

# How to graph three variables in Excel (With Example)

Authored by  
**stats writer**

November 22, 2025

## RECOMMENDED CITATION

stats writer (2025). *How to graph three variables in Excel (With Example)*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=99417>

To graph three variables in Excel, you need to arrange the data in columns, select a chart type, and then select the data you want to graph. To illustrate, if you wanted to graph the relationship between the temperature (in degrees Fahrenheit), rainfall (in inches), and humidity (in percentage) in a given city over a three-month period, you would first enter the data in three columns; one for temperature, one for rainfall, and one for humidity. Then, you would select a scatter chart type and then select the three columns of data to plot. This would generate a chart that shows the relationship between the three variables.

There are two common ways to create a graph with three variables in Excel:

### 1. Create a Line Graph with Three Lines

### 2. Create a Bar Graph with Clustered Bars

The following examples show how to create both of these graphs using the following dataset in Excel that shows the sales of three different products during various years:

	A	B	C	D	E	F	G
1	<b>Year</b>	<b>Product A</b>	<b>Product B</b>	<b>Product C</b>			
2	2015	2	5	1			
3	2016	4	7	2			
4	2017	4	8	2			
5	2018	5	9	3			
6	2019	6	13	5			
7	2020	8	16	5			
8	2021	12	19	6			
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

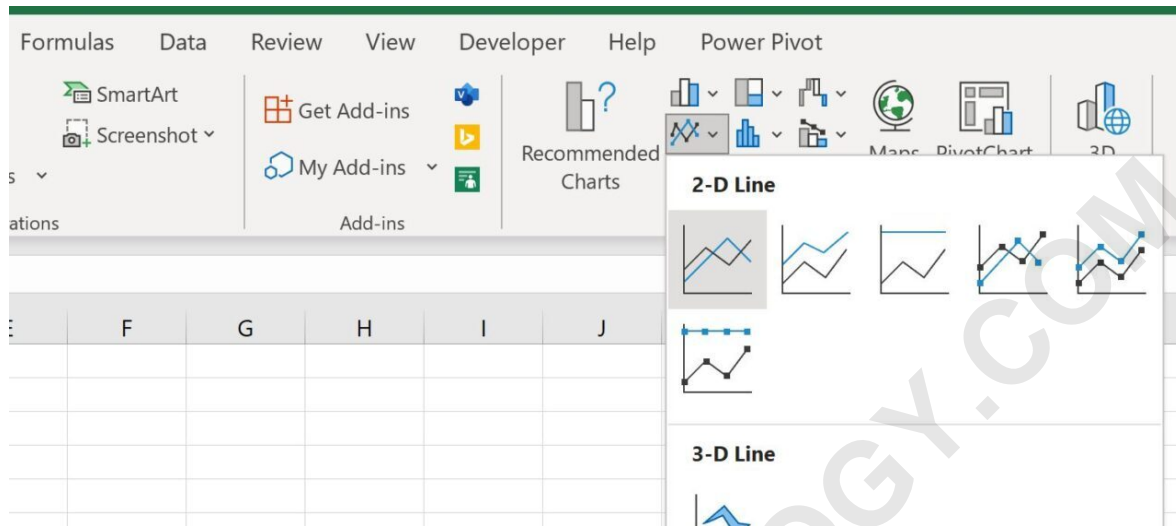
## Example 1: Create a Line Graph with Three Lines

We can use the following steps to plot each of the product sales as a line on the same graph:

