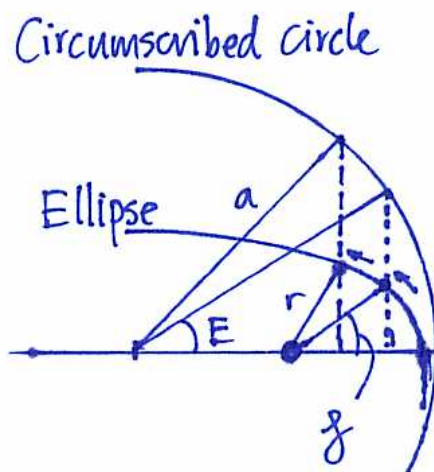


so far we've been concerned with the orbital figure (which does not change in time). Where does the body spend its time on the figure?

define the Mean Anomaly: $M = \frac{2\pi}{P}(t - \tau)$

↑
time of
periapse passage

The Mean anomaly is like a clock hand. It increases with steady linear accumulation. Unless the orbit is circular, it has no straightforward geometric interpretation.



E = eccentric anomaly

can derive:

$$M = E - e \sin E$$

↑ relates "clock/hand"
to the position in the
orbit

$M = E - e \sin E$ is Kepler's equation.

As far as I'm concerned, it is best
solved numerically!