

Name: _____ Date: _____ Score: ____ / 10

INSTRUCTIONS

For multiple-choice questions, circle the letter of the correct answer. For short-answer and problem-solving questions, show your complete work in the space provided. No calculator unless your teacher says otherwise.

1 Find the mean of the data set: 4, 8, 6, 10, 12

Multiple Choice

☐ A 8☐ B 10☐ C 6☐ D 9**2 Find the median of the data set: 3, 7, 9, 2, 5**

Multiple Choice

☐ A 5☐ B 7☐ C 9☐ D 6**3 Short Answer — Find the mode of the data set: 4, 4, 5, 7, 7, 7, 9**

Short Answer

4 Find the range of the data set: 12, 45, 7, 32, 18

Multiple Choice

☐ A 38☐ B 45☐ C 33☐ D 40**5 For the data set 2, 4, 5, 7, 8, 9, 12, 15, find the interquartile range (IQR).**

Multiple Choice

☐ A 6☐ B 10.5☐ C 4.5☐ D 13**6 Short Answer — Find the five-number summary (min, Q1, median, Q3, max) of the data set: 5, 7, 8, 10, 12, 13, 20**

Short Answer

Unit 9 Test

Measures of Center, Spread, Box Plots & Data Distributions

7

A box plot shows $Q1 = 20$, median = 28, and $Q3 = 35$. What is the IQR?

Multiple Choice

☐ A 15☐ B 8☐ C 35☐ D 28

8

Which measure of center is most affected by extreme outliers?

Multiple Choice

☐ A Mean☐ B Median☐ C Mode☐ D Range

9

Problem Solving — Test scores: 78, 85, 92, 66, 88, 95, 73, 90. Find the mean, median, and range of this data set.

Problem Solving

10

Problem Solving — A data set is 60, 62, 65, 68, 70, 95. Find the mean of the full data set, then find the mean after removing the outlier (95). Explain why removing the outlier changes the mean the way it does.

Problem Solving