

Alternative Tests

One Proportion – Binomial Calculator

Stat > Calculators > Binomial

n is the sample size, p is the value in H_0

- Left-tailed test: Find $P(X \leq \text{number of successes})$
- Right-tailed test: Find $P(X \geq \text{number of successes})$
- Two-tailed test: If $\hat{p} < p$ double the left-tailed P -value.
Otherwise double the right-tailed P -value.

Two Proportions – Randomization Test for Two Proportions

Applets > Resampling > Randomization Test for Two Proportions

- Use the Radio Button for “From Summary.”
- Fill in the boxes for the sample data in the same way as the two proportion test.
- Press Compute to create the applet.
- Press the button labeled “1000 times” 10 times to run the simulation 10,000 times.

For a left-tailed test, the P -value is the proportion of runs that are in the “or below” row.

For a right-tailed test, the P -value is the proportion of runs that are in the “or above” row.

For a two-tailed test, the P -value is the proportion of runs that are in the “Total” row.

One Mean – Sign Test

Stat > Nonparametrics > Sign Test

Rewrite the null hypothesis in terms of M , not μ .

The wording in your claim should refer to the median, not the mean.

Paired Difference – Wilcoxon Test

Stat > Nonparametrics > Wilcoxon Signed Ranks

Rewrite the null hypothesis in terms of M , not μ .

The wording in your claim should refer to the median, not the mean.

Two Mean – Mann Whitney Test

Stat > Nonparametrics > Mann Whitney

Rewrite the null hypothesis in terms of M , not μ .

The wording in your claim should refer to the median, not the mean.