

Steps to perform Regression Analysis in Windows 11/10

Here are instructions for you to perform Regression Analysis on your Windows 11/10 PC. Regression Analysis is a statistical technique used to evaluate a set of data.

Regression Analysis is used to determine the relationship between a set of two or more variables in a data set. Basically, Regression Analysis allows you to analyze significant and unimportant factors from a data set and then make decisions accordingly. Now, if you want to use Regression Analysis so that you don't need to do manual calculations, this post will help you.

In this article, Tipsmake will discuss different ways to perform Regression Analysis on Windows 11/10 PC. You don't need to do anything manually. Simply import the dataset, select the input variables, and visualize the results. Find out below!

How to perform Regression Analysis in Windows 11/10

Here are the methods that you can use to perform Regression Analysis on your dataset in Windows 11/10.

Method 1: Perform Regression Analysis in Microsoft Excel

You can perform Regression Analysis using the Microsoft Excel application. The **Data Analysis ToolPak**-specific **ToolPak** add-on in Excel allows you to perform Regression Analysis and some other data analysis. You will have to manually activate this add-in to use its functions. Let's look at the process of using Excel's Data Analysis ToolPak add-in to perform Regression Analysis.

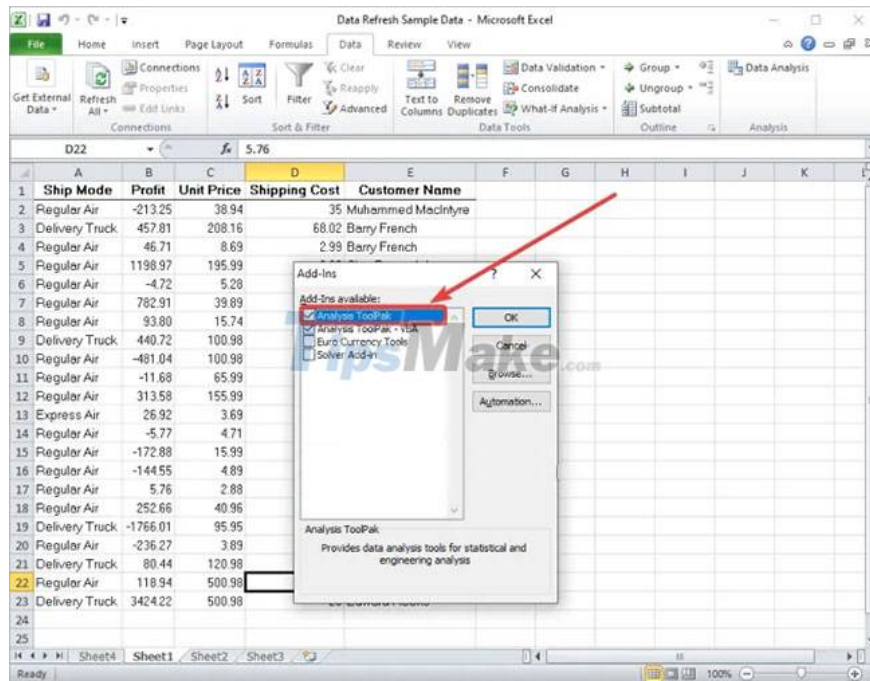
Here are the main steps to perform Regression Analysis in Microsoft Excel:

Step 1. Launch the Microsoft Excel application.

Step 2. Go to **File > Options > Add-ins tab** .

Step 3. Click the **Go** button .

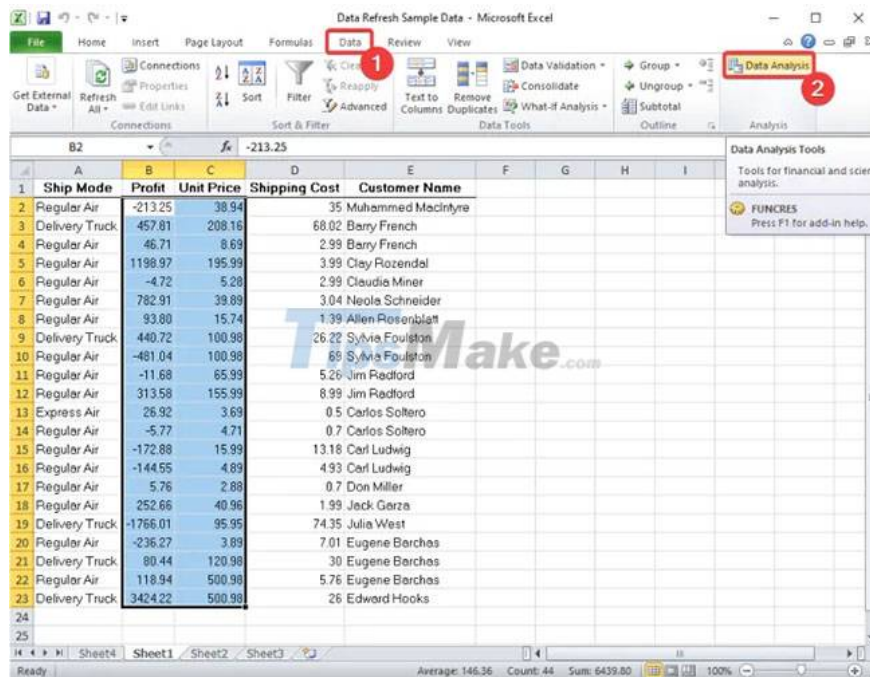
Step 4. Activate the **Data Analysis ToolPak** add-in and return to the main Excel screen.



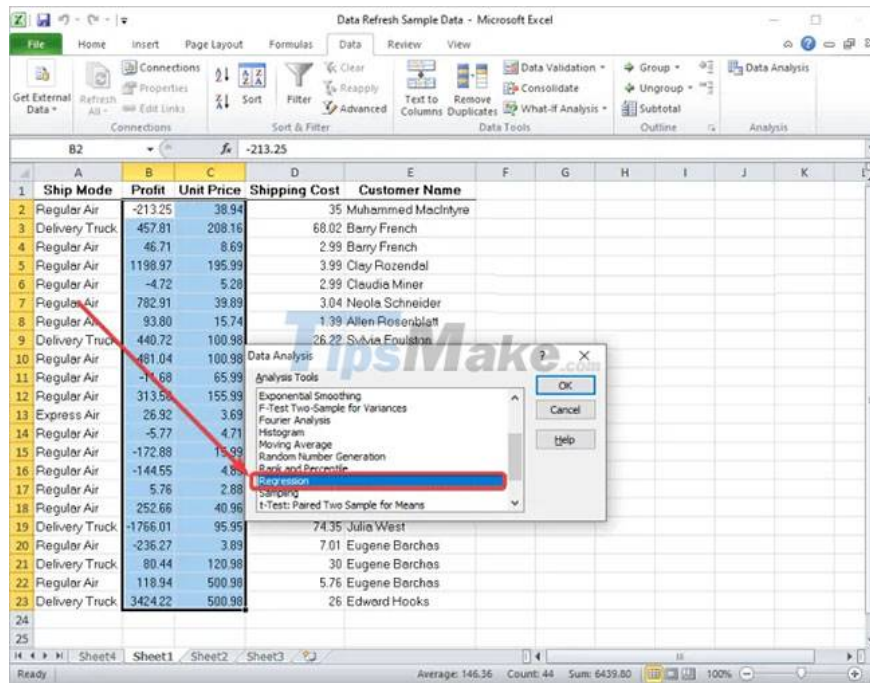
Step 5. Enter the dataset and select the input data with dependent and independent variables.

Step 6. Scroll to the **Data** tab .

