

STATISTICS CALCULATORS FOR MATH 105



Statistics Calculators for Math 105

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TABLE OF CONTENTS

Licensing

- 1: Scientific Calculator powered by DESMOS
- 2: One Variable Statistics
- 3: Mean and Standard Deviation from a Frequency Table
- 4: Binomial Probability Distribution
- 5: Normal Probability Distribution
- 6: Linear Correlation and Regression
- 7: Confidence Interval for a Population Proportion
- 8: Sample Size to Estimate a Population Proportion
- 9: Confidence Interval for a Population Mean Given Statistics
- 10: Confidence Interval for a Population Mean Given Data
- 11: Sample Size to Estimate a Population Mean
- 12: Hypothesis Test for a Population Proportion
- 13: Hypothesis Test for a Population Mean Given Statistics
- 14: Hypothesis Test for a Population Mean Given Data
- 15: Two Independent Proportions Comparison
- 16: Two Independent Sample Means Comparison Given Statistics
- 17: Two Independent Sample Means Comparison Given Data
- 18: Two Dependent Sample Means Comparison Given Data
- 19: Chi-Square Test for Goodness of Fit

20: Chi-Square Test for Independence

21: One-Way ANOVA

22: Graveyard

- [22.1: Mean and Standard Deviation for Grouped Frequency Tables Calculator](#)
- [22.2: Binomial Distribution Calculator](#)
- [22.3: One Variable Statistics Calculator](#)
- [22.4: Normal Probability Calculator](#)
- [22.5: Hypothesis Test for a Population Mean With Data Calculator](#)
- [22.6: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples](#)
- [22.7: Full Regression Analysis Calculator](#)
- [22.8: Sample Size for a Mean Calculator](#)
- [22.9: Needed Sample Size for a Confidence Interval for a Population Proportion Calculator](#)
- [22.10: Two Independent Samples With Data Hypothesis Test and Confidence Interval Calculator](#)
- [22.11: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples](#)
- [22.12: Chi-Square Goodness of Fit Test Calculator](#)
- [22.13: Chi-Square Test For Homogeneity Calculator](#)
- [22.14: Chi-Square Test For Independence Calculator](#)
- [22.15: ANOVA Calculator](#)
- [22.16: Hypothesis Test and Confidence Interval Calculator- Difference Between Population Proportions](#)
- [22.17: Index](#)
- [22.18: Glossary](#)
- [Detailed Licensing](#)

