T.; the moment of the next new moon (U.T.), and the standard times of moonrise and moonset in Mecca. At the bottom of each column in the tables is the equation number and corresponding page of the function used to compute that column. Changes in the hardware and software since the preparation of the third edition have caused minor changes in some sample values compared with that edition; the revision of what we called the "future Bahá'í calendar" (now the astronomical calendar) has caused significant changes to some of those sample values. The second set of tables gives the Gregorian dates in 2000−2103 of many holidays and other calendrical events as calculated by the functions in this book.

All dates and values given in this appendix are as computed by our functions and hence may not represent historical reality; furthermore, some dates are not meaningful for all calendars. Though times are reported down to the second, the astronomical algorithms that we use do not promise such accuracy.

As pointed out in Section 1.16, the precise values of floating-point calculations may differ depending on the programming language, implementation, and platform. For example, with 64-bit (double precision) calculations, the solar longitude at midnight for the first date, R.D. −214193, computed with the expression

solar-longitude(−214193)

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differs slightly from one implementation and computer to another:

- Allegro Common Lisp on a Sun Blade gives 118.98911336371384°;

- LispWorks on a MacBook Air with Intel Core i5 and GNU Common Lisp on an Intel Xeon E5410 and on an Intel Core i3-530 give 118.98911336367019°;

- CLisp on an HP Compaq PC gives 118.98911336376116°; and

- GNU Common Lisp on an Intel Xeon E5-2680 v2 gives 118.9891133637611631°.

Such small differences, in this case about $1° \times 10^{-10}$ of arc or 8×10^{-6} seconds of time, are highly unlikely to affect the computations of dates. However, single precision yields a noticeably different value, 119.00391°.

All the values in this appendix were computed in double precision on an Intel® Xeon® E5-2680 v2 at 2.80 GHz and required about 208 seconds to produce.

> *But go thou thy way till the end be; and thou shalt rest, and shalt stand up to thy lot, at the end of the days.*
>
> Daniel 12:13

R.D.	Weekday	Julian day	Modified Julian day	Unix	Gregorian	Julian Date	Julian Roman name	Julian Olympiad	Egyptian	Armenian
−214193	Sunday	1507231.5	−892769	−80641958400	−586 7 24	−587 7 30	−587 8 1 3 ƒ	48 2	161 7 15	−1138 4 10
−61387	Wednesday	1660037.5	−739963	−67439520000	−168 12 5	−169 12 8	−169 12 3 6 ƒ	152 4	580 3 6	−720 12 6
25469	Wednesday	1746893.5	−653107	−59935161600	70 9 24	70 9 26	70 10 1 6 ƒ	212 2	818 2 22	−482 11 22
49217	Sunday	1770641.5	−629359	−57883334400	135 10 2	135 10 3	135 10 2 5 ƒ	228 3	883 3 15	−417 12 15
171307	Wednesday	1892731.5	−507269	−47334758400	470 1 8	470 1 7	470 1 3 7 ƒ	312 2	1217 9 15	−82 6 10
210155	Monday	1931579.5	−468421	−43978291200	576 5 20	576 5 18	576 6 1 15 ƒ	338 4	1324 2 18	24 11 18
253427	Saturday	1974851.5	−425149	−40239590400	694 11 10	694 11 7	694 11 3 7 ƒ	368 2	1442 9 10	143 6 5
369740	Sunday	2091164.5	−308836	−30190147200	1013 4 25	1013 4 19	1013 5 1 13 ƒ	448 1	1761 5 8	462 2 3
400085	Sunday	2121509.5	−278491	−27568339200	1096 5 24	1096 5 18	1096 6 1 15 ƒ	468 4	1844 6 28	545 3 23
434355	Friday	2155779.5	−244221	−24607411200	1190 3 23	1190 3 16	1190 4 1 17 ƒ	492 2	1938 5 18	639 2 13
452605	Saturday	2174029.5	−225971	−23030611200	1240 3 10	1240 3 3	1240 3 2 5 ƒ	504 4	1988 5 18	689 2 13
470160	Friday	2191584.5	−208416	−21513859200	1288 4 2	1288 3 26	1288 4 1 7 ƒ	516 4	2036 6 23	737 3 18
473837	Sunday	2195261.5	−204739	−21196166400	1298 4 27	1298 4 20	1298 5 1 12 ƒ	519 2	2046 7 20	747 4 15
507850	Sunday	2229274.5	−170726	−18257443200	1391 6 12	1391 6 4	1391 6 2 2 ƒ	542 3	2139 9 28	840 6 23
524156	Wednesday	2245580.5	−154420	−16848604800	1436 2 3	1436 1 25	1436 2 1 8 ƒ	553 4	2184 5 29	885 2 24
544676	Saturday	2266100.5	−133900	−15075676800	1492 4 9	1492 3 31	1492 4 1 2 ƒ	567 4	2240 8 19	941 5 14
567118	Saturday	2288542.5	−111458	−13136688000	1553 9 19	1553 9 9	1553 9 3 5 ƒ	583 1	2302 2 11	1002 11 11
569477	Saturday	2290901.5	−109099	−12932870400	1560 3 5	1560 2 24	1560 3 1 6 ƒ	584 4	2308 7 30	1009 4 25
601716	Wednesday	2323140.5	−76860	−10147420800	1648 6 10	1648 5 31	1648 6 1 2 ƒ	606 4	2396 11 29	1097 8 24
613424	Sunday	2334848.5	−65152	−9135849600	1680 6 30	1680 6 20	1680 7 1 12 ƒ	614 4	2428 12 27	1129 9 22
626596	Friday	2348020.5	−51980	−7997788800	1716 7 24	1716 7 13	1716 7 3 3 ƒ	623 4	2465 1 24	1165 10 24
645554	Sunday	2366978.5	−33022	−6359817600	1768 6 19	1768 6 8	1768 6 3 6 ƒ	636 4	2517 1 2	1217 10 2
664224	Monday	2385648.5	−14352	−4746729600	1819 8 2	1819 7 21	1819 8 1 12 ƒ	649 3	2568 2 27	1268 11 27
671401	Wednesday	2392825.5	−7175	−4126636800	1839 3 27	1839 3 15	1839 3 3 1 ƒ	654 3	2587 10 29	1288 7 24
694799	Sunday	2416223.5	16223	−2105049600	1903 4 19	1903 4 6	1903 4 3 8 ƒ	670 3	2651 12 7	1352 9 2
704424	Sunday	2425848.5	25848	−1273449600	1929 8 25	1929 8 12	1929 8 3 2 ƒ	677 1	2678 4 17	1379 1 12
708842	Monday	2430266.5	30266	−891734400	1941 9 29	1941 9 16	1941 10 1 16 ƒ	680 1	2690 5 25	1391 2 20
709409	Monday	2430833.5	30833	−842745600	1943 4 19	1943 4 6	1943 4 3 8 ƒ	680 3	2691 12 17	1392 9 12
709580	Thursday	2431004.5	31004	−827971200	1943 10 7	1943 9 24	1943 10 1 8 ƒ	680 3	2692 6 3	1393 2 28
727274	Tuesday	2448698.5	48698	700790400	1992 3 17	1992 3 4	1992 3 2 4 ƒ	692 4	2740 11 27	1441 8 22
728714	Sunday	2450138.5	50138	825206400	1996 2 25	1996 2 12	1996 2 3 2 ƒ	693 4	2744 11 7	1445 8 2
744313	Wednesday	2465737.5	65737	2172960000	2038 11 10	2038 10 28	2038 11 1 5 ƒ	704 2	2787 8 1	1488 4 26
764652	Sunday	2486076.5	86076	3930249600	2094 7 18	2094 7 5	2094 7 2 3 ƒ	718 2	2843 4 20	1544 1 15
Function	(1.60)	(1.5)	(1.8)	(1.11)	(2.23)	(3.4)	(3.11)	(3.17)	(1.49)	(1.52)
Page	33	18	19	19	62	76	80	82	31	31

[1] The negative years in the first two lines of the columns for the Julian date and the Roman name are B.C.E. years, 587 B.C.E. and 169 B.C.E., respectively. They appear as negative numbers because the table consists of raw output from the Lisp functions.

R.D.	Akan	Coptic	Ethiopic	ISO	Icelandic	Islamic Arithmetic	Islamic Observational	Islamic Umm al-Qura	Hebrew Standard	Hebrew Observational
−214193	6 5	−870 12 6	−594 12 6	−586 29 7	−586 90 14 0	−1245 12 9	−1245 12 11	−1245 12 11	3174 5 10	3174 5 11
−61387	4 1	−451 4 12	−175 4 12	−168 49 3	−168 270 6 3	−813 2 23	−813 2 25	−813 2 26	3593 9 25	3593 9 24
25469	4 1	−213 1 29	63 1 29	70 39 3	70 90 22 3	−568 4 1	−568 4 2	−568 4 3	3831 7 3	3831 7 2
49217	4 5	−148 2 5	128 2 5	135 39 7	135 90 24 0	−501 4 6	−501 4 7	−501 4 8	3896 7 9	3896 7 7
171307	6 1	186 5 12	462 5 12	470 2 3	469 270 11 3	−157 10 17	−157 10 18	−157 10 18	4230 10 18	4230 10 18
210155	4 6	292 9 23	568 9 23	576 21 1	576 90 4 1	−47 6 3	−47 6 3	−47 6 4	4336 3 4	4336 3 3
253427	4 4	411 3 11	687 3 11	694 45 6	694 270 3 6	75 7 13	75 7 13	75 7 14	4455 8 13	4455 9 13
369740	1 5	729 8 24	1005 8 24	1013 16 7	1013 90 1 0	403 10 5	403 10 5	403 10 6	4773 2 6	4773 2 5
400085	4 5	812 9 23	1088 9 23	1096 21 7	1096 90 5 0	489 5 22	489 5 22	489 5 23	4856 2 23	4856 2 22
434355	2 3	906 7 20	1182 7 20	1190 12 5	1189 270 22 5	586 2 7	586 2 7	586 2 8	4950 1 7	4950 1 7
452605	6 4	956 7 7	1232 7 7	1240 10 6	1239 270 21 6	637 8 7	637 8 7	637 8 8	5000 13 8	5000 13 7
470160	5 3	1004 7 30	1280 7 30	1288 14 5	1287 270 23 5	687 2 20	687 2 21	687 2 22	5048 1 21	5048 1 21
473837	4 5	1014 8 25	1290 8 25	1298 17 7	1298 90 1 7	697 7 7	697 7 7	697 7 8	5058 2 7	5058 2 7
507850	3 5	1107 10 10	1383 10 10	1391 23 7	1391 90 8 0	793 7 1	793 6 30	793 7 1	5151 4 1	5151 3 30
524156	1 1	1152 5 29	1428 5 29	1436 5 3	1435 270 15 3	839 7 6	839 7 6	839 7 7	5196 11 7	5196 12 6
544676	1 4	1208 8 5	1484 8 5	1492 14 6	1491 270 25 6	897 6 1	897 6 2	897 6 3	5252 1 3	5252 2 2
567118	3 4	1270 1 12	1546 1 12	1553 38 6	1553 90 22 6	960 9 30	960 9 30	960 10 1	5314 7 1	5313 6 30
569477	4 4	1276 6 29	1552 6 29	1560 9 6	1559 270 20 6	967 5 27	967 5 27	967 5 28	5320 12 27	5320 12 27
601716	5 1	1364 10 6	1640 10 6	1648 24 3	1648 90 7 3	1058 5 18	1058 5 18	1058 5 19	5408 3 20	5408 3 18
613424	1 5	1396 10 26	1672 10 26	1680 26 7	1680 90 10 0	1091 6 2	1091 6 3	1091 6 4	5440 4 3	5440 4 3
626596	3 3	1432 11 19	1708 11 19	1716 30 5	1716 90 14 5	1128 8 4	1128 8 4	1128 8 5	5476 5 5	5476 5 4
645554	1 5	1484 10 14	1760 10 14	1768 24 7	1768 90 9 0	1182 2 3	1182 2 4	1182 2 4	5528 4 4	5528 4 4
664224	5 6	1535 11 27	1811 11 27	1819 31 1	1819 90 15 1	1234 10 10	1234 10 10	1234 10 11	5579 5 11	5579 5 10
671401	6 1	1555 7 19	1831 7 19	1839 13 3	1838 270 22 3	1255 1 11	1255 1 11	1255 1 11	5599 1 12	5599 1 11
694799	4 5	1619 8 11	1895 8 11	1903 16 7	1902 270 26 0	1321 1 21	1321 1 20	1321 1 21	5663 1 22	5663 1 20
704424	5 5	1645 12 19	1921 12 19	1929 34 7	1929 90 18 0	1348 3 19	1348 3 19	1348 3 20	5689 5 19	5689 6 19
708842	1 6	1658 1 19	1934 1 19	1941 40 1	1941 90 23 1	1360 9 8	1360 9 7	1360 9 8	5702 7 8	5702 7 7
709409	4 6	1659 8 11	1935 8 11	1943 16 1	1942 270 26 1	1362 4 13	1362 4 14	1362 4 14	5703 1 14	5703 2 14
709580	1 2	1660 1 26	1936 1 26	1943 40 4	1943 90 25 4	1362 10 7	1362 10 7	1362 10 8	5704 7 8	5704 8 7
727274	1 7	1708 7 8	1984 7 8	1992 12 2	1991 270 21 2	1412 9 13	1412 9 12	1412 9 12	5752 13 12	5752 1 12
728714	1 5	1712 6 17	1988 6 17	1996 8 7	1995 270 18 0	1416 10 5	1416 10 5	1416 10 6	5756 12 5	5756 12 5
744313	6 1	1755 3 1	2031 3 1	2038 45 3	2038 270 3 3	1460 10 12	1460 10 12	1460 10 13	5799 8 12	5799 9 12
764652	5 5	1810 11 11	2086 11 11	2094 28 7	2094 90 13 0	1518 3 5	1518 3 5	1518 3 6	5854 5 5	5854 5 5
Function	(1.79)	(4.4)	(4.7)	(5.2)	(6.5)	(7.4)	(18.12)	(18.20)	(8.28)	(18.23)
Page	38	91	92	96	101	108	294	296	123	298

| | Persian | | Bahá'í | | French Revolutionary | | Easter (same year) | | |
| | Astronomical | Arithmetic | Western | Astronomical | Original | Modified | Julian | Gregorian | Astronomical |
R.D.									
−214193	−1208 5 1	−1208 5 1	−6 6 3 7 12	−6 6 3 7 11	−2378 11 5	−2378 11 4	−586 4 3	−586 4 3	−586 4 3
−61387	−790 9 14	−790 9 14	−5 9 3 14 13	−5 9 3 14 13	−1959 3 14	−1959 3 13	−168 4 1	−168 4 8	−168 4 8
25469	−552 7 2	−552 7 2	−4 2 13 10 17	−4 2 13 10 17	−1721 1 2	−1721 1 2	70 4 13	70 4 13	70 4 13
49217	−487 7 9	−487 7 9	−4 6 2 11 6	−4 6 2 11 6	−1656 1 10	−1656 1 10	135 4 17	135 4 17	135 4 17
171307	−153 10 19	−153 10 18	−3 4 13 16 9	−3 4 13 16 10	−1322 4 19	−1322 4 18	470 4 6	470 4 6	470 4 6
210155	−46 2 31	−46 2 30	−3 10 6 4 4	−3 10 6 4 5	−1216 9 1	−1216 9 1	576 4 7	576 4 7	576 4 7
253427	73 8 19	73 8 19	−3 16 10 13 7	−3 16 10 13 7	−1097 2 19	−1097 2 19	694 4 22	694 4 22	694 4 22
369740	392 2 5	392 2 5	−2 14 6 2 17	−2 14 6 2 17	−779 8 5	−779 8 4	1013 4 11	1013 4 11	1013 4 11
400085	475 3 4	475 3 3	−2 18 13 4 8	−2 18 13 4 9	−696 9 5	−696 9 5	1096 4 19	1096 4 19	1096 4 19
434355	569 1 3	569 1 3	−1 4 12 1 3	−1 4 12 1 3	−602 7 2	−602 7 1	1190 4 1	1190 4 1	1190 4 1
452605	618 12 20	618 12 20	−1 7 4 19 9	−1 7 4 19 10	−552 6 20	−552 6 20	1240 4 22	1240 4 22	1240 4 22
470160	667 1 14	667 1 14	−1 9 15 1 13	−1 9 15 1 14	−504 7 13	−504 7 13	1288 4 4	1288 3 28	1288 3 28
473837	677 2 8	677 2 8	−1 10 6 2 19	−1 10 6 3 1	−494 8 8	−494 8 8	1298 4 13	1298 4 6	1298 4 6
507850	770 3 22	770 3 22	−1 15 4 5 8	−1 15 4 5 8	−401 9 23	−401 9 23	1391 4 3	1391 4 3	1391 4 3
524156	814 11 13	814 11 13	−1 17 10 17 16	−1 17 10 17 16	−356 5 14	−356 5 13	1436 4 17	1436 4 17	1436 4 17
544676	871 1 21	871 1 21	0 1 10 2 1	0 1 10 2 2	−300 7 20	−300 7 19	1492 5 1	1492 3 27	1492 3 27
567118	932 6 28	932 6 28	0 4 14 10 12	0 4 14 10 12	−239 13 2	−239 13 1	1553 4 12	1553 4 12	1553 4 12
569477	938 12 14	938 12 14	0 5 1 19 4	0 5 1 19 4	−232 6 15	−232 6 14	1560 4 24	1560 3 27	1560 3 27
601716	1027 3 21	1027 3 21	0 9 14 5 6	0 9 14 5 7	−144 9 22	−144 9 22	1648 4 12	1648 4 12	1648 4 12
613424	1059 4 10	1059 4 10	0 11 8 6 7	0 11 8 6 8	−112 10 12	−112 10 12	1680 4 21	1680 4 21	1680 4 21
626596	1095 5 2	1095 5 2	0 13 6 7 12	0 13 6 7 13	−76 11 6	−76 11 6	1716 4 12	1716 4 12	1716 4 12
645554	1147 3 30	1147 3 30	0 16 1 5 15	0 16 1 5 16	−24 10 1	−24 10 1	1768 4 10	1768 4 3	1768 4 3
664224	1198 5 10	1198 5 10	0 18 14 8 2	0 18 14 8 2	27 11 14	27 11 14	1819 4 18	1819 4 11	1819 4 11
671401	1218 1 7	1218 1 7	0 19 15 1 7	0 19 15 1 7	47 7 6	47 7 6	1839 4 7	1839 3 31	1839 3 31
694799	1282 1 29	1282 1 29	1 4 3 2 11	1 4 3 2 10	111 7 28	111 7 29	1903 4 19	1903 4 12	1903 4 19
704424	1308 6 3	1308 6 3	1 5 10 9 6	1 5 10 9 6	137 12 7	137 12 7	1929 5 5	1929 3 31	1929 3 31
708842	1320 7 7	1320 7 7	1 6 3 11 3	1 6 3 11 3	150 1 7	150 1 7	1941 4 20	1941 4 13	1941 4 13
709409	1322 1 29	1322 1 29	1 6 5 2 11	1 6 5 2 11	151 7 29	151 7 29	1943 4 25	1943 4 25	1943 3 28
709580	1322 7 14	1322 7 14	1 6 5 11 11	1 6 5 11 11	152 1 15	152 1 15	1943 4 25	1943 4 25	1943 3 28
727274	1370 12 27	1370 12 27	1 8 15 19 16	1 8 15 19 17	200 6 27	200 6 27	1992 4 26	1992 4 19	1992 4 19
728714	1374 12 6	1374 12 6	1 8 19 18 19	1 8 19 18 19	204 6 6	204 6 7	1996 4 14	1996 4 7	1996 4 7
744313	1417 8 19	1417 8 19	1 11 5 13 7	1 11 5 13 8	247 2 20	247 2 20	2038 4 25	2038 4 25	2038 3 28
764652	1473 4 28	1473 4 28	1 14 4 7 6	1 14 4 7 7	302 10 30	302 11 1	2094 4 11	2094 4 4	2094 4 4
Function	(15.6)	(15.10)	(16.4)	(16.9)	(17.6)	(17.10)	(9.1)	(9.3)	(18.9)
Page	260	263	272	275	284	285	146	148	292

R.D.	Mayan Long Count					Haab		Tzolkin		Aztec Xihuitl		Tonalp.		Balinese Pawukon										Babylonian				Samaritan		
−214193	6	8	3	13	9	11	12	5	9	2	6	5	9	f	1	1	1	3	1	1	5	7	3	−275	4	f	10	1052	5	12
−61387	7	9	8	3	15	5	3	9	15	14	2	9	15	t	2	2	1	4	5	4	5	5	2	143	8	f	24	1471	9	27
25469	8	1	9	8	11	4	9	12	11	13	8	12	11	t	2	2	1	5	5	4	1	5	6	381	7	f	1	1709	7	4
49217	8	4	15	7	19	5	12	9	19	14	11	9	19	f	1	2	3	3	5	1	3	5	3	446	7	f	7	1774	7	9
171307	9	1	14	10	9	14	12	3	9	5	6	3	9	f	1	1	3	3	1	4	3	1	5	780	10	f	17	2108	10	19
210155	9	7	2	8	17	4	5	7	17	13	4	7	17	t	2	2	1	1	5	2	1	8	0	887	2	f	3	2214	3	5
253427	9	13	2	12	9	14	7	2	9	5	1	2	9	f	1	2	3	3	5	7	3	2	7	1005	8	f	13	2333	8	14
369740	10	9	5	14	2	8	5	4	2	17	4	4	2	f	1	2	2	1	2	1	2	2	1	1324	1	f	5	2651	2	7
400085	10	13	10	1	7	10	15	7	7	1	9	7	7	f	1	2	1	1	5	1	1	8	1	1407	2	f	22	2734	2	24
434355	10	18	5	4	17	8	15	9	17	17	14	9	17	t	2	3	1	1	3	6	1	3	2	1500	12	f	7	2828	13	9
452605	11	0	15	17	7	8	15	7	7	17	14	7	7	f	1	1	1	1	1	7	5	1	5	1550	12	f	7	2878	12	8
470160	11	3	4	13	2	10	10	12	2	1	4	12	2	t	2	3	4	1	6	6	8	6	2	1598	12	f	21	2926	13	23
473837	11	3	14	16	19	11	17	10	19	2	11	10	19	f	1	2	3	3	5	1	3	5	3	1609	1	f	7	2936	2	8
507850	11	8	9	7	12	15	5	2	12	5	19	2	12	f	1	1	4	1	4	1	4	7	1	1702	2	f	29	3029	3	2
524156	11	10	14	12	18	9	6	6	18	18	5	6	18	f	1	2	2	2	2	4	2	5	7	1746	11	f	6	3074	11	7
544676	11	13	11	12	18	13	6	12	18	3	20	12	18	f	1	2	4	2	2	7	8	8	9	1803	1	f	2	3130	1	4
567118	11	16	14	1	0	3	18	3	20	12	17	3	20	t	2	1	4	4	4	7	4	7	4	1864	5	f	30	3192	7	2
569477	11	17	0	10	19	12	7	9	19	3	1	9	19	f	1	2	3	3	5	7	3	2	7	1870	11	f	27	3198	11	28
601716	12	1	10	2	18	18	6	8	18	8	20	8	18	f	1	3	4	2	6	4	8	3	7	1959	2	f	18	3286	3	19
613424	12	3	2	12	6	1	9	3	6	10	8	3	6	t	2	2	4	5	2	1	4	5	4	1991	4	f	2	3318	4	4
626596	12	4	19	4	18	3	1	6	18	11	20	6	18	t	2	1	2	2	4	6	2	1	6	2027	4	f	4	3354	5	6
645554	12	7	11	16	16	1	19	10	16	10	18	10	16	t	2	2	4	5	2	1	4	5	4	2079	3	f	3	3406	3	5
664224	12	10	3	14	6	4	14	12	6	13	13	12	6	f	1	3	4	5	6	2	8	3	3	2130	4	f	10	3457	5	12
671401	12	11	3	13	3	16	16	13	3	7	10	13	3	f	1	1	1	2	1	4	5	4	7	2149	12	f	11	3477	13	12
694799	12	14	8	13	1	18	14	11	1	9	8	11	1	t	2	2	1	5	5	1	5	8	4	2213	12	t	20	3541	1	22
704424	12	15	15	8	6	7	4	3	6	16	3	3	6	t	2	3	2	5	6	1	2	3	4	2240	5	f	19	3567	5	21
708842	12	16	7	13	4	9	2	1	4	18	1	1	4	t	2	2	2	3	2	2	2	1	2	2252	6	f	7	3580	7	9
709409	12	16	9	5	11	19	4	9	11	9	18	9	11	f	1	2	3	5	5	2	3	2	3	2254	1	f	13	3581	1	15
709580	12	16	9	14	2	9	10	11	2	18	9	11	2	t	2	2	4	1	2	5	4	8	4	2254	7	f	7	3582	7	8
727274	12	18	18	16	16	18	4	12	16	8	18	12	16	t	2	2	2	5	2	3	2	8	2	2302	12	f	12	3630	12	13
728714	12	19	2	16	16	17	4	9	16	7	18	9	16	t	2	2	4	5	2	1	4	5	4	2306	12	f	5	3634	12	7
744313	13	1	6	4	15	12	8	8	15	3	2	8	15	t	2	1	3	4	1	4	7	1	2	2349	8	f	12	3677	8	14
764652	13	4	2	13	14	7	7	2	14	16	6	2	14	f	1	3	4	3	6	1	8	6	3	2405	4	f	5	3732	4	6
Function	(11.3)					(11.6)		(11.9)		(11.17)		(11.21)		(12.1)										(18.8)				(18.35)		
Page	171					173		175		178		179		185										291				302		

