2–2 Bar Graphs and Line Graphs

MAIN IDEA

- Display and analyze data using bar graphs and line graphs.

BUILD YOUR VOCABULARY (pages 27–28)

A **graph** is a visual way to display **data**.

A **bar graph** uses bars to _____ quantities.

The **scale** of a graph is written on the **vertical axis** of a bar or line graph.

The scale is separated into equal parts called **intervals**.

The _____ are written on the **horizontal axis** of a bar or line graph.

The **frequency** is the number of times an item occurs.

A **line graph** is used to show how a set of data _____ over a period of _____.

EXAMPLE Analyze a Bar Graph

1 **ANIMALS** **Make a bar graph of the data. Compare the time it takes for a rabbit to be born to the time it takes for a camel to be born.**

Gestation of Selected Animals	
Animal	**Gestation Period (days)**
squirrel	44
rabbit	31
puma	90
moose	240
kangaroo	36
camel	406

Source: *The World Almanac*

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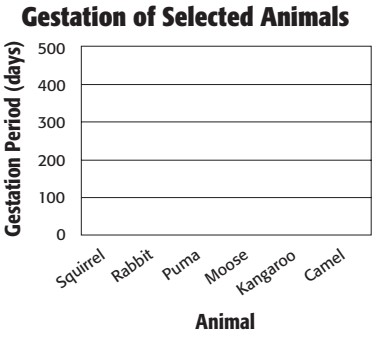
Step 1 Decide on a scale and _____. The data include numbers from 31 to 406. So, a scale from _____ to _____ and an interval of _____ is reasonable.

Step 2 Label the horizontal and vertical axes.

Step 3 Draw bars for each animal. The height of each bar shows the gestation period for each animal.

Step 4 Label the graph with a _____.



It takes about _____ times as many days for a camel to be born as it does for a rabbit to be born.

Check Your Progress

RESTAURANT Make a bar graph of the data. Compare the number of customers at the restaurant on Monday to the number of customers on Saturday.

Customers at Sam's Chili	
Day	**Number of Customers**
Sunday	120
Monday	50
Tuesday	62
Wednesday	71
Thursday	84
Friday	112
Saturday	150

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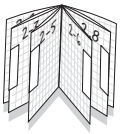
FOLDABLES

ORGANIZE IT

Under Lesson 2-2 of your journal, write some ways bar and line graphs are alike and ways they are different. Think about how each kind of graph is constructed.



EXAMPLE Analyze a Line Graph

2 **WATER USE** **Make a line graph of the data at the right. Then describe the change from 1960 to 1995.**

U.S. Water Consumption	
Year	Daily Usage (billion gallons)
1960	61
1965	77
1970	87
1975	96
1980	100
1985	92
1990	94
1995	100

Source: *U.S. Census Bureau*

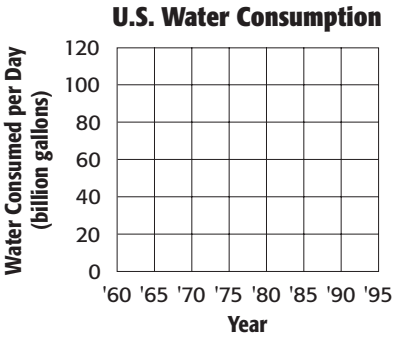
Step 1 Decide on the _____.

The data include numbers from 61 to 100. The scale is _____ and the interval is ____.

Step 2 Label the horizontal and vertical axes.

Step 3 Draw and _____ the points for each year.

Each point shows the billions of gallons of water consumed per day.



Step 4 Label the graph with a _____.

Water consumption increased from 1960 to 1995, with a slight dip in use between 1980 and 1995.

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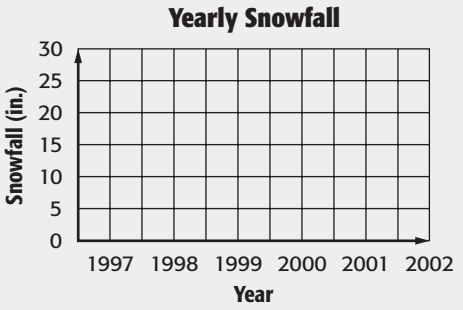
Check Your Progress **SNOWFALL** Make a line graph of the data below. Then describe the change from 1997 to 2002.

Yearly Snowfall	
Year	Total Snowfall (inches)
1997	23
1998	20
1999	18
2000	18
2001	17
2002	24



Homework Assignment

Page(s):

Exercises:

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