Name: _____

LAB 10 PRE-LAB

1. In the Static tension activity, you will measure the length of a spring under different tensions, and plot a graph of length (vertical axis) against tension (horizontal axis). If the spring behaves as Hooke's law predicts, the graph should be a straight line.
   a. What would the slope of the line be?

   b. What would the intercept of the line be?

2. How would you use the graph of extension vs. tension to estimate the spring constant of the spring?

3. In the Oscillation activity, you will measure the periods of oscillation of different masses hanging from a spring and plot a graph of the square of period T (vertical axis) against mass m (horizontal axis). If the spring behaves as Hooke's law predicts, the graph should be a straight line.
   a. What would the slope of the line be?

   b. What would the intercept of the line be?

4. How would you use the graph of T^2 vs. m to estimate the spring constant of the spring?