Name: _____ Date: Sept 20 Hr: _____ Alg 1 _____

Unit 2 Day 2: Stem and Leaf Plots

Focus Question: How do I make and interpret a stem and leaf plot?

A. Stem and Leaf

A **Stem and Leaf Plot** is a special table which uses place value to split each piece of data into a "stem" (the first digit or digits) and a "leaf" (usually the last digit). Like in this example:

It is used to organize large data sets.

stem	leaf
0	1, 1, 2, 2, 3, 4, 4, 4, 4, 5, 8
1	0, 0, 0, 1, 1, 3, 7, 9
2	5. 5, 7, 7, 8, 8, 9, 9
3	0, 1, 1, 1, 2, 2, 2. 4, 5
4	0, 4, 8, 9
5	2, 6, 7, 7, 8
6	3, 6

Key: 6|3 = 63 years old

1. How is it similar to a dot plot?

*organized from least to greatest
*can find the exact statistics
*know the exact data collected

2. How is it different from a dot pot?

dot	Stem/Leaf
# line is ALL #'s	only the #'s in the data
No Key	Key
L to R	Top to Bottom & L to R
dots	no dots

B. Making and Interpreting Stem and Leaf plots

For each data table below, make a stem and leaf plot. Then give the count, minimum, maximum, range, mean, median, and mode.

1.

Tourist To Australia in 2006	
Country of Origin	Average Length of stay (nights)
Italy	42
China	48 max.
USA	24
United Kingdom	34
Canada	42
New Zealand	14 min.

Stem	Leaf
1	4
2	4
3	4
4	2 2 8

Key 3|4 = 34 night avg. stay

Count: 6 Minimum: 14 Maximum: 48

Range: from 14 to 48 or 34 Mean: 34 Median: 38 middle of 34 & 42

Mode: 42

2.

Animal	Top Speed in Miles Per Hour
Elk	45
Cheetah	70
Rabbit	35
Human	28
Horse	48
Zebra	40
Giraffe	32
Dolphin	25
Lion	50
Shark	31
Mouse	8

Count: _____ Minimum: _____

Maximum: _____ Range: _____

Mean: _____ Median: _____

Mode: _____

C. Back to Back stem and Leaf plots

When you want to compare very similar data, it can be helpful to make a back to back stem and leaf plot.

Player Height

Women's Team	Stem	Men's Team
9 8 5	6	
7 6 5 5 4 4 3 2	7	2 4 4 6 7 7 8 9 9
	8	0 1 2 3 4 4 5

Key:

Women's: 5\|6\| = 65-inch-tall woman

Men's: \|7\|2 = 72-inch-tall man

Make a back to back stem and leaf plot for the following data.

Which brand of battery would you buy? Explain using statistics.

How long (in hours) can you use your phone before the battery dies?	
Brand A	**Brand B**
~~19~~	~~7~~
~~8~~	~~19~~
~~2 min~~	~~27~~
~~38~~	~~38~~
61	~~56~~
~~8~~	75 max
~~17~~	~~10~~
~~7~~	~~32~~
~~14~~	~~15~~
~~10~~	~~20~~
~~11~~	~~30~~
~~5~~	~~17~~
~~22~~ ✓	~~15~~
~~36~~	~~22~~
~~34~~	~~36~~
~~21~~ ✓	~~15~~
~~30~~	~~22~~
~~22~~ ✓	34
~~32~~	~~26~~

Battery Life

Brand A	stem	Brand B
8 8 7 5 2	0	7
9 7 4 1 0	1	0 5 5 5 7 9
2 2 1	2	0 2 2 6 7
8 6 4 2 0	3	0 2 4 6 8
	4	
	5	6
1	6	
	7	5

Key:

Brand A 9|1 = 19 hrs

Brand B 3|2 = 32 hrs.