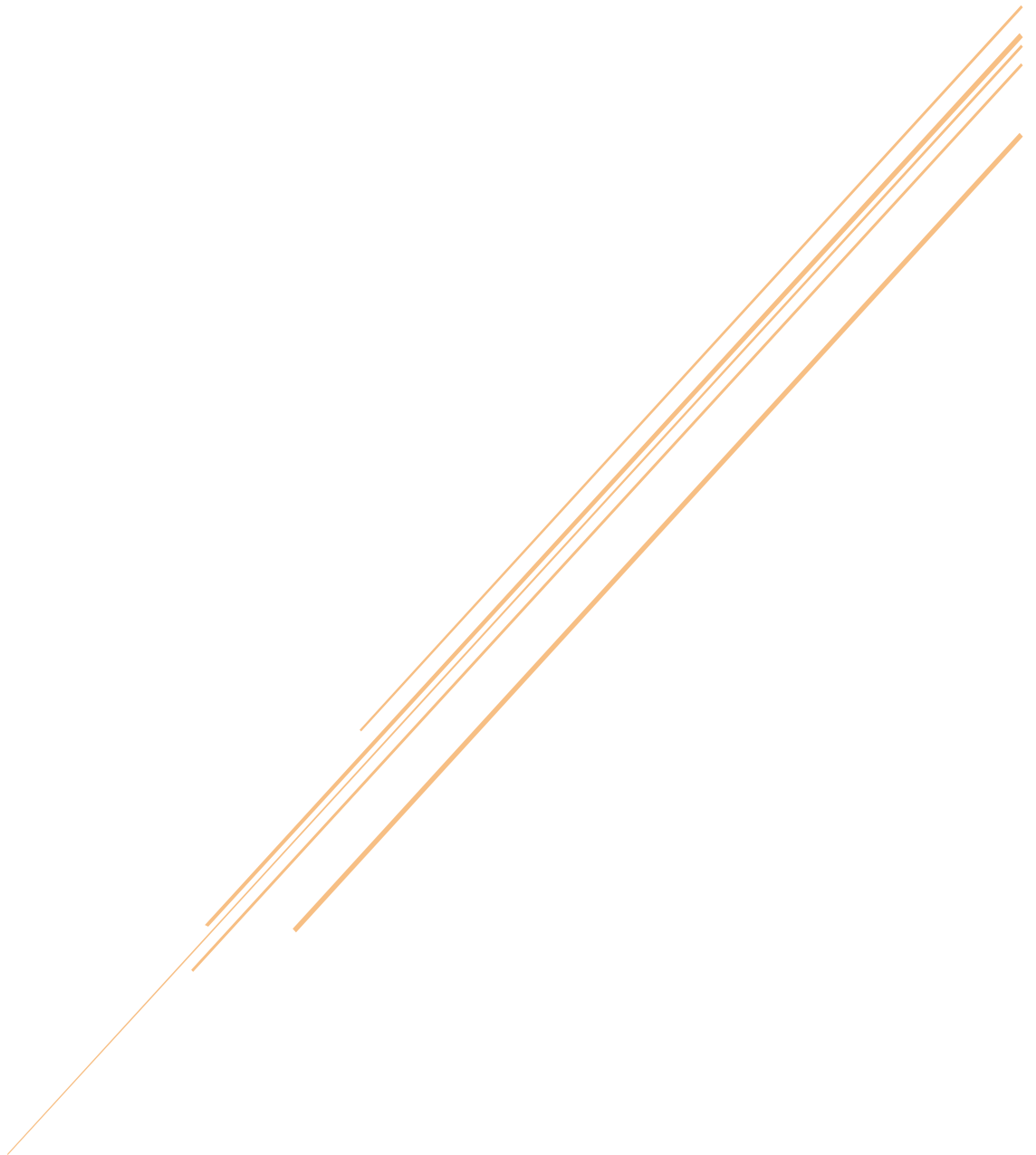


EXCEL 2010

Intermediate



msoffice.co.nz
Libby Baker

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Formulas

Using a formula can help you analyse data on a worksheet. With a formula you can perform operations, such as addition and multiplication. Think of a formula as one side of an equation whose result is shown in the cell.



An Excel formula always begins with an equal sign (=).

