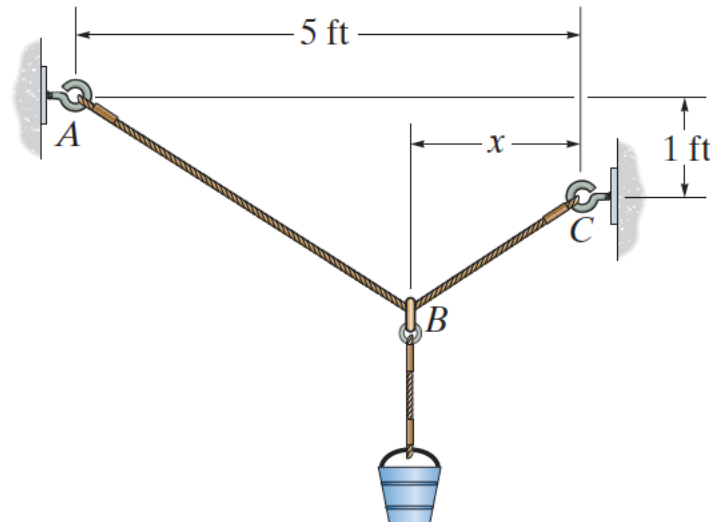


Lab #3

Cable ABC has a length of 6 ft and is used to support the 40 lb load (B is a frictionless pulley):



- A) Determine the position x and the tension in the cable that is required for equilibrium.
- B) Use Matlab or Excel to show how tension in the ABC cable changes by changing the load from 5 lb to 50 lb at 5 lb increments. Generate the following graph and describe your observations:
- Cable tension versus load
- C) Use Matlab or Excel to show how tension in the ABC cable changes by changing x from 0.5 ft to 5 ft at 0.5 ft increments. Generate the following graph and describe your observations:
- Cable tension versus x -position