

$$\begin{aligned} \text{a)} \quad m &= 250 \text{ g} = .250 \text{ kg} \\ g &= 9.8 \text{ m/s}^2 \\ v &= .50 \text{ m/s} \end{aligned}$$

$$P = F \cdot v = (.250 \text{ kg})(9.8 \text{ m/s}^2)(.50 \text{ m/s})$$

$$P = 1.23 \text{ W}$$

$$\begin{aligned} \text{b)} \quad P &= 1.23 \text{ W} \\ V &= 9.0 \text{ V} \end{aligned}$$

$$P = I \cdot V \quad \text{so} \quad (1.23 \text{ W}) = (I) \cdot (9.0 \text{ V})$$

$$I = .14 \text{ A}$$