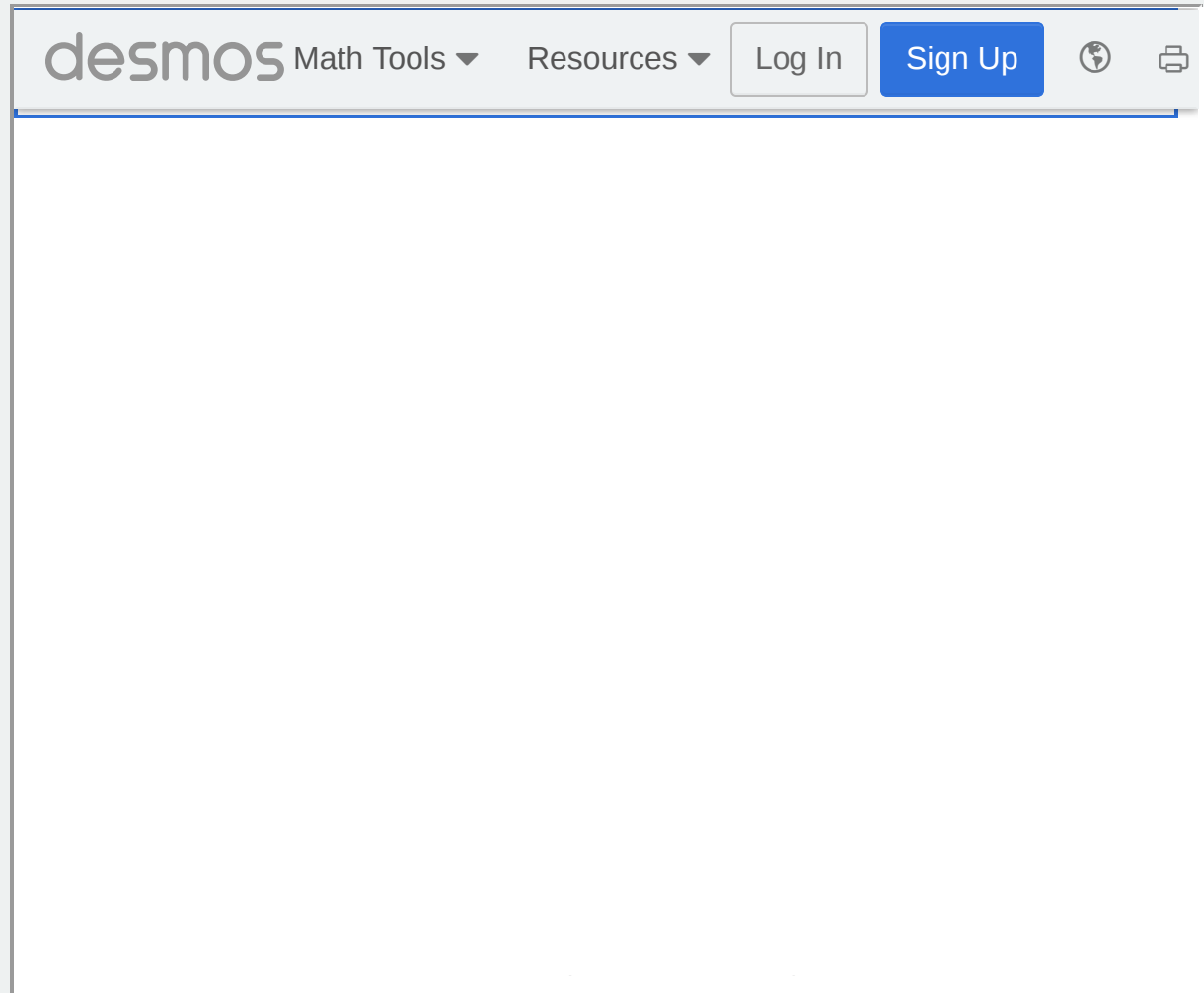
Licensing

A detailed breakdown of this resource's licensing can be found in [Back Matter/Detailed Licensing](#).

1: Scientific Calculator powered by DESMOS

Scientific Calculator powered by DESMOS

This is a scientific calculator powered by DESMOS, and the same calculator is also available at the bottom of each statistics calculator. Please report error to Dr. Jessica Kuang at jkuangATvcccd.edu.



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2: One Variable Statistics

One Variable Statistics

This calculator computes the mean, standard deviation, and 5-number summary from a one-variable data set. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Type in the values from the data set separated by commas (for example, 2,4,5,8,11,2), choose between population standard deviation and sample standard deviation and click Calculate.

- ☐ Population Standard Deviation
☐ Sample Standard Deviation

Calculate

Output

Mean:

Minimum:

Q1:

Median:

Q3:

Maximum:

Standard Deviation:

Variance:

Interquartile Range (IQR):

Sample Size:

Scientific Calculator

2: [One Variable Statistics](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

3: Mean and Standard Deviation from a Frequency Table

=

Mean and Standard Deviation from a Frequency Table

This calculator computes mean, standard deviation, and 5-number summary from a frequency or probability distribution table. Please report any error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Type in the data values and frequencies (in whole numbers or decimals) below.

data value

frequency

☒ Population Standard Deviation

☐ Sample Standard Deviation

Calculate

Output

Mean:

Standard Deviation:

Five Point Summary:

Sample Size:

Scientific Calculator

3: Mean and Standard Deviation from a Frequency Table is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

4: Binomial Probability Distribution

Binomial Probability Distribution

This calculator computes $P(a \leq x \leq b)$, where x is a binomial random variable, and a and b are the lower bound and the upper bound for x respectively. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, watch a [short video](#) here.

Input

Enter the lower bound and the upper bound for the number of successes, the number of trials (n), and the probability of success (p), and then hit Calculate.

Lower Bound:	Upper Bound:	n :	p (enter a decimal):

Calculate

Output

Probability:

Scientific Calculator

4: Binomial Probability Distribution is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

5: Normal Probability Distribution

Normal Probability Distribution

This calculator computes $P(a < x < b)$, where x is a normal random variable, and a and b are the lower bound and upper bound for x . Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Mean:	Standard Deviation:

Output

Enter 2 out of 3 values below to either calculate the probability or a boundary value
(enter integers or decimals only)

Lower Bound:	Upper Bound:	Probability:

Calculate

Error

Message:

Scientific Calculator

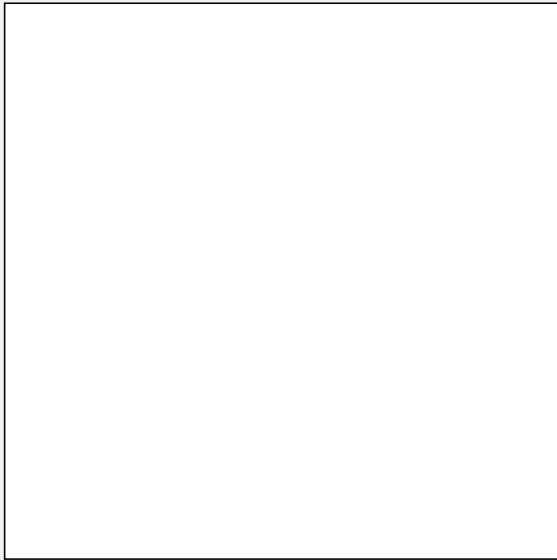
5: Normal Probability Distribution is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

6: Linear Correlation and Regression

Linear Correlation and Regression

This calculator creates a scatter plot, the regression equation, r and r^2 , and performs the hypothesis test for a nonzero correlation. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.



