

Unit I – Worksheet # 1

Name _____

Enter each of the sets of data below into Logger Pro. Here are some notes:

- The independent variable is the one listed in the column on the left.
- “Raw Graph” is what you see when you first type the data in. “Final Graph” is what you see after you do any modifications to your data. Remember, you are trying to turn every graph into a linear shape before writing your model.
- The text boxes next to each graph are for variable and unit labels.
- In your mathematical model, include proper units and variables.

Graph Drawings

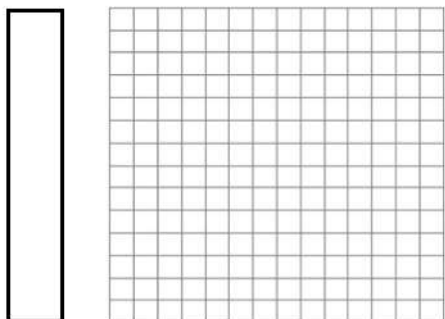
Analysis Questions

1.

<i>Mass (kg)</i>	<i>Force (Newtons)</i>
1.0	5.6
2.0	9.0
3.0	12.6
4.0	15.9
5.0	19.5

***For graphs, include shapes only. No numbers!**

Raw Graph



Final Graph



A) What type of relationship does this data produce?

B) Was modification necessary for your data?
If so, write the before and after correlations:

C) What was the final mathematical model produced by this data?

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Graph Drawings

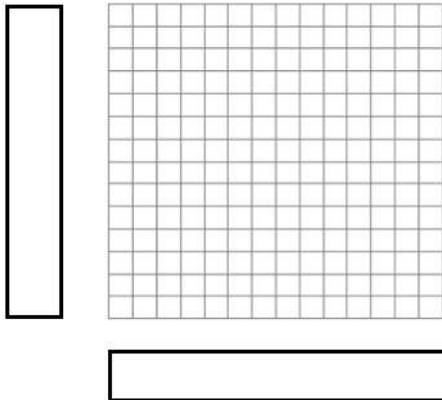
Analysis Questions

2.

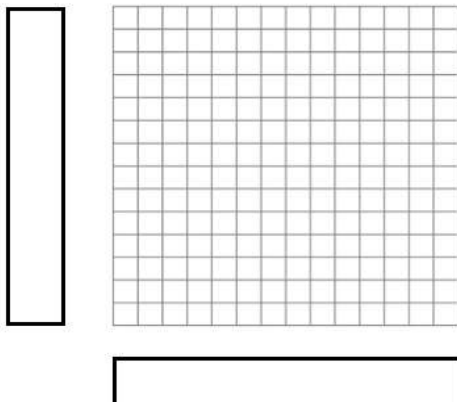
<i>Time (seconds)</i>	<i>Mass (kg)</i>
1.01	4.2
1.52	9.6
2.42	23.8
3.03	38.0
4.55	85.1

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Raw Graph



Final Graph



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C) What was the final mathematical model produced by this data?

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Graph Drawings

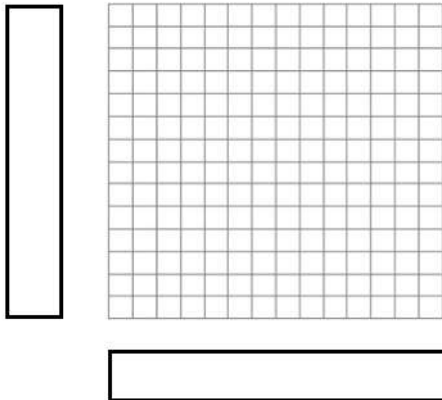
Analysis Questions

3.

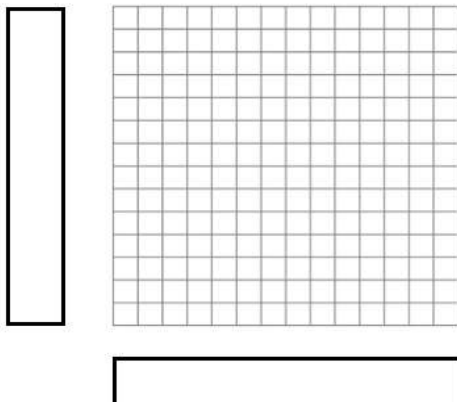
<i>Height (meters)</i>	<i>Pressure (mb)</i>
100	989
200	897
300	794
400	699
500	600

***For graphs, include shapes only. No numbers!**

Raw Graph



Final Graph



A) What type of relationship does this data produce?

