MAIN IDEA

- Display and analyze data using a stem-and-leaf plot.

BUILD YOUR VOCABULARY (pages 27–28)

In a **stem-and-leaf plot**, the data is ordered from [   ] to [   ] and is organized by place value.

The **stems** of the plot are the [   ] written to the left of the vertical line.

The **leaves** of the plot are the [   ] digits written to the [   ] of the vertical line.

The **key** explains the stems and [   ].

EXAMPLE **Construct a Stem-and-Leaf Plot**

WRITE IT

When is a stem-and-leaf plot an especially useful way to display data?

_____

_____

_____

_____

_____

1 **WEATHER** Make a stem-and-leaf plot for the data in the table.

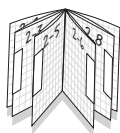| Average July Highs (°F) for Selected European Cities					
69	72	71	73	76	70
81	67	78	89	74	75
74	66	79	73	88	77

Step 1 Order the data from [   ] to [   ].

Step 2 Draw a vertical line and write the tens digits from least to greatest to the left of the line. These digits form the [   ]. Since the least value is [   ] and the greatest value is [   ], the stems are [   ].

Step 3 Write the [   ] digits in order to the [   ] of the line with the corresponding stem. The units digits form the [   ].

Step 4   Include a [_____] that explains the stems and leaves.

Average July Highs

Stem	Leaf
6	6 7 9
7	0 1 2 3 3 4 4 5 6 7 8 9
8	1 8 9 $7|8 = 78$

FOLDABLES

ORGANIZE IT

Under Lesson 2-4 in your journal, explain how to construct a stem-and-leaf plot. Include an example using your own data. Label the parts of the plot.

Check Your Progress

DRIVING Make a stem-and-leaf plot for the data in the table.

Speeds of Cars Driving on the Highway (miles per hour)								
65	72	69	58	81	66	61	74	78
70	66	59	74	78	71	68	65	66

EXAMPLE   Analyze Plots

1   **FOOTBALL** The following stem-and-leaf plot shows the total points scored in 39 recent Super Bowls. Write a few sentences analyzing the data.

Total points

Stem	Leaf
2	1 2 3 7 9
3	0 1 3 7 7 7 8 9 9
4	1 3 4 4 5 6 7 7 7
5	0 2 3 4 5 6 6 9
6	1 5 6 9
7	5 $5|3 = 53$

The ☐ point total is ☐ and the highest is ☐.

Most of the combined scores are in the ☐;
higher and lower point totals are more unusual.

Check Your Progress **HOTEL RATES** The following
stem-and-leaf plot shows nightly hotel rates for a sample of
hotels in a large metropolitan area. Write a few sentences that
analyze the data.

Hotel Rates

Stem	Leaf
6	2 4 8
7	1 4 5 5 8 9
8	3 3 4 6 7 9 9 9
9	1 3 4 5 8|3 = $83