Input

Put the independent variable's data separated by commas in the first row and the dependent variable's data separated by commas in the second row, then click Plot Points and Calculate.

Explanatory/Independent Variable (x):

Response/Dependent Variable (y):

Plot Points and Calculate

Reset

Output

Regression Equation:

r :

r^2

:

p

-

v

a

l

u

e

:

- ☒ Hypothesis: $H_0 : \rho = 0, H_1 : \rho \neq 0$
- ☐ Hypothesis: $H_0 : \rho = 0, H_1 : \rho < 0$
- ☐ Hypothesis: $H_0 : \rho = 0, H_1 : \rho > 0$

Test Statistic (t):

Scientific Calculator

7: Confidence Interval for a Population Proportion

Confidence Interval for a Population Proportion

This calculator creates confidence intervals for a population proportion given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Fill in the sample size (n), the number of successes (x), and the confidence level (CL), then hit Calculate. Write the confidence level as a decimal. For example, for a 95% confidence level, enter 0.95.

Sample Size (n):

Number of Successes (X):

Confidence Level (enter a decimal):

Calculate

Output

Point Estimate ($\hat{p}$):

Lower Bound:

Upper Bound:

Scientific Calculator

7: Confidence Interval for a Population Proportion is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

8: Sample Size to Estimate a Population Proportion

Sample Size to Estimate a Population Proportion

This calculator computes the sample size needed to estimate a population proportion. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Fill in the estimation for P (or choose no estimation for P), the error bound and the confidence level, then hit "Calculate " and the needed sample size will be calculated for you.

☒

No Estimate for p

☐

Have Estimate for p

Estimate for p (enter a decimal):

Error Bound (enter a decimal):

Confidence Level (enter a decimal):

Calculate

Output

Sample Size (n):

Scientific Calculator

Estimate for p:

8: Sample Size to Estimate a Population Proportion is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

9: Confidence Interval for a Population Mean Given Statistics

Confidence Interval for a Population Mean Given Statistics

This calculator creates a confidence interval for a population mean given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Fill in the sample size (n), the sample mean ($\bar{x}$), the sample standard deviation (s), and the confidence level (CL), then click Calculate. Write the confidence level as a decimal. For example, for a 95% confidence level, enter 0.95.

Sample Size (n):

Sample Mean ($\bar{x}$):

Standard Deviation (s):

Confidence Level (enter a decimal):

Calculate

Output

Lower Bound:

Upper Bound:

Scientific Calculator

9: Confidence Interval for a Population Mean Given Statistics is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

10: Confidence Interval for a Population Mean Given Data

Confidence Interval for a Population Mean Given Data

This calculator creates a confidence interval for a population mean given a set of data. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Type in the values from the data set separated by commas, for example, 2,4,5,8,11,2. Then type in the confidence level (CL) and hit Calculate. Write the confidence level as a decimal. For example, for a 95% confidence level, enter 0.95.

Data:

Confidence Level (enter a decimal):

Calculate

Output

Sample Mean ($\bar{x}$):

Standard Deviation (s):

Lower Bound:

Upper Bound:

Scientific Calculator

10: Confidence Interval for a Population Mean Given Data is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

11: Sample Size to Estimate a Population Mean

Sample Size to Estimate a Population Mean

This calculator calculates the sample size needed to estimate a population mean. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Fill in the population standard deviation (σ), the error bound (E), and the confidence level (CL). Write the confidence level as a decimal. For example, for a 95% confidence level, enter 0.95 for CL. Then hit Calculate and assuming the population is normally distributed, the necessary sample size will be shown.

Standard Deviation (σ):

Error Bound (E, enter a decimal):

Confidence Level (enter a decimal):

Output

Calculate

Sample Size (n):

Scientific Calculator

11: Sample Size to Estimate a Population Mean is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

12: Hypothesis Test for a Population Proportion

Hypothesis Test for a Population Proportion

This calculator performs the hypothesis test for a population proportion given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Fill in the sample size, n , the number of successes, x , the hypothesized population proportion p_0 , and indicate if the test is left tailed, $<$, right tailed, $>$, or two tailed, $\neq$. Then hit "Calculate" and the test statistic and p-Value will be calculated for you.

Sample Size (n):

Number of Success (x):

Choose the test

- ☒ $<$
☐ $>$
☐ $\neq$

Hypothesized Population Proportion (p_0):

Calculate

Output

Test Statistics (z)

p-value:

Scientific Calculator

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12: Hypothesis Test for a Population Proportion is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

13: Hypothesis Test for a Population Mean Given Statistics

Hypothesis Test for a Population Mean given Statistics

This calculator performs the hypothesis test for a population mean given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Select if the population standard deviation, σ , is known or unknown. Then fill in the sample size (n), the sample mean ($\bar{x}$), the standard deviation (s), the hypothesized population mean μ_0 , and indicate if the test is left tailed ($<$), right tailed ($>$), or two tailed ($\neq$), then click Calculate.

