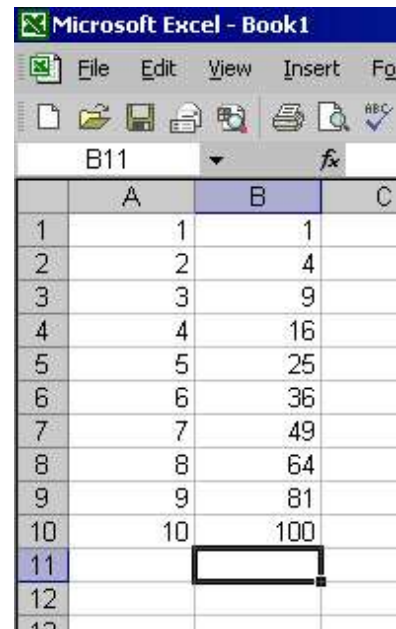


Introduction:

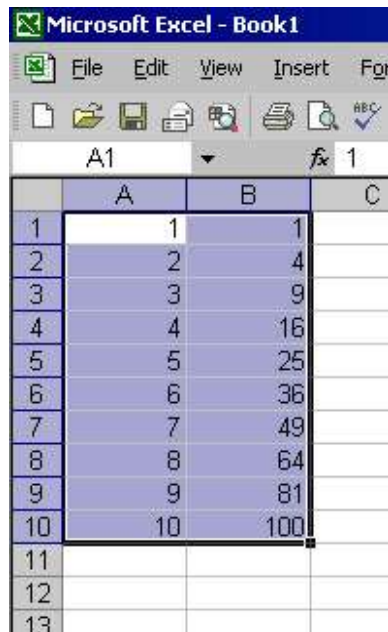
Excel is a useful tool for creating plots of data. In the lab assignment you will use Excel to make simple plots of sequence in order to get a visual image of their properties. This lab is a brief introduction to plotting using Excel to make such plots.

Instructions:

1. As an example, let's plot the square numbers. Open up excel and create a list from 1 to 10 in column A with the corresponding squares in column B. Try to do this using a recursive formula. The first column has the term number n and the second column has the term $u_n = n^2$.
2. Now we are ready to create your graph. Select the two columns you wish to plot (the first column will be put on the horizontal axis (commonly referred to as the x-axis) and the second column on the vertical axis (or y-axis.}

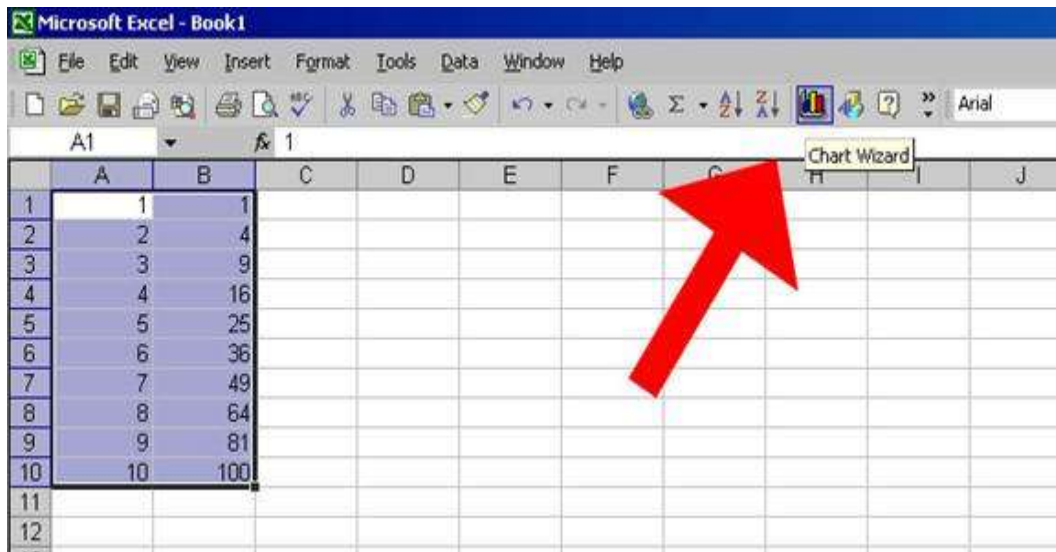


	A	B	C
1	1	1	
2	2	4	
3	3	9	
4	4	16	
5	5	25	
6	6	36	
7	7	49	
8	8	64	
9	9	81	
10	10	100	
11			
12			
13			

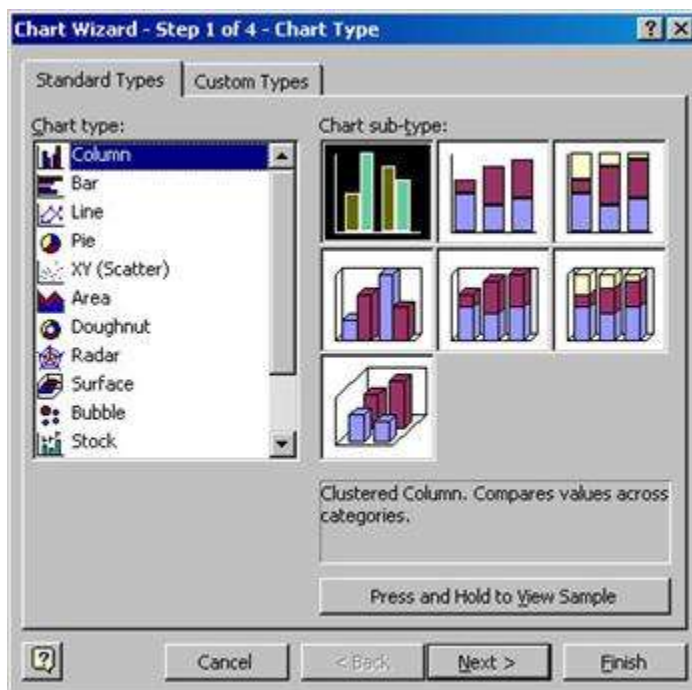


	A	B	C
1	1	1	
2	2	4	
3	3	9	
4	4	16	
5	5	25	
6	6	36	
7	7	49	
8	8	64	
9	9	81	
10	10	100	
11			
12			
13			

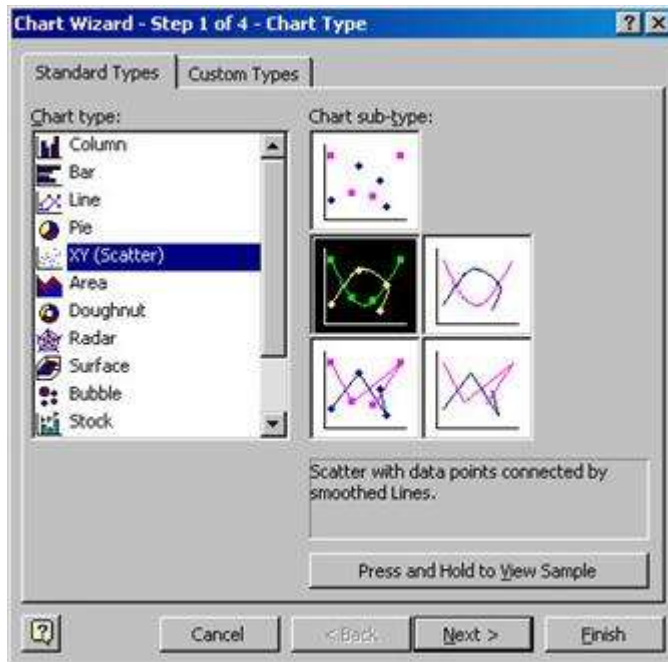
3. Now click on the Chart Wizard button, or else select Insert, then Picture, then Chart from the menu.



