

Ethan L

1.93

Question 9

$$d = 2.2 \text{ m}$$

$$\Delta x = .011 \text{ m}$$

$$1.93 = v_{ix} \Delta t + \frac{1}{2} a_x \Delta t^2$$

$$1.93 = v_{ix} \Delta t \quad v_{ix} \frac{1}{2} k \Delta x^2 = F \Delta x = k \Delta x$$

$$mgh + \frac{1}{2} k \Delta x^2 = \frac{1}{2} m v^2$$

$$v_{ix} = 1.93 / \Delta t$$

$$\Delta x = 1.37 \text{ cm}$$

