

How can I find the trendline equation in Excel without creating a chart?

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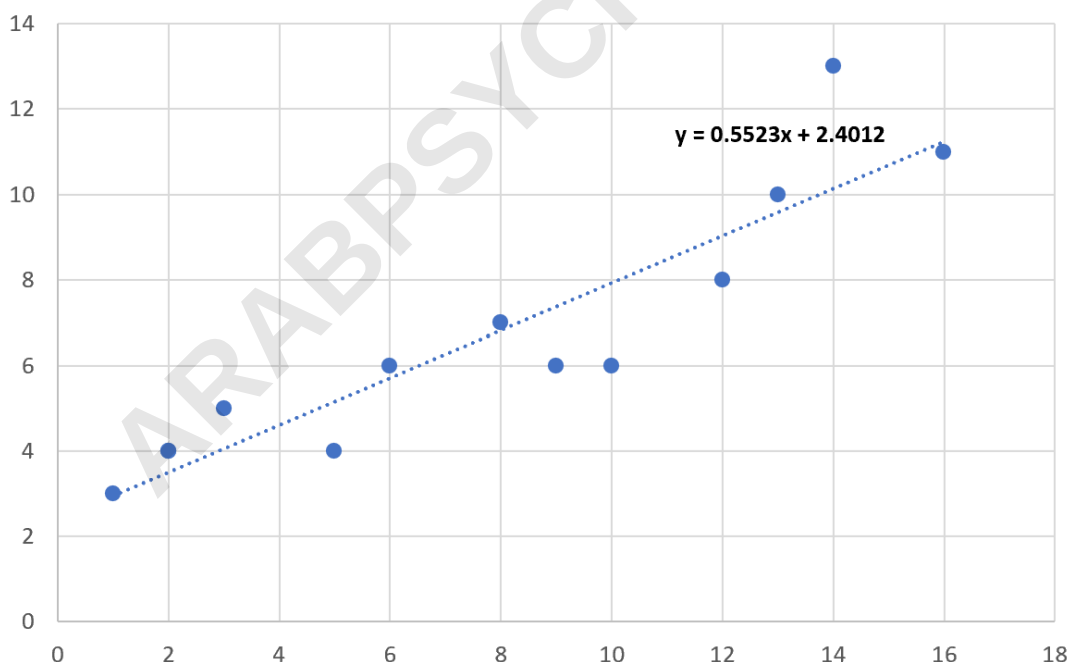
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Finding the trendline equation in Excel without creating a chart can be easily done by using the built-in trendline function. This function allows users to calculate and display the trendline equation and its corresponding R-squared value without the need for a chart. To access this function, simply select the data points that you want to analyze, click on the "Insert" tab, and then choose "Scatter" from the charts group. Next, click on the chart, go to the "Design" tab, and click on "Add Chart Element", then select "Trendline" and finally "More Trendline Options". A dialogue box will appear where you can choose the desired trendline type and display options, including the trendline equation. This method is useful for quickly analyzing data and determining the relationship between two variables without the need for visual representation.

Excel: Find Trendline Equation Without Chart

One way to find a trendline equation in Excel is to create a scatter plot and then insert a trendline into the chart:



However, a faster way to find a trendline equation

without creating a chart is by using the **LINEST()** function in Excel, which uses the following syntax:

LINEST(known_x's, known_y's)

where:

known_x's: A column of values for the response variable
known_y's: A column of values for the predictor variable

This function produces a value for both the intercept and slope of the trendline.

The following example shows how to use the **LINEST** function in practice in Excel to find a trendline equation for two variables.

Example: How to Find Trendline Equation Without Chart in Excel

Suppose we have the following dataset in Excel:

	A	B	C	D	E	F
1	x	y				
2	1	3				
3	2	4				
4	2	4				
5	3	5				
6	5	4				
7	6	6				
8	8	7				
9	9	6				
10	10	6				
11	12	8				
12	13	10				
13	14	13				
14	16	11				
15						
16						
17						
18						
19						

Now suppose that we would like to find a trendline equation that summarizes the relationship between these two variables.

We can type the following formula into cell D2 to find the trendline equation:

=LINEST(B2:B14, A2:A14)

The following screenshot shows how to use this formula in practice:

D2 <i>fx</i> =LINEST(B2:B14, A2:A14)						
	A	B	C	D	E	F
1	x	y				
2	1	3		0.552326	2.401163	
3	2	4				
4	2	4				
5	3	5				
6	5	4				
7	6	6				
8	8	7				
9	9	6				
10	10	6				
11	12	8				
12	13	10				
13	14	13				
14	16	11				
15						
16						
17						
18						

The first value in the output represents the slope of the trendline and the second value represents the intercept of the trendline.

$$y = 0.552326x + 2.401163$$

Here is how to interpret this equation:

A one-unit increase in x is associated with an average increase of 0.552326 in y. When x is equal to zero, the average value of y is 2.401163.

By using the LINEST function, we were able to find the equation of the trendline without creating any graph.

The following tutorials explain how to perform other common tasks in Excel:

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