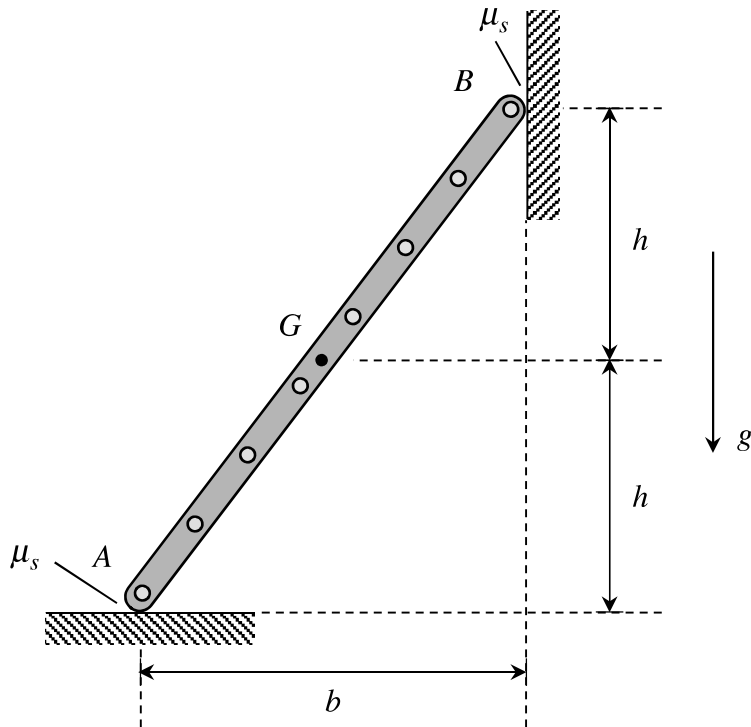


Homework HI7.A

Given: A ladder having a weight of W rests on a rough horizontal surface and a rough vertical wall. The center of mass for the ladder is at the midpoint G along the ladder's length. The coefficient of static friction between the ladder and the floor, and between the ladder and the wall, is μ_s .

Find: What is the largest ratio of $b/2h$ that will allow the ladder to remain in equilibrium? What influence does the weight of the ladder have on your answer?

For this problem, use the following parameter: $\mu_s = 0.3$.



Homework H17.B

Given: Blocks A and B have masses of $2m$ and m , respectively, and are connected by the cable-pulley system shown. The coefficient of friction between each block and ground is μ_s .

Find: Determine the numerical value for the minimum μ_s required to keep the system in equilibrium.

For this problem, use the following parameter: $\theta = 36.87^\circ$.

