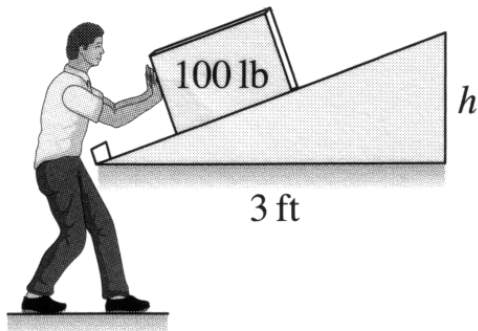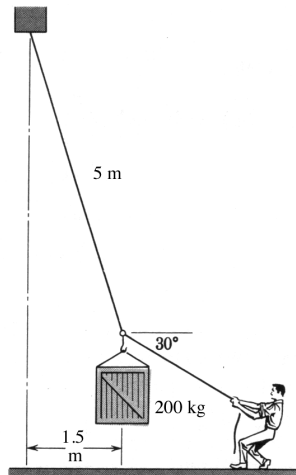1.   Dimension h is to be determined so that a worker can comfortably slide boxes weighing up to 100 lb up a frictionless incline.

If the worker can apply a 50 lb horizontal force to the box, what is the largest value h should have?
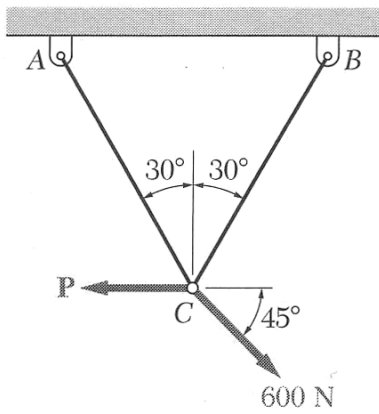

2.   Calculate the pull that the man must exert on the rope in order to suspend the 200 kg crate in the deflected position shown.

What is the corresponding tension in the 5 m cable?

3. Knowing that force **P** = 400 N, determine the tensions in cables *AC* and *BC*.

Challenge Problem:
Repeat example 3 by rotating the coordinate system so that the *x'* axis passes through points *B* and *C*.