

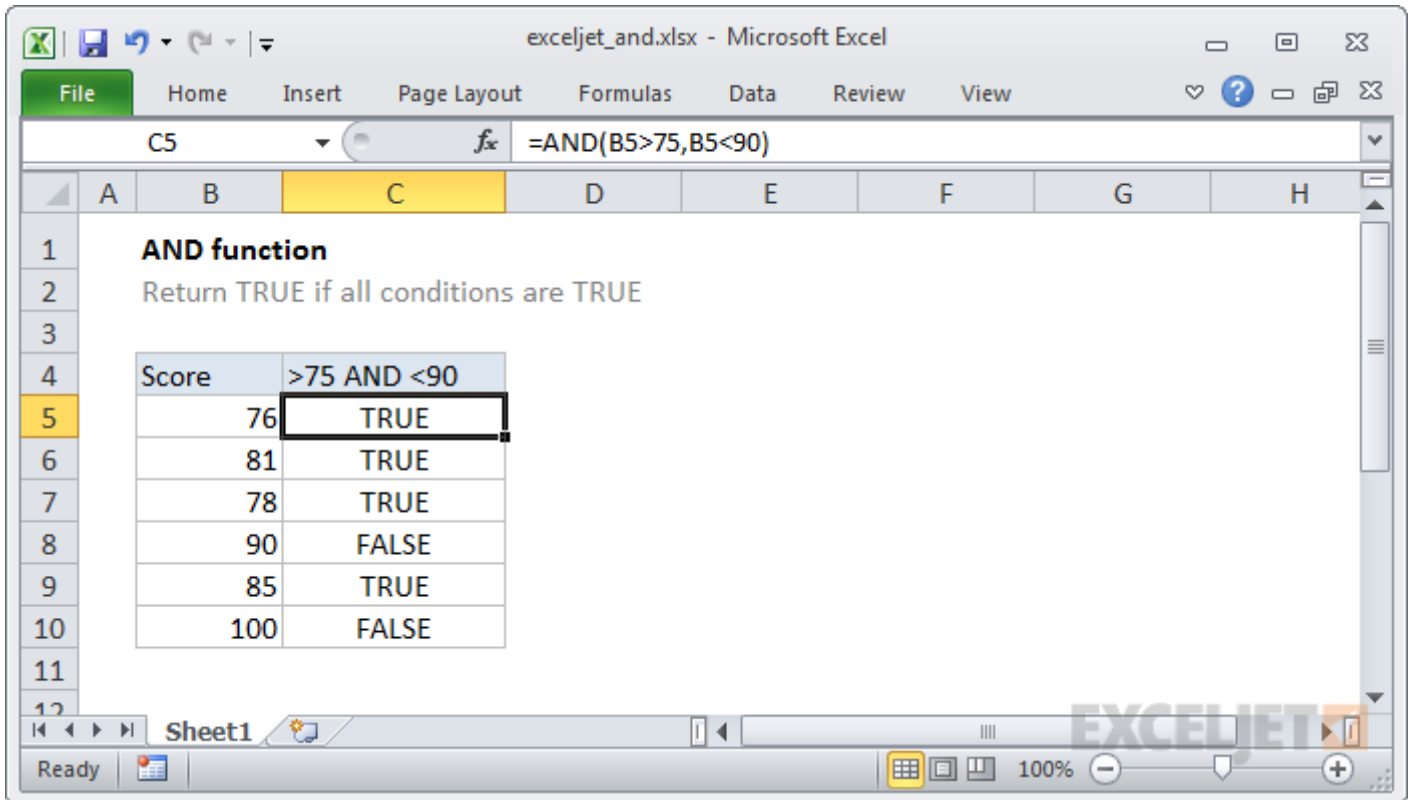
# Microsoft Excel 2010

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المرحلة الثانية

# Excel AND Function



The AND function is a logical function used to require more than one condition at the same time. AND returns either TRUE or FALSE. To test if a number in A1 is greater than zero and less than 10, use `=AND(A1>0,A1<10)`. The AND function can be used as the logical test inside the IF function to avoid extra nested IFs, and can be combined with the OR function.