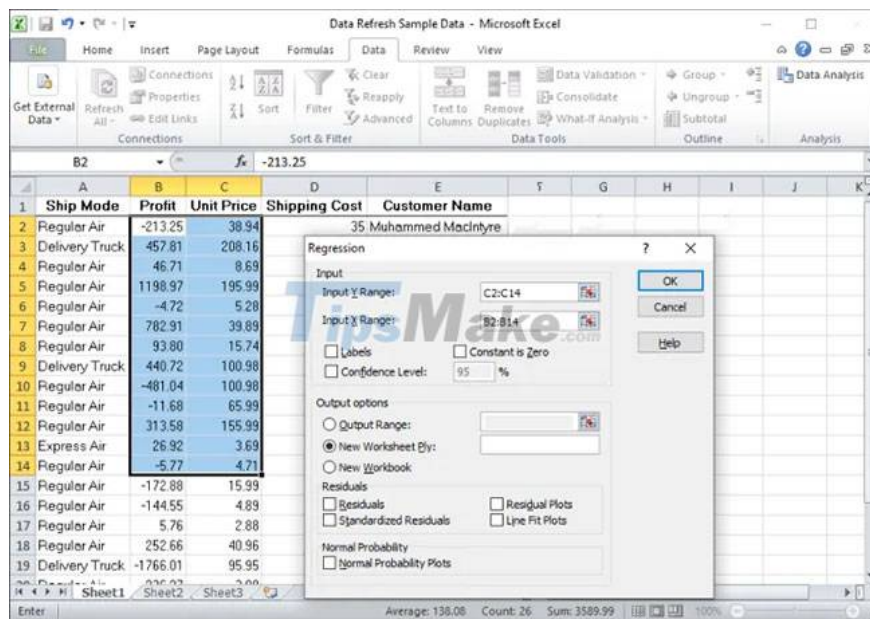
Step 7. Click the **Data Analysis** button .



Step 8. Select **Regression** and press the **OK** button .



Step 9. Enter the input range **X** (independent variable) and **Y** (dependent variable), as well as other output options, for which you want to perform Regression Analysis.



Step 10. Click the **OK** button to view the Regression Analysis results.

SUMMARY OUTPUT						
<i>Regression Statistics</i>						
Multiple R		0.584401978				
R Square		0.341525671				
Adjusted R Square		0.308601955				
Standard Error		749.7152192				
Observations		22				
<i>ANOVA</i>						
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	1	5830518.2	5830518.2	10.37324	0.004288106	
Residual	20	11241458.2	562072.9099			
Total	21	17071976.4				
<i>Coefficients</i>						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-180.047022	197.0739218	-0.913601454	0.371809	-591.1360188	231.042 -591
X Variable 1	3.6587665	1.135997677	3.220751744	0.004288	1.289116869	6.028416 1.289

You can save the results in the same Excel sheet or print the results if you want.

Similarly, you can also perform analyzes including ANOVA test, covariance, descriptive statistics, power continuous, Fourier integration, histogram, moving average, sampling, t-test -test etc.

Method 2: Use free software JASP to perform Regression Analysis

You can use free third-party software to perform Regression Analysis on a set of data. There is a number of free software that allows you to analyze the data. Here, the article will use free software called JASP and Statcato. Using these two free software you can perform Regression Analysis and many other data analysis

1. JASP

JASP is dedicated free statistical analysis software for Windows 11/10. Using it, you can perform Regression Analysis, descriptive test, T-test, ANOVA, frequency test, principal component analysis, exploratory factor analysis, meta-analysis, summary statistics shortcut, SEM, visual modeling and confirmatory factor analysis. JASP provides a dedicated Regression tab where you can perform Linear, Correlated and Logistic Regression Analysis.

