How to use the 365 Data Science
P-VALUE CALCULATOR

365√DataScience

What is a p-value calculator?

A p-value calculator is a software that has an input your test statistic, (and the degrees of freedom, if applicable) that returns the p-value for the test.

For your convenience, we have developed the 365 Data Science P-value calculator that you can find here:

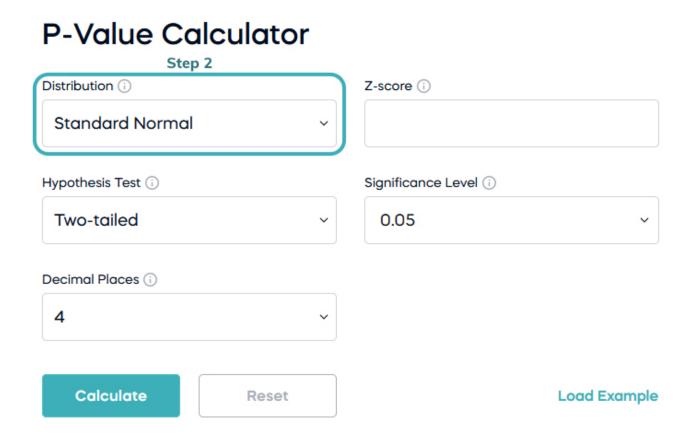https://365datascience.com/calculators/p-value-calculator/

365 DataScience

How to use the 365 Data Science online p-value calculator?

Step 1: Go to

https://365datascience.com/calculators/p-value-calculator/

Step 2: Choose the appropriate distribution for your data. The calculator will then automatically choose the relevant test for you.

In this course, we cover tests associated with the Z-score, t-score, and the F-ratio score.

P-Value Calculator

Step 2

Distribution ⓘ

Standard Normal ⌄

Z-score ⓘ

Hypothesis Test ⓘ

Two-tailed ⌄

Significance Level ⓘ

0.05 ⌄

Decimal Places ⓘ

4 ⌄

Calculate   Reset

Load Example

P-value from Z-score

Step 1: Type in the Z-score you got from your test.

Step 2: Determine the alternative hypothesis. Choose whether it is left-tailed, right-tailed, or two-tailed.

Step 3: Specify the desired level of significance.

Step 4: Choose the number of digits after the decimal point to increase the precision of your results.

Step 5: Click calculate.

P-Value Calculator

Distribution ⓘ

Standard Normal ⌄

Z-score ⓘ

Step 1

Hypothesis Test ⓘ

Step 2

Two-tailed ⌄

Significance Level ⓘ

0.05 ⌄

Step 3

Decimal Places ⓘ

Step 4

4 ⌄

Step 5   Calculate   Reset
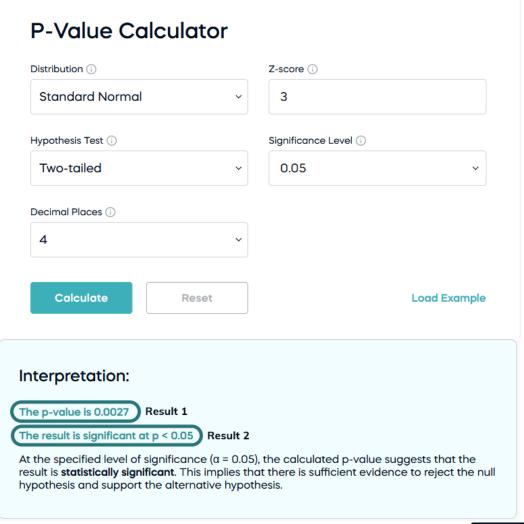
Load Example

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P-value from Z-score (Example)

After clicking 'Calculate', you would instantly get two results.

Result 1: The p-value of the test.

Result 2: The decision, based on the information you entered above.

Note: The 365 Data Science calculator not only computes results but also interprets them for you.

P-Value Calculator

Distribution ⓘ
Standard Normal ⌄

Z-score ⓘ
3

Hypothesis Test ⓘ
Two-tailed ⌄

Significance Level ⓘ
0.05 ⌄

Decimal Places ⓘ
4 ⌄

Calculate   Reset   Load Example

Interpretation:

The p-value is 0.0027   **Result 1**

The result is significant at p < 0.05   **Result 2**

At the specified level of significance (α = 0.05), the calculated p-value suggests that the result is **statistically significant**. This implies that there is sufficient evidence to reject the null hypothesis and support the alternative hypothesis.

P-value from t-score

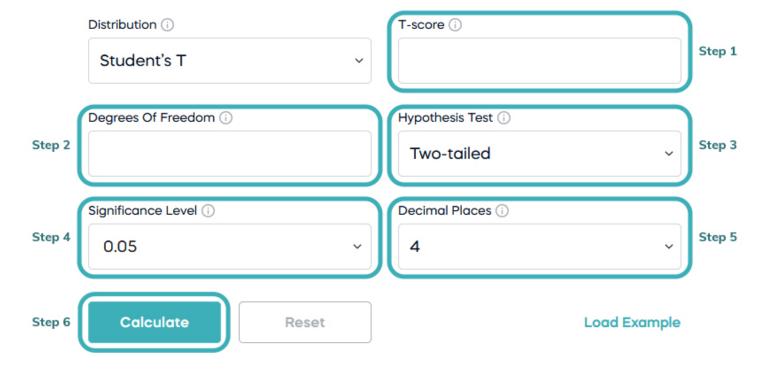**Step 1:** Type in the t-score you got from your test.

