Nathan Huston

Question 9

0.011

$\Delta x = 2.2m$

$\sqrt{2gh} = v$ KE

$\frac{1}{2}k\Delta x^2 = \frac{1}{2}mv^2$

$\frac{1}{2}k(0.011)^2 = \frac{1}{2}mv^2$

$\frac{1}{2}mv^2 =$

$\Delta x = V_1 t$

$\frac{1}{2}k(\Delta x)^2 + mgh =$

$1.93 =$

$\frac{X_1}{X_2} = \frac{V_1}{V_2}$

$\frac{1}{2}k(x)^2 = \frac{1}{2}mv^2$

$\frac{1.93}{2.2} = \frac{V_1}{V_2}$

$X_1 = V_1 t$ $X_2 = V_2 t$

$2\left(\frac{1}{2}k\Delta x^2\right) = mv^2$

$\frac{0.011m}{1.93m} = \frac{x}{2.2m}$

$2\left(\frac{1}{2}k(0.011)^2\right) = mv^2$

$X = 0.012539m$

$PE =$

$= 1.2539cm$