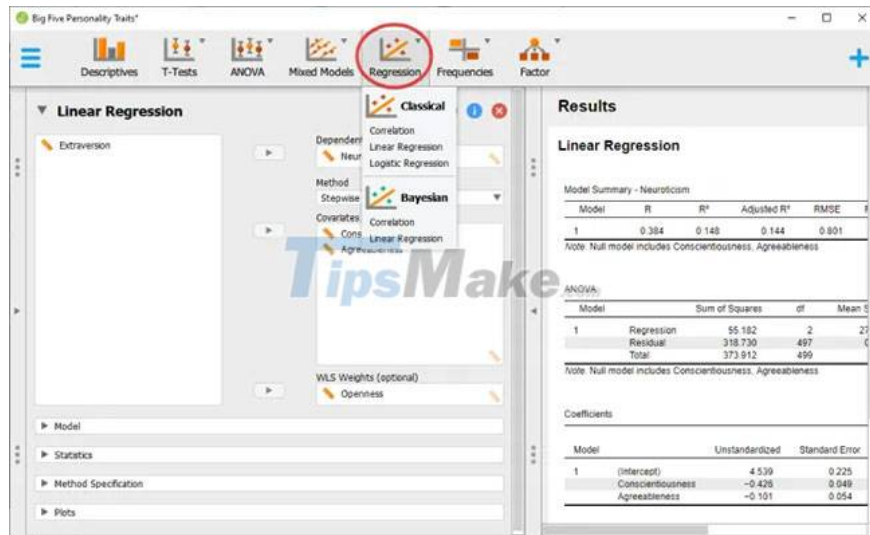
Here are the main steps to perform Regression Analysis in JASP:

Step 1: Download and install JASP.

Step 2: Launch the software.

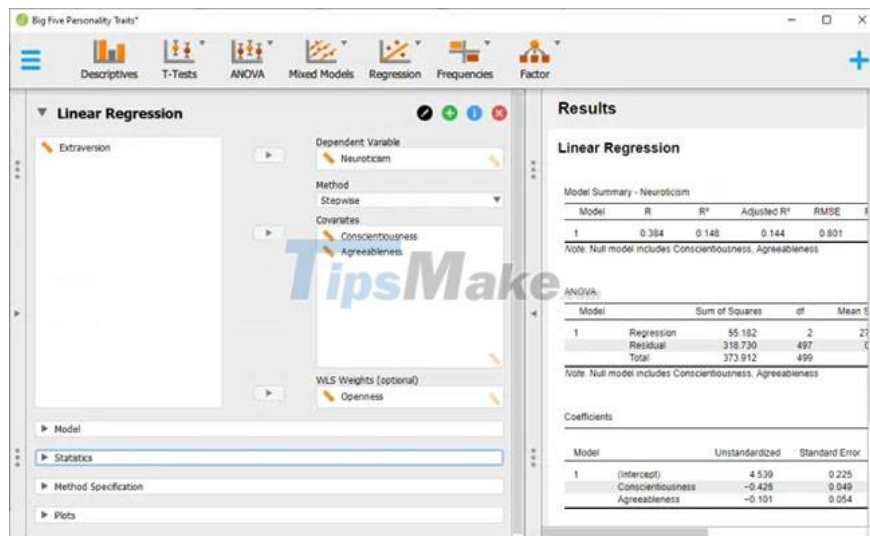
Step 3: Import your dataset.

Step 4: Go to the **Regression** tab .

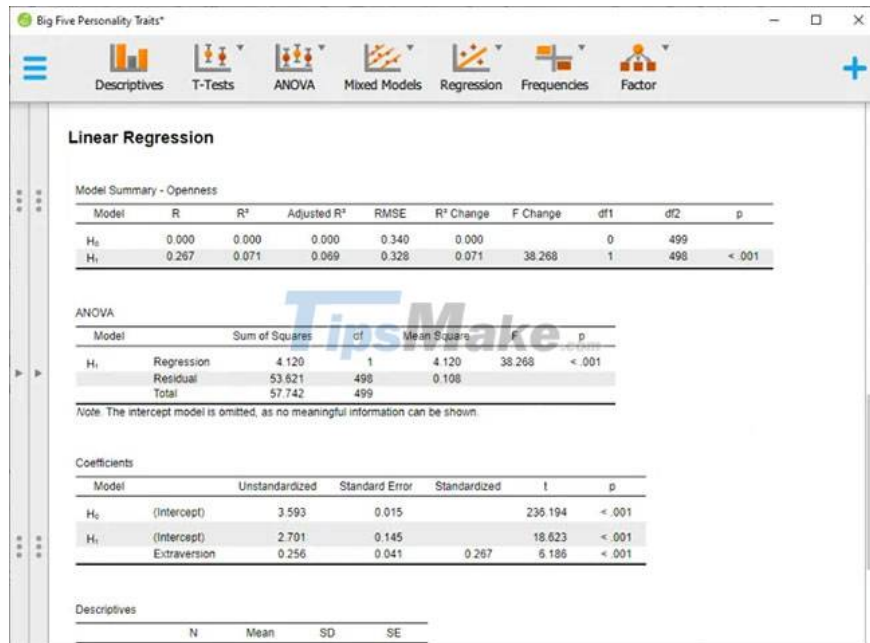


Step 5: Choose **Classical** or **Bayesian** regression type .

Step 6: Select dependent and independent variables, as well as customize other parameters.



Step 7: View and export the results.



2. Statcato

Another free software that you can try to perform Regression Analysis is Statcato. It is a free and open source software for performing statistical analyses. Statcato allows you to perform Regression Analysis as well as several other types of data analysis. Several methods of data analysis are provided which include hypothesis testing, ANOVA, descriptive statistics, normal distribution test, sample size, non-parametric test, etc.

Statcato allows you to perform Linear Regression, Multiple Regression, Correlation Matrix, Non-Linear Regression, etc. main steps to perform regression analysis in Statcato:

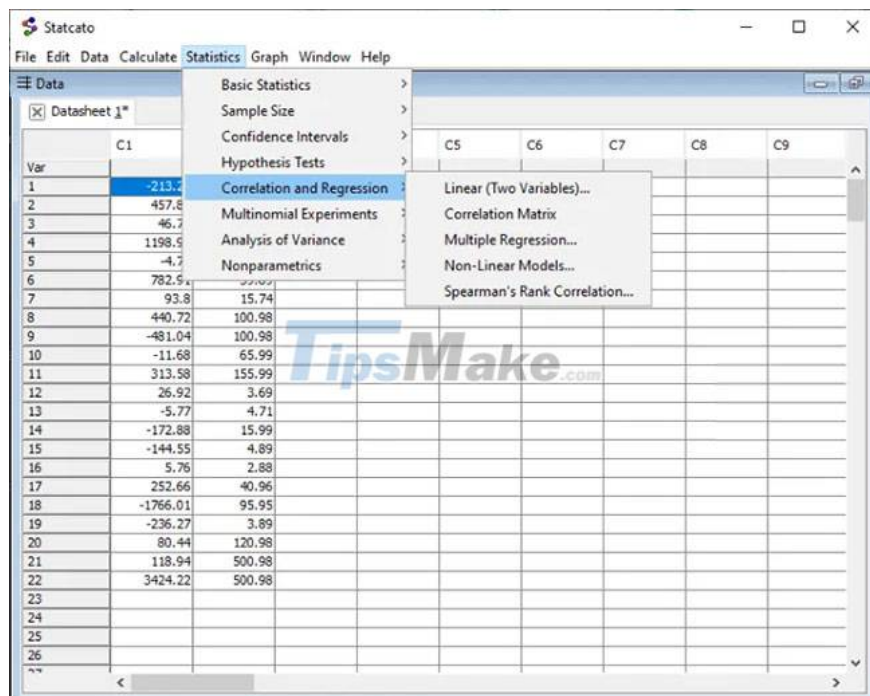
Step 1: Download Statcato software.

Step 2: Launch the Jar file.

Step 3: Import or create an input dataset.

