

The 1st correction for the degrees of latitude is to be subtracted from the greatest elongation given in the calendar or added to it, according as the degrees of latitude are less or greater than 45°.

The 2nd correction, which is always additive, is found by multiplying the number given in the third line of the Table by the number of minutes in the latitude.

Thus for latitude 45° 20'... 1st correction = -3' 51" 2nd correction $+1.9 \times 20 = +0' 38''$
 " " 47° 40'... " = -4' 16" " " $+2.3 \times 40 = +1' 32''$
 " " 45° 10'... " = -0' 0" " " $+2.1 \times 10 = +0' 21''$

THE PLANETS.—The times of rising and setting of the five chief planets are calculated for Toronto, and are corrected for refraction. The times of culmination, although computed for the meridian of Toronto, will serve approximately for the whole of Canada. The meridian zenith distances, being designed merely to aid in finding the planets, have been given only to the nearest tenth of a degree, as seen from the latitude of 45°.

Star Table.

From the times of the upper transit of the Pole Star may be derived, with the aid of the following Table, the times of culmination, and of the rising and setting of the principal fixed stars, as seen from the parallel of 45° north latitude.

To ascertain when any star found in the following Table will be on the meridian, add the number in the left-hand column of figures to the preceding meridian transit of the pole star given in the calendar. To find the time of rising of a star, subtract the number opposite to it in the right-hand column of figures from the time of its meridian passage. For the setting of a star, add the same number to the time of its meridian passage. Those stars marked (....) revolve in a circle of perpetual apparition, and do not rise or set at places in and to the north of latitude 45°.

NAME OF STAR.	On Merid'n		Rises and Sets		NAME OF STAR.	On Merid'n		Rises and Sets	
	h	m	h	m		h	m	h	m
α Andromedæ	22	45	8	10	α Ursæ Majoris	9	41	....	....
γ Pegasi (Algenib)	22	50	6	59	β Leonis	10	28	7	2
α Cassiopeiæ	23	17	....	....	β Corvi	11	13	4	20
β Ceti	23	20	4	40	α Virginis (Spica)	12	4	5	16
β Arietis	0	35	7	25	η Ursæ Majoris	12	28	....	....
α Arietis	0	47	7	39	α Bootis (Arcturus)	12	55	7	23
α Ceti	1	42	6	13	β Ursæ Minoris	13	36	....	....
α Persæi	2	2	....	....	β Libræ	13	55	5	23
α Tauri (Aldebaran)	3	15	7	7	α Coronæ Borealis	14	14	8	2
α Aurigæ (Capella)	3	54	....	....	α Serpentis	14	23	6	26
β Orionis (Rigel)	3	55	5	25	β Scorpii	14	43	4	35
β Tauri	4	5	8	10	α Scorpii (Antares)	15	6	4	2
δ Orionis	4	12	5	57	α Herculis	15	53	6	59
ϵ Orionis	4	16	5	54	β Draconis	16	12	....	....
α Columbæ	4	21	3	9	γ Draconis	16	38	....	....
α Orionis	4	35	6	29	α Lyræ (Vega)	17	17	9	31
α Canis Majoris (Sirius)	5	26	4	50	α Aquilæ (Altair)	18	29	6	33
ϵ Canis Majoris	5	40	3	46	α Cygni	19	21	11	33
α Geminorum (Castor)	6	13	8	34	α Cephei	19	59	....	....
α Canis Minoris (Procyon)	6	19	6	21	β Aquarii	20	9	5	34
β Geminorum (Pollux)	6	24	8	9	α Aquarii	20	43	5	55
α Hydræ	8	7	5	26	α Piscis Aust. (Fomalhaut)	21	34	3	36
α Leonis (Regulus)	8	47	6	50	α Pegasi	21	42	7	0
γ Leonis	8	59	7	26					

Table

Showing the Illuminated Portions of the Discs of Venus and Mars.

1880.	Venus.	Mars.	1880.	Venus.	Mars.
January ... 15.	0.649	0.908	July 15.	1.000	0.971
February .. 14.	0.780	0.894	August 15.	0.988	0.988
March 15.	0.855	0.899	September 15.	0.955	0.995
April 15.	0.916	0.915	October 15.	0.909	0.999
May 15.	0.961	0.934	November. 15.	0.847	0.999
June 15.	0.991	0.954	December .. 15.	0.773	0.999

Eclipses.

In the year 1880 there will be four eclipses of the Sun and two of the Moon.

1.—A total eclipse of the Sun, January 11th, 1880. Visible as a partial eclipse in British Columbia and in the greater part of the North-West Territory.

The limiting line of visibility along which the eclipse begins at sunset passes through

LONGITUDE.	LATITUDE.
93° 45'	37° 54'
102 31	52 00
125 20	64 42