

x

$$d = 6\text{m}$$

$$t = .78\text{sec}$$

$$d = v t$$

$$6 = v (.78)$$

$$\frac{6}{.78} = v = \boxed{7.7\text{m/s}}$$

↑

STEP 2

y

$$v_i = 0\text{m/s}$$

$$a = 9.8\text{m/s}^2$$

$$d = 3\text{m}$$

$$d = v_i t + \frac{1}{2} a t^2$$

$$3 = 4.9 t^2$$

$$\sqrt{\frac{3}{4.9}} = t = \boxed{.78\text{sec}}$$

↑

STEP 1