

Chapter 10 Statistics

Dear Family,

In this chapter, your student will learn about using statistics. Some of the skills your student will practice are:

- constructing scatter plots, identifying outliers in scatter plots, and recognizing associations in scatter plots
- writing an equation for a line of best fit for data whose graph shows a strong linear association
- using the equation for a line of best fit for a data set to make estimates or predictions
- reading, constructing, and interpreting two-way data tables

Activity

Creating and interpreting scatter plots are skills useful to students in math, science, and social science classes. You can help your student practice these skills with this activity.

- With your student, collect at least seven household items that can each be measured in two ways. For example, you could use books, and record the total number of pages and the number of chapters in each book.
- Make a table of the data for the items you chose.
- Graph the data in a scatter plot. If you are using books, for example, you could put the total number of pages on the x-axis and the number of chapters on the y-axis. Each data point represents one book.
- Discuss the general shape of the scatter plot. Does it seem to have a linear association? Are there any outliers in the data set? If so, where do they appear on the scatter plot?

Vocabulary to Practice

A **bivariate** data set represents two variables, such as the height and weight of individuals. To construct a **scatter plot** of bivariate data, plot the data as points, using, in this case, the height and weight of each individual as the coordinates of a point.

An **outlier** in a data set is a value that is very different from the others in the set.

Two data sets have a **linear association** if a scatter plot of the data shows a linear pattern. A **line of best fit** closely follows the linear pattern of a scatter plot.

A **two-way table** shows frequencies of data that are categorized two ways, such as the after-school activities of students in different grades.



Online Resources

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