Measures of Central Tendency Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Block \_\_\_\_\_

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| Level 1  4 of 4 Required (Calculator Permitted) | |
| Find the mean, median, mode, and range for the following set of data (4pts):  1, 1, 1, 2, 4, 5, 5, 8, 9 | |
| Mean \_\_\_\_\_\_\_\_\_ | Median \_\_\_\_\_\_\_\_\_ |
| Mode \_\_\_\_\_\_\_\_\_\_ | Range \_\_\_\_\_\_\_\_\_\_ |

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| **\*\*\* Level 2 \*\*\***  **5 of 5 Required (Calculator Permitted)** |
| Consider the following set of data:  10, 0, 2, 7, 5, 3, 6, 3, 4, 6, 2, 0  What is the mode? (1pt) \_\_\_\_\_\_\_\_\_\_  What is the median? (1pt) \_\_\_\_\_\_\_\_\_\_  What would happen to the median if the value 157 was added? **BE SPECIFIC** (1pt) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  What number could you add to the list that would keep the mean the same? \_\_\_\_\_\_\_\_\_\_\_\_\_  Explain with words or numbers why your choice would not change the mean (2pts): |

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| Level 3  2 of 2 Required |
| Design a list of data that meets the following requirements (1pt):   1. There must be at least 6 values 2. All values must be non-negative integers (0, 1, 2, 3, …) 3. The average must be 10 4. The mode must be larger than the median 5. The median must be equal to the number of values in the list |
| Consider a set of 5 data points  with an average of 10.  Suppose  and  are both increased by 2 and the values of  and  are both decreased by 4.  What needs to happen to the value of  if the average is to stay the same? (1pt) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |