NAME _____ DATE _____ PERIOD _____

8-3 Study Guide and Intervention

Stem-and-Leaf Plots

In a **stem-and-leaf plot**, the data are organized from least to greatest. The digits of the least place value usually form the **leaves**, and the next place value digits form the **stems**.

Example **Make a stem-and-leaf plot of the data below. Then find the range, median, and mode of the data.**
42, 45, 37, 46, 35, 49, 47, 35, 45, 63, 45

Order the data from least to greatest.

35, 35, 37, 42, 45, 45, 45, 46, 47, 49, 63

The least value is 35, and the greatest value is 63. So, the tens digits form the stems, and the ones digits form the leaves.

Stem	Leaf
3	5 5 7
4	2 5 5 5 6 7 9
5	
6	3

6|3 = 63

range: greatest value − least value = 63 − 35 or 28
median: middle value, or 45
mode: most frequent value, or 45

Exercises

Make a stem-and-leaf plot for each set of data. Then find the range, median, and mode of the data.

1. 15, 25, 16, 28, 1, 27, 16, 19, 28

Stem	Leaf
0	1
1	5 6 6 9
2	5 7 8 8

2|5 = 25

The range is 27. The median is 19. The mode is 16 and 28.

2. 1, 2, 3, 2, 3, 1, 4, 2, 5, 7, 12, 11, 11, 3, 10

Stem	Leaf
0	1 1 2 2 2 3 3 3 4 5 7
1	0 1 1 2

1|0 = 10

The range is 11. The median is 3. The mode is 2 and 3.

3. 3, 5, 1, 17, 11, 45, 17

Stem	Leaf
0	1 3 5
1	1 7 7
2	
3	
4	5

4|5 = 45

The range is 44. The median is 11. The mode is 17.

4. 4, 7, 10, 5, 8, 12, 7, 6

Stem	Leaf
0	4 5 6 7 7 8
1	0 2

1|0 = 10

The range is 8. The median is 7. The mode is 7.