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Types of ANNOVA

An ANOVA test can be classified as either one-way or two-way based on the number of independent variables involved.

One-Way ANNOVA

This test is used to see if there is a variation in the mean values of three or more groups. Such a test is used where the data set has only one independent variable. If the test statistic exceeds the critical value, the null hypothesis is rejected, and the averages of at least two different groups are statistically significant.

Two-Way ANNOVA

Two independent variables are used in the two-way ANOVA. A two-way ANOVA test is used to determine the main effect of each independent variable and whether there is an interaction effect. Each factor is examined independently to determine the main effect, as in a one-way ANOVA.

Furthermore, all components are analyzed at the same time to test the interaction impact.