

Unit 8: Data Sets and Distributions

ADVANCED

Name: _____ Date: _____

Show all work. Give each answer as an exact number or value. For means/MAD, round to two decimal places only if it does not come out even.

1. A data set records the number of books 8 students read over the summer: 12, 18, 15, 21, 27, 15, 18, 24. Find the mean.

Answer: _____

2. Find the median of this data set of 9 test scores: 47, 52, 39, 61, 55, 48, 58, 44, 50.

Answer: _____

3. Find the median of this data set of 10 values: 8, 14, 11, 19, 23, 16, 9, 20, 17, 12.

Answer: _____

4. A dot plot shows these 11 recorded shoe sizes: 6, 9, 4, 9, 7, 4, 9, 6, 4, 9, 3. Find the mode.

Answer: _____

5. Find the range of this data set: 38, 52, 19, 64, 27, 45, 71, 33.

Answer: _____

6. Find the mean absolute deviation (MAD) of the data set: 10, 12, 14, 16, 18.

Answer: _____

7. For the ordered data set 3, 7, 8, 12, 14, 18, 21, 25, 30, 33, find the interquartile range ($IQR = Q3 - Q1$).

Answer: _____

8. A set of 5 numbers has a mean of 20. Four of the numbers are 15, 22, 18, and 25. Find the fifth number.

Answer: _____

9. The values 24, 30, 18, and 28 are recorded. A fifth value of 35 is then added to the set. Find the mean of all 5 values.

Answer: _____

10. A dot plot shows the values 3, 4, 5, 6, and 7 with frequencies 1, 3, 5, 1, and 2 respectively. Find the mean of all the data values.

Answer: _____

11. A data set has value 10 appearing 2 times, value 20 appearing 3 times, value 30 appearing 5 times, value 40 appearing 4 times, and value 50 appearing 1 time. Find the median of the full data set.

Answer: _____

12. Group A has 8 measurements with a mean of 15. Group B has 12 measurements with a mean of 25. Find the mean of all 20 measurements combined.

Answer: _____