## Return value

TRUE if all arguments evaluate TRUE; FALSE if not

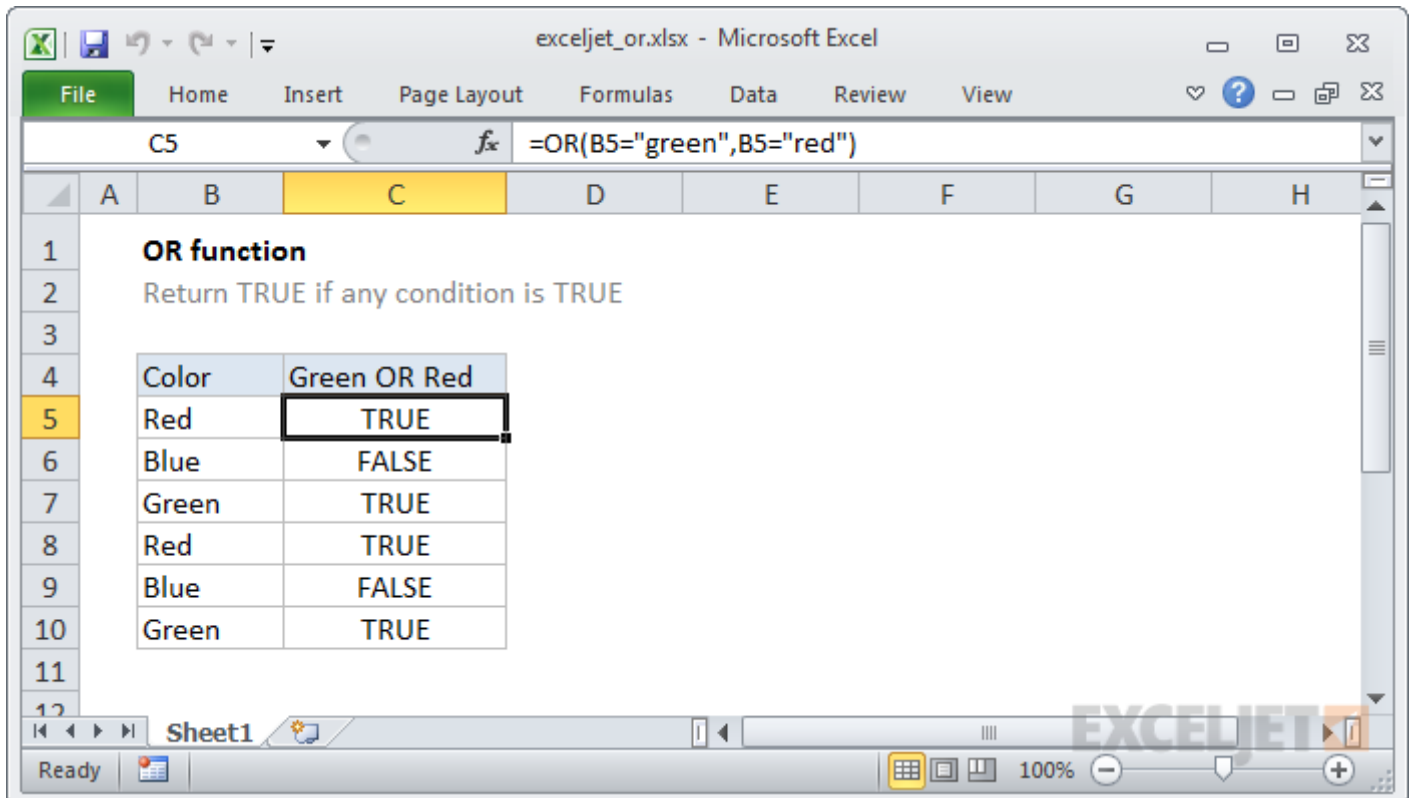
## Syntax

`=AND (logical1, [logical2], ...)`

## Arguments

- **logical1** - The first condition or logical value to evaluate.
- **logical2** - [optional] The second condition or logical value to evaluate.

## Excel OR Function



The OR function is a logical function to test multiple conditions at the same time. OR returns either TRUE or FALSE. For example, to test A1 for either "x" or "y", use `=OR(A1="x",A1="y")`. The OR function can be used as the logical test inside the IF function to avoid extra nested IFs, and can be combined with the AND function.

