Name: _____ Period: _____ Date: _____

Stem and Leaf Plots Guided Notes

A stem and leaf plot uses the digits of data values to organize a data set. Stem and leaf plots have data placed into order from lowest to highest. The stem and leaf plot shows how data are distributed.

Each data is broken into **a stem** (digit or digits on the left of the vertical line) and **leaf** (digit or digits on the right of the vertical line). The stems all represent tens place in stem and leaf plot. The leaves all represent ones place in stem and leaf plot.

Use the following steps to construct a stem and leaf plot:

Step 1: Order the data from least to greatest.

Step 2: Identify the stems and leaves.

Step 3: Order the stems from least to greatest.

Step 4: Write the leaves next to their stems.

Step 5: Order the leaves from least to greatest.

Step 6: Write the key. The key explains what the stems and leaves represent.

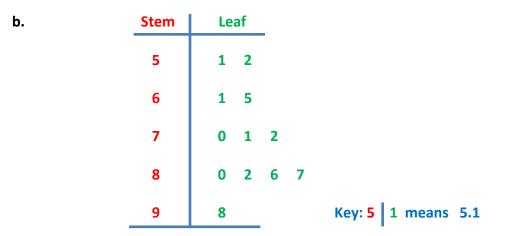**Sample Problem 1:** **Make a stem and leaf plot to display the data.**

a. The data below show the test scores for one student during a semester.
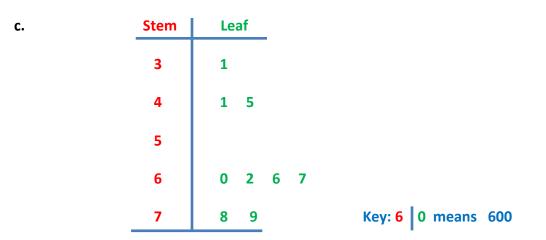   75 82 54 64 54 78 84 92 65

Stem and Leaf Plots Guided Notes

b.   3.1   1.2   2.2   5.4   2.7   1.1   3.5   3.9   2.4   5.8

c.   220 220 200 320 260 250 340 370 110

Stem and Leaf Plots Guided Notes

Sample Problem 2: **List the data given by the stem-and-leaf plot.**

a.

Stem	Leaf
1	0 0 4
2	1 6
3	1 1 4 8
4	2 3 3
5	8

Key: 1 | 0 means 10

b.

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

Key: 5 | 1 means 5.1

c.

Stem	Leaf
3	1
4	1 5
5	
6	0 2 6 7
7	8 9

Key: 6 | 0 means 600
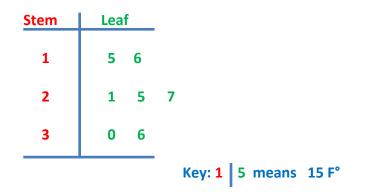
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Stem and Leaf Plots Guided Notes

Interpret Stem and Leaf Plots

Sample Problem 3: **Use the stem and leaf plot to find the data and answer the questions.**

a. The stem and leaf plot shows daily low temperatures (F°)

Stem	Leaf
1	5 6
2	1 5 7
3	0 6

Key: 1 | 5 means 15 F°

- Make an ordered list of the 7 values.
- Find least value, greatest value, mean, median, mode and range.
- What interval includes the most data?

Making a Back-to-Back Stem and Leaf Plot

The back-to-back stem and leaf plots are used to compare two distributions side-by-side. This type of back-to-back stem and leaf plot contains three columns, each separated by a vertical line.

The center column contains the stems.

The first and third columns each contain the leaves of a different distribution. The numbers for the leaves of the distribution in the left most columns are aligned to the right and are listed in order.

Stem and Leaf Plots Guided Notes

Sample Problem 4: **Make a back-to-back stem and leaf plot and answer the question.**

a. The data below show times, in minutes, those two friends spent online in the last week.

John: 35 26 30 48 56 13 38

Michael: 46 15 16 10 44 49 32

a) Who spent the most time online in the last week?