

1-4

NAME _____ DATE _____

Stem-and-Leaf Plots (Pages 25–31)

You can use a **stem-and-leaf plot** to organize and display data. In a stem-and-leaf plot, the greatest common place-value of the data is used to form the *stems*. The numbers in the next greatest place-value position are then used to form the *leaves*.

EXAMPLE

Organize the following test scores into a stem-and-leaf plot.

72, 69, 98, 77, 92, 85, 79, 86, 90, 98, 83, 100, 77, 98, 91

Since the data range from 69 to 100, the stems range from 6 to 10. Plot each number by placing the units digit (leaf) to the right of its correct stem.

Stem	Leaf
6	9
7	2 7 7 9
8	3 5 6
9	0 1 2 8 8 8
10	0

8|3 = 83

Try These Together

Write the stems that would be used for a plot of each set of data.

- 11, 16, 23, 18, 22, 31, 17, 16, 25, 30, 17, 35, 22, 27
- 20, 29, 33, 69, 44, 30 38, 55, 37, 77, 56, 69, 48, 71

HINT: Remember, the stems are the greatest common place-value of the data.

PRACTICE

Write the stems that would be used for a plot of each set of data.

- 20, 45, 39, 56, 10, 33, 48, 55, 39, 69, 17
- 2.5, 2.8, 1.9, 3.4, 2.7, 1.5, 4.6, 5.0, 5.6, 3.8, 2.6, 4.7
- 168, 113, 125, 144, 122, 155, 163, 118, 120, 177, 164, 134

- 6. Geology** The stem-and-leaf plot at the right gives data about earthquakes of Richter scale magnitude 5.0 or greater in southern California over the past 30 years.

Stem	Leaf
5	2 2 2 2 2 2 2 3 3 3 3 6 7
6	1 1 1 2 2 2 3 3 3 4 4 4 7 7
7	1 1 1 1 1 2 2 2
8	1 2

8|2 = 82

- What was the most frequent magnitude of the earthquakes?
- What was the lowest Richter scale magnitude recorded?



- 7. Standardized Test Practice** Write the stems that would be used for a plot of the following set of data. 112, 132, 115, 155, 143, 129, 128

- | | |
|---------------------------------|-----------------------------|
| A 10, 11, 12, 13, 14, 15 | B 11, 20, 30, 40, 50 |
| C 10, 20, 30, 40, 50 | D 11, 12, 13, 14, 15 |

Answers: 1. 1, 2, 3 2. 2, 3, 4, 5, 6, 7 3. 1, 2, 3, 4, 5, 6 4. 1, 2, 3, 4, 5 5. 11, 12, 13, 14, 15, 16, 17 6a. 5, 2 6b. 5, 2 7. D