

$$F = \frac{GMm}{r^2} \tag{1}$$

$$x(t + \Delta t) = x(t) + v(t)\Delta t \tag{2}$$

$$v(t + \Delta t) = v(t) + a(t)\Delta t \tag{3}$$

$$v(t + \Delta t) = v(t) + a(t)\Delta t \tag{4}$$

$$x(t + \Delta t) = x(t) + v(t + \Delta t)\Delta t \tag{5}$$