Microsoft Excel 2003 Tricks'n Tips

Datasheet

Trademarks

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Viewing Suggestion

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Cover Photo Amatuer photo taken at the site of the The Twelve Apostles located along the Great Ocean Road in Australia.

Microsoft Excel 2003 Tricks 'n' Tips

How do I create a series of numbers?

Automatic Series Completion

There are many times when you want to create a series of numbers or dates across a row or column. You can create a series manually by typing 1, 2, 3, ... into their respective cells or by using a formula such as C4+1, C5+1, etc.

Microsoft Excel provides a convenient shortcut to creating a series, simply by starting the first and second cells in the series, selecting the two cells and then dragging selection area out to the required set of cells.

Scenario – Creating a series of years

Consider a cash flow table that summarises the income and expenses over a series of years as shown below.

	A	B	C	D	E	F	G
1	Example - Yearly Cashflow Table						
2							
3	Yearly Cashflow						
4	Income	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
5	Expenses	$ 38,299	$ 39,234	$ 40,134	$ 42,999	$ 43,087	$ 44,933
6	Net	$ 6,701	$ 5,766	$ 4,866	$ 2,001	$ 1,913	$ 67
7							

Step 1: Enter the first two years of the series

To create a series we need to tell Excel what the series is. In our example Cell B3 is "01/01/2000" and C3 is "01/01/2001" as shown below. Note that the cell formatting in this example is set so that only the year is shown.

	A	B	C	D	E	F	G
1	Example - Yearly Cashflow Table						
2							
3	Yearly Cashflow	2000	2001				
4	Income	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
5	Expenses	$ 38,299	$ 39,234	$ 40,134	$ 42,999	$ 43,087	$ 44,933
6	Net	$ 6,701	$ 5,766	$ 4,866	$ 2,001	$ 1,913	$ 67

Step 2: Select the cells that show first and second elements of the series

Click-and-drag with the mouse to select cells B3 and C3.

	A	B	C	D	E	F	G
1	Example - Yearly Cashflow Table						
2							
3	Yearly Cashflow	2000	2001				
4	Income	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
5	Expenses	$ 38,299	$ 39,234	$ 40,134	$ 42,999	$ 43,087	$ 44,933
6	Net	$ 6,701	$ 5,766	$ 4,866	$ 2,001	$ 1,913	$ 67

Step 3: Click-and-drag the bottom-left corner of the cell and drag to complete the series

Use the mouse to click-and-hold the bottom-left corner of cell C3.

The drag the selection out until G3. The screen should look similar to below.

	A	B	C	D	E	F	G
1	Example - Yearly Cashflow Table						
2							
3	Yearly Cashflow	2000	2001				
4	Income	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 2005 000
5	Expenses	$ 38,299	$ 39,234	$ 40,134	$ 42,999	$ 43,087	$ 44,933
6	Net	$ 6,701	$ 5,766	$ 4,866	$ 2,001	$ 1,913	$ 67

Once the series region is selected then release the mouse button.

Finish: Excel will automatically complete the series for the selection.

	A	B	C	D	E	F	G
1	Example - Yearly Cashflow Table						
2							
3	Yearly Cashflow	2000	2001	2002	2003	2004	2005
4	Income	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000	$ 45,000
5	Expenses	$ 38,299	$ 39,234	$ 40,134	$ 42,999	$ 43,087	$ 44,933
6	Net	$ 6,701	$ 5,766	$ 4,866	$ 2,001	$ 1,913	$ 67

How do I see all the formulas on a worksheet?

View Formulae In Cells

Sometimes it is handy to view (and print) the formulae in all the cells in a spreadsheet without having to manually enter each cell. Being able to view all the formulae makes it easier to debug our own spreadsheets as well as making it simpler to understand other people's spreadsheets.

Scenario – Viewing the formulae in a table.

You may have a table that contains a list of names (Column A), their net wealth (Column B) and the number of years they have been working (Column C). Behind the scenes the spreadsheet calculates the amount of money each person made (Column D) and the average amount made across our sample selection (Cell D19).

