

## 9.2 Mean

**ESSENTIAL QUESTION:**

How can you find the mean of a set of numbers?

35, 56, 41, 59, 37, 48, 53, 23

1. Add the numbers.

2. Divide the sum of the numbers by how many numbers you added.

$$\begin{array}{r} 2 \\ \hline 35 & 2 \\ 56 & 48 \\ 41 & 53 \\ + 59 & + 23 \\ \hline 191 & 161 \\ & 352 \end{array}$$

$$8 \overline{)352} \quad \begin{array}{r} 44 \\ 32 \\ \hline 32 \\ \hline 32 \end{array}$$

Mean = 44

Mean  $\rightarrow$  The sum of the numbers divided by the number of values that were added (average).

outlier  $\rightarrow$  A number that is much higher or lower than the rest of the numbers.

### EXAMPLE 1->Finding the Mean

The table shows the number of text messages sent by a group of friends over 1 week. What is the mean number of messages sent?

$$\begin{array}{r} 129 \\ 95 \\ 101 \\ 125 \\ 82 \\ 108 \\ + 90 \\ \hline 721 \end{array}$$

$$7 \overline{)721} \quad \begin{array}{r} 103 \\ -7 \\ \hline 2 \\ -0 \\ \hline 2 \\ \hline 1 \end{array}$$

The mean number of text messages sent is 103.

### Text Messages Sent

Mark:	120
Laura:	95
Stacy:	101
Josh:	125
Kevin:	82
Maria:	108
Manny:	90

### EXAMPLE 2->Comparing Mean

The double bar graph shows the monthly rainfall in inches for two cities over a 6-month period. City 1 averaged more rainfall.

Compare the mean monthly rainfall.

$$\begin{array}{r} \text{City 1} & 2.6 \\ 3.5 & 6 \overline{)15.6} \\ 2.2 & 12 \\ 1.9 & \hline 3.6 \\ 2.1 & -3.6 \\ 2.5 & \hline 0 \\ + 3.4 & \\ \hline 15.6 \end{array}$$

$$\begin{array}{r} \text{City 2} & 6 \\ 3 & 2 \overline{)12} \\ 1.7 & 12 \\ 1.6 & \hline 2.2 \\ 2.1 & -2.1 \\ 2.1 & \hline 0 \\ + 1.7 & \\ \hline 12.0 \end{array}$$

