Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_

**9.1 Scatter Plots\_Classwork**

 *Objective: Construct and interpret scatter plots. CCSS: 8.SP.1*

*HW: textbook- 9.1 pg 376\_#3-14 ALL*

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| A scatter plot can show that a relationship exists between two data sets.FILL IN THE BLANKS.  |
| **Read Example #2** and answer the questions that pertain to the example. **Describe the relationship between the data. Identify any outliers, gaps, or clusters.**

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| 1. Television size and price

 | So the scatter plots shows a … | 1. Age and number of pets owned

 | So the scatter plots shows a … |

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| **CRITICAL THINKING**1. Describe one example of real-life data that has a negative linear relationship.
2. Describe one example of real-life data that has a positive linear relationship.
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| **Read Example #1** and answer the questions that pertain to the example.

|  |  |
| --- | --- |
|  | ***The scatter plot at the left shows the amounts of fat (in grams) and the numbers of calories in 12 restaurant sandwiches.***1. How many calories are in the sandwich that contains 17 grams of fat?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. How many grams of fat are in the sandwich that contains 600 calories?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_1. What tends to happen to the number of calories as the number of grams of fat increases?

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| 1. **WHAT IF?** A sandwich has 650 calories. Based on the scatter plot in Example 1, how many grams of fat would you expect the sandwich to have? Explain your reasoning.
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| (a) Make a scatter plot of the data. (b) Describe the relationship between the data. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(c) Identify any outliers, gaps, or clusters. Outliners: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Gaps: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Clusters: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A ***cluster*** is formed when several data points lie in a small interval. A ***gap*** is an interval that contains no data. An ***outlie***r has a value that is much greater than or much less than other data in the set. |