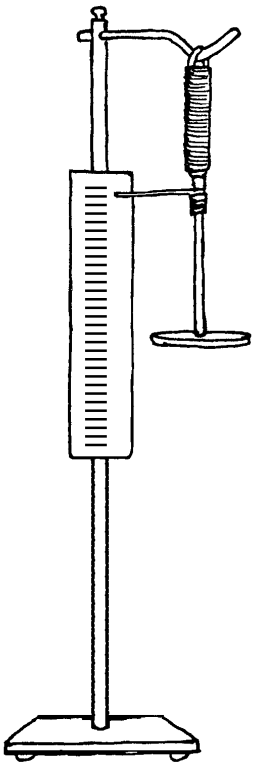
AP Physics Part 1 Lab Handout 07 "Hooke's Law"

Your Name:_____ Lab Partner(s):_____

Purpose: To determine the spring constant for a couple of springs.

Materials:
Hooke's Law Device slot masses

Procedure:
1.



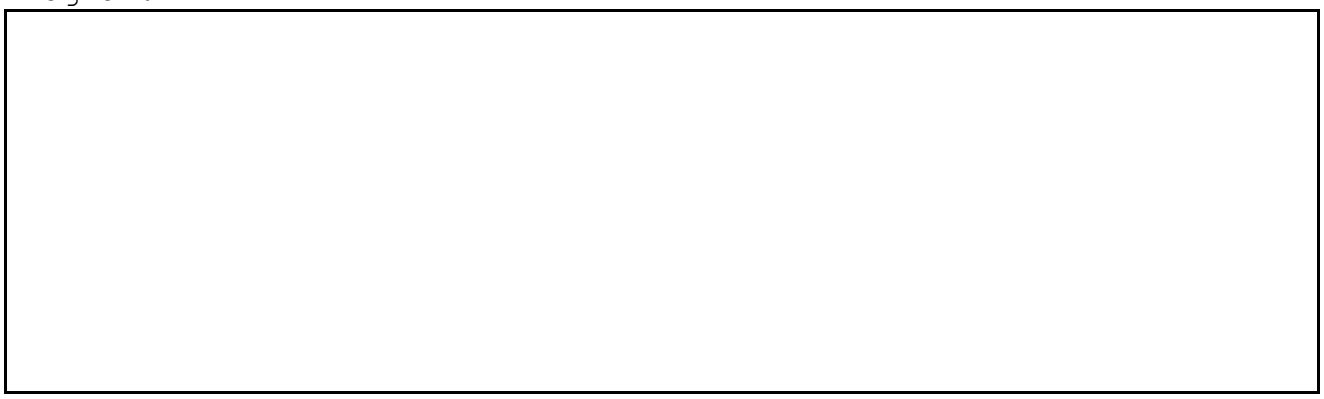
Results:

Observations:

Data:

Data Analysis:
1. Using the data, plot a graph of force applied vs. the displacement from rest position. On this particular graph the independent variable (the one you the experimenter controlled), will actually go on the y-axis to allow for the slope to equal the spring constant.
   Use Microsoft Excel to create your graph (x-y scatter plot) and make sure that the x and y axes are labeled correctly.
2. Using the data, plot a similar graph for your second spring.
3. Do a trend line analysis of both graphs.
4. Using the graphs, show the relationship, which exists, between force applied and displacement from rest position. Express this relationship in a simple formula.

Diagram:



Error Analysis:

Conclusion: