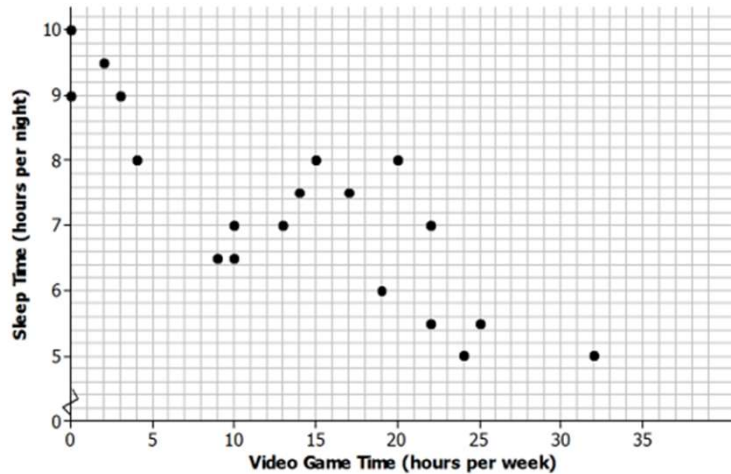
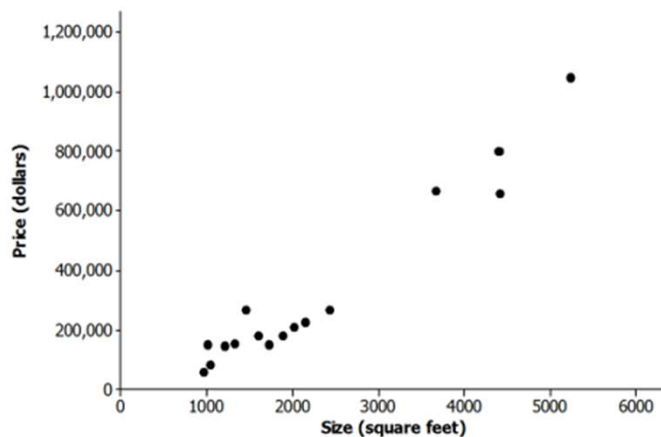


Scatter Plots

1. The scatter plot below was constructed using data from eighth-grade students on number of hours playing video games per week (x) and number of hours of sleep per night (y). Write a few sentences describing the relationship between sleep time and time spent playing video games for these students. Are there any noticeable clusters or outliers?



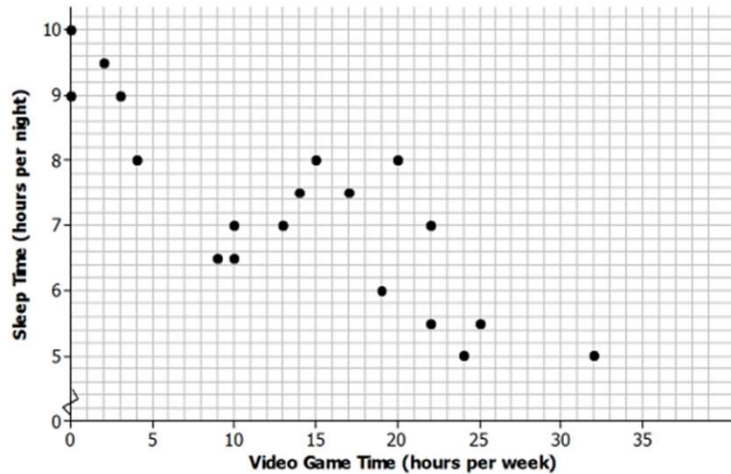
2. Suppose data was collected on size in square feet (x) of several houses and price in dollars (y). The data was then used to construct the scatterplot below. Write a few sentences describing the relationship between price and size for these houses. Are there any noticeable clusters or outliers?



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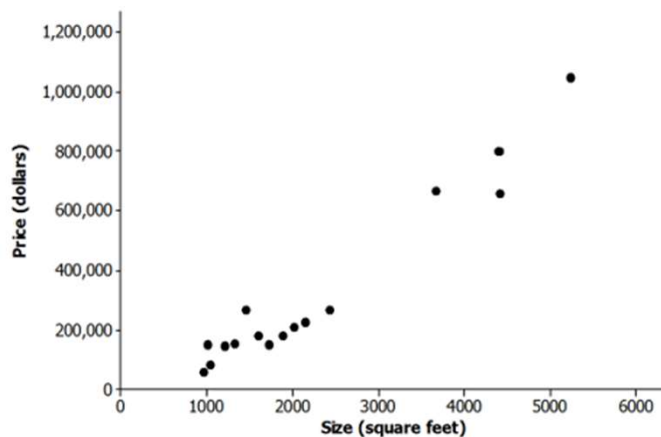
Scatter Plots

1. The scatter plot below was constructed using data from eighth-grade students on number of hours playing video games per week (x) and number of hours of sleep per night (y). Write a few sentences describing the relationship between sleep time and time spent playing video games for these students. Are there any noticeable clusters or outliers?



Answers will vary. Sample response: There appears to be a negative linear relationship between the number of hours per week a student plays video games and the number of hours per night the student sleeps. As video game time increases, the number of hours of sleep tends to decrease. There is one observation that might be considered an outlier—the point corresponding to a student who plays video games 32 hours per week. Other than the outlier, there are two clusters—one corresponding to students who spend very little time playing video games and a second corresponding to students who play video games between about 10 and 25 hours per week.

2. Suppose data was collected on size in square feet (x) of several houses and price in dollars (y). The data was then used to construct the scatterplot below. Write a few sentences describing the relationship between price and size for these houses. Are there any noticeable clusters or outliers?



Answers will vary. Possible response: There appears to be a positive linear relationship between size and price. Price tends to increase as size increases. There appear to be two clusters of houses—one that includes houses that are less than 3,000 square feet in size and another that includes houses that are more than 3,000 square feet in size.

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