	A	B	C	D
1	Example - How to View Formulas in All Cells			
2				
3	Name	Net Worth	Years Worked	Made Per Year
4	Person 1	$191.2M	18	$ 10.62 M/yr
5	Person 2	$179.4M	25	$ 7.17 M/yr
6	Person 3	$171.3M	33	$ 5.19 M/yr
7	Person 4	$138.7M	27	$ 5.14 M/yr
8	Person 5	$143.3M	38	$ 3.77 M/yr
9	Person 6	$181.7M	15	$ 12.11 M/yr
10	Person 7	$113.5M	45	$ 2.52 M/yr
11	Person 8	$157.3M	38	$ 4.14 M/yr
12	Person 9	$173.3M	14	$ 12.38 M/yr
13	Person 10	$176.6M	28	$ 6.31 M/yr
14	Person 11	$119.1M	43	$ 2.77 M/yr
15	Person 12	$199.4M	41	$ 4.86 M/yr
16	Person 13	$192.8M	36	$ 5.35 M/yr
17	Person 14	$155.1M	36	$ 4.31 M/yr
18				
19			Average Amount =	$ 6.19 M/yr

Step 1: Press the Ctrl and ~ keys on the keyboard at the same time to view.

Pressing the Ctrl and ~ keys shows the formulae in every cell on the worksheet. You are now able to view the underlying logic of this spreadsheet.

	A	B	C	D
1	Example - How to Vie			
2				
3	Name	Net Worth	Years Worked	Made Per Year
4	Person 1	=(RAND()*100+100)	=INT(RAND()*40+10)	=B4/C4
5	Person 2	=(RAND()*100+100)	=INT(RAND()*40+10)	=B5/C5
6	Person 3	=(RAND()*100+100)	=INT(RAND()*40+10)	=B6/C6
7	Person 4	=(RAND()*100+100)	=INT(RAND()*40+10)	=B7/C7
8	Person 5	=(RAND()*100+100)	=INT(RAND()*40+10)	=B8/C8
9	Person 6	=(RAND()*100+100)	=INT(RAND()*40+10)	=B9/C9
10	Person 7	=(RAND()*100+100)	=INT(RAND()*40+10)	=B10/C10
11	Person 8	=(RAND()*100+100)	=INT(RAND()*40+10)	=B11/C11
12	Person 9	=(RAND()*100+100)	=INT(RAND()*40+10)	=B12/C12
13	Person 10	=(RAND()*100+100)	=INT(RAND()*40+10)	=B13/C13
14	Person 11	=(RAND()*100+100)	=INT(RAND()*40+10)	=B14/C14
15	Person 12	=(RAND()*100+100)	=INT(RAND()*40+10)	=B15/C15
16	Person 13	=(RAND()*100+100)	=INT(RAND()*40+10)	=B16/C16
17	Person 14	=(RAND()*100+100)	=INT(RAND()*40+10)	=B17/C17
18				
19			Average Amount =	=AVERAGE(D4:D17)

Helping Note: In this current view you can print this page out to your printer.

Step 2: Press the Ctrl and ~ keys to return to the normal view.

How do I highlight a cell based on special conditions?

Conditional Formatting

There are many occasions where you may want to have Excel change the formatting of a cell and its contents depending on the value in the cell. This could be handy to highlight sections of your spreadsheet based on different scenarios.

Scenario – Bank Account Balance

You may have a cell that contains the total balance of all your bank accounts and it gets highlighted in yellow if the balance falls below $0.
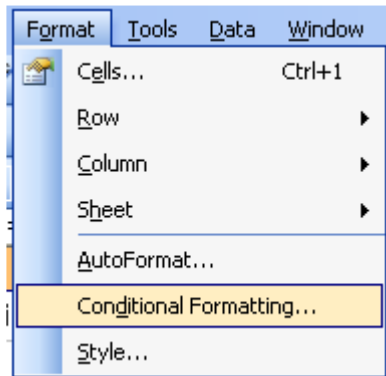
The figure below shows the spreadsheet with a "Net Value" > $0.00. The formatting of this cell is in its normal format.

