

28.

$$a) \quad t = ?$$

$$v_i = 24.6 \text{ m/s}$$

$$v_f = 0$$

$$a = -4.92 \text{ m/s}^2$$

$$v_f = v_i + at$$

$$t = \frac{v_f - v_i}{a} = \frac{0 - 24.6}{-4.92}$$

$$t = 5.00 \text{ s}$$

$$b) \quad \Delta x = ?$$

$$v_f^2 = v_i^2 + 2a(\Delta x)$$

$$\Delta x = \frac{v_f^2 - v_i^2}{2a} = \frac{0^2 - (24.6)^2}{2(-4.92)}$$

$$\Delta x = 61.5 \text{ m}$$