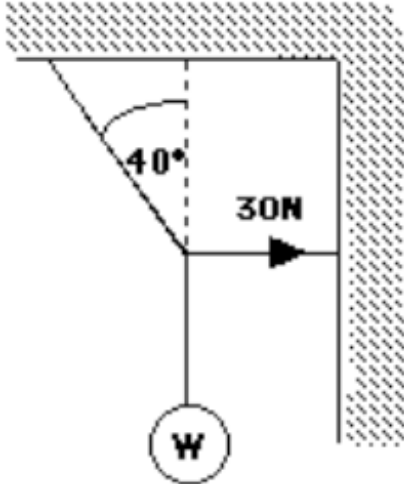


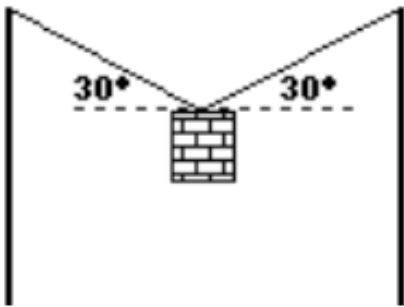
Cable Problems

Situations involving tension and weight forces at arbitrary angles.

1. Determine the weight of the ball if the system is in equilibrium. The cable at right exerts a 30. N force.



2. The object hung from the cable has a weight of 25 N.



A. Each cable provides some upward component of force. How large is that Y-component of the tension force?

B. What is the tension in the cable?

C. Repeat the problem above with a 5° angle. How does the tension compare?

3. In the system below the pulleys are frictionless and the system hangs at static equilibrium. If w_1 , the weight of the object on the right, is 200. N, what are the values of w_2 and w_3 ?

