

Exploring Mean and Median
Using the Plop It tool

Name _____

Mean Exploration questions:

*** Note: Increase the Range of Plop It to 20, and continue to do so after each reset ***

- 1) Plop two equal values less than 9. What is their mean? _____
- 2) Increase one of the values by 10. What happened to the mean?

- 3) Increase the other value from step 1) by 4. What happened to the mean?

- 4) Reset/Clear Plop It. Now, plop the values 8, 8, and 11. What is the relationship of the mean to **each** value? _____
- 5) Reset/Clear again. Plop the values 8, 8, and 14. What is now the relationship of the mean to **each** value? _____
- 6) What would the larger value need to be if the mean for the three numbers is to be 11?
_____ Explain how you determined your answer:

- 7) Reset/Clear. Enter 3 non-equal values to obtain a mean of 7. You may find these numbers by using the trial and error process. What three numbers did you find? _____
Reset/Clear and find another set (all different from the first set) of three non-equal numbers with a mean of 7. What are these numbers? _____
- 8) Comment on the distance of each number from the mean. Construct a hypothesis about the specific location of the mean and its relationship with respect to each number in the set.

- 9) Test your hypothesis using the values 5, 9, and 16. Was your hypothesis correct? _____
Why or why not? _____

Median Exploration questions

****Clear/Reset Plot It

10) Complete the following chart to explore the Median

Number of Values	Data	Median
2	5,11	
2	6,14	
3	5,11,12	
3	2,5,13	
5	2,3,8,10,11	
7	1,2,3,4,12,13,14	
4	2,6,10,12	
6	3,4,8,12,13,15	

10) Construct a hypothesis about the relationship among the numbers and the value of the median.

11) Test your hypothesis twice, first using five non-equal data values of your choice and then six non-equal data values. Report the findings of your trials:
