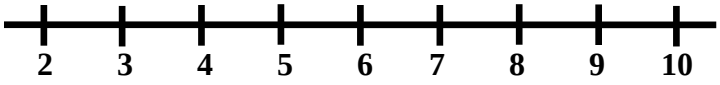
Unit 4: 5 – Point Summary **Name:_____**

Six Math 1 students collected some data with random samples of 9 different people on the number of sodas the people drank on a particular day. Their data is given below.

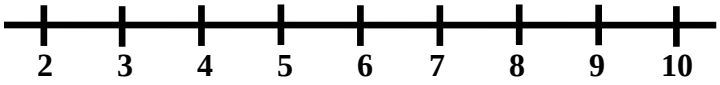
Number of Sodas consumed in one Day

Part A:
For each of the students' data set given, make a dot plot on the line provided.

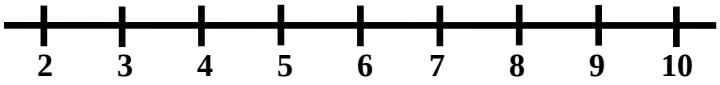
1) Jose's data: 2, 5, 5, 5, 6, 6, 7, 8, 10



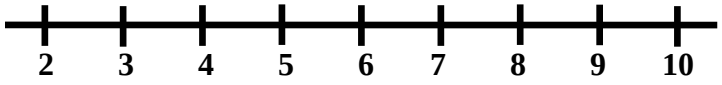
2) Felicia's data: 2, 3, 5, 6, 6, 6, 7, 9, 10



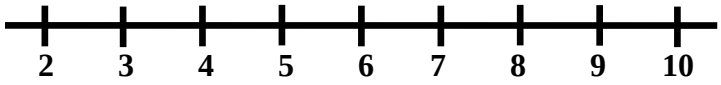
3) Danielle's data: 2, 4, 4, 5, 6, 7, 8, 8, 10



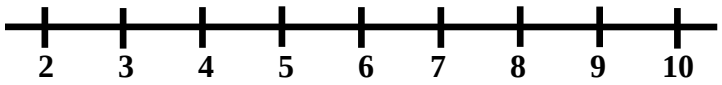
4) Eric's data: 2, 3, 3, 3, 8, 8, 9, 9, 9



5) Yasmeen's data: 2, 2, 2, 4, 5, 9, 10, 10, 10



6) Tyler's data: 2, 2, 2, 4, 4, 10, 10, 10, 10



Part B:

7) What is the mean for each data set? _____ . How do you find the mean? _____

8) Why do we say the mean represents "the fair share"? _____

9) Using the dot plots, order the data sets from what seems to be "least spread out" to "most spread out." _____

10) If you use a 2-number summary (min/max) to describe the data what does this give you? _____

11) How effectively does using the 2-number summary in #10 describe how spread out the data is? _____

12) What percentage of the data is at or above the min? _____. What percent of the data is at or below the max? _____

13) Let's use a **3-number summary** (min/max and median). Explain how to find the median. _____

14) Go back and give the median for each data set under the person's name.

15) Above the dot plot for Jose, put a dot for the max, min, and median.

16) What percentage of the data is at or above the median? _____. What percent is at or below the median? _____

17) For Jose, let's find the middle of the bottom half (Q_1) and the middle of the top half (Q_3). Go back and label this under his name.

Q_1 is called the _____ Q_3 is called the _____

18) If we use the **min, max, median, Q_1, and Q_3** then we are using what we call the **5-number summary**. Using these, make a box and whisker plot for Jose's data right above his dot plot.

19) Now go back and make box and whisker plots for the other 5 people's data sets.

20) What percentage of the data is at or above Q_1? _____. What percentage is at or below Q_1? _____

What percentage of the data is at or above Q_3? _____. What percentage is at or below Q_3? _____

21) If you subtract the Q_3 and Q_1 then you get what we call the **inner quartile range**. What does this IQR describe?

_____

22) Go back and find the IQR for each person's data.

23) Do the box and whisker plots support what you put for answers to #9 using the spread of the data? _____

24) Explain why both the median and mean are called "measures of center". _____