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EXCEL *ON STEROIDS*

Tips and Tricks
Volume 4
2010

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Work smarter, Everyday!

Specialized Microsoft Excel training workshops for enhanced Business reporting and Decision making

Course Overview

Excel on Steroids is an advanced Microsoft Excel training program designed to provide in-depth coverage of key Excel functionality, specific to business reporting and offers enhanced performance and productivity in this area upon completion. The course is also available online at www.alchemexacademy.com for MS Excel 2003, 2007 and 2010.

Who Should Attend

Directors, Managers, and anyone else who uses Excel extensively for report writing. Delegates will return to the office after the workshops with an advanced understanding of relevant Excel functionality and practical know-how that will result in significant time-savings each month.

Benefits

- 🔊 We drill down on the 5% of Excel functionality appropriate for business reporting
- 🔊 Not a tour of functionality - spending 5 minutes on 50 topics of excel
- 🔊 Exercises are real scenarios taken from customers using our software
- 🔊 Increased productivity - saving you time and money
- 🔊 Can provide standardization in your company reporting
- 🔊 Helps you make business decisions
- 🔊 Applicability to working environment

Value adds:

- 🔊 Pre-assessment to assess your current MS Excel skills
- 🔊 Online assessment after each course
- 🔊 3 months e-mail support
- 🔊 E-mailed exercises' to practice
- 🔊 Subscribe to weekly Excel on Steroids tips & tricks, annual tips & tricks e-book
- 🔊 Invitation to the BI Community



How much time do you spend on Excel each day?
3 hours?? That's 15 hours a week, 60 hours a month?

Imagine if you created a 25% improvement by working smarter, using methods you didn't know about?

That's saving you 15 hours a month - 180 hours a year, through efficient Excel use. What is your time worth?



Work smarter, Everyday!

Course Overview

Workshop 1: Business Reporting using Formulas and Functions

- 🔧 Create your own ribbon/s (in MS Excel 2010)
- 🔧 By viewing multiple windows you can Copy and Move worksheets between workbooks
- 🔧 Save time on data capturing in multiple worksheets by using Grouping
- 🔧 Consolidating worksheets by using Paste Special
- 🔧 Quickly identifying certain transactions and highlighting duplicates by using Conditional Formatting including Data Bars, Icons, etc.
- 🔧 Ensuring certain cells cannot be selected and formulae protected by using worksheet Protection
- 🔧 Simplify formulae by using Named Ranges
- 🔧 Using powerful functions to develop your report such as Lookup Functions, Text Functions, Logical Functions, Information Functions, Statistical Functions and Mathematical Functions

Workshop 2: Managing Data lists and Macros

- 🔧 Sorting your list in any specific order by using a Custom List
- 🔧 Using Subtotals to analyze your list to view totals by category
- 🔧 Identifying certain data based on a criteria by using Filtering
- 🔧 Ensuring you have consistent data capturing by using Data Validation
- 🔧 Summarizing your rows and columns by using Group and Outline and create Custom Views
- 🔧 Forecast outcomes by creating Scenarios
- 🔧 Simplify repetitive tasks by recording, viewing, running, and editing Macros

Workshop 3: Data analysis using PivotTables and Pivot Charts

- 🔧 Understanding the definitions and layout of a PivotTable
- 🔧 Summarizing data by creating a PivotTable
- 🔧 Improving the look and feel of the PivotTable by Modifying and Formatting an existing PivotTable
- 🔧 Saving time creating a new PivotTable by moving or copying an existing PivotTable
- 🔧 Using Pivot Tools to manage your PivotTable effectively (MS Excel 2010 includes using slicers to filter and for connection to another PivotTable)
- 🔧 Create and customize Sparkline's (only in MS Excel 2010)
- 🔧 Creating specific formulae within your PivotTable by using a Calculated field
- 🔧 Summarizing dates into Months, Quarters and Years by using Grouping
- 🔧 Graphically representing your PivotTable by creating a PivotChart

I would just like to thank you and your team for the amazing Excel On Steroids course which I attended. I've learned amazing new things and this will definitely improve my efficiency at the office.

As an example of how this has already changed my life: We had our quarterly stock take on Saturday and I've finalized the stock take 3 hours earlier than normal just because I was able to work through the data so much quicker.

Linka Lubbe
(Financial Controller), Jost
South Africa



Using The Tab Key To Move To The Next Input Cell

Question: You may have a spreadsheet set up with a number of data input cells. Wouldn't it be nice if the user could just press the Tab key to jump to the next input cell?

Answer: This type of thing is fairly easy to set up. The key is to unlock the input cells, and then protect the worksheet.

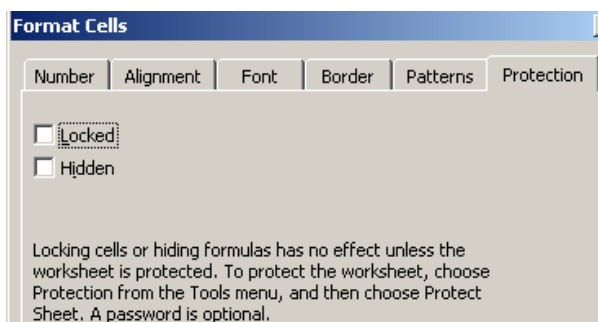
Process (Excel 2007 and Excel 2003):

Here is how to do it:

1. Select all of the input cells on your worksheet. (To select non-adjacent cells, hold down *Ctrl* while you select the cells)

	A	B	C	D	E	F	G	H	I
1	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales	12% add per unit	Sales Price	Marg
2	Condiments	Aniseed Syrup				0.00	0.00	0	
3	Dairy Products	Camembert Pierrot	2009/01/20	60	29.99	1799.28	33.59	2015.1936	2:

2. Choose Home Tab, Cell Group, Format Drop Down arrow, Format cells (2003 - *Format, Cells*) to display the Format Cells dialog box
3. Click the *Protection* tab and remove the check mark from the Locked check box

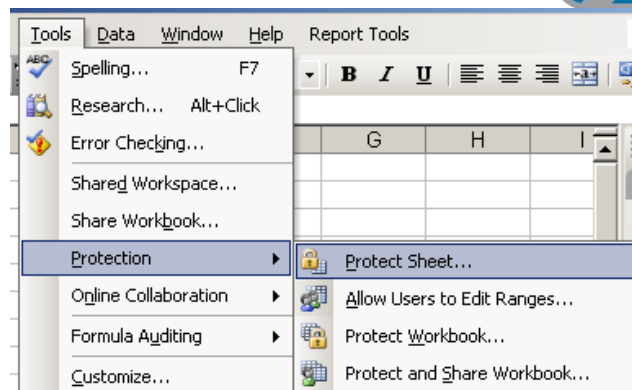


4. Click *OK*

Keep in mind that all cells are locked by default. But also remember that locking or unlocking cells has no effect unless the worksheet is protected. Select the Review Tab, Change Group, Protect Sheet Icon (2003 - *Tools, Protection, Protect Sheet*) to protect the worksheet. You can enter a password if you like.



2007



2003

When the sheet is protected, you'll find pressing *Tab* moves the heavy-bordered active cell indicator to the next unlocked cell. Be aware that this does not prevent the user from selecting unlocked cells using the cursor keys.

Product Name	Date	Quantity	Unit Price	Product Sales
Uniseed Syrup				0.00
membert Pierrot	2009/01/20	60	29.99	1799.28
ref Anton's Caiun	2009/03/04	16	19.40	310.46

Trapping Error Messages

Question: If you've worked with formulas, you've probably encountered the dreaded formula error. Rather than return a numeric result, the formula cell displays a weird message such as #VALUE! or #DIV/0!.

Answer: Most of the time, this means you need to track down the source of the error and fix it. But sometimes a formula error simply means that the data used by the formula is not yet available. For example, say you run a small telemarketing company. You might have a spreadsheet set up to track your daily sales as a percentage of calls made.

Process (Excel 2007 and Excel 2003):

	A	B	C	D	E
1	Telemarketing Results				
2					
3	Day	Calls Made	Sales	Percentage	
4	1	3,598	74	2.1%	
5	2	3,032	78	2.6%	
6	3	2,987	68	2.3%	
7	4	3,100	59	1.9%	
8	5	3,523	43	1.2%	
9	6			#DIV/0!	
10	7			#DIV/0!	
11	8			#DIV/0!	
12	9			#DIV/0!	
13	10			#DIV/0!	
14	11			#DIV/0!	
15	12			#DIV/0!	
16					

1. The formulas in column D do the calculations that come up with the percentages. For example, cell D4 contains the formula `=C4/B4`. The formula in D4 was simply copied down the column to handle the other days
2. The formula does its job well--as long as there is data to calculate. An empty cell (such as B9) is treated as a zero, and division by zero is not allowed. As a result, Excel displays an ugly `#DIV/0!` error message, which makes your entire worksheet look like it was created by a novice
3. You can avoid displaying formula errors by re-writing your formula to use an IF and an ISERROR function. For example, `=IF(ISERROR(C4/B4),"", C4/B4)` displays a blank if the division operation results in an error (cell B4 is empty or contains 0), yet still displays valid results.
4. Although this formula looks complex, when you break it down, it's not that daunting. In plain English: If you get an error performing the formula, then display an empty string (that is, nothing); otherwise, display the result of the formula
5. It's actually easy to adapt this technique to any formula you might have. The original formula serves as the argument for the ISERROR function, and it repeats as the last argument of the IF function, like this:
`=IF(ISERROR(OriginalFormula),"",OriginalFormula)`
6. If you prefer, you can replace the empty string ("") with other text of your choice--just make sure the text is enclosed in quote marks

Date Calculations & Formulas

Question: Is there some kind of formula I can use to help me work out various dates I might need in Excel?

Answer: By using a simple (and sometimes not so simple) formula, Excel can supply you with every kind of date you might need to display.

Process: Tried and Tested in 2003 and 2007. Here is what you can do:



Age Calculation
Add Months (EDATE)
Get Day
Age Check
Count Weekdays

Age Calculation

You can use DATEDIF as in =DATEDIF(A1,TODAY(),"y") or =DATEDIF(A1,NOW(),"y")

An alternative to DATEDIF.

```
=TEXT(IF(OR(MONTH(TODAY())>MONTH(A1),AND(MONTH(TODAY())=MONTH(A1),DAY(TODAY())>=DAY(A1))), (TODAY()-A1)/365.25,(TODAY()-A1)/365.25-1),"0")
```

Add Months (EDATE)

This is an alternative to EDATE if you don't have the Analysis Toolpak installed.

```
=IF(DAY(A1)<>DAY(DATE(YEAR(A1),MONTH(A1)+B1,DAY(A1))),DATE(YEAR(A1),MONTH(A1)+B1+1,0),DATE(YEAR(A1),MONTH(A1)+B1,DAY(A1)))
```

B1 = Months to add

This formula avoids problems with different numbers of days in a month. It will either return the same day in the month added by B1, or it will calculate to the end of that month. (No overlapping into the month immediately after) or

```
=DATE(YEAR(A1),MONTH(A1)+B1,MIN(DAY(A1),DAY(DATE(YEAR(A1),MONTH(A1)+B1+1,0))))
```

Get Day

Day of the Month

Use =DAY(A1) to get the day of a date entered in A1.

Weekday

Use =WEEKDAY(A1) then format as ddd or dddd

or

Use =TEXT(WEEKDAY(A1),"ddd") or =TEXT(WEEKDAY(A1),"dddd")

Age Check

To see if someone is 20 years old or over use this formula (TRUE means that they are)

```
=AND(ISNUMBER(A1),A1>=20)<DATE(YEAR(TODAY())-20,MONTH(TODAY()),DAY(TODAY())))
```

Count Weekdays

Count remaining weekdays in a month

Enter as Date

```
=INT((DATE(YEAR(TODAY()),MONTH(TODAY())+1,0)-DATE(YEAR(TODAY()),MONTH(TODAY()),DAY(A1)))/7+1)
```

It will give the number of remaining weekdays (eg Saturday) of the date you choose for the current month, including the date entered in A1. Adjust to suit.

A1 = Date



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ONLINE TRAINING

*Excel yourself anywhere, any time with 'Excel on Steroids',
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The advertisement features a man in a white shirt sitting on a couch, looking at a laptop. The background is a dark blue gradient with white text and the Excel on Steroids logo.

Customizing Validation Lists

Question: I use validation lists, but I would like to add a second list, where the contents change based on the value chosen in the first list. How do I do this?

Answer: Create a contingent validation list and the INDIRECT function.

Process (Excel 2003 and 2007):

Validation lists are very useful tools in Excel - a drop down option allows you to select a value from a pre-defined range of values. But what if you want two lists - the first could be a product category and the second list only showing you products from the category that you select? In this example we'll be using the following values:

D	E	F
Beverages	Cereals	Dairy
Cola	Krispies	Milk
Juice	Oats	Eggs
Bottled Water	Museli	

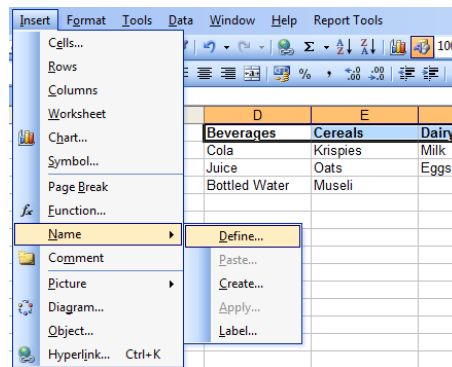
Steps described below relate to the data you see above. Thank you to Mike Perks from Port Elizabeth, South Africa for this Tips & Tricks topic suggestion.

Excel 2003

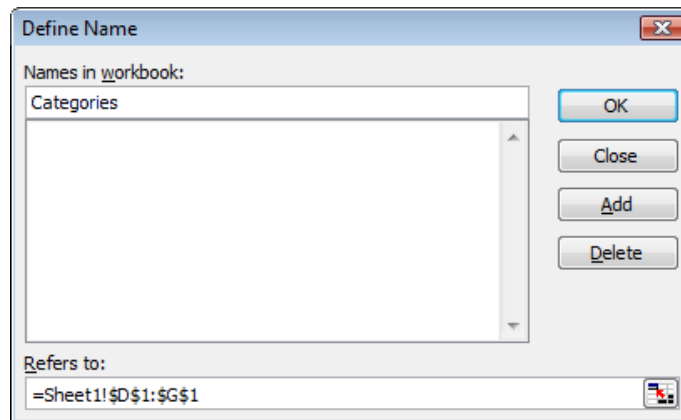
1. Select cells D1 to F1

D	E	F
Beverages	Cereals	Dairy
Cola	Krispies	Milk
Juice	Oats	Eggs
Bottled Water	Museli	

2. From the Menu bar, select **Insert ... Name ... Define**



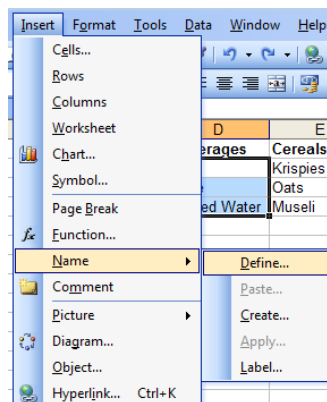
3. In the 'Names in Workbook' field, type in the word **Categories**. Note that in the 'Refers To' box, the cells you highlighted are listed in absolute reference format. Click **OK**



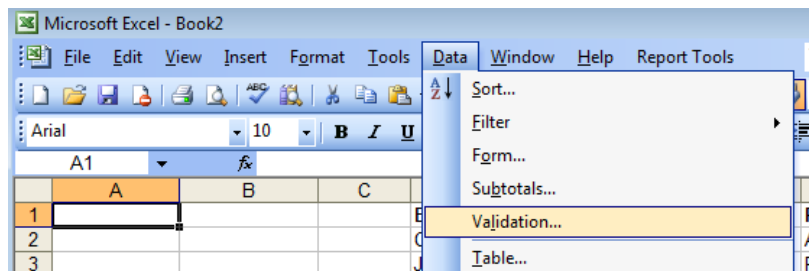
4. Select cells D2 to D4. These are the products that are in the **Beverages** category

D	E	F
Beverages	Cereals	Dairy
Cola	Krispies	Milk
Juice	Oats	Eggs
Bottled Water	Museli	

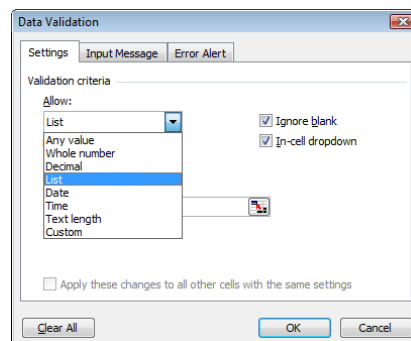
5. From the Menu bar, select **Insert ... Name ... Define**



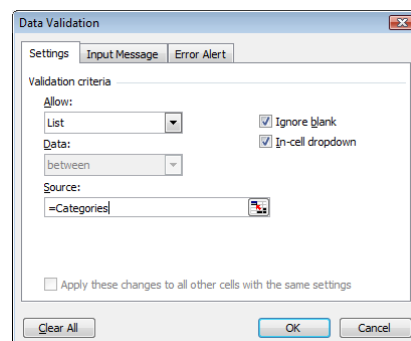
6. In the 'Names in Workbook' field, type in **Beverages** (i.e. the heading name of this category). Click **OK**
7. Repeat this process for each of the categories:
 - a. Cells E2 to E4 will be named **Cereals**
 - b. Cells F2 to F3 will be named **Dairy**
8. Select cell A1, then from the menu bar, select **Data ... Validation**



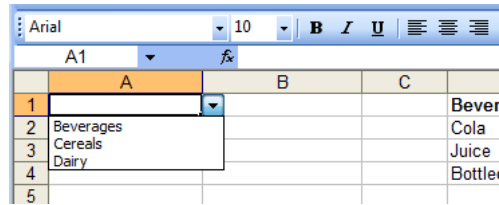
9. In the 'Data Validation' box, make sure you are on the 'Settings' tab. In the 'Allow' field, select **List**



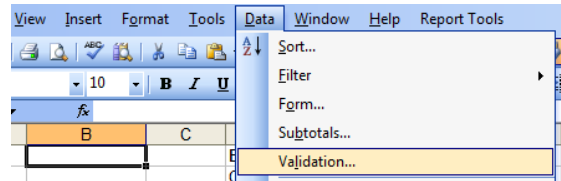
10. In the 'Source' field, type in **=Categories**. This is the named range that will return all category headings. Click **OK**



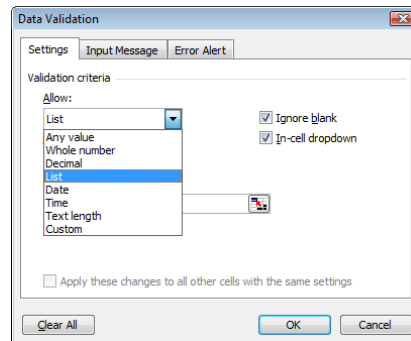
11. Cell A1 will now have a drop down arrow that will allow you to select any of the category headings



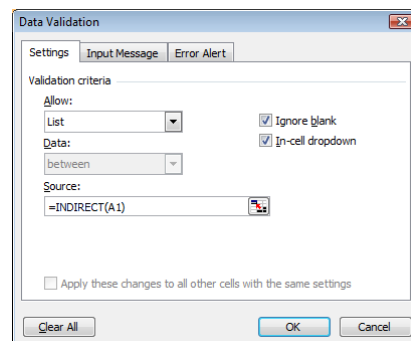
12. Select cell A2, then from the menu bar, select **Data ... Validation**



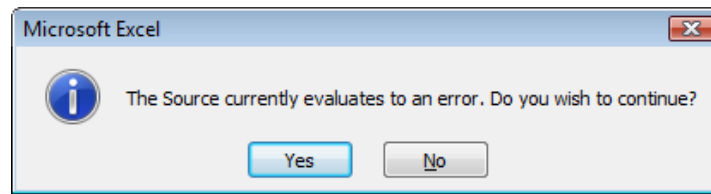
13. In the 'Data Validation' box, make sure you are on the 'Settings' tab. In the 'Allow' field, select List



14. In the 'Source' field, type **=INDIRECT(A1)**. The INDIRECT function will bring back the value of cell A1, which happens to be the name of the named range that you want to use. Click **OK**



15. When you click **OK**, you may receive this error message:



This error will occur if nothing has been selected from the drop down list in cell A1. If you receive this message, simply click **Yes**

16. Cell B1 will now return a list based on the selection made in cell A1

	A	B	C
1	Beverages		
2		Cola	
3		Juice	
4		Bottled Water	
5			

Averaging A Non-Contiguous Range

Question: Is there a way to average a series of non-contiguous cells, excluding any cells that contain zero values?

Answer: Yes, by using the following formula.

	A	B	C	D	E	F	G	H	I	J	K	L
1	Apples	Carrots	Bananas	Potatoes	Peaches	Onions	Pears	Squash	Beans	Grapes	Average Fruit Sales	Average vegetable Sales
2	15	65	75	98	78	85	0	96	65	78	61.5	81.8
3	65	47	69	65	45	25	3	36	32	0	45.5	43.7
4	89	58	0	32	12	45	5	74	98	12	29.5	47.7
5												
6	Average Fruit Sales				(A2+C2+E2+G2+J2) / ((A2<>0)+(C2<>0)+(E2<>0)+(G2<>0)+(J2<>0))							
7												
8	Average Vegetable Sales				(B2+D2+F2+H2+I2) / ((B2<>0)+(D2<>0)+(F2<>0)+(H2<>0)+(I2<>0))							
9												

The evaluation done on each cell will return either a 1 (True) or 0 (False) depending on whether or not the cell is equal to zero. The values are then added together, providing the necessary count of cells to average by for fruit sales.

Formatting Year Values Represented As Decimals To Show Years & Months

Question: I have a year value represented as a decimal (e.g. 3.667 years). How do I change it to represents years and months?

Answer: By using a combination of INT functions and concatenations

Process (Excel 2003 and 2007):

D2 fx =A2/B2			
	A	B	C
1	Amount	Yearly Amount	Years To Repay
2	20,000	3,500	5.714285714
3			
4			Years To Repay
5			
6			
7			

In the example above, a loan of \$20 000 is to be repaid with a yearly repayment amount of \$3 500 required. To know how many years it would take to pay back, simply divide \$20 000 (A1) by \$3 500 (B1) for an answer of 5.714285714 years. How could we convert that to an answer that is represented as years and months, which would be more meaningful? The following steps will use the layout represented above:

1. Select cell D5
2. In cell D5, type =INT(D2) and press *Enter*

D5 fx =INT(D2)			
	A	B	C
1	Amount	Yearly Amount	Years To Repay
2	20,000	3,500	5.714285714
3			
4			Years To Repay
5			5
6			

The INT function rounds a number down to a whole number. So in this instance, the result of INT(D2) is 5

3. With cell D5 still selected, type in =INT((D2-INT(D2))*12) and press *Enter*

D5 fx =INT((D2-INT(D2))*12)			
	A	B	C
1	Amount	Yearly Amount	Years To Repay
2	20,000	3,500	5.714285714
3			
4			Years To Repay
5			8
6			

D2-INT(D2) in the above formula subtracts the integer of the year number (5) from the actual year amount (5.714285714) which leaves the decimal points. The result is then multiplied by 12 to get a value for the correct number of months, which is then also then made an integer, giving the result of 8.

Now that we know we can get the year value and the months value, it is time to combine them with some concatenation

4. With cell D5 still selected, type in `=INT(D2)&" years and "&INT((D2-INT(D2))*12)&" months"` and press *Enter*.

Using the concatenation symbol **&** to combine our examples with the words " years and " and " months", we now have a complete answer (5 years and 8 months)



Date Validation

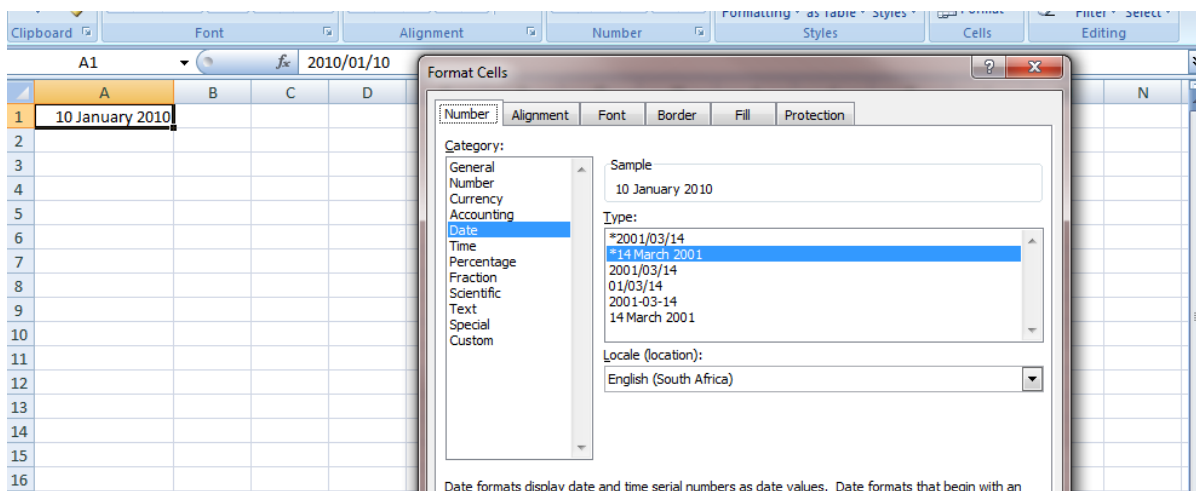
Question: Can I check if a given date is within 90 days of today's date?

Answer: Yes, using a combination of the **TODAY()** function with an **IF()** function

Process (Excel 2003 and 2007):

The **TODAY()** function returns the date as per the system date of the machine, using the YYYY/MM/DD format for the date.

Once in a cell, this date can be used in calculations. The example in this tip and trick starts with the following information in Excel: a date listed in cell A1, with the cell formatted to represent a date in DD-MMMM-YY format.



1. Select cell B2
2. Type in `=TODAY()` and press *Enter*

Clipboard Font Alignment				
B1		fx =TODAY()		
	A	B	C	D
1	10 January 2010	2010/02/14		
2				
3				
4				
5				

3. Select cell C2. Type in `=B2-A1` and press **Enter**
4. Select cell C2. Type in `=(TODAY()-A1)>=90` and press **Enter**. This will return a *FALSE* value, as the result (35) is not greater than or equal to 90

Clipboard Font Alignment				
C1		fx =(TODAY()-A1)>=90		
	A	B	C	D
1	10 January 2010	2010/02/14	FALSE	
2				
3				
4				

5. With cell C2 still selected, type in `=IF(TODAY()-A1>=90,"Yes","No")` and press **Enter**

Clipboard Font Alignment				
C1		fx =IF(TODAY()-A1>=90,"Yes","No")		
	A	B	C	D
1	10 January 2010	2010/02/14	No	
2				
3				

The formula will subtract the entered date from today's date, then compare the value against 90. If the value is greater than or equal 90, the result will be "Yes", otherwise "No"

Quick Way Of Creating A Chart

Question: Is there a way to add a chart to some data without going through the Chart Wizard?

Answer: Yes, using a keyboard shortcut

Process (Excel 2003 and 2007):

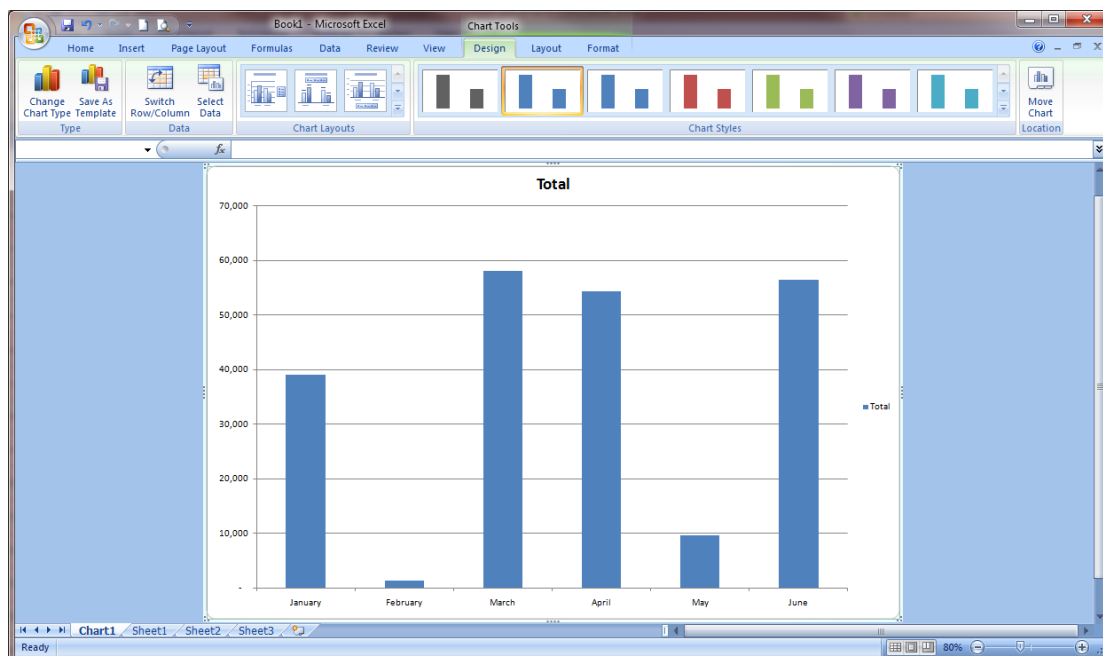
There is a very simple keyboard shortcut that can create a bar chart graph with the push of one button. The example today will use a table containing six months worth of sales figures:

	A	B	C
1	Month	Total	
2	January	39,043	
3	February	1,235	
4	March	58,037	
5	April	54,391	
6	May	9,673	
7	June	56,474	
8			

- Using the table above, select cells A1:B7

	A	B
1	Month	Total
2	January	39,043
3	February	1,235
4	March	58,037
5	April	54,391
6	May	9,673
7	June	56,474

- Press the F11 key



A new chart is automatically added as a sheet, with this new sheet inserted in front of the sheet your data is on. You can further customise your chart by changing the colour and layout options

NB: the chart that is added is based on your default chart options.

Editing Selected Cells On A Protected Worksheet

Question: Would you like to be able to protect a worksheet but unprotect selected cells so they can be edited?

Here is how:

Excel 2007

The cells you are going to "Unlock" are the cells you want to be able to edit.

To Unlock the cells

Select the cell you want to be able to edit (Hold down ctrl to select multiple cells)
From the Home tab, in the Cells group, select the drop down arrow under Format
Deselect "Lock Cell" (so you are now Unlocking the cell)

OR

If you prefer, you can right click on the selected cell/s
Select Format Cells
Select the tab at the top called Protection
De-select the box for Locked
Select OK

Protect the worksheet

From the Review tab, in the Changes group, select Protect Sheet
Enter in the necessary (password etc)

You will now only be able to edit the "Unlocked" cells

Formula To Find Duplicate Values In A Data Range

Question: I have a list of inventory in my worksheet, is there a way of finding duplicate cells without having to manually sort and check each cell?

Answer: You can find duplicates using the COUNTIF function.

Here is how you can do it:

=COUNTIF(\$A:\$A,\$A3)>1

=COUNTIF(column with duplicates, first cell in column)>1

The CountIF will return a Yes or a No to a question: the question in this instance is whether the number of times the value in cell A3 is counted is greater than 1. If it is, then it'll return Yes, otherwise False.



Switching Between Relative, Absolute, And Mixed References

When making cells fixed in a formula, if you press **F4** twice, it will make the **row** fixed. If you press **F4** three times, it will just make the **column** fixed.



Generating Of Random Numbers For Testing Of Formulas

Question: I need to create some random numbers for testing of formulas. How can I quickly do this in Excel?

Answer: One way to do this is using the RANDBETWEEN function

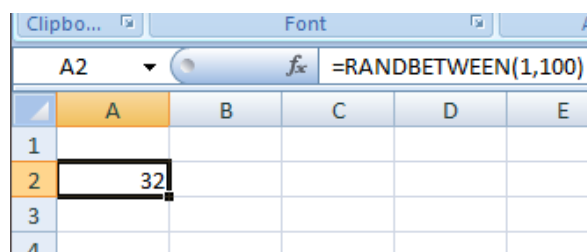
Process (Excel 2003 and 2007):

The RANDBETWEEN function allows you to generate a random, whole number inside of a range. The syntax is:

=RANDBETWEEN(bottom,top)

The **bottom** parameter is the lowest number in the range you want to use, and **top** is the highest number in the range.

1. Select cell A2 and type =RANDBETWEEN(1,100) and press Enter



When you press **Enter**, a random whole number between 1 and 100 is generated (in this instance, the number 32 is returned)

2. Move your mouse to the bottom left hand corner of cell A2, click and hold on the **AutoFill Handle**, and drag it down to cell A7

A2		fx		=RANDBETWEEN(1,100)	
	A	B	C	D	E
1					
2	32				
3					
4					
5					
6					
7					

A2		fx		=RANDBETWEEN(1,100)	
	A	B	C	D	E
1					
2	78				
3	72				
4	100				
5	58				
6	83				
7	33				
8					

You'll note that the moment you release the **AutoFill Handle**, all cells generated a random number, including cell A2 - it has changed from 32 to 78. **RANDBETWEEN** will generate a new number each time you press **Enter**, or even when you use the UNDO or REDO functions (as long as you're not altering any of the **RANDBETWEEN** cells)

3. Select cell B2. Type in **=A2*100** and press **Enter**

B2		fx		=A2*100	
	A	B	C	D	E
1					
2	24	2400			
3	73				
4	92				
5	77				
6	46				
7	26				

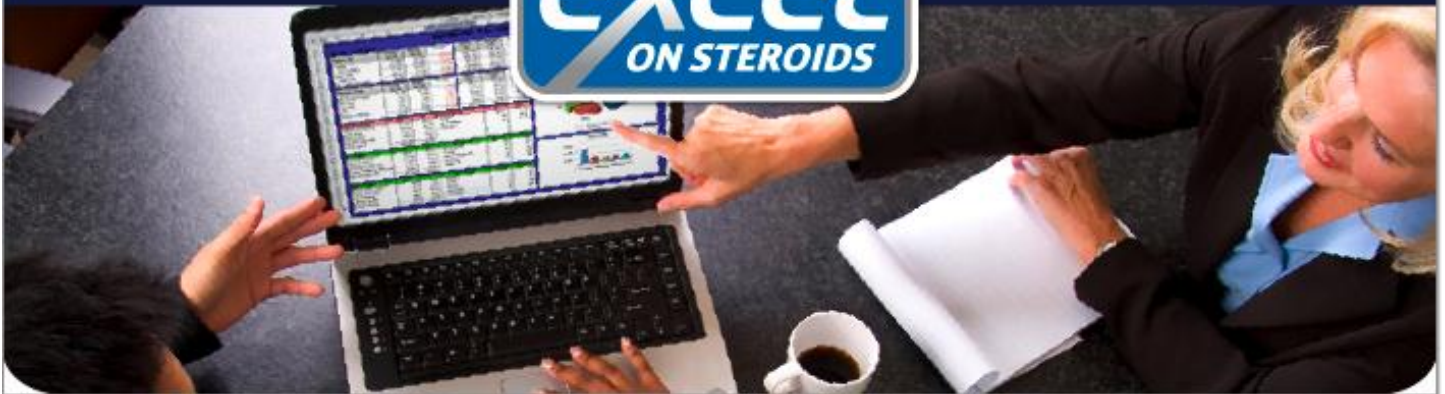
Again, when you hit **Enter**, you'll notice that all values in cells A2 to A7 change to a new, random value

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13

Quick Way Of Identifying Column Numbers For Use In A Vlookup Formula

Question: I use formulas like VLOOKUP regularly. Is there a way to quickly work out what number a particular column is for these formulas?

Answer: Yes, by changing an Excel option.

Process (Excel 2003 and 2007):

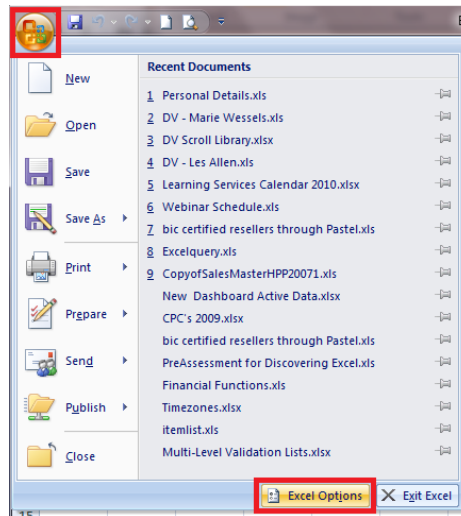
Formulas such as VLOOKUP and INDEX bring information from one table to another, and they require you to identify which column of information you would like to bring back.

=VLOOKUP(lookup_value,table_array,COL_INDEX_NUM,[range_lookup])
=INDEX(array,ROW_NUM,[column_num])

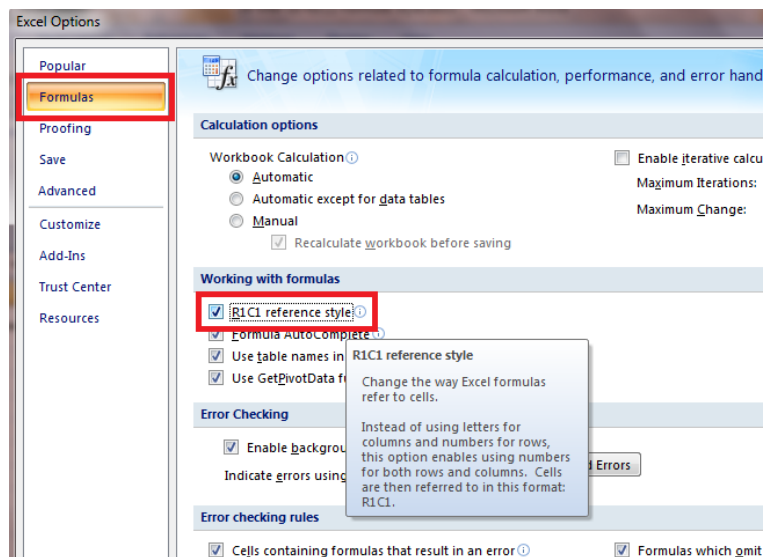
The **COL_INDEX_NUM** and the **ROW_NUM** in the above formulas will give you the number of the column rather than the letter. When you are dealing with a large number of columns, it is not always easy to see what number this column might be. This can be done by changing the R1C1 setting.

Method: Excel 2007

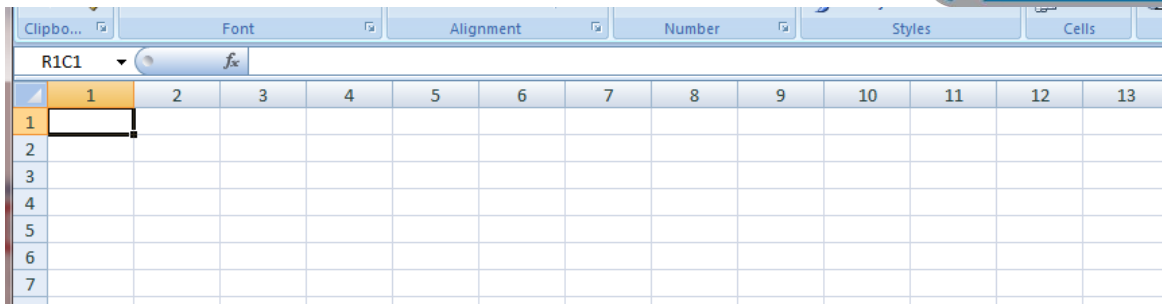
1. Click on the **MS Office Button** in the top left corner of Excel, then select Excel options



2. In the left hand pane, select the **Formulas** option, then click on the box next to R1C1 reference style



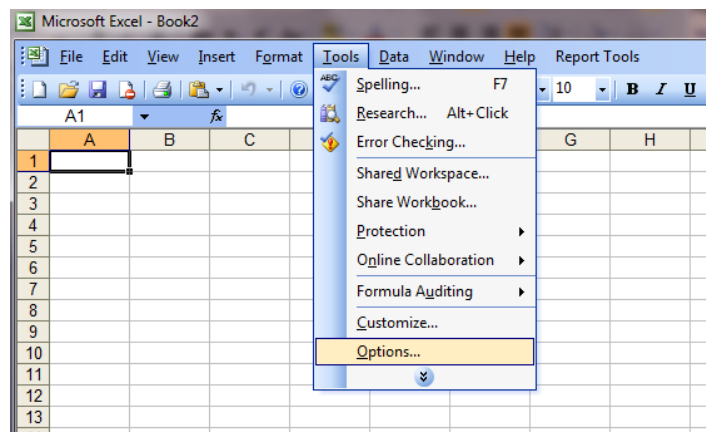
This setting changes the column headings in Excel to numbers rather than letters



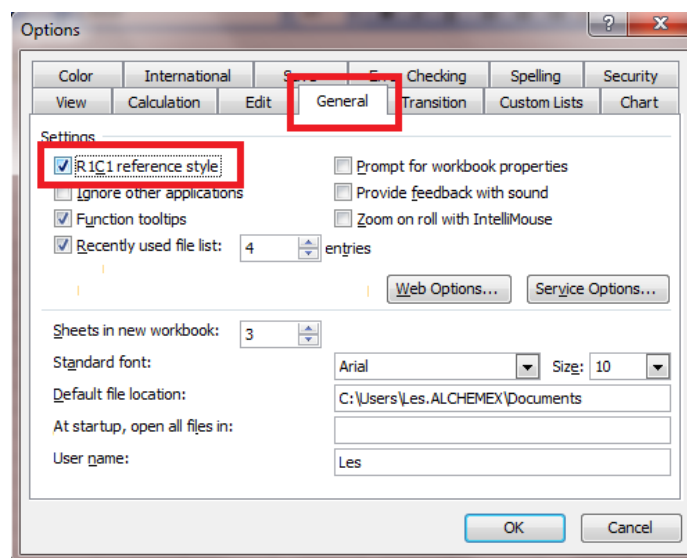
This will allow you to easily identify how many columns are in the range for formulas such as VLOOKUP

Method: Excel 2003

1. On the Menu Toolbar, select Tools, then Options



2. Select the General tab, then place a tick in the R1C1 reference style



The column headings are now changed to number values rather than letters

	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									

NB: make sure that you change this setting back once you have finished building the formula



Using The Text Box To Enter Data

Question: I want to put a lot of information into my spreadsheet, but I don't want it to change the height of the entire row. How can I enter text without changing the underlying cell or cells around it?

Answer: By using a text box.

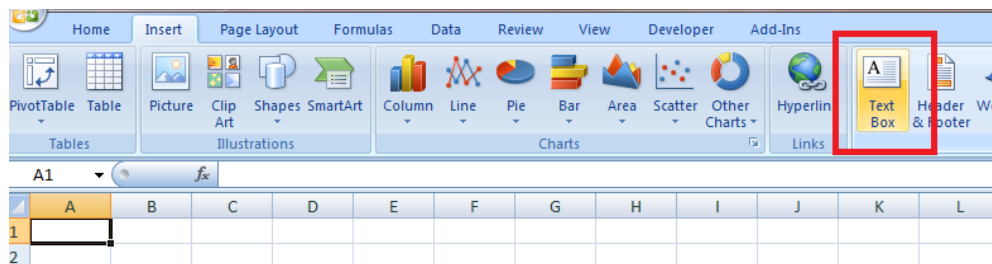
Process (Excel 2003 and 2007):

While you can put a lot of information into one cell in Excel, if you want to see that information all in one view can affect the width of the column and the height of the row; this may not be good as it can alter how the rest of the sheet is shown and make it unmanageable.

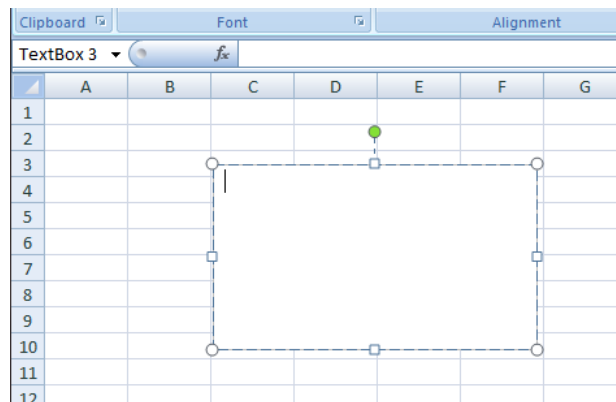
An alternative to typing into a cell is using a **Text Box**. Here are a couple of tricks when using text boxes that can help make them easy to use.

Excel 2007

1. Select the **Insert Tab** and then click on the **Text Box** button

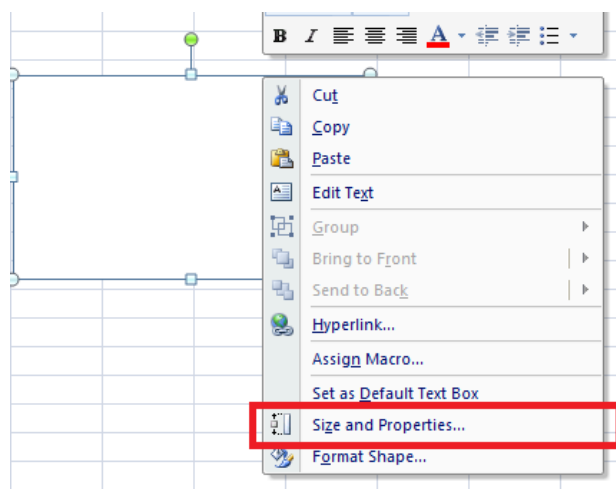


2. Your cursor will now resemble an inverted "t". Click and drag across a range of cells

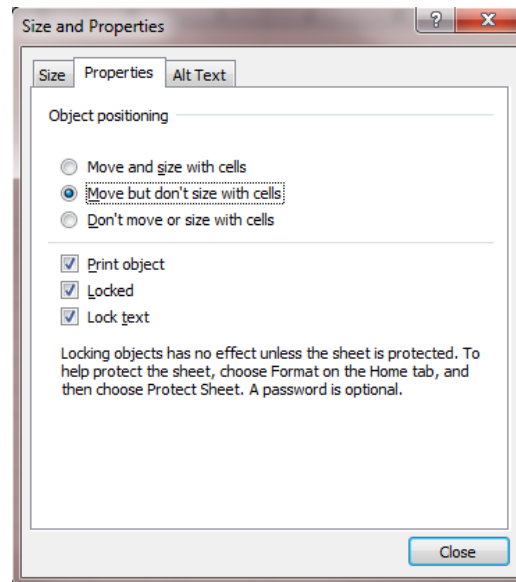


You now have a text box with a flashing cursor in it

3. Right click on the border of the text box and select **Size And Properties**

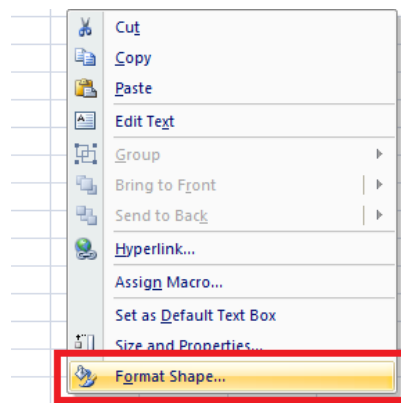


4. Select the **Properties** tab, then select **Move** but don't size with cells, then click **Close**

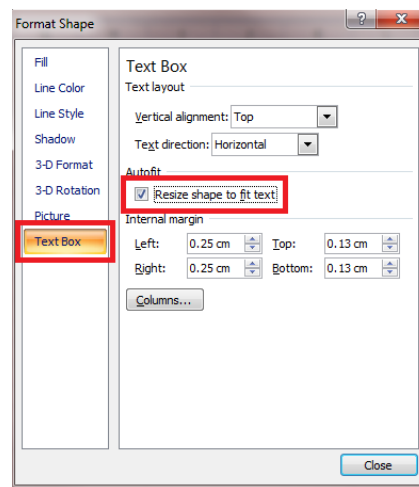


This means that your text box will remain the same size and won't expand when more rows are added underneath the box.

5. Right click on the text box border and select **Format Shape ...**



6. In the left hand menu, select **Text Box**, place a tick in the **Resize shape to fit text** field and then click **Close**

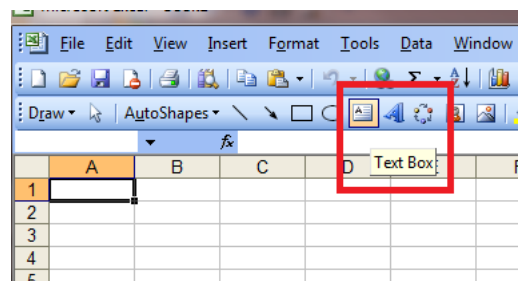


When these two options are set, your text box will expand depend on the amount of text you put in, but will not shift based on other cells being inserted or changing in size.

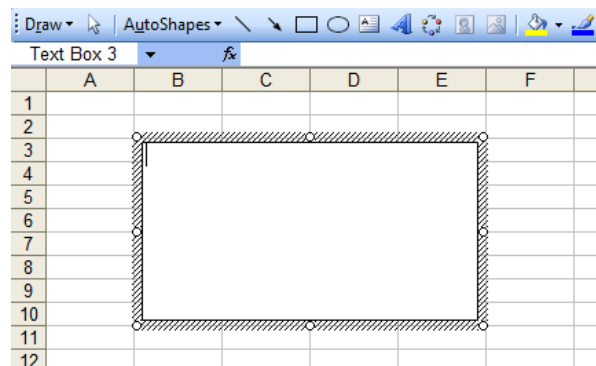
Excel 2003

In order to draw a text box in Excel 2003, you must have the **Drawing** toolbar available. To see it, select **View ... Toolbars ... Drawing** from the **Menu** bar.

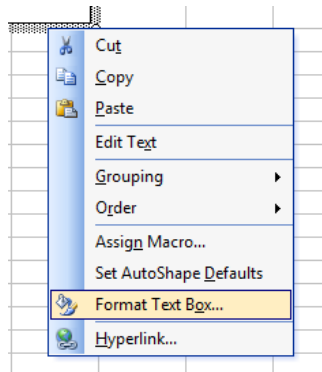
1. From the **Drawing** toolbar, click the **Text Box** button



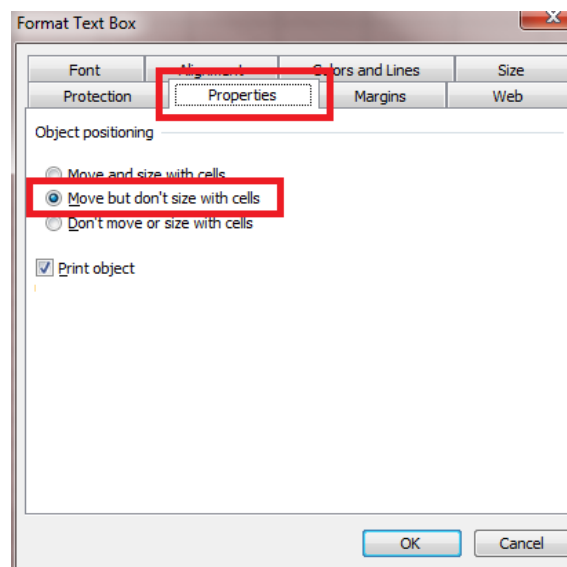
2. Your cursor will now resemble an inverted “t”. Click and drag across a range of cells



3. Right click on the Format Text Box



4. Select the **Properties** tab and select the **Move but don't size with cells** radio button



5. Select the **Alignment** tab, place a tick the **Automatic size** box, then click **OK**

When these two options are set, your text box will expand depend on the amount of text you put in, but will not shift based on other cells being inserted or changing in size

Converting Travel Distance Values Into One Unit

Question: I have people entering in travel distances onto a spreadsheet, but some people put in miles values and some put in kilometre values. How can I make sure that all values are in kilometres?

