

P # 6

Ch 11 Pg 353

$$\begin{aligned}m &= 50.0 \text{ kg} \\g &= 9.8 \text{ m/s}^2 \\d &= 10.0 \text{ m}\end{aligned}$$

$$\begin{aligned}F &= \text{Weight} = m \cdot g \\&= (50.0 \text{ kg})(9.8 \text{ m/s}^2) \\F &= 490 \text{ N}\end{aligned}$$

$$\begin{aligned}W &= F \cdot d \\&= (490 \text{ N})(10.0 \text{ m})\end{aligned}$$

$$W = 4900 \text{ J}$$

$$4900 \text{ J} \cdot \frac{1 \text{ cal}}{4.186 \text{ J}} \cdot \frac{1 \text{ Cal}}{1000 \text{ cal}}$$

$$W = 1.17 \text{ Cal}$$