	A	B	C	D	E
1	**Example - Conditional Formatting**				
2					
3	**Bank Accounts**				
4		Savings Account 1	$2,100		
5		Savings Account 2	$1,500		
6		Credit Card 1	$0		
7		Credit Card 2	-$200		
8		Credit Card 3	-$1,800		
9		Net Value =	$1,600		
10					

For financial security we want Excel to highlight the "Net Value" (cell C9) when the net value amount drops below $0.00.

Step 1: Select the cell we want to apply conditional formatting to

	A	B	C	D	E
1	**Example - Conditional Formatting**				
2					
3	**Bank Accounts**				
4		Savings Account 1	$2,100		
5		Savings Account 2	$1,500		
6		Credit Card 1	$0		
7		Credit Card 2	-$200		
8		Credit Card 3	-$1,800		
9		Net Value =	$1,600		
10					

5

Step 2: Select the Conditional Formatting menu item as shown right

Step 3: Tell Excel what the special formatting conditions are
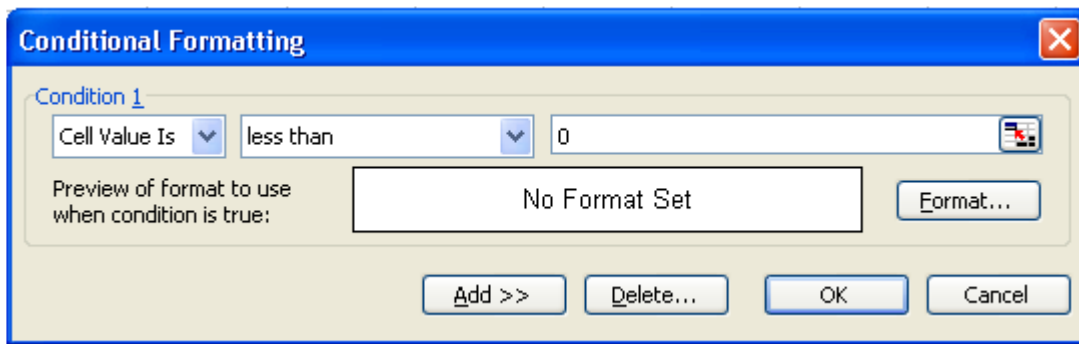
Step 4: Press the Format button to set the format of the cell when this condition is met

Step 5: Press OK to accept the conditions and conditional cell formatting

In the Format Cells dialog box, press the OK button to accept the conditional cell format.

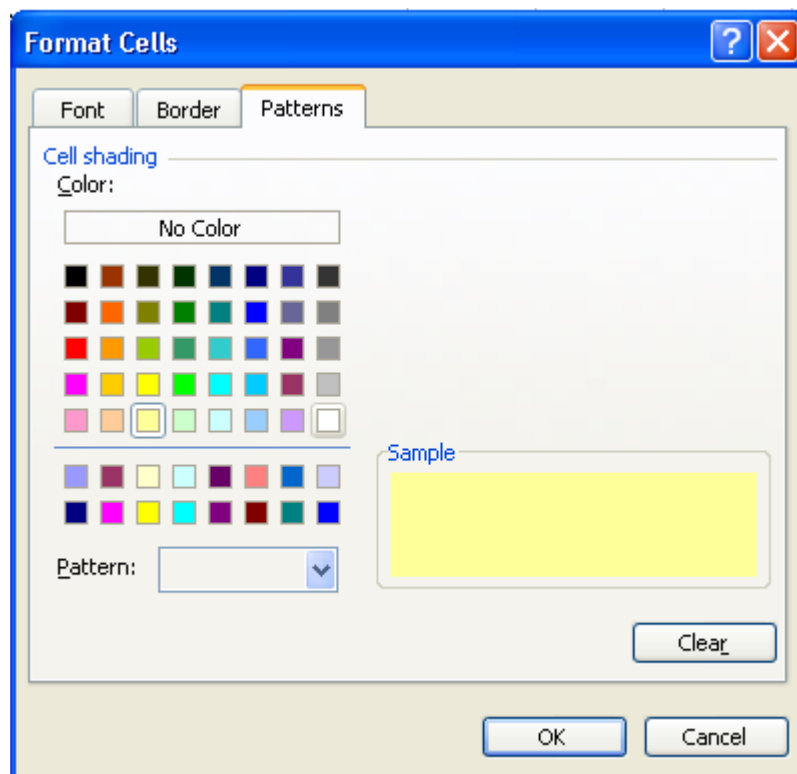In the Conditional Formatting dialog box, press the OK button apply the conditions.

