Study Guide and Intervention

7SDAP1.2

Scatter Plots

When you graph two sets of data as ordered pairs, you make a **scatter plot**. The pattern of the data points determines the relationship between the two sets of data.
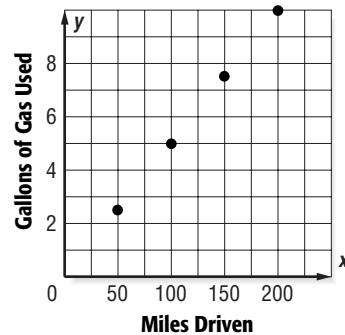• Data points that go generally upward show a *positive* relationship.
• Data points that go generally downward show a *negative* relationship.
• Data points with no clear pattern show *no* relationship between the data sets.
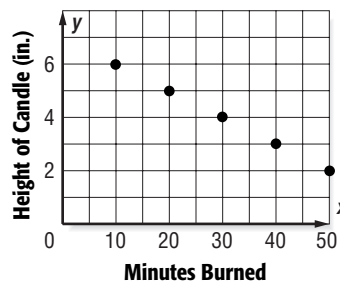
Examples   **Explain whether the scatter plot of the data shows a *positive*, *negative*, or *no* relationship.**

1 **miles driven and gallons of gas used**

As the number of miles driven increases, the amount of gas used increases. Therefore, the scatter plot will show a positive relationship.

2 **number of minutes a candle burns and a candle's height**

As the number of minutes increases, the height of the candle will decrease. Therefore, the scatter plot will show a negative relationship.

Exercises

Explain whether the scatter plot of the data for the following shows a *positive*, *negative*, or *no* relationship.

1. a student's age and the student's grade level in school

2. number of words written and amount of ink remaining in a pen

3. square feet of floor space and the cost of carpet for the entire floor

4. a person's height and the number of siblings the person has

5. length of time for a shower and the amount of hot water remaining

6. number of sides of a polygon and the area of the polygon