

# some thing wrong

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# **Analysis of Variance(ANOVA)**

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# ANOVA - Analysis of Variance

- Compares the means of 3(+) groups of data.
- Used to study if there is **statistical difference** between 3(+) group of data.
- Assumes the data are **normally distributed** and have **equal variances**

# One-way ANOVA

- Compares the mean of 3(+) groups of data considering one independent variable or factor.
- Within each group there should be at least three observations.

# Two-way ANOVA

- Compares the means of 3(+) groups of data considering two independent variables or factors.

## Assumptions

- Observations in each sample are independent and identically distributed (iid).
- Observations in each sample are normally distributed.
- Observations in each sample have the same variance.

## Interpretation

- $H_0$ : the means of the samples are equal.
- $H_a$ : one or more of the means of the samples are unequal.

Thank You