The following window will appear:

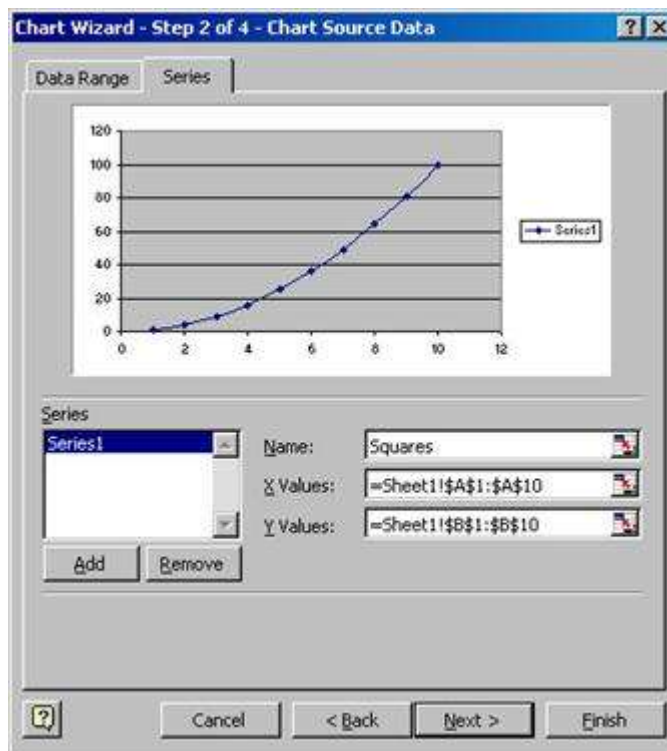


At this point you have a variety of options for plotting your data. For math and science application we will always choose XY (Scatter). Once you make this choice there are further options.

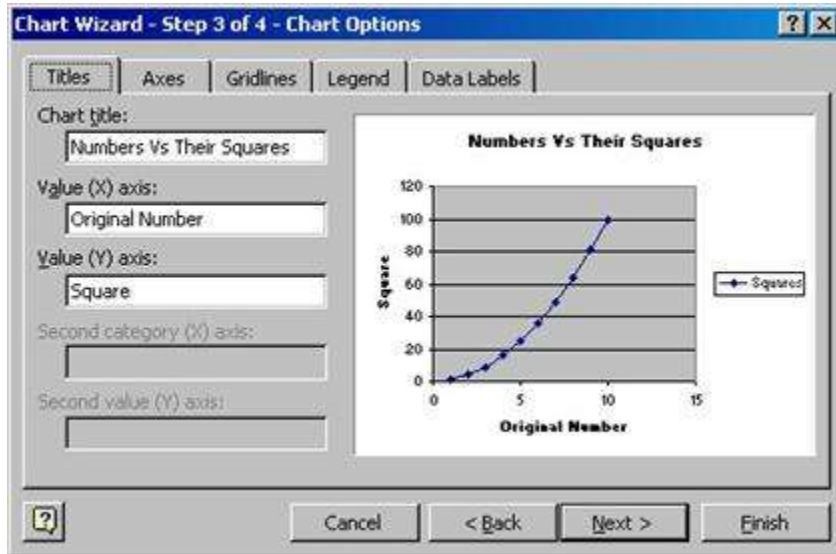


We will choose the option shown above because it is useful to connect the dots to guide the eye. For plotting measured data you should not connect the dots. We will discuss this in a later lab.

Click next to continue to the preview pane and select the series tab. Enter a name for your series. Notice how the X-values and Y-values are listed. If you wanted to change your selection to include different data you could do it at this point.



Click next to the chart options window and add titles and labels as appropriate. You may want to look at some of the other options, but that is not necessary in this lab.



Press finish. Then move your graph to a suitable place on your spreadsheet.

4. Continue to the Graphing Sequences Lab Assignment.