

IPSH MECHANICS EXAM EQUATION SHEET

Instantaneous speed

$$v = at$$

$$\text{Average speed} = \frac{v_i + v_f}{2}$$

Distance of fall = avg.speed x time

$$F = ma$$

$$s = d/t$$

$$a = \frac{\Delta v}{\Delta t}$$

$$p = mv$$

$$I = Ft$$

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

$$\text{work} = Fd$$

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

$$PE = mgh$$

$$KE = \frac{1}{2} mv^2$$

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