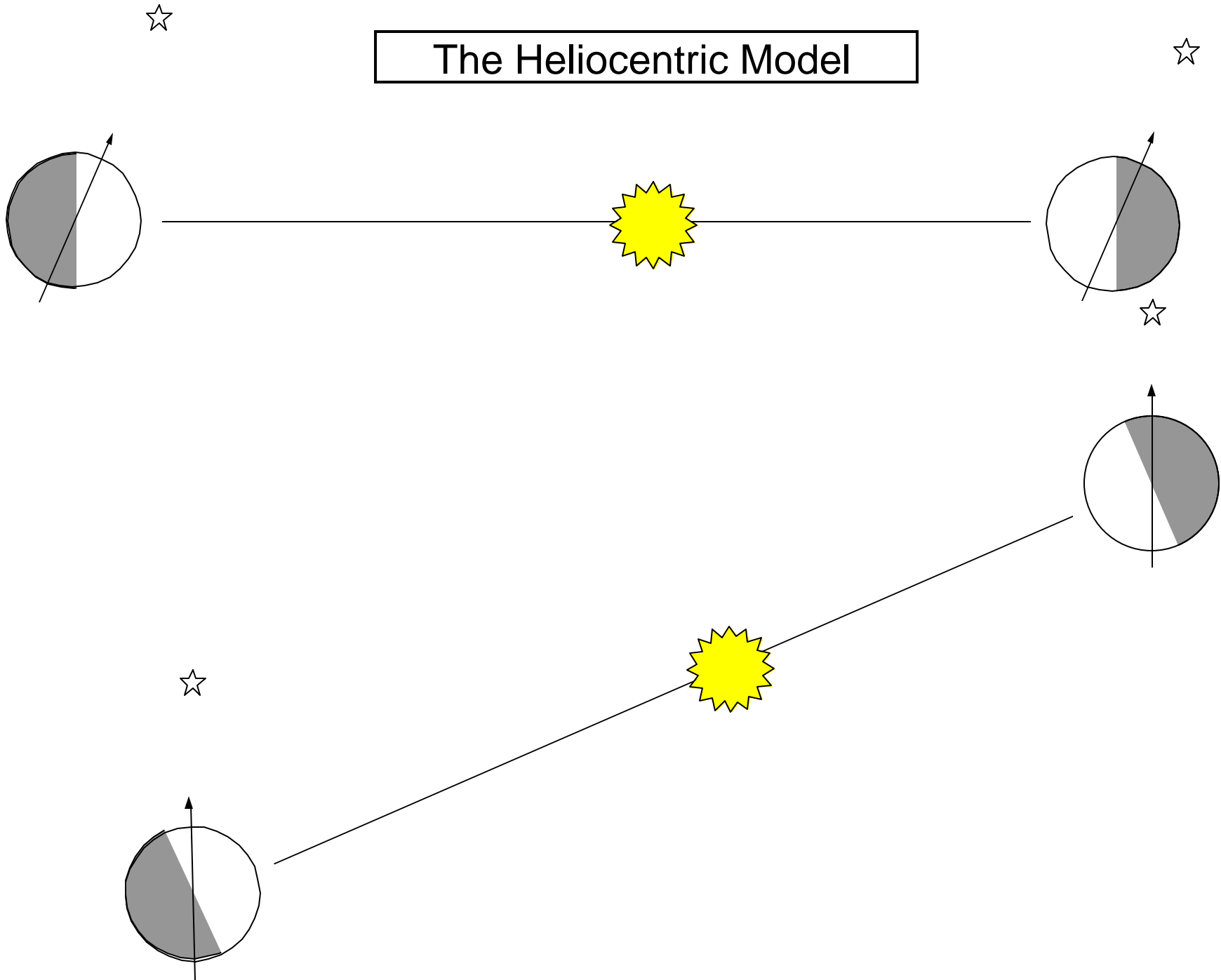
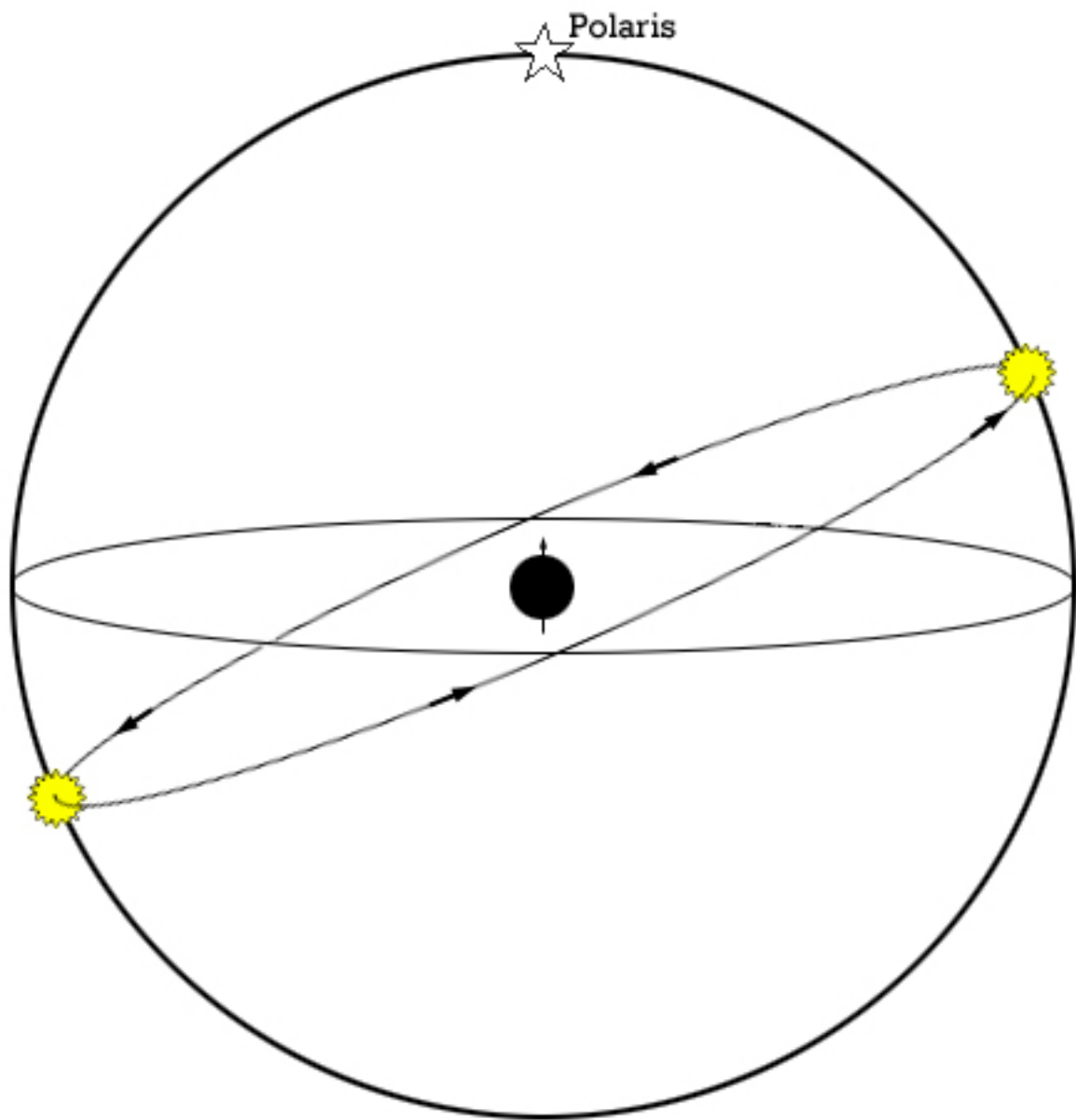
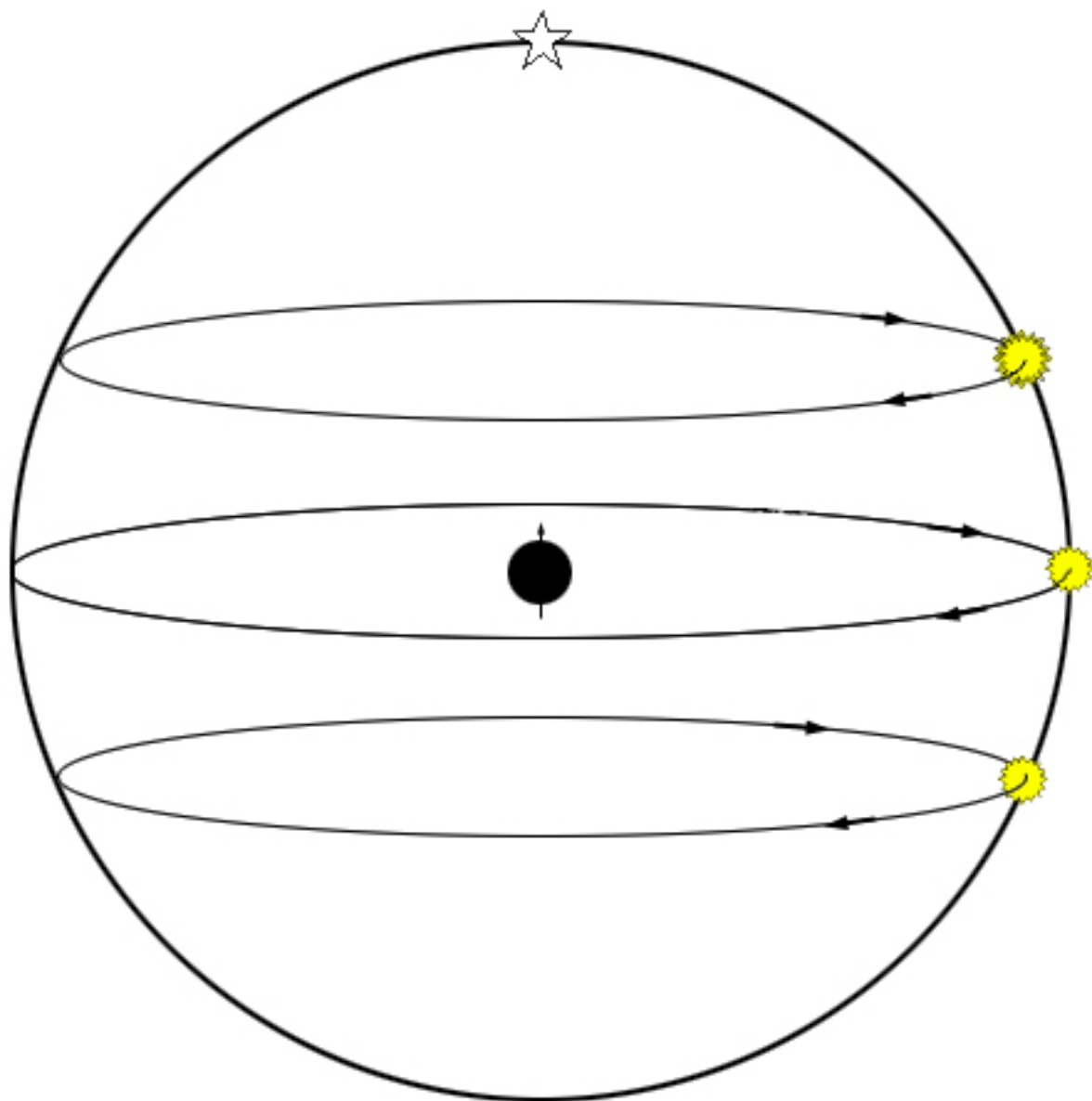


