

Name:

Date:

Period:

Pendulum Lab

Pre-Lab

1. Recall the difference between independent, dependent, and control variables.
2. Brainstorm a list of factors that might affect the period of a pendulum.
3. Identify each of the following (there may be more than one).

Independent Variables

Dependent Variables

Control Variables

Lab Report

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

Hypotheses: Predict what the relationship will be between each of your independent variables and your dependent variable (*i.e. directly proportional, inversely proportional, unrelated*). Make sure to explain why you think each of these relationships will hold.

Example: mass and period will be (choose one: directly proportional, inversely proportional, unrelated).

Hypothesis #1:

Explanation #1:

Hypothesis #2:

Explanation #2:

Hypothesis #3:

Explanation #3:

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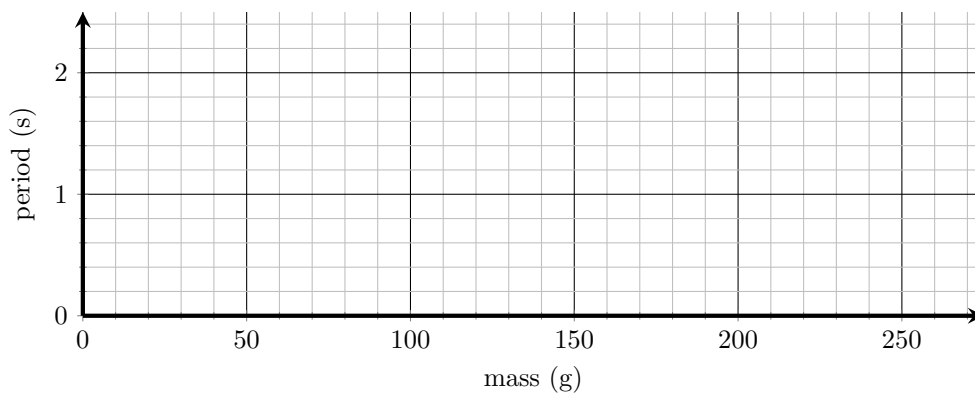
Procedure: Make a brief list of the steps you follow in the lab.

- Make a list of all three experiments that you will perform.
- Explain how, specifically, you will be measuring the dependent variable.
- Explain how many values of each independent variable there will be.

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 and 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)

Experiment#1: Mass vs. Period					
Constant Variables:					
	Trial #1	Trial #2	Trial #3	Average	



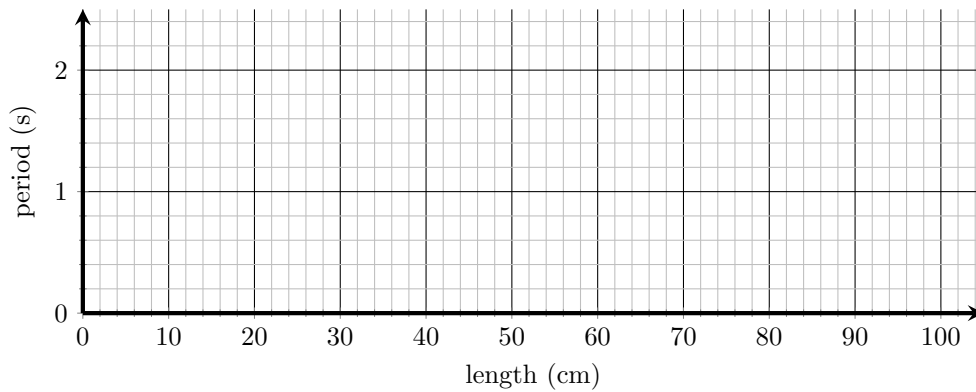
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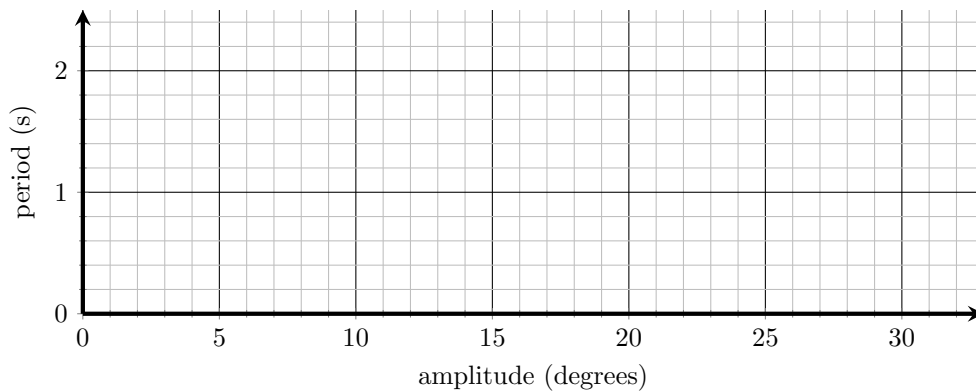
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Experiment #2: Length vs. Period**Constant Variables:**

	Trial #1	Trial #2	Trial #3	Average

**Experiment #3: Amplitude vs. Period****Constant Variables:**

	Trial #1	Trial #2	Trial #3	Average



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Results: All you need are three sentences for this section: one for each experiment. Your results should describe the relationship between each of your independent variables and your dependent variable (*i.e. directly proportional, inversely proportional, unrelated*).

Example: Mass and period were unrelated.

Result #1:

Result #2:

Result #3:

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 of the pendulum and how did it affect it)?
- What errors came up in this lab and how could you correct them in the future?