

Equations

<p>Motion & Kinematic Equations</p> $v_f = v_i + at$ $d = 0.5(v_f + v_i)t$ $d = v_i t + 0.5 * at^2$ $v_f^2 = v_i^2 + 2 * ad$ $p = mv$ $p_a + p_b = p'_a + p'_b$ $y = v_y t + 0.5 * at^2$ $x = v_x t + 0.5 * at^2$	<p>Electricity & Circuits</p> $R_{eq} = R_1 + R_2 + R_3 + R_n$ $(1/R_{eq}) = (1/R_1) + (1/R_2) + (1/R_3) + (1/R_n)$
<p>Energy & Heat</p> $P = VI = I^2R = W/t$ $V = IR$ $E = I^2Rt$ $V = Ed$	<p>Energy & Work</p> $W = Fd = \text{change in KE} = mg = ma$ $KE = 0.5 * mv^2$ $PE = mgh$ $KE_i + PE_i = KE_f + PE_f$ $PE = Vq$ $\text{efficiency} = (W_o / W_i) * 100$ $F = ma$
<p>Light & Waves</p> $f = (1 / T)$ $(1 / f) = (1 / d_i) + (1 / d_o)$ $m = (h_i / h_o) = (-d_i / d_o)$	<p>Gases</p> <p>Boyles Law: $P_1 V_1 = P_2 V_2$</p> <p>Charles Law: $V_1 / T_1 = V_2 / T_2$</p> <p>Combined Boyles & Charles Laws:</p> $PV = nRT$