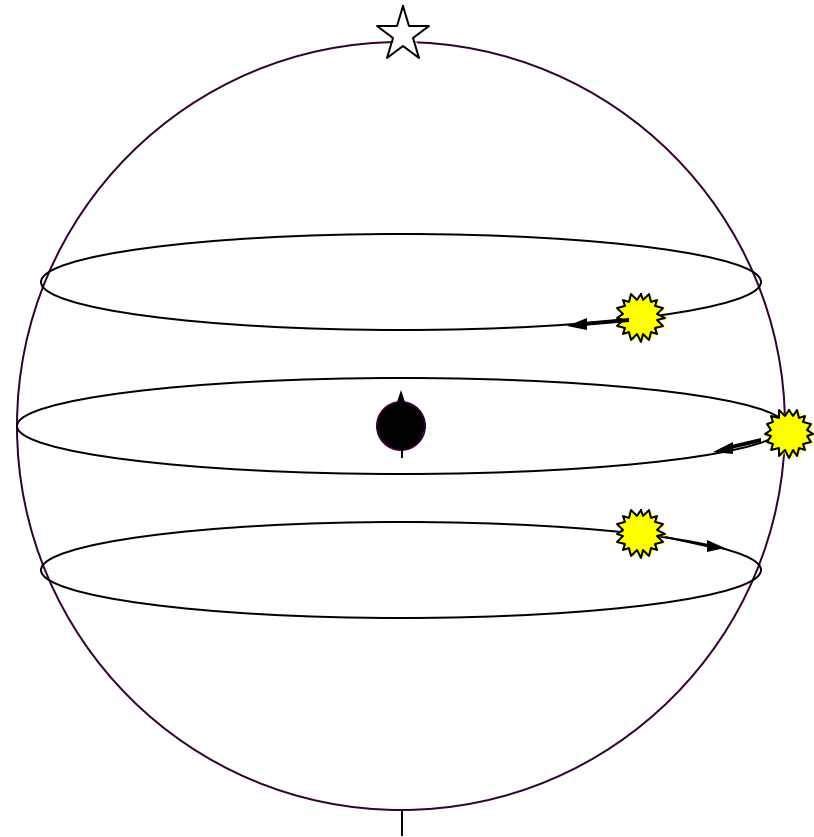
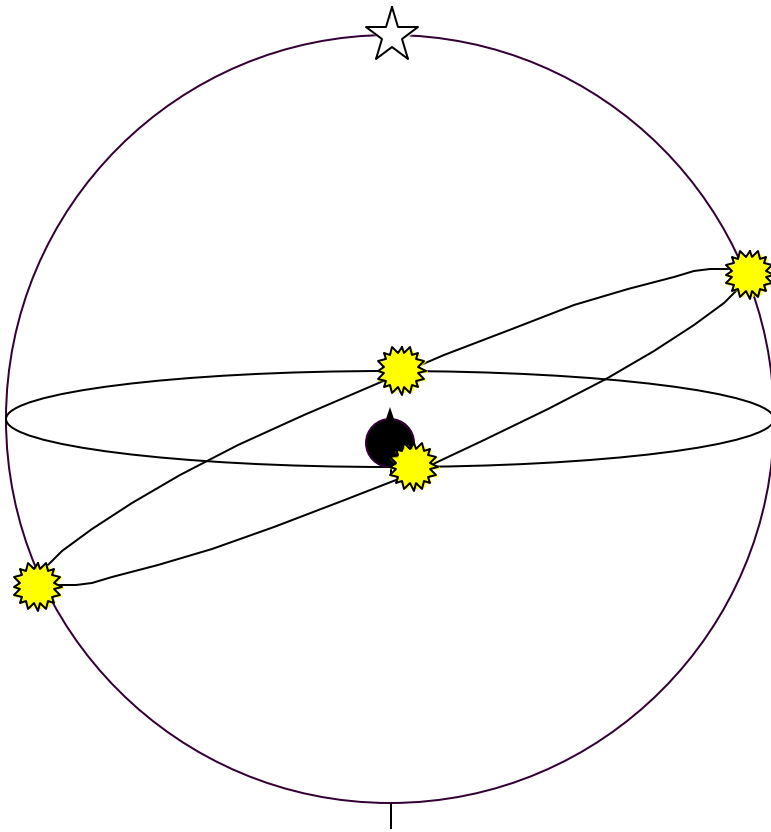
The Heliocentric Model