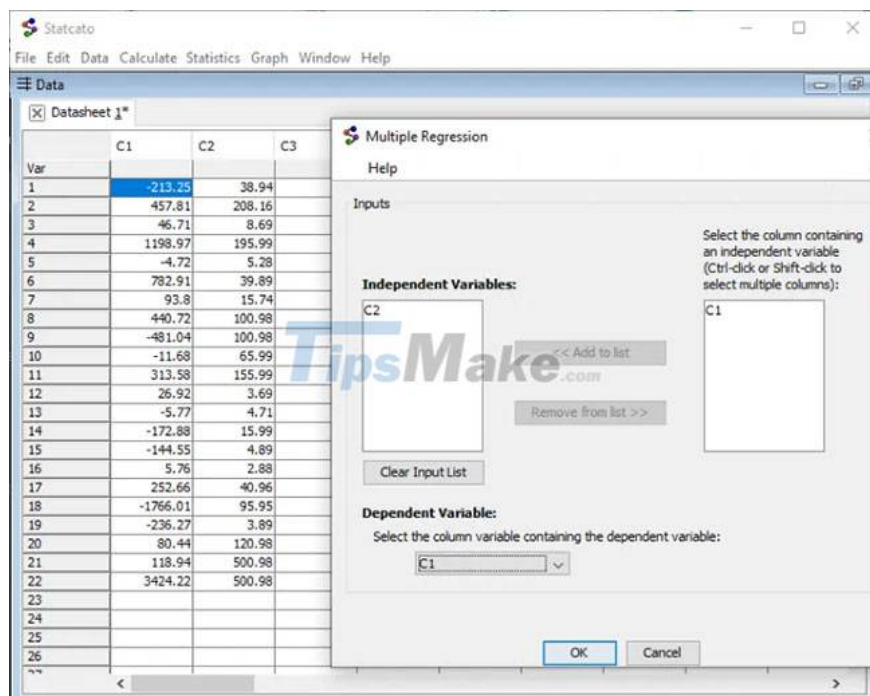
Step 4: Go to the **Statistics** menu .

Step 5: Click on **Correlation and Regression option**.

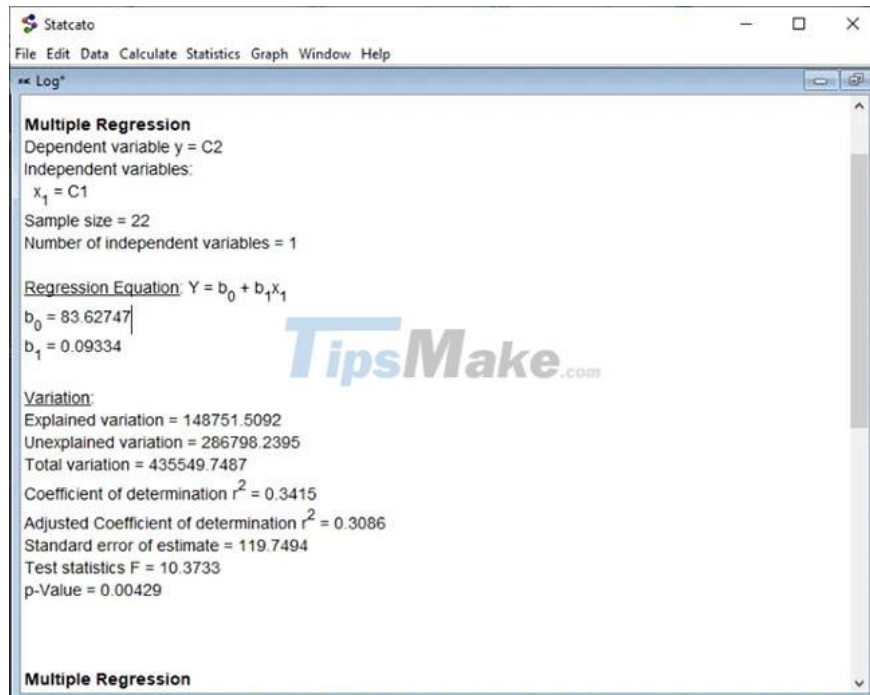


Step 6: Select the desired regression type.

Step 7: Select dependent and independent variables.



Step 8: View and save the regression analysis.



Method 3. Perform Regression Analysis Online Using Free Web Service

You can also perform regression analysis online using a dedicated free web service. Here, the article will use a web service called **socscistatistics**. It allows you to perform linear analysis and many regression analyzes online. In addition, you can also find other statistical tools on this website. Below are the main steps to perform an online regression analysis using socscistatistics.

Step 1. Open a web browser.

