

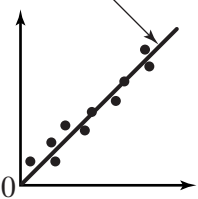
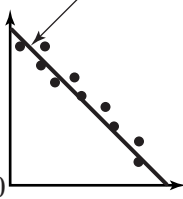
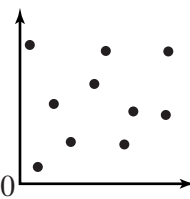
# Lesson 1-5

## Scatter Plots

<p><b>Lesson Objectives</b></p> <p>▼ Analyze data using scatter plots</p>	<p><b>NAEP 2005 Strand:</b> Algebra; Data Analysis and Probability</p> <p><b>Topics:</b> Algebraic Representations; Data Representation (Histograms, Line Graphs, Scatter Plots, Box Plots, Circle Graphs, Stem and Leaf Plots, Frequency Distributions, and Tables); Characteristics of Data Sets</p> <p><b>Local Standards:</b> _____</p>
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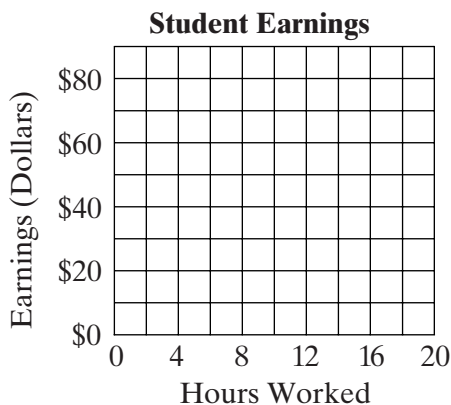
### Vocabulary

A scatter plot is \_\_\_\_\_

		
<input type="text"/>	<input type="text"/>	<input type="text"/>
<p><b>Correlation</b> In general, both sets of data increase together.</p>	<p><b>Correlation</b> In general, one set of data decreases as the other set increases.</p>	<p><b>Correlation</b> Sometimes data sets are not related.</p>
<p>→ A <input type="text"/> on a scatter plot shows a correlation more clearly.</p>		

### Examples

- ① **Making a Scatter Plot** The table shows the number of hours worked and the amount of money each person earned. Make a scatter plot of the data.



The greatest amount earned is . A reasonable scale on the vertical axis is from 0 to 70 with every \$10 labeled.

For 6 hours worked and earnings of \$25.50, plot , .

Name	Hours Worked	Amount Earned
Janel	6	\$25.50
Roscoe	12	\$51.00
Victoria	11	\$46.75
Alex	9	\$38.25
Jordan	15	\$63.75
Jennifer	10	\$42.50

**2 Identifying a Correlation from a Scatter Plot** Use the scatter plot in Example 1 to answer the following question: Is there a positive correlation, negative correlation, or no correlation between the number of hours worked and the amount earned? Explain.

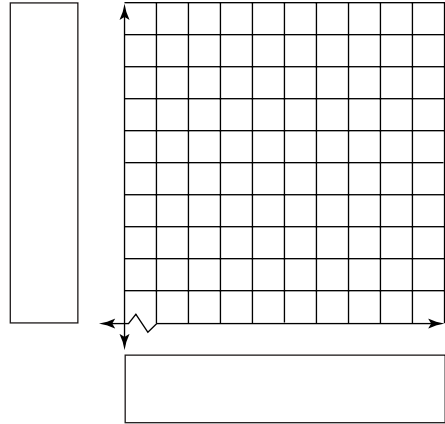
As the number of hours worked increases, the earnings .

There is a  correlation between hours worked and earnings.

**Quick Check**

1. Use the data in the table. Make a scatter plot of the data.

Year	Daily Newspaper Circulation (millions)	Households With Television (millions)
1950	54	4
1960	59	46
1970	62	59
1980	62	76
1990	62	92
2000	55	101



2. Use the scatter plot from Example 1.

a. **Critical Thinking** What does the data point at (11, 46.75) represent?

b. Use the graph to predict how much Conrad would earn if he worked 2 hours.