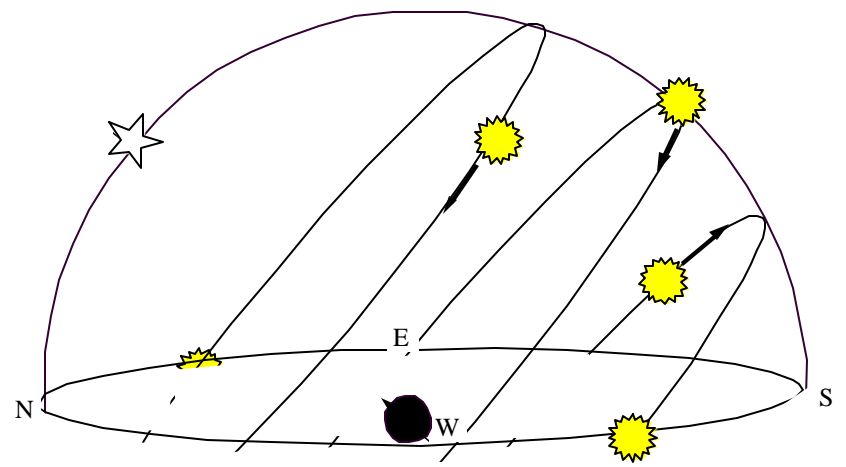
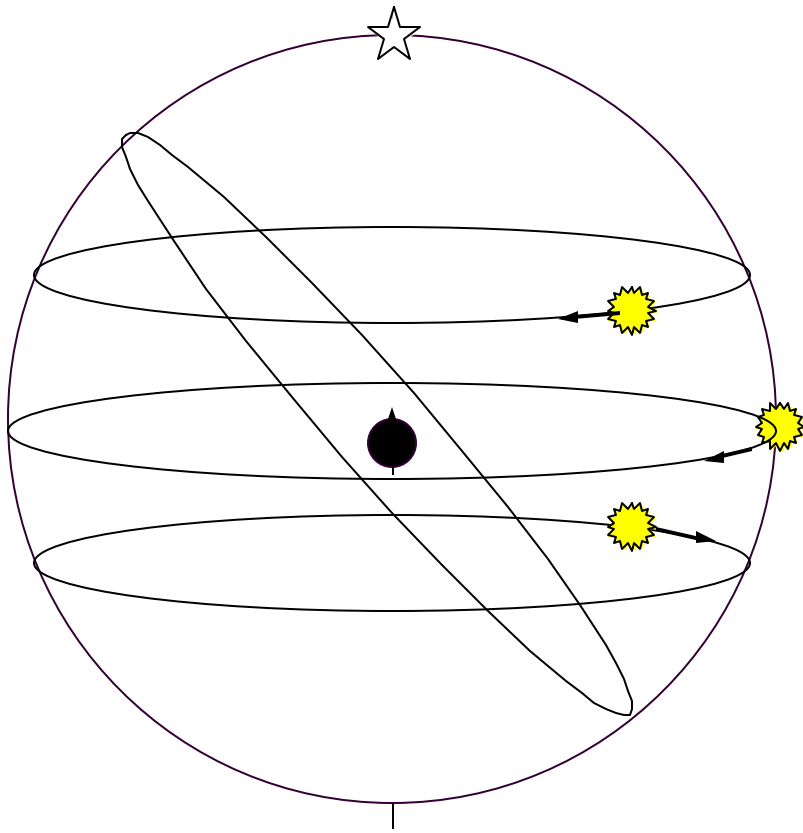


the celestial sphere
and the
path of the sun



The Geocentric Model -

The Path of the Sun in New York State



Earth Science Regents

Path of the Sun Lab

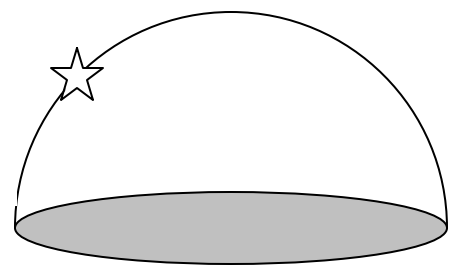
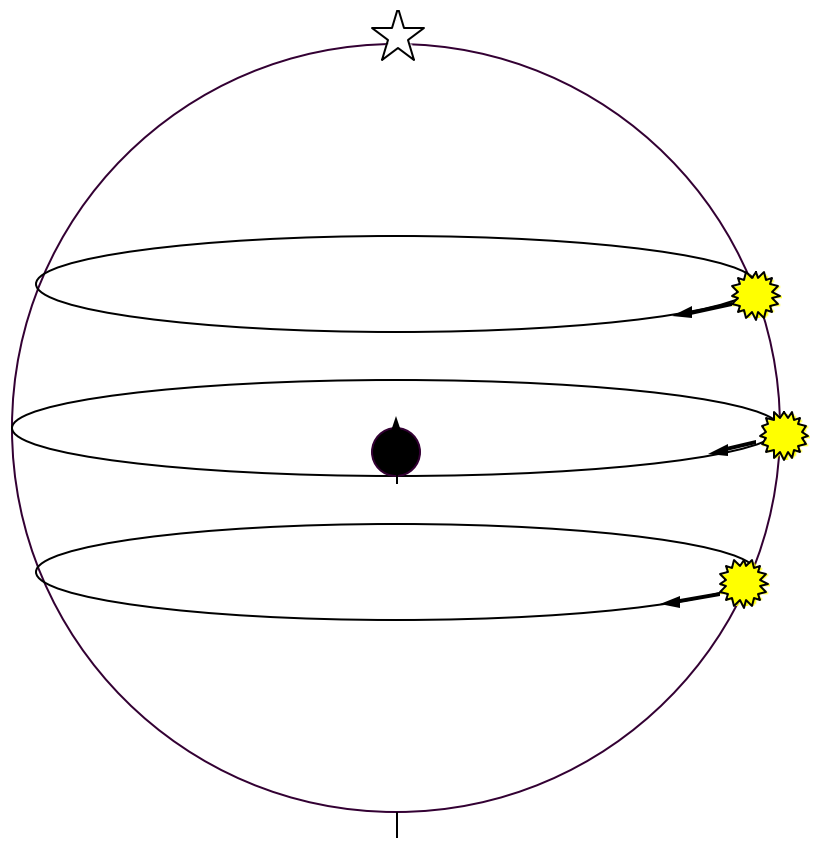
NAME _____

