

Name _____ Date _____ Period _____



ACCELERATION - PART 1

MATERIALS:

- Flat board
- Toy skateboard
- 3 Washers
- Rubber band
- Calculator
- Meter stick

PROCEDURE

1. Make a ramp from the board and a wooden block.
2. Roll the skateboard down the ramp.
3. Use the meter stick to measure how far the skateboard travels. Record.
4. Repeat steps 2 & 3 for a total of 5 trials.
5. Use a rubber band to attach a washer to the skateboard.
6. Repeat steps 2-4
7. Add another washer to the skateboard.
8. Repeat steps 2-4
9. Add a third washer to the skateboard.
10. Repeat steps 2-4

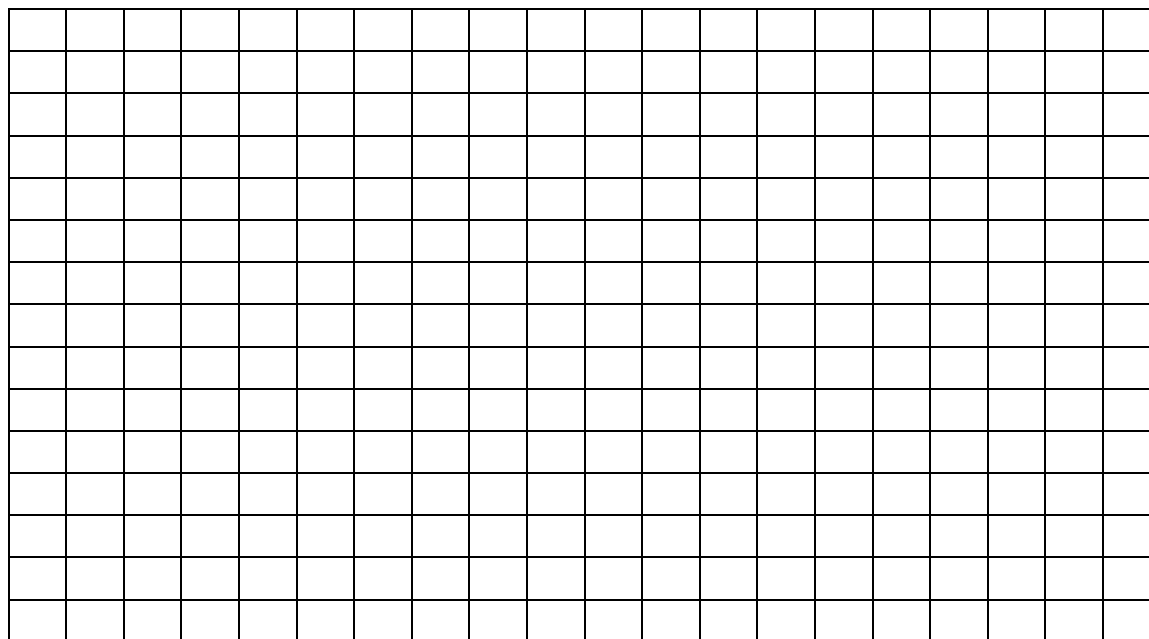
OBSERVATIONS:

DATA TABLE 1

Number of Washers	Distance (cm)					Average Distance (cm)
	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	
0						
1						
2						
3						

Graph your data using a bar graph. Remember to title and label your graph.

Title: _____

**REMEMBER:**

The independent variable goes on the X-axis.

The dependent variable goes on the Y-axis.

Before you plot your graph - THINK! What did you change, what did you measure?

Describe the relationship show in the graph. What effect does the independent variable have on the dependent variable?

ANALYSIS/CONCLUSIONS:

1. How does increasing mass affect the motion of objects?

2. Predict how far the skateboard would roll if you added 5 washers?
Explain your answer.

3. Acceleration is a change in velocity. This may be a change in speed and/or direction.
What effect does mass have on acceleration?
Explain your answer using data from your experiment.
