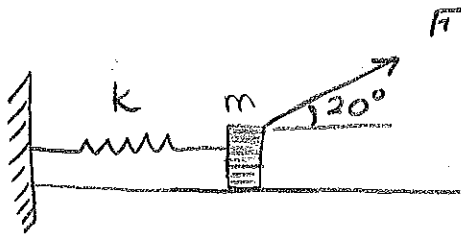


USE WORK ENERGY WHEN POSSIBLE

I.



$$F = 200 \text{ N}$$

$$k = 200 \text{ N/m}$$

$$\mu_k = 0.3$$

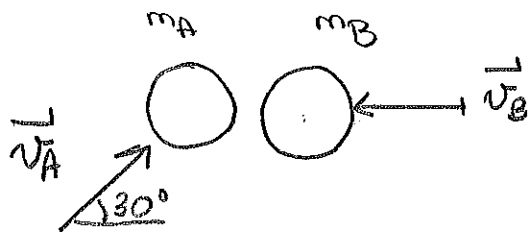
$$m = 1.5 \text{ kg}$$

the spring is unstretched when the force  $F$  is applied.  
the mass has a velocity of  $2.0 \text{ m s}^{-1}$  to the left  
at that instant.

Find the velocity of the block after it moved  
20 cm.

= SHOW ALL STEPS =

II. Find the velocities after impact.



$$m_A = 5 \text{ kg}$$

$$m_B = 15 \text{ kg}$$

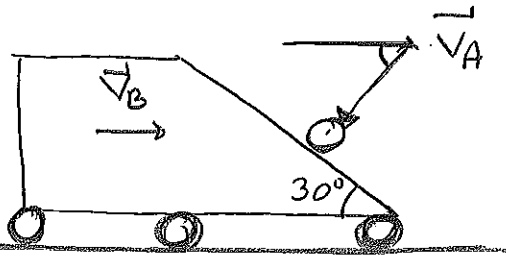
$$|\vec{v}_A| = 20 \text{ m s}^{-1}$$

$$|\vec{v}_B| = 5 \text{ m s}^{-1}$$

$$e = 0.5$$

How far will A go before coming to a stop  
if the support has  $\mu_k = 0.3$ ?

**MURRAY LEWIS**



$$V_B = 5 \text{ ms}^{-1}$$

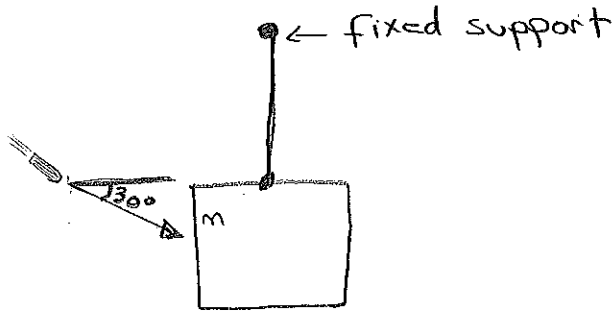
$$m_B = 100 \text{ kg}$$

$$e = 0,6$$

IV. A bullet fired from a gun gets impeded in the mass as shown below. How high will the mass go?

$$m = 2 \text{ Kg}$$

$$m_{\text{bullet}} = 0.1 \text{ Kg}$$



what is impulse the rope exerts on the block?