Answer: By using the CONVERT function

Process (Excel 2003 and 2007):

Firstly, an advisement: you will never cover every possible way that someone might enter the value “20 km”. It could be entered as “20 kilos”, “20km”, “20 km”, “20 kilometres” and every possible spelling mistake of those. The best option in this instance would be to have the number entered in one column, say, Column A, and then using a Data Validation list in Column B to select either “mi” or “km”, limiting how users enter the information and giving you something to work with (hoping they don’t type in “twenty” instead of “20”)

If you do manage to have people entering in information in a consistent was e.g. “20 mi” or “20 km”, here’s how you could do it. We’re going to use a table with six sample distances:

	A	B	C	D	E
1	15 mi				
2	7 mi				
3	8 km				
4	8.2 mi				
5	19.5 km				
6	18.7 mi				
7					
8					
9					
10					
11					

1. Select cell **B1**. Type in `=RIGHT(A1,2)` and press **Enter**. This will tell you if the value in cell A1 is in miles or kilometres

	A	B	C	D	E
1	15 mi	mi			
2	7 mi				
3	8 km				

2. Select cell **C1**. Type in `=LEFT(A1,LEN(A1)-3)` and press **Enter**

C1		fx		=LEFT(A1,LEN(A1)-3)	
	A	B	C	D	E
1	15 mi	mi	15		
2	7 mi				
3	8 km				

The **LEN()** function returns the length of cell A1. By subtracting 3 from this amount (i.e. the letters and the space), you are left with the total number of characters for the value. This will mean you'll capture all numbers, regardless of how big and how many decimal places there may be.

3. Select cell **D1**. Type in **=CONVERT(C1,"mi","km")** and press **Enter**

D1		fx		=CONVERT(C1,"mi","km")	
	A	B	C	D	E
1	15 mi	mi	15	24.14016	
2	7 mi				
3	8 km				

The **CONVERT** function changes the value from a miles value to a kilometres value - the first option after the target cell (**C1**) is the value to convert from, the second is the value to convert to. There are other conversion options that include weight and mass, distances, liquid measures and temperatures. Search in Excel Help for the **CONVERT** function to see a full list.

4. Select cell **E1**. Type in **=IF(B1="mi",D1,C1)** and press **Enter**

E1		fx		=IF(B1="mi",D1,C1)	
	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi				
3	8 km				

The formula will check to see whether this is a "mi" value and if so, return the kilometre value in **D1**, otherwise it will pull the original value from **C1**

5. Highlight cells **B1:E1**

B1		fx		=RIGHT(A1,2)	
	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi				
3	8 km				
4	8.2 mi				
5	19.5 km				
6	18.7 mi				

6. Use the **AutoFill Handle** and drag down to cell **E6**

E1		=IF(B1="mi",D1,C1)			
	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi				
3	8 km				
4	8.2 mi				
5	19.5 km				
6	18.7 mi				

This will fill all of the formulas down to row 6

E1		=IF(B1="mi",D1,C1)			
	A	B	C	D	E
1	15 mi	mi	15	24.14016	24.14016
2	7 mi	mi	7	11.26541	11.26541
3	8 km	km	8	12.87475	8
4	8.2 mi	mi	8.2	13.19662	13.19662
5	19.5 km	km	19.5	31.38221	19.5
6	18.7 mi	mi	18.7	30.09473	30.09473

For those who like to conserve space, the above could be accomplished in one, nested formula:

=IF(RIGHT(A1,2)="mi",CONVERT(LEFT(A1,LEN(A1)-3),"mi","km"),LEFT(A1,LEN(A1)-3))

NB: to use the CONVERT function in Excel 2003, you will need to have the Analysis ToolPak installed. This can be done by using the MS Office installation CD, customising the MS Excel installation option and ticking the box for the Analysis ToolPak. The function comes standard with Excel 2007.

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Limiting What Is Imported Into Excel

Question: When I import a text file into Excel, I don't want to bring through every column of information. How can I limit what is imported?

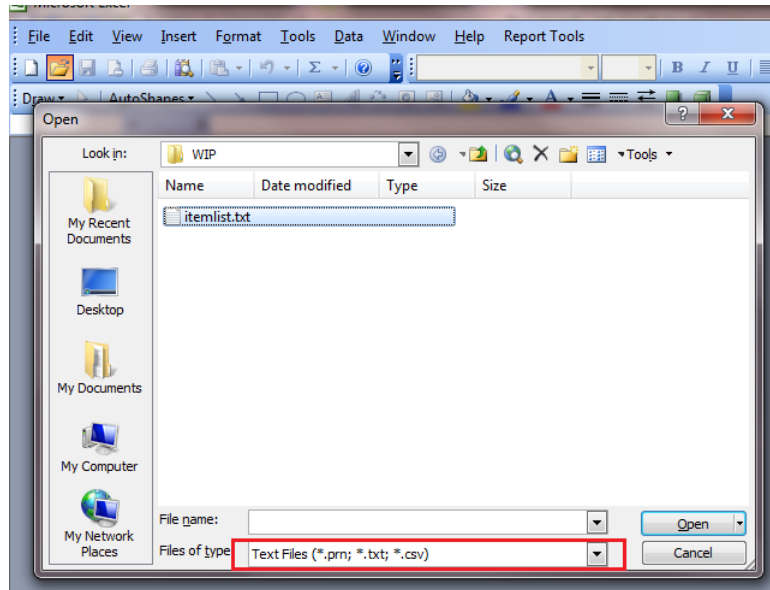
Answer: By changing your Text Import Wizard options

Process (Excel 2003 and 2007):

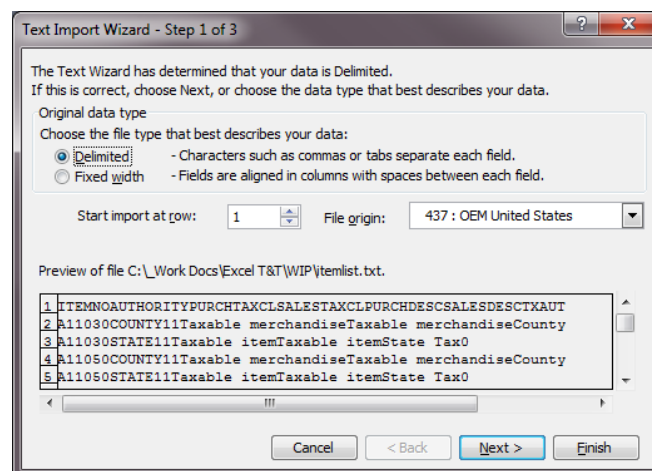
Some files that we use in Excel are saved in formats other than .XLS or .XLSX, such as .CSV (comma separated value) or .TXT (text) formats. This often happens when information is being exported from a database, and you would now like to modify it in Excel. Excel can open these files and uses a **Text Import Wizard** to bring the data in.

Sometimes, however, there is more information than you may require in file. How can you stop the **Text Import Wizard** from bring through unnecessary information? By changing some of the import options

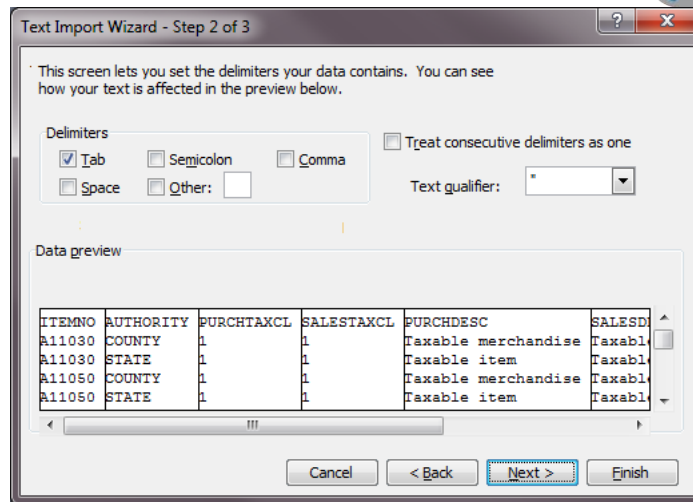
This example assumes that you have a text file with data that you wish to bring in, and you are about to open the file (**NB:** you will have to change the **Files of type:** option to select *.txt and *.csv files):



1. Click the **Open** button. You will now see the **Text Import Wizard** screen

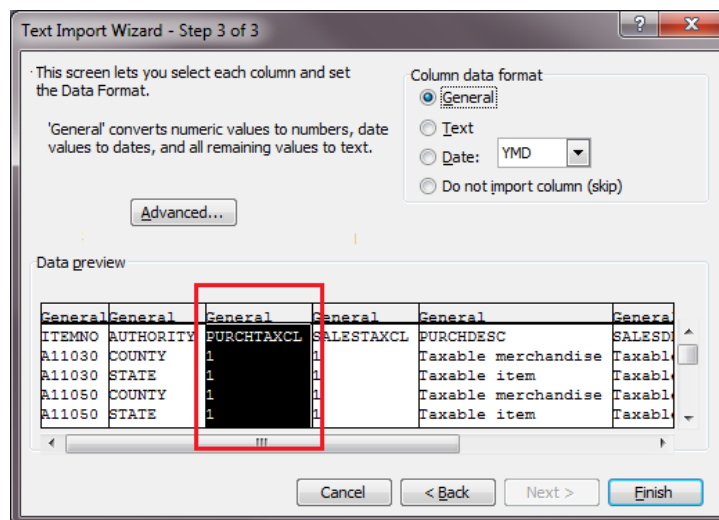


2. Your file will either save information in columns that are separated by characters (such as Tabs or commas) or where there are set number of characters in the column (fixed width). Choose the type and then click **Next**
3. Step 2 of the process, if you chose '**Delimited**' in the first screen, will let you choose the type of character that is used to separate the columns

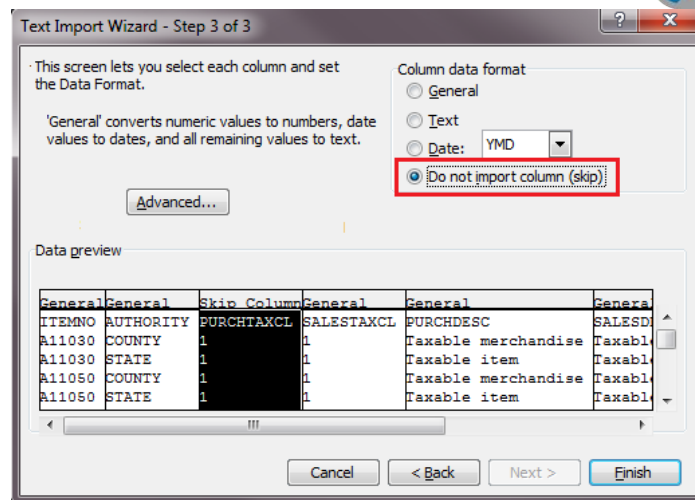


You can now see that the raw information in the bottom area is divided into columns and is much more easily read. Click the **Next** button

4. Step 3 allows us to choose which columns of information you do not wish to import. For this example I do not wish to import the columns relating to **PURCHASE** information (columns three and five). In the **Data Preview** area at the bottom of the **Wizard**, I select the **PURCHTAXCL** column

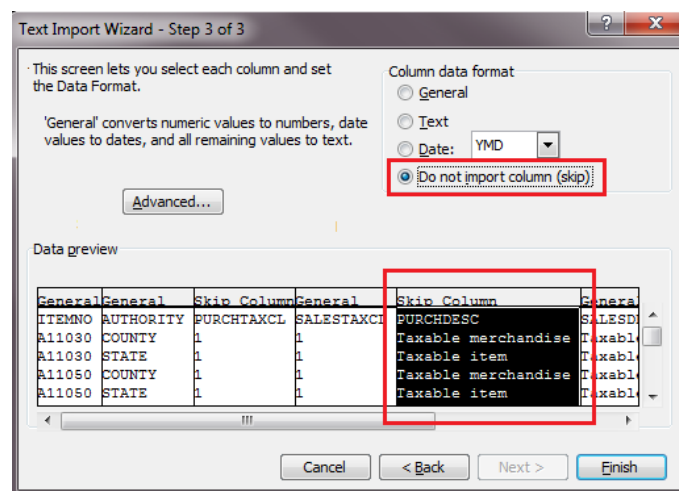


5. In the upper, right hand corner, I select the 'Do not import column (skip)' radio button



Note that the column heading in gray has changed from 'General' to 'Skip Column'. Each column can be given its own instructions and settings

6. In the **Data Preview** window, select the fifth column (**PURCHDESC**), then select the 'Do not import column (skip)' radio button



7. Click **Finish**. The file will be opened with the remaining information structured in columns. The two **Purchases** related columns have not been included

Microsoft Excel - itemlist.txt

File Edit View Insert Format Tools Data Window Help Report Tools

Draw AutoShapes

	A	B	C	D	E	F
1	ITEMNO	AUTHORITY	SALESTAXCL	SALESDISC	TXAUTHDESC	
2	A11030	COUNTY	1	Taxable merchandise	County Tax	
3	A11030	STATE	1	Taxable item	State Tax	
4	A11050	COUNTY	1	Taxable merchandise	County Tax	
5	A11050	STATE	1	Taxable item	State Tax	
6	A13100	COUNTY	1	Taxable merchandise	County Tax	
7	A13100	STATE	1	Taxable item	State Tax	
8	A13200	COUNTY	1	Taxable merchandise	County Tax	
9	A13200	STATE	1	Taxable item	State Tax	
10	A14000	COUNTY	1	Taxable merchandise	County Tax	
11	A14000	STATE	1	Taxable item	State Tax	
12	A14010	COUNTY	1	Taxable merchandise	County Tax	
13	A14010	STATE	1	Taxable item	State Tax	
14	A14500	COUNTY	1	Taxable merchandise	County Tax	
15	A14500	STATE	1	Taxable item	State Tax	
16	A14600	COUNTY	1	Taxable merchandise	County Tax	
17	A14600	STATE	1	Taxable item	State Tax	
18	A14700	COUNTY	1	Taxable merchandise	County Tax	
19	A14700	STATE	1	Taxable item	State Tax	
20	A15000	COUNTY	1	Taxable merchandise	County Tax	
21	A15000	STATE	1	Taxable item	State Tax	

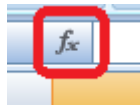
A Quick Way To Display The Arguments Of A Formula

Question: When I start typing a formula, such as an IF formula, I forget what the required information might be for the formula. Is there any way to quickly see what's required for my formula?

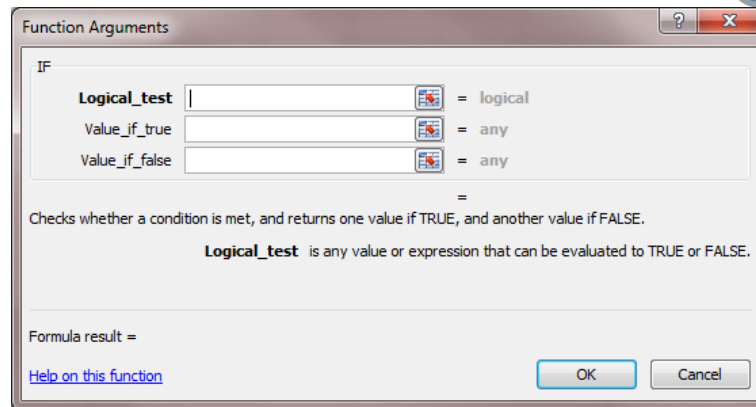
Answer: Yes, by using a keyboard shortcut.

Process (Excel 2003 and 2007):

After using a formula in Excel a few times, you can become familiar enough with the syntax (i.e. the way the formula is structured) that you can type the formula directly into a cell. A good tip while you're becoming more adept at using this method is to use the **Fx** button, which is to the immediate left of the formula bar (shown below):



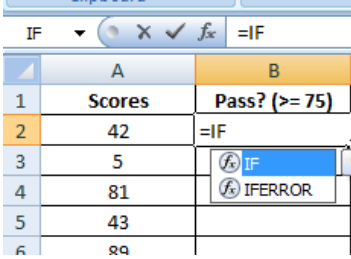
This will bring up a window that allows you to select the function you'd like to use, then provides a handy interface which lets you insert the values needed to make the formula work. Below is a picture of the 'Function Arguments' window for the IF function:



This window makes it very easy to add the parameters needed, and Excel will build the formula in the background. Occasionally, when we are hand typing a formula, we may get stuck on the structure of the formula, and seeing this window would be a great help. Here's how to bring it up with one, simple, keyboard shortcut. We'll be using a table of test scores, then setting up an IF function to check to see whether the score is a *pass* or *fail*:

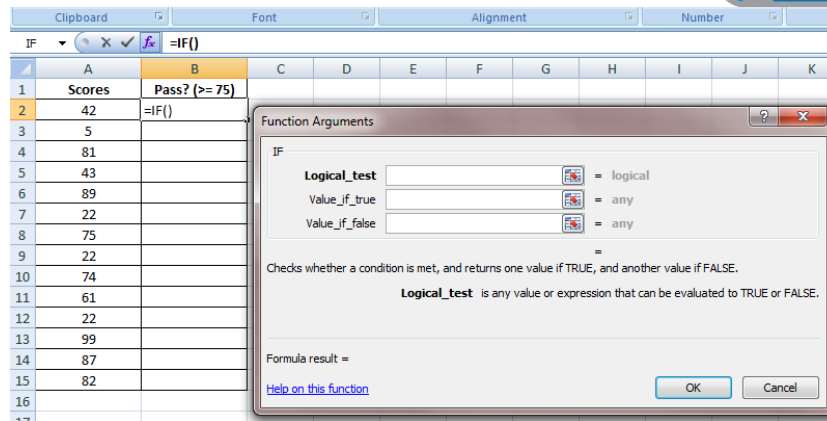
	A	B
1	Scores	Pass? (>= 75)
2	42	
3	5	
4	81	
5	43	
6	89	
7	22	
8	75	
9	22	
10	74	
11	61	
12	22	
13	99	
14	87	
15	82	

1. Select cell B2 and type in =IF. Do not press Enter at this time



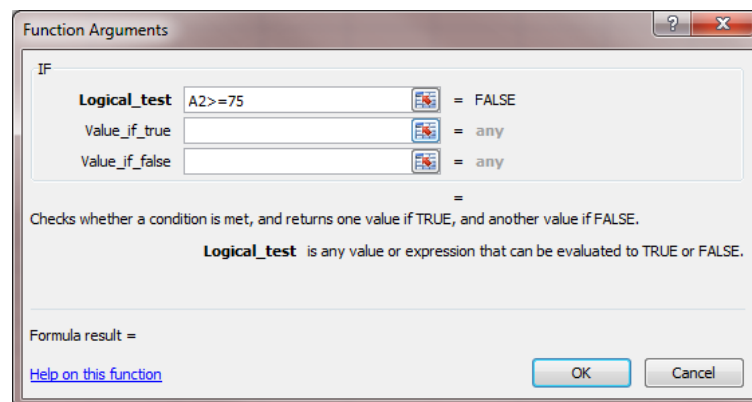
	A	B
1	Scores	Pass? (>= 75)
2	42	=IF
3	5	
4	81	
5	43	
6	89	

2. Press CTRL + A

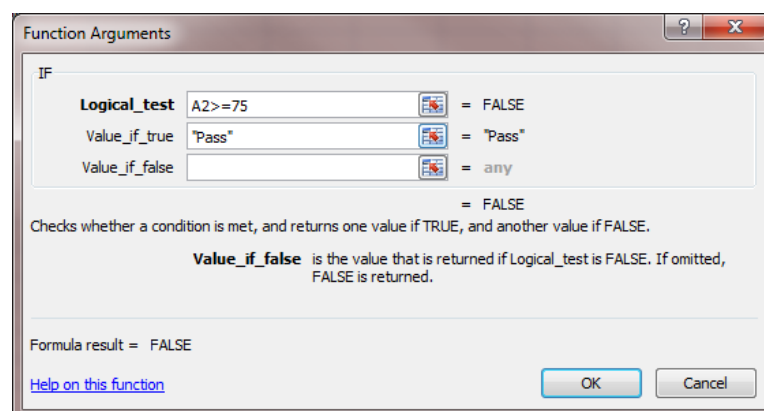


This shortcut will automatically bring up the 'Function Arguments' window for the formula you started typing, in this instance the IF function

3. In the **Logical_test** box, type in **A2>=75** and press the **Tab** key, which shifts you to the next field. This formula will check to see whether the score is equal to or greater than 74



4. In the **Value_if_true** field, type in the word **Pass** and then press the **Tab** key. If the number in cell **A2** is indeed equal to or greater than 75, this is the value that will be returned. You'll note that the word **Pass** is automatically put inside quotation marks to show that the response should be in text format.



5. In the **Value_if_false** field, type in the word **Fail**, then click the **OK** button

Function Arguments

IF

Logical_test: A2>=75 = FALSE

Value_if_true: "Pass" = "Pass"

Value_if_false: Fail =

Checks whether a condition is met, and returns one value if TRUE, and another value if FALSE.

Value_if_false is the value that is returned if Logical_test is FALSE. If omitted, FALSE is returned.

Formula result =

[Help on this function](#)

OK Cancel

6. Cell **B2** now returns the result **Fail**, as cell **A2** is 42. You can now double-click on the **AutoFill** handle (highlighted below)...

B2			=IF(A2>=75,"Pass","Fail")
	A	B	
1	Scores	Pass? (>= 75)	
2	42	Fail	
3	5		

... which will copy this formula down to cell **B15**

	A	B
1	Scores	Pass? (>= 75)
2	42	Fail
3	5	Fail
4	81	Pass
5	43	Fail
6	89	Pass
7	22	Fail
8	75	Pass
9	22	Fail
10	74	Fail
11	61	Fail
12	22	Fail
13	99	Pass
14	87	Pass
15	82	Pass



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TRUE BUSINESS ALCHEMY IS TURNING VAST AMOUNTS OF RAW DATA INTO EASILY ACCESSIBLE, CUSTOMIZABLE REPORTS FOR DYNAMIC DECISION-MAKING.

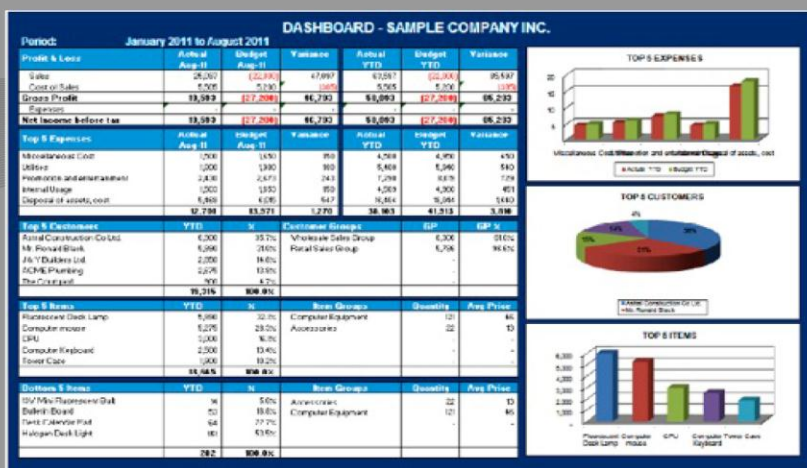
ALCHEMEX is a leading developer, enabler and support-provider of affordable Excel-based Business Intelligence software for small to medium enterprises worldwide.

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- Consolidating data from multiple companies, divisions and databases
- Quickly identifying trends and making proactive, informed decisions



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BUSINESS INTELLIGENCE. SIMPLY.

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 **Softline VIP**
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 **sybiz**

ALCHEMEX also provides packaged solutions with pre-formatted Excel report templates for:

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MYOB

sage ERP X3

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"We use Alchemex products extensively in our business. I believe that being able to obtain a 'snapshot view' of your business is critical in today's business environment when there is so often just too much information floating about. Managers need to dedicate their skills to managing - not sifting through endless reports trying to make sense of heaps of information. Alchemex does this neatly and efficiently - with no fuss at all and delivers this information "on demand" and through Excel. What more could you ask for?"

Steven Cohen, Managing Director, Pastel Software



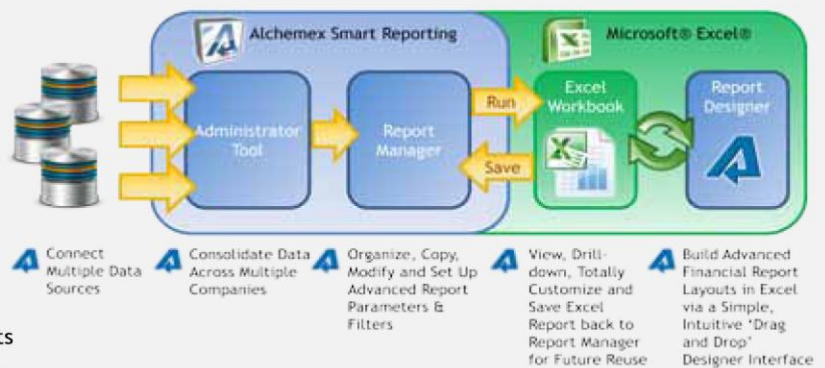
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SMART REPORTING

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- Get up and running in no time with familiar Excel-based reports
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- Drill down to detailed ledger transactions on the fly
- Consolidate data from multiple sources for a complete graphical overview of your business
- Easily adapt reports for your custom needs
- Rapidly design your own Financial Reports in an intuitive 'Drag and Drop' manner
- Get greater insight into data for better, faster decision-making



SMART REPORTING ADD-ONS

Extend your Business Intelligence solution according to your needs.

ANALYTICS

- Undertake high speed, multi-dimensional analysis of large volumes of transactional data across your business
- Use OLAP technology cost-effectively and easily through the Excel interface and pre-defined cubes
- Deliver summarized information for management that goes beyond dashboards or operational reports

WEB REPORTING

- Access secure, accurate reports on the move, anywhere in the world
- Get hassle-free reporting straight from your internet browser
- Execute and distribute authenticated real-time reports across intranets or the internet





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Keyboard Shortcut To Select An Entire Table In A Spreadsheet

Question: Is there a quick way to select an entire table in a spreadsheet?

Answer: Yes, using keyboard shortcuts

Process (Excel 2003 and 2007):

When you want to apply settings to a range of information, or even selecting the range as a source for a chart or pivot table, people generally highlight the entire table of information with their mouse.