Operators

+	Addition	-	Subtraction
/	Division	*	Multiplication
%	Percent	^	Exponentiation

Examples

=B4+B8

=C6*12.5%

=C9/9

=Z42-Z41

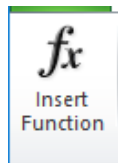
=20^2*.15

=(B6*5)+C5

*Note: You can use Excel as a calculator if required. eg. =56*49*

Notes:

Functions



A function is a built-in formula that takes a value or values, performs an operation and returns a value. The values that you give to a function are called arguments and are enclosed in parentheses.

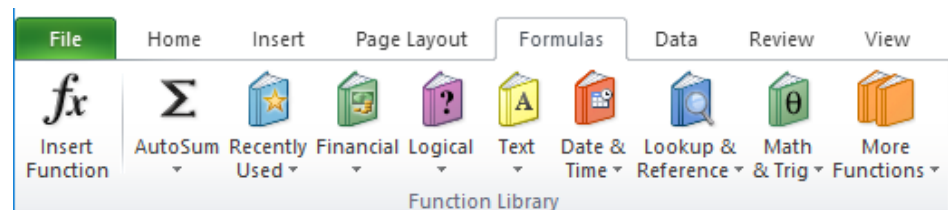
For example, instead of typing the formula

=B1+B2+B3

use the SUM function to build the formula

=SUM(B1:B3)

To access the function list choose the Formulas Tab, Function Library. Help in the Function dialog is especially useful to give a full description and example of any function.



Some commonly used functions:






= AVERAGE	returns the average of its arguments
= TODAY()	displays current date calculated from the computer's clock
= NOW()	displays current time calculated from the computer's clock
= MAX ()	returns the maximum value in a list of arguments

More functions to try

=CONVERT	converts a number from one measurement system to another
=SUMIF	adds the cell specified by a given condition or criteria
=PMT	calculates the payment for a loan based on constant payments and a constant interest rate

Function Arguments ? X

PMT

Rate	<input type="text"/>		= number
Nper	<input type="text"/>		= number
Pv	<input type="text"/>		= number
Fv	<input type="text"/>		= number
Type	<input type="text"/>		= number

=

Calculates the payment for a loan based on constant payments and a constant interest rate.

Rate is the interest rate per period for the loan. For example, use 6%/4 for quarterly payments at 6% APR.

Formula result =

[Help on this function](#)

Notes:

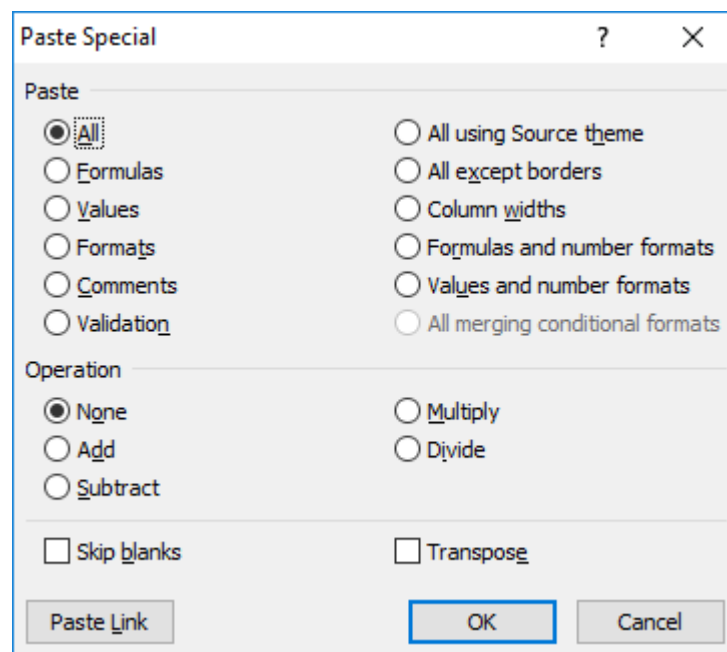
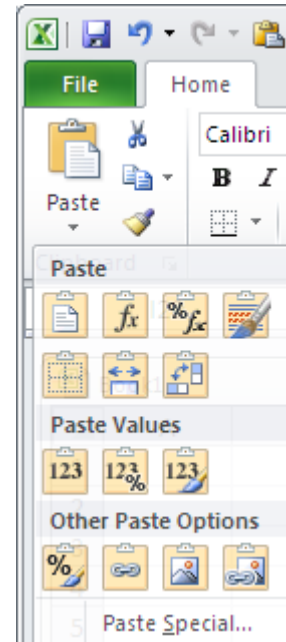
Linking Worksheets

Linking One Cell

1. Select a cell in the Target worksheet.
2. Type an = sign to start a formula.
3. Select the cell in the Source worksheet.
4. Press Enter.

