

# Section Overview

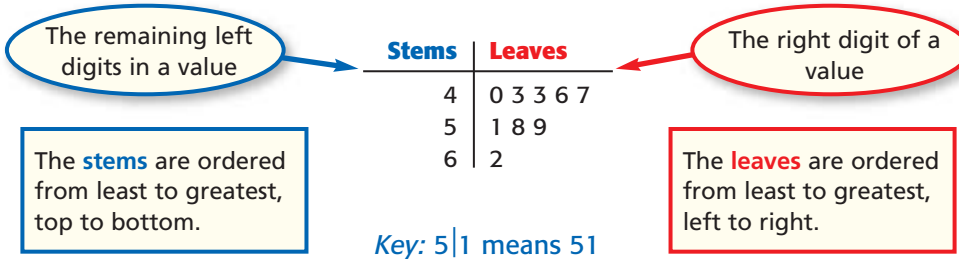
## Frequency Tables, Stem-and-Leaf Plots, and Line Plots

Lesson 7-1

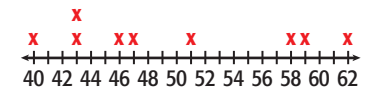
**Why?** There are many ways to display data.

Data: 40, 43, 43, 46, 47, 51, 58, 59, 62

### Stem-and-Leaf Plot



### Line Plot



## Measures of Central Tendency

Lesson 7-2

**Why?** Mean, median, and mode are one-number summaries of a set of data.

Find the measures of central tendency for 23, 25, 24, and 25.

### Mean

The sum of data values divided by the number of data items

$$\begin{aligned} (23 + 25 + 24 + 25) \div 4 \\ = 97 \div 4 \\ = 24.25 \end{aligned}$$

The mean is 24.25.

### Median

- The middle value of an odd number of items arranged in order
- For an even number of items, the average of the two middle values

$$\begin{aligned} 23, \mathbf{24}, \mathbf{25}, 25 \\ (24 + 25) \div 2 = 24.5 \end{aligned}$$

The median is 24.5.

### Mode

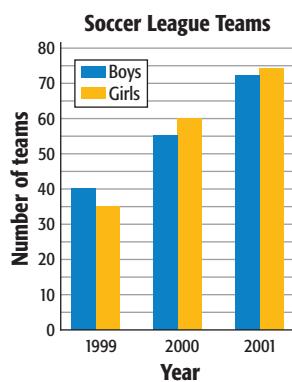
The value that occurs most often

The mode is 25.

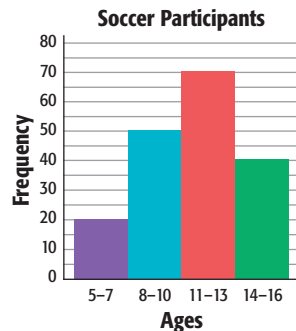
## Data Displays

Lessons 7-3, 7-4, 7-5

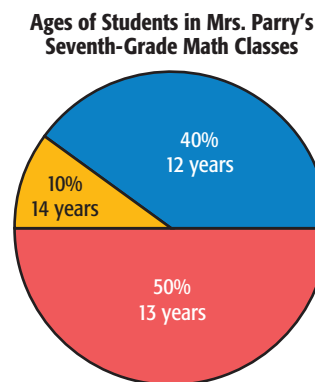
**Why?** Data displays allow people to view a summary of collected data.



A **double-bar graph** compares two sets of data.



A **histogram** displays frequencies of data organized into continuous intervals.



A **circle graph** displays all the parts of a whole data set.

A **box-and-whisker plot** displays the distribution of data into quartiles.

