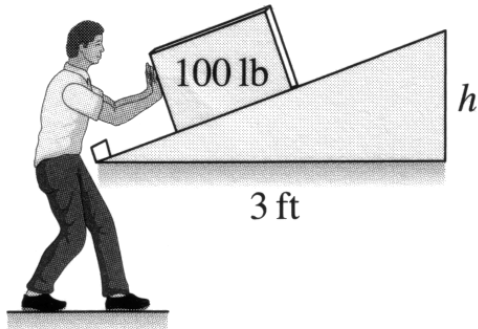


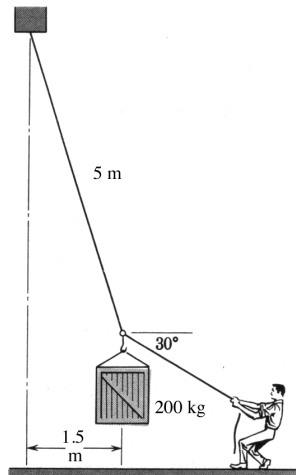
1. Dimension h is to be determined so that a worker can comfortably slide boxes up a frictionless incline.

If worker can apply up to 50 pounds parallel to the incline, and the boxes weigh 100 lb, what is the greatest value h can have?

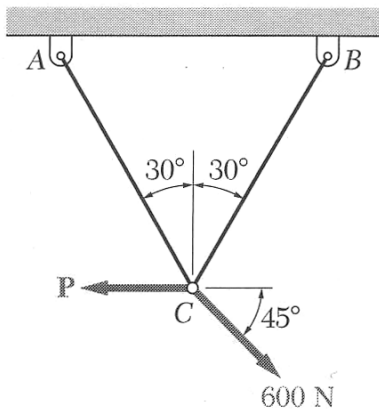


2. Calculate the pull that the man must exert on the rope in order to suspend the 200 kg crate in the deflected position shown.

What is the corresponding tension in the 5 m cable?



3. Knowing that force $\mathbf{P} = 400\text{ N}$, 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 .