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.**   |  |  |  |  | | --- | --- | --- | --- | | 1. Television size and price | So the scatter plots shows a … | 1. Age and number of pets owned | So the scatter plots shows a … | |
| **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. |
| **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?   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | 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. | | |
| (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. |