	A	B	C	D	E	F	G	H
1	Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	16	480
3	East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	30	2128
4	East Coast	Peters. K	Grains/Cereals	Tunnbröd	2006/01/02	60	7	432
5	East Coast	Bonders. P	Confections	Pavlova	2006/01/03	21	14	292
6	East Coast	Newson. L	Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	40	11	448
7	East Coast	Lavin. T	Seafood	Boston Crab Meat	2006/01/07	2	15	29
8	East Coast	Perks. M	Seafood	Inlagd Sill	2006/01/07	5	15	76
9	East Coast	Anderson. P	Beverages	Chai	2006/01/07	10	14	144
10	East Coast	Johnson. A	Dairy Products	Gudbrandsdalsost	2006/01/07	15	29	432
11	East Coast	Peters. K	Dairy Products	Queso Cabrales	2006/01/07	30	17	504
12	East Coast	Bonders. P	Beverages	Chai	2006/01/14	24	14	346
13	East Coast	Newson. L	Confections	Teatime Chocolate Biscuits	2006/01/16	20	7	146
14	East Coast	Lavin. T	Condiments	Original Frankfurter grüne Soße	2006/01/16	35	10	364
15	East Coast	Perks. M	Beverages	Côte de Blaye	2006/01/16	50	211	10540
16	East Coast	Anderson. P	Confections	Teatime Chocolate Biscuits	2006/01/21	4	7	29
17	East Coast	Johnson. A	Seafood	Röd Kaviar	2006/01/21	20	12	240
18	East Coast	Peters. K	Confections	Gumbär Gummibärchen	2006/01/22	2	25	50
19	East Coast	Bonders. P	Dairy Products	Gorgonzola Telino	2006/01/23	14	10	140
20	East Coast	Newson. L	Meat/Poultry	Pâté chinois	2006/01/24	10	19	192
21	East Coast	Lavin. T	Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	30	912
22	East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	6	236
23	East Coast	Anderson. P	Grains/Cereals	Gustafs Knäckebröd	2006/02/04	12	17	202

In the graphic above, people would typically select cell A1, then while holding their left mouse button, drag down to cell H22. This tip will cover two very quick methods that will save you time when selecting large amounts of data

Method 1:

1. Select any cell in the range of data to be used
2. Press **CTRL + ***. NB: if you do not have a keypad on the right hand side of your keyboard, you will need to press **CTRL + SHIFT + 8** as the * on the number 8 key can only be accessed by using the **SHIFT** key.

This will select all of the data in the table, finishing its selection when it reaches the first empty row and first empty column.

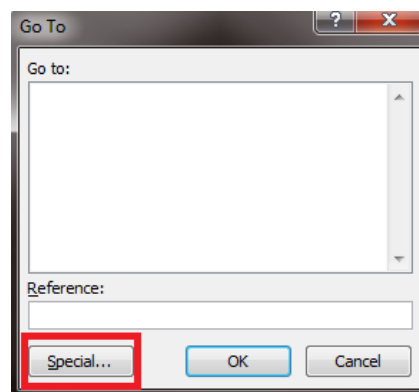
Method 2:

1. Select any cell in the range of data to be used

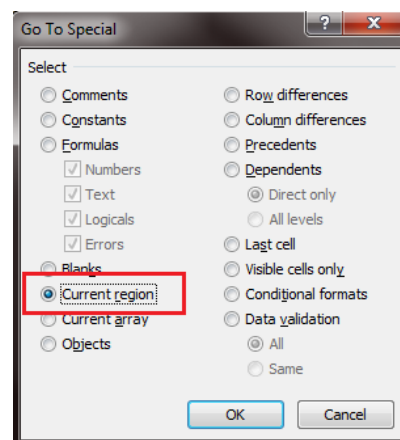
- Press the F5 key. This will bring up the Go To window

	A	B	C	D	E	F	G	H
1	Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	16	480
3	East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	30	2128
4	East Coast	Peters. K	Grains/Cereals	Gnocchi di nonna Alice	2006/01/02	60	7	432
5	East Coast	Bonders. P	Confections	Maxilaku	2006/01/03	21	14	292
6	East Coast	Newson. L	Grains/Cereals	Gnocchi di nonna Alice	2006/01/03	40	11	448
7	East Coast	Lavin. T	Seafood	Seafood	2006/01/07	2	15	29
8	East Coast	Perks. M	Seafood	Seafood	2006/01/07	5	15	76
9	East Coast	Anderson. P	Beverages	Beverages	2006/01/07	10	14	144
10	East Coast	Johnson. A	Dairy	Dairy	2006/01/07	15	29	432
11	East Coast	Peters. K	Dairy	Dairy	2006/01/07	30	17	504
12	East Coast	Bonders. P	Beverages	Beverages	2006/01/14	24	14	346
13	East Coast	Newson. L	Confections	Maxilaku	2006/01/16	20	7	146
14	East Coast	Lavin. T	Confections	Maxilaku	2006/01/16	35	10	364
15	East Coast	Perks. M	Beverages	Beverages	2006/01/16	50	211	10540
16	East Coast	Anderson. P	Confections	Maxilaku	2006/01/21	4	7	29
17	East Coast	Johnson. A	Seafood	Seafood	2006/01/21	20	12	240
18	East Coast	Peters. K	Confections	Maxilaku	2006/01/22	2	25	50
19	East Coast	Bonders. P	Dairy	Dairy	2006/01/23	14	10	140
20	East Coast	Newson. L	Meat/Poultry	Meat/Poultry	2006/01/24	10	19	192
21	East Coast	Lavin. T	Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	30	912
22	East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	6	236
23	East Coast	Anderson. P	Grains/Cereals	Gustaf's Knäckebröd	2006/02/04	12	17	202
24								

- Click on the Special... button in the bottom left hand corner



- In the Select window that appears, click on the Current region radio button, then click OK



The entire region of data is now selected

	A	B	C	D	E	F	G	H
1	Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	16	480
3	East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	30	2128
4	East Coast	Peters. K	Grains/Cereals	Tunnbröd	2006/01/02	60	7	432
5	East Coast	Bonders. P	Confections	Pavlova	2006/01/03	21	14	292
6	East Coast	Newson. L	Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	40	11	448
7	East Coast	Lavin. T	Seafood	Boston Crab Meat	2006/01/07	2	15	29
8	East Coast	Perks. M	Seafood	Inlagd Sill	2006/01/07	5	15	76
9	East Coast	Anderson. P	Beverages	Chai	2006/01/07	10	14	144
10	East Coast	Johnson. A	Dairy Products	Gudbrandsdalsost	2006/01/07	15	29	432
11	East Coast	Peters. K	Dairy Products	Queso Cabrales	2006/01/07	30	17	504
12	East Coast	Bonders. P	Beverages	Chai	2006/01/14	24	14	346
13	East Coast	Newson. L	Confections	Teatime Chocolate Biscuits	2006/01/16	20	7	146
14	East Coast	Lavin. T	Condiments	Original Frankfurter grüne Soße	2006/01/16	35	10	364
15	East Coast	Perks. M	Beverages	Côte de Blaye	2006/01/16	50	211	10540
16	East Coast	Anderson. P	Confections	Teatime Chocolate Biscuits	2006/01/21	4	7	29
17	East Coast	Johnson. A	Seafood	Röd Kaviar	2006/01/21	20	12	240
18	East Coast	Peters. K	Confections	Gumbär Gummibärchen	2006/01/22	2	25	50
19	East Coast	Bonders. P	Dairy Products	Gorgonzola Telino	2006/01/23	14	10	140
20	East Coast	Newson. L	Meat/Poultry	Pâté chinois	2006/01/24	10	19	192
21	East Coast	Lavin. T	Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	30	912
22	East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	6	236
23	East Coast	Anderson. P	Grains/Cereals	Gustafs Knäckebröd	2006/02/04	12	17	202
24								



Easy Way To Select Blank Cells In A Range Of Information

Question: Is there an easy way to select all blank cells in a range of information?

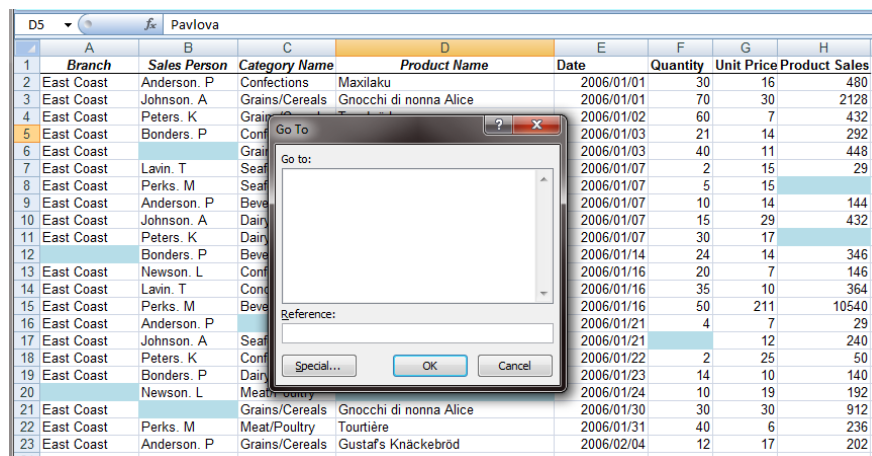
Answer: Yes, using the Go To option

Process (Excel 2003 and 2007):

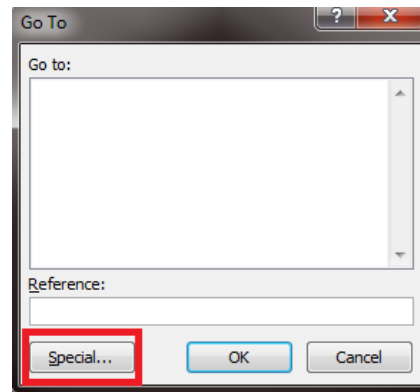
In this example, we have a table of information, but some of the cells are empty. While we can use the **CTRL + Mouse Click** to select each of the cells, this might take time if there are a number of them, and the range we're looking through is large. The graphic below shows the range used, with the blank cells highlighted in light blue.

D5	Pavlova							
1	Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	16	480
3	East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	30	2128
4	East Coast	Peters. K	Grains/Cereals	Tunnbröd	2006/01/02	60	7	432
5	East Coast	Bonders. P	Confections	Pavlova	2006/01/03	21	14	292
6	East Coast		Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	40	11	448
7	East Coast	Lavin. T	Seafood	Boston Crab Meat	2006/01/07	2	15	29
8	East Coast	Perks. M	Seafood	Inlagd Sill	2006/01/07	5	15	
9	East Coast	Anderson. P	Beverages	Chai	2006/01/07	10	14	144
10	East Coast	Johnson. A	Dairy Products	Gudbrandsdalsost	2006/01/07	15	29	432
11	East Coast	Peters. K	Dairy Products		2006/01/07	30	17	
12		Bonders. P	Beverages	Chai	2006/01/14	24	14	346
13	East Coast	Newson. L	Confections	Teatime Chocolate Biscuits	2006/01/16	20	7	146
14	East Coast	Lavin. T	Condiments	Original Frankfurter grüne Soße	2006/01/16	35	10	364
15	East Coast	Perks. M	Beverages	Côte de Blaye	2006/01/16	50	211	10540
16	East Coast	Anderson. P		Teatime Chocolate Biscuits	2006/01/21	4	7	29
17	East Coast	Johnson. A	Seafood	Röd Kaviar	2006/01/21		12	240
18	East Coast	Peters. K	Confections	Gumbär Gummibärchen	2006/01/22	2	25	50
19	East Coast	Bonders. P	Dairy Products	Gorgonzola Telino	2006/01/23	14	10	140
20		Newson. L	Meat/Poultry		2006/01/24	10	19	192
21	East Coast		Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	30	912
22	East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	6	236
23	East Coast	Anderson. P	Grains/Cereals	Gustaf's Knäckebröd	2006/02/04	12	17	202
24								

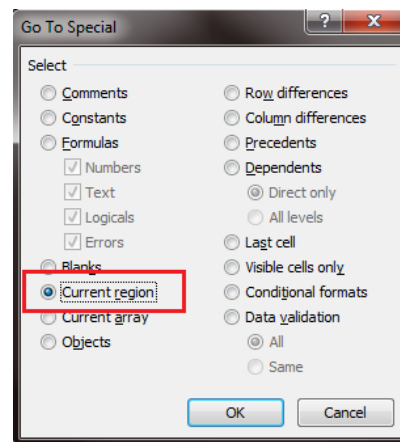
1. Select any cell in the range of data
2. Press the F5 key. This will bring up the Go To window



3. Click on the Special... button in the bottom left hand corner



4. In the **Select** window that appears, click on the **Current region** radio button, then click **OK**

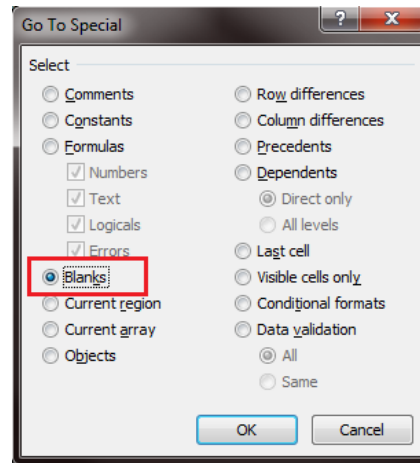


The entire region of data is now selected

	A	B	C	D	E	F	G	H
1	Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	16	480
3	East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	30	2128
4	East Coast	Peters. K	Grains/Cereals	Tunnbröd	2006/01/02	60	7	432
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6	East Coast		Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	40	11	448
7	East Coast	Lavin. T	Seafood	Boston Crab Meat	2006/01/07	2	15	29
8	East Coast	Perks. M	Seafood	Inlagd Sill	2006/01/07	5	15	
9	East Coast	Anderson. P	Beverages	Chai	2006/01/07	10	14	144
10	East Coast	Johnson. A	Dairy Products	Gudbrandsdalsost	2006/01/07	15	29	432
11	East Coast	Peters. K	Dairy Products		2006/01/07	30	17	
12		Bonders. P	Beverages	Chai	2006/01/14	24	14	346
13	East Coast	Newson. L	Confections	Teatime Chocolate Biscuits	2006/01/16	20	7	146
14	East Coast	Lavin. T	Condiments	Original Frankfurter grüne Soße	2006/01/16	35	10	364
15	East Coast	Perks. M	Beverages	Côte de Blaye	2006/01/16	50	211	10540
16	East Coast	Anderson. P		Teatime Chocolate Biscuits	2006/01/21	4	7	29
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18	East Coast	Peters. K	Confections	Gumbär Gummibärchen	2006/01/22	2	25	50
19	East Coast	Bonders. P	Dairy Products	Gorgonzola Telino	2006/01/23	14	10	140
20		Newson. L	Meat/Poultry		2006/01/24	10	19	192
21	East Coast		Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	30	912
22	East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	6	236
23	East Coast	Anderson. P	Grains/Cereals	Gustafs Knäckebröd	2006/02/04	12	17	202

5. Press the **F5** key to bring up the **Go To** window
6. Click on the **Special...** button in the bottom left hand corner

7. Select the **Blanks** radio button, then click **OK**



All blank cells in the range are now selected

	A	B	C	D	E	F	G	H
1	Branch	Sales Person	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
2	East Coast	Anderson. P	Confections	Maxilaku	2006/01/01	30	16	480
3	East Coast	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	2006/01/01	70	30	2128
4	East Coast	Peters. K	Grains/Cereals	Tunnbröd	2006/01/02	60	7	432
5	East Coast	Bonders. P	Confections	Pavlova	2006/01/03	21	14	292
6	East Coast		Grains/Cereals	Singaporean Hokkien Fried Mee	2006/01/03	40	11	448
7	East Coast	Lavin. T	Seafood	Boston Crab Meat	2006/01/07	2	15	29
8	East Coast	Perks. M	Seafood	Inlagd Sill	2006/01/07	5	15	
9	East Coast	Anderson. P	Beverages	Chai	2006/01/07	10	14	144
10	East Coast	Johnson. A	Dairy Products	Gudbrandsdalsost	2006/01/07	15	29	432
11	East Coast	Peters. K	Dairy Products		2006/01/07	30	17	
12		Bonders. P	Beverages	Chai	2006/01/14	24	14	346
13	East Coast	Newson. L	Confections	Teatime Chocolate Biscuits	2006/01/16	20	7	146
14	East Coast	Lavin. T	Condiments	Original Frankfurter grüne Soße	2006/01/16	35	10	364
15	East Coast	Perks. M	Beverages	Côte de Blaye	2006/01/16	50	211	10540
16	East Coast	Anderson. P		Teatime Chocolate Biscuits	2006/01/21	4	7	29
17	East Coast	Johnson. A	Seafood	Röd Kaviar	2006/01/21		12	240
18	East Coast	Peters. K	Confections	Gumbär Gummibärchen	2006/01/22	2	25	50
19	East Coast	Bonders. P	Dairy Products	Gorgonzola Telino	2006/01/23	14	10	140
20		Newson. L	Meat/Poultry		2006/01/24	10	19	192
21	East Coast		Grains/Cereals	Gnocchi di nonna Alice	2006/01/30	30	30	912
22	East Coast	Perks. M	Meat/Poultry	Tourtière	2006/01/31	40	6	236
23	East Coast	Anderson. P	Grains/Cereals	Gustafs Knäckebröd	2006/02/04	12	17	202

Grouping Date Fields In A Pivot Table Into Months

Question: I use pivot tables and would like to reorganise all of my date fields into months. How can I do this?

Answer: By using the Group option in the pivot table

Process (Excel 2003 and 2007):

Pivot tables are very powerful, allowing you to group the information in a table by any of the columns in the table.

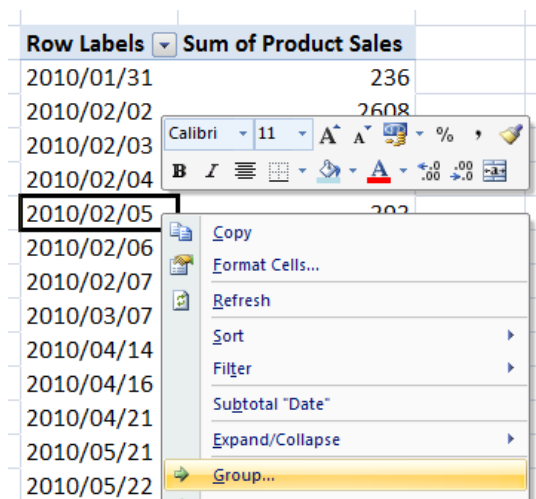
		A	B	C		F	G	H
1	Branch	SalesPer				Quantity	UnitPrice	ProductSales
2	East Coast	Anderson. F	Branch	CategoryName	ProductSales			
3	East Coast	Bonders. P	East Coast					
4	East Coast	Perks. M		Dairy Products	29641			
5	East Coast	Peters. K		Beverages	29008			
6	East Coast	Newson. L		Grains/Cereals	17766			
7	East Coast	Peters. K		Condiments	16696			
8	East Coast	Lavin. T		Meat/Poultry	16881			
9	East Coast	Johnson. A		Confections	20750			
10	East Coast	Peters. K		Produce	10308			
11	East Coast	Lavin. T		Seafood	20930			
12	East Coast	Anderson. F	East Coast Total		161980			
13	East Coast	Perks. M						
14	East Coast	Bonders. P	North Coast					
15	East Coast	Newson. L		Dairy Products	37414			
16	East Coast	Anderson. F		Beverages	15289			
17	East Coast	Johnson. A		Grains/Cereals	19016			
18	East Coast	Anderson. F		Condiments	19612			
19	East Coast	Newson. L		Meat/Poultry	18203			
20				Confections	16283			
21				Produce	15897			
22				Seafood	14098			
23			North Coast Total		155812			
24								

However, there can sometimes be an issue with the date field. When a date column lists individual days, the pivot table will group the information by the actual day listed which, while correct, may not be as useful as having the information grouped by month. The graphic below shows the dates listed in column B, and an example of how the pivot table groups those days in column G.

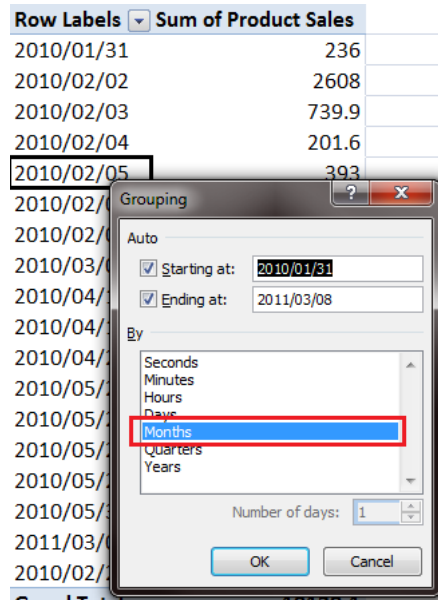
	A	B	C	D	E	F	G	H
1	Product Name	Date	Quantity	Unit Price	Product Sales			
2	Maxilaku	2010/02/02	30	16	480			
3	Gnocchi di nonna Alice	2010/02/02	70	30	2128		Row Labels	Sum of Product Sales
4	Tunnbröd	2010/02/30	60	7	432		2010/02/30	432
5	Pavlova	2010/02/03	21	14	292		2010/01/31	236
6	Singaporean Hokkien Fried Mee	2010/02/03	40	11	448		2010/02/02	2608
7	Boston Crab Meat	2010/03/07	2	15	29		2010/02/03	739.9
8	Inlagd Sill	2011/03/07	5	15	76		2010/02/04	201.6
9	Chai	2010/03/07	10	14	144		2010/02/05	393
10	Gudbrandsdalsost	2010/03/07	15	29	432		2010/02/06	224
11	Queso Cabrales	2010/03/07	30	17	504		2010/02/07	159.6
12	Chai	2010/04/14	24	14	346		2010/03/07	1109.4
13	Teatime Chocolate Biscuits	2010/04/16	20	7	146		2010/04/14	345.6
14	Original Frankfurter grüne Soße	2010/04/16	35	10	364		2010/04/16	11050
15	Côte de Blaye	2010/04/16	50	211	10540		2010/04/21	29.2
16	Teatime Chocolate Biscuits	2010/04/21	4	7	29		2010/05/21	240
17	Röd Kaviar	2010/05/21	20	12	240		2010/05/22	49.8
18	Gumbär Gummibärchen	2010/05/22	2	25	50		2010/05/23	140
19	Gorgonzola Telino	2010/05/23	14	10	140		2010/05/24	192
20	Pâté chinois	2010/05/24	10	19	192		2010/05/30	912
21	Gnocchi di nonna Alice	2010/05/30	30	30	912		2011/03/07	76
22	Tourtière	2010/01/31	40	6	236		Grand Total	19138.1
23	Gustaf's Knäckebröd	2010/02/04	12	17	202			
24	Perth Pasties	2010/02/05	15	26	393			

To group this information into months, quarters or even years is a simple process. This example uses the above table, with the Date field in the row area of the pivot table and the product sales in the values field.

1. Right-click on any date in the Row area and select Group...



2. The Grouping dialogue box will be displayed. Select the Months option in the By area and then click OK



The date information will now be grouped into the months listed in each date field

B	C	D	E	F	G	H
	Quantity	Unit Price	Product Sales			
0/02/02	30	16	480			
0/02/02	70	30	2128			
0/02/28	60	7	432		Row Labels	Sum of Product Sales
0/02/03	21	14	292		Jan	236
0/02/03	40	11	448		Feb	4758.1
0/03/07	2	15	29		Mar	1185.4
1/03/07	5	15	76		Apr	11424.8
0/03/07	10	14	144		May	1533.8
0/03/07	15	29	432		Grand Total	19138.1

Troubleshooting The Grouping Of Date Information In a Pivot Table Into Months

Question: I want to group my date information in my pivot table into months, but it is not working. How do I find out what the problem is?

Answer: By using the Go To dialogue box

Process (Excel 2003 and 2007):

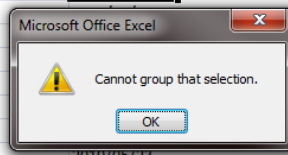
Grouping of dates in a pivot table is a very powerful tool and has been covered in a previous tip. Without reorganising the data, you can tell the pivot table to group dates together into month, quarters, years and more.

However, unless the date information is correct and in the right format, the grouping option won't work. This example will use the table of information below, with a basic pivot table in columns G and H.

