Physics 10 Placement Test Formula Sheet

Kinematics

$$s = \frac{\Delta d}{\Delta t} \qquad\qquad \vec{v} = \frac{\Delta \vec{d}}{\Delta t} \qquad\qquad \vec{a} = \frac{\Delta \vec{v}}{\Delta t} = \frac{\vec{v}_f - \vec{v}_i}{\Delta t}$$

Dynamics

$$\vec{F}_g = m\vec{g}$$

Work and Energy

$$W = Fd \qquad\qquad E_p = mgh \qquad\qquad E_k = \frac{1}{2}mv^2$$

$$E_m = E_p + E_k$$

$$\% \text{ efficiency} = \frac{\text{useful } E_{out}}{E_{in}} \times 100\%$$

Constants

$$g = 9.81 \text{ m/s}^2$$