Calculating Speed

Name _____
Date _____
Period _____

Introduction: Your job is to make the dominoes fall as slow as possible by changing the distance between each domino.

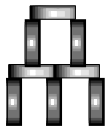
Problem: What is the best distance in centimeters between each domino for making 50 dominoes fall as slow as possible? (Options: 1.0 cm, 2.0 cm, 3.0 cm, 4.0 cm)

Hypothesis: I think that _____

_____

Variable: What is the variable in this experiment? _____

Procedure:



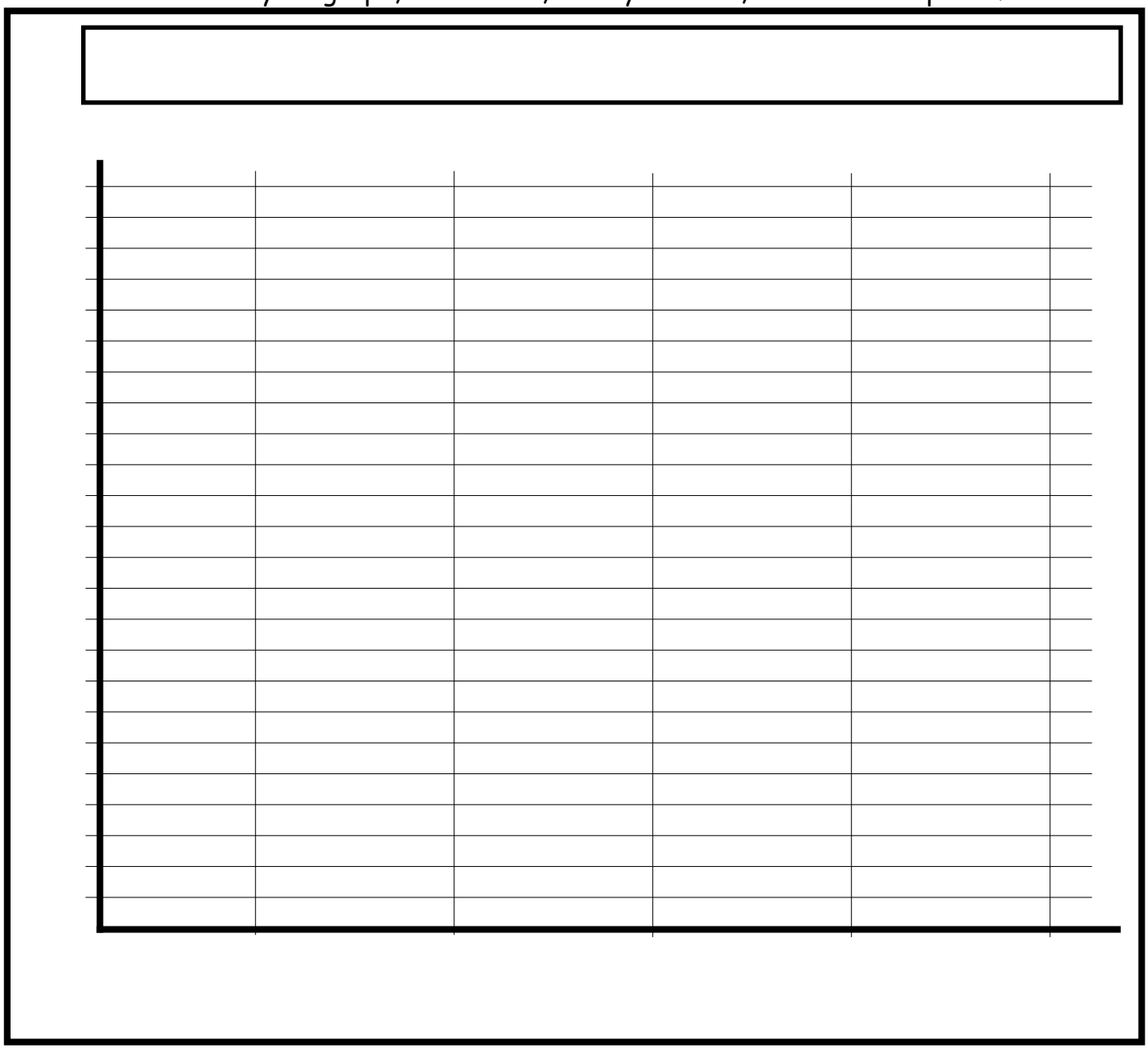
1. Count out 50 dominoes for your group.
2. Set up all the dominoes one at a time placing them exactly 1 cm apart.
3. Make sure you set them up in a straight line. A curved line adds another variable to the experiment.
4. Measure the distance from the beginning of the first domino to the end of the last domino in centimeters. Record the distance below.
5. Using a stopwatch, time how long it takes for the dominoes to fall. Record the time.
6. Calculate the speed at which the dominoes fell. **Calculation: Speed** = D/T
7. Repeat this experiment with 2.0 cm, 3.0 cm, and 4.0 cm.

Data:

		Distance(D) in cM.	Time(T) in Sec.	Calculation: Speed = D/T
1.0 cM	Trial #1			
	Trial #2			
		1.0 cM Average Speed-->		
2.0 cM.	Trial #1			
	Trial #2			
		2.0 cM Average Speed-->		
3.0 cM.	Trial #1			
	Trial #2			
		3.0 cM Average Speed-->		
4.0 cM.	Trial #1			
	Trial #2			
		4.0 cM Average Speed-->		

Graph: Draw a line graph that shows how the speed of the dominoes changes as we change the distance between each domino.

- X-axis is labeled with the different distances (1.0 cM, 2.0 cm, 3.0 cm, and 4.0 cm)
- Y-axis is labeled with the average speed of that distance.
- Connect the points with a line.
- Be sure title your graph, use a ruler, label your axis', and use color pencil.



Results: Explain in your own words what happened in your experiment. What does the graph tell us? _____

_____

_____

Conclusion: Based on the experiment you just performed, what is the distance the makes the dominoes fall the slowest. _____

_____

_____

_____