Hypothesis Tests

ttest

One-sample or paired-sample t-test. Tests if a sample comes from a normal distribution with **unknown variance** and a **specified mean**, against the alternative that it does not have that mean.

vartest

One-sample chi-square variance test. Tests if a sample comes from a normal distribution with **specified variance**, against the alternative that it comes from a normal distribution with a different variance.

ztest

One-sample z-test. Tests if a sample comes from a normal distribution with **known variance** and **specified mean**, against the alternative that it does not have that mean.

ttest2

Two-sample t-test. Tests if two independent samples come from normal distributions with **unknown but equal (or, optionally, unequal) variances** and the **same mean**, against the alternative that the means are unequal.

vartest2

Two-sample F-test for equal variances. Tests if two independent samples come from normal distributions with the **same variance**, against the alternative that they come from normal distributions with different variances.