Step 2: Type in the degrees of freedom associated with your test.

Step 3 Choose if this is a left-tailed, right-tailed, or two-tailed test.

Step 4: Choose the significance level.

Step 5: Choose the number of digits after the decimal point to increase the precision of your results.

Step 6: Click calculate.

P-Value Calculator

Distribution ⓘ

Student's T

T-score ⓘ

Step 1

Degrees Of Freedom ⓘ

Step 2

Hypothesis Test ⓘ

Two-tailed

Step 3

Significance Level ⓘ

0.05

Step 4

Decimal Places ⓘ

4

Step 5

Step 6   Calculate   Reset
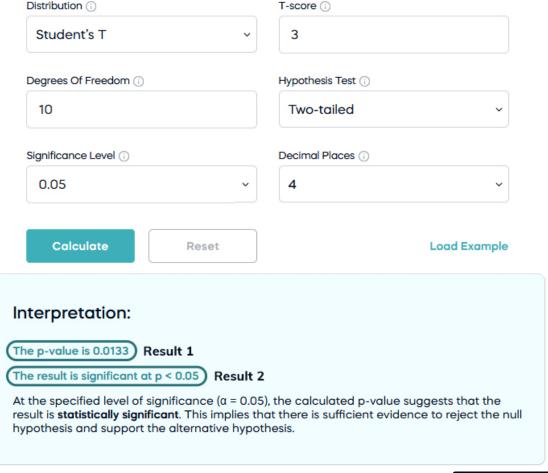
Load Example

365 DataScience

P-value from t-score (Example)

After clicking 'Calculate', you would instantly get two results.

Result 1: The p-value of the test.

Result 2: The decision, based on the information you entered above.

Note: The 365 Data Science calculator not only computes results but also interprets them for you.

P-Value Calculator

Distribution ⓘ

Student's T

T-score ⓘ

3

Degrees Of Freedom ⓘ

10

Hypothesis Test ⓘ

Two-tailed

Significance Level ⓘ

0.05

Decimal Places ⓘ

4

[Calculate] [Reset] **Load Example**

Interpretation:

(The p-value is 0.0133) **Result 1**

(The result is significant at p < 0.05) **Result 2**

At the specified level of significance ($\alpha = 0.05$), the calculated p-value suggests that the result is **statistically significant**. This implies that there is sufficient evidence to reject the null hypothesis and support the alternative hypothesis.

P-value from F-score

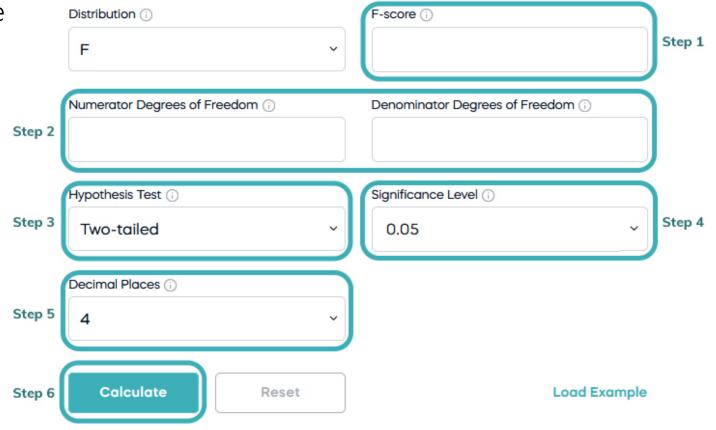**Step 1:** Type in the F-score you got from your test.

Step 2: Enter the degrees of freedom for both the numerator and denominator related to your test.

Step 3: Choose if this is a left-tailed, right-tailed, or two-tailed test.

Step 4: Choose the significance level.

Step 5: Choose the number of digits after the decimal point to increase the precision of your results.

Step 6: Click calculate.

P-value from F-score (Example)

After clicking 'Calculate', you would instantly get two results.

Result 1: The p-value of the test.

Result 2: The decision, based on the information you entered above.

Note: The 365 Data Science calculator not only computes results but also interprets them for you.

P-Value Calculator

Distribution ⓘ
F

F-score ⓘ
3

Numerator Degrees of Freedom ⓘ
10

Denominator Degrees of Freedom ⓘ
5

Hypothesis Test ⓘ
Two-tailed

Significance Level ⓘ
0.05

Decimal Places ⓘ
4

[Calculate]   [Reset]   Load Example

Interpretation:

(The p-value is 0.2370) **Result 1**

(The result is not significant at p > 0.05) **Result 2**

At the specified level of significance ($\alpha = 0.05$), the calculated p-value suggests that the result is **not statistically significant**. This implies that there is insufficient evidence to reject the null hypothesis.