

8-2 Scatter Plots (Pages 379–384)

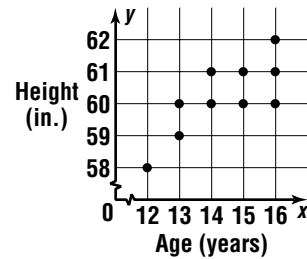
A **scatter plot** is a graph consisting of isolated points that shows the general relationship between two sets of data.

Finding a Relationship for a Scatter Plot	positive relationship: points suggest a line slanting upward to the right
	negative relationship: points suggest a line slanting downward to the right
	no relationship: points seem to be random

EXAMPLE

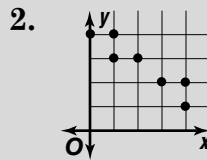
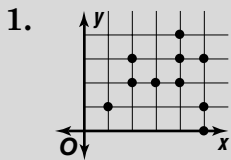
What type of relationship does this graph show?

Notice that the points seem to suggest a line that slants upward to the right, so this graph shows a positive relationship between a person's age and their height.



Try These Together

What type of relationship, positive, negative, or none, is shown by each scatter plot?



HINT: Notice that the points in Exercise 1 seem scattered while those in Exercise 2 suggest a line that slants downward to the right.

PRACTICE

Determine whether a scatter plot of data for the following would be likely to show a positive, negative, or no relationship. Explain your answer.

- 3. height, shoe size
- 4. age, telephone number
- 5. test grades, minutes spent on homework
- 6. amount of water in a bathtub, time since the plug was pulled



7. Standardized Test Practice What type of relationship would you expect from a scatter plot for data about ages of people under 20 years of age and the number of words in their vocabulary?

- A** positive **B** negative **C** none

Answers: 1. none 2. negative 3. positive, since the length of the foot tends to increase with increasing height 4. none, since phone numbers are not assigned according to a person's age 5. positive, since studying more tends to make a person better prepared for tests 6. negative, since the amount of water decreases as time increases 7. A