Let us assume that we went out shopping that day and spent $2,000 using Credit Card 1 and updated cell C6 to reflect this change. As you can see, the Net Value has dropped below $0 and the cell automatically highlights this.

	A	B	C	D	E
1	Example - Conditional Formatting				
2					
3	Bank Accounts				
4		Savings Account 1	$2,100		
5		Savings Account 2	$1,500		
6		Credit Card 1	-$2,000		
7		Credit Card 2	-$200		
8		Credit Card 3	-$1,800		
9		Net Value =	-$400		
10					

How do I create an IF formula?

IF Statements

Normally we calculate the value of a cell based on the value in another cell, for example multiply a value by 4 and put that answer in another cell. Occasionally we want to calculate the value of a cell only if a certain criteria is met.

Scenario – Applying an automatic discount on an invoice.

In this example we want to create an invoice that automatically applies a 10% discount if the original value of the order exceeds $100.

The figure below shows a sample invoice spreadsheet. Each line (Lines 4, 5, 6 and 7) is individually tallied and then subtotalled in Cell E9.

	A	B	C	D	E
1	**Example - Automatic Invoice Discount System**				
2					
3	**Order Description**		**Unit Price**	**Qauntity**	**Cost**
4	Item 1	Ball Point Pens	$0.35	100	$35.00
5	Item 2	Whiteboard markers	$2.95	2	$5.90
6	Item 3	Executive Pens	$9.95	5	$49.75
7	Item 4	Executive Gift Sets	$35.95	5	$179.75
8					
9				Subtotal =	$270.40
10				Discount =	
11				Total =	$270.40

Step 1: Select the cell that will contain the conditional calculation (IF statement).

Click on the E10 cell.

	A	B	C	D	E
1	**Example - Automatic Invoice Discount System**				
2					
3	**Order Description**		**Unit Price**	**Qauntity**	**Cost**
4	Item 1	Ball Point Pens	$0.35	100	$35.00
5	Item 2	Whiteboard markers	$2.95	2	$5.90
6	Item 3	Executive Pens	$9.95	5	$49.75
7	Item 4	Executive Gift Sets	$35.95	5	$179.75
8					
9				Subtotal =	$270.40
10				Discount =	
11				Total =	$270.40