Linking a Range of Cells

1. From the Source worksheet select the range you would like to use.
2. Choose Copy.
3. Select the Target worksheet.
4. Choose Paste Special.
5. Select Paste Link.



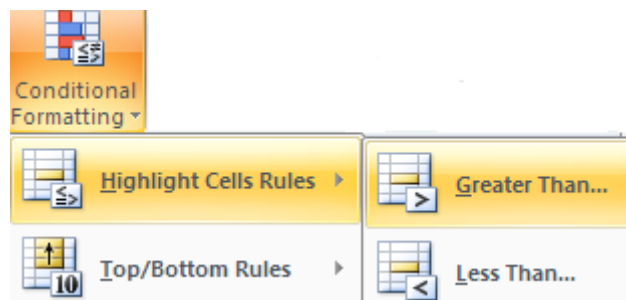
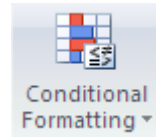
Removing Links

1. Copy the cell(s) containing the formula.
2. Choose Paste.
3. Select the Paste Values command.

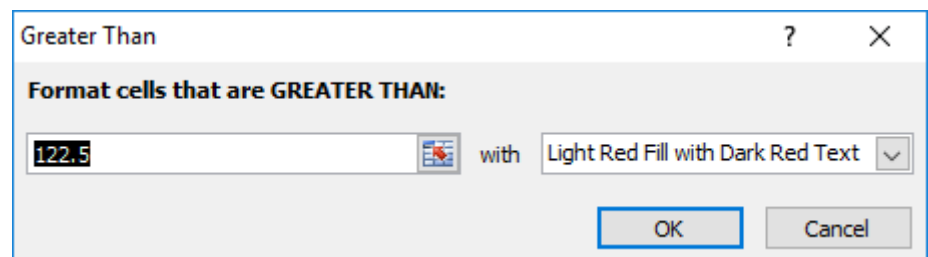
Conditional Formatting

Applies formats to selected cells based on criteria that you specify.

1. Select the cell or cells you wish to format
2. From the Home Tab, in the Styles Group select Conditional Formatting.
3. Highlight Cells Rules, Greater Than...



4. Enter the figure or cell reference

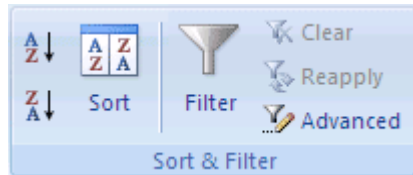



5. Select the Formatting and press OK.

Notes:

Sorting & Filtering

1. Select a range of cells containing alphanumeric data.
2. On the **Data** tab, in the **Sort & Filter** group, click **Filter**.



2. Click the arrow  in the column header.
3. Do one of the following:

Select from a list of text values

- In the list of text values, select or clear one or more text values to filter by.

Create criteria

- Point to Text Filters and then click one of the comparison operator (comparison operator: A sign that is used in comparison criteria to compare two values. Operators include: = Equal to, > Greater than, < Less than, >= Greater than or equal to, <= Less than or equal to, and <> Not equal to.) commands, or click Custom Filter.

For example, to filter by text that begins with a specific character, select **Begins With**, or to filter by text that has specific characters anywhere in the text, select **Contains**.

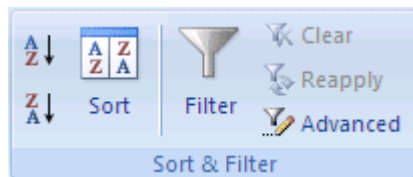
- In the Custom AutoFilter dialog box, in the box on the right, enter text or select the text value from the list.


For example, to filter by text that begins with the letter "J", enter **J**, or to filter by text that has "bell" anywhere in the text, enter **bell**.

