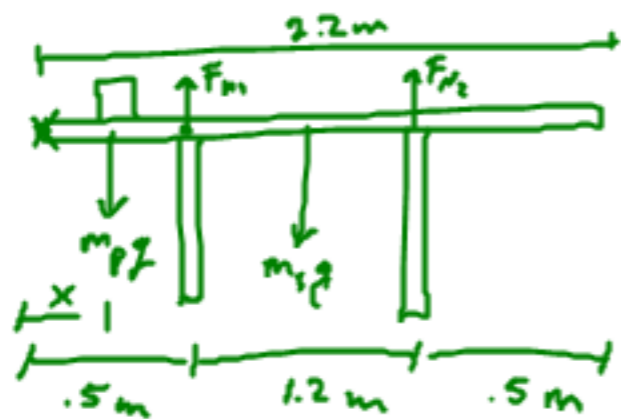


4)



$$m_T = 30 \text{ kg}$$

$$m_p = 64 \text{ kg}$$

$$F_{n2} = 0$$

$$\Sigma F = 0$$

$$F_{n1} + F_{n2} = m_p g + m_T g$$

$$F_{n1} = m_p g + m_T g$$

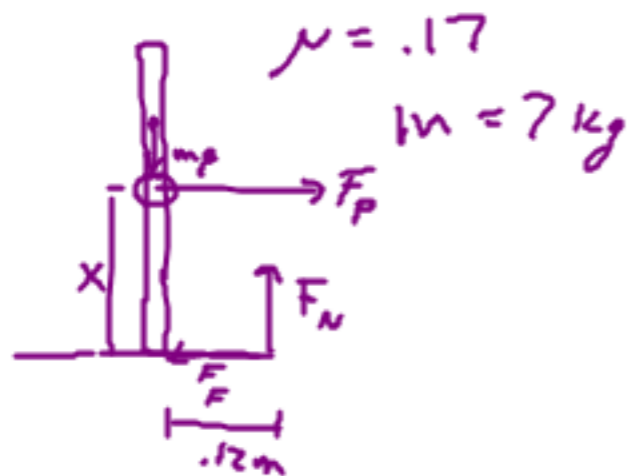
$$\Sigma \tau = 0$$

$$\Sigma \tau = m_p g(x) - F_{n1}(.5) + m_T g(1.1)$$

$$m_p g(x) = F_{n1}(.5) - m_T g(1.1) \quad \pm F_{n2}(1.7)$$

$$m_p g(x) = (m_p g + m_T g)(.5) - m_T g(1.1)$$

9)



$$\sum \tau = 0$$

$$\sum \tau = -F_N(0.12) + F_P(x)$$

$$(0.12) F_N = F_P(x)$$

$$0.12 F_N = \mu F_N(x)$$

$$0.12 = 0.17 x$$

$$x =$$

$$F_N = mg$$

$$F_F = F_P = \mu F_N$$

(min)

$$i) F_{W_{SS}} = 255 \text{ N}$$

$$F_{W_B} = 110 \text{ N}$$

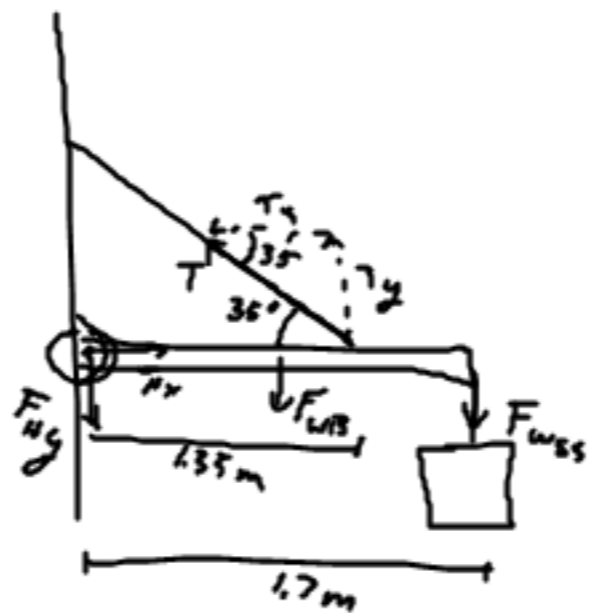
$$\Sigma F = 0$$

$$\Sigma F_y = 0$$

$$\Sigma F_x = 0$$

$$T_x = F_{H_x}$$

$$T_y = F_{H_y} + F_{W_B} + F_{W_{SS}}$$



$$\Sigma \tau = 0$$

$$-T_y(1.35) + F_{W_B}\left(\frac{1.7}{2}\right) + F_{W_{SS}}(1.7)$$

$$T_y =$$

$$T \sin 35 = T_y$$