

4-18)

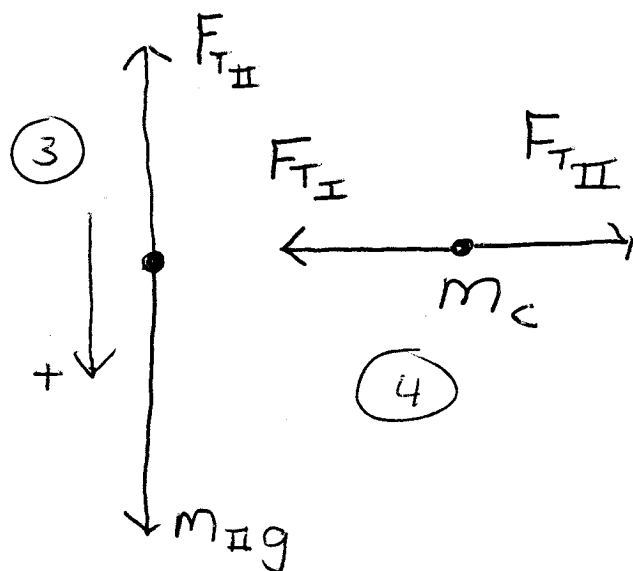
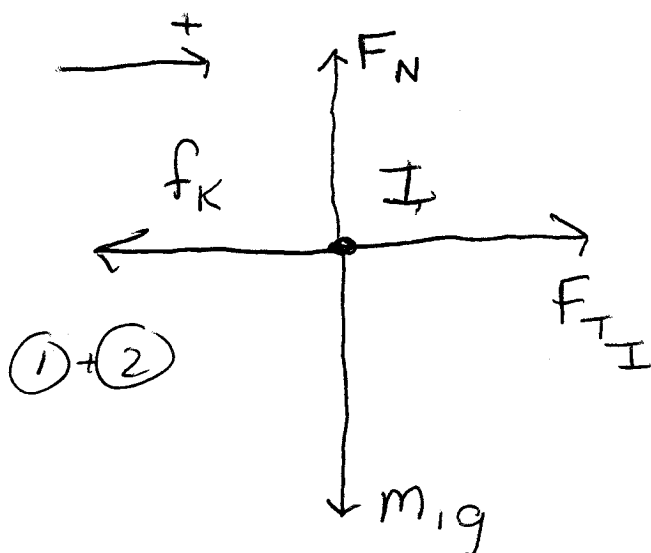


$$ma_e = mg - F_N$$

$$ma_e = mg - .75mg$$

$$a_e = .25g$$

5-12)



Because cord has mass it now has different tensions on each end

$$\textcircled{1} m_I a = F_{T_I} - \mu_k F_N \leftarrow$$

$$\textcircled{2} 0_N = F_N - m_I g \quad F_N = m_I g$$

$$\textcircled{3} m_{II} a = m_{II} g - F_{T_{II}}$$

$$\textcircled{4} m_c a = F_{T_{II}} - F_{T_I}$$

add $\textcircled{1} + \textcircled{3} + \textcircled{4}$ (all tensions cancel out)

$$(m_I + m_{II} + m_c) a = m_{II} g - \mu_k m_I g$$