Filter or Sort by cell color, font color, or icon set

If you have manually or conditionally formatted a range of cells, by cell color or font color, you can also filter by these colors. You can also filter by an icon set created through a conditional format.

1. Select a range of cells containing formatted by cell color, font color, or an icon set.
2. On the **Data** tab, in the **Sort & Filter** group, click **Filter**.



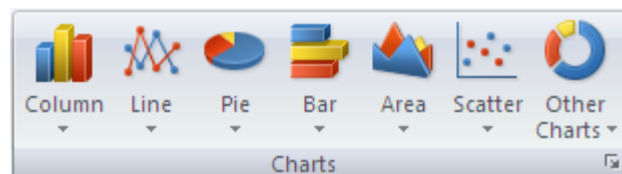
2. Click the arrow  in the column header.
3. Select **Filter by Color**, and then depending on the type of format, select **Filter by Cell Color**, **Filter by Font Color**, or **Filter by Cell Icon**.
4. Depending on the type of format, select a color, font color, or cell icon.

Creating Charts

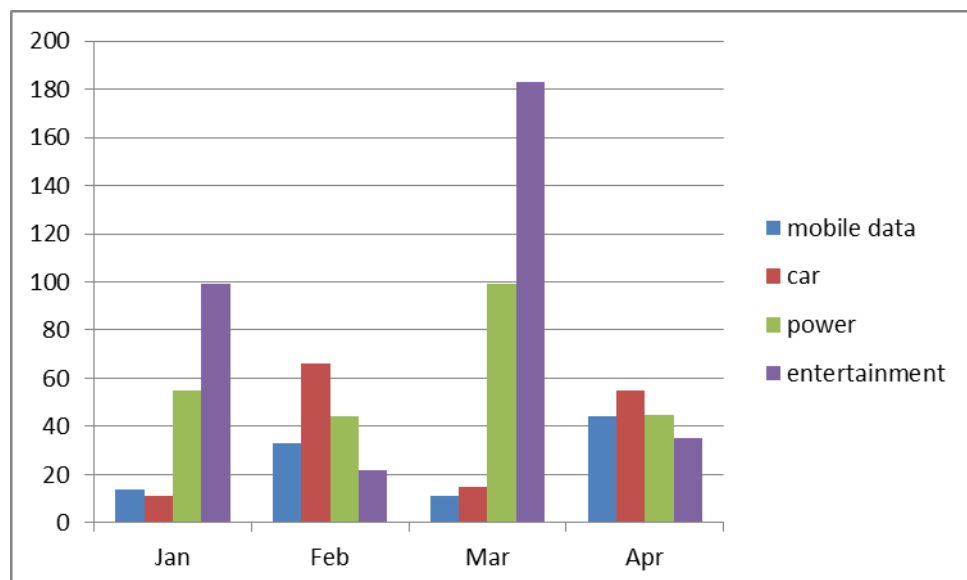
1. Select the cells that contain the data you want to use for your chart.

	Jan	Feb	Mar	Apr
mobile data	14	33	11	44
car	11	66	15	55
power	55	44	99	45
entertainment	99	22	183	35

