

Gravity & Kepler’s Laws:

$F_g = G \frac{M_a M_b}{r^2}, \qquad U_g = -G \frac{M_a M_b}{r}$

$G = 6.67x10^{-11}$

First Law: Elliptical orbits

Second Law: Equal areas swept over equal times (conservation of angular momentum)

Third Law: T^2

Subsection 2:

$\hat{H}|\psi\rangle = -\frac{\hbar^2}{2m} \frac{\partial^2}{\partial x^2} |\psi\rangle + V(x)|\psi\rangle = E|\psi\rangle$

Subsection 3:

$Z = \sum_i g_i e^{-E_i/k_b T}$

You get the Idea:

$\oint_{\gamma} f(z) \, dz = 2\pi i \sum_{z_k \in \gamma} \text{Res}(f; z_k)$