1 Solar System Dynamics

NOTE:

field: Give the equation for the attraction between two bodies Sun and Earth, commaseparate the equation with its units. (using frac if necessary).

field:

$$F = G\frac{M_{Sun}M_{Earth}}{r^2}$$

,

$$N$$

NOTE:

field: Give the Vis-Viva equation, commaseparate the equation with its units. (using frac if necessary).

field:

$$\frac{V^2}{2} = -\frac{\mu}{2a} - \frac{\mu}{r}$$

,

$$\frac{m^2}{s^2}$$

NOTE:

field: Give the equation for orbital period, commaseparate the equation with its units. (using frac if necessary).

field:

$$T = 2\pi\sqrt{\frac{r^3}{\mu}}$$

,

$$s$$

NOTE:

field: Give the equation for escape velocityV_{esc}, commaseparate the equation with its units. (using frac if necessary).

field:

$$V_{esc} = \sqrt{\frac{2\mu}{r}}$$

,

$$\frac{m}{s}$$

NOTE:

field: Give the Hill equation for Jupiter and the Sun, commaseparate the equation with its units. (using frac if necessary).

field:

$$r_{hill} = a\left(\frac{m_{Jupiter}}{3(m_{Sun} + m_{Jupiter}}\right)^{\frac{1}{3}}$$

,

$$m$$

2 Minor Bodies and Comets

NOTE:

field: Give the equation for the minimum radius of a spherical body, commaseparate the equation with its units. (using frac if necessary).

field:

$$R_{min} = \sqrt{\frac{2S}{\pi G \rho^2}}$$

,

$$m$$