Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Linear Regression Investigation**

Using your data, scatter plot and line of best fit equation, answer the following questions about your linear regression calculations.

1.) What was your independent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 What was your dependent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.) Does your scatter plot show positive, negative, or no correlation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.) What is your correlation coefficient? r = \_\_\_\_\_

 What type of correlation does this indicate? Explain why. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4.) The slope (m) of my line of best fit is: \_\_\_\_\_\_\_\_\_\_

 The y-intercept (b) of my line of best fit is: \_\_\_\_\_\_\_\_\_\_

 The equation for my line of best fit is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.) What value for x is not shown in your data table or graph, but could be a possible real-world

 value? x = \_\_\_\_\_\_\_\_\_\_

Use this value and your line of best fit equation to solve for the y-value. Show all your work! Write a sentence explaining what your solution represents.

6.) What value for y is not shown in your data table or graph, but could be a possible real-world

 value? y = \_\_\_\_\_\_\_\_\_\_

Use this value and your line of best fit equation to solve for the x-value. Show all your work. Write a sentence explaining what your solution represents.

7.) What real-world situation does your data represent? Explain in a full sentence.

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8.) Are your two variables related? How do you know?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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9.) What conclusions can you make based on your model?

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