### Purpose

Test multiple conditions with OR

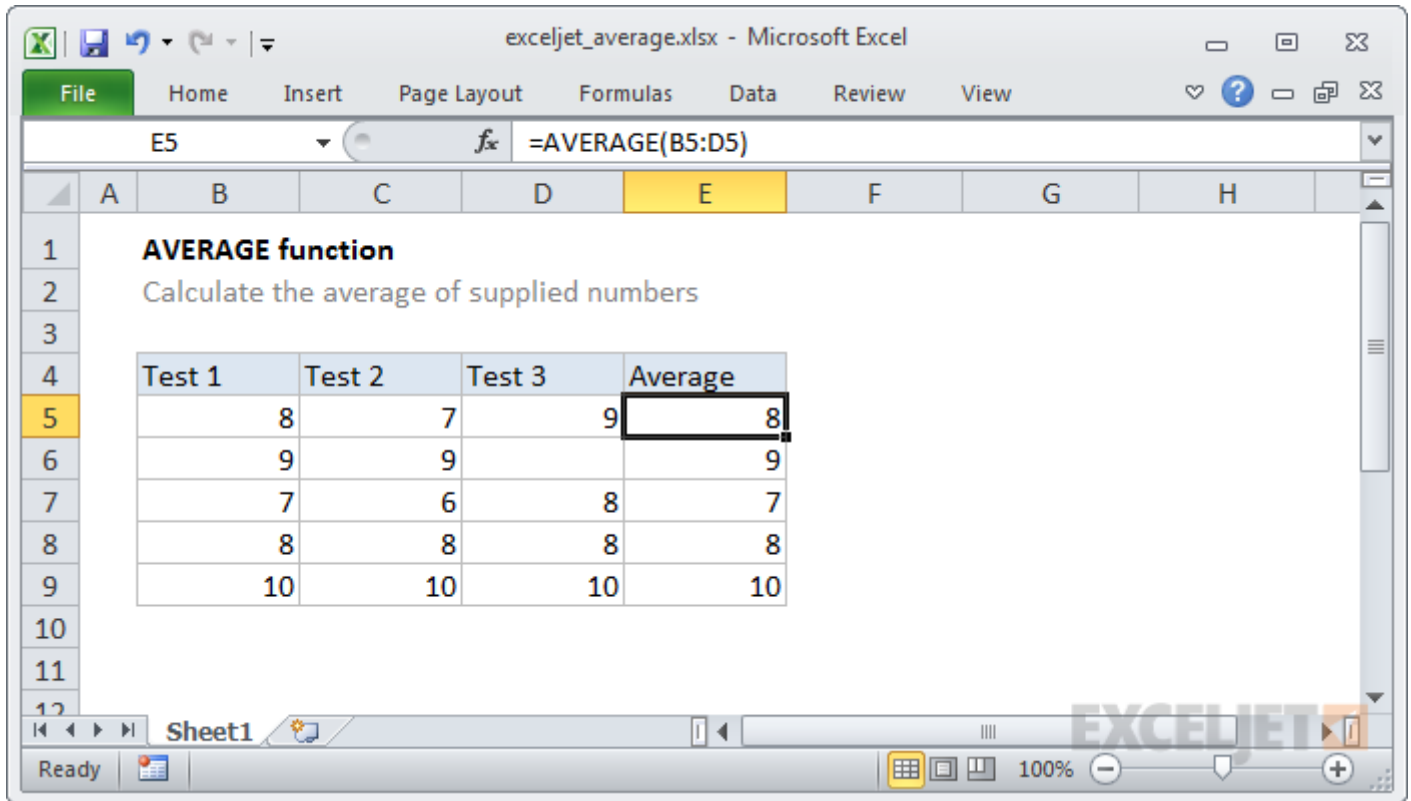
### Return value

TRUE if any arguments evaluate TRUE; FALSE if not.

## Syntax

=OR (logical1, [logical2], ...)

## Excel AVERAGE Function



The Excel AVERAGE function returns the average of values supplied as multiple arguments. AVERAGE can handle up to 255 individual arguments, which can include numbers, cell references, ranges, arrays, and constants.

### Purpose

Get the average of a group of numbers

### Return value

A number representing the average.

