

$$T = \frac{1}{f}$$

$$v = \frac{2\pi r}{T}$$

$$a_c = \frac{v^2}{r}$$

$$F_c = m \frac{v^2}{r}$$

$$F_g = G \frac{m_1 m_2}{r^2}$$

$$\text{PE} = U = -G \frac{m_1 m_2}{r}$$

$$v_e = \sqrt{\frac{2Gm}{r}}$$