Standard Deviation (s)

Sample Size (n):

Sample Mean ($\bar{x}$):

Choose the test

- ☒ $<$
☐ $>$
☐ $\neq$

Hypothesized Population Mean (μ_0):

Calculate

Output

Test Statistic (t)

p-value

Scientific Calculator

13: Hypothesis Test for a Population Mean Given Statistics is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

14: Hypothesis Test for a Population Mean Given Data

Hypothesis Test for a Population Mean With Data

This calculator performs the hypothesis test for a population mean given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch [a short video here \(coming up\)](#).

Input

Type in the values from the data set separated by commas, for example, 2,4,5,8,11,2. Then choose the left, right, or two-tailed test and the hypothesized mean. Finally hit Calculate and the sample mean, then the test statistic and the p-value will be shown.

Data:

Choose the test

- ☒ $<$
☐ $>$
☐ $\neq$

Hypothesized Population Mean (μ_0):

Calculate

Output

Sample Mean ($\bar{x}$):

Standard Deviation (s):

Test Statistics (t)

p-value:

Scientific Calculator

14: Hypothesis Test for a Population Mean Given Data is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

15: Two Independent Proportions Comparison

Two Independent Proportions Comparison

This calculator performs the hypothesis test and also constructs a confidence interval for $p_1 - p_2$ given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video](#) here.

Input

Enter the sample size and the number of successes for each sample, choose the test, and enter the confidence level then hit Calculate. The test statistic, p-value, and the boundaries of the confidence interval will be shown. Be sure to enter the confidence level as a decimal, e.g., enter 95% as 0.95.

	Sample Size (N)	Number of Successes (X)
First Sample		
	choose a test ☒ $<$ ☐ $>$ ☐ $\neq$	
Second Sample		

Confidence Level (enter a decimal):

Calculate

Output

Test Statistics (z):

p-value:

Lower Bound:

Upper Bound:

Scientific Calculator

15: Two Independent Proportions Comparison is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

16: Two Independent Sample Means Comparison Given Statistics

Two Independent Samples with statistics Calculator

This calculator performs the hypothesis test and also constructs a confidence interval for $\mu_1 - \mu_2$ for two population means given statistics. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video here \(coming up\)](#).

Input

Enter the statistics, the tail type, and the confidence level and hit Calculate and the test statistic, p-value, and the boundaries for the confidence interval. Be sure to enter the confidence level as a decimal, e.g., 95% should be entered as 0.95.

	Sample Size	Sample Mean	Sample Standard Deviation
First Sample			
	choose a test ☒ < ☐ > ☐ $\neq$		
Second Sample			

Confidence Level (Enter a Decimal):

Calculate

Output

Test Statistics (t):	p-value:	Lower Bound:	Upper Bound:

Scientific Calculator

[Back to the Calculator Menu](#)

16: Two Independent Sample Means Comparison Given Statistics is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

17: Two Independent Sample Means Comparison Given Data

Two Independent Samples Means Comparison Given Data

This calculator performs the hypothesis test and also constructs a confidence interval for $\mu_1 - \mu_2$ given data. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a [short video here \(coming up\)](#).

Input

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Enter the statistics, the tail type, and the confidence level then hit Calculate. The test statistic, p-value, and the boundaries for the confidence interval. Be sure to enter the confidence level as a decimal, e.g., 95% should be entered as 0.95.

Data

choose a test

- ☒ <
☐ >
☐ $\neq$

Data

Confidence Level (enter a decimal):

0.95

Calculate

Output

Test Statistics (t):

p-value

Lower bound

Upper Bound

Scientific Calculator

17: Two Independent Sample Means Comparison Given Data is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

18: Two Dependent Sample Means Comparison Given Data

Two dependent Samples Means Comparison Given data

This calculator performs a hypothesis test and creates a confidence interval for two dependent sample means given the data sets. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please [watch a short video here \(coming up\)](#).

Input

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t, the p-value, p, the confidence interval's lower bound, LB, the upper bound, UB, and the data set of the differences will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

choose a test

- ☒ <
☐ >
☐ ≠

Data2:

Confidence Level (enter a decimal):

0.95

Calculate

Output

Test Statistics (t):

p-value:

Lower Bound:

Upper Bound:

Scientific Calculator

18: Two Dependent Sample Means Comparison Given Data is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

19: Chi-Square Test for Goodness of Fit

Chi-Square Test for Goodness of Fit

This calculator performs the Chi-Square test for goodness of fit. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a short video [here](#).

Input

Type in the values from the observed and expected sets separated by commas, for example, 2,4,5,8,11,2. Then hit Calculate, the test statistic and the p-value will be shown.

