AP Physics – Newton's Laws – 2

Who you are _____Per___

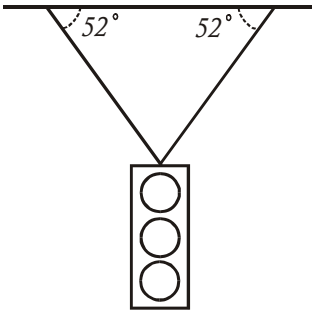
1. A frog jumps at an angle of 42.5° to the horizontal with a speed of 13.5 m/s. How far does it travel?

2. A 450 kg mass is accelerated at 2.5 m/s^2 . (a) What is the net force causing this acceleration? (b) much distance will have been covered after 3.5 s

3. A book sits on a table. The book has a mass of 1.25 kg. Draw a free body diagram of the thing.

4. A boy pushes a lawnmower. The handle of the lawn mower makes an angle of 22° with the horizontal. If the boy pushes with a force of 135 N, what are the horizontal and vertical components of the force?

5. A 46.5 kg traffic light hangs from two cables which are at the angles shown. Calculate the tensions in the two cables.



6. A 50.5 kg traffic light hangs from two cables which are at the angles shown. Calculate the tensions in the two cables.