Chapter Two Vocabulary

To calculate the **mean***,* add all values and then divide by the number of individuals.

The **median** is the midpoint of a distribution—the number such that half of the observations are smaller and half are larger.

The **first quartile, Q_1,** is the value in the sample that has 25% of the data at or below it.

The **third quartile, Q_3,** is the value in the sample that has 75% of the data at or below it.

The **interquartile range (IQR)** is the distance between the first and third quartiles (the length of the box in the boxplot)

IQR = Q_3 - Q_1

An **outlier** is an individual value that falls outside the overall pattern.

The **standard deviation** is given by the formula:

$$s = \sqrt{\frac{1}{n-1}\sum_{1}^{n}(x_i - \overline{x})^2}$$

The **variance** is given by the formula:

$$s^2 = \frac{1}{n-1}\sum_{1}^{n}(x_i - \overline{x})^2$$