

12.6: Key Terms

Analysis of Variance

also referred to as ANOVA, is a method of testing whether or not the means of three or more populations are equal. The method is applicable if:

- all populations of interest are normally distributed.
- the populations have equal standard deviations.
- samples (not necessarily of the same size) are randomly and independently selected from each population.

The test statistic for analysis of variance is the F -ratio.

One-Way ANOVA

a method of testing whether or not the means of three or more populations are equal; the method is applicable if:

- all populations of interest are normally distributed.
- the populations have equal standard deviations.
- samples (not necessarily of the same size) are randomly and independently selected from each population.
- there is one independent variable and one dependent variable.

The test statistic for analysis of variance is the F -ratio.

Variance

mean of the squared deviations from the mean; the square of the standard deviation. For a set of data, a deviation can be represented as $x - \bar{x}$ where x is a value of the data and \bar{x} is the sample mean. The sample variance is equal to the sum of the squares of the deviations divided by the difference of the sample size and one.

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