2. Click on the **Insert Tab**.
3. Select a Chart type.



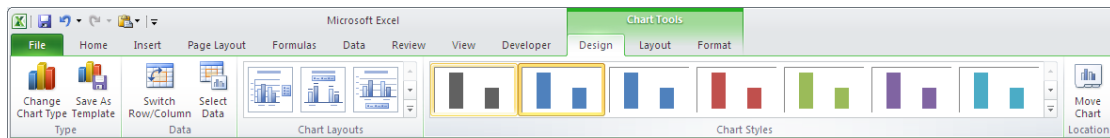
4. Click OK



5. Three new Tabs appear under Chart Tools

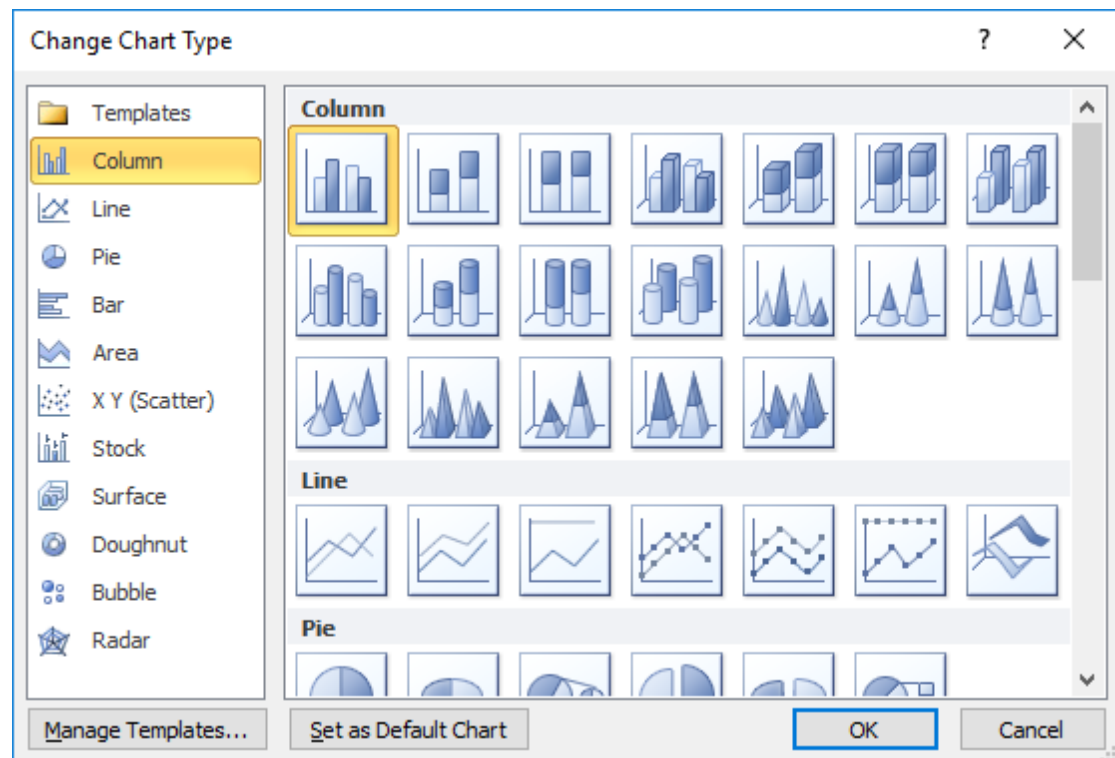
- Design
- Layout
- Format

Design



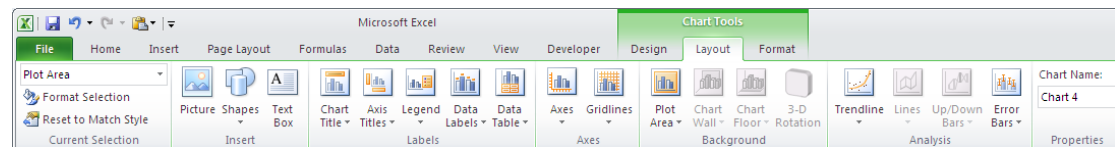
Use Design to:

- Change the Chart Type



- Save a Chart as a Template
- Switch Row/Column Data and Select Data
- Change preset Chart Layouts
- Change Chart Styles
- Move the Chart to a separate sheet or other location

Layout

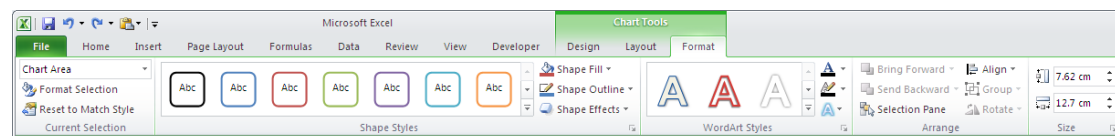


Use Layout to:

Format Selected Chart Areas

- Insert Graphics
- Add Labels
- Change Axes and Gridlines
- Adjust Background parts
- Add Trendlines

Format



Use Format to :

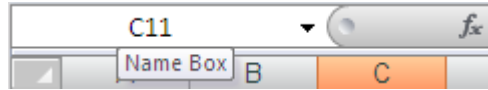
- Format Selected Chart Areas
- Change Text, Shapes and Outlines
- Select, Align, Rotate and Group objects
- Adjust Size

Note: When the chart is deselected the Chart Tools group disappears.

Notes:

Range Names & GoTo

In the top left corner of your spreadsheet is a drop down Name box.