G10		2010/02/07						
	A	B	C	D	E	F	G	H
1	Product Name	Date	Quantity	Unit Price	Product Sales			
2	Maxilaku	2010/02/02	30	16	480			
3	Gnocchi di nonna Alice	2010/02/02	70	30	2128		Row Labels	Sum of Product Sales
4	Tunnbröd	2010/02/28	60	7	432		2010/01/31	236
5	Pavlova	2010/02/30	21	14	292		2010/02/02	2608
6	Singaporean Hokkien Fried Mee	2010/02/03	40	11	448		2010/02/03	448
7	Boston Crab Meat	2010/03/07	2	15	29		2010/02/04	201.6
8	Inlagd Sill	2011/03/07	5	15	76		2010/02/05	393
9	Chai	2010/03/07	10	14	144		2010/02/06	224
10	Gudbrandsdalsost	2010/03/07	15	29	432		2010/02/07	159.6
11	Queso Cabrales	2010/03/07	30	17	504		2010/03/07	1109.4
12	Chai	2010/04/14	24	14	346		2010/04/14	345.6
13	Teatime Chocolate Biscuits	2010/04/16	20	7	146		2010/04/16	11050
14	Original Frankfurter grüne Soße	2010/04/16	35	10	364		2010/04/21	29.2
15	Côte de Blaye	2010/04/16	50	211	10540		2010/05/21	240
16	Teatime Chocolate Biscuits	2010/04/21	4	7	29		2010/05/22	49.8
17	Röd Kaviar	2010/05/21	20	12	240		2010/05/23	140
18	Gumbär Gummibärchen	2010/05/22	2	25	50		2010/05/24	192
19	Gorgonzola Telino	2010/05/23	14	10	140		2010/05/30	912
20	Pâté chinois	2010/05/24	10	19	192		2011/03/07	76
21	Gnocchi di nonna Alice	2010/05/30	30	30	912		2010/02/28	432
22	Tourtière	2010/01/31	40	6	236		2010/02/30	291.9
23	Gustaf's Knäckebröd	2010/02/04	12	17	202		Grand Total	19138.1
24	Perth Pasties	2010/02/05	15	26	393			
25	Sasquatch Ale	2010/02/06	20	11	224			

If we attempted to group the date field in the pivot table, we would receive an error:

2128	Row Labels	Sum of Product Sales
432	2010/01/31	236
292	2010/02/02	2608
448	2010/02/03	448
29	2010/02/04	201.6
76	2010/02/05	393
144	2010/02/06	224
432	2010/02/07	159.6
504		1109.4
346		345.6
146		11050
364		29.2
10540		240
29		49.8
240	2010/05/23	140



This error occurs when one of the fields in the Date column is not the 'date' format, or if there is an error with the information. The easiest way to identify which cell in the Date column is creating the problem is to use the Go To... utility. The following steps use the information supplied in the first graphic:

1. Select cell B2. This is the first cell of data in the column and the heading should not be selected.
2. Press CTRL + SHIFT + Down Arrow keys together. This will select all cells in the column to the bottom of the table

	A	B	C	D	E	F
1	Product Name	Date	Quantity	Unit Price	Product Sales	
2	Maxilaku	2010/02/02	30	16	480	
3	Gnocchi di nonna Alice	2010/02/02	70	30	2128	
4	Tunnbröd	2010/02/28	60	7	432	
5	Pavlova	2010/02/30	21	14	292	
6	Singaporean Hokkien Fried Mee	2010/02/03	40	11	448	
7	Boston Crab Meat	2010/03/07	2	15	29	
8	Inlagd Sill	2011/03/07	5	15	76	
9	Chai	2010/03/07	10	14	144	
10	Gudbrandsdalsost	2010/03/07	15	29	432	
11	Queso Cabrales	2010/03/07	30	17	504	
12	Chai	2010/04/14	24	14	346	
13	Teatime Chocolate Biscuits	2010/04/16	20	7	146	
14	Original Frankfurter grüne Soße	2010/04/16	35	10	364	
15	Côte de Blaye	2010/04/16	50	211	10540	
16	Teatime Chocolate Biscuits	2010/04/21	4	7	29	
17	Röd Kaviar	2010/05/21	20	12	240	
18	Gumbär Gummibärchen	2010/05/22	2	25	50	
19	Gorgonzola Telino	2010/05/23	14	10	140	
20	Pâté chinois	2010/05/24	10	19	192	
21	Gnocchi di nonna Alice	2010/05/30	30	30	912	
22	Tourtière	2010/01/31	40	6	236	
23	Gustaf's Knäckebröd	2010/02/04	12	17	202	
24	Perth Pasties	2010/02/05	15	26	393	
25	Sasquatch Ale	2010/02/06	20	11	224	
26	Wimmers gute Semmelknödel	2010/02/07	6	27	160	

- Press the F5 key. This will bring up the Go To window

B2 fx 2010/02/02

	A	B	C	D	E	F	G
1	Product Name	Date	Quantity	Unit Price	Product Sales		
2	Maxilaku	2010/02/02	30	16	480		
3	Gnocchi di nonna Alice	2010/02/02					
4	Tunnbröd	2010/02/28					
5	Pavlova	2010/02/30					
6	Singaporean Hokkien Fried Mee	2010/02/03					
7	Boston Crab Meat	2010/03/07					
8	Inlagd Sill	2011/03/07					
9	Chai	2010/03/07					
10	Gudbrandsdalsost	2010/03/07					
11	Queso Cabrales	2010/03/07					
12	Chai	2010/04/14					
13	Teatime Chocolate Biscuits	2010/04/16					
14	Original Frankfurter grüne Soße	2010/04/16					
15	Côte de Blaye	2010/04/16					
16	Teatime Chocolate Biscuits	2010/04/21					
17	Röd Kaviar	2010/05/21	20	12	240		
18	Gumbär Gummibärchen	2010/05/22	2	25	50		
19	Gorgonzola Telino	2010/05/23	14	10	140		
20	Pâté chinois	2010/05/24	10	19	192		
21	Gnocchi di nonna Alice	2010/05/30	30	30	912		
22	Tourtière	2010/01/31	40	6	236		
23	Gustaf's Knäckebröd	2010/02/04	12	17	202		
24	Perth Pasties	2010/02/05	15	26	393		
25	Sasquatch Ale	2010/02/06	20	11	224		
26	Wimmers gute Semmelknödel	2010/02/07	6	27	160		

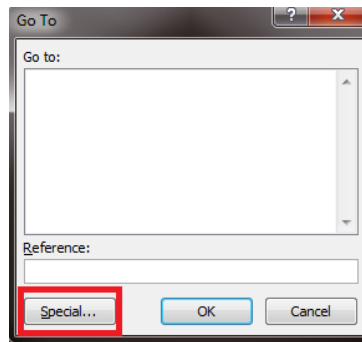
Go To

Go to:

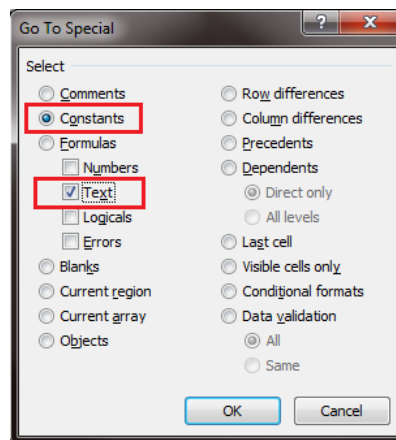
Reference:

Special... OK Cancel

- Click on the Special... button in the bottom left hand corner



5. Select the **Constants** radio button, then remove the ticks from **Numbers**, **Logicals**, and **Errors**



Each cell that is showing as text values is now selected. Two cells are selected: **B5** and **B20**

	A	B
1	Product Name	Date
2	Maxilaku	2010/02/02
3	Gnocchi di nonna Alice	2010/02/02
4	Tunnbröd	2010/02/28
5	Pavlova	2010/02/30
6	Singaporean Hokkien Fried Mee	2010/02/03
7	Boston Crab Meat	2010/03/07
8	Inlagd Sill	2011/03/07
9	Chai	2010/03/07
10	Gudbrandsdalsost	2010/03/07
11	Queso Cabrales	2010/03/07
12	Chai	2010/04/14
13	Teatime Chocolate Biscuits	2010/04/16
14	Original Frankfurter grüne Soße	2010/04/16
15	Côte de Blaye	2010/04/16
16	Teatime Chocolate Biscuits	2010/04/21
17	Röd Kaviar	2010/05/21
18	Gumbär Gummibärchen	2010/05/22
19	Gorgonzola Telino	2010/05/23
20	Pâté chinois	2010/02/31

The dates in those cells contain errors; **B5** shows a date of **2010/02/30**, with **B20** showing **2010/02/31**. February only has 28 or 29 days, so Excel changes these to text constants rather than leaving them as dates. The cells are edited to represent **2010/02/28**, allowing for the date to be grouped after the pivot table has been refreshed.

Calculating The Periodic Payment For A Loan

Question: I'm looking at taking out a loan from the bank. I know how much for, and what the interest rate would be, but how do I figure out what the payments would be per month?

Answer: The PMT function can help

Process (Excel 2003 and 2007):

When it comes to finance, personal or business, knowing what you're paying or how much you're spending is paramount. Knowing how you can save money by adjusting your payments is a very handy thing, and we can use the PMT function to not only work this out, but see what we would have to pay before we enter into a loan agreement.

The PMT function has the following syntax:

=PMT(rate,nper,pv,[fv],[type])

Rate: this is the interest rate to be paid per period

Nper: this is the number of periods in the life of the loan (i.e. the number of payments to be made)

Pv: the present value of the loan amount

[Fv]: the future value (optional)

[Type]: shows whether payment is to be made on the first day or the last day of the month

In this example, we will use the following information to see how much we would need to pay back in monthly instalments on a \$100,000 loan over seven years.

C18		fx				
	A	B	C	D	E	F
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])			
2						
3		Loan Amount	100 000			
4		Loan Years	7			
5		Interest Rate	12%			
6						
7		Interest Rate	No. of Payments	Present Value	Monthly	Total Amount
8		Rate	NPER	PV	Repayment	Repaid
9						
10						
16						

1. Select cell B9, type in =C5/12 and press **Enter**

	A	B	C	
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])	
2				
3		Loan Amount	100 000	
4		Loan Years	7	
5		Interest Rate	12%	
6				
7		Interest Rate	No. of Payments	Present Value
8		Rate	NPER	PV
9		=C5/12		
10				

In order to work out the amount per period, we need to divide the yearly interest rate (12%) by the number of periods in the year. In this case, we're making payments on a monthly basis, hence dividing the rate by 12.

2. Select cell **C9**, type in **=C4*12** and press **Enter**

	A	B	C	D
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])	
2				
3		Loan Amount	100 000	
4		Loan Years	7	
5		Interest Rate	12%	
6				
7		Interest Rate	No. of Payments	Present Value
8		Rate	NPER	PV
9		0.01	=C4*12	
10				
16				

The loan is over 7 years, with payments made monthly. Therefore we need to work out the total number of periods, hence multiplying the loan years by 12

3. Select cell **D9**, type in **=C3** and press **Enter**

	A	B	C	D
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])	
2				
3		Loan Amount	100 000	
4		Loan Years	7	
5		Interest Rate	12%	
6				
7		Interest Rate	No. of Payments	Present Value
8		Rate	NPER	PV
9		0.01	84	=C3
10				

We could directly reference cell **C3** when we create our formula, but for consistency in the example layout we will reference it to our demonstration line.

4. Select cell **E9**, type **=pmt(B9,C9,D9)** and press **Enter**

7	Interest Rate	No. of Payments	Present Value	Monthly Repayment	Total Amount Repaid
8	Rate	NPER	PV		
9	0.01	84	100 000	-\$1 765.27	

5. Select cell **F9**, type in **=E9*C9** and press **Enter**

F9  =E9*C9						
	A	B	C	D	E	F
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])			
2						
3		Loan Amount	100 000			
4		Loan Years	7			
5		Interest Rate	12%			
6						
7		Interest Rate	No. of Payments	Present Value	Monthly Repayment	Total Amount Repaid
8		Rate	NPER	PV		
9		0.01	84	100 000	-\$1 765.27	-\$148 282.96

6. Select cell **C4** (the loan years amount), type in 5 and press **Enter**

	C4		fx	5		
1	A	B	C	D	E	F
2		PMT Function	=pmt(rate,nper,pv,[fv],[type])			
3		Loan Amount	100 000			
4		Loan Years	5			
5		Interest Rate	12%			
6						
7		Interest Rate	No. of Payments	Present Value	Monthly Repayment	Total Amount Repaid
8		Rate	NPER	PV		
9		0.01	60	100 000	-\$2 224.44	-\$133 466.69
10						

Changing the number of years to 5 changes the number of total periods from 84 to 60 (seen in cell C9). This means an increase in the monthly payment amount from \$1,765.27, however it decreases the total amount repaid from \$148,282.96 to \$133,466.69

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Calculating How Much Should Be Saved Per Month Inorder To Reach A Target

Question: I'm going to plan a holiday, and I'd like to save \$10,000 to cover all expenses. How do I figure out how much I need to pay into my savings each month to get to my target?

Answer: The PMT function can help

Process (Excel 2003 and 2007):

When it comes to finance, personal or business, knowing what you're paying or how much you're spending is paramount. Knowing how you can save money by adjusting your payments is a very handy thing, and we can use the PMT function to not only work this out, but see what we would have to pay before we enter into a loan agreement.

The PMT function has the following syntax:

=PMT(rate,nper,pv,[fv],[type])

Rate: this is the interest rate to be paid per period

Nper: this is the number of periods in the life of the loan (i.e. the number of payments to be made)

Pv: the present value of the loan amount

[Fv]: the future value (optional)

[Type]: shows whether payment is to be made on the first day or the last day of the month

In this example, we're going planning to go on an overseas holiday in three years time. In order to do this, we'll need to save \$10,000 to cover costs of flights, accommodation etc. So how much will I need to pay into my savings account, at a set interest rate, each month for three years to get to my target?

	A	B	C	D	E
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])		
2					
3		Savings Target	10 000		
4		Saving Years	5		
5		Interest Rate	12%		
6		Currently Saved	0		
7					
8		Interest Rate	No. of Payments	Present Value	Monthly
9		Rate	NPER	PV	Repayment
10					
11					

1. Select cell **B10**, type in =C5/12 and press **Enter**

	A	B	C	D
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])	
2				
3		Savings Target	10 000	
4		Saving Years	5	
5		Interest Rate	12%	
6		Currently Saved	0	
7				
8		Interest Rate	No. of Payments	Present
9		Rate	NPER	PV
10		=C5/12		
11				

In order to work out the amount per period, we need to divide the yearly interest rate (12%) by the number of periods in the year. In this case, we're making deposits on a monthly basis, hence dividing the rate by 12

2. Select cell **C10**, type in **=C4*12** and press **Enter**

	A	B	C	D
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])	
2				
3		Savings Target	10 000	
4		Saving Years	5	
5		Interest Rate	12%	
6		Currently Saved	0	
7				
8		Interest Rate	No. of Payments	Present Value
9		Rate	NPER	PV
10		0.01	=C4*12	
11				
17				

The savings plan is over 3 years, with payments made monthly. Therefore we need to work out the total number of periods, hence multiplying the loan years by 12

3. Select cell **D10**, type in **0** and press **Enter**

	A	B	C	D	E
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])		
2					
3		Savings Target	10 000		
4		Saving Years	5		
5		Interest Rate	12%		
6		Currently Saved	0		
7					
8		Interest Rate	No. of Payments	Present Value	Monthly Payment
9		Rate	NPER	PV	PMT
10		0.01	60	0	
11					
17					

There isn't a present value amount - we have no savings to start with. Hence, PV = 0

4. Select cell **E10**, type **=pmt(B9,C9,D9,C3)** and press **Enter**

	A	B	C	D	E
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])		
2					
3		Savings Target	10 000		
4		Saving Years	5		
5		Interest Rate	12%		
6		Currently Saved	0		
7					
8		Interest Rate	No. of Payments	Present Value	Monthly
9		Rate	NPER	PV	Repayment
10		0.01	60	=PMT(B10,C10,D10,C3)	

The formula references the interest rate for the period (*rate* = B10), the number of periods (*nper* = C9) and the present value of the loan (*pv* = 0). Since we're trying to determine payments against a future amount, we can now use the [*fv*] option - choose the future value we'd like to work to (in this case, cell C3)

8	Interest Rate	No. of Payments	Present Value	Monthly
9	Rate	NPER	PV	Repayment
10	0.01	60	0	-\$122.44

The amount is represented as a negative figure because this is money that you will be paying out. If you would like to see it as a positive number, simply multiply the result by -1. However, what if we actually began our savings plan with \$2,500 in the bank?

- Select cell C6 (the currently saved field), type in -2500 and press **Enter**

	A	B	C
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])
2			
3		Savings Target	10 000
4		Saving Years	5
5		Interest Rate	12%
6		Currently Saved	2 500

The currently saved amount needs to be entered as a negative: this money is being paid out by you into your savings fund, so it's a negative amount

- Select cell D9, type in =C6 and press **Enter**

	A	B	C	D	E
1		PMT Function	=pmt(rate,nper,pv,[fv],[type])		
2					
3		Savings Target	10 000		
4		Saving Years	5		
5		Interest Rate	12%		
6		Currently Saved	-2 500		
7					
8		Interest Rate	No. of Payments	Present Value	Monthly
9		Rate	NPER	PV	Repayment
10		0.01	60	-2 500	-\$66.17

By including the currently saved amount (i.e. the present value), you have now added extra money to your plan, and significantly affected your repayments for the better

The Sumif Function

Question: I have a sheet of sales information and would like to add together all lines for a specific sales person. How can I do this?

Answer: By using the SUMIF function

Process (Excel 2003, 2007 and 2010):

The SUMIF function is very useful, allowing you to total a number of lines together based on one common trait. This could be a product name, a region or category, or a particular person's name. The syntax of the SUMIF function is as follows:

=SUMIF(range,criteria,[sum_range])

In the syntax, the **range** is the column that you'd like to search through for a given value (the **criteria**), and when it finds it, add the appropriate value from the **[sum_range]** column. This is based on the row that the criteria is in - if the term 'chocolate biscuits' is in column A, rows 6, 9 and 12, with the product sale values listed in column C, then the SUMIF formula:

=SUMIF(A:A,"chocolate biscuits",C:C)

would add cells C6, C9 and C12 together.

In this example, we're going to use the following table of information. Column H has a unique list of all sales people in column A, and we will use the SUMIF function to add the total product sales together for each sales person.

	A	B	C	D	E	F	G	H	I
1	Sales Person	Category Name	Product Name	Quantity	Unit Price	Product Sales		Sales Person	Total
2	Anderson. P	Confections	Maxilaku	30	16	480		Anderson. P	
3	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	70	30	2128		Johnson. A	
4	Peters. K	Grains/Cereals	Tunnbröd	60	7	432		Peters. K	
5	Bonders. P	Confections	Pavlova	21	14	292		Bonders. P	
6	Newson. L	Grains/Cereals	Singaporean Hokkien Fried Mee	40	11	448		Newson. L	
7	Lavin. T	Seafood	Boston Crab Meat	2	15	29		Lavin. T	
8	Perks. M	Seafood	Inlagd Sill	5	15	76		Perks. M	
9	Anderson. P	Beverages	Chai	10	14	144		Naidoo. L	
10	Johnson. A	Dairy Products	Gudbrandsdalsost	15	29	432		Petty. A	
11	Peters. K	Dairy Products	Queso Cabrales	30	17	504		Oxford. D	
12	Bonders. P	Beverages	Chai	24	14	346		Altercon. C	
13	Newson. L	Confections	Teatime Chocolate Biscuits	20	7	146		Atterson. P	
14	Lavin. T	Condiments	Original Frankfurter grüne Soße	35	10	364		Connely. K	
15	Perks. M	Beverages	Côte de Blaye	50	211	10540			
16	Anderson. P	Confections	Teatime Chocolate Biscuits	4	7	29			
17	Johnson. A	Seafood	Röd Kaviar	20	12	240			
18	Peters. K	Confections	Gumbär Gummibärchen	2	25	50			
19	Bonders. P	Dairy Products	Gorgonzola Telino	14	10	140			
20	Newson. L	Meat/Poultry	Pâté chinois	10	19	192			
21	Lavin. T	Grains/Cereals	Gnocchi di nonna Alice	30	30	912			
22	Perks. M	Meat/Poultry	Tourtière	40	6	236			

1. Select cell I2, type in the formula =SUMIF(A:A,H2,F:F) and press Enter

	A	B	C	D	E	F	G	H	I	J	K
1	Sales Person	Category Name	Product Name	Quantity	Unit Price	Product Sales		Sales Person	Total		
2	Anderson. P	Confections	Maxilaku	30	16	480		Anderson. P	=SUMIF(A:A,H2,F:F)		
3	Johnson. A	Grains/Cereals	Gnocchi di nonna Alice	70	30	2128		Johnson. A			
4	Peters. K	Grains/Cereals	Tunnbröd	60	7	432		Peters. K			
5	Bonders. P	Confections	Pavlova	21	14	292		Bonders. P			
6	Newson. L	Grains/Cereals	Singaporean Hokkien Fried Mee	40	11	448		Newson. L			

This will search through column A for all references of the content of cell H2 (in this instance “Anderson P”), and then add the appropriate value in the cell in column F for that row

2. Double click on the Auto-Fill handle in the bottom left hand corner of cell I2

H	I
Sales Person	Total
Anderson. P	20960.55
Johnson. A	
Peters. K	
Bonders. P	
Newson. L	
Lavin. T	
Perks. M	
Naidoo. L	
Petty. A	
Oxford. D	
Altercon. C	
Atterson. P	
Connely. K	

H	I
Sales Person	Total
Anderson. P	20960.55
Johnson. A	20272.45
Peters. K	19481.7
Bonders. P	18793.6
Newson. L	30473.28
Lavin. T	16801.45
Perks. M	35196.55
Naidoo. L	504
Petty. A	480
Oxford. D	25589.8
Altercon. C	29732.61
Atterson. P	30262.49
Connely. K	24455.91

This will automatically fill the formula down to cell H14. By referencing cell H2, the formula will increment automatically, meaning that we don’t have to type in each and every value - they can be typed into each of the H cells, or changed in those cells much more easily than editing the formul

The Sumifs Function

Question: I have a sheet of sales information and would like to add together all lines for not only a specific product category, but for all sales of that product category in a particular region. How can I do this with one formula?

Answer: By using the SUMIFS function

Process (Excel 2007 and 2010):

Firstly, a note: MS Office 2010, including a new version of MS Excel, was officially released during the course of May, 2010. Going forward, we will be including Tips and Tricks that focus on the functionality available in Excel 2007/2010 that may not exist in Excel 2003. We will still include Tips that reference Excel 2003 functionality, but it is important to be aware of this difference in case you try to replicate an Excel 2007/2010 tip in Excel 2003 and not achieve the expected result.

Last week's Tip covered the SUMIF function which allows you to total a number of lines together based on one common trait, such as a product name, a region or category, or a particular person's name. However, this week's tip looks at the situation where you may want to add values together based on two or more criteria, such as product name as well as a particular region.

The syntax of the SUMIFS function is as follows:

=SUMIFS(sum_range,criteria_range1,criteria1,...)

In the syntax, the **sum_range** is the column that contains the values you'd like to add together. **Criteria_range1** is the range that you would like to search in for your first criteria value (**criteria1**), and this can be repeated using the same syntax (i.e. **criteria_range2, criteria2, criteria_rangeX,criteriaX, ...**). You can include up to 127 different range/criteria pairings.

In this example, we're going to use the following table of information. Column A contains all of the regions, with column C containing product categories. We will use the SUMIFS function to add the total product sales together (column G) for all beverage sales on the North Coast. We have highlighted the cells that will be added together in light green, to show which cells will be targeted.

	A	B	C	D	E	F	G	H	I	J	K
	Branch	Sales Person	Category Name	Date	Quantity	Unit Price	Product Sales		Criteria 1	Criteria 2	Total
1	East Coast	Anderson, P	Beverages	2006/01/07	10	14	144		North Coast	Beverages	
2	East Coast	Peters, K	Beverages	2006/07/24	3	18	54				
3	North Coast	Oxford, D	Beverages	2006/07/07	20	18	360				
4	North Coast	Edford, O	Beverages	2006/07/25	6	18	108				
5	North Coast	Oxford, D	Beverages	2006/10/01	35	18	630				
6	North Coast	Connely, K	Beverages	2006/10/10	5	18	90				
7	North Coast	Altercon, C	Beverages	2006/11/04	50	18	900				
8	North Coast	Oxford, D	Beverages	2006/11/24	8	18	144				
9	South Coast	Kinsly, N	Beverages	2006/04/30	40	18	720				
10	South Coast	Kinsly, N	Beverages	2006/10/03	30	18	540				
11	West Coast	Toonly, S	Beverages	2006/05/05	8	18	144				
12	West Coast	Pursly, U	Beverages	2006/06/23	10	18	180				
13	East Coast	Newson, L	Beverages	2006/02/10	45	15	684				
14	East Coast	Peters, K	Beverages	2006/08/22	50	19	950				
15	North Coast	Dinnel, M	Beverages	2006/02/04	10	15	152				
16	North Coast	Dinnel, M	Beverages	2006/08/06	20	19	380				
17	North Coast	Atterson, P	Beverages	2006/10/22	30	19	570				
18	North Coast	Dinnel, M	Beverages	2006/11/14	15	19	285				
19	South Coast	Kinsly, N	Beverages	2006/07/25	10	19	190				
20	South Coast	Moodley, L	Beverages	2006/12/19	15	19	285				
21	West Coast	Stanly, N	Beverages	2006/03/25	20	15	304				
22	West Coast	Rooney, Y	Confectionary	2006/08/14	30	19	570				
23	West Coast	Stanly, N	Confectionary	2006/10/14	5	19	95				
24	West Coast	Pursly, U	Confectionary	2006/10/29	3	19	57				

1. Select cell K2, type in the formula =SUMIFS(G:G,A:A,I2,C:C,J2) and press Enter

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Branch	Sales Person	Category Name	Date	Quantity	Unit Price	Product Sales		Criteria 1	Criteria 2	Total				
2	East Coast	Anderson, P	Beverages	2006/01/07	10	14	144		North Coast	Beverages	=SUMIFS(G:G,A:A,I2,C:C,J2)				
3	East Coast	Peters, K	Beverages	2006/07/24	3	18	54								
4	North Coast	Oxford, D	Beverages	2006/07/07	20	18	360								
5	North Coast	Edford, O	Beverages	2006/07/25	6	18	108								
6	North Coast	Oxford, D	Beverages	2006/10/01	35	18	630								
7	North Coast	Connely, K	Beverages	2006/10/10	5	18	90								
8	North Coast	Altercon, C	Beverages	2006/11/04	50	18	900								
9	North Coast	Oxford, D	Beverages	2006/11/24	8	18	144								
10	South Coast	Kinsly, N	Beverages	2006/04/30	40	18	720								
11	South Coast	Kinsly, N	Beverages	2006/10/03	30	18	540								
12	West Coast	Toonly, S	Beverages	2006/05/05	8	18	144								

This will search through column A for all “North Coast” references. It will then check whether the Category Name cell in that row (column C) contains the “Beverages” reference. If the row contains “North Coast” and “Beverages”, then the Product Sales field for that row will be added to the total.

You’ll note in the SUMIFS formula tip in the graphic that from criteria_range2 onwards, the parameters are in square brackets (e.g. [criteria_range2, criteria2]) - this means that the extra criteria past the first is optional. The SUMIFS function can be used then in place of SUMIF, which requires only one criteria, as everything from the second criteria onwards is not required.

NB: The SUMIFS function is not available in MS Excel 2003.

Identifying Blank Cells In A Column Of Data Without Re-sorting

Question: I would like to see which cells are blank in a column of data, and I don’t want to resort the the column. Is there a quick way that I could do this?

Answer: Yes, using the ‘Go To Special...’ option

Process (Excel 2003, 2007, 2010):

In this example, we have some basic sales information, but a number of cells in the Unit Price column are blank. If there is a lot of the information in the sheet, say 10,000 rows, it can be tiresome to scroll through and find each individual cell that's blank. There are a number of options available, such as sorting the data (which will put all of the rows with blank Unit Price cells at the bottom of the list), but the simplest thing would be to use the 'Go To Special...' option.

