Mechanics Formulas and Variables	Work/Energy/Momentum Formulas and Variables	
$v_f = v_i + at$	PE = mgh	
$d_f = d_i + v_i t + \frac{1}{2} at^2$	$KE = \frac{1}{2} mv^2$	
$F_{net} = ma$	$\Delta E = \Delta U_g + \Delta K$	
$a = v^2/r$	W = Fd	
$M_1 V_{1i} + M_2 V_{2i} = M_1 V_{1f} + M_2 V_{2f}$	$p = mv$	
a = acceleration	$\Delta p = m\Delta v = F\Delta t$	
v = velocity	GPE = gravitational potential energy	
x = position	g = acceleration due to gravity = 9.8 m/s^2	
t = time	h = height	
m = mass	KE = kinetic energy	
F = force	W = work	
c= speed of light	d = distance	
λ=wavelength	p = momentum	
r = radius	**Waves and Optics Equations**	
i = initial	$c = \lambda v$	
Electricity and Mag Formulas and Variables	c= speed of light = 3 x 10^8 m/s	
P=IV	λ=wavelength	
V=IR	v = velocity	
P = power	**Others**	
V = potential difference	a = bh	
R = resistance	a = area	a = 1/2bh
I = current	b= base	h = height