Observed:

Expected:

Output

Calculate

Test Statistics (χ^2):

p-value:

Scientific Calculator

19: Chi-Square Test for Goodness of Fit is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

20: Chi-Square Test for Independence

Under Reconstruction χ^2 test for independence calculator

Enter in the observed values and hit Calculate and the χ^2 test statistic and the p-value will be calculated for you. Leave blank the last rows and columns that don't have data values.

	A	B	C	D
First				
Second				
Third				
Fourth				
Fifth				
Sixth				
Seventh				
Eighth				
Ninth				
Tenth				

Calculate

χ^2 :

p

Scientific Calculator

[Back to the Calculator Menu](#)

20: Chi-Square Test for Independence is shared under a [CC BY](#) license and was authored, remixed, and/or curated by LibreTexts.

21: One-Way ANOVA

One-Way ANOVA

This calculator performs the one-way ANOVA. Please report the error to Dr. Jessica Kuang at jkuangATvcccd.edu.

To learn how to use this calculator, please watch a short video here (coming up).

Input

Enter the data values separated by commas, for example: 3,4,7,9,-2,8. Then hit Calculate and the F-statistic and the p-value will be generated for you. Leave the extra rows blank if not needed.

Data1:

Data2:

Data3:

Data4:

Data5:

Data6:

Data7:

Data8:

Calculate

Test Statistics (F):

p-value:

Scientific Calculator

21: One-Way ANOVA is shared under a [CC BY](https://creativecommons.org/licenses/by/4.0/) license and was authored, remixed, and/or curated by LibreTexts.

22: Graveyard

This is my graveyard, please don't use any calculators beyond this point.

~Jessica Kuang

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22.1: Mean and Standard Deviation for Grouped Frequency Tables Calculator

Mean and Standard Deviation for grouped frequency Tables Calculator

Type in the midpoints and frequencies below. Put the midpoints in increasing order and do not include any values with zero frequency.

Midpoints

Frequencies

- ☐ Population Standard Deviation
☐ Sample Standard Deviation

Mean

Standard Deviation

Five Point Summary

Sample Size

Calculate

Scientific Calculator

[Back to the Calculator Menu](#)

This page titled [22.1: Mean and Standard Deviation for Grouped Frequency Tables Calculator](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Larry Green](#).

22.2: Binomial Distribution Calculator

Binomial Distribution calculator

Enter the lower bound for the number of successes (Low), the upper bound for the number of successes (High), the number of trials (Trials), and the probability of success (P), and then hit Calculate.

Low:

High:

Trials:

P:

Calculate

Scientific Calculator

[Back to the Calculator Menu](#)

This page titled [22.2: Binomial Distribution Calculator](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Larry Green](#).

22.3: One Variable Statistics Calculator

One Variable statistics Calculator

Type in the values from the data set separated by commas, for example, 2,4,5,8,11,2, and click Calculate.

- ☐ Population Standard Deviation
☐ Sample Standard Deviation

Calculate

Mean

Minimum

Q1

Median

Q3

Maximum

Standard Deviation

Variance

IQR

Sample Size

Scientific Calculator

[Back to the Calculator Menu](#)

This page titled [22.3: One Variable Statistics Calculator](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Larry Green](#).

22.4: Normal Probability Calculator

Online Normal Probability Calculator

Fill in all of the values except one below and hit Calculate then the last value will be given to you.

Low:

High:

Mean:

Std. Dev.:

p=

Calculate

Scientific Calculator

[Back to the Calculator Menu](#)

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22.5: Hypothesis Test for a Population Mean With Data Calculator

Hypothesis Test for a Population Mean With Data Calculator

Type in the values from the data set separated by commas, for example, 2,4,5,8,11,2. Then type in the population standard deviation σ if it is known or leave it blank if it is not known. Then choose a left, right or two tailed test, and the hypothesized mean. Finally hit Calculate and the sample mean, the test statistic and the p-value will be shown.

Data:

σ :	☐ < ☐ > ☐ $\neq$	μ_0 :	Calculate

[Scientific Calculator](#)

[Back to the Calculator Menu](#)

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22.6: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples

Two dependent Samples with data Calculator

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t , the p -value, p , the confidence interval's lower bound, LB, the upper bound, UB, and the data set of the differences will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

Data2:

☒ <

☐ >

☐ $\neq$

CL:

Calculate

t:

p

LB

UB

Scientific Calculator

[Back to the Calculator Menu](#)

This page titled [22.6: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples](#) is shared under a [CC BY](#) license and was authored, remixed, and/or curated by [Larry Green](#).

22.7: Full Regression Analysis Calculator

Full regression analysis Calculator

Create a scatter plot, the regression equation, r and r^2 , and perform the hypothesis test for a nonzero correlation below by entering a point, click Plot Points and then continue until you are done. You can also input all your data at once by putting the first variable's data separated by commas in the first row and the second variable's data separated by commas in the second row and then clicking on plot points.



x:

y:

Regression Equation:	r:	r^2 : p - v a l u e =
☒ Hypothesis: $H_0 : \rho = 0, H_a : \rho \neq 0$ ☐ Hypothesis: $H_0 : \rho = 0, H_a : \rho < 0$ ☐ Hypothesis: $H_0 : \rho = 0, H_a : \rho > 0$	t =	

[Back to the Calculator Menu](#)

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22.8: Sample Size for a Mean Calculator

Sample size Calculator

Fill in the population standard deviation (σ), the error bound (E), and the confidence level (CL). Write the confidence level as a decimal. For example, for a 95% confidence level, enter 0.95 for CL. Then hit Calculate and assuming the population is normally distributed, the necessary sample size will be shown.

