

Symbols and abbreviations

☉	Sun	♃	Jupiter
●	midnight	♄	Saturn
☾	Moon	♅	Uranus
☿	Mercury	♆	Neptune
♀	Venus	♈	first point of Aries
♁	Earth	♊	ascending node
♂	Mars	♋	descending node

=	Begin a spreadsheet formula in a cell
*	Multiply two values together in a spreadsheet formula
'	Treat the contents of this spreadsheet cell as a label
####	Column width is too narrow in a spreadsheet
!	Use to link to a cell of another spreadsheet
,	Argument separator (delimiter) in <i>Excel</i>
;	Argument separator (delimiter) in <i>Calc</i>

α	right ascension
β	geocentric ecliptic latitude
δ	declination
Δ	difference; error
$\Delta\lambda$	Moon's hourly motion in ecliptic longitude
$\Delta\beta$	Moon's hourly motion in ecliptic latitude
ΔA	correction to azimuth
ΔT	ET – UT
Δt	value of equation of time
ε	elongation; obliquity of the ecliptic; longitude of planet at epoch
ε_g	geocentric longitude of Sun at epoch
ζ	apparent zenith angle
θ	angular diameter; displacement; general coordinate
θ_t	twilight zenith angle
λ	geocentric ecliptic longitude
μ	general coordinate
ν	true anomaly; general coordinate
π	parallax; constant = 3.141 592 654
ϖ	heliocentric longitude of perihelion
ϖ_g	geocentric longitude of Sun's perigee
ρ	distance
τ	light-travel time
ϕ	geographical latitude
ϕ'	geocentric latitude
χ	position-angle
ψ	heliocentric ecliptic latitude; angle at the horizon; general coordinate
Ω	longitude of ascending node
ω	to argument of perihelion
A	azimuth
A , etc.	matrix
a	altitude; semi-major axis
AD	Anno Domini
A_e	annual equation
A_3	third correction to Moon's mean anomaly
A_4	fourth correction to Moon's mean anomaly
AU	astronomical unit
B	heliographic latitude
b	galactic latitude
BC	Before Christ
BCE	Before the Common Era; Before the Christian Era
BST	British summer time
CRN	Carrington rotation number
CE	Common Era; Christian Era
DEC	declination
D	age of Moon or planet; number of days since an epoch
d	number of days; angle
E	eccentric anomaly
E	east point of horizon
e	eccentricity
E_c	correction applied in the equation of the centre
E_v	evection
EST	eastern standard time
ET	ephemeris time
F	phase

GBT	galactic barycentric time
GMT	Greenwich mean time
GST	Greenwich sidereal time
H	hour angle
I	inclination of Sun's equator
i	inclination
JD	Julian days
L	heliocentric longitude of Earth or heliographic longitude
l	galactic longitude; Moon's orbital longitude; heliocentric longitude of planet
LST	local sidereal time
M	mean anomaly
m	magnitude; precession constant
MJD	modified Julian date or day number
N	north point of horizon; longitude of ascending node
n	precession constant
NCP	north celestial pole
P	equatorial horizontal parallax; angle
p	(horizontal) parallax
q	perihelion distance
R	refraction angle; distance of Earth from Sun
r	radius vector
r_0	semi-major axis of orbit
RA	right ascension
S	south point on horizon
S_p	radius of Earth's penumbra
S_u	radius of Earth's umbra
SCP	south celestial pole
ST	sidereal time
T	period of orbit
t, t_0	epoch
TAI	International atomic time
TDT	terrestrial dynamic time
TT	terrestrial time
UT	universal time
V	variation
v	vertical shift
\mathbf{v} , etc.	column vector
V_0	planet's brightness factor
W	west point on horizon
Y	years
z	real zenith angle