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If so, write the before and after correlations:

C) What was the final mathematical model produced by this data?

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Graph Drawings

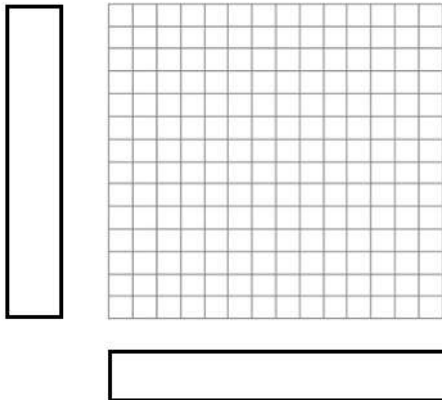
Analysis Questions

4.

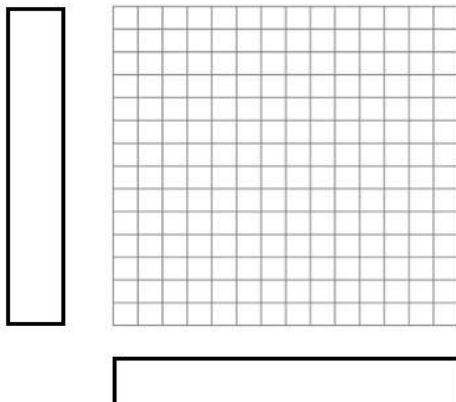
<i>Length (m)</i>	<i>Weight (N)</i>
1.0	52.4
2.5	53.6
5.0	52.4
10.0	54.0
20.0	52.6

***For graphs, include shapes only. No numbers!**

Raw Graph



Final Graph



A) What type of relationship does this data produce?

B) Was modification necessary for your data? If so, write the before and after correlations:

C) What was the final mathematical model produced by this data?

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Graph Drawings

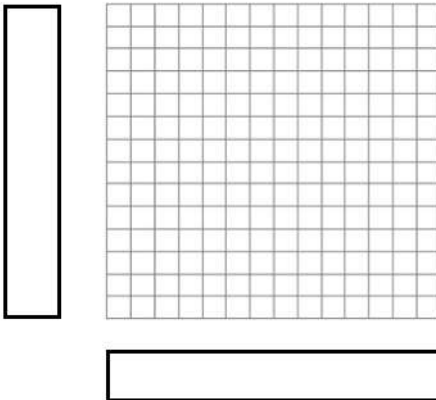
Analysis Questions

5.

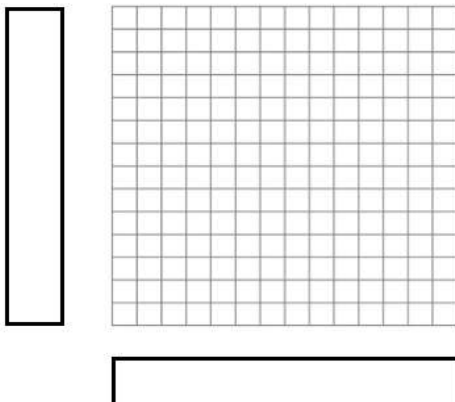
<i>Resistance (Ohms)</i>	<i>Current (Amperes)</i>
100	1.23
200	0.63
300	0.37
400	0.29
800	0.15

***For graphs, include shapes only. No numbers!**

Raw Graph



Final Graph



A) What type of relationship does this data produce?

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If so, write the before and after correlations:

C) What was the final mathematical model produced by this data?

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Graph Drawings

Analysis Questions

6.

<i>Velocity (m/s)</i>	<i>Time (s)</i>
5	4.01
10	5.71
15	6.95
20	8.08
25	8.65

***For graphs, include shapes only. No numbers!**

Raw Graph

A template for a raw graph. It consists of a vertical axis on the left, a 10x10 grid in the center, and a horizontal axis at the bottom.

Final Graph

A template for a final graph. It consists of a vertical axis on the left, a 10x10 grid in the center, and a horizontal axis at the bottom.

A) What type of relationship does this data produce?

B) Was modification necessary for your data?
If so, write the before and after correlations:

C) What was the final mathematical model produced by this data?