



Part I: Calculations without Friction

Formula's: Work = F D cosθ Work = ½ kx² PE = mgh KE = ½ mv² Power = work/time F_{fr} = μF_N

Energy gained/lost at Point "W" = Energy gained/lost @ point "X", "Y", or "Z" + [Frictional work]
 $\Delta[mgh + \frac{1}{2}mv^2] = \Delta[mgh + \frac{1}{2}mv^2] + [F_{fr} \bullet D]$

1. Calculate the PE at all points: 2 pt. each

W: Ans: _____

X: Ans: _____

Y: Ans: _____

Z: Ans: _____

2. Calculate the Velocity at all points: 3 pts. each

X: Ans: _____

Y: Ans: _____

Z: Ans: _____