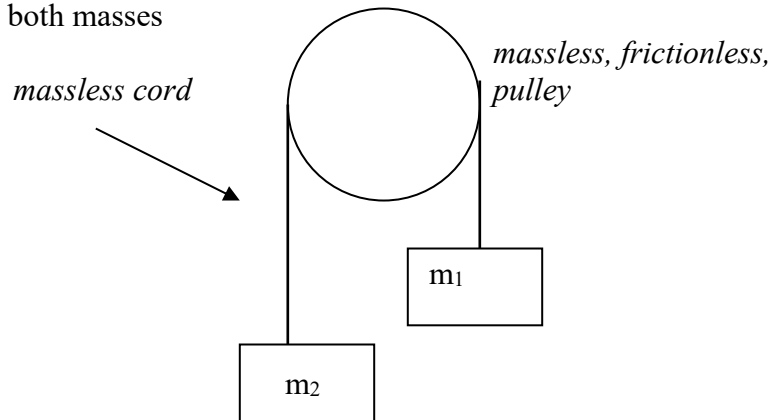


3. For the pulley system shown: $m_1 = 0.50 \text{ kg}$; $m_2 = 0.35 \text{ kg}$

a) Draw the free body diagrams for both masses
(include sign convention)

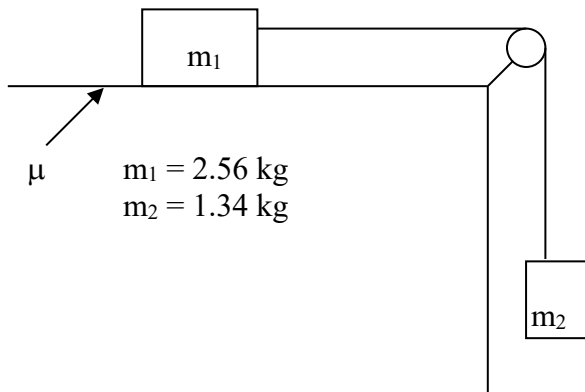


b) Determine the acceleration (direction and magnitude) of m_1 .

c) Determine the magnitude of the tension on the cord.

4. For the system shown below:

a. Draw the free body diagrams for both masses.



b. Determine the acceleration of the system if the table surface is greased, making $\mu \approx 0$.

c. Determine the minimum value of μ_s that will hold system at rest.

d. Determine the acceleration of the system if $\mu_k = 0.156$.