σ :	E:	CL:	Calculate n	n:

Scientific Calculator

[Back to the Calculator Menu](#)

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22.9: Needed Sample Size for a Confidence Interval for a Population Proportion Calculator

Sample Size Calculator

Fill in the error bound (E) and the confidence level (CL) written as a decimal, for example a 95% confidence level is 0.95. If there is an estimate for the population proportion, check the "Have Estimate for p" radio button and then fill in the estimate in the p box that appears. Then hit "Calculate n" and the needed sample size will be calculated for you.

☒ No

Estimate for p

☐ Have

Estimate for p

Estimate for p:

E:

CL:

**Calculate
n**

n:

[Scientific Calculator](#)[Back to the Calculator Menu](#)

Estimate for p:

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22.10: Two Independent Samples With Data Hypothesis Test and Confidence Interval Calculator

Two Independent Samples with data Calculator

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t , the p-value, p , the confidence interval's lower bound, LB, and the upper bound, UB will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

Data2:

- ☒ <
☐ >
☐ $\neq$

CL:

Calculate

t:

p

LB

UB

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[Back to the Calculator Menu](#)

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22.11: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples

Two dependent Samples with data Calculator

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t , the p -value, p , the confidence interval's lower bound, LB, the upper bound, UB, and the data set of the differences will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

Data2:

☒ <

☐ >

☐ $\neq$

CL:

Calculate

t:

p

LB

UB

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[Back to the Calculator Menu](#)

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22.12: Chi-Square Goodness of Fit Test Calculator

χ^2 Goodness of fit Calculator

Type in the values from the observed and expected sets separated by commas, for example, 2,4,5,8,11,2. Then hit Calculate and the test statistic, χ^2 , and the p-value, p, will be shown.

Observed:

Expected:

Calculate

χ^2 :

p

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22.13: Chi-Square Test For Homogeneity Calculator

χ^2 test for Homogeneity calculator

Enter in the observed values for each of the two samples A and B and hit Calculate and the χ^2 test statistic and the p-value will be calculated for you. Leave blank the last rows that don't have data values.

A	B

Calculate

χ^2 :

p

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22.14: Chi-Square Test For Independence Calculator

χ^2 test for independence calculator

Enter in the observed values and hit Calculate and the χ^2 test statistic and the p-value will be calculated for you. Leave blank the last rows and columns that don't have data values.

	A	B	C	D
First				
Second				
Third				
Fourth				
Fifth				
Sixth				
Seventh				
Eighth				
Ninth				
Tenth				

Calculate

χ^2 :

p

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22.15: ANOVA Calculator

ANOVA Calculator

Enter the data values separated by commas, for example: 3,4,7,9,-2,8. Then hit Calculate and the F-statistic and the p-value will be generated for you.

Data1:

Data2:

Data3:

Data4:

Data5:

Data6:

Data7:

Data8:

Calculate

F:

p

Scientific Calculator

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22.16: Hypothesis Test and Confidence Interval Calculator- Difference Between Population Proportions

Two Proportions Calculator

Enter in the sample sizes and number of successes for each sample, the tail type and the confidence level and hit Calculate and the test statistic, t , the p -value, p , the confidence interval's lower bound, LB, and the upper bound, UB will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

	Sample Size	Number of Successes
First Sample		
Second Sample		

☒	<
☐	>
☐	$\neq$

CL:

Calculate

z :

p :

LB:

UB:

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- [Statistics Calculators for Math 105 - Undeclared](#)
 - [Front Matter - Undeclared](#)
 - [TitlePage - Undeclared](#)
 - [InfoPage - Undeclared](#)
 - [Table of Contents - Undeclared](#)
 - [Licensing - Undeclared](#)
 - [1: Scientific Calculator powered by DESMOS - Undeclared](#)
 - [2: One Variable Statistics - CC BY 4.0](#)
 - [3: Mean and Standard Deviation from a Frequency Table - CC BY 4.0](#)
 - [4: Binomial Probability Distribution - CC BY 4.0](#)
 - [5: Normal Probability Distribution - CC BY 4.0](#)
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 - [8: Sample Size to Estimate a Population Proportion - CC BY 4.0](#)
 - [9: Confidence Interval for a Population Mean Given Statistics - CC BY 4.0](#)
 - [10: Confidence Interval for a Population Mean Given Data - CC BY 4.0](#)
 - [11: Sample Size to Estimate a Population Mean - CC BY 4.0](#)
 - [12: Hypothesis Test for a Population Proportion - CC BY 4.0](#)
 - [13: Hypothesis Test for a Population Mean Given Statistics - CC BY 4.0](#)
 - [14: Hypothesis Test for a Population Mean Given Data - CC BY 4.0](#)
 - [15: Two Independent Proportions Comparison - CC BY 4.0](#)
 - [16: Two Independent Sample Means Comparison Given Statistics - CC BY 4.0](#)
 - [17: Two Independent Sample Means Comparison Given Data - CC BY 4.0](#)
 - [18: Two Dependent Sample Means Comparison Given Data - CC BY 4.0](#)
 - [19: Chi-Square Test for Goodness of Fit - CC BY 4.0](#)
 - [20: Chi-Square Test for Independence - CC BY 4.0](#)
 - [21: One-Way ANOVA - CC BY 4.0](#)
 - [22: Graveyard - Undeclared](#)
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 - [22.2: Binomial Distribution Calculator - CC BY 4.0](#)
 - [22.3: One Variable Statistics Calculator - CC BY 4.0](#)
 - [22.4: Normal Probability Calculator - CC BY 4.0](#)
 - [22.5: Hypothesis Test for a Population Mean With Data Calculator - CC BY 4.0](#)
 - [22.6: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples - CC BY 4.0](#)
 - [22.7: Full Regression Analysis Calculator - CC BY 4.0](#)
 - [22.8: Sample Size for a Mean Calculator - CC BY 4.0](#)
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 - [22.10: Two Independent Samples With Data Hypothesis Test and Confidence Interval Calculator - CC BY 4.0](#)
 - [22.11: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples - CC BY 4.0](#)
 - [22.12: Chi-Square Goodness of Fit Test Calculator - CC BY 4.0](#)
 - [22.13: Chi-Square Test For Homogeneity Calculator - CC BY 4.0](#)
 - [22.14: Chi-Square Test For Independence Calculator - CC BY 4.0](#)
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 - [22.16: Hypothesis Test and Confidence Interval Calculator- Difference Between Population Proportions - CC BY 4.0](#)
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 - [22.18: Glossary - Undeclared](#)
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22.1: Mean and Standard Deviation for Grouped Frequency Tables Calculator

Mean and Standard Deviation for grouped frequency Tables Calculator

Type in the midpoints and frequencies below. Put the midpoints in increasing order and do not include any values with zero frequency.

Midpoints

Frequencies

- ☐ Population Standard Deviation
☐ Sample Standard Deviation

Mean

Standard Deviation

Five Point Summary

Sample Size

Calculate

Scientific Calculator

[Back to the Calculator Menu](#)

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22.2: Binomial Distribution Calculator

Binomial Distribution calculator

Enter the lower bound for the number of successes (Low), the upper bound for the number of successes (High), the number of trials (Trials), and the probability of success (P), and then hit Calculate.

Low:

High:

Trials:

P:

Calculate

Scientific Calculator

[Back to the Calculator Menu](#)

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22.3: One Variable Statistics Calculator

One Variable statistics Calculator

Type in the values from the data set separated by commas, for example, 2,4,5,8,11,2, and click Calculate.

- ☐ Population Standard Deviation
☐ Sample Standard Deviation

Calculate

Mean

Minimum

Q1

Median

Q3

Maximum

Standard Deviation

Variance

IQR

Sample Size

Scientific Calculator

[Back to the Calculator Menu](#)

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22.4: Normal Probability Calculator

Online Normal Probability Calculator

Fill in all of the values except one below and hit Calculate then the last value will be given to you.

Low:

High:

Mean:

Std. Dev.:

p=

Calculate

Scientific Calculator

[Back to the Calculator Menu](#)

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22.5: Hypothesis Test for a Population Mean With Data Calculator

Hypothesis Test for a Population Mean With Data Calculator

Type in the values from the data set separated by commas, for example, 2,4,5,8,11,2. Then type in the population standard deviation σ if it is known or leave it blank if it is not known. Then choose a left, right or two tailed test, and the hypothesized mean. Finally hit Calculate and the sample mean, the test statistic and the p-value will be shown.

Data:

σ :		☒ $<$ ☐ $>$ ☐ $\neq$	μ_0 :		Calculate

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[Back to the Calculator Menu](#)

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22.6: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples

Two dependent Samples with data Calculator

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t , the p -value, p , the confidence interval's lower bound, LB, the upper bound, UB, and the data set of the differences will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

Data2:

☒ <

☐ >

☐ $\neq$

CL:

Calculate

t:

p

LB

UB

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[Back to the Calculator Menu](#)

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22.7: Full Regression Analysis Calculator

Full regression analysis Calculator

Create a scatter plot, the regression equation, r and r^2 , and perform the hypothesis test for a nonzero correlation below by entering a point, click Plot Points and then continue until you are done. You can also input all your data at once by putting the first variable's data separated by commas in the first row and the second variable's data separated by commas in the second row and then clicking on plot points.