	A	B	C	D	E	F	G
1	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales	
2	Beverages	Chai	2008/03/07	50	38.00	1900.00	
3	Beverages	Chang	2008/03/10	40		800.00	
4	Beverages	Ipoh Coffee	2008/03/07	200	36.80	7360.00	
5	Beverages	Stout	2008/04/12	70	40.00	2800.00	
6	Meat/Poultry	Alice Mutton	2008/05/28	80		4800.00	
7	Meat/Poultry	Alice Mutton	2008/04/30	95		5700.00	
8	Meat/Poultry	Alice Mutton	2008/04/12	100	60.00	6000.00	
9	Meat/Poultry	Alice Mutton	2008/04/15	250	60.00	15000.00	
10	Meat/Poultry	Alice Mutton	2008/05/01	250	60.00	15000.00	
11	Meat/Poultry	Alice Mutton	2008/05/08	400	60.00	24000.00	
12	Condiments	Aniseed Syrup	2008/05/19	60		1680.00	
13	Condiments	Aniseed Syrup	2008/03/25	90	28.00	2520.00	
14	Condiments	Aniseed Syrup	2008/03/06	300	28.00	8400.00	
15	Dairy Products	Blue Cheese	2008/03/07	40		1392.00	
16	Dairy Products	Blue Cheese	2008/04/11	40	34.80	1392.00	
17	Dairy Products	Blue Cheese	2008/05/12	40	34.80	1392.00	

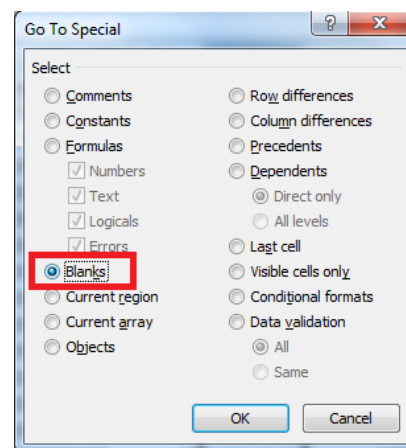
1. Select column E

E1		fx	Unit Price				
	A	B	C	D	E	F	
1	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales	
2	Beverages	Chai	2008/03/07	50	38.00	1900.00	
3	Beverages	Chang	2008/03/10	40		800.00	
4	Beverages	Ipoh Coffee	2008/03/07	200	36.80	7360.00	
5	Beverages	Stout	2008/04/12	70	40.00	2800.00	
6	Meat/Poultry	Alice Mutton	2008/05/28	80		4800.00	
7	Meat/Poultry	Alice Mutton	2008/04/30	95		5700.00	
8	Meat/Poultry	Alice Mutton	2008/04/12	100	60.00	6000.00	
9	Meat/Poultry	Alice Mutton	2008/04/15	250	60.00	15000.00	
10	Meat/Poultry	Alice Mutton	2008/05/01	250	60.00	15000.00	
11	Meat/Poultry	Alice Mutton	2008/05/08	400	60.00	24000.00	
12	Condiments	Aniseed Syrup	2008/05/19	60		1680.00	
13	Condiments	Aniseed Syrup	2008/03/25	90	28.00	2520.00	
14	Condiments	Aniseed Syrup	2008/03/06	300	28.00	8400.00	
15	Dairy Products	Blue Cheese	2008/03/07	40		1392.00	
16	Dairy Products	Blue Cheese	2008/04/11	40	34.80	1392.00	
17	Dairy Products	Blue Cheese	2008/05/12	40	34.80	1392.00	

2. Press Ctrl + G. This will bring up the 'Go To Special...' window. Click on the 'Special...' button

Unit Price					
	B	C	D	E	F
	Product Name	Date	Quantity	Unit Price	Product Sales
				38.00	1900.00
					800.00
				36.80	7360.00
				40.00	2800.00
					4800.00
					5700.00
				60.00	6000.00
				60.00	15000.00
				60.00	15000.00
				60.00	24000.00
					1680.00
				28.00	2520.00
				28.00	8400.00
					1392.00
	Blue Cheese	2008/04/11	40	34.80	1392.00
	Blue Cheese	2008/05/12	40	34.80	1392.00
	Blue Cheese	2008/05/23	40	34.80	1392.00

3. Select the 'Blanks' option and click 'OK'



All blank cells in the column are now selected. You can now fill all the cells with a colour, such as bright red, to make it easier to identify them when scrolling through the data

	A	B	C	D	E	F
	Category Name	Product Name	Date	Quantity	Unit Price	Product Sales
1	Beverages	Chai	2008/03/07	50	38.00	1900.00
2	Beverages	Chang	2008/03/10	40		800.00
3	Beverages	Ipoh Coffee	2008/03/07	200	36.80	7360.00
4	Beverages	Stout	2008/04/12	70	40.00	2800.00
5	Meat/Poultry	Alice Mutton	2008/05/28	80		4800.00
6	Meat/Poultry	Alice Mutton	2008/04/30	95		5700.00
7	Meat/Poultry	Alice Mutton	2008/04/12	100	60.00	6000.00
8	Meat/Poultry	Alice Mutton	2008/04/15	250	60.00	15000.00
9	Meat/Poultry	Alice Mutton	2008/05/01	250	60.00	15000.00
10	Meat/Poultry	Alice Mutton	2008/05/08	400	60.00	24000.00
11	Condiments	Aniseed Syrup	2008/05/19	60		1680.00
12	Condiments	Aniseed Syrup	2008/03/25	90	28.00	2520.00
13	Condiments	Aniseed Syrup	2008/03/06	300	28.00	8400.00
14	Dairy Products	Blue Cheese	2008/03/07	40		1392.00
15	Dairy Products	Blue Cheese	2008/04/11	40	34.80	1392.00
16	Dairy Products	Blue Cheese	2008/05/12	40	34.80	1392.00
17	Dairy Products	Blue Cheese	2008/05/23	40	34.80	1392.00

Making Forecasts With The Forecast Function

Question: I am recording monthly sales amounts and there seems to be a constant, upward trend, though the increase each month isn't always the same amount. Can I use Excel to tell me when I'll hit a certain sales amount?

Answer: Yes, with the FORECAST function

Process (Excel 2003, 2007 and 2010):

The FORECAST function can work whenever you have a set of data pairs: an *x-value* range (say, date) and a *y-value* range (say, value of sales for that date). The function uses a trend line on the *y-value* target amount (e.g. a sales amount target), then applies the same trend to the *x-value* range to work out the date that target will be reached. The values in the *x-value* range must be numbers, otherwise the function will return a #VALUE! Error.

In this example, we'll be using the following data table which lists sales dates from the end of the month, and the value of those sales for that month. We'll use the FORECAST function to determine on what date sales will exceed \$2000.

E1		fx		Estimated Date	
	A	B	C	D	E
1	Date	Amount		Target	Estimated Date
2	30-Sep-10	1250		2000	
3	31-Oct-10	1370			
4	30-Nov-10	1300			
5	31-Dec-10	1500			
6	31-Jan-11	1620			
7	28-Feb-11	1520			
8	31-Mar-11	1780			
9	30-Apr-11	1820			
10					
11					
12					

1. Select cell E2
2. Type in =FORECAST(D2,A2:A9,B2:B9) and press *Enter*

SUM		X ✓ f_x		=FORECAST(D2,A2:A9,B2:B9)			
	A	B	C	D	E	F	G
1	Date	Amount		Target	Estimated Date		
2	30-Sep-10	1250		2000	=FORECAST(D2,A2:A9,B2:B9)		
3	31-Oct-10	1370					
4	30-Nov-10	1300					
5	31-Dec-10	1500					
6	31-Jan-11	1620					
7	28-Feb-11	1520					
8	31-Mar-11	1780					
9	30-Apr-11	1820					
10							

3. The formula returns a value of 40716.54041

E2		f_x		=FORECAST(D2,A2:A9,B2:B9)			
	A	B	C	D	E	F	G
1	Date	Amount		Target	Estimated Date		
2	30-Sep-10	1250		2000	40716.54041		
3	31-Oct-10	1370					
4	30-Nov-10	1300					
5	31-Dec-10	1500					
6	31-Jan-11	1620					
7	28-Feb-11	1520					
8	31-Mar-11	1780					
9	30-Apr-11	1820					
10							

4. We can now format this number to return a date value. While cell E2 is still selected, press **CTRL + 1**. This will bring up the 'Format Cells' window. On the 'Number' tab, select the 'Date' option in the left hand menu, then your desired date format on the right, then click **OK**

Format Cells

Number Alignment Font Border Fill Protection

Category:

- General
- Number
- Currency
- Accounting
- Date**
- Time
- Percentage
- Fraction
- Scientific
- Text
- Special
- Custom

Sample: 22/06/2011

Type:

- *14/03/2001**
- *14 March 2001
- 2001/03/14
- 01/03/14
- 2001-03-14
- 14 March 2001

Locale (location): English (South Africa)

Date formats display date and time serial numbers as date values. Date formats that begin with an asterisk (*) respond to changes in regional date and time settings that are specified for the operating system. Formats without an asterisk are not affected by operating system settings.

OK Cancel

5. The number will now be converted to a date and we can see that sales are estimated to exceed \$2000 on 22nd June, 2010

E2 fx =FORECAST(D2,A2:A9,B2:B9)					
	A	B	C	D	E
1	Date	Amount		Target	Estimated Date
2	30-Sep-10	1250		2000	22/06/2011
3	31-Oct-10	1370			
4	30-Nov-10	1300			
5	31-Dec-10	1500			
6	31-Jan-11	1620			
7	28-Feb-11	1520			
8	31-Mar-11	1780			
9	30-Apr-11	1820			
10					

The Data Input Table-With Two Variables

Question: If I want to borrow money from a financial institution, can I create a table that displays the loan repayment figures based on various repayment periods and interest rates?

Answer: Yes, with the DATA INPUT TABLE (Using two variables)

Process (Excel 2003, 2007 and 2010):

By using the PMT function one can calculate the loan repayment installment. Let's say you qualify for a loan of \$1000 at 14 % over 12 months, the monthly installment amount will be \$ 89.79.

1. Select cell C2
2. Type in =Pmt (B2/12, B3,-B4) and press enter

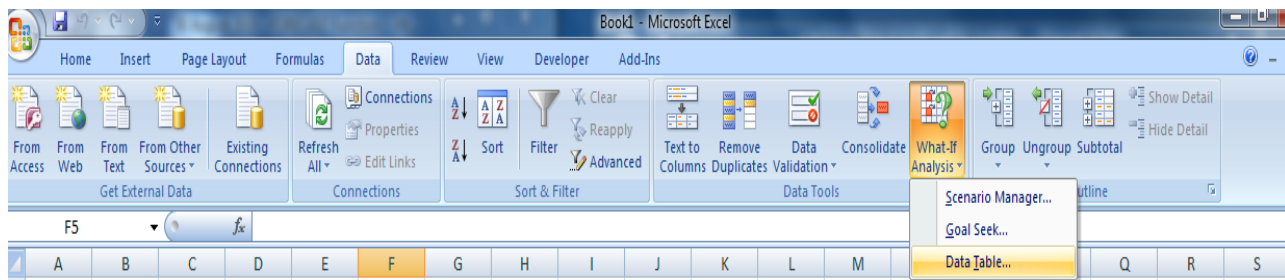
	A	B	C	D	E	F
1				Loan Repayment Table		
2	Interest rate(Rate)	14%	\$ 89.79			
3	No Of Instalments(NPVR)	12				
4	Loan Amount(PV)	\$ 1 000.00				

3. The formula returns the value of \$89.79

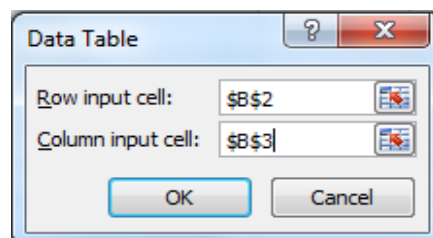
4. Enter the following repayment periods of 6, 12, 18, 24, 30, 36 and interest rates of 8%, 10%, 12%, 14%, and 16% as given below

	A	B	C	D	E	F	G	H
1		Loan Repayment Table						
2	Interest rate(Rate)	14%	\$ 89.79	8%	10%	12%	14%	16%
3	No Of Instalments(NPVR)	12	6					
4	Loan Amount(PV)	\$ 1 000.00	12					
5			18					
6			24					
7			30					
8			36					

5. Select C2:H8 and click on the Data ribbon



6. Select What if Analysis and click on Data table



7. Enter \$B\$2-Row input cell (interest rate) and \$B\$3-Column input cell (repayment period) and click OK as displayed above. That will give you a loan repayment table

	A	B	C	D	E	F	G	H
1		Loan Repayment Table						
2	Interest rate(Rate)	14%	\$ 89.79	8%	10%	12%	14%	16%
3	No Of Instalments(NPVR)	12	6	\$ 170.58	\$ 171.56	\$ 172.55	\$ 173.54	\$ 174.53
4	Loan Amount(PV)	\$ 1 000.00	12	\$ 86.99	\$ 87.92	\$ 88.85	\$ 89.79	\$ 90.73
5			18	\$ 59.14	\$ 60.06	\$ 60.98	\$ 61.92	\$ 62.86
6			24	\$ 45.23	\$ 46.14	\$ 47.07	\$ 48.01	\$ 48.96
7			30	\$ 36.89	\$ 37.81	\$ 38.75	\$ 39.70	\$ 40.66
8			36	\$ 31.34	\$ 32.27	\$ 33.21	\$ 34.18	\$ 35.16

GOAL SEEK What IF Analysis Tool

Question: Can I find the result I want by adjusting the input value?

Answer: Yes, with the GOAL SEEK What IF analysis Tool

Process (Excel 2003, 2007 and 2010):

Goal Seek is a powerful what if analysis tool which takes a result and determines possible input values that produce that result. For instance, if you want a new net salary of \$1000 from \$935; that can be achieved by adjusting the basic salary.

The Goal seek function only accepts one variable and a formula must be entered to achieve the desired results.

1. Enter the data as given below

	A	B
1	SALARY SLIP	
2		
3	BASIC SALARY	\$ 1 000.00
4	BONUS	
5	GROSS SALARY	
6	TAX	
7	NET SALARY	

2. In cell B4 type $=10\%*B3$ and press enter

3. In cell B5 type $=B3 + B4$ and press enter

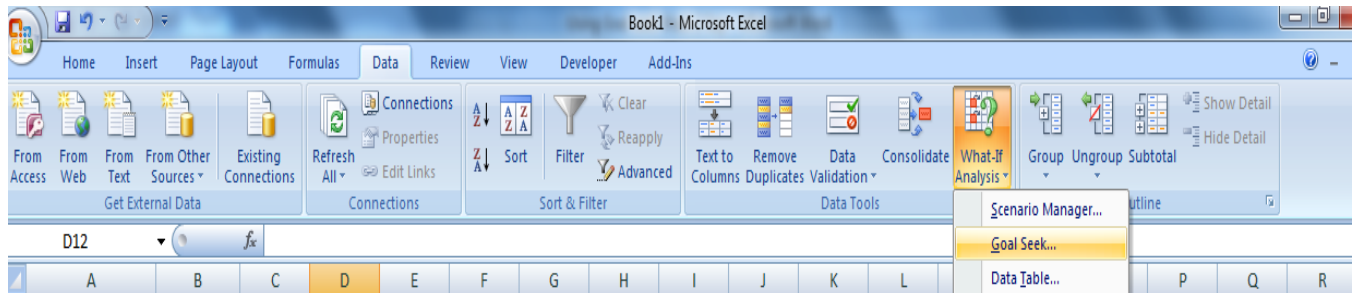
4. In cell B6 type $=15\%*B5$ and press enter

5. In cell B7 type $B5 - B6$ and press enter

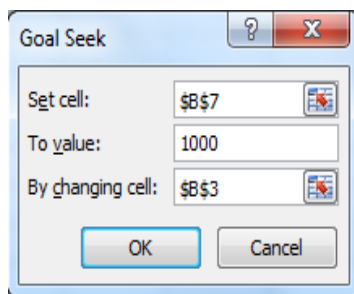
6. You will get the results displayed below

	A	B
1	SALARY SLIP	
2		
3	BASIC SALARY	\$ 1 000.00
4	BONUS	\$ 100.00
5	GROSS SALARY	\$ 1 100.00
6	TAX	\$ 165.00
7	NET SALARY	\$ 935.00

7. Select Data, What If analysis, Goal seek



8. Enter the values as follows; Set Cell \$B\$7, To value 1000, By changing cell \$B\$3 and click OK twice



9. The net salary will be \$1000 and the basic salary will be adjusted to \$1069.52

	A	B
1	SALARY SLIP	
2		
3	BASIC SALARY	\$ 1 069.52
4	BONUS	\$ 106.95
5	GROSS SALARY	\$ 1 176.47
6	TAX	\$ 176.47
7	NET SALARY	\$ 1 000.00

Scenario Manager

Question: Can I create and save different groups of values on a worksheet and then switch between these values to view the different results?

Answer: Yes, with the SCENARIO MANAGER

Process (Excel 2003, 2007 and 2010):

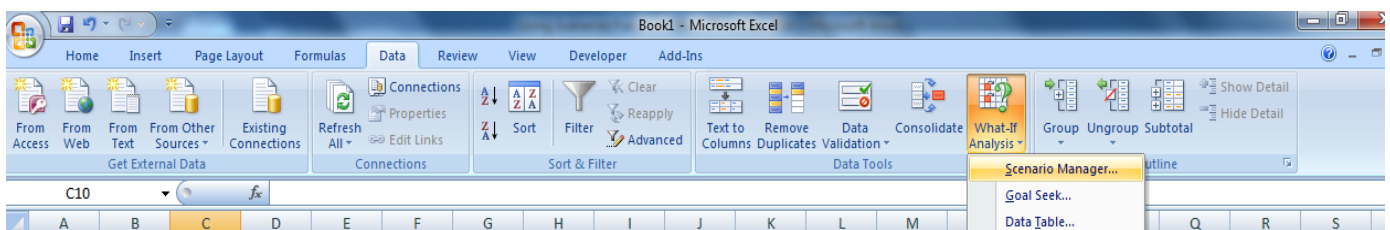
A scenario is a set of values that Microsoft Office Excel saves and can substitute automatically on your worksheet. You can create and save different groups of values as scenarios on a worksheet and then switch between these scenarios to view the different results.

1. Create the spreadsheet given below

	A	B	C	D
1				
2				
3				
4				
5				
6				
7				

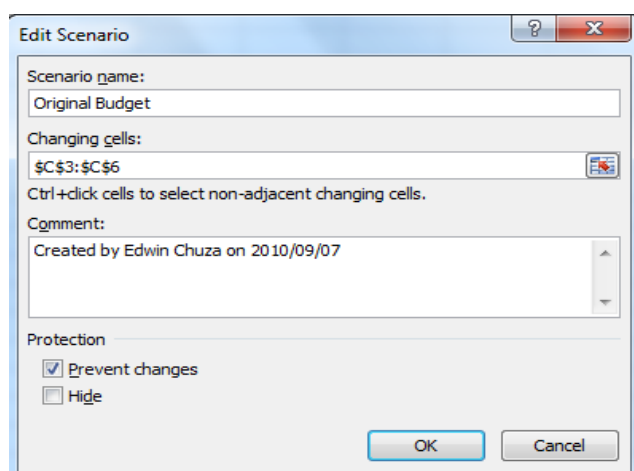
2. Select cell C7 and type =sum(C3:C6) and press enter

3. Select data ,what If analysis ,scenario manager

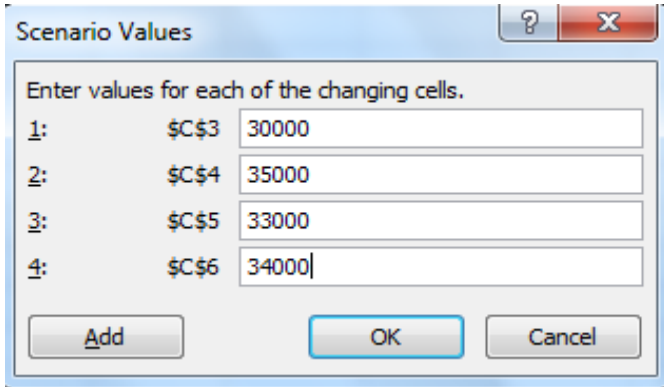


4. Click on the ADD button

5. Enter the heading, original Budget and highlight from C3:C6 under changing cells



6. Click ok and enter the following figures in the given order of 30000, 35000, 33000 and 34000.



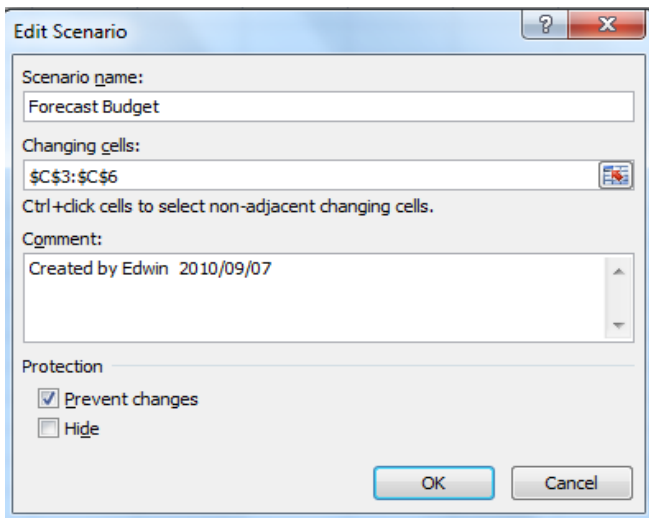
Scenario Values

Enter values for each of the changing cells.

1:	\$C\$3	30000
2:	\$C\$4	35000
3:	\$C\$5	33000
4:	\$C\$6	34000

Buttons: Add, OK, Cancel

7. Select OK
8. Click on the ADD button
9. Enter the heading, Forecast Budget and highlight from C3:C6 under changing cells



Edit Scenario

Scenario name:
Forecast Budget

Changing cells:
\$C\$3:\$C\$6

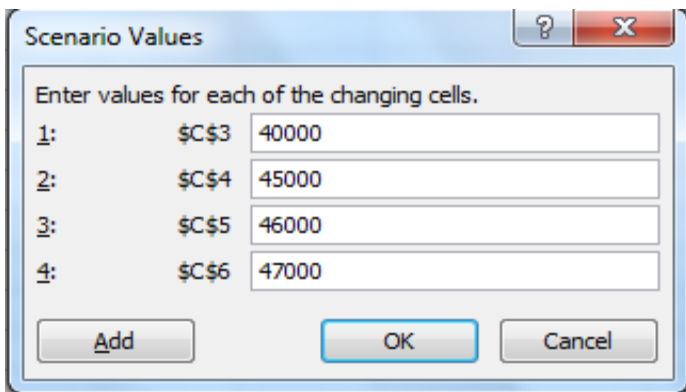
Ctrl+click cells to select non-adjacent changing cells.

Comment:
Created by Edwin 2010/09/07

Protection
☒ Prevent changes
☐ Hide

Buttons: OK, Cancel

10. Click ok and enter the following figures in the given order of 40000, 45000, 46000 and 47000.



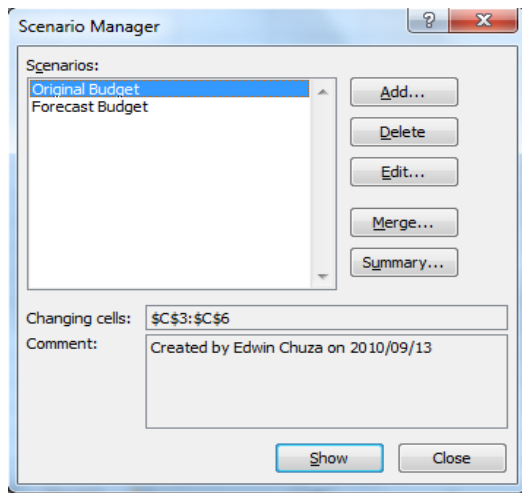
Scenario Values

Enter values for each of the changing cells.

1:	\$C\$3	40000
2:	\$C\$4	45000
3:	\$C\$5	46000
4:	\$C\$6	47000

Buttons: Add, OK, Cancel

11. Click ok



12. To view the Original Budget select original budget and click the show button.

13. To view the Forecast Budget select Forecast budget and click the show button.



Loading The Solver Add-In Option

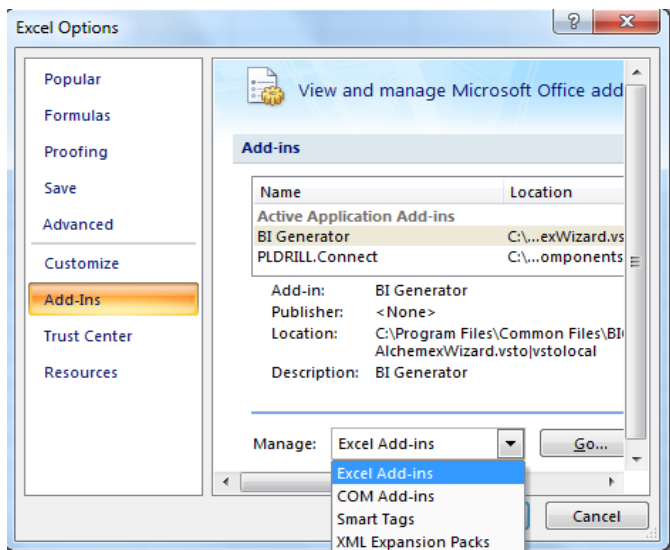
Question: Am I able to load an option such as solver add-in, if it is not found on the data ribbon?

Answer: Yes, with the Excel Add in command.

