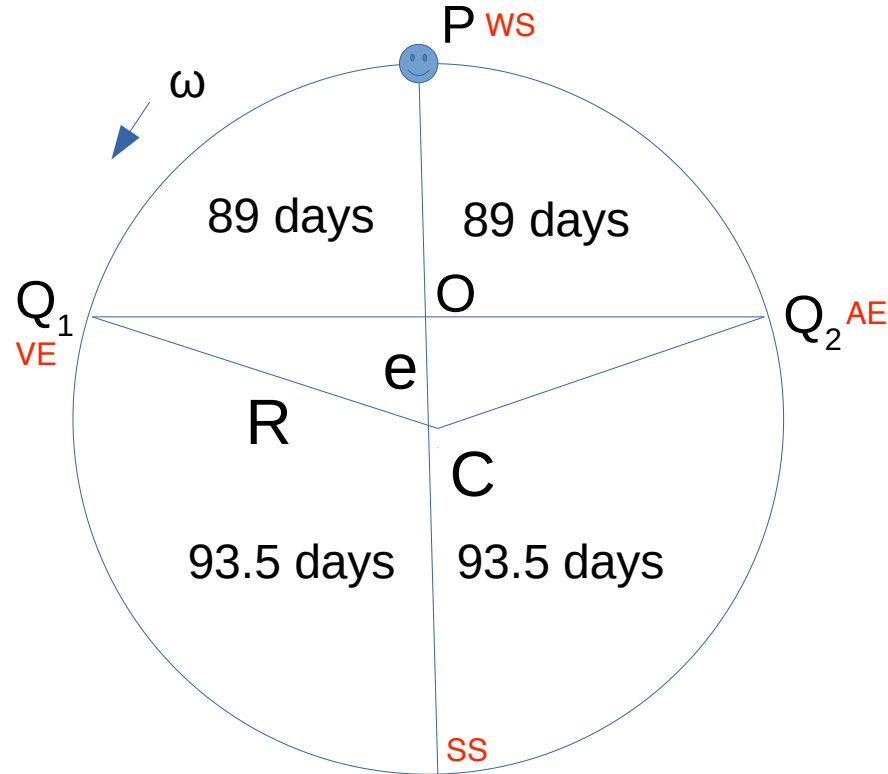


Quasi geocentrism. Observer O is not at the center of rotation C. O is displaced from C by the eccentricity,  $e$ . Sun P moves at constant speed  $\omega$  around C. Radius of orbit  $R$ . Quadrature points,  $Q_1, Q_2$  at 90 degrees from perigee.

The seasons are not of equal length as measured by the position of the sun over the year. The sun is a perfect body which must move at a constant speed. The observer, O, can not be at the center of rotation, C.



Check chapter 3 of the text book to see Hipparchus's proposed eccentric model for the sun.

The distances  $R$  and  $e$  were not known separately. Only the ratio  $e/R \sim 1/24$  was known.