,

Plot Points

New Plot

x:

y:

Regression Equation:	r:	r^2 :
☒ Hypothesis: $H_0 : \rho = 0, H_a : \rho \neq 0$ ☐ Hypothesis: $H_0 : \rho = 0, H_a : \rho < 0$ ☐ Hypothesis: $H_0 : \rho = 0, H_a : \rho > 0$		p - value = t =

Scientific Calculator

[Back to the Calculator Menu](#)

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22.8: Sample Size for a Mean Calculator

Sample size Calculator

Fill in the population standard deviation (σ), the error bound (E), and the confidence level (CL). Write the confidence level as a decimal. For example, for a 95% confidence level, enter 0.95 for CL. Then hit Calculate and assuming the population is normally distributed, the necessary sample size will be shown.

σ :	E:	CL:	Calculate n	n:

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22.9: Needed Sample Size for a Confidence Interval for a Population Proportion Calculator

Sample Size Calculator

Fill in the error bound (E) and the confidence level (CL) written as a decimal, for example a 95% confidence level is 0.95. If there is an estimate for the population proportion, check the "Have Estimate for p" radio button and then fill in the estimate in the p box that appears. Then hit "Calculate n" and the needed sample size will be calculated for you.

☒ No

Estimate for p

☐ Have

Estimate for p

Estimate for p:

E:

CL:

**Calculate
n**

n:

[Scientific Calculator](#)[Back to the Calculator Menu](#)

Estimate for p:

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22.10: Two Independent Samples With Data Hypothesis Test and Confidence Interval Calculator

Two Independent Samples with data Calculator

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t , the p-value, p , the confidence interval's lower bound, LB, and the upper bound, UB will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

Data2:

- ☒ <
☐ >
☐ $\neq$

CL:

Calculate

t:

p

LB

UB

Scientific Calculator

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22.11: Hypothesis Test and Confidence Interval Calculator for Two Dependent Samples

Two dependent Samples with data Calculator

Type in the values from the two data sets separated by commas, for example, 2,4,5,8,11,2. Then enter the tail type and the confidence level and hit Calculate and the test statistic, t , the p -value, p , the confidence interval's lower bound, LB, the upper bound, UB, and the data set of the differences will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

Data1:

Data2:

☒ <

☐ >

☐ $\neq$

CL:

Calculate

t:

p

LB

UB

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22.12: Chi-Square Goodness of Fit Test Calculator

χ^2 Goodness of fit Calculator

Type in the values from the observed and expected sets separated by commas, for example, 2,4,5,8,11,2. Then hit Calculate and the test statistic, χ^2 , and the p-value, p, will be shown.

Observed:

Expected:

Calculate

χ^2 :

p

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22.13: Chi-Square Test For Homogeneity Calculator

χ^2 test for Homogeneity calculator

Enter in the observed values for each of the two samples A and B and hit Calculate and the χ^2 test statistic and the p-value will be calculated for you. Leave blank the last rows that don't have data values.

A	B

Calculate

χ^2 :

p

Scientific Calculator

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22.14: Chi-Square Test For Independence Calculator

χ^2 test for independence calculator

Enter in the observed values and hit Calculate and the χ^2 test statistic and the p-value will be calculated for you. Leave blank the last rows and columns that don't have data values.

	A	B	C	D
First				
Second				
Third				
Fourth				
Fifth				
Sixth				
Seventh				
Eighth				
Ninth				
Tenth				

Calculate

χ^2 :

p

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22.15: ANOVA Calculator

ANOVA Calculator

Enter the data values separated by commas, for example: 3,4,7,9,-2,8. Then hit Calculate and the F-statistic and the p-value will be generated for you.

Data1:

Data2:

Data3:

Data4:

Data5:

Data6:

Data7:

Data8:

Calculate

F:

p

Scientific Calculator

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22.16: Hypothesis Test and Confidence Interval Calculator- Difference Between Population Proportions

Two Proportions Calculator

Enter in the sample sizes and number of successes for each sample, the tail type and the confidence level and hit Calculate and the test statistic, t , the p -value, p , the confidence interval's lower bound, LB, and the upper bound, UB will be shown. Be sure to enter the confidence level as a decimal, e.g., 95% has a CL of 0.95.

	Sample Size	Number of Successes
First Sample		
Second Sample		

☒	<
☐	>
☐	$\neq$

CL:

Calculate

z :

p :

LB:

UB:

Scientific Calculator

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 - InfoPage - *Undeclared*
 - Table of Contents - *Undeclared*
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 - 16: Two Independent Sample Means Comparison Given Statistics - *CC BY 4.0*
 - 17: Two Independent Sample Means Comparison Given Data - *CC BY 4.0*
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 - 22.1: Mean and Standard Deviation for Grouped Frequency Tables Calculator - *CC BY 4.0*
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 - 22.4: Normal Probability Calculator - *CC BY 4.0*
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