

12-1 Stem-and-Leaf Plots (Pages 606–611)

One way to organize a set of data and present it in a way that is easy to read is to construct a **stem-and-leaf plot**. Use the greatest place value common to all the data values for the **stems**. The next greatest place value forms the **leaves**.

Making a Stem-and-Leaf Plot	<ol style="list-style-type: none"> 1. Find the least and greatest value. Look at the digit they have in the place you have chosen for the stems. Draw a vertical line and write the digits for the stems from the least to the greatest value. 2. Put the leaves on the plot by pairing the leaf digit with its stem. Rearrange the leaves so they are ordered from least to greatest. 3. Include an explanation or key of the data.
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Example

Make a stem-and-leaf plot of this data: 25, 36, 22, 34, 44, 33, 26, 48

The greatest place value is the tens place, so that will be the stems.
The ones place will be the leaves.

1. The least value is 22 and the greatest is 48. This data uses stems of 2, 3, and 4. Draw a vertical line and write the stem digits in order.
2. Put on the leaves by pairing each value.
3. Include an explanation. Since 4|8 represents 48, 4|8 = 48.

Step 1:	2 3 4	Step 2:	2 2 5 6 3 3 4 6 4 4 8 4 8 = 48
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Try These Together

1. Make a stem-and-leaf plot of this data: 12, 43, 42, 18, 27, 33, 12, 22.
HINT: The stems are 1, 2, 3, and 4.
2. Make a stem-and-leaf plot of this data: 105, 115, 91, 109, 120, 81, 114, 119.
HINT: The stems are 8, 9, 10, 11, and 12.

Practice

Make a stem-and-leaf plot of each set of data.

3. 5.3, 5.1, 6.1, 6.3, 5.7, 8.9, 6.8, 8.1, 9, 5.9
4. 10, 22, 5, 18, 7, 21, 3, 11, 30, 15

5. **Automobiles** Round the prices of these popular sedans to the nearest hundred. Then make a stem-and-leaf plot of the prices. (Use $36|4 = \$36,400$.) What is the median price? Explain whether you think the table or the stem-and-leaf plot is a better representation of the data.

Car Type	Price
Car A	\$33,158
Car B	\$30,710
Car C	\$30,855
Car D	\$31,600
Car E	\$29,207
Car F	\$28,420
Car G	\$30,535

6. **Standardized Test Practice** What is the median of grades in Mrs. Jones' class?

- A** 85 **B** 86 **C** 87 **D** 88

7	3 6 7
8	3 5 6 7 8 8
9	2 5 5 6 8 9
9 2 = 92	

Answers: 1–5. See Answer Key. 6. D