

$$\vec{h} = \vec{r} \times \vec{v} \left[\frac{km^2}{s}\right]$$

$$|\vec{h}| = |\vec{r}||\vec{v}|sin(\theta)$$

$$\varepsilon = \frac{|\vec{v}|^2}{2} - \frac{\mu}{|\vec{r}|} \left[\frac{km^2}{s^2}\right]$$

$$\varepsilon \propto \text{semi-major axis}$$

$$F_{gravity} = \frac{Gm_{large}m_{small}}{r^2}$$

$$F_{gravity} = m_{small}a_{small}$$

$$a_{small} = \frac{Gm_{large}}{r^2} = \frac{\mu}{r^2}$$

$$\vec{v}_{voyager2/Sun} = \vec{v}_{Jupiter} + \vec{v}_{voyager2/Jupiter}$$

$$\Delta v_{\infty}(tof) = |\vec{v}_{\infty_{arrive}} - \vec{v}_{\infty_{depart}}| = 0$$

$$\mu = Gm_{large-body}$$