

The opening of a cannon is 18 feet above the ground. The daredevil, who is shot out of the cannon, reaches a maximum height of 28 feet after about 0.75 seconds. Use this information to answer the following questions.

$$\begin{array}{cc} t & h(t) \\ \hline (.75, & 28) \end{array}$$

Find the initial upward velocity of the daredevil.

$$h(t) = h_0 + v_0 t - 16t^2$$
$$v_0 = 25.3 \text{ ft/sec} \quad h(t) = 18 + v_0 t - 16t^2$$

Write an equation that models the path of the daredevil's flight.

$$h(t) = 18 + 25.3t - 16t^2$$

