9.2 THE MEAN
Guided Notes

A mean is a type of average.

Key Idea

Mean

Words The **mean** of a data set is the of the data the of data values.

Numbers **Data:** **Mean:** ———— = — =

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

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?

Ⓐ 100 Ⓑ 102 Ⓒ 103 Ⓓ 104

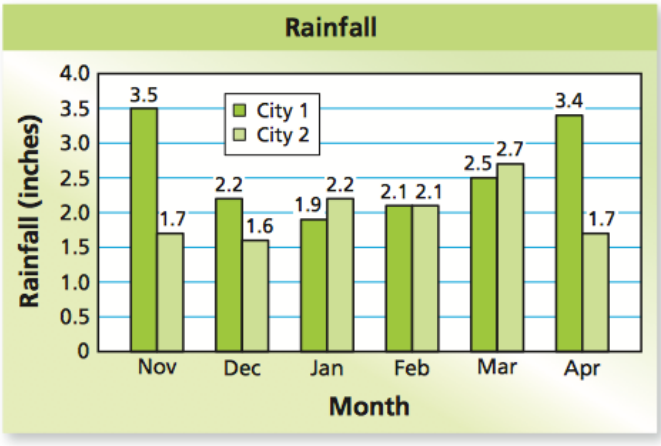
mean = ————————————————

=

The mean number of text messages sent is The correct answer is

EXAMPLE 2 Comparing Means

The double bar graph shows the monthly rainfall amounts for two cities over a six-month period. Compare the mean monthly rainfalls.



City 1 mean: _____ = ___, or

City 2 mean: _____ = ___, or

∴ Because is greater than City averaged more rainfall.

An **outlier** is a data value that is or the other values. When included in a data set, it

EXAMPLE 3 Finding the Mean With and Without an Outlier

Shetland Pony Heights (inches)				
40	37	39	40	42
38	38	37	28	40

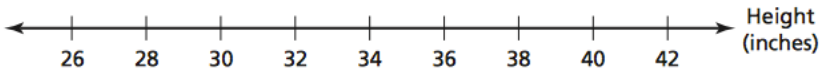
The table shows the heights of several Shetland ponies.

a. Identify the outlier.

b. Find the mean with and without the outlier.

c. Describe how the outlier affects the mean.

a. Display the data in a dot plot.



The height of than the other heights.
So, it is an outlier.

b. Mean with outlier:

_____ = ___, or

Mean without outlier:

_____ = ___, or

c. With the outlier, the mean
Without the outlier, the mean