

# Lesson 1 Reteach

## Scatter Plots

A **scatter plot** shows the relationship between a data set with two variables graphed as ordered pairs. The pattern of the data points determines the association between the two sets of data.

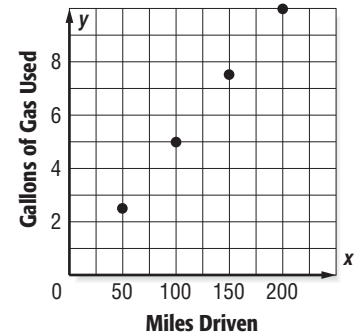
- Data points that go generally upward from left to right show a *positive* association.
- Data points that go generally downward from left to right show a *negative* association.
- Data points with no clear pattern show *no* association between the data sets.

### Examples

Explain whether the scatter plot of the data shows a *positive*, *negative*, or *no* association. Interpret the scatter plot.

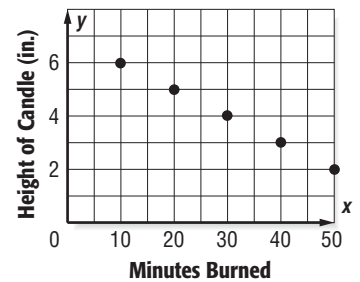
**1. miles driven and gallons of gas used**

As the number of miles driven increases, the amount of gas used increases. Therefore, the scatter plot will show a positive association. There appears to be a linear association.



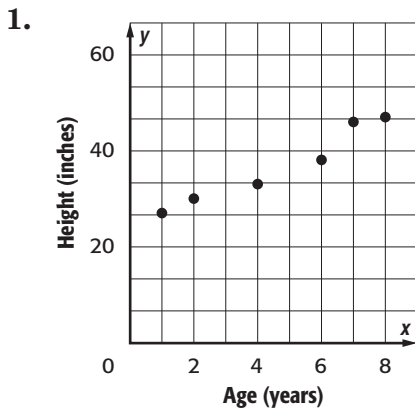
**2. number of minutes a candle burns and a candle's height**

As the number of minutes increases, the height of the candle will decrease. Therefore, the scatter plot will show a negative association. There appears to be a linear association.

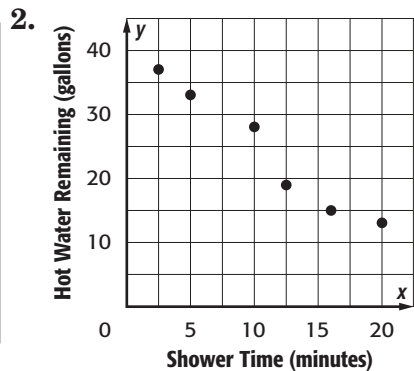


### Exercises

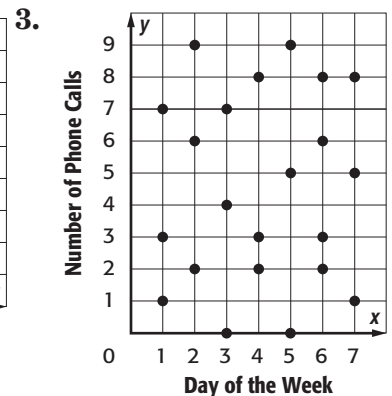
Explain whether the scatter plot of the data for each of the following shows a *positive*, *negative*, or *no* association. Interpret the scatter plot.



**positive; Sample answer:** As the age increases, the height increases. There appears to be a linear association.



**negative; Sample answer:** As the number of minutes increases, the amount of hot water decreases. There appears to be a linear association.



**no association; Sample answer:** The day does not affect the number of phone calls.