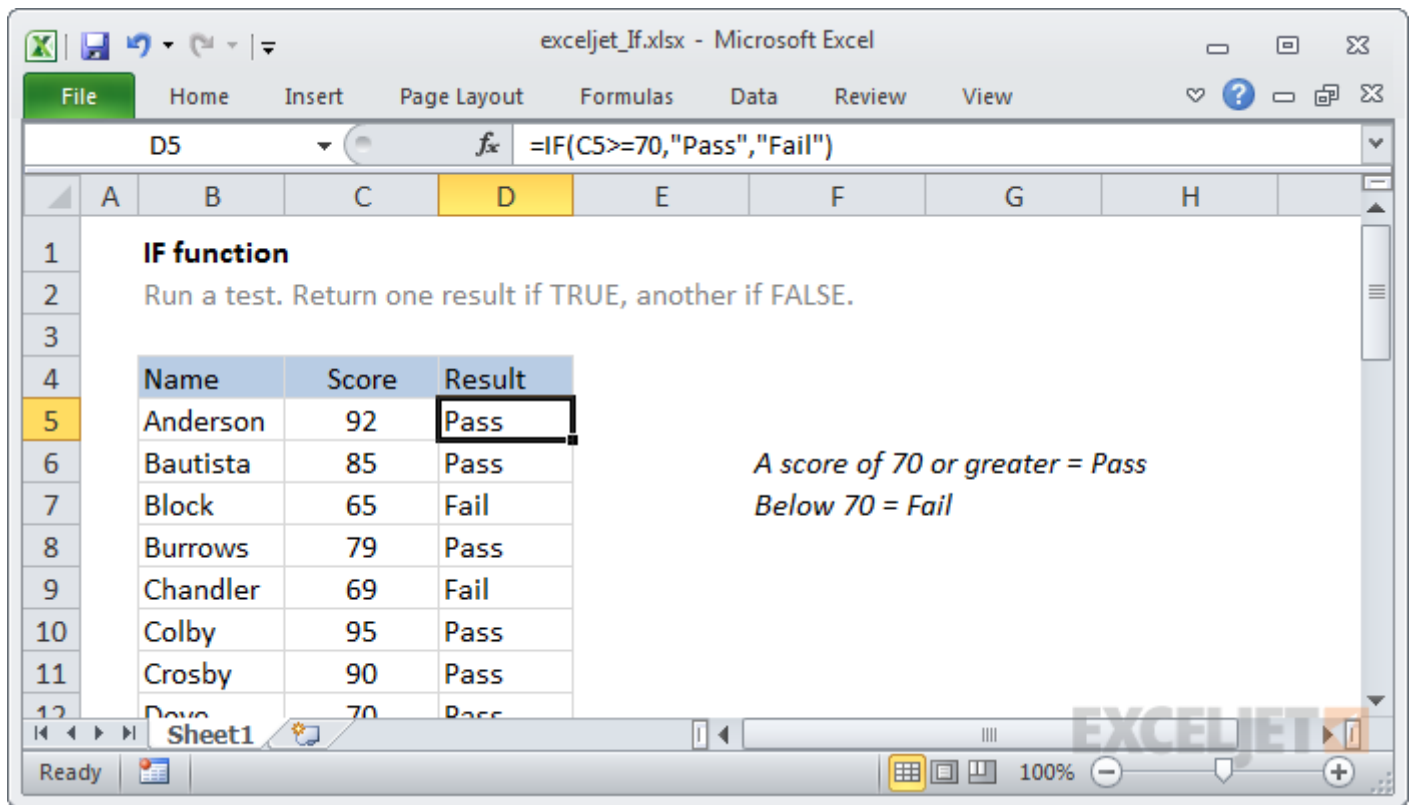
### Syntax

=AVERAGE (number1, [number2], ...)

### Arguments

- **number1** - A number or cell reference that refers to numeric values.
- **number2** - [optional] A number or cell reference that refers to numeric values.

# Excel IF Function



The IF function can perform a logical test and return one value for a TRUE result, and another for a FALSE result. For example, to "pass" scores above 70: `=IF(A1>70,"Pass","Fail")`. More than one condition can be tested by nesting IF functions. The IF function can be combined with logical functions like AND and OR.

## Purpose

Test for a specific condition

## Return value

The values you supply for TRUE or FALSE

## Syntax

`=IF (logical_test, [value_if_true], [value_if_false])`

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### Arguments

- **logical\_test** - A value or logical expression that can be evaluated as TRUE or FALSE.
- **value\_if\_true** - [optional] The value to return when logical\_test evaluates to TRUE.
- **value\_if\_false** - [optional] The value to return when logical\_test evaluates to FALSE.

### Charts:-

graphs help us to compare data and see trends more easily. Today we will focus on

Three types of charts:

1. **Line graphs:** Good for showing changes over time, especially when the changes are quite small. Can be used to compare changes to different groups over the same period of time.

2. **Bar & Column graphs:** Most often used to compare groups. For a small number of groups, vertical columns are often better. For a large number of groups, horizontal bars are often better.

3. **Pie charts:** Used to compare parts of a whole. Often things expressed as percentages. All values must be positive.

## Quick Steps for Creating Excel Charts

### 1 - chart in new sheet

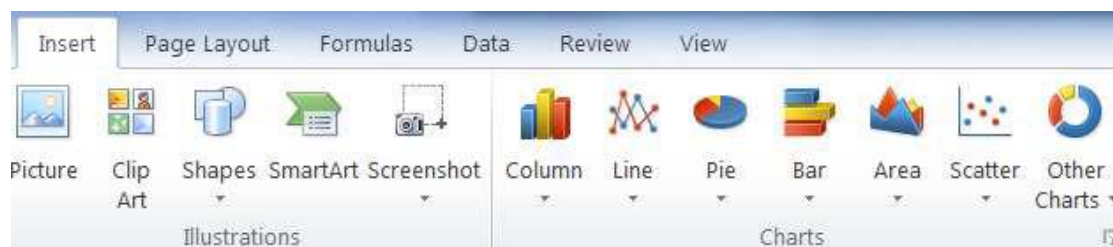
1. Select the cells
2. Insert chart



3. Change chart type
4. Customize and edit using chart tools

### 2 - chart in data sheet

1. Select the cells
2. Click the “Insert” tab and select a chart type
3. Customize and edit using chart tools



1. **Select the cells** – While holding down the left button, drag the mouse from the top left to the bottom right of the cells containing data for your chart. Release the mouse button once the desired cells are highlighted in blue. Include column and row headings. Because the row headings are not adjacent to the data for the USA, hold down the “Ctrl” button on the keyboard while you make your selections with the mouse.

	Germany	USA	GB	China
Android	74.7	50.3	55.7	78.6
Blackberry	0.8	0.6	2.4	0
iOS	17.3	43.1	30.6	17
Windows	5.7	4.7	10.8	2.7
Other	1.5	1.3	0.5	1.6

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2. - Excel will use your selected data to generate a chart in a new tab.

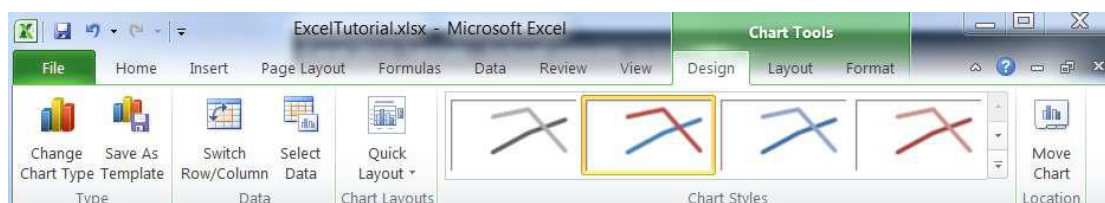
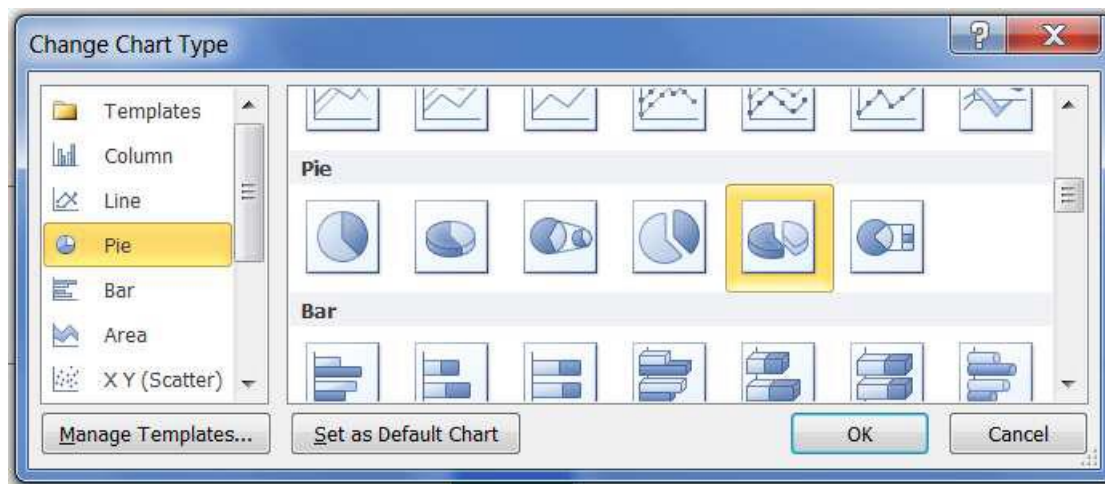
By default a column chart is created, so we will need to ...

3. **Change the Chart Type** – The green chart tools tab should become available now that you have a chart. If you do not see a Chart Tools tab, click on your chart.

Click the Change Chart Type button in the Chart Tools' Design tab.



Click on the desired chart type in the “Change Chart Type” box and click OK.

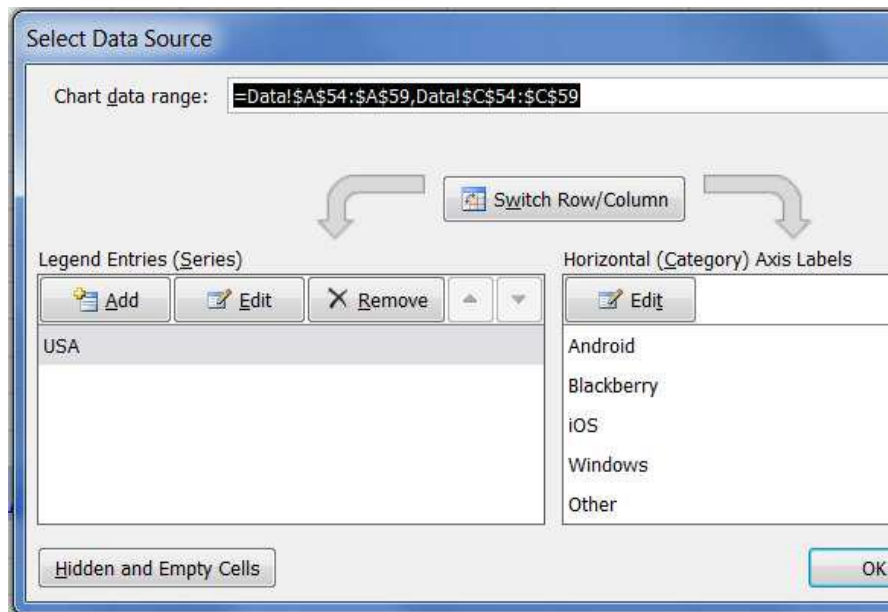




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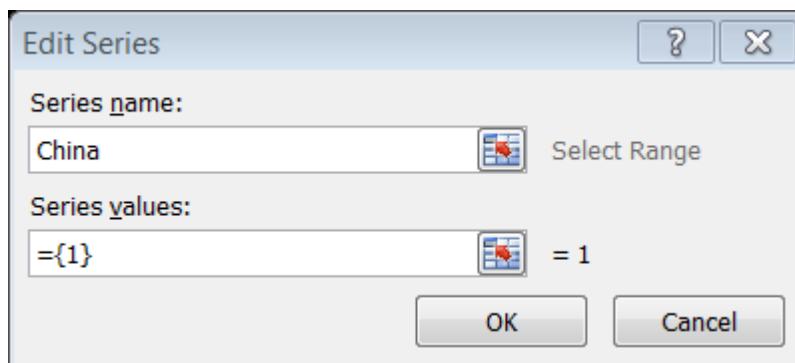
Click the Select Data icon in the Chart Tools – Design tab.

In the “Select Data Source” box, click “Add



Type China into the Series Name box, and click the selector button beside the Series

