Unit 8: Data Sets and Distributions

ADVANCED · SET 2

Name: _____ Date: _____

Solve each problem. Show your work on scratch paper and write the single exact value on the answer line.

1. A cafe recorded the number of drinks sold on 10 days: 47, 52, 38, 61, 55, 49, 43, 58, 50, 47. Find the mean number of drinks sold per day.

Answer: _____

2. The reaction times (in hundredths of a second) of 8 players were 12, 19, 7, 23, 15, 8, 21, 17. Find the median.

Answer: _____

3. A data set is 8, 3, 10, 5, 6, 4. First find the mean, then find the mean absolute deviation (MAD).

Answer: _____

4. For the data set 4, 8, 11, 13, 15, 18, 21, 24, 27, 30 (already ordered, 10 values), find the interquartile range (IQR = Q3 - Q1). Use the median of the lower five values for Q1 and the median of the upper five values for Q3.

Answer: _____

5. Daily low temperatures (in °C) for a week were -3, 7, -8, 12, -1, 5, -8, 9. Find the range of this data set.

Answer: _____

6. A survey of shoe sizes gave 5, 7, 7, 9, 3, 7, 5, 9, 7, 3. Find the mode.

Answer: _____

7. Five test scores are 14, 20, x, 26, 30. Their mean is 23. Find the value of x.

Answer: _____

8. A set of 6 numbers has a mean of 15. A seventh number, 43, is added to the set. Find the mean of all 7 numbers.

Answer: _____

9. A basketball player scored a mean of 12.5 points across 8 games. Find the total number of points she scored in those 8 games.

Answer: _____

10. A dot plot shows these values with their frequencies: the value 2 appears 3 times, 3 appears 1 time, 4 appears 4 times, and 5 appears 2 times. Find the median of all the data.

Answer: _____

11. The lengths (in cm) of 5 leaves were 3.5, 4.2, 2.8, 5.1, 4.4. Find the mean length.

Answer: _____

12. A histogram of 35 test scores has these bin frequencies: 30-40 has 5, 40-50 has 8, 50-60 has 12, 60-70 has 7, 70-80 has 3. What fraction of the scores are 50 or above? Give your answer as a fraction in the form a/b (it does not need to be simplified).

Answer: _____