

How can I create a scatterplot with multiple series in Excel?

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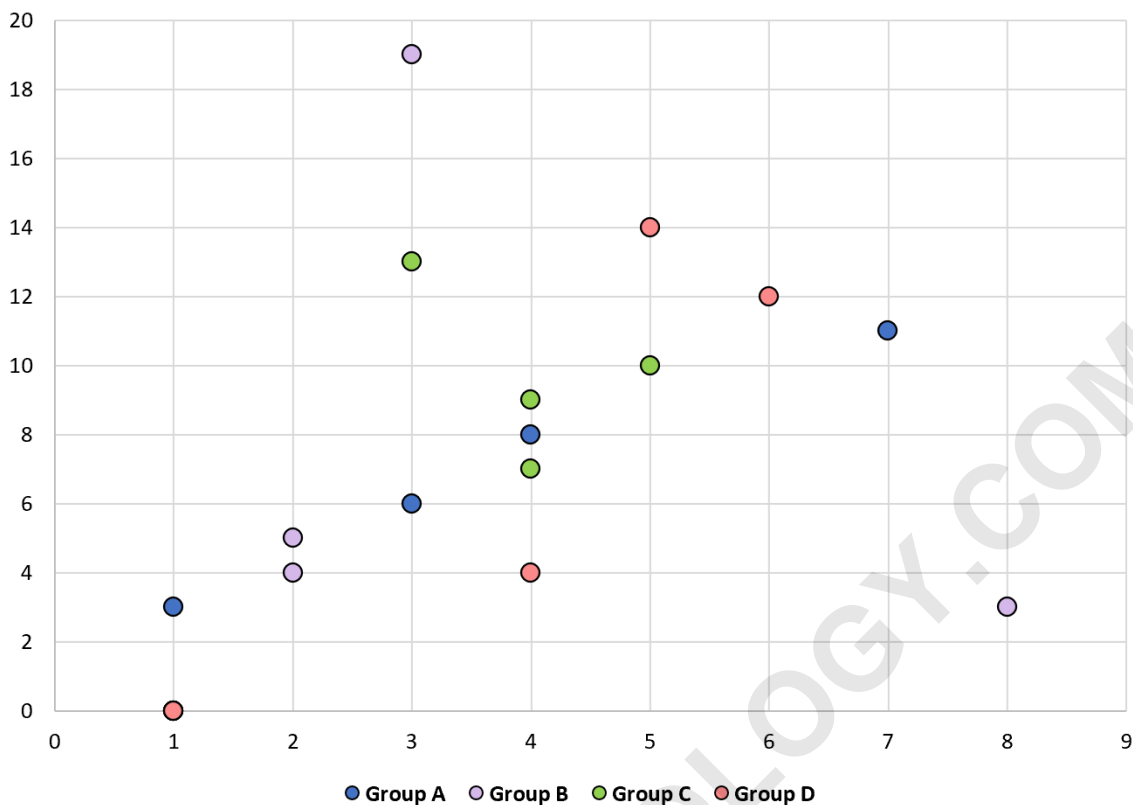
Creating a scatterplot with multiple series in Excel is a useful way to visually represent and analyze data that has more than one variable. To do so, follow these steps:

1. Select all the data points you want to include in the scatterplot.
2. Click on the "Insert" tab and select "Scatter" from the "Charts" section.
3. Choose the scatterplot style you prefer.
4. Right-click on the chart and select "Select Data" from the menu.
5. In the "Select Data Source" window, click on "Add" to add a new series.
6. In the "Edit Series" window, enter the series name and select the data range for the series.
7. Repeat steps 5 and 6 for each additional series you want to add.
8. Click "OK" to apply the changes and create a scatterplot with multiple series.

This feature allows for easy comparison and analysis of different data sets within one chart, making it a valuable tool for data analysis and presentation.

Create a Scatterplot with Multiple Series in Excel

Often you may want to create a scatterplot with multiple series in Excel, similar to the plot below:



Fortunately this is fairly easy to do in Excel with some simple formulas. The following step-by-step example shows exactly how to do so.

Step 1: Enter the Data

First, let's enter the following (X, Y) values for four different groups: A, B, C, and D.

	A	B	C	D	E	F	G
1	Group	X	Y				
2	A	1	3				
3	B	1	5				
4	B	2	4				
5	A	2	6				
6	C	3	7				
7	A	4	8				
8	C	4	9				
9	C	4	13				
10	C	3	10				
11	D	5	12				
12	A	6	11				
13	B	7	3				
14	D	8	4				
15	D	4	14				
16	B	5	19				
17	B	3	16				
18							
19							
20							
21							
22							
23							

Step 2: Format the Data

Before we can create a scatterplot to visualize the (X, Y) coordinates for each group, we must first format the data in a specific manner.

