Homework Problem H17.A

Given: A spool is supported by a pin in a smooth, horizontal guide at O. A cable is wrapped around the inner surface of the spool with block B (having a weight of W) attached to the free end of the cable. A horizontal force P acts on the outer surface of the spool to bring the spool is contact with a rough, vertical wall on the right at A. The coefficient of static friction between the spool and the wall at A is $\mu_S = 0.4$.

Find: For this problem:
a) Determine the *minimum* force P required to hold the system in equilibrium.
b) Determine the *maximum* force P for which the system can be in equilibrium.

Write your answers in terms of W.