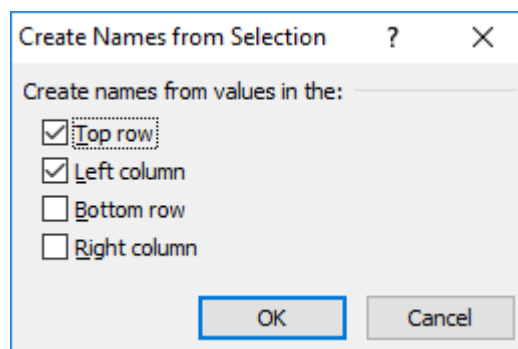
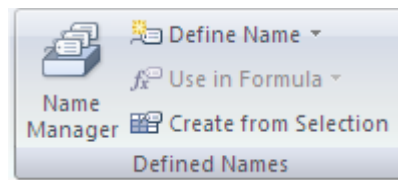
Select any cell or range of cells and go to the Name Box. Type in a name e.g. January and press Enter.

The name has to be one word so if you want two words connect using an underscore eg January_2010

1. Select a range of cells

	Jan	Feb	Mar	Apr
mobile data	14	33	11	44
car	11	66	15	55
power	55	44	99	45
entertainment	99	22	183	35

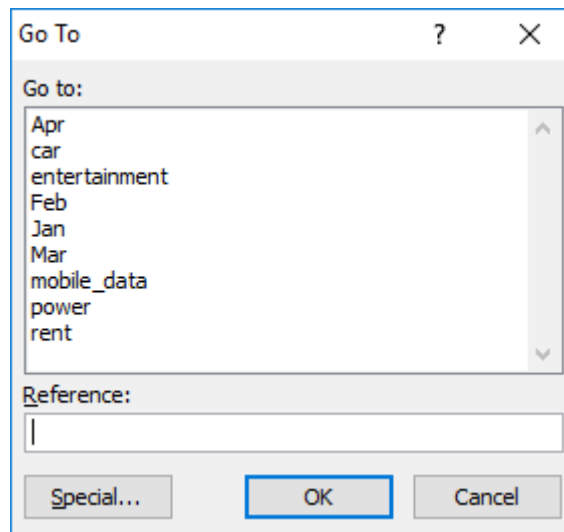
2. Under the Formulas Tab select Create from Selection



3. OK

Use the Name Box to GoTo any cell or Range Name.

F5 or Go To is another useful shortcut.



Note: Once you have created a name it can be used in a formula, macro or just simply for navigation purposes.

Notes:

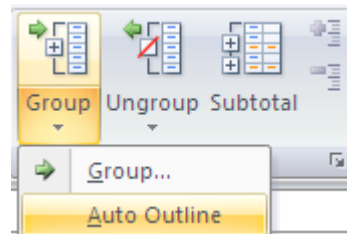
Outlining & Grouping

You can outline your worksheet data to create summary reports. With summary reports, you can show or hide as much detail as you want.

Automatic Outlining

Automatic outlining relies on formulas.

1. Select the data you want to outline.
2. In the Data Tab, and the Outline Group, select Group
3. Choose the Auto Outline

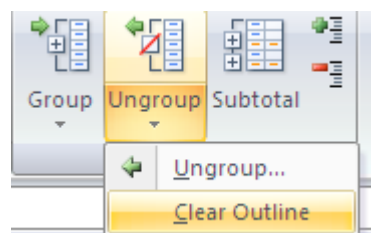


	1						
	2						
1	2	A	B	C	D	E	F
	1		QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
	2	RENT	345	345	345	345	1380
	3	PHONE	47	146	220	120	533
	4	POWER	344	555	656	432	1987
	5	ENTERTAINMENT	345	767	340	545	1997
	6	TOTAL	1081	1813	1561	1442	5897

By selecting the button labelled **1** you can show one level revealing the headings and total. You can also hide the rows by selecting the **2** button.

	1						
	2						
1	2	A	B	C	D	E	F
	1		QTR 1	QTR 2	QTR 3	QTR 4	TOTAL
	6	TOTAL	1081	1813	1561	1442	5897

Removing an Outline



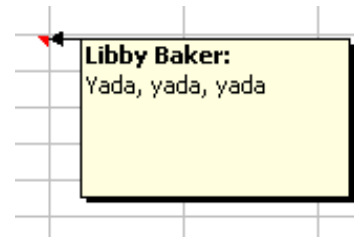
Adding Comments

You can attach text to a cell containing a value that needs explanation, or to a cell containing a complex formula that you want to document for future reference.


