

Exercise 7-5

$$x = x_0 + v_0 t + \frac{1}{2} a t^2$$

Choose $x_0 = 0$.

$$\therefore x = v_0 t + \frac{1}{2} a t^2$$

$$= (15.0 \text{ m/s})(600 \text{ s}) + \frac{1}{2} (0.0200 \text{ m/s}^2) (600 \text{ s})^2$$

$$= 1.26 \times 10^4 \text{ m}$$

$$= 12.6 \text{ km}$$