Draw in the path of the sun at the solstices and equinoxes at each of the latitudes indicated. Include the following on each diagram:

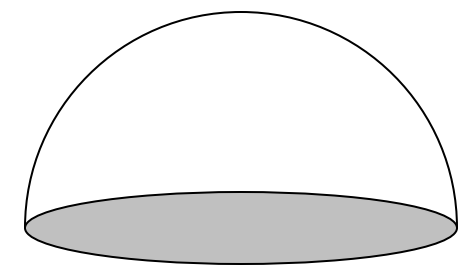
Polaris

Compass directions on the horizon

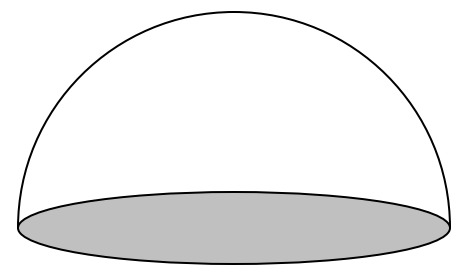
Arrows indicating the sun's direction



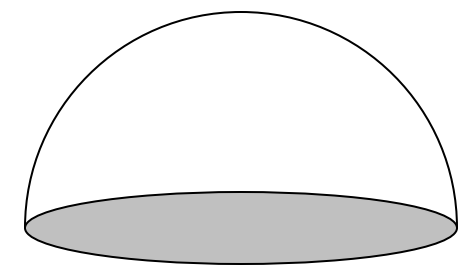
41 N



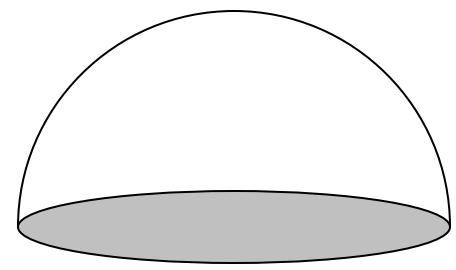
90 N



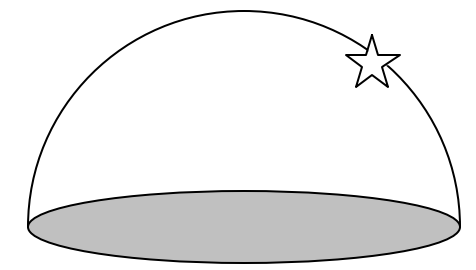
Equator



66.5 N

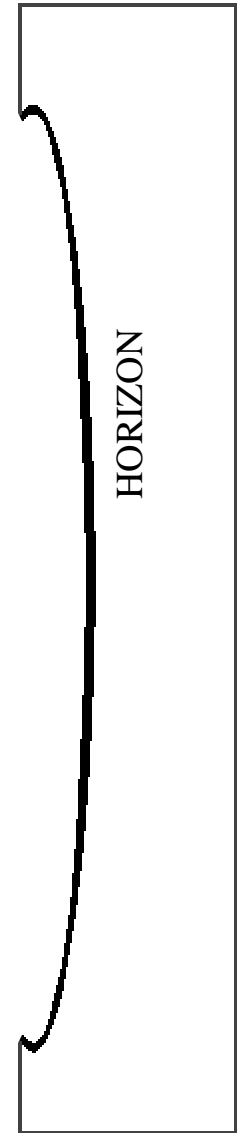
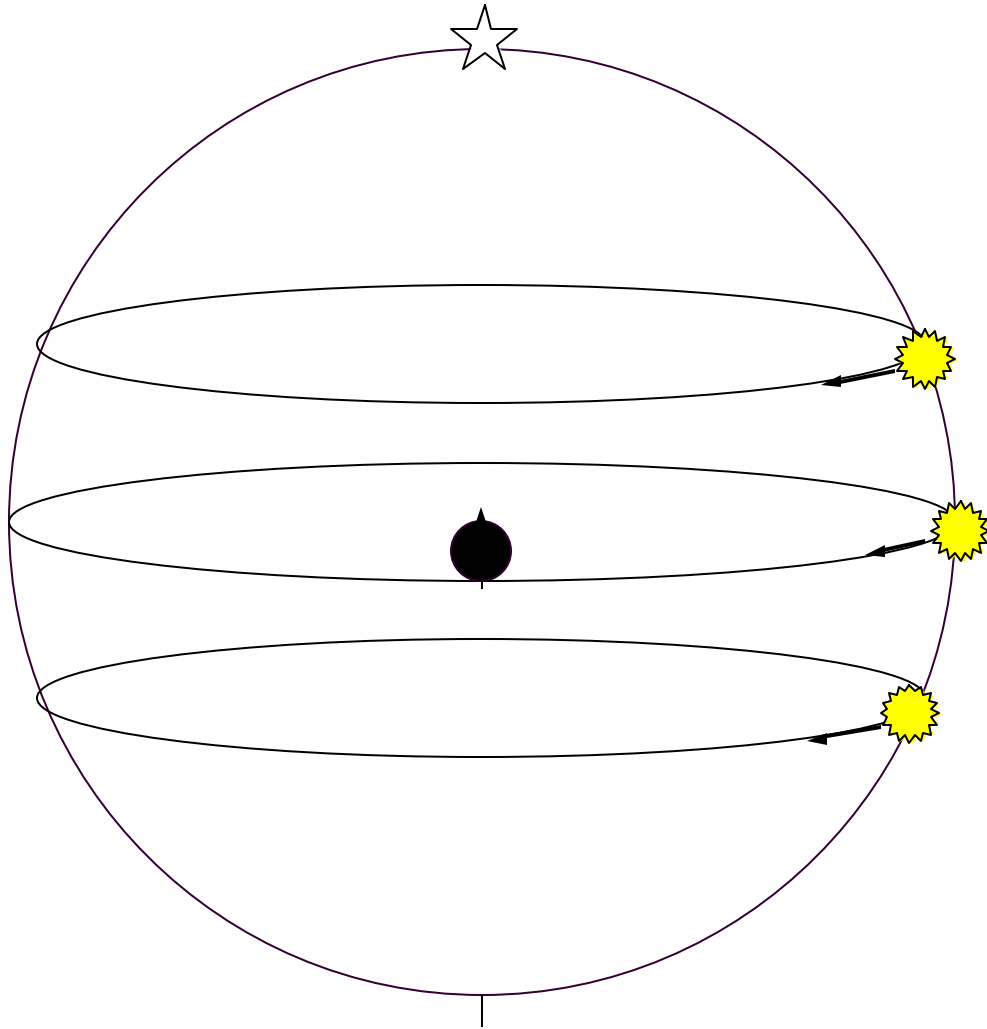