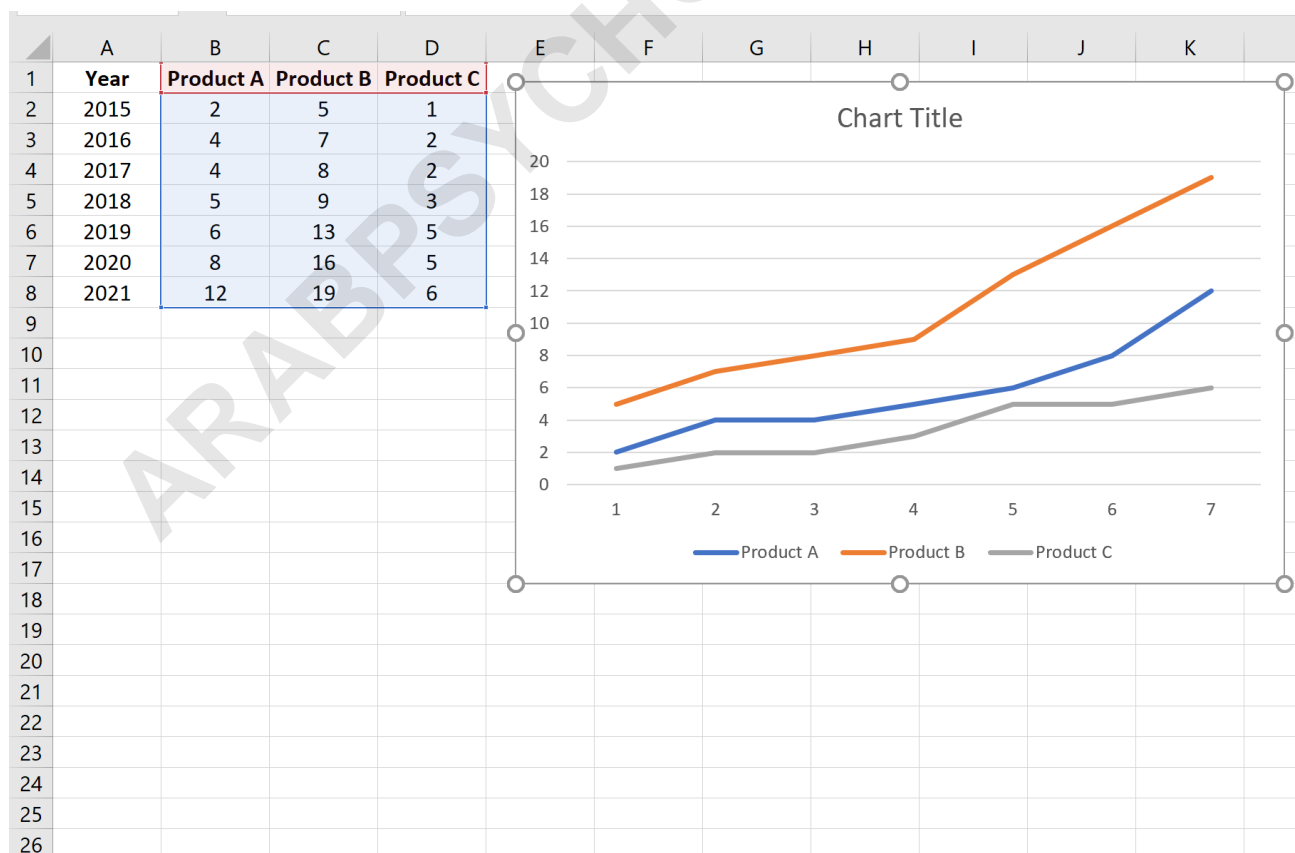
Highlight the cells in the range **B1:D8**.

Click the **Insert** Tab along the top ribbon.

In the **Charts** group, click the first chart option in the section titled **Insert Line or Area Chart**.



The following chart will appear:



Each line represents the sales of one of the three products during each year.

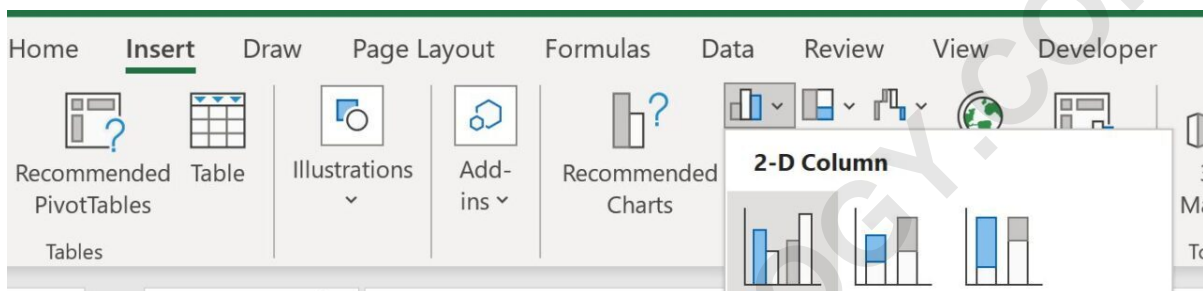
## Example 2: Create a Bar Graph with Clustered Bars

We can use the following steps to plot each of the product sales as a bar on the same graph:

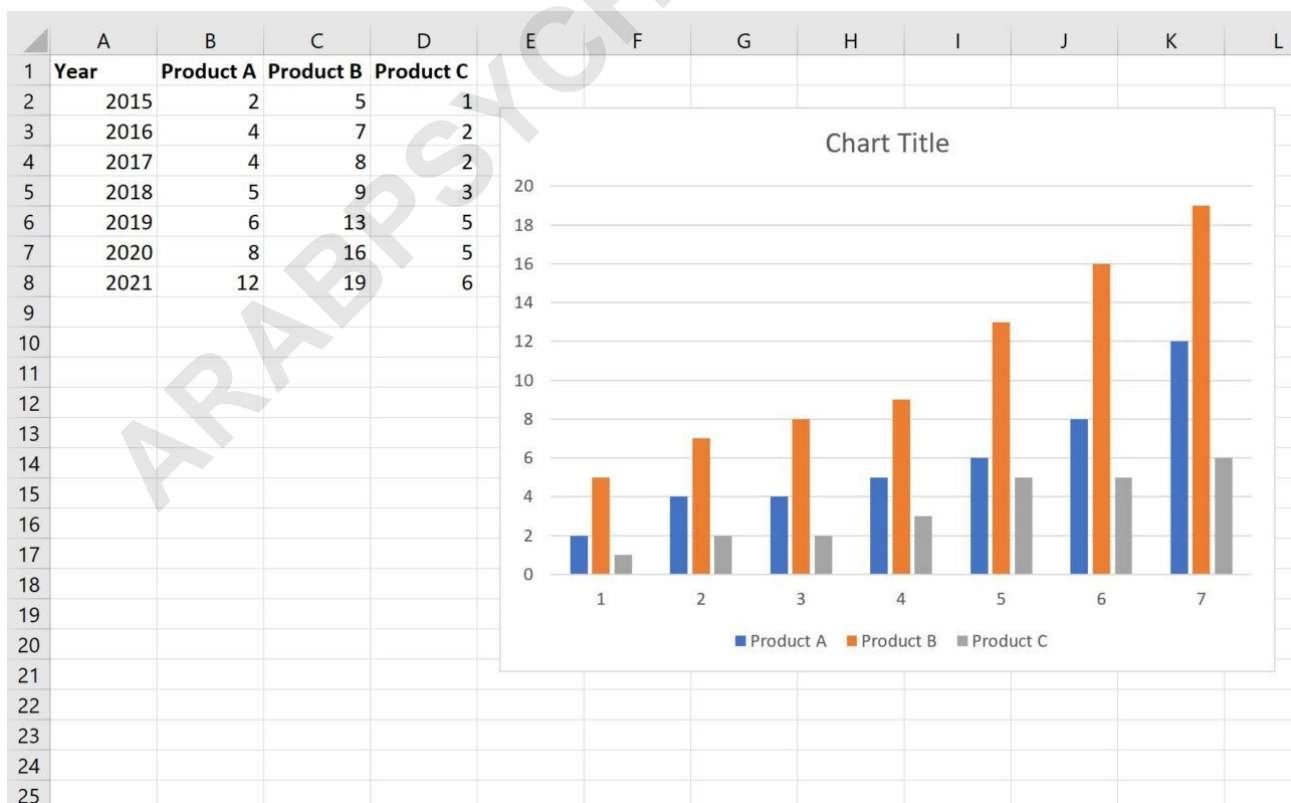
Highlight the cells in the range **B1:D8**.

Click the **Insert** Tab along the top ribbon.

In the **Charts** group, click the first chart option in the section titled **Insert Column or Bar Chart**.



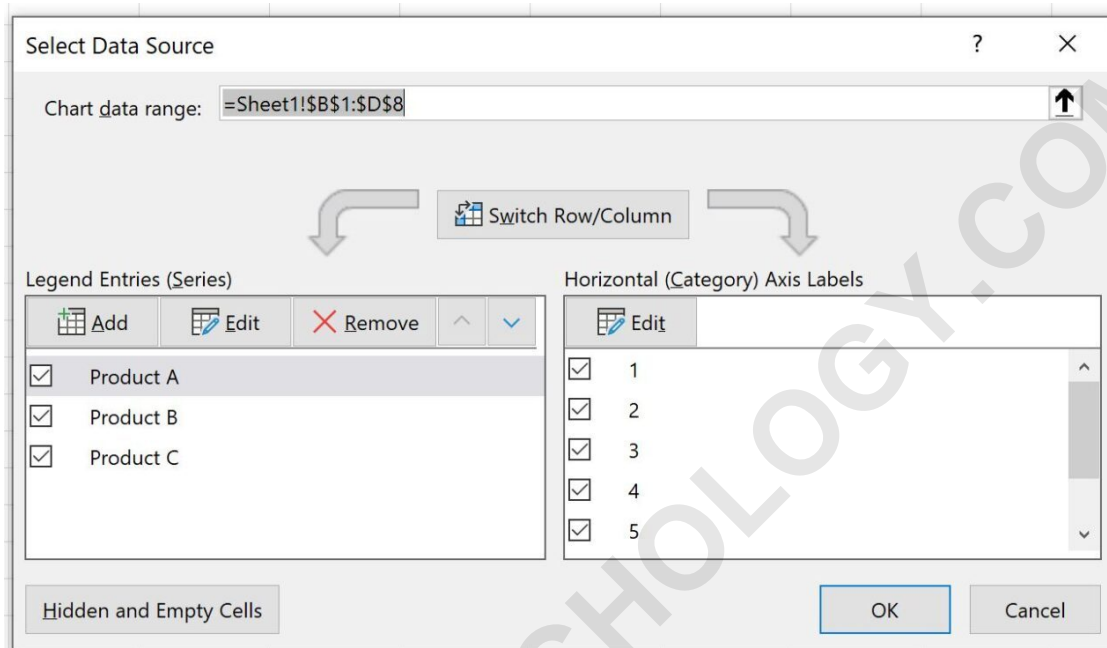
The following chart will appear:



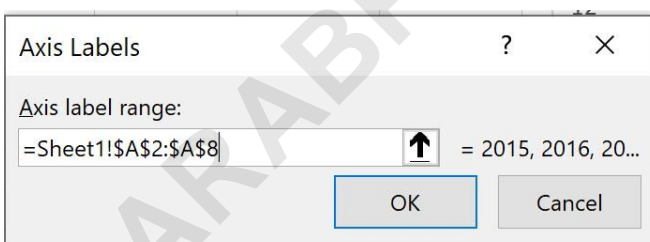
Each bar represents the sales of one of the three products during each year.

If you'd like to modify the x-axis to display the years, simply right click the x-axis and click **Select Data** from the dropdown.

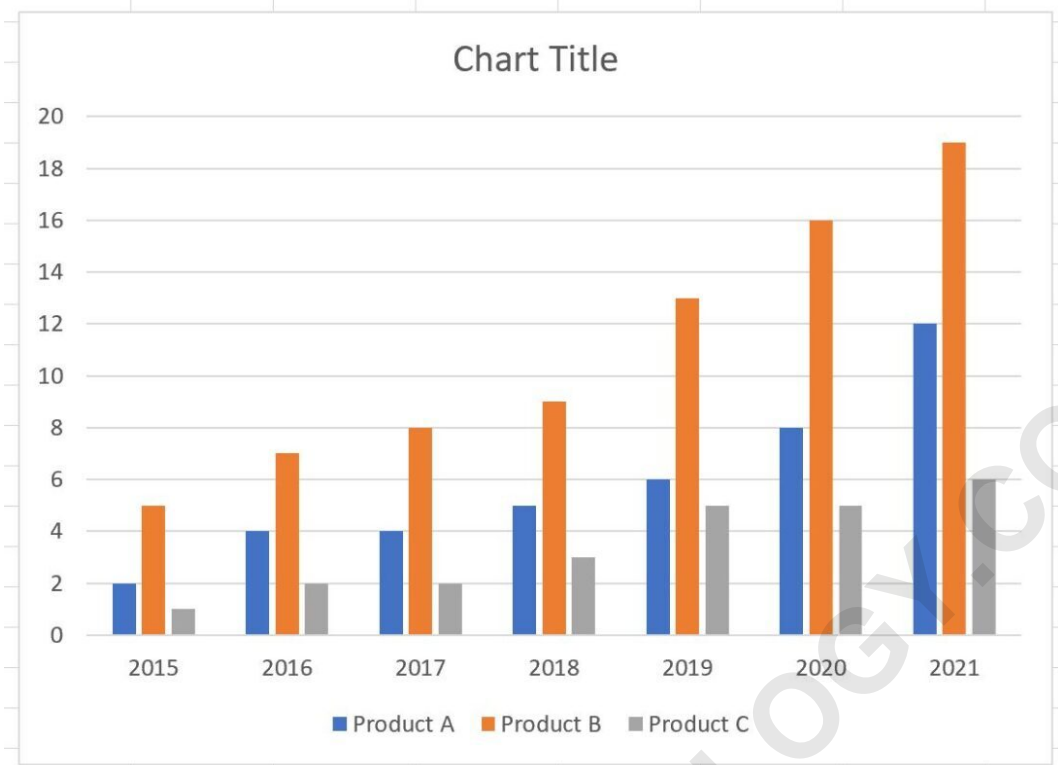
In the new window that appears, click the **Edit** button under **Horizontal Axis Labels**:



Then choose **A2:A8** as the Axis label range:



Once you click **OK**, the x-axis labels will be updated to display the years:



The following tutorials explain how to create other common graphs in Excel: