

Name _____

Unlocking the Mystery of Mean, Median, and Mode

Open-Ended Response Answer Key

1. Understanding the differences between mean, median, and mode allows us to choose the most appropriate measure of central tendency based on the characteristics of the data set. This helps in accurately summarizing and interpreting data to draw meaningful conclusions.
2. Yes, for example, in analyzing students' test scores, the mean can provide an overall average performance, the median can identify the middle score to represent the typical performance, and the mode can highlight the most common score achieved by students.
3. In a study of household income, if there are a few extremely high-income earners in the sample, their incomes would greatly inflate the mean income value. However, since the median is determined by the middle value, it would not be significantly affected by these outliers.
4. The mode is like finding the most popular item in a collection. It represents the number that appears most frequently in a set of data. For example, if we have a list of numbers representing the ages of people in a room, the mode would be the age that appears the most times.

