

# How do the means of multiple groups differ from each other in a one-way ANOVA?

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A one-way ANOVA (Analysis of Variance) is a statistical test used to determine if there is a significant difference between the means of three or more groups. It compares the variation between groups to the variation within groups, allowing us to determine if the differences in means are due to chance or if they are statistically significant. The test results in an F-statistic, which is compared to a critical value to determine if the means of the groups are significantly different from each other. In summary, a one-way ANOVA is used to assess the differences between the means of multiple groups and determine if these differences are statistically significant.

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