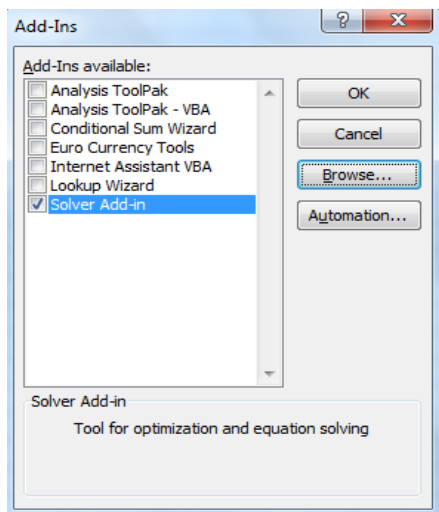
Process (Excel 2003, 2007 and 2010):

The Solver Add-in is a Microsoft Office Excel add-in program that is available when you install Microsoft Office or Excel. To use it in Excel, however, you need to load it first. (The solver option is one of the What-if analysis tools used to find the optimal value for a formula in a cell called the target cell.)

1. Click the **Microsoft Office Button**  , and then click **Excel Options**.
2. Click **Add-Ins**, and then in the **Manage** box, select **Excel Add-ins**.



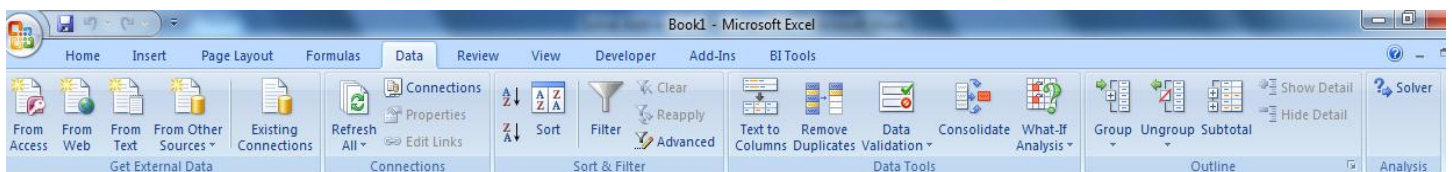
3. Click **Go**.
4. In the **Add-Ins available** box, select the **Solver Add-in** check box, and then click **OK**.



Tip If **Solver Add-in** is not listed in the **Add-Ins available** box, click **Browse** to locate the add-in.

If you get prompted that the Solver Add-in is not currently installed on your computer, click **yes** to install it.

5. After you load the Solver Add-in, the **Solver** command is available in the **Analysis** group on the **Data** tab.



Evaluating Multiple Conditions In A Formula With The Nested IF Statement

Question: Can I evaluate multiple conditions in a formula?

Answer: Yes, with the Nested If Statement

Why: In order to construct more elaborate tests of the data

Process (Excel 2003, 2007 and 2010):

The If statement can be used to conduct conditional tests on values and formulas. However if more elaborate testing of data will be carried out then the Nested If Statement can be used.

1. To calculate the trade discount percentage for clients based on the table below;

TOTAL PURCHASES	DISCOUNT PERCENTAGE
>=\$30,000	7%
>=\$20,000	5%
>=\$10,000	3%
<\$10,000	0%

2. Enter the data given below

	A	B	C	D
1	CUSTOMER NO	NAME	PURCHASES	TRADE DISCOUNT PERCENTAGE
2	C001	ABC TRADING	\$ 30 000.00	
3	C002	XYZ LTD	\$ 22 000.00	
4	C003	QWE PTY	\$ 15 000.00	
5	C004	MOX RETAILERS	\$ 10 000.00	
6	C005	JAS CC	\$ 5 000.00	

3. Select cell D2 and type the following formula;
`=IF(C2>=30000,"7%",IF(C2>=20000,"5%",IF(C2>=10000,"3%","0%")))`
4. Press enter and copy the formula down
5. The result will be as below

	A	B	C	D
1	CUSTOMER NO	NAME	PURCHASES	TRADE DISCOUNT PERCENTAGE
2	C001	ABC TRADING	\$ 30 000.00	7%
3	C002	XYZ LTD	\$ 22 000.00	5%
4	C003	QWE PTY	\$ 15 000.00	3%
5	C004	MOX RETAILERS	\$ 10 000.00	3%
6	C005	JAS CC	\$ 5 000.00	0%

Expanding The Usefulness Of Other Functions That Perform Logical Tests With The AND Function

Question: Can I expand the usefulness of other functions that perform logical tests?

Answer: Yes, with the AND function

Why: One can test many different conditions by nesting the And function with the IF statement.

Process (Excel 2003, 2007 and 2010):

Returns TRUE if all its arguments evaluate to TRUE; returns FALSE if one or more arguments evaluate to FALSE. One common use for the AND function is to expand the usefulness of other functions that perform logical tests.

1. To qualify for a bonus an employee must exceed \$1000 in sales and have 3 or more years in service to the company. Furthermore they should also belong to the Sales Department.
2. If those initial conditions are met the deserving employees will get \$100 for each year served plus 5% of their total sales amounts.

	A	B	C	D	E
1	Employee No	NAME	TOTAL SALES	YEARS IN SERVICE	Dept
2	E001	J.BLOGGS	\$1 200.00	3	Sales
3	E002	B.PETERS	\$1 100.00	4	Sales
4	E003	A.JOHN	\$1 300.00	1	sales
5	E004	N.JONES	\$1 400.00	5	Accounts
6	E005	A.ALLAN	\$1 100.00	6	sales
7	E006	R.RONIE	\$ 900.00	3	Operations

3. Select cell F2 and type the following formula;
`=IF(AND(C2>1000,D2>=3,E2="sales"),(C2*5%)+(D2*100),"No Bonus")`
4. Press enter and copy the formula down

5. The result will be as given below

	A	B	C	D	E	F
1	Employee No	NAME	TOTAL SALES	YEARS IN SERVICE	Dept	Bonus
2	E001	J.BLOGGS	\$1 200.00	3	Sales	\$ 360.00
3	E002	B.PETERS	\$1 100.00	4	Sales	\$ 455.00
4	E003	A.JOHN	\$1 300.00	1	sales	No Bonus
5	E004	N.JONES	\$1 400.00	5	Accounts	No Bonus
6	E005	A.ALLAN	\$1 100.00	6	sales	\$ 655.00
7	E006	R.RONIE	\$ 900.00	3	Operations	No Bonus



34

Tracking Tasks & Assignments

Question: As the organizer of weekly sales meetings, I am required to prepare an electronic attendance register to the Sales Director. I currently use MS Excel for recording the attendance. I usually enter “A” for staff who attended the meeting and an “X” for those who were absent. Is there a better way of tracking employees who attend or do not attend the meetings? What I have in mind is  present &  absent.

Answer: Yes, by using the great new conditional formatting rules

Why: In order to track tasks or assignments through formatted icon sets

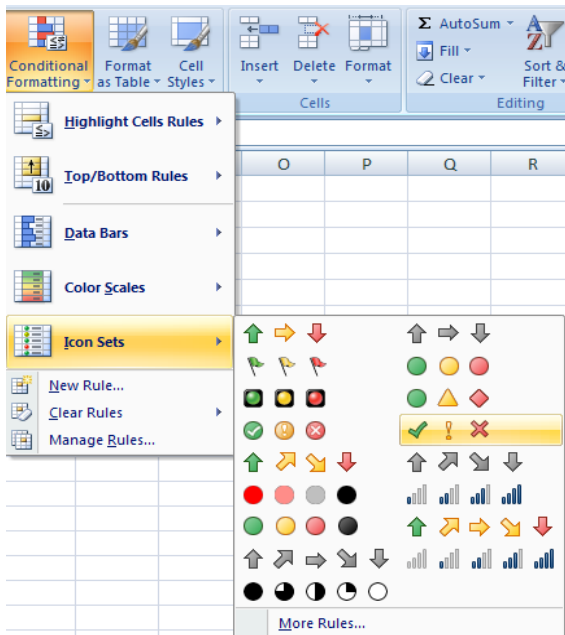
Process (2007 and 2010):

1. Set up the spreadsheet with 1 for people that attended and 0 for those that did not attend

	A	B	C
1	Name	Surname	Attend
2	Mary	Kruger	1
3	Alex	Mayer	0
4	Joe	Nell	0
5	Andy	Miles	1
6	Lionel	Berry	1
7	Kevin	Schotter	0

2. In this example you would Highlight the range C2:C7

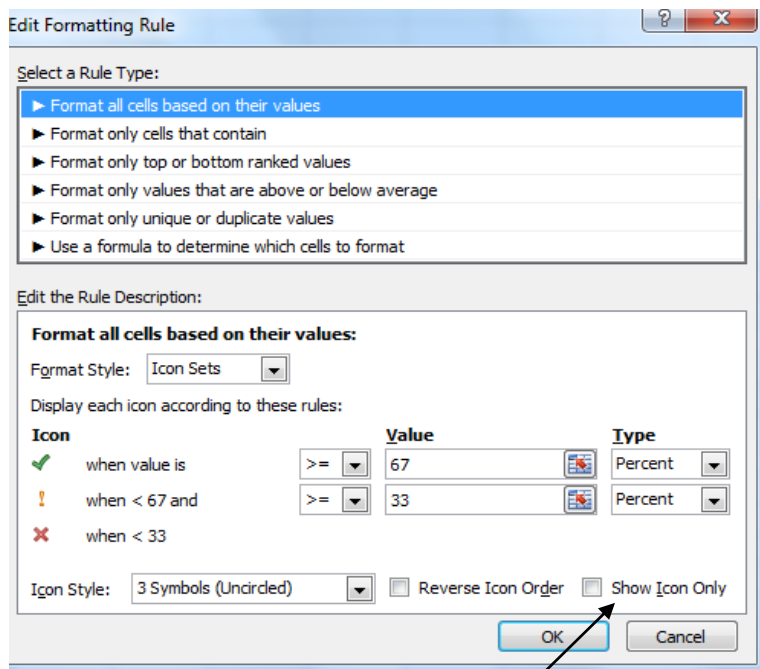
3. From the Home tab ,in the styles group ,click on the drop down arrow under conditional formatting
4. Select Icon sets
5. Click the one with the Tick, Exclamation mark and X
6. Refer to the screen shot below



7. The result will be as given below

	A	B	C
1	Name	Surname	Attend
2	Mary	Kruger	✓ 1
3	Alex	Mayer	✗ 0
4	Joe	Nell	✗ 0
5	Andy	Miles	✓ 1
6	Lionel	Berry	✓ 1
7	Kevin	Schotter	✗ 0

8. From the Home tab ,in the styles group, click on the drop down arrow under conditional formatting
9. To show only the icon next to the names; Select Manage Rules
10. Select Edit Rule



11. Select show Icon Only check box, Select OK, Apply ,OK

	A	B	C
1	Name	Surname	Attend
2	Mary	Kruger	✓
3	Alex	Mayer	✗
4	Joe	Nell	✗
5	Andy	Miles	✓
6	Lionel	Berry	✓
7	Kevin	Schotter	✗

You can very quickly at a glance see who attended and who did not attend the meeting.

How To Calculate Negative & Postive Values With The Sumif Function

Question: I usually export the stock movement data from our Accounting Package into Excel. However I struggle to calculate the total for the negative values (stock out) and positive values (stock in) separately .The data is placed in one column when exported to Excel. Is there a way of overcoming the allocation of positives and negatives to the stock movement?

Answer: Yes, with the SumIf function. In Excel, the SumIf function adds all numbers in a range of cells, based on a given criteria.

Why: To calculate the total of the stock movement, (stock in and stock out) data separately.

Applies To: Excel 2010, Excel 2007, Excel 2003, Excel XP, Excel 2000

1. Enter data as in the example given below

	A	B	C	D	E
1			WYX ENTERPRISES		
2			STOCK REPORT		
3		Stock No	Description	Date	Stock In/Out
4		NE01	Network cables	03/10/2010	60
5		MO01	Mouse Pads	09/10/2010	-56
6		NE01	Network cables	13/10/2010	89
7		KE01	Keyboards	14/10/2010	-10
8		MN01	Monitors	15/10/2010	77
9		KE01	Keyboards	15/10/2010	-45
10		CH01	Chairs	17/10/2010	55
11		PR01	Projectors	19/10/2010	65
12		MO01	Mouse Pads	21/10/2010	-20
13		Total In			
14		Total Out			

2. Select cell E13 and type =SUMIF(E4:E12,">0")

3. Select cell E14 and type =SUMIF(E4:E12,"<0")

4. The result will be as below

	A	B	C	D	E
1		WYX ENTERPRISES			
2		STOCK REPORT			
3		Stock No	Description	Date	Stock In/Out
4		NE01	Network cables	03/10/2010	60
5		MO01	Mouse Pads	09/10/2010	-56
6		NE01	Network cables	13/10/2010	89
7		KE01	Keyboards	14/10/2010	-10
8		MN01	Monitors	15/10/2010	77
9		KE01	Keyboards	15/10/2010	-45
10		CH01	Chairs	17/10/2010	55
11		PR01	Projectors	19/10/2010	65
12		MO01	Mouse Pads	21/10/2010	-20
13		Total In			346
14		Total Out			-131

One is therefore able to calculate the stock in and stock out totals by using the SUMIF function.



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Creating Customized Functions With VBA For Excel

Question: One of my tasks as the Sales Manager is to calculate the percentage increase or decrease in sales at the end of the financial year in comparison to prior year sales figures. The formula is quite complex and usually the data captures make mistakes when called upon to enter the formula. Is it possible to create a custom function in Excel to do this calculation?

Answer: Yes, with VBA for Excel. VBA stands for Visual Basic for Applications. It is the friendly programming language used within Excel to develop macros and complex programs.

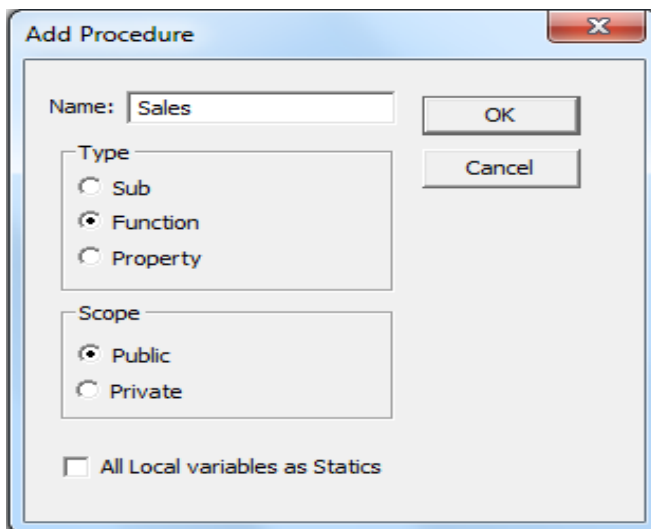
Why: To create a custom function so that the task of calculating the percentage increase or decrease in sales between current vs. prior year will be simplified.

Process (Excel 2003, 2007 and 2010):

1. Create the spreadsheet as in the example below

	A	B	C	D	E	F
1			BLOGGS COMPUTERS			
2			SALES REPORT			
3		Period	Product/Service	Sales For 2009	Sales For 2010	% Increase In Sales
4		JANUARY	Personal Computers	R 250 000.00	R 300 000.00	
5		FEBRUARY	Lap Tops	R 300 000.00	R 350 000.00	
6		MARCH	Printers	R 100 000.00	R 120 000.00	
7		APRIL	Manuals	R 78 000.00	R 50 000.00	
8		MAY	Training	R 450 000.00	R 510 000.00	
9		JUNE	Project Management	R 800 000.00	R 700 000.00	

2. Press ALT + F11 to open VBA Excel
3. Select Insert from the menu bar, select module
4. Select Insert from the menu bar, select procedure
5. Enter Sales as the name, select "Function" under Type and "Public" under Scope. Refer to the screen shot below



6. Select OK
7. Edit the statements to what is given below

Public Function Sales (S2009, S2010)

Sales = (S2010 - S2009) / S2009 * 100

End Function
8. Save the workbook. When saving; for Excel 2007 & 2010 select the 'Save As' type Excel Macro - Enabled Workbook with the extension xlsx. When saving for Excel 2003 save the workbook normally
9. In the Excel Workbook Select cell F4 and type; =Sales(D4,E4)
10. Copy the formula down and reduce the number of decimal digits where necessary
11. The result will be as below

	A	B	C	D	E	F
			BLOGGS COMPUTERS			
			SALES REPORT			
		Period	Product/Service	Sales For 2009	Sales For 2010	% Increase In Sales
		JANUARY	Personal Computers	R 250 000.00	R 300 000.00	20
		FEBRUARY	Lap Tops	R 300 000.00	R 350 000.00	16.67
		MARCH	Printers	R 100 000.00	R 120 000.00	20
		APRIL	Manuals	R 78 000.00	R 50 000.00	-35.90
		MAY	Training	R 450 000.00	R 510 000.00	13.33
		JUNE	Project Management	R 800 000.00	R 700 000.00	-12.5

As can be seen it is now easy to calculate the % Increase/decrease in Sales. The complex formula works in the background. In this way no mistakes will be made.



Data Consolidation Command

Question: I am in charge of finance for a large company with various branches throughout the country. The branch accountants send their budgets quarterly to the Head Office. I then present a consolidated budget to the company board. Currently I have to recreate the consolidated budget for all the branches. This obviously takes time and it is prone to mistakes being made. Can you help me to automate the task of budget consolidation?

Answer: Yes, with the Data Consolidation command

Why: To automate the task of summarizing and consolidating data from multiple worksheets/workbooks into one worksheet.

Applies To: Excel (2010, 2007, 2003, XP, 2000)

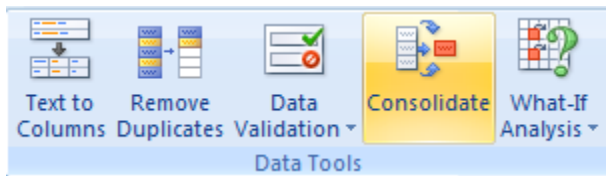
1. Insert a new worksheet
2. Rename Sheet 1, Sheet 2 and Sheet 3 to Branch A, Branch B and summary respectively
3. Enter the data given in the example below on the Branch A worksheet. The same order and location of the data must be maintained on all the worksheets.

	A	B	C	D	E	F
1		JOE BLOGGS PTY				
2		BUDGET REPORT				
3			Transport	Salaries	Advertising	Total
4		January	R 400 000.00	R 1 000 000.00	R 250 000.00	R 1 650 000.00
5		February	R 300 000.00	R 1 000 000.00	R 270 000.00	R 1 570 000.00
6		March	R 600 000.00	R 1 400 000.00	R 350 000.00	R 2 350 000.00
7		April	R 300 000.00	R 1 700 000.00	R 300 000.00	R 2 300 000.00
8		May	R 900 000.00	R 1 500 000.00	R 280 000.00	R 2 680 000.00
9		June	R 800 000.00	R 1 600 000.00	R 200 000.00	R 2 600 000.00
10		Total	R 3 300 000.00	R 8 200 000.00	R 1 650 000.00	R 13 150 000.00
11						

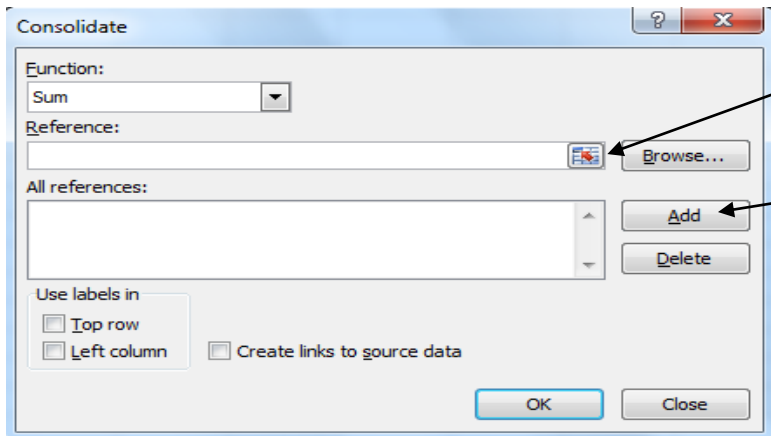
4. Enter the data given below on the Branch B worksheet.

	A	B	C	D	E	F
1		JOE BLOGGS PTY				
2		BUDGET REPORT				
3			Transport	Salaries	Advertising	Total
4		January	R 300 000.00	R 900 000.00	R 200 000.00	R 1 400 000.00
5		February	R 300 000.00	R 800 000.00	R 200 000.00	R 1 300 000.00
6		March	R 500 000.00	R 1 000 000.00	R 300 000.00	R 1 800 000.00
7		April	R 300 000.00	R 1 300 000.00	R 200 000.00	R 1 800 000.00
8		May	R 700 000.00	R 1 300 000.00	R 240 000.00	R 2 240 000.00
9		June	R 600 000.00	R 1 300 000.00	R 150 000.00	R 2 050 000.00
10		Total	R 2 700 000.00	R 6 600 000.00	R 1 290 000.00	R 10 590 000.00

5. Select the summary worksheet, click cell B3
6. For Excel 2010 and 2007; click on Data, consolidate (under data tools)



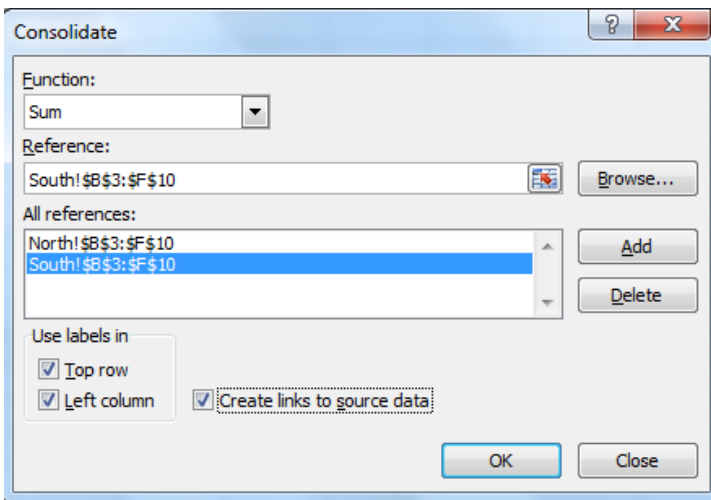
7. For Excel 2003, XP & 2000; click on the data menu, consolidate
8. The screen shot given below will be displayed



Red Arrow

Add Button

9. Select the red arrow under references & highlight the data range B3:F10 on the Branch A worksheet.
10. Press Enter & click the Add button
11. Repeat steps 9 and 10 on the Branch B worksheet
12. The screen shot below will be displayed



13. Refer to the screen shot above (select all the check boxes) and then press enter or click OK

1	2	A	B	C	D	E	F
	1	JOE BLOGGS PTY					
	2	BUDGET REPORT					
	3		Transport	Salaries	Advertising	Total	
+	6	January	R 600 000.00	R 1 800 000.00	R 400 000.00	R 2 800 000.00	
+	9	February	R 600 000.00	R 1 600 000.00	R 400 000.00	R 2 600 000.00	
+	12	March	R 1 000 000.00	R 2 000 000.00	R 600 000.00	R 3 600 000.00	
+	15	April	R 600 000.00	R 2 600 000.00	R 400 000.00	R 3 600 000.00	
+	18	May	R 1 400 000.00	R 2 600 000.00	R 480 000.00	R 4 480 000.00	
+	21	Jun	R 1 000 000.00	R 2 600 000.00	R 300 000.00	R 4 100 000.00	
+	24	Total	R 13 200 000.00	R 2 580 000.00	R 21 180 000.00		

The data will then be consolidated on the summary worksheet. The details can be displayed by clicking on 2 or the plus signs as given above.

To consolidate more Branches or worksheets simply repeat steps 9 & 10 but on the appropriate worksheet.

The Freeze Panes Option

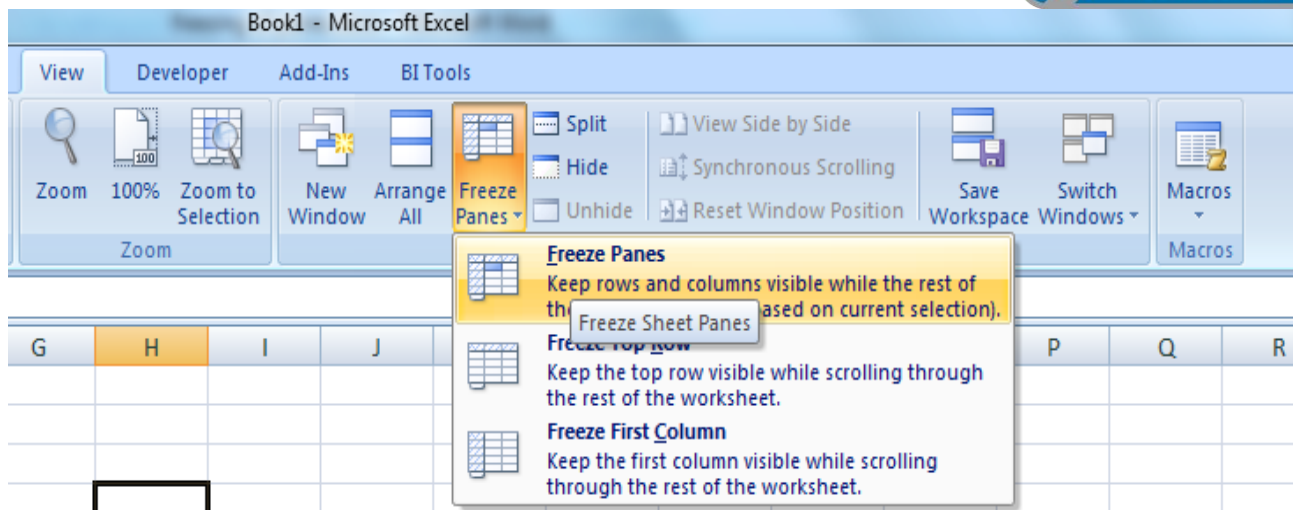
Question: When working with large spreadsheets, it gets a bit frustrating, when you go to read the data in a distant row or column and the headings at the top of the page or down the side of the sheet disappear. Given that I have a huge list of data to analyze in excel, is there a way of freezing the headings so that when scrolling down through the data, the headings are always visible.

