Homework Problem H6.E

Given: A cable is pulled over a fixed pulley. Blocks A and B (having weights of W_A and W_B, respectively) are attached to the ends of the cable. The coefficient of static friction between the drum and the cable is known to be μ_s.

Find: For this problem:

a) Determine the smallest weight of A for which the system can be in equilibrium.

b) Determine the largest weight of A for which the system can be in equilibrium.

For this problem, use the following parameters: W_B = 100 lb and μ_s = 0.4.