1. Select the cell to document.
2. Right click to Insert Comment.



A red triangle at the top right corner of the cell will appear indicating a note. If this does not appear select Tools, Options, View, Comment Indicator.



Printing Comments

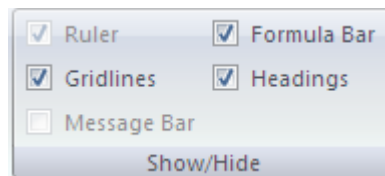
1. In the Page Layout Tab, select the Dialog Box Launcher 
2. In the Page Setup menu choose the Sheet Tab.
3. Select Comments
 - At end of sheet
 - As displayed on sheet

Notes:

Hiding & Protecting Worksheets

Hiding Workbooks/Sheets/Rows/Columns

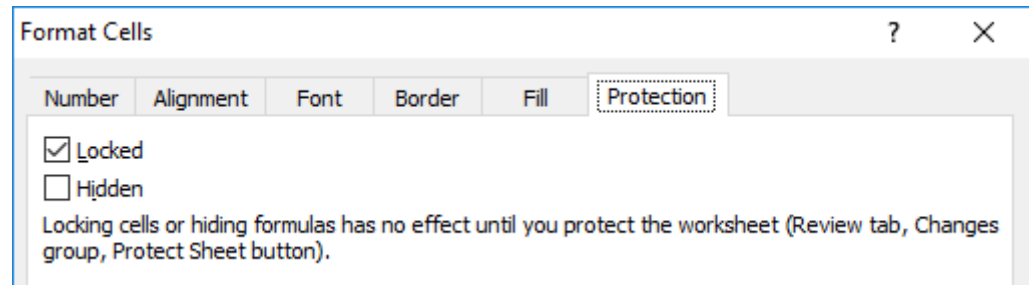
- Under the View Tab, in the Window Group, select Hide to Hide.
- To Hide a Sheet, right click on the Sheet name and select Hide.
- To Hide a row or column, right click and select Hide.
- To Hide Gridlines, the Formula Bar & Headings choose Show/Hide commands in the View Tab.



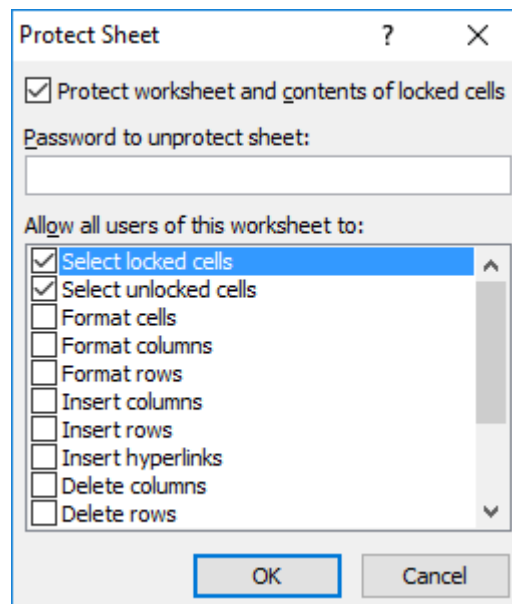
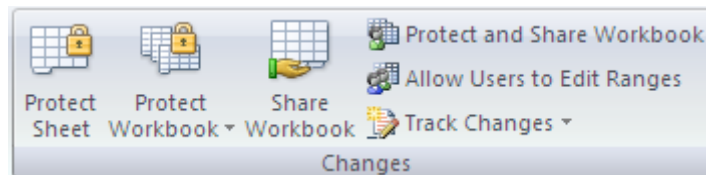
Protecting an area of your Worksheet

To prevent revisions to some cells and leave other cells locked ie. formulas.

1. Select the cells that you want to allow changes or entries to.
2. Right click and select Format Cells.
3. Select the Protection Tab.



4. Clear the Locked check box. OK.
5. From the Review tab select Protect Sheet under the Changes Group.



Note: Use Tab to navigate through unlocked cells.