

Name _____

Spread the Knowledge: Understanding Range, Variance, and Standard Deviation

Open-Ended Response Answer Key

1. Measures of spread help us understand the variability and spread of our data by providing insights into how much the values differ from each other and from the mean. This allows us to assess the consistency and predictability of our data.
2. Variance and standard deviation are closely related, as standard deviation is the square root of the variance. Both measures provide information about the spread of data, with standard deviation being more interpretable as it's in the same units as the original data.
3. A dataset with a larger standard deviation is more unpredictable because it has greater variability, meaning the values are more spread out from the mean. This makes it harder to make accurate predictions or draw conclusions about the data.
4. Understanding measures of spread would be important for making decisions in various scenarios, such as determining the variability of sales figures to assess business performance or analyzing the dispersion of test scores to evaluate student achievement.

