Science 9 Spindlove Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Measuring Mass**

**Question:** What is the relationship between the number of paper clips and their mass?

**Hypothesis:** *you must come up with this*

**Materials**

* Triple beam balance
* 40 paper clips

**Procedure**

1. Obtain a triple beam balance. Make sure the balance is on a level surface and that the balance pan is clean and dry. Make sure the balance is level when there is nothing on the balance pan (“zero” the balance)
2. Place 5 paper clips on the balance pan. Find the total mass to the nearest hundredth of a gram (2 decimal places). Record the mass in Table 1.
3. Repeat step 2 with 10, 15, 20, 30 and 40 paper clips.
4. For each line in the data table, find the average mass of one paper clip by dividing the mass by the number of paper clips (calculate to 1 decimal place)

**Observations & Data** *(Pre-Lab: Set-up an appropriate data table that includes data to be collected when procedure is carried out)*

**Analysis:** Graph your data. Be sure to include all elements of a graph. Have an appropriate scale. Include a best fit line.

**Questions** *(Do not copy question, answer in a full sentence)*

1. From your graph, determine how many paper clips would equal one gram.
2. From your graph, what would be the mass of
   1. 3.5 paper clips
   2. 25 paper clips
3. Explain how you could determine the mass of 60 paper clips (2 ways)