Step 2: Select the Paste Function Menu item as shown right
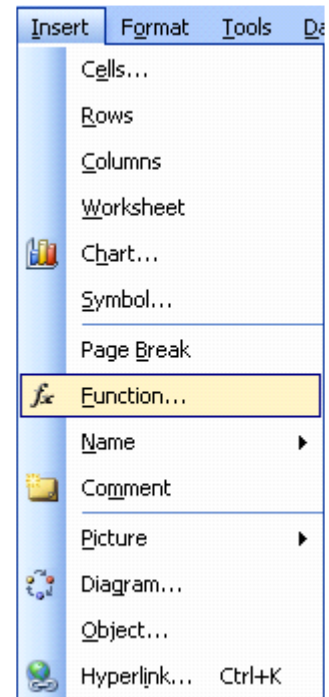
Step 3: Select the IF statement from the Paste Function selection box
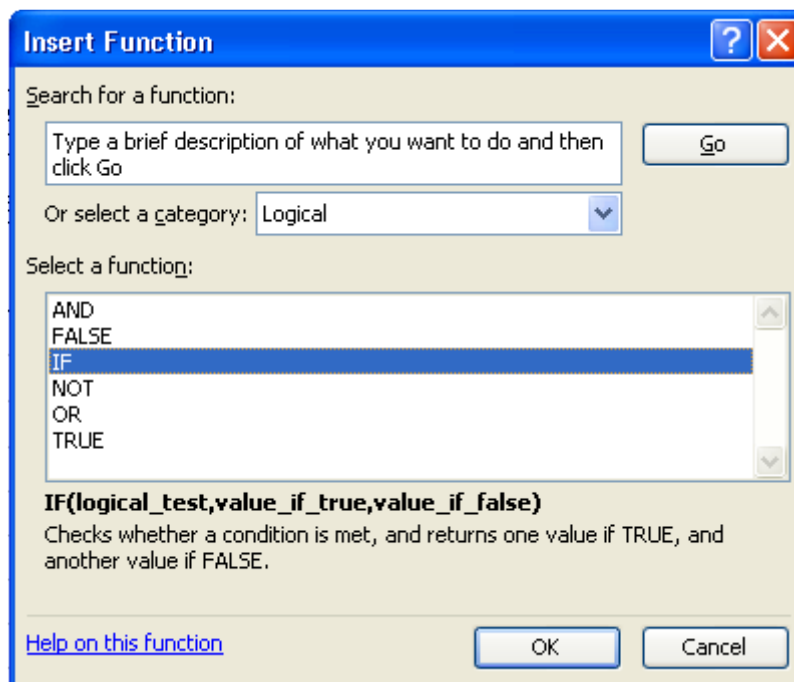
In the Paste Function dialog box, select "Logical" from the Function Category and "IF" from the Function Name then press the OK button.

Step 4: Enter the conditional formula into the Paste Function helper

	A	B	C	D	E	F
1	**Example - Automatic Invoice Discount System**					
2						
3	**Order Description**		**Unit Price**	**Qauntity**	**Cost**	
4	Item 1	Ball Point Pens	$0.35	100	$35.00	
5	Item 2	Whiteboard markers	$2.95	2	$5.90	
6	Item 3	Executive Pens	$9.95	5	$49.75	
7	Item 4	Executive Gift Sets	$35.95	5	$179.75	
8						
9				Subtotal =	$270.40	
10				Discount =	% * E9,0)	
11				Total =	$270.40	
12						

Function Arguments ✕

IF

Logical_test	E9 > 100	🔢	= TRUE
Value_if_true	-10% * E9	🔢	= -27.04
Value_if_false	0	🔢	= 0

= -27.04

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 =   -$27.04

Help on this function   OK   Cancel

<u>Helping Note:</u> You can move the helper box around the screen by click-and-dragging anywhere in the grey area of the box.

The "Logical_test" field determines what special conditions we want to apply. In this case, the special condition is when the subtotal field (Cell E9) is greater than $100.00 (100).

In the circumstances where the Logical_test is "True" then the "Value_if_true" field is applied. In this case the subtotal field (E9) exceeds $100.00 (E9=$270.40) so the Logical_test is true and we want to apply a discount of 10% to the subtotal amount (formula = -10% * E9).

In the circumstances where the Logical_test is "False" then the "Value_if_false" field is applied. In our formula we want a discount of $0.00 applied when the subtotal field (E9) is less than or equal to $100.00.

Press the OK button when you are satisfied that the formula is correct.

In our example the subtotal value is $270.40, which exceeds the $100.00 threshold so a 10% discount is applied.

	A	B	C	D	E
1	**Example - Automatic Invoice Discount System**				
2					
3	**Order Description**		**Unit Price**	**Qauntity**	**Cost**
4	Item 1	Ball Point Pens	$0.35	100	$35.00
5	Item 2	Whiteboard markers	$2.95	2	$5.90
6	Item 3	Executive Pens	$9.95	5	$49.75
7	Item 4	Executive Gift Sets	$35.95	5	$179.75
8					
9				Subtotal =	$270.40
10				Discount =	-$27.04
11				Total =	$243.36

If for some reason we decided not to order any Executive Gift Sets (D7=0) then the subtotal does not exceed the $100.00 threshold and no discount is applied.

	A	B	C	D	E
1	**Example - Automatic Invoice Discount System**				
2					
3	**Order Description**		**Unit Price**	**Qauntity**	**Cost**
4	Item 1	Ball Point Pens	$0.35	100	$35.00
5	Item 2	Whiteboard markers	$2.95	2	$5.90
6	Item 3	Executive Pens	$9.95	5	$49.75
7	Item 4	Executive Gift Sets	$35.95	0	$0.00
8					
9				Subtotal =	$90.65
10				Discount =	$0.00
11				Total =	$90.65

How do I count the cells that only meet my criteria?

COUNTIF Statements

Occasionally you might have a list of items and you want to count how many times certain criterion is met. For example you might want to count how many David's there are in a list of Christian names or count how many purchases exceeded $100.00.

Scenario – Count how many "fails" occurred in a list of pass/fail exam results

In this example we have a list of students and their pass/fail results of a recent exam as shown below and we want to count how many students passed the exam.
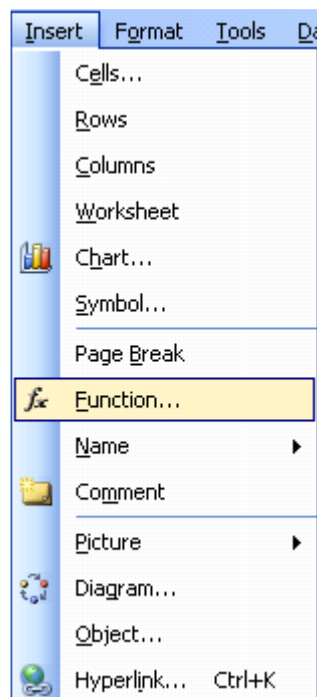
	A	B	C	D
1	**Example - How many students passed?**			
2				
3	**Student Name**	**Exam Result**		
4	Mary	FAIL		
5	Patricia	PASS		
6	Linda	PASS		
7	Barbara	FAIL		
8	Elizabeth	FAIL		
9	Jennifer	FAIL		
10	Maria	PASS		
11	Susan	PASS		
12	Margaret	PASS		
13	Dorothy	FAIL		
14				
15	Number of PASS			
16	Number of FAIL			

Step 1: Select the cell we want Excel to return the number of PASS marks in.

Use the mouse to click on Cell B15 to select the cell.