41 S

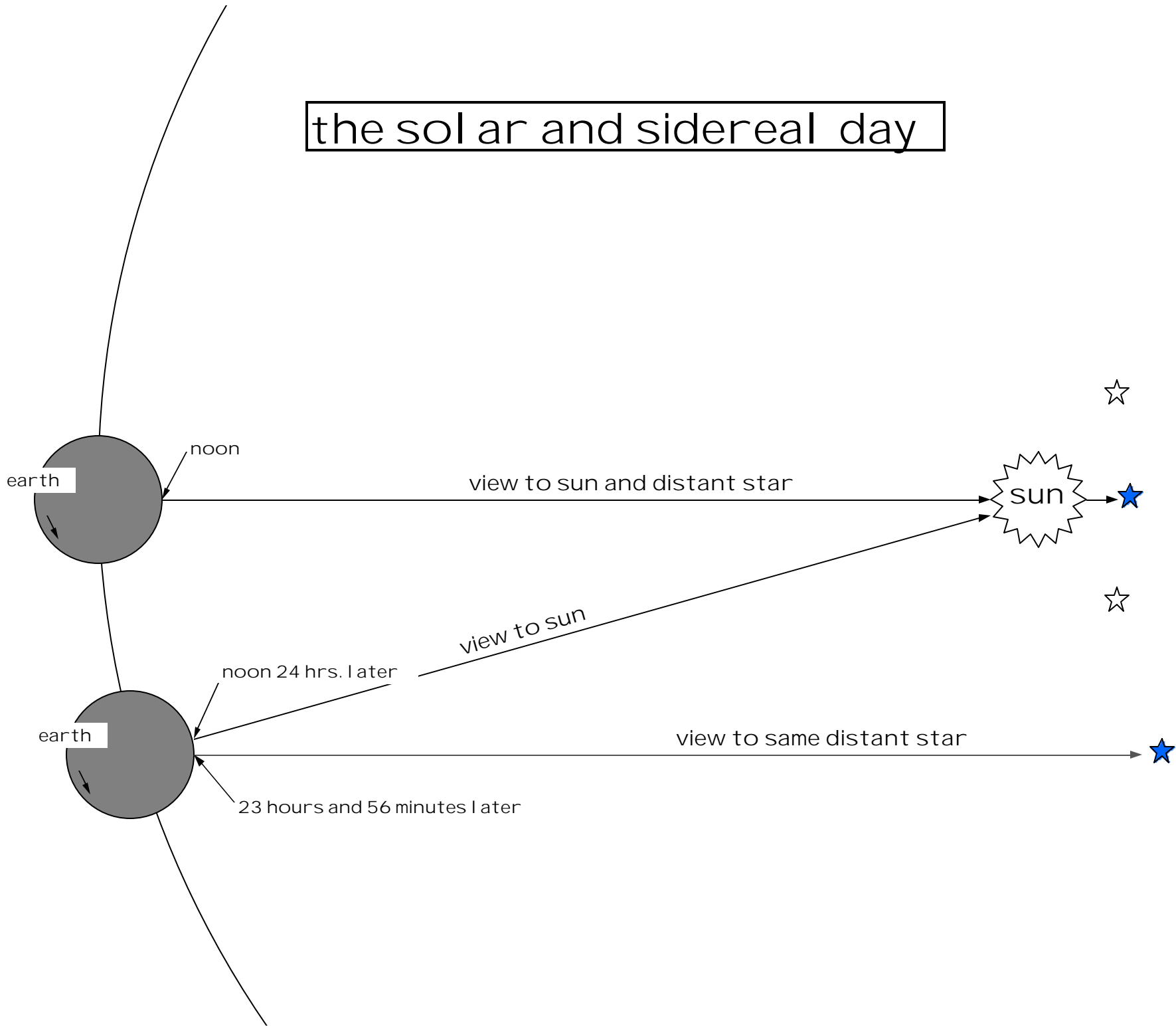


41 N

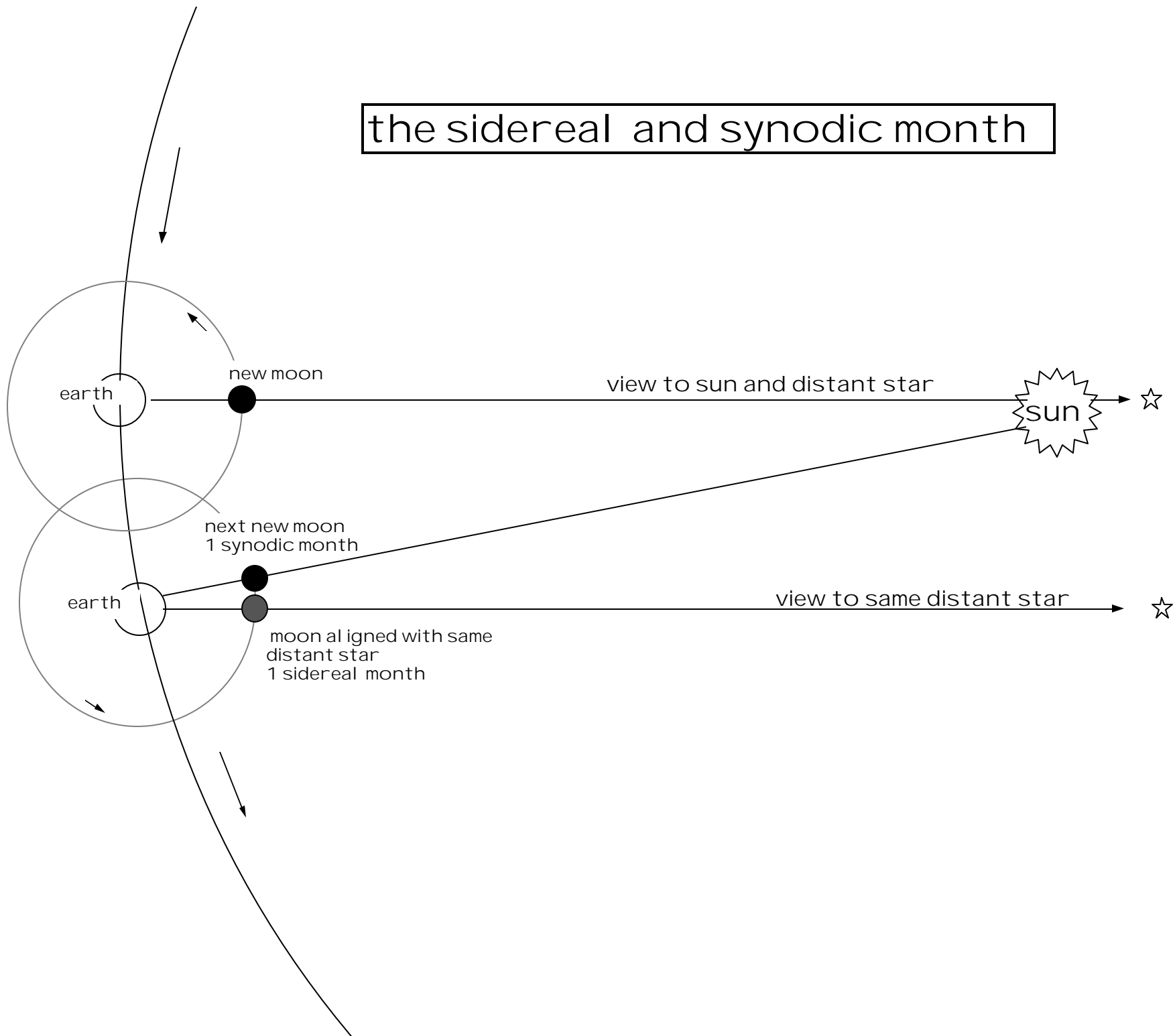
CUT THIS FIGURE OUT TO USE
AS YOUR "HORIZON"



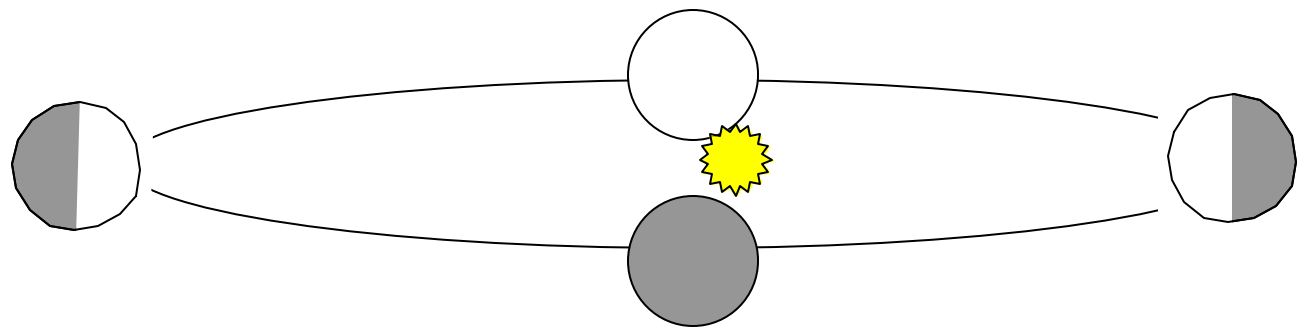
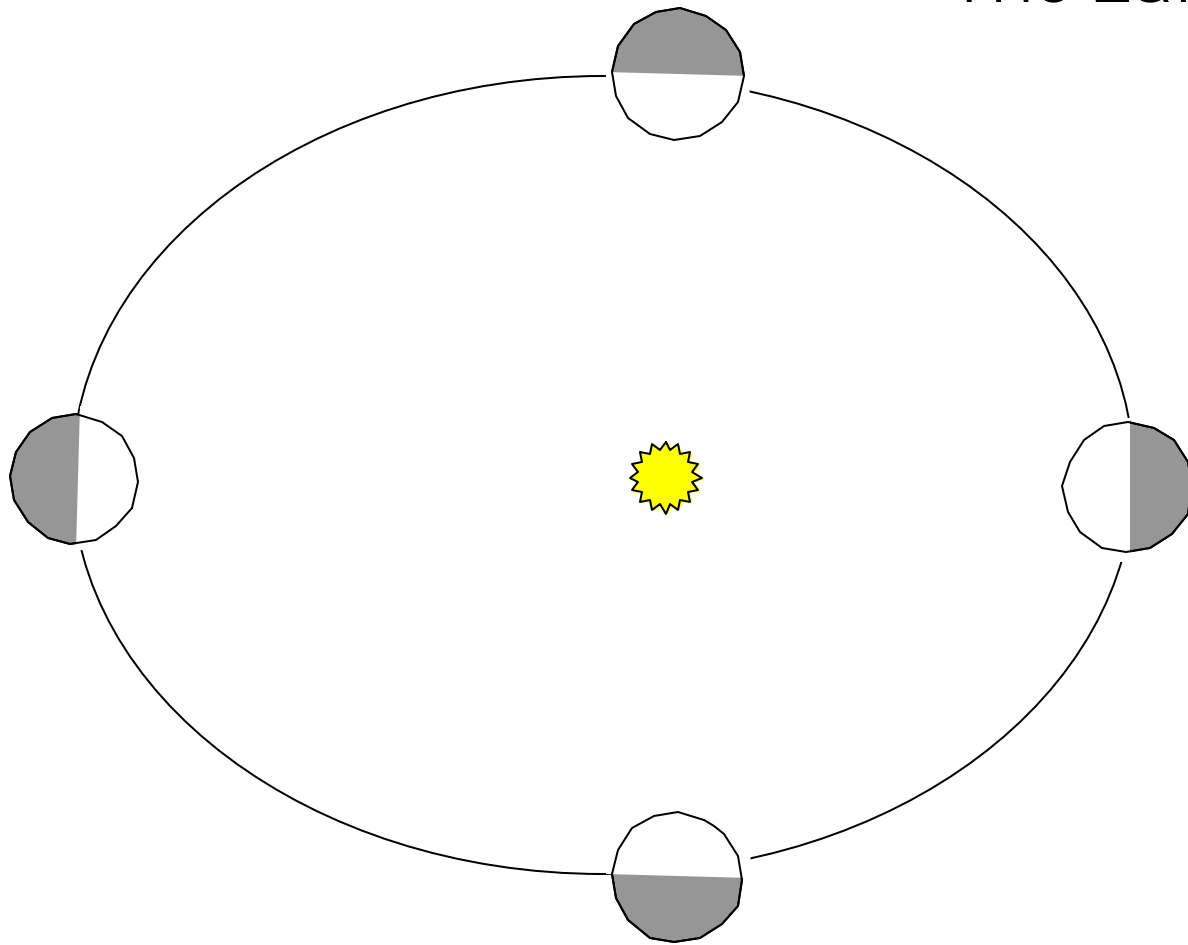
the solar and sidereal day