Step 2. Navigate to the **socscistatistics** . website

Step 3. Now you need to navigate to the **Multiple Regression Calculator** or **Linear Regression Calculator page** , depending on which regression analysis technique you want to use.

Step 4. Next, enter the corresponding input values ??in the **X** (independent) and **Y** (dependent) columns . You can also enter estimated values.

Quick Linear Regression Calcula: x +

socscistatistics.com/tests/regression/default.aspx

Linear Regression Calculator

This simple linear regression calculator uses the least squares method to find the line of best fit for a set of paired data, allowing you to estimate the value of a dependent variable (Y) from a given independent variable (X).

The line of best fit is described by the equation $\hat{y} = bx + a$, where b is the slope of the line and a is the intercept (i.e., the value of Y when $X = 0$). This calculator will determine the values of b and a for a set of data comprising two variables, and estimate the value of Y for any specified value of X .

To begin, you need to add *paired* data into the two text boxes immediately below (either one value per line or as a comma delimited list), with your independent variable in the X Values box and your dependent variable in the Y Values box. For example, if you wanted to generate a line of best fit for the association between height and shoe size, allowing you to predict shoe size on the basis of a person's height, then height would be your independent variable and shoe size your dependent variable.

X Values	Y Values
45	4
56	6
78	7
90	4
36	9
24	10

STARTER

CREATOR

Step 5. Click the **Calculate the Regression Equation** option .

Quick Linear Regression Calcula: x +

socscistatistics.com/tests/regression/default.aspx

(either one value per line or as a comma delimited list).

Note: If you *just* want to generate the regression equation that describes the line of best fit, leave the box below blank.

Estimate

Calculate the Regression Equation

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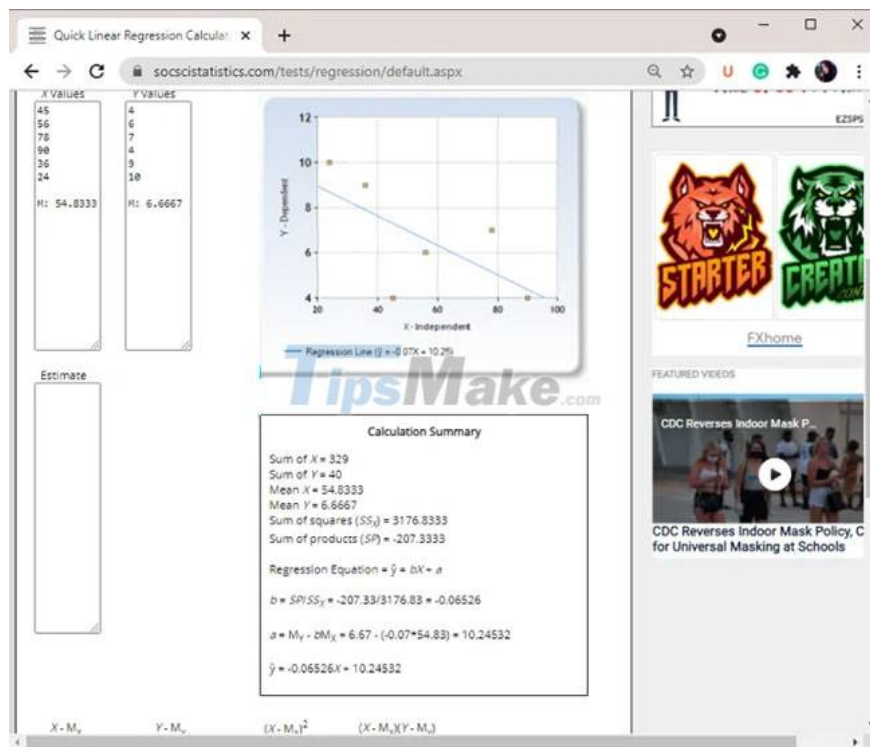
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Step 6. After that, the results of the regression analysis will be displayed in the same window.



Regression analysis results include graphs, regression equations, sum of squares, sum of products, mean, etc.

Hope you are successful.

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