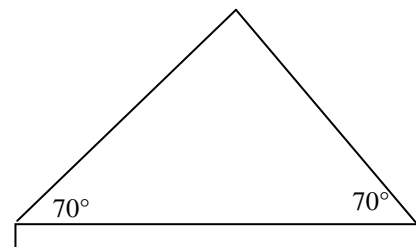


Statics Problems

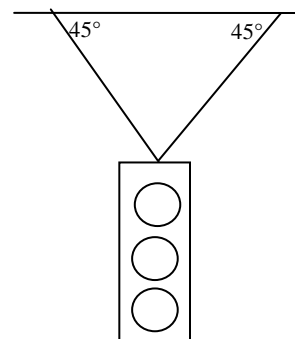
Name _____

Directions: Work the following problems:

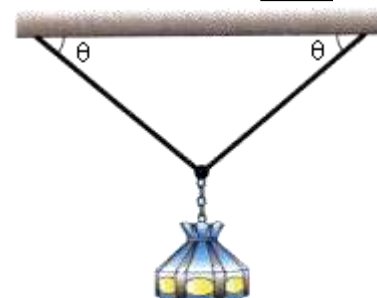
1. A steel I-beam in the drawing has a weight of 8.00 kN. It is being held by a crane connected by two cables as shown in the drawing. What is the tension in each of the cables?



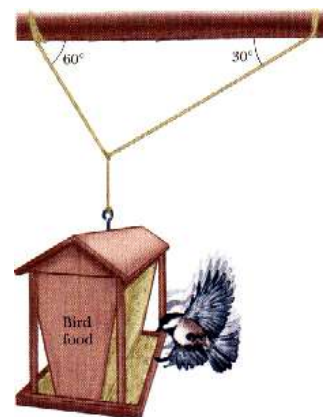
2. A traffic light is held as shown in the figure. Each cable makes an angle of 45° with the bar that is holding the traffic light. The tension in each of the cable is 60 N. What is the weight of the traffic light?



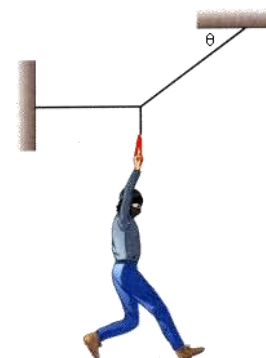
3. Find the tension in two wires if they support a light fixture with a weight of 100 N, if both wires make a 43 degree angle with the ceiling.



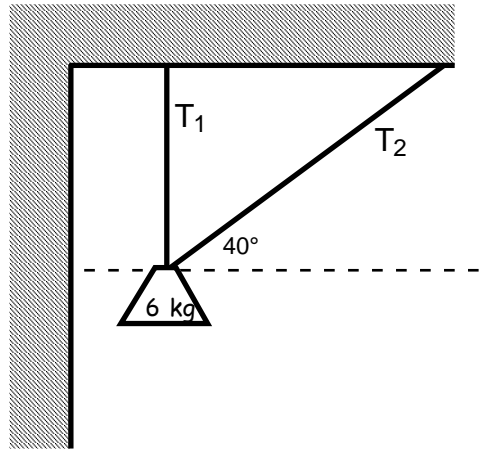
4. Find the tension in two wire if they support a bird feeder with a weight of 150 N, if one wire makes a 30 degree angle with the ceiling and the other a 60 degree angle.



5. Find the tension in the rope supporting the 600 N cat burglar if one string makes an angle of 28 degrees with the ceiling.



6. Find T_1 and T_2



7. Find T_1 and T_2

