

Physics Formulas

Metric Units

prefix	symbol	factor	prefix	symbol	factor
tera	T	10^{12}	deci	d	10^{-1}
giga	G	10^9	centi	c	10^{-2}
mega	M	10^6	milli	m	10^{-3}
kilo	k	10^3	micro	μ	10^{-6}
hecto	h	10^2	nano	n	10^{-9}
deka	da	10^1	pico	p	10^{-12}

Mechanics

$$\bar{a} = \frac{\Delta v}{\Delta t} = \frac{v_f - v_0}{t}$$

$$\bar{v} = \frac{\Delta x}{\Delta t} = \frac{x_f - x_0}{t}$$

$$v_f = v_0 + at$$

$$\Delta x = \frac{t}{2}(v_0 + v_f)$$

$$\Delta x = v_0 t + \frac{1}{2}at^2$$

$$v_f^2 = v_0^2 + 2a\Delta x$$

$$g = 9.8 \frac{m}{s^2}$$

$$v_x = v \cos \theta$$

$$v_y = v \sin \theta$$

$$v^2 = v_x^2 + v_y^2$$

Force Equations

$$F_{net} = ma$$

$$F_g = mg$$

$$F_f = \mu F_N$$