
Part Five

Analyzing the Data and Drawing Conclusions

Before you begin, answer the following questions:

1. What is the ***independent variable*** in this investigation?

2. What is the ***dependent variable*** in this investigation?

3. List variables that must be ***controlled*** in this investigation.

4. When you graph data, where is the independent variable on the graph?

5. Where is the dependent variable on the graph?

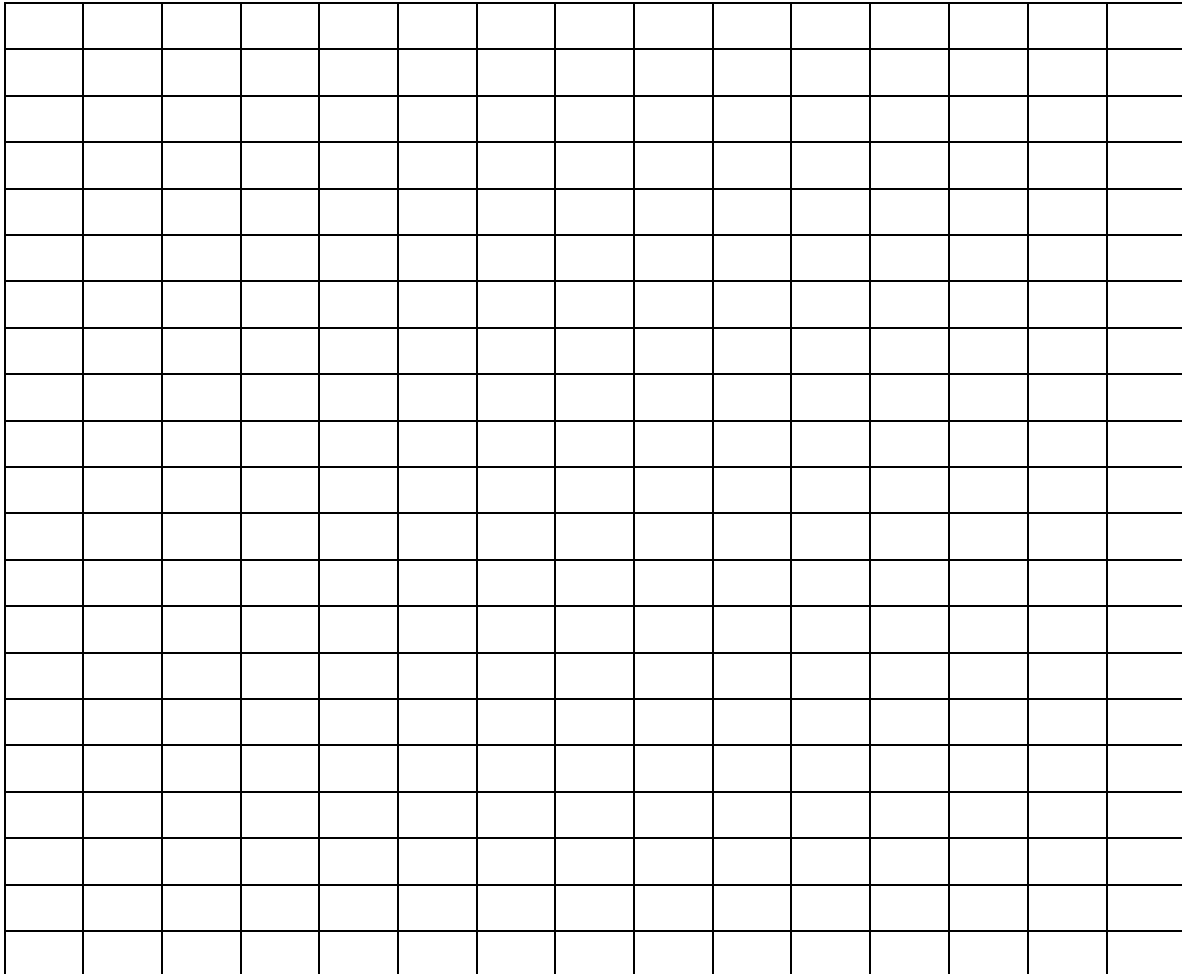
6. Look at the type of data you collected in this investigation. What kind of graph is best for this data?

Why?

Data Analysis:

On the back of this paper, make the appropriate graph of your data. Remember to include a title that describes the data, labels on each axis, and the unit(s) of measurement. Have your teacher initial the graph.

Graph:



Teacher Initials:

Now, use Excel to create a professional quality graph of your data.

Look at the graph carefully. What pattern or relationship do you see? In other words, what did the independent variable have to do with the dependent variable?

Conclusion:

The conclusion is a 5-paragraph discussion of the results and applications of the investigation.

Paragraph 1 – restates and answers the original question

Paragraph 2 – explains and summarizes the data (results) of the investigation

Paragraph 3 – explain and summarizes the data analysis

Paragraph 4 – describes what was learned about force, motion and the way a roller coaster works

Paragraph 5 – describes at least 2 ways that the information from this experiment can be **applied** (used) and another 2 ways that the project could be **expanded** (by showing what could / should have been done differently).