Answer: Yes, With Freeze Panes Option

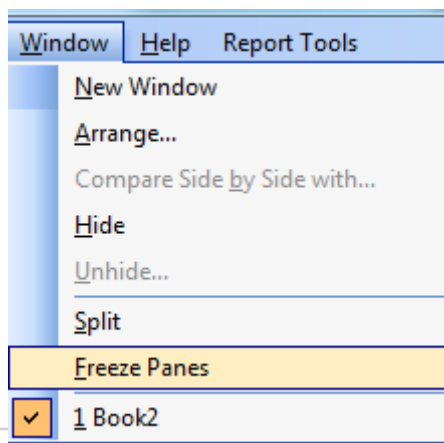
Why: In order to effectively analyze a huge list of data by locking specific columns and row headings.

Applies To: Excel 2010, Excel 2007, Excel 2003, Excel XP, Excel 2000

1. Create the spreadsheet ,usually a huge list so that when you scroll down the headings won't be visible
2. Assuming the headings are in row number 3 and the data list commences in column A
3. To lock both rows and columns, click the cell below and to the right of the rows and columns that you want to keep visible when you scroll(Cell B4)
4. Select freeze panes under the View tab in the Windows group(Excel 2007& 2010)as given below



5. For Excel 2003, XP & 2000 select the windows menu and click freeze panes. Refer to the screen shot below.



The headings are going to be locked hence you can effectively see under which heading the data falls in. To unlock refer to the screen shots above and select unfreeze panes. Freeze panes allow you to lock specific rows and columns so that they will always be visible on screen no matter how far you scroll to the right or down.

Splitting Panes

Question: Is it possible to view different parts of the data worksheet at the same time. For instance when I import the payroll summary report from the payroll system, I would like to see the top ten & bottom ten earners. We have over five hundred employees on our payroll and this analysis is crucial in identifying the trends in our payroll.

Answer: Yes, with split panes option. A very handy feature of Excel is its ability to allow you view more than one copy of your worksheet, and for you to be able to scroll through each pane of your worksheet independently. You can do this by using a feature called Split Panes, which will allow you to split your worksheet both horizontally and vertically.

When you split panes. The panes of your worksheet work simultaneously. If you make a change in one, it will simultaneously appear in the other. If you wish to move the split, just place your mouse over it, hold down your left mouse button and drag to where you want it. To get rid of the split, just double click it, or go to Window>Remove Split

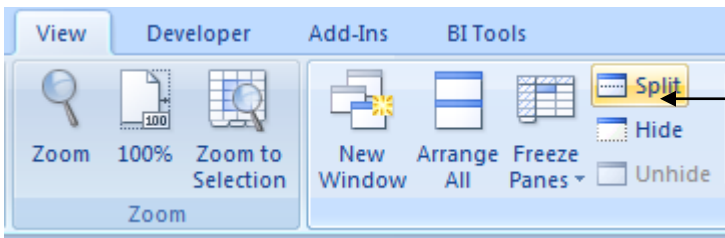
Why: In order to effectively analyze a huge list of data by viewing different parts of the worksheet simultaneously

Applies To: Excel 2010, Excel 2007, Excel 2003, Excel XP, Excel 2000

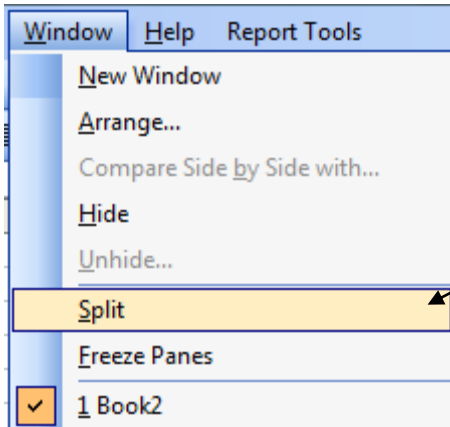
1. Open or create the desired spreadsheet for instance payroll summary report
2. To split panes, point to the split box at the top of the vertical scroll bar or at the right end of the horizontal scroll bar for a vertical split



3. When the pointer changes to a split pointer  or , drag the split box down or to the left to the position that you want.
4. To remove the split, double-click any part of the split bar that divides the panes.
5. Alternatively select the view tab under the windows group then click on split-(Excel 2007 & 2010).For Excel 2003, XP and 2000 click on the windows menu and select split. Refer to the screen shots below.



Excel 2007 &
2010



Excel 2003,XP,2000

One is therefore able to view different parts of the worksheets simultaneously and make informed decisions.

Restricting Data Entry With Data Validation

Question: One of the problems I face as the payroll administrator is that when entering the salaries for staff members, I sometimes enter figures outside the respective salary bands. Our employees are categorized in various grades which then determine the salary bracket. Is there a way of adding some validation so that when the wrong figure for the salary band is captured, an error message will be displayed to that effect?

Answer: That can be done by using - Data Validation

Why: To enter figures within a specified range for a given data set. For instance in the scenario given the salary band for Grade 1 = \$17 000 - \$20 000 & Grade 2 = \$20 000 - \$23 000

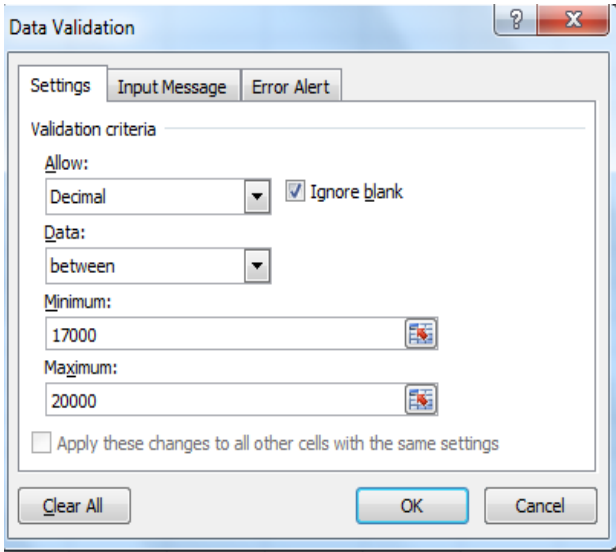
Applies To: Excel 2010, Excel 2007, Excel 2003

1. Enter data as given in the example below

- Figure 1.10: The ribbon tabs and groups in the Microsoft Excel ribbon.

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected on the ribbon. The 'Data' tab menu is open, displaying a list of data management tools. The 'Validation...' option is highlighted in yellow, indicating it is the current selection. Other visible options include 'Sort...', 'Filter', 'Subtotals...', 'Text to Columns...', 'Consolidate...', 'Group and Outline', 'PivotTable and PivotChart Report...', and 'Refresh Data'. The background shows a portion of the Excel worksheet with columns labeled 'Date' and 'C'.

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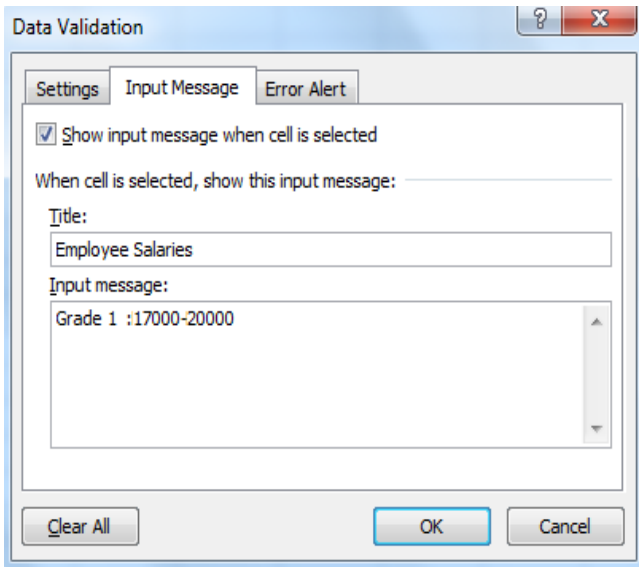


The Data Validation dialog box is shown with the 'Settings' tab selected. The 'Validation criteria' section is configured as follows:

- Allow:** Decimal (dropdown), ☒ Ignore blank
- Data:** between (dropdown)
- Minimum:** 17000
- Maximum:** 20000
- ☐ Apply these changes to all other cells with the same settings

Buttons at the bottom: Clear All, OK, Cancel.

5. Adjust the settings as given above
6. Click on the Input Message Heading. Make changes as displayed below



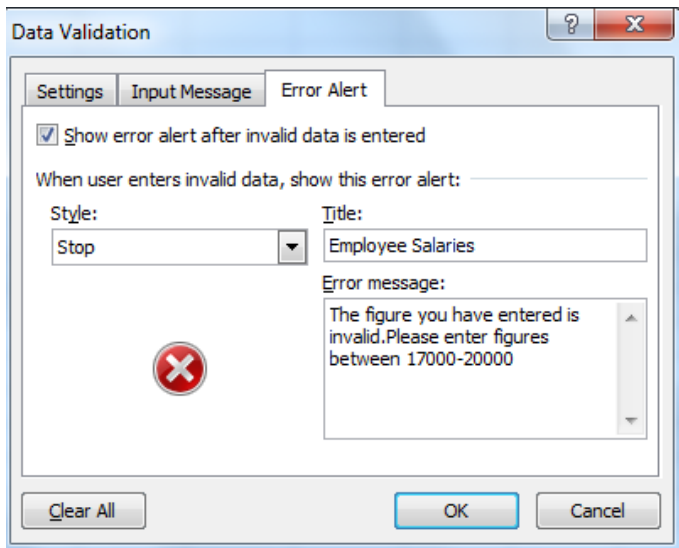
The Data Validation dialog box is shown with the 'Input Message' tab selected. The 'Show input message when cell is selected' checkbox is checked.

When cell is selected, show this input message:

- Title:** Employee Salaries
- Input message:** Grade 1 :17000-20000

Buttons at the bottom: Clear All, OK, Cancel.

7. Click on the Error Alert Heading and make the necessary changes as given below



8. Click OK
9. To enter the salaries for Grade 2 employees, repeat steps 2-8. However the data range will be E5:E8 and the salary band \$20 000 - \$23 000.

The validation will help in entering the correct salaries figures. If the wrong salary figure is entered an error message will be displayed to that effect. Because of the settings under Input message heading an appropriate message will be displayed when a cell within the given data range is selected.

Filtering Data With The Top Ten Feature

Question: In order to effectively monitor the performance of the stock items, I need to have a list of the best performing products in quantity sold. This helps in planning and making sure that enough stock is available at all times. I specifically need to display a list of the top three items. Your help in this regard will be appreciated.

Answer: By using the Top 10 feature in Filtering

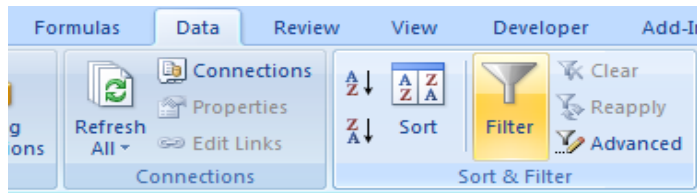
Why: To extract a list of the best / worst performing items

Applies To: Excel 2010, Excel 2007, Excel 2003

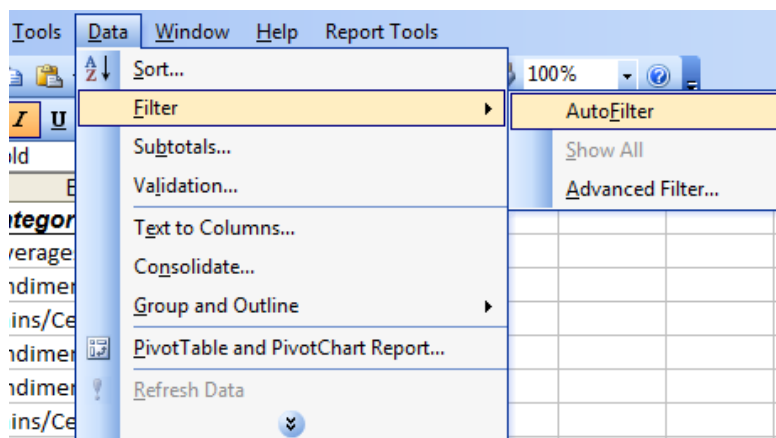
1. Enter data as given in the example below

	A	B	C	D	E	F
4						
5		Product Name	Category Name	Month	Quantity Sold	
6		Chang	Beverages	March	40	
7		Chef Anton's Cajun Seasoning	Condiments	March	30	
8		Seeds	Grains/Cereals	March	45	
9		Aniseed Syrup	Condiments	May	60	
10		Creamy Garlic	Condiments	April	150	
11		Filo Mix	Grains/Cereals	April	330	
12		Louisiana Hot Spiced Sauce	Condiments	May	40	
13		Blue Cheese	Dairy Products	April	160	
14		Original Frankfurter Sauce	Condiments	March	30	
15		Corn Sticks	Grains/Cereals	March	40	
16		Original Frankfurter Sauce	Condiments	May	55	
17						

2. Select the data range E5:E16
3. For Excel 2007 & 2010, click the Data Ribbon, Filter under Sort & Filter. Refer to the screen shot below

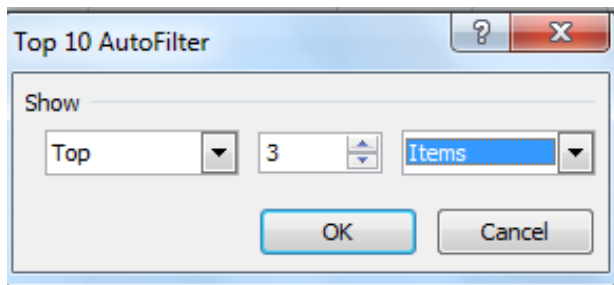


For Excel 2003; Click on Data menu-Filter-AutoFilter as in the screen shot below



4. Click the down arrow  in cell E5, select number Filters then top ten (Excel 2007 & 2010)
5. For Excel 2003 click the down arrow  in cell E5 and select top 10

6. The screen below will then be displayed. Make the necessary changes as given and then click Ok



	A	B	C	D	E	F
4						
5		Product Name	Category Name	Month	Quantity Sold	
10		Creamy Garlic	Condiments	April	150	
11		Filo Mix	Grains/Cereals	April	330	
13		Blue Cheese	Dairy Products	April	160	
17						

As can be seen above the top 3 items have been displayed. This feature is therefore helpful in analyzing data.



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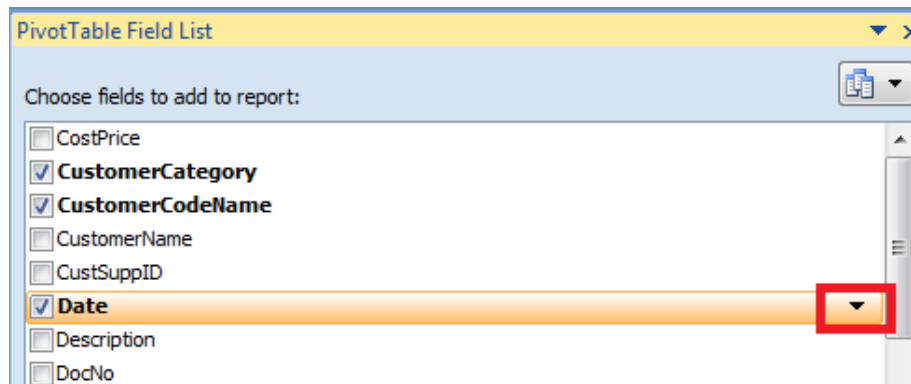
Filtering Data With The Row & Column Feature

Question: I am using Excel 2007 for my sales report. I know I can use the Report Filter in the PivotTable to filter all the sales data. Is there a way that you can just filter a specific Row field? I would like to filter my sales data by Date only?

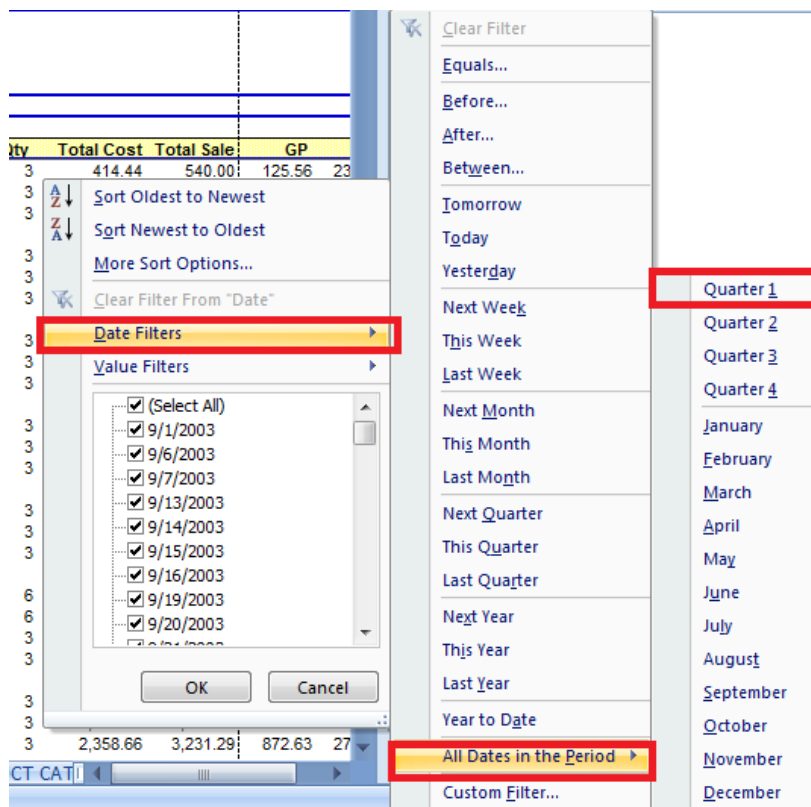
Answer: Yes, using the new filtering options for Row and Column fields in Excel 2007

How:

1. Open your sales report into Excel.
2. Open the PivotTable field list.
3. Hover over the words Date in the top of the PivotTable Field List and you will see a dropdown appear.



4. Select the arrow and a drop down menu will open. You can then filter on your Date field, by selecting the Data filter option from the drop down menu. See the example below.





Top 10 Benefits Of Excel 2010

1 Create data charts in a single cell.

With Sparklines, a new feature in Excel 2010, you can create small charts in a single cell to quickly discover patterns in your data. It's a quick and easy way to highlight important data trends such as seasonal increases or decreases, saving you time.

	Current	1 Year History		
		Trend	High	Low
All Departments	\$ 159.6		\$159.6	\$ 130.5
Women's Apparel	\$ 32.6	↑	\$ 32.6	\$ 30.2
Patio & Garden	\$ 16.2	→	\$ 16.9	\$ 15.1
Toys	\$ 15.7	↑	\$ 15.7	\$ 13.5
Electronics	\$ 14.9	↓	\$ 18.3	\$ 14.9
Baby Apparel	\$ 14.2	→	\$ 14.8	\$ 7.5
Men's Apparel	\$ 13.5	→	\$ 13.2	\$ 12.8
Kid's Apparel	\$ 12.6	→	\$ 12.9	\$ 11.9
Furniture	\$ 11.4	→	\$ 14.5	\$ 8.7
Bed & Bath	\$ 11.1	↑	\$ 11.1	\$ 9.3
Kitchen	\$ 9.9	↑	\$ 10.1	\$ 2.3
Home	\$ 7.5	→	\$ 9.1	\$ 4.5

2 Zero in on the right data points quickly.

Excel 2010 delivers a new and exciting filter enhancement for your PivotTables. The Slicer feature provides you with a

rich visualization of your PivotTable view so you can dynamically segment and filter the data to display precisely what you need. With the new search filter, you can spend less time sifting through large data sets in your tables and PivotTable views, and more time analyzing.

Row Labels	Sum of June	Sum of July
Baby	976	875
Eletronics	997	1352
Furniture	890	798
Kids	463	437
Men	689	352
Patio & Garden	421	257
Toys	422	560
Grand Total	4858	4631

Category

- Baby
- Bed & Bath
- Eletronics
- Furniture
- Kids
- Men
- Patio & Garden

3 Access your spreadsheets from virtually anywhere.

Post your spreadsheets online and then access, view, and edit wherever from just about any computer or your Windows Mobile-based smartphone.¹ With Excel 2010, you can take advantage of a best-in-class spreadsheet experience across multiple locations and devices.

Microsoft Excel Web App. Edit documents in a Web browser when you're away from your office, home, or school without compromising the quality of your viewing experience.¹

Microsoft Excel Mobile 2010. Stay current and take immediate action when necessary using the mobile version of Excel specifically suited to your smartphone.²

4 Connect, share, and accomplish more when working together.

Co-authoring through the Microsoft Excel Web App makes it possible for you to edit the same spreadsheet with others simultaneously from different locations.¹ You can see who's working on a spreadsheet with you at the same time. All modifications are instantly shown and flagged so you can see where others are editing and who those editors are.

5 Add more sophistication to your data presentations.

Conditional Formatting in Excel 2010 gives you more control over styles and icons, improved data bars, and the ability to highlight specific items in a few clicks. You also can display data bars for negative values to more accurately illustrate your data visuals.

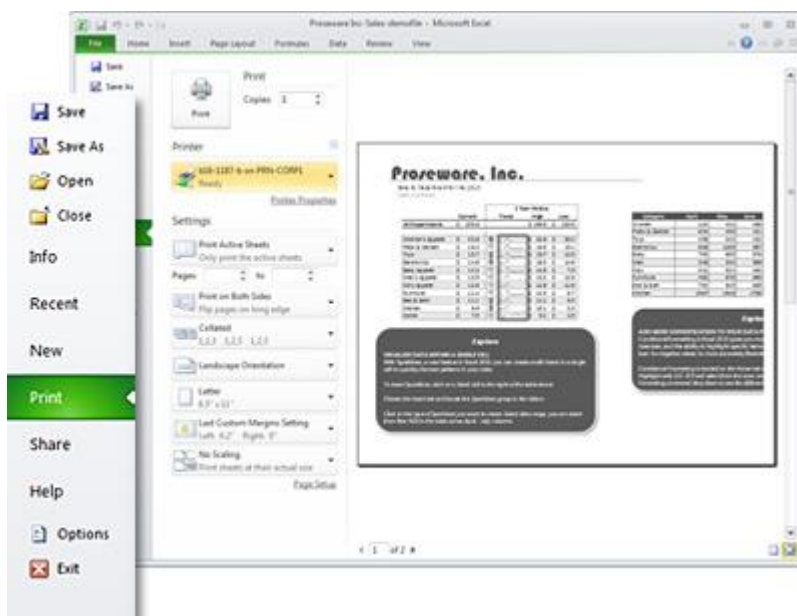
6 Take advantage of more interactive and dynamic PivotCharts.

Quickly gather more insights with the ability to display different data views directly in a PivotChart, independent of PivotTable views, to analyze and capture the most compelling picture of your numbers.



7 Do things easier and faster.

Excel 2010 simplifies how you access features. The new Microsoft Office Backstage™ view replaces the traditional File menu to let you save, share, print, and publish your spreadsheets with just a few clicks. And, with the improved Ribbon, you can access your favorite commands even more quickly by customizing tabs or creating your own to personalize the experience to your work style.



[illegible]

9 Harness more power for building bigger, more complex spreadsheets.

10 Publish and share through Excel Services.

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The Following Eight Tips Are Specifically For Excel 2010



The Ribbon

a. Customize The Ribbon

- Click File, Options
- In the Excel Options window, Click Customize ribbon.
- Click New Tab and add the commands
- Rename the Tab and click OK.

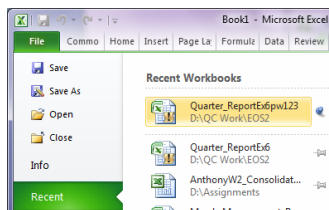
b. Import And Export Ribbon Customizations

- Go to File, Options
- Go to Customize Ribbon
- Select Import/Export
- The customized Ribbon including the Quick Access Toolbar can be imported or Exported



Pin Frequently Used Documents

- Click File, Recent
- Find the **Recent Documents** list displayed on the right side of the menu
- **Locate** the document that you want to pin. If it is not there, click Open and browse to the document so it will be added to the Recent Documents list
- **Select** the corresponding **Pin** (to the right of the document's name) so that it turns blue



- Your document is now **pinned** to the Recent Documents list



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Convert Files To PDF

- Open an Excel file that you want to convert to PDF format.
- Click on the **File** tab and select **Save & Send**.
- Click on **Create PDF / XPS Document** under the **File Types** options.
- Click on the **Create a PDF / XPS** button on the right hand side of the window to open the **Publish as PDF or XPS** dialog box.



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Create A Sparklines

- On the **Insert** Tab, in the **Sparklines** group, click the type of Sparkline
- Select the **Data Range**
- Choose the location and click **OK**



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Slicers

Slicers are easy to use filtering components, with its own set of buttons

a. Create a slicer

- Click the PivotTable for which to create a slicer
- On the **Options**, in the **Sort & Filter** group, click **Insert Slicer**
- In the **Insert Slicers** dialogue box, click the check box for the fields for which you want to create a slicer
- Click **OK**.

b. Formatting Multiple Slicers

If you are formatting multiple slicers, or wish to hide a slicer, you can use the **Selection and Visibility** pane

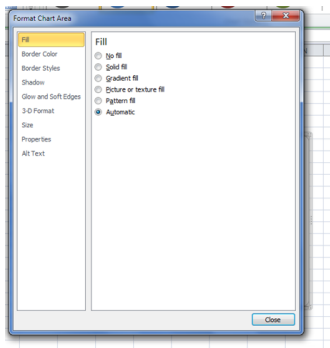
- On the **Options** tab, in the **Arrange** group, click **Selection Pane**

Pivottable Search Function

You can now search a Pivot table. Click the arrow on the filter and enter the value you would like to search for.

Enhanced Chart Diagram

One of the important improvements with respect to charts is that now in Excel 2010 when you double click a chart element, its format dialogue box opens.



What-If Analysis

This new menu item allows manual changes of data in a PivotTable to perform a What-If Analysis. Values that are changed are used in the PivotTable calculations. It allows you to manipulate PivotTables faster with more functionality exposed so you don't have to hunt for what to do. As mentioned previously, since Office 2003, several functions existed in menus that were difficult to find (that is, calculate fields as % of X) because they lived in a right-click property inside the context menus of a PivotTable or a regular table. Now there is just a menu option so you select them and add them easily.



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Sales - sales@alchemex.com

Support - support@alchemex.com

Website - www.alchemex.com

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