

IPSH MECHANICS EXAM EQUATION SHEET

$$v = d/t$$

$$\bar{v} = \frac{v_i + v_f}{2} \quad \text{or} \quad \frac{d_f - d_i}{t_f - t_i}$$

$$v = at$$

$$d = \frac{1}{2}at^2$$

$$a = \frac{\Delta v}{\Delta t} \quad \text{or} \quad \frac{v_f - v_i}{t_f - t_i}$$

$$F = ma$$

$$p = mv \qquad I = Ft$$

$$m_A v_A + m_B v_B = (m_A + m_B)v$$

$$\text{work} = Fd \qquad \text{power} = \frac{\text{work}}{\text{time}}$$

$$PE = mgh \qquad KE = \frac{1}{2}mv^2$$

$$MA = \frac{\text{input distance}}{\text{output distance}}$$