Values box

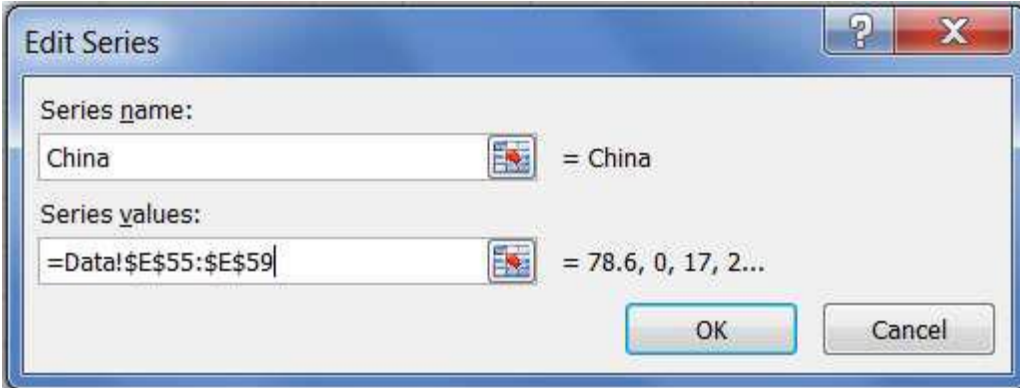
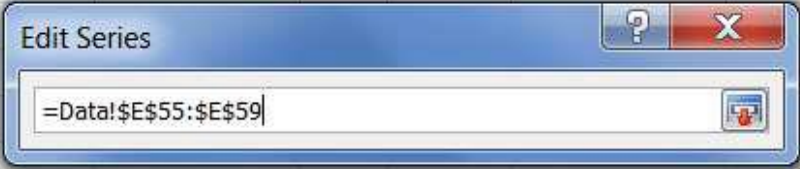


Go to the data spreadsheet tab and use your mouse to select the cells with figures for  
China’s phone market share. This will automatically put stuff into the  
Edit Series box.

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Press “Enter” on the keyboard.

	China
7	78.6
4	0
6	17
8	2.7
5	1.6

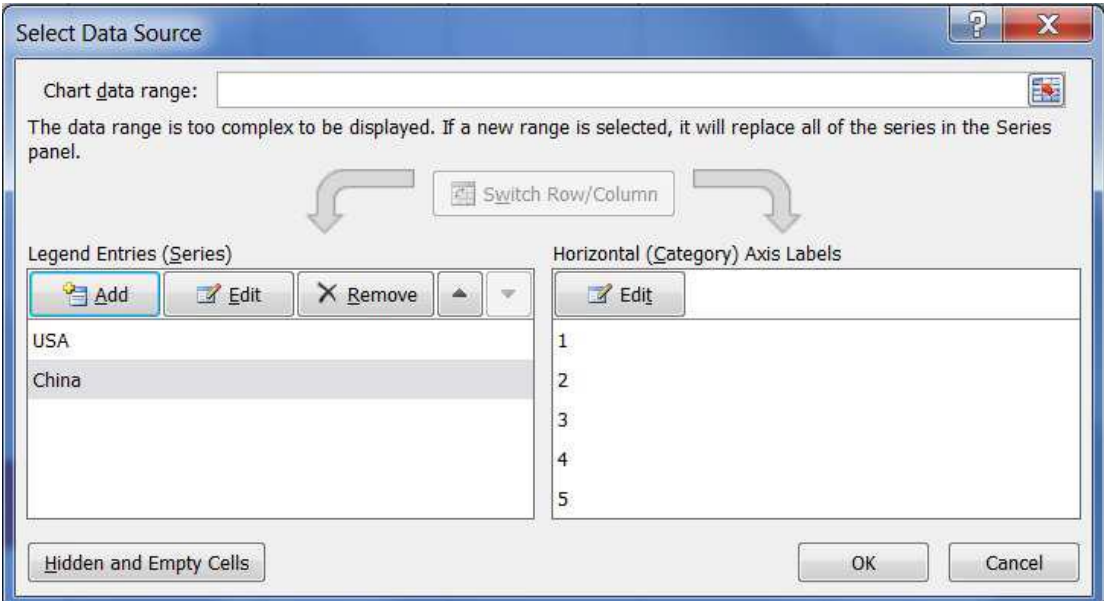


Series name: China = China

Series values: =Data!\$E\$55:\$E\$59 = 78.6, 0, 17, 2...

OK Cancel

1. Click “OK” again



Select Data Source

Chart data range:

The data range is too complex to be displayed. If a new range is selected, it will replace all of the series in the Series panel.

