4-4

Name _____ Date _____

Measures of Central Tendency

(Pages 158–161)

Measures of central tendency use one number to describe a set of data.

Finding Measures of Central Tendency	• The **mean** is the sum of the data divided by the number of pieces of data. • The **mode** is the number or item that appears most often. • The **median** is the number in the middle when you arrange the data in order. When there are two middle numbers, the median is the mean of those two.

EXAMPLE

Find the mean, mode, and median for this data set. 11, 23, 47, 11, 25, 54

Find the total. Then divide by 6. $\frac{171}{6} = 28.5$

The mean is 28.5.

The number that appears most often is 11, which appears twice. The mode is 11.

To find the median, arrange the data in order. 11, 11, 23, 25, 47, 54

There are two middle numbers, 23 and 25. The mean of 23 and 25 is $\frac{23 + 25}{2}$ *or 24. The median of the data is 24.*

Try These Together

1. Find the mean, median, and mode for this set of data. 17, 15, 15, 12, 16

HINT: Find the total and divide by 5 to find the mean. Arrange in order to find the median.

2. Find the mean, median, and mode for this set of data.
3, 2, 3, 2, 3, 9, 5, 6, 4, 5, 2

HINT: There are two modes.

PRACTICE

Find the mean, median, and mode for each set of data. When necessary, round to the nearest tenth.

3. 58, 63, 57, 52, 58, 52, 52, 64

4. 110, 150, 142, 120, 113, 110, 123

5. 35, 35, 36, 32, 34, 33, 32, 31

6. 500, 1,000, 700, 1,000, 1,000, 1,200

7. Employment Kezia conducted a study to find out what the average wage was for high school students who were employed. The data she gathered is shown below. Find the mean, median, and mode of her data. Round to the nearest cent.

$5.50 $6.75 $5.25 $5.75 $6.25 $5.75 $6.75 $5.50 $5.25 $5.25

8. **Standardized Test Practice** The high temperatures in New York, NY, for one week in the summer were 80°F, 78°F, 80°F, 81°F, 85°F, 82°F, and 79°F. What was the median high temperature?

A 79°F **B** 80°F **C** 81°F **D** 85°F

Answers: **1.** 15; 15; 15 **2.** 4; 3; 2 and 3 **3.** 57; 57.5; 52 **4.** 124; 120; 110 **5.** 33.5; 33.5; 32 and 35 **6.** 900; 1,000; 1,000 **7.** $5.80; $5.63; $5.25 **8.** B