

1. Quartiles and Percentiles:

.Quartiles divide a dataset into four equal parts, while percentiles divide it into hundred equal parts.

.They are useful for understanding the distribution of data and identifying outliers.

2. Measures of Skewness and Kurtosis:

.Skewness measures the asymmetry of a distribution, indicating whether the data is skewed to the left or right.

.Kurtosis measures the peakedness or flatness of a distribution, indicating whether the data has heavy tails or is more concentrated around the mean.

Inferential Statistics

1. Hypothesis Testing:

.Hypothesis testing is a method for making inferences about population parameters based on sample data.

.It involves formulating null and alternative hypotheses, selecting a significance level, and conducting statistical tests to determine whether to reject or fail to reject the null hypothesis.

2. Confidence Intervals:

.Confidence intervals provide a range of values within which the true population parameter is likely to lie, based on sample data and a specified level of confidence.

.They are used to quantify the uncertainty associated with estimating population parameters from sample data.

Regression Analysis

1. Simple Linear Regression:

.Simple linear regression is a statistical method for modeling the relationship between two quantitative variables.

.It involves fitting a linear equation to the data and assessing the strength and direction of the relationship using correlation and regression coefficients.

2. Multiple Regression:

.Multiple regression extends simple linear regression to model the relationship between multiple independent variables and a single dependent variable.

.It allows for the identification of the most important predictors and the prediction of the dependent variable based on the values of the independent variables.