**LAB – The Period of a Spring**

**Your Name:**

**Purpose:** *Write one or two sentences explaining what you are trying to figure out in this lab. Make sure your purpose includes all of your independent and dependent variables*

**Hypothesis:** *Predict what the relationship will be between each of your independent variables and your dependent variable (i.e.* directly proportional, inversely proportional, no effect*). Make sure to explain why you think each of these relationships will hold.*

Hypothesis #1:

Explanation:

Hypothesis #2:

Explanation:

Hypothesis #3:

Explanation:

**Procedure:** *Make a brief list of the steps you follow in the lab.*

*- Explain how, specifically, you will be measuring the dependent variable*

 *- Explain how many values of each independent variable there will be and how many trials you will perform on each value.*

*- Make a list of all three experiments that you will perform*

**Data:** *Show all data tables for each of your experiments.*

 *- Be sure that each data table has a descriptive title.*

 *- Be sure that each data table lists the variables you are holding constant & their values*

 *- Make sure all units are labeled.*

 *(It is OK to label the units in the table headings instead of in each individual cell)*

*HINTS:*

1. *When testing spring constant, use 150 grams at an amplitude of 5 cm*
2. *When testing amplitude use spring #2. Pick a mass that gets an appropriate amount of extension out of the spring without going overboard.*
3. *When testing mass, make sure to think ahead about which spring and weights to use so that you don’t over-stretch the spring.*

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| **Experiment #1. Title:**  |
| **Constant Variables:**  |
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| Trial #1 | Trial #2 | Trial #3 | Average |
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| Picture of graph:  |
| **Link to graph:**  |

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| **Experiment #2. Title:**  |
| **Constant Variables:**  |
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| Picture of graph:  |
| **Link to graph:**  |

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| **Experiment #3. Title:**  |
| **Constant Variables:**  |
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**Results:** *Explain what your data show. What was the relationship between each of your independent variables and your dependent variable (i.e. directly proportional, inversely proportional, no effect, unclear)? Did they match your hypothesis?*

**Conclusion and Discussion:** *Answer the following questions in paragraph form.*

 *- What was the purpose of the lab?*

 *- How did you go about accomplishing the purpose?*

 *- What did you find (i.e. what affected the period and how did it affect it)?*

 *- How accurate were you?*

 *- What errors came up in this lab and how could you correct them in the future?*