- Start w/ Keplerian EOM

$$\ddot{\vec{r}} + \frac{\mu}{r^3}\vec{r} = 0$$

$\mu = GM$; M - mass of fixed central body

- Verify the Kepler Facts

	Action	Object	Quantity
Kf1	$\vec{r} \times$	KEOM	$\vec{h}$
Kf2	$\dot{\vec{r}} \cdot$	KEOM	E
Kf3	$\times \vec{h}$ *	KEOM	$\mu\vec{e}$
Kf4	$\vec{r} \cdot$	$\dot{\vec{r}} \times \vec{h}$ †	$\cos(f)$

* - order picked only so that BAC-CAB can be easily used (and factor of μ conventional to guarantee conic section)

† - from the definition of $\mu\vec{e}$