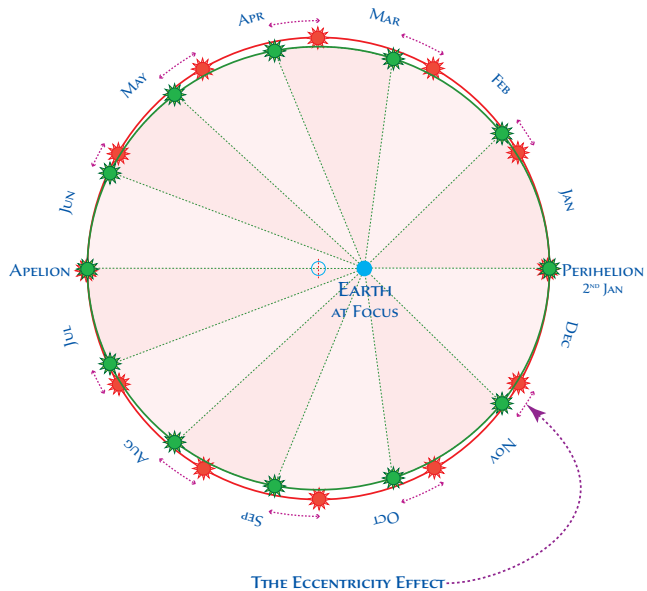
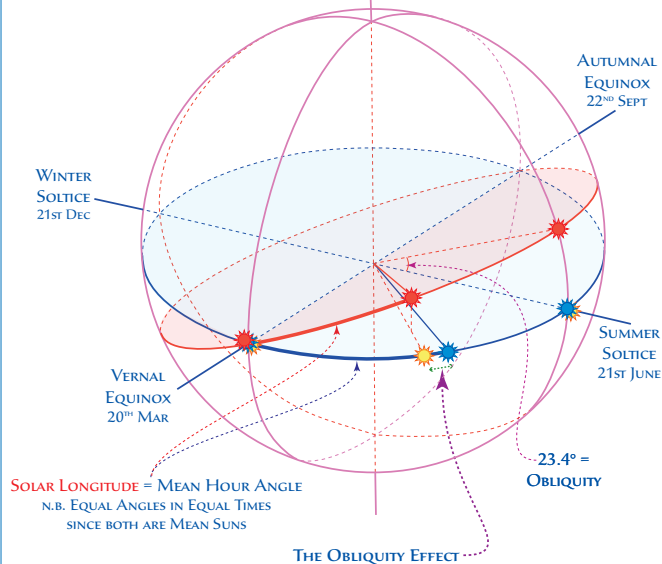


## THE ECCENTRICITY EFFECT



ILLUSTRATED ELLIPSE HAS ECCENTRICITY OF 0.2  
EARTH'S ORBIT IN REALITY HAS ECCENTRICITY OF 0.0167

## THE OBLIQUITY EFFECT



NOTE THAT : AT EQUINOXES, MEAN ECLIPTIC SUN IS COINCIDENT WITH MEAN SUN,  
AT SOLSTICES, THE PROJECTION OF THE MEAN ECLIPTIC SUN IS COINCIDENT WITH MEAN SUN.  
THUS, AT THESE TIMES, OBLIQUITY EFFECT IS ZERO.



REAL SUN



MEAN ECLIPTIC SUN



MEAN ECLIPTIC SUN



MEAN SUN

MOVING ACCORDING TO KEPLER'S 2ND LAW  
EACH CHEESE SEGMENT OF EQUAL AREA

MOVING AT UNIFORM RATE AROUND THE ECLIPTIC PLANE

PROJECTED ONTO EQUATORIAL PLANE

MOVING AT UNIFORM RATE AROUND THE EQUATORIAL PLANE



ECLIPTIC PLANE



EQUATORIAL PLANE



ECCENTRICITY EFFECT



OBLIQUITY EFFECT