First, we'll enter the unique values for each group along the top row and then type the following formula into cell E2:

=IF(\$A2=H\$1, \$C2, NA())

	A	B	C	D	E	F	G	H
1	Group	X	Y		A	B	C	D
2	A	1	3		=IF(\$A2=E\$1, \$C2, NA())			
3	B	1	5					
4	B	2	4					
5	A	2	6					
6	C	3	7					
7	A	4	8					
8	C	4	9					
9	C	4	13					
10	C	3	10					
11	D	5	12					
12	A	6	11					
13	B	7	3					
14	D	8	4					
15	D	4	14					
16	B	5	19					
17	B	3	16					
18								
19								
20								
21								
22								
23								

We'll then drag this formula to every cell to the right of cell E2. We'll then drag it to every cell below H2 until we end up with the following result:

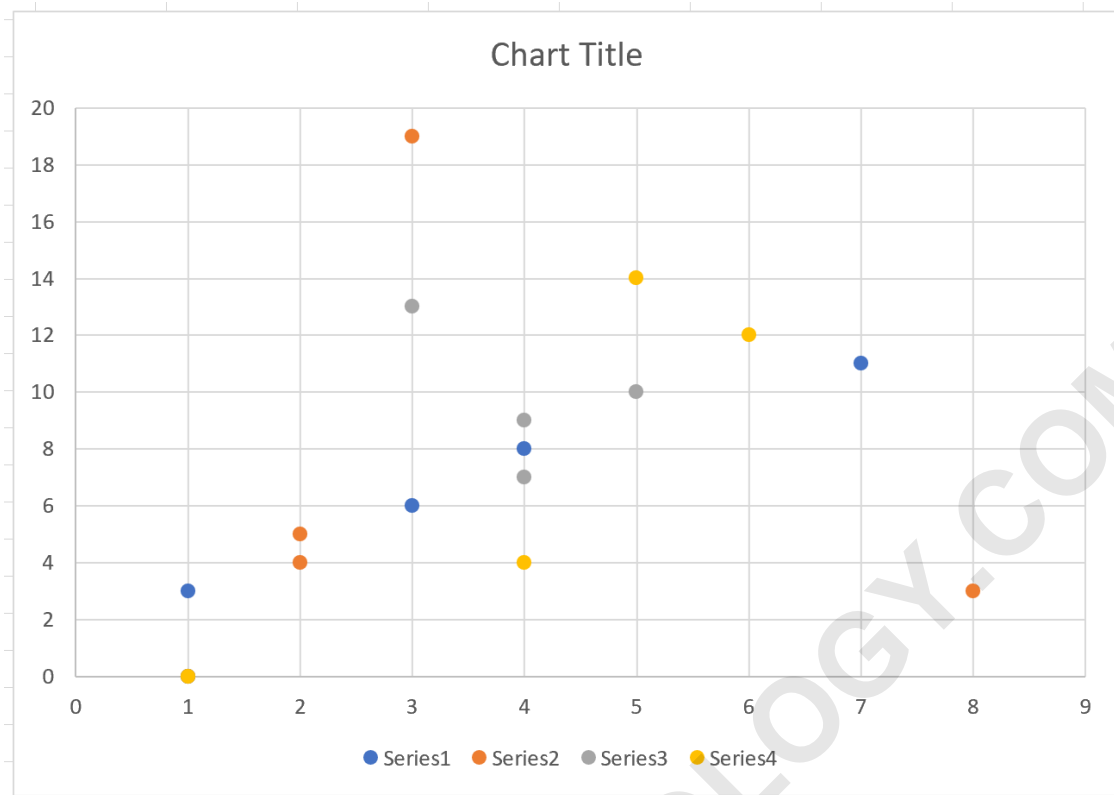
	A	B	C	D	E	F	G	H
1	Group	X	Y		A	B	C	D
2	A	1	3		3	#N/A	#N/A	#N/A
3	B	1	5		#N/A	5	#N/A	#N/A
4	B	2	4		#N/A	4	#N/A	#N/A
5	A	2	6		6	#N/A	#N/A	#N/A
6	C	3	7		#N/A	#N/A	7	#N/A
7	A	4	8		8	#N/A	#N/A	#N/A
8	C	4	9		#N/A	#N/A	9	#N/A
9	C	4	13		#N/A	#N/A	13	#N/A
10	C	3	10		#N/A	#N/A	10	#N/A
11	D	5	12		#N/A	#N/A	#N/A	12
12	A	6	11		11	#N/A	#N/A	#N/A
13	B	7	3		#N/A	3	#N/A	#N/A
14	D	8	4		#N/A	#N/A	#N/A	4
15	D	4	14		#N/A	#N/A	#N/A	14
16	B	5	19		#N/A	19	#N/A	#N/A
17	B	3	16		#N/A	16	#N/A	#N/A
18								
19								
20								
21								

Step 3: Create the Scatterplot

Next, highlight every value in column B. Then, hold Ctrl and highlight every cell in the range E1:H17.