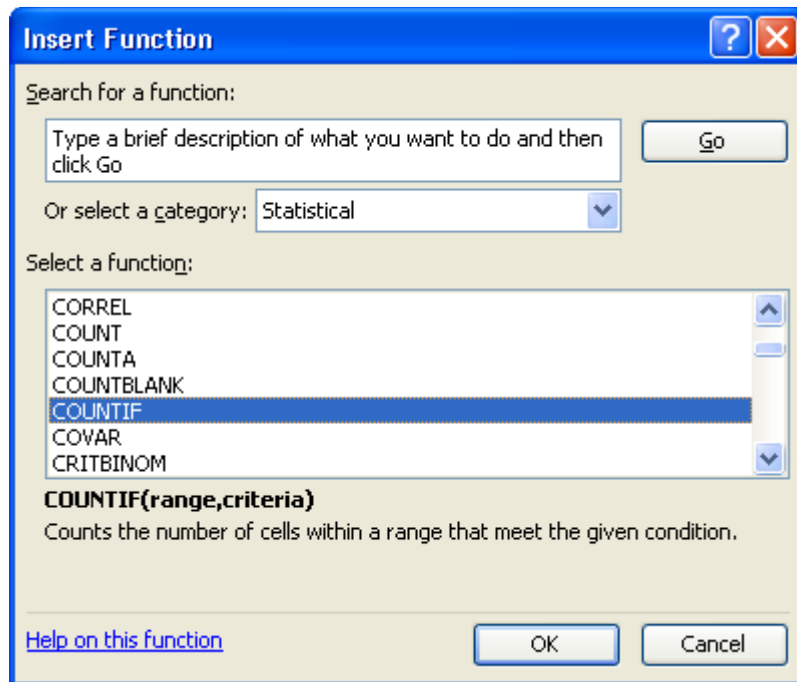|	A	B	C	D
1	**Example - How many students passed?**			
2				
3	**Student Name**	**Exam Result**		
4	Mary	FAIL		
5	Patricia	PASS		
6	Linda	PASS		
7	Barbara	FAIL		
8	Elizabeth	FAIL		
9	Jennifer	FAIL		
10	Maria	PASS		
11	Susan	PASS		
12	Margaret	PASS		
13	Dorothy	FAIL		
14				
15	Number of PASS			
16	Number of FAIL			

Step 2: Select the Paste Function menu item as shown right

Insert | Format | Tools | Da

Cells...
Rows
Columns
Worksheet
Chart...
Symbol...
Page Break
fx Function...
Name ▶
Comment
Picture ▶
Diagram...
Object...
Hyperlink... Ctrl+K

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Step 3: Select the COUNTIF statement from the Paste Function selection box.

In the Paste Function dialog box, select "Statistical" from the Function Category and "COUNTIF" from the Function Name then press the OK button.

Step 4: Enter the required information into the Paste Function helper

	A	B	C	D	E	F	G
1	Example - How many students passed?						
2							
3	Student Name	Exam Result					
4	Mary	FAIL					
5	Patricia	PASS					
6	Linda	PASS					
7	Barbara	FAIL					
8	Elizabeth	FAIL					
9	Jennifer	FAIL					
10	Maria	PASS					
11	Susan	PASS					
12	Margaret	PASS					
13	Dorothy	FAIL					
14							
15	Number of PASS	13,"PASS")					
16	Number of FAIL						
17							

Function Arguments ✕

COUNTIF

Range `B4:B13` = {"FAIL";"PASS";"PAS

Criteria `"PASS"` = "PASS"

= 5

Counts the number of cells within a range that meet the given condition.

Criteria is the condition in the form of a number, expression, or text that defines which cells will be counted.

Formula result =   5

Help on this function   [OK] [Cancel]

Helping Note: You can move the helper box around the screen by click-and-dragging anywhere in the grey area of the box.

The "Range" field determines the range of cells Excel will look to perform the count in. We can either use the mouse to select the range or manually type the cell references directly into the text box. In our example the cell range starts at B4 and goes down to B13.

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<u>Helping Note</u>: Cell ranges can be a selection of cells, a column, row or box of cells, or a pre-defined named range. Cell references can be of any type including "relative" (eg B4), "absolute" (eg B4), mixed reference (eg B$4), and named.

The "Criteria" is a conditional statement that is similar to the conditional statement in the IF statement. In our case we want to count the number of cells with "PASS" in the identified range. Remember that text fields are a special sort of field and need to start and end with inverted commas.

Press the OK button when you are satisfied that the formula is correct.

Step 5: Repeat step 4 to count the number of fails.

Select Cell B16.

Use the Paste Formula function and select "Statistical" from the function category list and "COUNTIF" from the function list.

Follow Step 4 above making the Range = B4:B13 and the Criteria = "FAIL".

