NAME _____ DATE _____ PERIOD _____

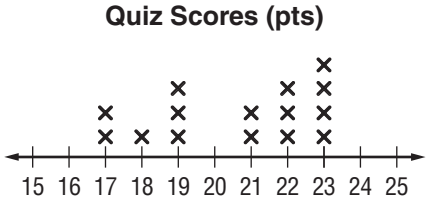
Lesson 4 Reteach

Shape of Data Distributions

The **distribution** of a data set shows the arrangement of data values. Data are **symmetric** when the left side of the distribution looks like the right side. A **cluster** is data grouped closely together. A **gap** is a number that does not have a data value. A **peak** is the most frequently occurring value, or mode.

Example 1

The line plot shows the quiz scores in a social studies class. Describe the shape of the distribution.



The shape of the data is not symmetric because the left side of the data does not look like the right side.

There are clusters from 17–19 and 21–23.

The distribution has a peak at 23.

There is a gap at 20.

There are no outliers.

If data are symmetric, use the **mean** and **mean absolute deviation** to describe the spread. If the data are not symmetric, use the **median** and **interquartile range.**

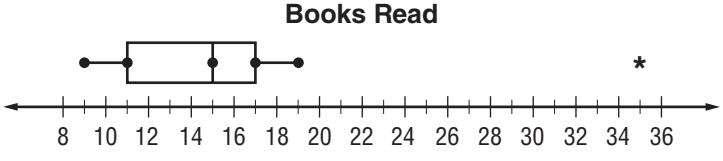
Example 2

Refer to the line plot in Example 1. Choose the appropriate measures to describe the center and spread of the distribution. Justify your response.

The data are not symmetric. The median and interquartile range are the appropriate measures to use.

Exercises

1. Describe the shape of the distribution.



2. Choose the appropriate measures to describe the center and spread of the distribution. Justify your response based on the shape of the distribution.