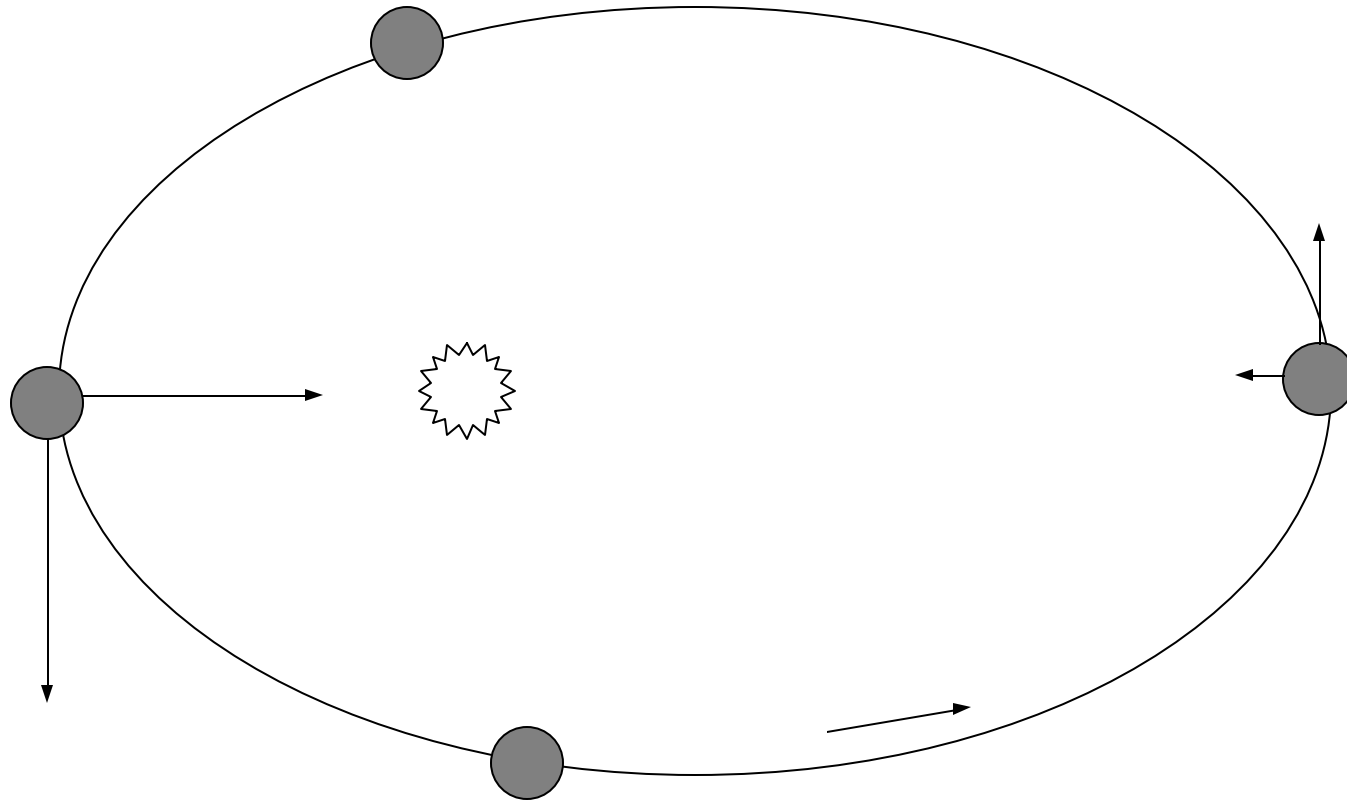
the sidereal and synodic month



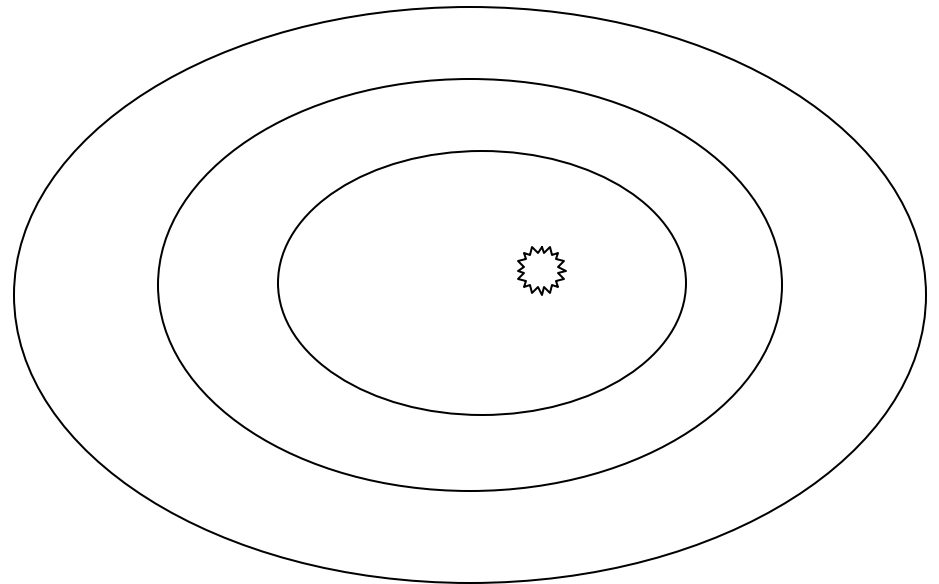
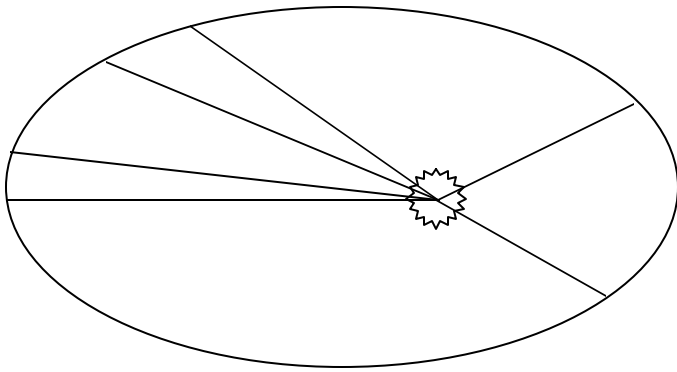
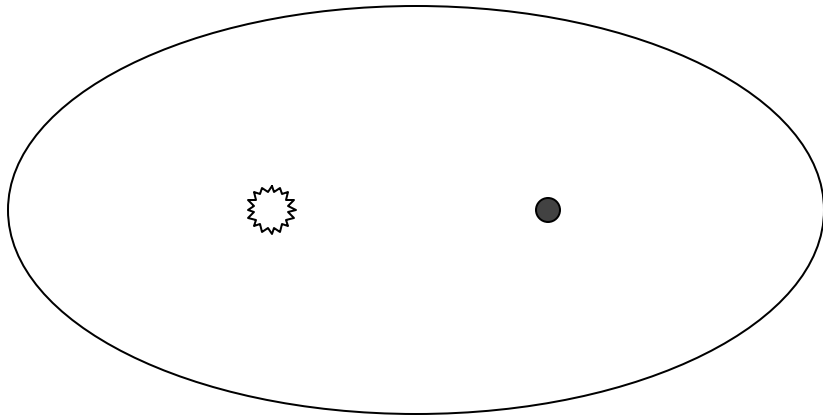
The Earth's seasons



