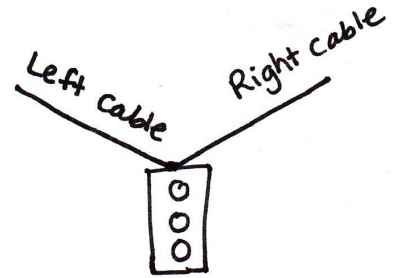


BFPM: Graphical Method: Find unknown force(s): B

A 6.8 kg (15 lb on earth) traffic light is suspended from two cables that are attached to the top of the traffic light and is at rest. The right cable is at an angle of 14° above the horizontal at the point where it attaches to the traffic light, and the tension in this cable is 167 N. (Picture is not to scale.)



- What force and motion models describe the situation?
- Draw a labeled FBD for the traffic light
- Calculate the force of gravity on the traffic light
- Use graphical methods to find all unknown forces on the traffic light. (State magnitude and direction for each)

Reminder:

In your work, be sure to write down your scale and list of all forces (include magnitude in Newtons, the direction, and the scaled length for each.)