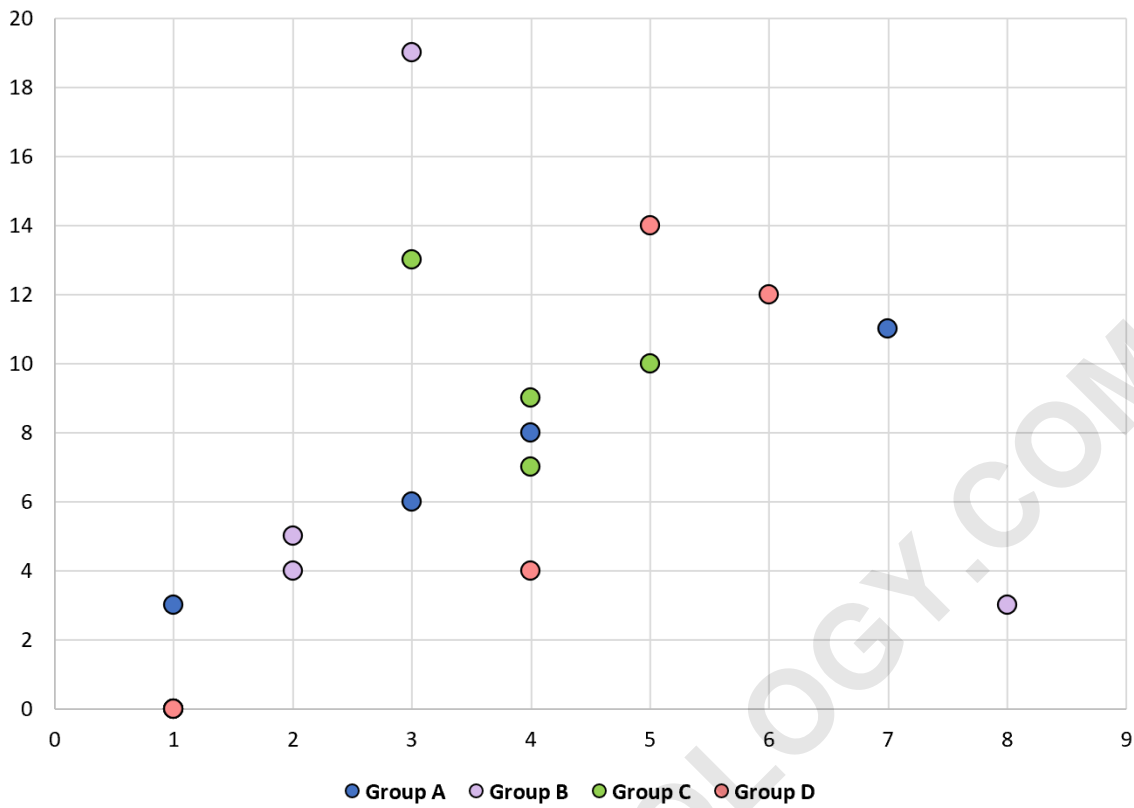
	A	B	C	D	E	F	G	H	I
1	Group	X	Y		A	B	C	D	
2	A	1	3		3	#N/A	#N/A	#N/A	
3	B	1	5		#N/A	5	#N/A	#N/A	
4	B	2	4		#N/A	4	#N/A	#N/A	
5	A	2	6		6	#N/A	#N/A	#N/A	
6	C	3	7		#N/A	#N/A	7	#N/A	
7	A	4	8		8	#N/A	#N/A	#N/A	
8	C	4	9		#N/A	#N/A	9	#N/A	
9	C	4	13		#N/A	#N/A	13	#N/A	
10	C	3	10		#N/A	#N/A	10	#N/A	
11	D	5	12		#N/A	#N/A	#N/A	12	
12	A	6	11		11	#N/A	#N/A	#N/A	
13	B	7	3		#N/A	3	#N/A	#N/A	
14	D	8	4		#N/A	#N/A	#N/A	4	
15	D	4	14		#N/A	#N/A	#N/A	14	
16	B	5	19		#N/A	19	#N/A	#N/A	
17	B	3	16		#N/A	16	#N/A	#N/A	
18									
19									
20									
21									
22									
23									
24									

Along the top ribbon, click the Insert tab and then click Insert Scatter (X, Y) within the Charts group to produce the following scatterplot:



The (X, Y) coordinates for each group are shown, with each group possessing a unique color.

Feel free to modify the colors, point sizes, and labels to make the plot more aesthetically pleasing:



The following tutorials explain how to perform other common functions with scatterplots in Excel: