

KEY TERMS

A **five-number summary** of a set of data consists of the following:

minimum, first quartile (Q_1), median, third quartile (Q_3), maximum.

The **first quartile**, Q_1 , is the one-quarter point in an ordered set of data. To compute Q_1 , calculate the median of the lower half of the ordered data. The **third quartile**, Q_3 , is the three-quarter point in an ordered set of data. To compute Q_3 , calculate the median of the upper half of the ordered data.

A basic **boxplot** (or **box-and-whisker plot**) is a graphical representation of the five-number summary. A modified boxplot indicates outliers and adjusts the whiskers.

The **interquartile range** or **IQR** measures the spread of the middle half of the data:

$$\text{IQR} = Q_3 - Q_1$$

The **range** measures the spread of the data from its extremes:

$$\text{range} = \text{maximum} - \text{minimum}$$