Domino Dash

Question: How does the length of a domino row affect the speed of the falling dominoes?

Hypothesis: _____
_____

Background Information:
Average speed is the rate of motion calculated by dividing the distance traveled by the amount of time it takes to travel that distance.

$$speed \ = \frac{distance}{time}$$

Materials:
1 box of 28 dominoes, stopwatch, meter stick, calculator

Procedure:
1. Set up all 28 dominoes in a row. Use the meter stick to space the dominoes apart by 1 cm. Set the dominoes in a straight line to cause a chain reaction when the first domino is pushed.
2. Measure the length of the domino row. Record this data in the table.
3. Use the stopwatch to measure the time it takes for the entire row of dominoes to fall after the first domino is pushed. Record the data.
4. Calculate the speed at which the dominoes fell. Record in the table.
5. Set up a domino row for each "space between dominoes" measurement given in the table below. Repeat steps 3 and 4.

Data:

Space between dominoes (cm)	Length of domino row (cm)	Time to fall (sec)	Speed of falling dominoes (cm/sec)
1			
1.5			
2			
2.5			
3			
3.5			
4			

Data Analysis:
Create a scatterplot to show the relationship between the length of the domino row and the speed it takes to fall. Put the length of the domino row on the X-axis and the speed on the Y-axis. Draw a line of best fit.
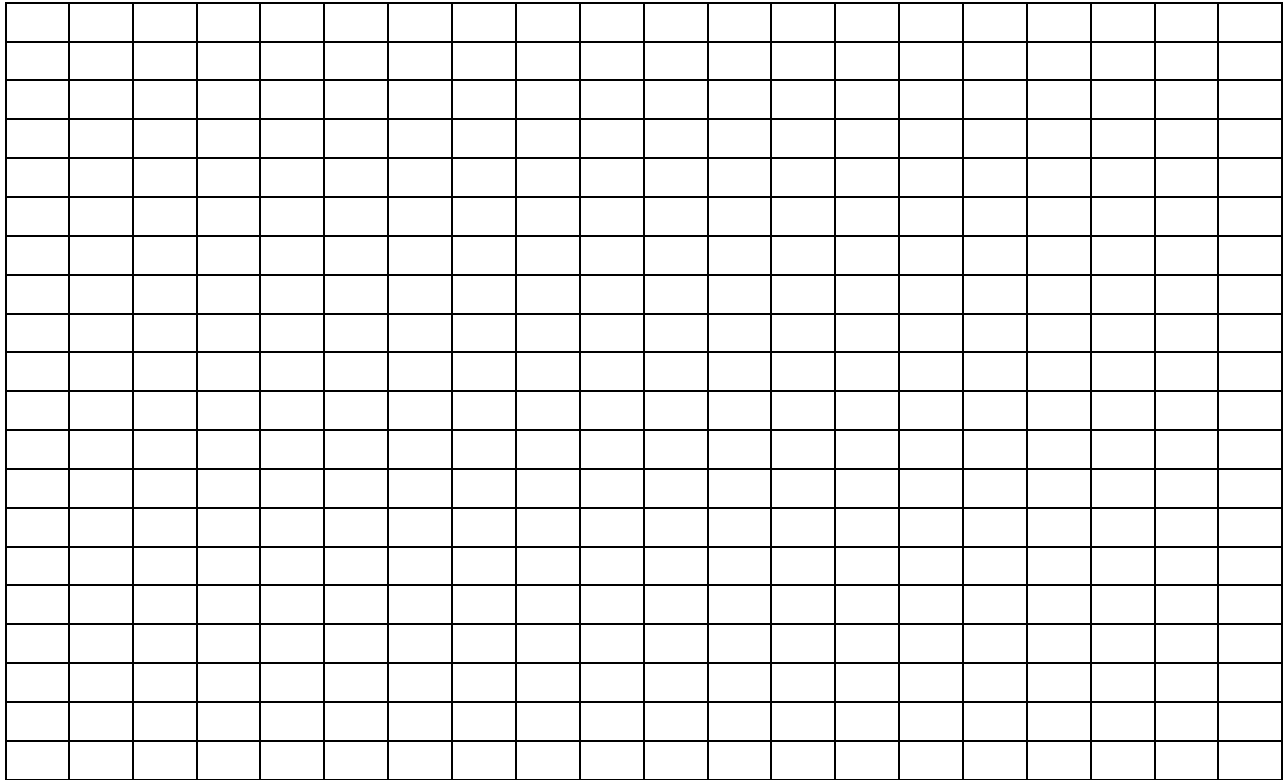
Conclusions:
1. What relationship do we see between the length of the domino row and the speed of the falling dominoes? Use quantitative data to support your answer.
_____
_____
_____
_____

2. Refer to your hypothesis. My hypothesis was _____
_____

It was right/wrong? (circle one)

Why?
_____
_____