Sheet Solution

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What is the primary purpose of descriptive statistics in data analysis?

a. To make predictions about future events.

b. To summarise and describe the main features of a dataset.

c. To test hypotheses and draw conclusions.

d. To identify relationships between variables.

Which statistic represents the most frequently occurring value in a dataset?

a. Mean

b. Median

c. Mode

d. Range

What is the measure of central tendency that represents the middle value of a dataset?

a. Mean

b. Median

c. Mode

d. Range

The difference between the maximum and minimum values in a dataset is known as:

a. Mean

b. Median

c. Mode

d. Range

What is the square root of the variance?

a. Range

b. Standard Deviation

c. Mean

d. Median

Which of the following is not a measure of central tendency?

a. Mean

b. Median

c. Mode

d. Variance

Which measure of central tendency can be applied to both numerical and categorical data?

a. Mean

b. Median

c. Mode

d. Range

What is the middle value of a dataset when it is arranged in ascending order?

a. Mean

b. Median

c. Mode

d. Variance

Which measure of central tendency is influenced the most by extreme values?

a. Mean

b. Median

c. Mode

d. Range

In a perfectly symmetrical dataset, the mean, median, and mode:

a. Are all equal

b. Are all different

c. Are unrelated

d. Depend on the sample size

What is the primary advantage of using the median over the mean?

a. It is easier to calculate

b. It is less affected by outliers

c. It always represents the centre of the data

d. It is suitable for both numerical and categorical data

Which measure of central tendency is calculated by adding all the values in a dataset and dividing by the number of values?

a. Mean

b. Median

c. Mode

d. Range

Which statistic is not affected by outliers in a dataset?

a. Mean

b. Median

c. Mode

d. Range

The sum of the squared differences between each data point and the mean is called?

a. Range

b. Variance

c. Interquartile Range (IQR)

d. Standard Deviation

What does the standard deviation of a dataset indicate?

a. The square root of the variance.

b. The difference between the maximum and minimum values.

c. The centre point of the data.

d. The spread or dispersion of the data around the mean.

The range is a measure of:

a. Central tendency

b. Variability

c. Dispersion

d. Symmetry

Which measure of dispersion shows the average distance of each data point from the mean?

a. Range

b. Variance

c. Standard Deviation

d. Interquartile Range (IQR)

What measure of dispersion is calculated by subtracting the smallest value from the largest value in a dataset?

a. Mean

b. Median

c. Mode

d. Range

In a dataset, if the data points are very spread out from the mean, the standard deviation will be:

a. Small

b. Large

c. Zero

d. Negative

The measure that indicates the average of the squared differences from the mean is:

a. Range

b. Variance

c. Interquartile Range (IQR)

d. Standard Deviation