

## mvtest — Multivariate tests

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## Description

`mvtest` performs multivariate tests on means, covariances, and correlations and tests of univariate, bivariate, and multivariate normality. The tests of means, covariances, and correlations assume multivariate normality (Mardia, Kent, and Bibby 1979). Both one-sample and multiple-sample tests are provided. All multiple-sample tests provided by `mvtest` assume independent samples.

Structural equation modeling provides a more general framework for estimating means, covariances, and correlations and testing for differences across groups; see [\[SEM\] intro 5](#) and [\[SEM\] example 16](#).

## Syntax

```
mvtest subcommand ... [ , ... ]
```

<i>subcommand</i>	Description	See
<code>means</code>	test means	<a href="#">[MV] mvtest means</a>
<code>covariances</code>	test covariances	<a href="#">[MV] mvtest covariances</a>
<code>correlations</code>	test correlations	<a href="#">[MV] mvtest correlations</a>
<code>normality</code>	test multivariate normality	<a href="#">[MV] mvtest normality</a>

## References

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## Also see

- [MV] **canon** — Canonical correlations
- [MV] **hotelling** — Hotelling’s T-squared generalized means test
- [MV] **manova** — Multivariate analysis of variance and covariance
- [R] **correlate** — Correlations (covariances) of variables or coefficients
- [R] **mean** — Estimate means
- [R] **sdtest** — Variance-comparison tests
- [R] **sktest** — Skewness and kurtosis test for normality
- [R] **swilk** — Shapiro–Wilk and Shapiro–Francia tests for normality
- [R] **ttest** —  $t$  tests (mean-comparison tests)
- [SEM] **intro 5** — Tour of models
- [SEM] **example 16** — Correlation