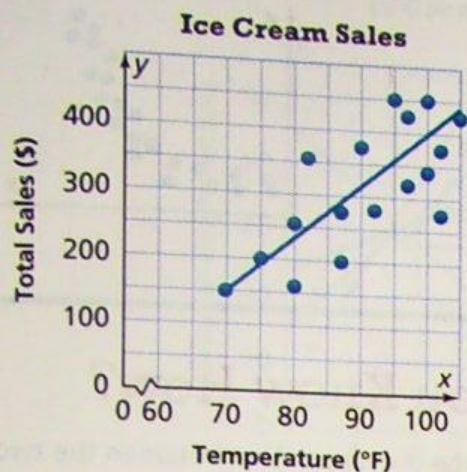


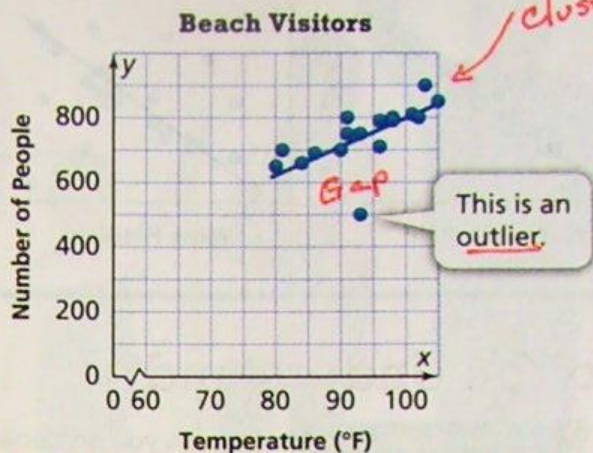
temperature. Describe the associations shown.

As the temperature increases, ice cream sales increase. The association is positive.



Some of the points are far from the trend line. This shows a **weak** association.

As the temperature increases, the number of beach-goers also increases. The association is positive.



Nearly all of the points are close to the trend line. This shows a **strong** association.

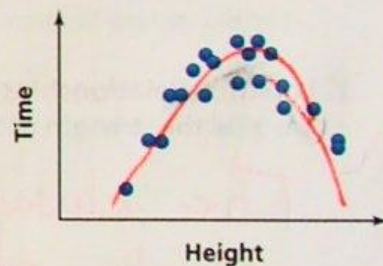
EXAMPLE 3



Recognize Nonlinear Associations

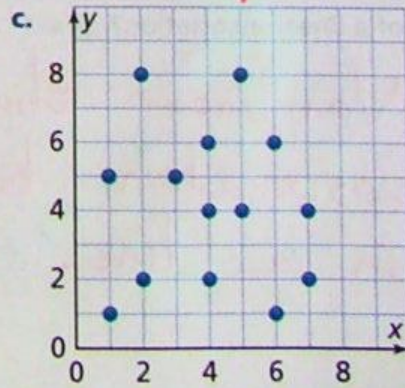
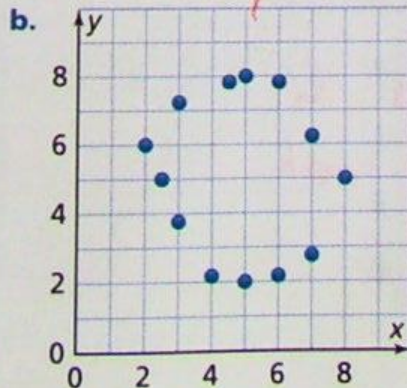
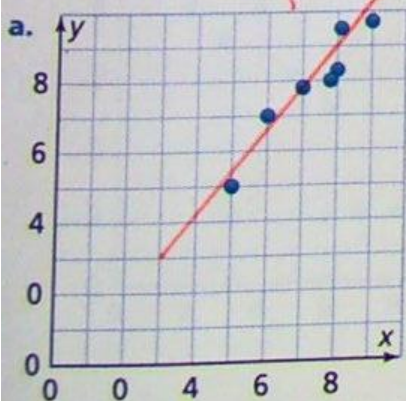
Does the scatter plot show a linear or nonlinear association?

The points in the scatter plot form a curve so the scatter plot shows a nonlinear association between the data.



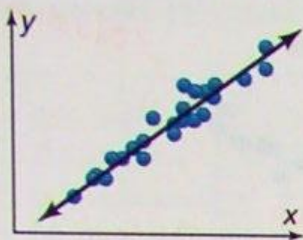
Try It!

For each scatter plot, identify the association between the data. If there is no association, state so.

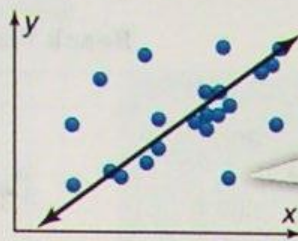


Scatter plots can show a linear association, a nonlinear association, or no association. For scatter plots that suggest a linear association, you can draw a trend line to show the association. You can assess the strength of the association by looking at the distances of plotted points from the trend line.

Linear Associations



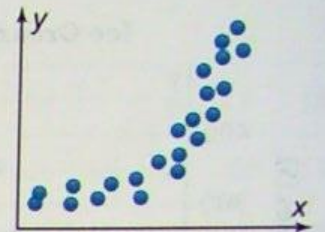
Strong Positive



Weak Positive

These points are farther from the trend line. The association is weak.

Nonlinear Association



Do You Understand?

- Essential Question** How can you describe the relationship between the two sets of data?

Linear, Non-linear, or None

If linear • positive or negative
• Strong or weak

- Look for Relationships** How does a trend line describe the strength of the association? © MP.7

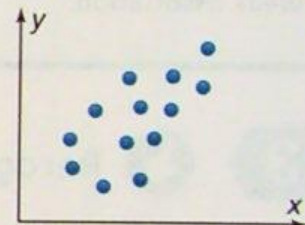
The closer the points are to the line, the stronger the association

- Construct Arguments** How does the scatter plot of a nonlinear association differ from that of a linear association? © MP.3

Non linear shows an association, but not in a line.

Do You Know How?

- Describe the association between the two sets of data in the scatter plot.



- Describe the association between the two sets of data in the scatter plot.