Switch Row/Column

Legend Entries (Series)

Add Edit Remove

USA

China

Horizontal (Category) Axis Labels

Edit

1

2

3

4

5

Hidden and Empty Cells

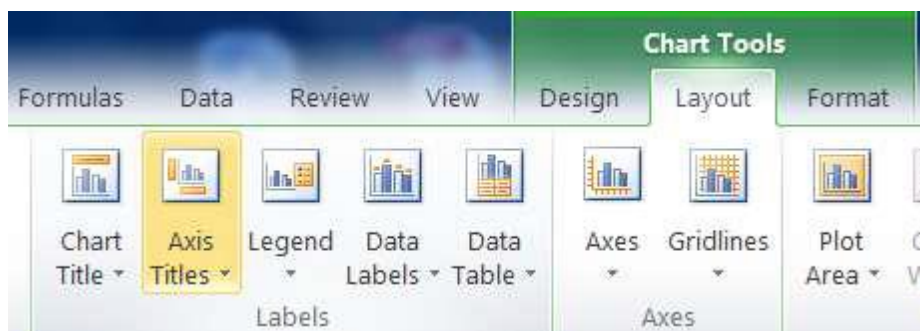
OK Cancel

Experiment with chart layouts in the Design tab and choose one that you

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Add axis labels and any other features you wish using tools in the “Layout” tab.

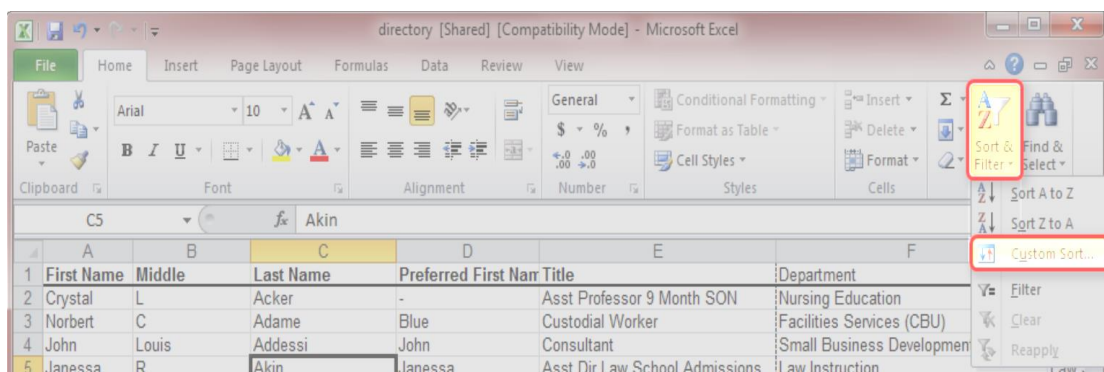


In the Design tab, find a “Chart Style” that you like.



## Sorting Data

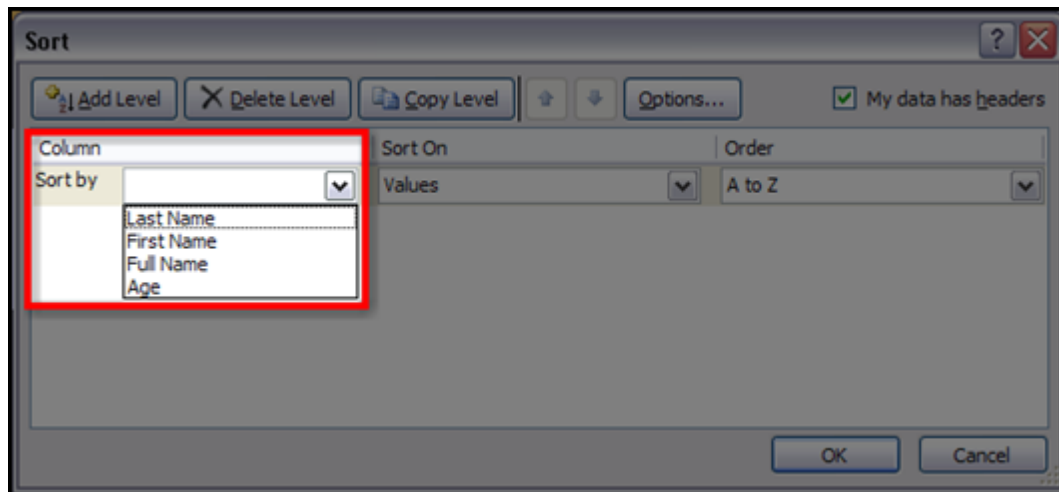
1. Open the spreadsheet you want to work in
2. Click the **Sort & Filter** > **Custom Sort**



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3. Select the column you want to sort by (i.e. if I want to sort alphabetically by last name I would select “Last Name” from



the list. If your columns do not have headers you will just see the column letters in the list.)