R.D.	Chinese			Hindu Solar			Hindu Lunisolar			Tibetan
	Date	Name	Next Zhongqi	Old	Modern	Astronomical	Old	Modern	Astronomical	
−214193	35 11 6 *f* 12	2 10	−214191.633133	2515 5 19	−664 5 19	−664 5 13	2515 6 *f* 11	−529 6 *f* 11 *f*	−529 6 *t* 11 *f*	−459 8 *f* 11 *f*
−61387	42 9 10 *f* 27	8 8	−61370.729673	2933 9 26	−246 9 26	−246 9 21	2933 9 *f* 26	−111 9 *f* 27 *f*	−111 9 *f* 27 *f*	−41 12 *f* 27 *f*
25469	46 7 8 *f* 4	4 8	25498.215092	3171 7 11	−8 7 9	−8 7 5	3171 8 *f* 3	127 8 *f* 3 *f*	127 8 *f* 3 *t*	197 10 *f* 3 *f*
49217	47 12 8 *f* 9	2 8	49239.004860	3236 7 17	57 7 16	57 7 11	3236 8 *f* 9	192 8 *f* 9 *f*	192 8 *f* 9 *f*	262 10 *f* 9 *f*
171307	52 46 11 *f* 20	2 10	171318.588098	3570 10 19	391 10 21	391 10 17	3570 11 *t* 19	526 11 *f* 19 *f*	526 10 *f* 20 *f*	596 12 *f* 19 *f*
210155	54 33 4 *f* 5	10 2	210156.745715	3677 2 28	498 2 31	498 2 27	3677 3 *f* 5	633 3 *f* 5 *f*	633 3 *f* 5 *f*	703 5 *f* 4 *f*
253427	56 31 10 *f* 15	2 2	253439.318423	3795 8 17	616 8 16	616 8 13	3795 9 *f* 15	751 9 *f* 15 *f*	751 8 *f* 15 *f*	821 10 *f* 15 *f*
369740	61 50 3 *f* 7	5 11	369767.423610	4114 1 26	935 1 28	935 1 26	4114 2 *f* 7	1070 2 *f* 6 *f*	1070 2 *f* 6 *f*	1140 4 *f* 6 *f*
400085	63 13 4 *f* 24	10 8	400113.941895	4197 2 24	1018 2 26	1018 2 24	4197 2 *f* 24	1153 3 *t* 23 *f*	1153 2 *f* 23 *f*	1223 4 *f* 23 *f*
434355	64 47 2 *f* 9	10 6	434384.035740	4290 12 20	1111 12 23	1111 12 21	4291 1 *f* 9	1247 1 *f* 8 *f*	1247 1 *f* 8 *f*	1317 3 *f* 8 *f*
452605	65 37 2 *f* 9	10 4	452615.458234	4340 12 7	1161 12 10	1161 12 8	4340 12 *f* 9	1297 1 *f* 8 *f*	1296 12 *f* 8 *f*	1367 2 *f* 8 *f*
470160	66 25 2 *f* 23	5 3	470177.759817	4388 12 30	1210 1 2	1209 12 31	4389 1 *f* 23	1345 1 *f* 22 *f*	1345 1 *f* 23 *f*	1415 2 *f* 22 *f*
473837	66 35 3 *f* 9	2 8	473861.324287	4399 1 24	1220 1 27	1220 1 25	4399 2 *f* 8	1355 2 *f* 8 *f*	1355 2 *f* 8 *f*	1425 4 *f* 8 *f*
507850	68 8 5 *f* 2	5 1	507860.235360	4492 3 7	1313 3 8	1313 3 3	4492 4 *f* 2	1448 4 *f* 1 *f*	1448 4 *f* 1 *f*	1518 5 *f* 1 *f*
524156	68 53 1 *f* 8	1 11	524172.836499	4536 10 28	1357 10 30	1357 10 28	4536 11 *f* 7	1492 11 *f* 7 *f*	1492 11 *f* 7 *f*	1563 1 *f* 7 *f*
544676	69 49 3 *f* 4	1 11	544687.134951	4593 1 3	1414 1 5	1414 1 4	4593 1 *f* 3	1549 2 *t* 3 *f*	1549 2 *t* 4 *f*	1619 3 *f* 3 *f*
567118	70 50 8 *f* 2	3 1	567122.835546	4654 6 12	1475 6 10	1475 6 9	4654 7 *f* 2	1610 7 *f* 2 *f*	1610 7 *f* 2 *f*	1680 8 *f* 2 *f*
569477	70 57 1 *f* 29	2 8	569492.996631	4660 11 27	1481 11 29	1481 11 28	4660 11 *f* 29	1616 11 *f* 28 *t*	1616 11 *f* 29 *f*	1687 1 *f* 29 *f*
601716	72 25 4 *t* 20	1 3	601727.342101	4749 3 1	1570 3 3	1570 3 2	4749 3 *f* 20	1705 3 *f* 20 *f*	1705 3 *f* 20 *f*	1775 4 *f* 20 *f*
613424	72 57 6 *f* 5	9 11	613446.520844	4781 3 21	1602 3 22	1602 3 22	4781 4 *f* 4	1737 4 *f* 4 *f*	1737 4 *f* 5 *f*	1807 6 *t* 4 *f*
626596	73 33 6 *f* 6	1 7	626626.467423	4817 4 13	1638 4 13	1638 4 13	4817 5 *f* 6	1773 5 *f* 6 *f*	1773 5 *f* 6 *f*	1843 6 *f* 6 *f*
645554	74 25 5 *f* 5	9 5	645556.325334	4869 3 8	1690 3 10	1690 3 9	4869 4 *f* 5	1825 4 *f* 5 *f*	1825 4 *f* 5 *f*	1895 5 *f* 5 *f*
664224	75 16 6 *f* 12	9 3	664246.376294	4920 4 20	1741 4 20	1741 4 20	4920 5 *f* 12	1876 5 *f* 11 *f*	1876 5 *f* 11 *f*	1946 6 *f* 11 *f*
671401	75 36 2 *f* 13	6 4	671426.124336	4939 12 13	1760 12 16	1760 12 15	4940 1 *t* 13	1896 1 *f* 13 *f*	1896 1 *f* 13 *f*	1966 2 *f* 13 *f*
694799	76 40 3 *f* 22	4 2	694801.614262	5004 1 4	1825 1 7	1825 1 7	5004 1 *f* 23	1960 1 *f* 22 *f*	1960 1 *f* 22 *f*	2030 2 *f* 22 *f*
704424	77 6 7 *f* 21	9 3	704453.869487	5030 5 11	1851 5 10	1851 5 10	5030 5 *f* 21	1986 5 *f* 20 *f*	1986 5 *f* 20 *f*	2056 7 *f* 20 *f*
708842	77 18 8 *f* 9	7 5	708867.143728	5042 6 15	1863 6 14	1863 6 14	5042 7 *f* 9	1998 7 *f* 9 *f*	1998 7 *f* 9 *f*	2068 8 *f* 9 *f*
709409	77 20 3 *f* 15	4 8	709411.313394	5044 1 4	1865 1 7	1865 1 6	5044 1 *f* 15	2000 1 *f* 14 *f*	2000 1 *f* 14 *f*	2070 3 *t* 14 *f*
709580	77 20 9 *f* 9	5 11	709597.630490	5044 6 23	1865 6 21	1865 6 21	5044 7 *f* 9	2000 7 *f* 8 *f*	2000 7 *f* 8 *f*	2070 8 *f* 8 *f*
727274	78 9 2 *f* 14	9 5	727277.699910	5092 12 2	1913 12 4	1913 12 4	5092 12 *f* 14	2048 12 *f* 14 *f*	2048 12 *f* 14 *f*	2119 1 *f* 14 *f*
728714	78 13 1 *f* 7	9 5	728738.668683	5096 11 11	1917 11 13	1917 11 13	5096 12 *f* 7	2052 12 *f* 7 *f*	2052 12 *f* 7 *f*	2123 1 *f* 7 *f*
744313	78 55 10 *f* 14	8 4	744325.563213	5139 7 26	1960 7 24	1960 7 25	5139 8 *f* 14	2095 8 *f* 14 *f*	2095 8 *f* 14 *f*	2165 9 *f* 14 *f*
764652	79 51 6 *f* 7	7 3	764656.564371	5195 4 2	2016 4 2	2016 4 2	5195 4 *f* 6	2151 4 *f* 6 *f*	2151 4 *f* 6 *f*	2221 6 *f* 6 *f*
Function	(19.16)	(19.24)	(19.4)	(10.8)	(20.20)	(20.45)	(10.13)	(20.23)	(20.48)	(21.5)
Page	317	320	308	159	347	360	165	349	361	378

R.D.	Ephemeris Correction	Equation of Time	Solar Longitude at 12:00:00 U.T. (Degrees)	Next Solstice/Equinox (R.D.)	Dawn in Paris 48.84° N, 2.34° E, 27m (Standard Time)	Midday in Tehran 21.42° N, 39.82° E, 298m (Standard Time)	Sunset in Jerusalem 31.8° N, 35.2° E, 800m (Standard Time)
−214193	0.214169	−0.001190	119.473431	−214131.147334	0.095285 = 02:17:13	0.504216 = 12:06:04	0.780556 = 18:44:00
−61387	0.143632	0.003159	254.248961	−61371.053052	0.277372 = 06:39:25	0.499952 = 11:59:56	0.697324 = 16:44:09
25469	0.114444	0.005373	181.435996	25556.789090	0.203569 = 04:53:08	0.497556 = 11:56:29	0.734889 = 17:38:14
49217	0.107183	0.006791	188.663922	49297.584568	0.212231 = 05:05:37	0.496143 = 11:54:27	0.728514 = 17:29:04
171307	0.069498	−0.007231	289.091566	171378.539292	0.286370 = 06:52:22	0.510331 = 12:14:53	0.708788 = 17:00:39
210155	0.057506	0.004410	59.119741	210187.908137	0.096280 = 02:18:39	0.498595 = 11:57:59	0.774201 = 18:34:51
253427	0.044758	0.009897	228.314554	253468.413001	0.253730 = 06:05:22	0.493137 = 11:50:07	0.700877 = 16:49:16
369740	0.017397	0.001987	34.460769	369798.559125	0.149472 = 03:35:14	0.500958 = 12:01:23	0.762736 = 18:18:20
400085	0.012796	0.003478	63.187995	400113.618511	0.088486 = 02:07:25	0.499538 = 11:59:20	0.776777 = 18:38:34
434355	0.008869	−0.004947	2.457591	434446.328561	0.209217 = 05:01:16	0.507865 = 12:11:20	0.748088 = 17:57:15
452605	0.007262	−0.007588	350.475934	452615.134851	0.228552 = 05:29:07	0.510516 = 12:15:09	0.742536 = 17:49:15
470160	0.005979	−0.002369	13.498220	470240.017391	0.189859 = 04:33:24	0.505289 = 12:07:37	0.753102 = 18:04:28
473837	0.005740	0.002140	37.403920	473892.432571	0.143920 = 03:27:15	0.500814 = 12:01:10	0.764402 = 18:20:44
507850	0.003875	0.001195	81.028130	507859.911980	**bogus**	0.501853 = 12:02:40	0.784041 = 18:49:01
524156	0.003157	−0.010356	313.860498	524202.622400	0.272361 = 06:32:12	0.513383 = 12:19:16	0.722535 = 17:20:27
544676	0.002393	−0.001013	19.954430	544749.318739	0.178067 = 04:16:25	0.503941 = 12:05:41	0.756134 = 18:08:50
567118	0.001731	0.004277	176.059431	567122.512168	0.196839 = 04:43:27	0.498637 = 11:58:02	0.739658 = 17:45:06
569477	0.001669	−0.008429	344.922951	569692.673245	0.236578 = 05:40:40	0.511368 = 12:16:22	0.739663 = 17:45:07
601716	0.000615	0.000943	79.964921	601727.018725	0.045748 = 01:05:53	0.502105 = 12:03:02	0.784057 = 18:49:03
613424	0.000177	−0.002039	99.302317	613508.259061	**bogus**	0.505088 = 12:07:20	0.787086 = 18:53:24
626596	0.000101	−0.004076	121.535304	626656.970915	0.105595 = 02:32:03	0.507082 = 12:10:12	0.781969 = 18:46:02
645554	0.000171	−0.000541	88.567428	645556.001954	**bogus**	0.503594 = 12:05:11	0.786308 = 18:52:17
664224	0.000136	−0.004143	129.289884	664276.907718	0.122462 = 02:56:21	0.507129 = 12:10:16	0.778132 = 18:40:31
671401	0.000061	−0.004008	6.146910	671488.166885	0.202856 = 04:52:07	0.506931 = 12:09:59	0.749687 = 17:59:33
694799	0.000014	0.000392	28.251993	694863.628311	0.162579 = 03:54:07	0.502551 = 12:03:40	0.760231 = 18:14:44
704424	0.000276	−0.001555	151.780633	704453.536160	0.163289 = 03:55:08	0.504488 = 12:06:28	0.761909 = 18:17:09
708842	0.000296	0.006529	185.945867	708926.239052	0.208698 = 05:00:32	0.496387 = 11:54:48	0.730647 = 17:32:08
709409	0.000302	0.000427	28.555607	709473.300039	0.162020 = 03:53:19	0.502516 = 12:03:37	0.760390 = 18:14:58
709580	0.000302	0.008180	193.347892	709656.728163	0.216912 = 05:12:21	0.494746 = 11:52:26	0.724012 = 17:22:35
727274	0.000675	−0.005843	357.151254	727277.366581	0.217687 = 05:13:28	0.508771 = 12:12:38	0.745361 = 17:53:19
728714	0.000712	−0.009214	336.170692	728738.335351	0.247980 = 05:57:06	0.512176 = 12:17:32	0.734750 = 17:38:02
744313	0.000963	0.011238	228.184879	744354.792807	0.251890 = 06:02:43	0.491786 = 11:48:10	0.699821 = 16:47:45
764652	0.002913	−0.004466	116.439352	764718.468836	0.094955 = 02:16:44	0.507483 = 12:10:47	0.784480 = 18:49:39
Function	(14.15)	(14.20)	(14.33)	(14.36)	(14.72)	(14.26)	(14.77)
Page	210	215	223	224	241	218	242

| | Lunar Position at 00:00:00 U.T. | | | Next | In Mecca (21.42° N, 39.82° E, 298m) | |
| | Longitude | Latitude | Altitude | New Moon | Moonrise | Moonset |
R.D.	(Degrees)	(Degrees)	(Degrees)	(R.D.)	(Standard Time)	(Standard Time)
−214193	244.853905	2.452759	−13.163184	−214174.605828	0.645260 = 15:29:10	0.084225 = 02:01:17
−61387	208.856738	−4.902230	−7.281426	−61382.995328	0.146650 = 03:31:11	0.627607 = 15:03:45
25469	213.746842	−2.939469	−77.149900	25495.809776	0.365595 = 08:46:27	0.842646 = 20:13:25
49217	292.046243	5.001904	−30.401178	49238.502448	0.582553 = 13:58:53	0.030307 = 00:43:39
171307	156.819014	−3.208909	71.848578	171318.435313	0.926722 = 22:14:29	0.419886 = 10:04:38
210155	108.055632	0.894361	−43.798579	210180.691849	0.391565 = 09:23:51	0.965784 = 23:10:44
253427	39.356097	−3.863335	40.653204	253442.859367	0.737227 = 17:41:36	0.252852 = 06:04:06
369740	98.565851	−2.522444	−40.278725	369763.746413	0.434271 = 10:25:21	**bogus**
400085	332.958296	1.032069	29.611156	400091.578343	0.028119 = 00:40:30	0.528119 = 12:40:30
434355	92.259651	3.005689	−19.973178	434376.578106	0.501712 = 12:02:28	0.052493 = 01:15:35
452605	78.132029	1.613843	−23.740743	452627.191972	0.494050 = 11:51:26	0.037996 = 00:54:43
470160	274.946995	4.766741	30.956688	470167.578360	0.013196 = 00:19:00	0.493177 = 11:50:11
473837	128.362844	4.899203	−18.888690	473858.853276	0.519306 = 12:27:48	0.060322 = 01:26:52
507850	89.518450	4.838474	−32.161162	507878.666842	0.259826 = 06:14:09	0.856017 = 20:32:40
524156	24.607322	2.301475	−45.680919	524179.247062	0.452190 = 10:51:09	**bogus**
544676	53.485956	−0.890563	−50.292110	544702.753873	0.343276 = 08:14:19	0.908706 = 21:48:32
567118	187.898520	4.765784	−54.345305	567146.513181	0.300431 = 07:12:37	0.818509 = 19:37:56
569477	320.172362	−2.737358	−34.566000	569479.203258	0.231763 = 05:33:44	0.714185 = 17:08:26
601716	314.042566	−4.035652	44.131989	601727.033557	0.973015 = 23:21:09	0.416862 = 10:00:17
613424	145.474065	−3.157214	−57.539862	613449.762129	0.394417 = 09:27:58	0.932503 = 22:22:48
626596	185.030507	−1.879614	−62.082439	626620.369801	0.450518 = 10:48:45	0.956378 = 22:57:11
645554	142.189132	−3.379519	−54.072091	645579.076748	0.416008 = 09:59:03	0.952629 = 22:51:47
664224	253.743375	−4.398341	−16.120452	664242.886718	0.657391 = 15:46:39	0.070965 = 01:42:11
671401	151.648685	2.099198	23.864594	671418.970538	0.686259 = 16:28:13	0.200419 = 04:48:36
694799	287.987743	5.268746	32.950146	694807.563371	0.008243 = 00:11:52	0.489200 = 11:44:27
704424	25.626707	−1.672299	72.691651	704433.491182	0.916779 = 22:00:10	0.429962 = 10:19:09
708842	290.288300	4.682012	−29.849481	708863.597000	0.586590 = 14:04:41	0.031414 = 00:45:14
709409	189.913142	3.705518	31.610644	709424.404929	0.742587 = 17:49:20	0.224521 = 05:23:19
709580	284.931730	2.493964	−42.219689	709602.082686	0.555246 = 13:19:33	**bogus**
727274	152.339044	−4.167774	28.647809	727291.209400	0.719220 = 17:15:41	0.214825 = 05:09:21
728714	51.662265	−2.873757	−38.950553	728737.447691	0.466211 = 11:11:21	**bogus**
744313	26.682060	−4.667251	27.601977	744329.573999	0.705999 = 16:56:38	0.211858 = 05:05:05
764652	175.500822	5.138562	−54.854681	764676.191273	0.436806 = 10:29:00	0.963174 = 23:06:58
Function	(14.48)	(14.63)	(14.64)	(14.47)	(14.83)	(14.84)
Page	232	236	237	231	244	245

Holiday	Func., page	2000	2001	2002	2003	2004	2005	2006	2007
Advent Sunday	(2.42), 70	12/3	12/2	12/1	11/30	11/28	11/27	12/3	12/2
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	10/28	10/18	11/6	10/26	10/15	11/3	10/23	11/11
Birthday of Rama	(20.61), 369	4/12	4/2	4/21	4/10	3/30	4/17	4/6	3/27
Chinese New Year	(19.26), 322	2/5	1/24	2/12	2/1	1/22	2/9	1/29	2/18
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	10/28	11/16	11/5	10/26	11/13	11/2	10/23	11/10
Dragon Festival	(19.27), 324	6/6	6/25	6/15	6/4	6/22	6/11	5/31	6/19
Easter	(9.3), 148	4/23	4/15	3/31	4/20	4/11	3/27	4/16	4/8
Easter (Astronomical)	(18.9), 292	4/23	4/15	3/31	4/20	4/11	3/27	4/16	4/8
Easter (Orthodox)	(9.1), 146	4/30	4/15	5/5	4/27	4/11	5/1	4/23	4/8
Epiphany	(2.43), 71	1/2	1/7	1/6	1/5	1/4	1/2	1/8	1/7
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/21	3/21	3/20	3/20	3/21	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/21	4/21	4/20	4/20	4/21	4/21
Friday the 13th (first)	(2.45), 71	10/13	4/13	9/13	6/13	2/13	5/13	1/13	4/13
Great Night of Shiva	(20.60), 369	3/4	2/21	3/12	3/1	2/18	3/8	2/26	2/16
Hanukkah (first day)	(8.43), 134	12/22	12/10	11/30	12/20	12/8	12/26	12/16	12/5
Hindu Lunar New Year	(20.53), 365	4/5	3/25	4/13	4/2	3/21	4/9	3/30	3/19
Icelandic Summer	(6.2), 100	4/20	4/19	4/25	4/24	4/22	4/21	4/20	4/19
Icelandic Winter	(6.3), 100	10/21	10/27	10/26	10/25	10/23	10/22	10/21	10/27
Kajeng Keliwon (first)	(12.16), 190	1/15	1/9	1/4	1/14	1/9	1/3	1/13	1/8
Losar	(21.9), 381	2/6	2/24	2/13	3/3	2/21	2/9	2/28	2/18
Mawlid	(7.6), 109	6/15	6/4	5/24	5/14	5/2	4/21	4/11	3/31
Mesha Saṃkrānti (date)	(20.51), 364	4/13	4/14	4/14	4/14	4/13	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/21	3/21	3/21	3/20	3/21	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/8	3/27	3/16	4/4	3/23	3/12	3/31	3/21
Passover	(8.31), 129	4/20	4/8	3/28	4/17	4/6	4/24	4/13	4/3
Passover Eve (Classical)	(18.25), 298	3/21	4/9	3/29	4/17	4/5	3/25	4/13	4/3
Pentecost	(9.4), 152	6/11	6/3	5/19	6/8	5/30	5/15	6/4	5/27
Purim	(8.33), 129	3/21	3/9	2/26	3/18	3/7	3/25	3/14	3/4
Qīngmíng	(19.28), 324	4/4	4/5	4/5	4/5	4/4	4/5	4/5	4/5
Sacred Wednesday (first)	(20.65), 370	4/12	1/3	2/20	12/31	4/28	2/16	8/2	9/19
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/20	3/8	2/25	3/17	3/4	3/24	3/13	3/1
Tishah be-Av	(8.35), 130	8/10	7/29	7/18	8/7	7/27	8/14	8/3	7/24
Tumpek (first)	(12.17), 190	1/15	2/3	1/19	1/4	1/24	1/8	1/28	1/13
U.S. Daylight Saving End	(2.40), 70	11/5	11/4	11/3	11/2	11/7	11/6	11/5	11/4
U.S. Daylight Saving Start	(2.39), 70	3/12	3/11	3/10	3/9	3/14	3/13	3/12	3/11
U.S. Election Day	(2.38), 70	11/7	11/6	11/5	11/4	11/2	11/8	11/7	11/6
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/4	9/3	9/2	9/1	9/6	9/5	9/4	9/3
U.S. Memorial Day	(2.37), 70	5/29	5/28	5/27	5/26	5/31	5/30	5/29	5/28
Yom ha-Zikkaron	(8.36), 131	5/9	4/25	4/16	5/6	4/26	5/11	5/2	4/23
Yom Kippur	(8.30), 128	10/9	9/27	9/16	10/6	9/25	10/13	10/2	9/22

Holiday	Func., page	2008	2009	2010	2011	2012	2013	2014	2015
Advent Sunday	(2.42), 70	11/30	11/29	11/28	11/27	12/2	12/1	11/30	11/29
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	4/8	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	10/30	10/19	11/7	10/28	10/16	11/4	10/25	11/13
Birthday of Rama	(20.61), 369	4/14	4/3	3/24	4/12	3/31	4/19	4/8	3/28
Chinese New Year	(19.26), 322	2/7	1/26	2/14	2/3	1/23	2/10	1/31	2/19
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	10/29	10/19	11/7	10/27	11/14	11/4	10/24	11/12
Dragon Festival	(19.27), 324	6/8	5/28	6/16	6/6	6/23	6/12	6/2	6/20
Easter	(9.3), 148	3/23	4/12	4/4	4/24	4/8	3/31	4/20	4/5
Easter (Astronomical)	(18.9), 292	3/23	4/12	4/4	4/24	4/8	3/31	4/20	4/5
Easter (Orthodox)	(9.1), 146	4/27	4/19	4/4	4/24	4/15	5/5	4/20	4/12
Epiphany	(2.43), 71	1/6	1/4	1/3	1/2	1/8	1/6	1/5	1/4
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/21	3/21	3/20	3/20	3/21	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/21	4/21	4/20	4/20	4/21	4/21
Friday the 13th (first)	(2.45), 71	6/13	2/13	8/13	5/13	1/13	9/13	6/13	2/13
Great Night of Shiva	(20.60), 369	3/5	2/23	2/12	3/2	2/20	3/10	2/27	2/17
Hanukkah (first day)	(8.43), 134	12/22	12/12	12/2	12/21	12/9	11/28	12/17	12/7
Hindu Lunar New Year	(20.53), 365	4/7	3/27	3/16	4/4	3/23	4/11	3/31	3/21
Icelandic Summer	(6.2), 100	4/24	4/23	4/22	4/21	4/19	4/25	4/24	4/23
Icelandic Winter	(6.3), 100	10/25	10/24	10/23	10/22	10/27	10/26	10/25	10/24
Kajeng Keliwon (first)	(12.16), 190	1/3	1/12	1/7	1/2	1/12	1/6	1/1	1/11
Losar	(21.9), 381	2/7	2/25	2/14	3/5	2/22	2/11	3/2	2/19
Mawlid	(7.6), 109	3/20	3/9	2/26	2/16	2/5	1/24	1/14	1/3
Mesha Saṃkrānti (date)	(20.51), 364	4/13	4/14	4/14	4/14	4/13	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/21	3/21	3/21	3/20	3/21	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/9	3/28	3/18	3/7	3/24	3/13	4/1	3/22
Passover	(8.31), 129	4/20	4/9	3/30	4/19	4/7	3/26	4/15	4/4
Passover Eve (Classical)	(18.25), 298	3/22	4/10	3/31	3/20	4/6	3/26	4/14	4/4
Pentecost	(9.4), 152	5/11	5/31	5/23	6/12	5/27	5/19	6/8	5/24
Purim	(8.33), 129	3/21	3/10	2/28	3/20	3/8	2/24	3/16	3/5
Qīngmíng	(19.28), 324	4/4	4/4	4/5	4/5	4/4	4/4	4/5	4/5
Sacred Wednesday (first)	(20.65), 370	1/16	3/4	9/15	1/12	6/27	3/20	1/8	6/24
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/20	3/9	2/25	3/17	3/7	2/21	3/13	3/4
Tishah be-Av	(8.35), 130	8/10	7/30	7/20	8/9	7/29	7/16	8/5	7/26
Tumpek (first)	(12.17), 190	2/2	1/17	1/2	1/22	1/7	1/26	1/11	1/31
U.S. Daylight Saving End	(2.40), 70	11/2	11/1	11/7	11/6	11/4	11/3	11/2	11/1
U.S. Daylight Saving Start	(2.39), 70	3/9	3/8	3/14	3/13	3/11	3/10	3/9	3/8
U.S. Election Day	(2.38), 70	11/4	11/3	11/2	11/8	11/6	11/5	11/4	11/3
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/1	9/7	9/6	9/5	9/3	9/2	9/1	9/7
U.S. Memorial Day	(2.37), 70	5/26	5/25	5/31	5/30	5/28	5/27	5/26	5/25
Yom ha-Zikkaron	(8.36), 131	5/7	4/28	4/19	5/9	4/25	4/15	5/5	4/22
Yom Kippur	(8.30), 128	10/9	9/28	9/18	10/8	9/26	9/14	10/4	9/23

Holiday	Func., page	2016	2017	2018	2019	2020	2021	2022	2023
Advent Sunday	(2.42), 70	11/27	12/3	12/2	12/1	11/29	11/28	11/27	12/3
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/1	10/21	11/9	10/29	10/18	11/6	10/26	10/16
Birthday of Rama	(20.61), 369	4/15	4/5	3/25	4/13	4/2	4/21	4/10	3/30
Chinese New Year	(19.26), 322	2/8	1/28	2/16	2/5	1/25	2/12	2/1	1/22
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	10/31	10/20	11/8	10/29	11/16	11/5	10/26	11/14
Dragon Festival	(19.27), 324	6/9	5/30	6/18	6/7	6/25	6/14	6/3	6/22
Easter	(9.3), 148	3/27	4/16	4/1	4/21	4/12	4/4	4/17	4/9
Easter (Astronomical)	(18.9), 292	3/27	4/16	4/1	3/24	4/12	4/4	4/17	4/9
Easter (Orthodox)	(9.1), 146	5/1	4/16	4/8	4/28	4/19	5/2	4/24	4/16
Epiphany	(2.43), 71	1/3	1/8	1/7	1/6	1/5	1/3	1/2	1/8
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/21	3/21	3/20	3/20	3/21	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/21	4/21	4/20	4/20	4/21	4/21
Friday the 13th (first)	(2.45), 71	5/13	1/13	4/13	9/13	3/13	8/13	5/13	1/13
Great Night of Shiva	(20.60), 369	3/7	2/24	2/13	3/4	2/21	3/11	3/1	2/18
Hanukkah (first day)	(8.43), 134	12/25	12/13	12/3	12/23	12/11	11/29	12/19	12/8
Hindu Lunar New Year	(20.53), 365	4/8	3/29	3/18	4/6	3/25	4/13	4/2	3/22
Icelandic Summer	(6.2), 100	4/21	4/20	4/19	4/25	4/23	4/22	4/21	4/20
Icelandic Winter	(6.3), 100	10/22	10/21	10/27	10/26	10/24	10/23	10/22	10/28
Kajeng Keliwon (first)	(12.16), 190	1/6	1/15	1/10	1/5	1/15	1/9	1/4	1/14
Losar	(21.9), 381	2/9	2/27	2/16	2/5	2/24	2/12	3/3	2/21
Mawlid	(7.6), 109	12/12	12/1	11/21	11/10	10/29	10/19	10/8	9/27
Mesha Saṃkrānti (date)	(20.51), 364	4/13	4/14	4/14	4/14	4/13	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/21	3/21	3/21	3/20	3/21	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/11	3/30	3/19	3/8	3/26	3/15	4/3	3/23
Passover	(8.31), 129	4/23	4/11	3/31	4/20	4/9	3/28	4/16	4/6
Passover Eve (Classical)	(18.25), 298	3/24	4/12	4/1	3/21	4/8	3/28	4/16	4/5
Pentecost	(9.4), 152	5/15	6/4	5/20	6/9	5/31	5/23	6/5	5/28
Purim	(8.33), 129	3/24	3/12	3/1	3/21	3/10	2/26	3/17	3/7
Qīngmíng	(19.28), 324	4/4	4/4	4/5	4/5	4/4	4/4	4/5	4/5
Sacred Wednesday (first)	(20.65), 370	3/16	5/3	10/17	2/13	4/1	10/13	2/9	3/29
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/23	3/9	2/28	3/20	3/9	2/25	3/16	3/6
Tishah be-Av	(8.35), 130	8/14	8/1	7/22	8/11	7/30	7/18	8/7	7/27
Tumpek (first)	(12.17), 190	1/16	2/4	1/20	1/5	1/25	1/9	1/29	1/14
U.S. Daylight Saving End	(2.40), 70	11/6	11/5	11/4	11/3	11/1	11/7	11/6	11/5
U.S. Daylight Saving Start	(2.39), 70	3/13	3/12	3/11	3/10	3/8	3/14	3/13	3/12
U.S. Election Day	(2.38), 70	11/8	11/7	11/6	11/5	11/3	11/2	11/8	11/7
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/5	9/4	9/3	9/2	9/7	9/6	9/5	9/4
U.S. Memorial Day	(2.37), 70	5/30	5/29	5/28	5/27	5/25	5/31	5/30	5/29
Yom ha-Zikkaron	(8.36), 131	5/11	5/1	4/18	5/8	4/28	4/14	5/4	4/25
Yom Kippur	(8.30), 128	10/12	9/30	9/19	10/9	9/28	9/16	10/5	9/25

Holiday	Func., page	2024	2025	2026	2027	2028	2029	2030	2031
Advent Sunday	(2.42), 70	12/1	11/30	11/29	11/28	12/3	12/2	12/1	11/30
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/2	10/22	11/10	10/30	10/19	11/7	10/28	10/17
Birthday of Rama	(20.61), 369	4/17	4/6	3/26	4/15	4/3	4/22	4/12	4/1
Chinese New Year	(19.26), 322	2/10	1/29	2/17	2/6	1/26	2/13	2/3	1/23
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/2	10/22	11/10	10/30	11/17	11/7	10/27	11/15
Dragon Festival	(19.27), 324	6/10	5/31	6/19	6/9	5/28	6/16	6/5	6/24
Easter	(9.3), 148	3/31	4/20	4/5	3/28	4/16	4/1	4/21	4/13
Easter (Astronomical)	(18.9), 292	3/31	4/20	4/5	3/28	4/16	4/1	4/21	4/13
Easter (Orthodox)	(9.1), 146	5/5	4/20	4/12	5/2	4/16	4/8	4/28	4/13
Epiphany	(2.43), 71	1/7	1/5	1/4	1/3	1/2	1/7	1/6	1/5
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/21	4/20	4/20	4/20	4/21
Friday the 13th (first)	(2.45), 71	9/13	6/13	2/13	8/13	10/13	4/13	9/13	6/13
Great Night of Shiva	(20.60), 369	3/8	2/26	2/15	3/6	2/23	2/11	3/2	2/20
Hanukkah (first day)	(8.43), 134	12/26	12/15	12/5	12/25	12/13	12/2	12/21	12/10
Hindu Lunar New Year	(20.53), 365	4/9	3/30	3/19	4/7	3/27	3/16	4/3	3/24
Icelandic Summer	(6.2), 100	4/25	4/24	4/23	4/22	4/20	4/19	4/25	4/24
Icelandic Winter	(6.3), 100	10/26	10/25	10/24	10/23	10/21	10/27	10/26	10/25
Kajeng Keliwon (first)	(12.16), 190	1/9	1/3	1/13	1/8	1/3	1/12	1/7	1/2
Losar	(21.9), 381	2/10	2/28	2/18	2/7	2/26	2/14	3/5	2/22
Mawlid	(7.6), 109	9/16	9/5	8/26	8/15	8/3	7/24	7/13	7/2
Mesha Saṃkrānti (date)	(20.51), 364	4/13	4/14	4/14	4/14	4/13	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/21	3/21	3/21	3/20	3/20	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/12	3/31	3/21	3/10	3/28	3/17	3/6	3/25
Passover	(8.31), 129	4/23	4/13	4/2	4/22	4/11	3/31	4/18	4/8
Passover Eve (Classical)	(18.25), 298	3/25	4/13	4/3	3/23	4/10	3/30	3/19	4/7
Pentecost	(9.4), 152	5/19	6/8	5/24	5/16	6/4	5/20	6/9	6/1
Purim	(8.33), 129	3/24	3/14	3/3	3/23	3/12	3/1	3/19	3/9
Qīngmíng	(19.28), 324	4/4	4/4	4/5	4/5	4/4	4/4	4/5	4/5
Sacred Wednesday (first)	(20.65), 370	9/11	2/5	7/22	4/14	1/5	2/21	8/7	1/1
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/21	3/13	3/2	3/22	3/9	2/28	3/18	3/6
Tishah be-Av	(8.35), 130	8/13	8/3	7/23	8/12	8/1	7/22	8/8	7/29
Tumpek (first)	(12.17), 190	2/3	1/18	1/3	1/23	1/8	1/27	1/12	2/1
U.S. Daylight Saving End	(2.40), 70	11/3	11/2	11/1	11/7	11/5	11/4	11/3	11/2
U.S. Daylight Saving Start	(2.39), 70	3/10	3/9	3/8	3/14	3/12	3/11	3/10	3/9
U.S. Election Day	(2.38), 70	11/5	11/4	11/3	11/2	11/7	11/6	11/5	11/4
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/2	9/1	9/7	9/6	9/4	9/3	9/2	9/1
U.S. Memorial Day	(2.37), 70	5/27	5/26	5/25	5/31	5/29	5/28	5/27	5/26
Yom ha-Zikkaron	(8.36), 131	5/13	4/30	4/21	5/11	5/1	4/18	5/7	4/28
Yom Kippur	(8.30), 128	10/12	10/2	9/21	10/11	9/30	9/19	10/7	9/27

Holiday	Func., page	2032	2033	2034	2035	2036	2037	2038	2039
Advent Sunday	(2.42), 70	11/28	11/27	12/3	12/2	11/30	11/29	11/28	11/27
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	4/8	*none*	*none*
Birth of the Bāb	(16.13), 278	11/4	10/24	11/12	11/1	10/20	11/8	10/29	10/19
Birthday of Rama	(20.61), 369	4/18	4/8	3/28	4/16	4/5	3/25	4/13	4/2
Chinese New Year	(19.26), 322	2/11	1/31	2/19	2/8	1/28	2/15	2/4	1/24
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/4	10/24	11/11	11/1	10/20	11/8	10/29	11/17
Dragon Festival	(19.27), 324	6/12	6/1	6/20	6/10	5/30	6/18	6/7	5/27
Easter	(9.3), 148	3/28	4/17	4/9	3/25	4/13	4/5	4/25	4/10
Easter (Astronomical)	(18.9), 292	3/28	4/17	4/9	3/25	4/13	4/5	3/28	4/10
Easter (Orthodox)	(9.1), 146	5/2	4/24	4/9	4/29	4/20	4/5	4/25	4/17
Epiphany	(2.43), 71	1/4	1/2	1/8	1/7	1/6	1/4	1/3	1/2
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/21	4/20	4/20	4/20	4/21
Friday the 13th (first)	(2.45), 71	2/13	5/13	1/13	4/13	6/13	2/13	8/13	5/13
Great Night of Shiva	(20.60), 369	3/10	2/27	2/17	3/8	2/25	2/13	3/4	2/21
Hanukkah (first day)	(8.43), 134	11/28	12/17	12/7	12/26	12/14	12/3	12/22	12/12
Hindu Lunar New Year	(20.53), 365	4/11	3/31	3/21	4/9	3/28	3/17	4/5	3/25
Icelandic Summer	(6.2), 100	4/22	4/21	4/20	4/19	4/24	4/23	4/22	4/21
Icelandic Winter	(6.3), 100	10/23	10/22	10/21	10/27	10/25	10/24	10/23	10/22
Kajeng Keliwon (first)	(12.16), 190	1/12	1/6	1/1	1/11	1/6	1/15	1/10	1/5
Losar	(21.9), 381	2/12	3/2	2/19	2/9	2/27	2/15	3/6	2/23
Mawlid	(7.6), 109	6/21	6/10	5/30	5/20	5/8	4/28	4/17	4/6
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/14	4/14	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/20	3/21	3/21	3/20	3/20	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/13	4/1	3/22	3/12	3/30	3/19	3/8	3/26
Passover	(8.31), 129	3/27	4/14	4/4	4/24	4/12	3/31	4/20	4/9
Passover Eve (Classical)	(18.25), 298	3/26	4/14	4/4	3/25	4/12	4/1	3/21	4/8
Pentecost	(9.4), 152	5/16	6/5	5/28	5/13	6/1	5/24	6/13	5/29
Purim	(8.33), 129	2/26	3/15	3/5	3/25	3/13	3/1	3/21	3/10
Qīngmíng	(19.28), 324	4/4	4/4	4/5	4/5	4/4	4/4	4/5	4/5
Sacred Wednesday (first)	(20.65), 370	2/18	8/3	4/26	1/17	7/30	3/25	1/13	6/29
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	2/25	3/14	3/2	3/22	3/12	2/26	3/18	3/9
Tishah be-Av	(8.35), 130	7/18	8/4	7/25	8/14	8/3	7/21	8/10	7/31
Tumpek (first)	(12.17), 190	1/17	1/1	1/21	1/6	1/26	1/10	1/30	1/15
U.S. Daylight Saving End	(2.40), 70	11/7	11/6	11/5	11/4	11/2	11/1	11/7	11/6
U.S. Daylight Saving Start	(2.39), 70	3/14	3/13	3/12	3/11	3/9	3/8	3/14	3/13
U.S. Election Day	(2.38), 70	11/2	11/8	11/7	11/6	11/4	11/3	11/2	11/8
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/6	9/5	9/4	9/3	9/1	9/7	9/6	9/5
U.S. Memorial Day	(2.37), 70	5/31	5/30	5/29	5/28	5/26	5/25	5/31	5/30
Yom ha-Zikkaron	(8.36), 131	4/14	5/3	4/24	5/14	4/30	4/20	5/10	4/27
Yom Kippur	(8.30), 128	9/15	10/3	9/23	10/13	10/1	9/19	10/9	9/28

Holiday	Func., page	2040	2041	2042	2043	2044	2045	2046	2047
Advent Sunday	(2.42), 70	12/2	12/1	11/30	11/29	11/27	12/3	12/2	12/1
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/6	10/26	10/15	11/3	10/22	11/10	10/30	10/20
Birthday of Rama	(20.61), 369	4/20	4/9	3/29	4/17	4/6	3/27	4/15	4/4
Chinese New Year	(19.26), 322	2/12	2/1	1/22	2/10	1/30	2/17	2/6	1/26
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/5	10/25	11/13	11/2	10/21	11/9	10/30	10/20
Dragon Festival	(19.27), 324	6/14	6/3	6/22	6/11	5/31	6/19	6/8	5/29
Easter	(9.3), 148	4/1	4/21	4/6	3/29	4/17	4/9	3/25	4/14
Easter (Astronomical)	(18.9), 292	4/1	4/21	4/6	3/29	4/17	4/2	3/25	4/14
Easter (Orthodox)	(9.1), 146	5/6	4/21	4/13	5/3	4/24	4/9	4/29	4/21
Epiphany	(2.43), 71	1/8	1/6	1/5	1/4	1/3	1/8	1/7	1/6
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/21	4/20	4/20	4/20	4/21
Friday the 13th (first)	(2.45), 71	1/13	9/13	6/13	2/13	5/13	1/13	4/13	9/13
Great Night of Shiva	(20.60), 369	3/11	3/1	2/18	3/9	2/27	2/15	3/5	2/22
Hanukkah (first day)	(8.43), 134	11/30	12/18	12/8	12/27	12/15	12/4	12/24	12/13
Hindu Lunar New Year	(20.53), 365	4/12	4/1	3/22	4/10	3/30	3/19	4/7	3/27
Icelandic Summer	(6.2), 100	4/19	4/25	4/24	4/23	4/21	4/20	4/19	4/25
Icelandic Winter	(6.3), 100	10/27	10/26	10/25	10/24	10/22	10/21	10/27	10/26
Kajeng Keliwon (first)	(12.16), 190	1/15	1/9	1/4	1/14	1/9	1/3	1/13	1/8
Losar	(21.9), 381	2/13	3/3	2/21	2/10	2/29	2/17	2/6	2/25
Mawlid	(7.6), 109	3/26	3/15	3/4	2/22	2/11	1/31	1/20	1/9
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/14	4/14	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/20	3/21	3/21	3/20	3/20	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/15	4/3	3/23	3/13	3/31	3/20	3/10	3/28
Passover	(8.31), 129	3/29	4/16	4/5	4/25	4/12	4/2	4/21	4/11
Passover Eve (Classical)	(18.25), 298	3/28	4/16	4/5	3/26	4/13	4/2	3/23	4/10
Pentecost	(9.4), 152	5/20	6/9	5/25	5/17	6/5	5/28	5/13	6/2
Purim	(8.33), 129	2/28	3/17	3/6	3/26	3/13	3/3	3/22	3/12
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/5	4/4	4/4	4/4	4/5
Sacred Wednesday (first)	(20.65), 370	3/21	5/8	1/29	3/18	*none*	5/24	2/14	4/3
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	2/27	3/14	3/5	3/25	3/10	3/2	3/21	3/11
Tishah be-Av	(8.35), 130	7/19	8/6	7/27	8/16	8/2	7/23	8/12	8/1
Tumpek (first)	(12.17), 190	2/4	1/19	1/4	1/24	1/9	1/28	1/13	2/2
U.S. Daylight Saving End	(2.40), 70	11/4	11/3	11/2	11/1	11/6	11/5	11/4	11/3
U.S. Daylight Saving Start	(2.39), 70	3/11	3/10	3/9	3/8	3/13	3/12	3/11	3/10
U.S. Election Day	(2.38), 70	11/6	11/5	11/4	11/3	11/8	11/7	11/6	11/5
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/3	9/2	9/1	9/7	9/5	9/4	9/3	9/2
U.S. Memorial Day	(2.37), 70	5/28	5/27	5/26	5/25	5/30	5/29	5/28	5/27
Yom ha-Zikkaron	(8.36), 131	4/17	5/6	4/23	5/13	5/2	4/19	5/9	4/30
Yom Kippur	(8.30), 128	9/17	10/5	9/24	10/14	10/1	9/21	10/10	9/30

Holiday	Func., page	2048	2049	2050	2051	2052	2053	2054	2055
Advent Sunday	(2.42), 70	11/29	11/28	11/27	12/3	12/1	11/30	11/29	11/28
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/7	10/28	10/17	11/5	10/24	11/11	11/1	10/21
Birthday of Rama	(20.61), 369	4/22	4/11	3/31	4/19	4/7	3/28	4/16	4/6
Chinese New Year	(19.26), 322	2/14	2/2	1/23	2/11	2/1	2/19	2/8	1/28
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/7	10/27	11/15	11/4	10/23	11/11	10/31	10/21
Dragon Festival	(19.27), 324	6/15	6/4	6/23	6/13	6/1	6/20	6/10	5/30
Easter	(9.3), 148	4/5	4/18	4/10	4/2	4/21	4/6	3/29	4/18
Easter (Astronomical)	(18.9), 292	4/5	4/25	4/10	4/2	4/21	4/6	3/29	4/18
Easter (Orthodox)	(9.1), 146	4/5	4/25	4/17	5/7	4/21	4/13	5/3	4/18
Epiphany	(2.43), 71	1/5	1/3	1/2	1/8	1/7	1/5	1/4	1/3
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/21	4/20	4/20	4/20	4/21
Friday the 13th (first)	(2.45), 71	3/13	8/13	5/13	1/13	9/13	6/13	2/13	8/13
Great Night of Shiva	(20.60), 369	2/12	3/2	2/20	3/11	2/28	2/16	3/7	2/24
Hanukkah (first day)	(8.43), 134	11/30	12/20	12/10	11/29	12/16	12/6	12/26	12/15
Hindu Lunar New Year	(20.53), 365	4/14	4/3	3/23	4/11	3/31	3/21	4/9	3/29
Icelandic Summer	(6.2), 100	4/23	4/22	4/21	4/20	4/25	4/24	4/23	4/22
Icelandic Winter	(6.3), 100	10/24	10/23	10/22	10/28	10/26	10/25	10/24	10/23
Kajeng Keliwon (first)	(12.16), 190	1/3	1/12	1/7	1/2	1/12	1/6	1/1	1/11
Losar	(21.9), 381	2/14	3/4	2/22	2/12	3/2	2/19	2/8	2/27
Mawlid	(7.6), 109	12/18	12/7	11/27	11/16	11/4	10/25	10/14	10/4
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/14	4/14	4/14	4/14	4/14
Nowruz	(15.11), 265	3/20	3/20	3/21	3/21	3/20	3/20	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/16	3/6	3/25	3/14	4/1	3/22	3/11	3/30
Passover	(8.31), 129	3/29	4/17	4/7	3/28	4/14	4/3	4/23	4/13
Passover Eve (Classical)	(18.25), 298	3/29	3/19	4/7	3/27	4/14	4/4	3/24	4/12
Pentecost	(9.4), 152	5/24	6/6	5/29	5/21	6/9	5/25	5/17	6/6
Purim	(8.33), 129	2/28	3/18	3/8	2/26	3/15	3/4	3/24	3/14
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/5	4/4	4/4	4/4	4/5
Sacred Wednesday (first)	(20.65), 370	*none*	2/10	3/30	9/13	*none*	2/26	4/15	1/6
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	2/27	3/17	3/7	2/23	3/14	3/3	3/23	3/11
Tishah be-Av	(8.35), 130	7/19	8/8	7/28	7/18	8/4	7/24	8/13	8/3
Tumpek (first)	(12.17), 190	1/18	1/2	1/22	1/7	1/27	1/11	1/31	1/16
U.S. Daylight Saving End	(2.40), 70	11/1	11/7	11/6	11/5	11/3	11/2	11/1	11/7
U.S. Daylight Saving Start	(2.39), 70	3/8	3/14	3/13	3/12	3/10	3/9	3/8	3/14
U.S. Election Day	(2.38), 70	11/3	11/2	11/8	11/7	11/5	11/4	11/3	11/2
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/7	9/6	9/5	9/4	9/2	9/1	9/7	9/6
U.S. Memorial Day	(2.37), 70	5/25	5/31	5/30	5/29	5/27	5/26	5/25	5/31
Yom ha-Zikkaron	(8.36), 131	4/15	5/5	4/26	4/17	5/1	4/22	5/12	5/3
Yom Kippur	(8.30), 128	9/17	10/6	9/26	9/16	10/3	9/22	10/12	10/2

Holiday	Func., page	2056	2057	2058	2059	2060	2061	2062	2063
Advent Sunday	(2.42), 70	12/3	12/2	12/1	11/30	11/28	11/27	12/3	12/2
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/8	10/29	10/18	11/6	10/25	10/14	11/2	10/23
Birthday of Rama	(20.61), 369	3/25	4/13	4/2	4/21	4/9	3/29	4/17	4/7
Chinese New Year	(19.26), 322	2/15	2/4	1/24	2/12	2/2	1/21	2/9	1/29
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/8	10/29	11/17	11/6	10/25	11/13	11/2	10/22
Dragon Festival	(19.27), 324	6/17	6/6	6/25	6/14	6/3	6/22	6/11	6/1
Easter	(9.3), 148	4/2	4/22	4/14	3/30	4/18	4/10	3/26	4/15
Easter (Astronomical)	(18.9), 292	4/2	3/25	4/14	3/30	4/18	4/10	3/26	4/15
Easter (Orthodox)	(9.1), 146	4/9	4/29	4/14	5/4	4/25	4/10	4/30	4/22
Epiphany	(2.43), 71	1/2	1/7	1/6	1/5	1/4	1/2	1/8	1/7
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/20	4/20	4/20	4/20	4/20
Friday the 13th (first)	(2.45), 71	10/13	4/13	9/13	6/13	2/13	5/13	1/13	4/13
Great Night of Shiva	(20.60), 369	2/13	3/3	2/21	3/12	3/1	2/18	3/9	2/26
Hanukkah (first day)	(8.43), 134	12/3	12/22	12/11	11/30	12/18	12/8	12/27	12/16
Hindu Lunar New Year	(20.53), 365	3/17	4/4	3/25	4/13	4/1	3/22	4/10	3/30
Icelandic Summer	(6.2), 100	4/20	4/19	4/25	4/24	4/22	4/21	4/20	4/19
Icelandic Winter	(6.3), 100	10/21	10/27	10/26	10/25	10/23	10/22	10/21	10/27
Kajeng Keliwon (first)	(12.16), 190	1/6	1/15	1/10	1/5	1/15	1/9	1/4	1/14
Losar	(21.9), 381	2/16	3/6	2/23	2/13	3/3	2/21	2/10	3/1
Mawlid	(7.6), 109	9/22	9/11	9/1	8/21	8/9	7/30	7/19	7/8
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/15	4/14	4/14	4/14	4/15
Nowruz	(15.11), 265	3/20	3/20	3/21	3/21	3/20	3/20	3/20	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/18	3/7	3/26	3/16	4/3	3/23	3/13	4/1
Passover	(8.31), 129	4/1	4/19	4/9	3/29	4/15	4/5	4/25	4/14
Passover Eve (Classical)	(18.25), 298	3/31	3/20	4/8	3/29	4/16	4/5	3/26	4/14
Pentecost	(9.4), 152	5/21	6/10	6/2	5/18	6/6	5/29	5/14	6/3
Purim	(8.33), 129	3/2	3/20	3/10	2/27	3/16	3/6	3/26	3/15
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/5	4/4	4/4	4/4	4/5
Sacred Wednesday (first)	(20.65), 370	2/23	8/8	1/2	6/18	8/4	4/27	1/18	11/28
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/1	3/19	3/7	2/26	3/15	3/3	3/23	3/14
Tishah be-Av	(8.35), 130	7/23	8/9	7/30	7/20	8/5	7/26	8/15	8/5
Tumpek (first)	(12.17), 190	1/1	1/20	1/5	1/25	1/10	1/29	1/14	2/3
U.S. Daylight Saving End	(2.40), 70	11/5	11/4	11/3	11/2	11/7	11/6	11/5	11/4
U.S. Daylight Saving Start	(2.39), 70	3/12	3/11	3/10	3/9	3/14	3/13	3/12	3/11
U.S. Election Day	(2.38), 70	11/7	11/6	11/5	11/4	11/2	11/8	11/7	11/6
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/4	9/3	9/2	9/1	9/6	9/5	9/4	9/3
U.S. Memorial Day	(2.37), 70	5/29	5/28	5/27	5/26	5/31	5/30	5/29	5/28
Yom ha-Zikkaron	(8.36), 131	4/19	5/8	4/29	4/16	5/4	4/25	5/15	5/2
Yom Kippur	(8.30), 128	9/20	10/8	9/28	9/17	10/4	9/24	10/14	10/3

Holiday	Func., page	2064	2065	2066	2067	2068	2069	2070	2071
Advent Sunday	(2.42), 70	11/30	11/29	11/28	11/27	12/2	12/1	11/30	11/29
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	4/8	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/10	10/30	10/20	11/8	10/27	10/16	11/4	10/24
Birthday of Rama	(20.61), 369	3/26	4/14	4/4	4/22	4/10	3/31	4/19	4/8
Chinese New Year	(19.26), 322	2/17	2/5	1/26	2/14	2/3	1/23	2/11	1/31
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/9	10/30	10/19	11/7	10/27	11/14	11/3	10/24
Dragon Festival	(19.27), 324	6/19	6/8	5/28	6/16	6/4	6/23	6/13	6/2
Easter	(9.3), 148	4/6	3/29	4/11	4/3	4/22	4/14	3/30	4/19
Easter (Astronomical)	(18.9), 292	4/6	3/29	4/11	4/3	4/22	4/7	3/30	4/19
Easter (Orthodox)	(9.1), 146	4/13	4/26	4/18	4/10	4/29	4/14	5/4	4/19
Epiphany	(2.43), 71	1/6	1/4	1/3	1/2	1/8	1/6	1/5	1/4
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/20	4/20	4/20	4/20	4/20
Friday the 13th (first)	(2.45), 71	6/13	2/13	8/13	5/13	1/13	9/13	6/13	2/13
Great Night of Shiva	(20.60), 369	2/15	3/5	2/22	2/12	3/2	2/19	3/10	2/28
Hanukkah (first day)	(8.43), 134	12/4	12/23	12/13	12/2	12/19	12/9	11/28	12/17
Hindu Lunar New Year	(20.53), 365	3/18	4/6	3/26	4/14	4/3	3/23	4/11	4/1
Icelandic Summer	(6.2), 100	4/24	4/23	4/22	4/21	4/19	4/25	4/24	4/23
Icelandic Winter	(6.3), 100	10/25	10/24	10/23	10/22	10/27	10/26	10/25	10/24
Kajeng Keliwon (first)	(12.16), 190	1/9	1/3	1/13	1/8	1/3	1/12	1/7	1/2
Losar	(21.9), 381	2/18	2/6	2/25	2/14	3/4	2/22	2/11	3/2
Mawlid	(7.6), 109	6/27	6/16	6/6	5/26	5/14	5/4	4/23	4/12
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/15	4/14	4/14	4/14	4/15
Nowruz	(15.11), 265	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/20	3/9	3/28	3/17	4/4	3/25	3/14	4/2
Passover	(8.31), 129	4/1	4/21	4/10	3/31	4/17	4/6	3/27	4/14
Passover Eve (Classical)	(18.25), 298	4/2	3/22	4/10	3/30	4/17	4/7	3/27	4/15
Pentecost	(9.4), 152	5/25	5/17	5/30	5/22	6/10	6/2	5/18	6/7
Purim	(8.33), 129	3/2	3/22	3/11	3/1	3/18	3/7	2/25	3/15
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/5	4/4	4/4	4/4	4/5
Sacred Wednesday (first)	(20.65), 370	3/26	1/14	11/24	3/23	5/9	1/30	*none*	4/8
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	2/28	3/19	3/10	2/28	3/15	3/6	2/24	3/12
Tishah be-Av	(8.35), 130	7/22	8/11	8/1	7/21	8/7	7/28	7/17	8/4
Tumpek (first)	(12.17), 190	1/19	1/3	1/23	1/8	1/28	1/12	2/1	1/17
U.S. Daylight Saving End	(2.40), 70	11/2	11/1	11/7	11/6	11/4	11/3	11/2	11/1
U.S. Daylight Saving Start	(2.39), 70	3/9	3/8	3/14	3/13	3/11	3/10	3/9	3/8
U.S. Election Day	(2.38), 70	11/4	11/3	11/2	11/8	11/6	11/5	11/4	11/3
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/1	9/7	9/6	9/5	9/3	9/2	9/1	9/7
U.S. Memorial Day	(2.37), 70	5/26	5/25	5/31	5/30	5/28	5/27	5/26	5/25
Yom ha-Zikkaron	(8.36), 131	4/21	5/11	4/28	4/19	5/7	4/24	4/15	5/4
Yom Kippur	(8.30), 128	9/20	10/10	9/29	9/19	10/6	9/25	9/15	10/3

Holiday	Func., page	2072	2073	2074	2075	2076	2077	2078	2079
Advent Sunday	(2.42), 70	11/27	12/3	12/2	12/1	11/29	11/28	11/27	12/3
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	11/11	11/1	10/21	11/9	10/29	10/18	11/6	10/26
Birthday of Rama	(20.61), 369	3/28	4/16	4/5	3/25	4/12	4/1	4/20	4/9
Chinese New Year	(19.26), 322	2/19	2/7	1/27	2/15	2/5	1/24	2/12	2/2
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/11	10/31	10/21	11/9	10/28	11/16	11/5	10/25
Dragon Festival	(19.27), 324	6/20	6/10	5/30	6/17	6/6	6/24	6/14	6/4
Easter	(9.3), 148	4/10	3/26	4/15	4/7	4/19	4/11	4/3	4/23
Easter (Astronomical)	(18.9), 292	4/10	3/26	4/15	4/7	3/22	4/11	4/3	4/23
Easter (Orthodox)	(9.1), 146	4/10	4/30	4/22	4/7	4/26	4/18	5/8	4/23
Epiphany	(2.43), 71	1/3	1/8	1/7	1/6	1/5	1/3	1/2	1/8
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
Feast of Riḍván	(16.12), 277	4/20	4/20	4/20	4/20	4/20	4/20	4/20	4/20
Friday the 13th (first)	(2.45), 71	5/13	1/13	4/13	9/13	3/13	8/13	5/13	1/13
Great Night of Shiva	(20.60), 369	2/17	3/6	2/24	2/13	3/3	2/21	3/12	3/1
Hanukkah (first day)	(8.43), 134	12/5	12/25	12/14	12/2	12/21	12/11	11/30	12/18
Hindu Lunar New Year	(20.53), 365	3/20	4/8	3/28	3/17	4/4	3/25	4/13	4/2
Icelandic Summer	(6.2), 100	4/21	4/20	4/19	4/25	4/23	4/22	4/21	4/20
Icelandic Winter	(6.3), 100	10/22	10/21	10/27	10/26	10/24	10/23	10/22	10/28
Kajeng Keliwon (first)	(12.16), 190	1/12	1/6	1/1	1/11	1/6	1/15	1/10	1/5
Losar	(21.9), 381	2/19	2/7	2/26	2/16	3/6	2/23	2/13	3/4
Mawlid	(7.6), 109	4/1	3/21	3/11	2/28	2/17	2/6	1/26	1/15
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/15	4/14	4/14	4/14	4/15
Nowruz	(15.11), 265	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/22	3/11	3/29	3/18	3/7	3/26	3/16	4/4
Passover	(8.31), 129	4/3	4/22	4/12	3/31	4/18	4/8	3/29	4/16
Passover Eve (Classical)	(18.25), 298	4/4	3/24	4/11	3/31	3/20	4/8	3/29	4/17
Pentecost	(9.4), 152	5/29	5/14	6/3	5/26	6/7	5/30	5/22	6/11
Purim	(8.33), 129	3/4	3/23	3/13	3/1	3/19	3/9	2/27	3/17
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Sacred Wednesday (first)	(20.65), 370	5/25	2/15	*none*	9/18	2/12	3/31	9/14	1/11
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/3	3/22	3/12	2/28	3/18	3/8	2/24	3/16
Tishah be-Av	(8.35), 130	7/24	8/13	8/2	7/21	8/9	7/29	7/19	8/6
Tumpek (first)	(12.17), 190	1/2	1/21	1/6	1/26	1/11	1/30	1/15	2/4
U.S. Daylight Saving End	(2.40), 70	11/6	11/5	11/4	11/3	11/1	11/7	11/6	11/5
U.S. Daylight Saving Start	(2.39), 70	3/13	3/12	3/11	3/10	3/8	3/14	3/13	3/12
U.S. Election Day	(2.38), 70	11/8	11/7	11/6	11/5	11/3	11/2	11/8	11/7
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/5	9/4	9/3	9/2	9/7	9/6	9/5	9/4
U.S. Memorial Day	(2.37), 70	5/30	5/29	5/28	5/27	5/25	5/31	5/30	5/29
Yom ha-Zikkaron	(8.36), 131	4/20	5/10	5/1	4/17	5/6	4/27	4/18	5/3
Yom Kippur	(8.30), 128	9/22	10/11	10/1	9/19	10/7	9/27	9/17	10/5

Holiday	Func., page	2080	2081	2082	2083	2084	2085	2086	2087
Advent Sunday	(2.42), 70	12/1	11/30	11/29	11/28	12/3	12/2	12/1	11/30
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	10/14	11/2	10/23	11/11	10/30	10/20	11/7	10/27
Birthday of Rama	(20.61), 369	3/29	4/17	4/7	3/27	4/14	4/3	4/22	4/11
Chinese New Year	(19.26), 322	1/22	2/9	1/29	2/17	2/6	1/26	2/14	2/3
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/12	11/1	10/22	11/10	10/30	11/18	11/7	10/27
Dragon Festival	(19.27), 324	6/22	6/11	6/1	6/19	6/7	5/27	6/15	6/5
Easter	(9.3), 148	4/7	3/30	4/19	4/4	3/26	4/15	3/31	4/20
Easter (Astronomical)	(18.9), 292	4/7	3/30	4/19	4/4	3/26	4/15	3/31	4/20
Easter (Orthodox)	(9.1), 146	4/14	5/4	4/19	4/11	4/30	4/15	4/7	4/27
Epiphany	(2.43), 71	1/7	1/5	1/4	1/3	1/2	1/7	1/6	1/5
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/20	4/20	4/20	4/20	4/20
Friday the 13th (first)	(2.45), 71	9/13	6/13	2/13	8/13	10/13	4/13	9/13	6/13
Great Night of Shiva	(20.60), 369	2/18	3/8	2/25	2/15	3/5	2/22	2/12	3/3
Hanukkah (first day)	(8.43), 134	12/7	12/27	12/16	12/5	12/23	12/12	12/1	12/20
Hindu Lunar New Year	(20.53), 365	3/22	4/10	3/30	3/19	4/6	3/26	4/14	4/4
Icelandic Summer	(6.2), 100	4/25	4/24	4/23	4/22	4/20	4/19	4/25	4/24
Icelandic Winter	(6.3), 100	10/26	10/25	10/24	10/23	10/21	10/27	10/26	10/25
Kajeng Keliwon (first)	(12.16), 190	1/15	1/9	1/4	1/14	1/9	1/3	1/13	1/8
Losar	(21.9), 381	2/21	2/9	2/28	2/17	2/7	2/25	2/14	3/5
Mawlid	(7.6), 109	1/5	12/13	12/3	11/22	11/11	10/31	10/20	10/10
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/14	4/15	4/14	4/14	4/14	4/15
Nowruz	(15.11), 265	3/20	3/20	3/20	3/21	3/20	3/20	3/20	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/23	3/12	3/31	3/20	3/8	3/27	3/17	3/7
Passover	(8.31), 129	4/4	4/24	4/14	4/3	4/20	4/10	3/30	4/17
Passover Eve (Classical)	(18.25), 298	4/5	3/25	4/13	4/2	3/21	4/9	3/30	3/20
Pentecost	(9.4), 152	5/26	5/18	6/7	5/23	5/14	6/3	5/19	6/8
Purim	(8.33), 129	3/5	3/25	3/15	3/4	3/21	3/11	2/28	3/18
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Sacred Wednesday (first)	(20.65), 370	2/28	9/10	1/7	6/23	8/9	1/3	6/19	3/12
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/4	3/24	3/12	3/3	3/20	3/8	2/27	3/17
Tishah be-Av	(8.35), 130	7/25	8/14	8/4	7/25	8/10	7/31	7/21	8/7
Tumpek (first)	(12.17), 190	1/20	1/4	1/24	1/9	1/29	1/13	2/2	1/18
U.S. Daylight Saving End	(2.40), 70	11/3	11/2	11/1	11/7	11/5	11/4	11/3	11/2
U.S. Daylight Saving Start	(2.39), 70	3/10	3/9	3/8	3/14	3/12	3/11	3/10	3/9
U.S. Election Day	(2.38), 70	11/5	11/4	11/3	11/2	11/7	11/6	11/5	11/4
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/2	9/1	9/7	9/6	9/4	9/3	9/2	9/1
U.S. Memorial Day	(2.37), 70	5/27	5/26	5/25	5/31	5/29	5/28	5/27	5/26
Yom ha-Zikkaron	(8.36), 131	4/23	5/13	5/4	4/21	5/9	4/30	4/17	5/6
Yom Kippur	(8.30), 128	9/23	10/13	10/3	9/22	10/9	9/29	9/18	10/6

Holiday	Func., page	2088	2089	2090	2091	2092	2093	2094	2095
Advent Sunday	(2.42), 70	11/28	11/27	12/3	12/2	11/30	11/29	11/28	11/27
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	4/8	*none*	*none*
Birth of the Bāb	(16.13), 278	10/16	11/3	10/24	11/12	11/1	10/21	11/9	10/29
Birthday of Rama	(20.61), 369	3/30	4/18	4/8	3/29	4/16	4/5	3/25	4/12
Chinese New Year	(19.26), 322	1/24	2/10	1/30	2/18	2/7	1/27	2/15	2/5
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/7	1/7	1/7
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/7
Diwali	(20.57), 368	11/14	11/3	10/23	11/12	10/31	10/21	11/9	10/29
Dragon Festival	(19.27), 324	6/23	6/13	6/2	6/21	6/9	5/29	6/17	6/6
Easter	(9.3), 148	4/11	4/3	4/16	4/8	3/30	4/12	4/4	4/24
Easter (Astronomical)	(18.9), 292	4/11	3/27	4/16	4/8	3/30	4/12	4/4	3/27
Easter (Orthodox)	(9.1), 146	4/18	5/1	4/23	4/8	4/27	4/19	4/11	4/24
Epiphany	(2.43), 71	1/4	1/2	1/8	1/7	1/6	1/4	1/3	1/2
Feast of Naw-Rūz	(16.11), 277	3/20	3/20	3/20	3/20	3/19	3/20	3/20	3/20
Feast of Riḍvān	(16.12), 277	4/20	4/20	4/20	4/20	4/19	4/20	4/20	4/20
Friday the 13th (first)	(2.45), 71	2/13	5/13	1/13	4/13	6/13	2/13	8/13	5/13
Great Night of Shiva	(20.60), 369	2/20	3/10	2/27	2/16	3/6	2/23	2/13	3/4
Hanukkah (first day)	(8.43), 134	12/8	11/28	12/17	12/6	12/24	12/14	12/3	12/21
Hindu Lunar New Year	(20.53), 365	3/23	4/11	4/1	3/21	4/7	3/28	3/17	4/5
Icelandic Summer	(6.2), 100	4/22	4/21	4/20	4/19	4/24	4/23	4/22	4/21
Icelandic Winter	(6.3), 100	10/23	10/22	10/21	10/27	10/25	10/24	10/23	10/22
Kajeng Keliwon (first)	(12.16), 190	1/3	1/12	1/7	1/2	1/12	1/6	1/1	1/11
Losar	(21.9), 381	2/23	2/11	3/2	2/19	2/8	2/26	2/16	3/7
Mawlid	(7.6), 109	9/28	9/17	9/7	8/27	8/15	8/5	7/25	7/15
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/15	4/15	4/14	4/14	4/15	4/15
Nowruz	(15.11), 265	3/20	3/20	3/20	3/20	3/20	3/20	3/20	3/20
Observ. Hebrew 1 Nisan	(18.22), 297	3/25	3/14	4/2	3/22	3/10	3/29	3/18	3/8
Passover	(8.31), 129	4/6	3/26	4/15	4/3	4/22	4/11	4/1	4/19
Passover Eve (Classical)	(18.25), 298	4/7	3/27	4/15	4/4	3/23	4/11	3/31	3/21
Pentecost	(9.4), 152	5/30	5/22	6/4	5/27	5/18	5/31	5/23	6/12
Purim	(8.33), 129	3/7	2/24	3/16	3/4	3/23	3/12	3/2	3/20
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Sacred Wednesday (first)	(20.65), 370	4/28	*none*	11/29	3/28	5/14	*none*	3/24	5/11
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/5	12/5	12/5	12/6
Ta'anit Esther	(8.34), 130	3/4	2/23	3/15	3/1	3/20	3/11	3/1	3/17
Tishah be-Av	(8.35), 130	7/27	7/17	8/6	7/24	8/12	8/2	7/22	8/9
Tumpek (first)	(12.17), 190	1/3	1/22	1/7	1/27	1/12	1/31	1/16	1/1
U.S. Daylight Saving End	(2.40), 70	11/7	11/6	11/5	11/4	11/2	11/1	11/7	11/6
U.S. Daylight Saving Start	(2.39), 70	3/14	3/13	3/12	3/11	3/9	3/8	3/14	3/13
U.S. Election Day	(2.38), 70	11/2	11/8	11/7	11/6	11/4	11/3	11/2	11/8
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/6	9/5	9/4	9/3	9/1	9/7	9/6	9/5
U.S. Memorial Day	(2.37), 70	5/31	5/30	5/29	5/28	5/26	5/25	5/31	5/30
Yom ha-Zikkaron	(8.36), 131	4/26	4/13	5/3	4/23	5/12	4/29	4/20	5/9
Yom Kippur	(8.30), 128	9/25	9/14	10/4	9/22	10/11	9/30	9/20	10/8

Holiday	Func., page	2096	2097	2098	2099	2100	2101	2102	2103
Advent Sunday	(2.42), 70	12/2	12/1	11/30	11/29	11/28	11/27	12/3	12/2
Bahá'í New Year	(16.10), 277	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Birkath ha-Hama	(8.38), 131	*none*	*none*	*none*	*none*	*none*	*none*	*none*	*none*
Birth of the Bāb	(16.13), 278	10/17	11/5	10/25	10/15	11/3	10/24	11/12	11/1
Birthday of Rama	(20.61), 369	4/1	4/20	4/9	3/30	4/18	4/7	3/27	4/15
Chinese New Year	(19.26), 322	1/25	2/12	2/1	1/21	2/9	1/29	2/17	2/7
Christmas	(2.41), 70	12/25	12/25	12/25	12/25	12/25	12/25	12/25	12/25
Christmas (Coptic)	(4.9), 93	1/8	1/7	1/7	1/7	1/8	1/8	1/8	1/8
Christmas (Orthodox)	(3.25), 85	1/7	1/7	1/7	1/7	1/7	1/8	1/8	1/8
Diwali	(20.57), 368	11/15	11/4	10/25	11/13	11/2	10/23	11/11	10/31
Dragon Festival	(19.27), 324	6/24	6/14	6/4	6/23	6/12	6/1	6/20	6/9
Easter	(9.3), 148	4/15	3/31	4/20	4/12	3/28	4/17	4/9	3/25
Easter (Astronomical)	(18.9), 292	4/8	3/31	4/20	4/12	3/28	4/17	4/9	3/25
Easter (Orthodox)	(9.1), 146	4/15	5/5	4/27	4/12	5/2	4/24	4/9	4/29
Epiphany	(2.43), 71	1/8	1/6	1/5	1/4	1/3	1/2	1/8	1/7
Feast of Naw-Rūz	(16.11), 277	3/19	3/20	3/20	3/20	3/20	3/21	3/21	3/21
Feast of Riḍvān	(16.12), 277	4/19	4/20	4/20	4/20	4/20	4/21	4/21	4/21
Friday the 13th (first)	(2.45), 71	1/13	9/13	6/13	2/13	8/13	5/13	1/13	4/13
Great Night of Shiva	(20.60), 369	2/22	3/12	3/1	2/18	3/9	2/26	2/15	3/7
Hanukkah (first day)	(8.43), 134	12/10	11/30	12/19	12/7	12/27	12/17	12/6	12/24
Hindu Lunar New Year	(20.53), 365	3/25	4/13	4/2	3/22	4/10	3/30	3/19	4/7
Icelandic Summer	(6.2), 100	4/19	4/25	4/24	4/23	4/22	4/21	4/20	4/19
Icelandic Winter	(6.3), 100	10/27	10/26	10/25	10/24	10/23	10/22	10/21	10/27
Kajeng Keliwon (first)	(12.16), 190	1/6	1/15	1/10	1/5	1/15	1/10	1/5	1/15
Losar	(21.9), 381	2/24	2/13	3/3	2/20	2/10	2/28	2/18	3/9
Mawlid	(7.6), 109	7/3	6/22	6/12	6/1	5/21	5/11	4/30	4/20
Mesha Saṃkrānti (date)	(20.51), 364	4/14	4/14	4/15	4/15	4/15	4/15	4/16	4/16
Nowruz	(15.11), 265	3/20	3/20	3/20	3/20	3/21	3/21	3/21	3/21
Observ. Hebrew 1 Nisan	(18.22), 297	3/26	3/16	4/4	3/24	3/13	3/31	3/21	3/10
Passover	(8.31), 129	4/7	3/28	4/17	4/5	4/24	4/14	4/4	4/22
Passover Eve (Classical)	(18.25), 298	4/8	3/29	4/17	4/6	3/26	4/13	4/3	3/23
Pentecost	(9.4), 152	6/3	5/19	6/8	5/31	5/16	6/5	5/28	5/13
Purim	(8.33), 129	3/8	2/26	3/18	3/6	3/25	3/15	3/5	3/23
Qīngmíng	(19.28), 324	4/4	4/4	4/4	4/4	4/5	4/5	4/5	4/5
Sacred Wednesday (first)	(20.65), 370	2/1	*none*	4/9	5/27	2/17	8/3	9/20	2/14
Sh'ela	(8.37), 131	12/5	12/5	12/5	12/6	12/6	12/6	12/6	12/7
Ta'anit Esther	(8.34), 130	3/7	2/25	3/17	3/5	3/24	3/14	3/2	3/22
Tishah be-Av	(8.35), 130	7/29	7/18	8/7	7/26	8/15	8/4	7/25	8/12
Tumpek (first)	(12.17), 190	1/21	1/5	1/25	1/10	1/30	1/15	2/4	1/20
U.S. Daylight Saving End	(2.40), 70	11/4	11/3	11/2	11/1	11/7	11/6	11/5	11/4
U.S. Daylight Saving Start	(2.39), 70	3/11	3/10	3/9	3/8	3/14	3/13	3/12	3/11
U.S. Election Day	(2.38), 70	11/6	11/5	11/4	11/3	11/2	11/8	11/7	11/6
U.S. Independence Day	(2.32), 69	7/4	7/4	7/4	7/4	7/4	7/4	7/4	7/4
U.S. Labor Day	(2.36), 69	9/3	9/2	9/1	9/7	9/6	9/5	9/4	9/3
U.S. Memorial Day	(2.37), 70	5/28	5/27	5/26	5/25	5/31	5/30	5/29	5/28
Yom ha-Zikkaron	(8.36), 131	4/25	4/16	5/6	4/22	5/12	5/3	4/24	5/9
Yom Kippur	(8.30), 128	9/26	9/16	10/6	9/24	10/13	10/3	9/23	10/11

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המבין יבין
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Abraham ben David of Posquieres: *Strictures to*
Maimonides' Mishneh Torah, Gifts to the
Poor (circa 1195)

References

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Astronomical clock (number 3) designed and made in Norway by Rasmus Sørnes. Finished in 1954, it computes a large number of time/astronomical values including sidereal time, sunsets and sunrises, Gregorian date, solar and lunar eclipses, precession, tides, the positions of the planets, and many other things. (Courtesy of the Borgarsyssel Museum, Sarpsborg, Norway.)