

One Solution to the cliff problem:

$$a = -32 \text{ ft/s}^2$$

$$v = -32t + v_0 \Rightarrow v_0 = 0$$

$$y = -16t^2 + y_0$$

$$\rightarrow -120 = -32t$$

$$t = 3.75 \text{ s}$$

$$\rightarrow 0 = -16(3.75)^2 + y_0$$

$$\boxed{y_0 = 225 \text{ ft}}$$

