Physics I
Equations

Equations:

$R_x = R\cos\theta$ $\qquad$ $R_y = R\sin\theta$

$R^2 = X^2 + Y^2$ $\qquad$ $\theta = \tan^{-1}(\frac{Y}{X})$

$\bar{v} = \frac{\Delta x}{\Delta t}$ $\qquad$ $\bar{a} = \frac{\Delta v}{\Delta t}$

for constant a:

$v_x = v_{0x} + a_x t$ $\qquad$ $x = x_0 + v_{0x}t + \frac{1}{2}a_x t^2$

$v_x^2 = v_{0x}^2 + 2a_x(x - x_0)$ $\qquad$ $\bar{v} = \frac{1}{2}(v_0 + v)$

$\sum \vec{F} = m\vec{a}$ $\qquad$ $\vec{F}_{ab} = -\vec{F}_{ba}$

$F_w = mg$

Constants:

g = 9.81 m/s^2

Metric System:

T = 10^{12}	G = 10^9	M = 10^6
k = 10^3	c = 10^{-2}	m = 10^{-3}
$\mu = 10^{-6}$	n = 10^{-9}	p = 10^{-12}