

Physics 1 Equation Sheet

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

$$v_f = v_0 + a t$$

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

$$v_{\text{ave}} = \Delta x / t$$

$$\Sigma F = m a$$

$$f = \mu N$$

$$w = F \times \cos\theta$$

$$K = \frac{1}{2} m v^2$$

$$w = \Delta K$$

$$U_{\text{gravity}} = m g h$$

$$U_{\text{spring}} = \frac{1}{2} k x^2$$

$$K_o + U_o = K_f + U_f$$

$$P = w / t$$

$$p = m v$$

$$J = F t = \Delta p$$

$$\Sigma p_o = \Sigma p_f$$

$$F_{\text{gravity}} = (G m_1 m_2 / r^2)$$

$$g = G M / R^2$$

$$v = \text{sqr}(G M / r)$$