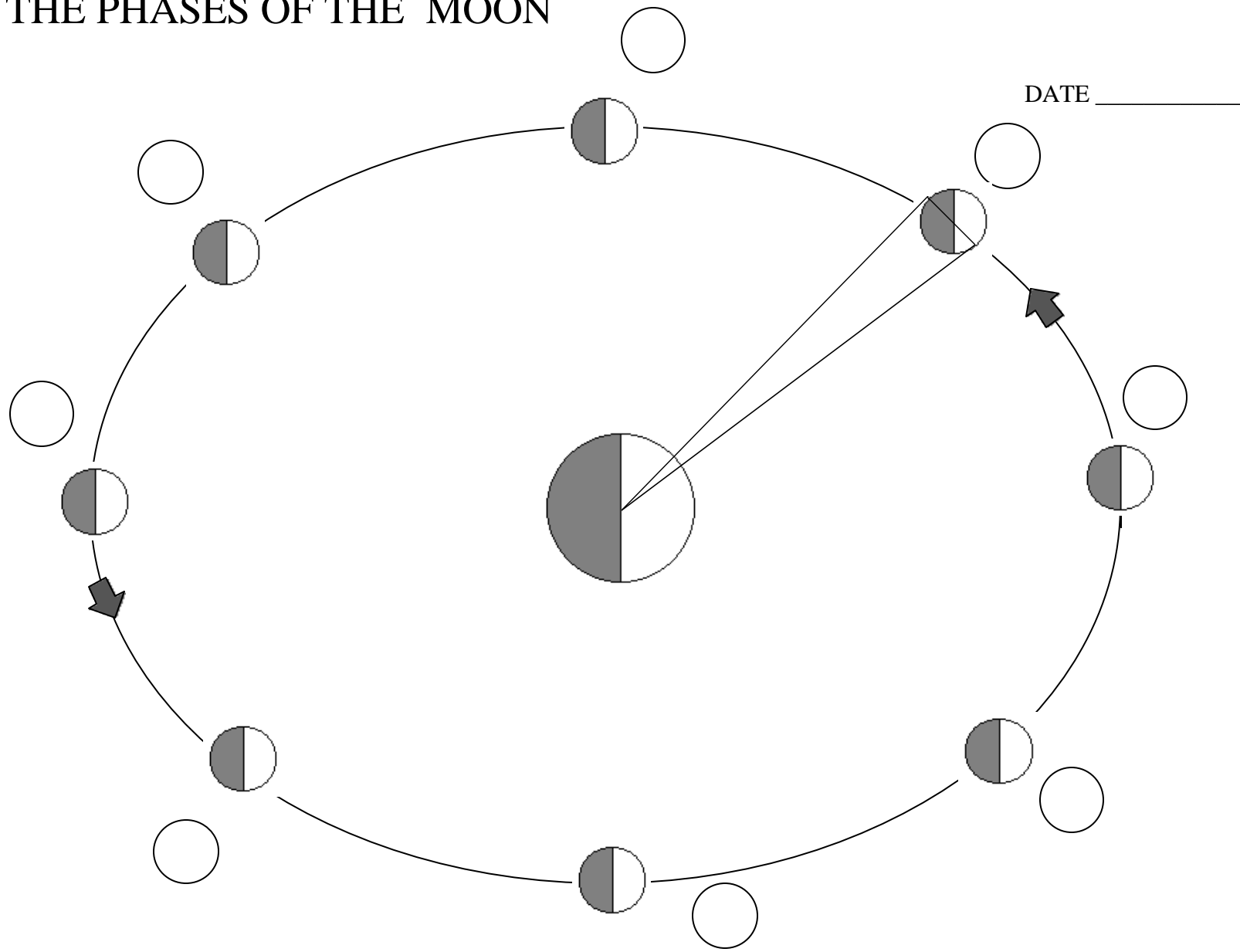
How Orbits Work



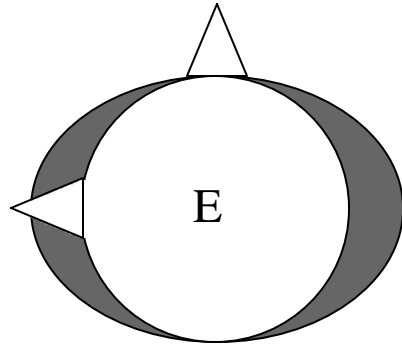
Kepler's Laws of Planetary Motion



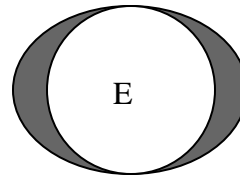
THE PHASES OF THE MOON



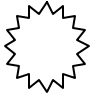
THE CONCEPT OF TIDES



(M)



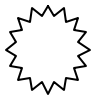
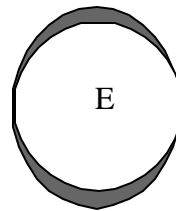
(M)



SPRING TIDE — HIGH HIGHS, LOW LOWS

(M)

NEAP TIDE — SMALL HIGHS, BIG LOWS



(M)

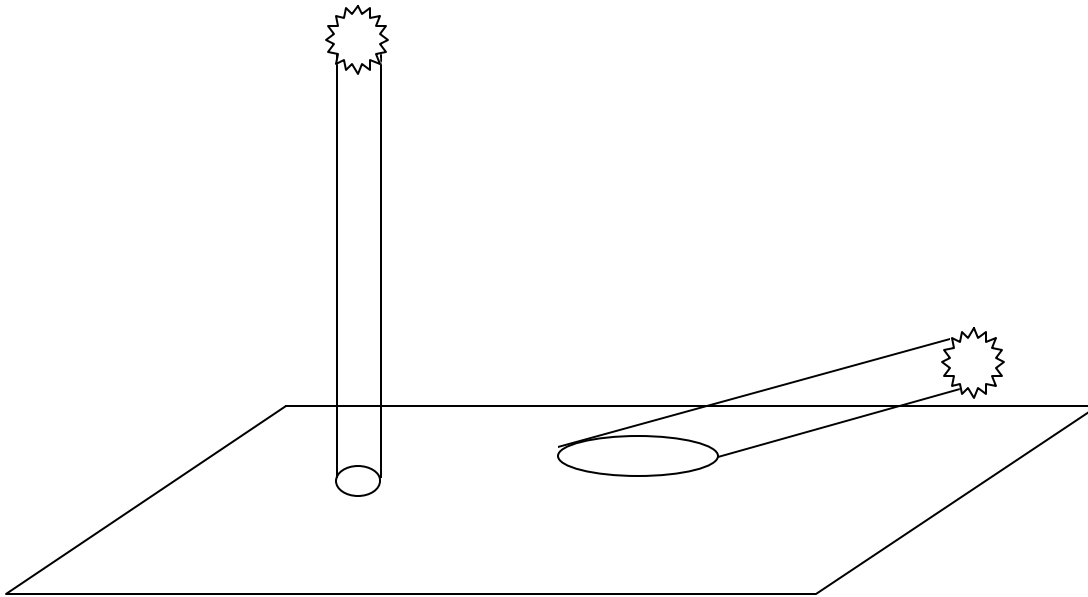


FIG 1. ANGLE of INSOLATION affects the INTENSITY of INSOLATION

The most direct, or 'VERTICAL RAY' of the Sun strikes the Earth at a _____ degree angle, and is _____

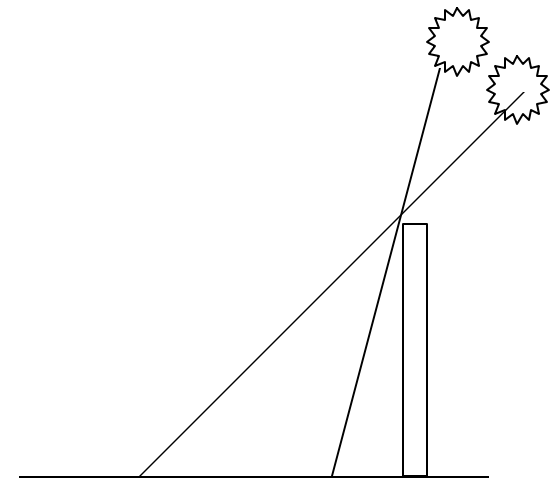


FIG 2. LENGTH OF THE SHADOW cast by a vertical stick is affected by the angle of insolation.
HIGH SUN = _____SHADOW!

W

N



E

FIG 3. The direction of the shadow cast by a vertical stick changes throughout the day. At sunrise, the shadow points generally to the _____, and at sunset, the shadow points generally to the _____. The NOON shadow always points to the _____ and is shorter in the _____ season and longer in the _____.

S