Press the OK button when you are satisfied that the formula is correct.
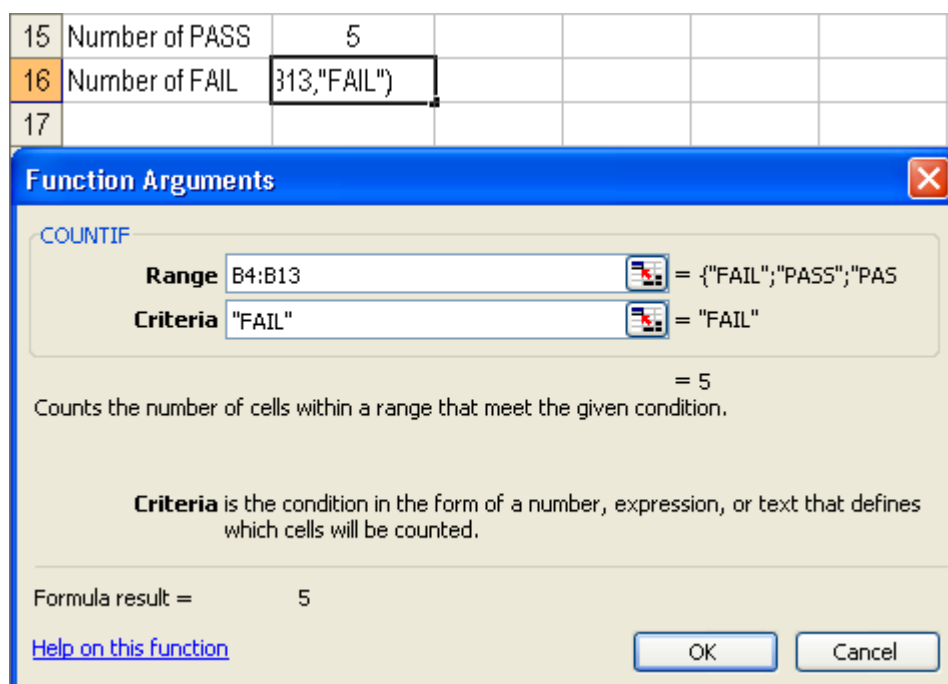
Finish: The spreadsheet now counts the number of passes and fails from the list.

The spreadsheet will now look similar to the figure below.

	A	B	C	D
1	Example - How many students passed?			
2				
3	Student Name	Exam Result		
4	Mary	FAIL		
5	Patricia	PASS		
6	Linda	PASS		
7	Barbara	FAIL		
8	Elizabeth	FAIL		
9	Jennifer	FAIL		
10	Maria	PASS		
11	Susan	PASS		
12	Margaret	PASS		
13	Dorothy	FAIL		
14				
15	Number of PASS	5		
16	Number of FAIL	5		

How do I sum a set of numbers that meet my criteria?

SUMIF Statements

SUMIF is a function that allows you to add together values from a list if a nominated criteria is met. For example, you might want to total the amount of hours worked by full-time employees out of a general list containing full-time, part-time and casual employees.

**Scenario – Calculate the winnings from a list of sports bets.**

In this example we have a spreadsheet that lists the bets placed on who will win various tennis matches on the weekend (Column A), the amount bet on that match (Column B), the odds of winning (Column C), and the potential winnings (Column D). At the end of the weekend we will enter the results of each match and we want Excel to automatically calculate how much our winnings are.

	A	B	C	D	E	F
1	**Example - Sports Betting Results**					
2						
3	**Player to Win**	**Amount Bet**	**Betting Odds**	**Potential Winnings**		**Match Result**
4	Player 1	$ 10	4:1	$ 40		Won
5	Player 2	$ 20	4:1	$ 80		Won
6	Player 3	$ 10	6:1	$ 60		Won
7	Player 4	$ 25	4:1	$ 100		Won
8	Player 5	$ 10	10:1	$ 100		Lost
9	Player 6	$ 5	8:1	$ 40		Lost
10	Player 7	$ 20	2:1	$ 40		Lost
11	Player 8	$ 15	8:1	$ 120		Lost
12						
13	Total Amount Bet =			Total Amount Won =		

Step 1: Select the cell that will contain the winnings results
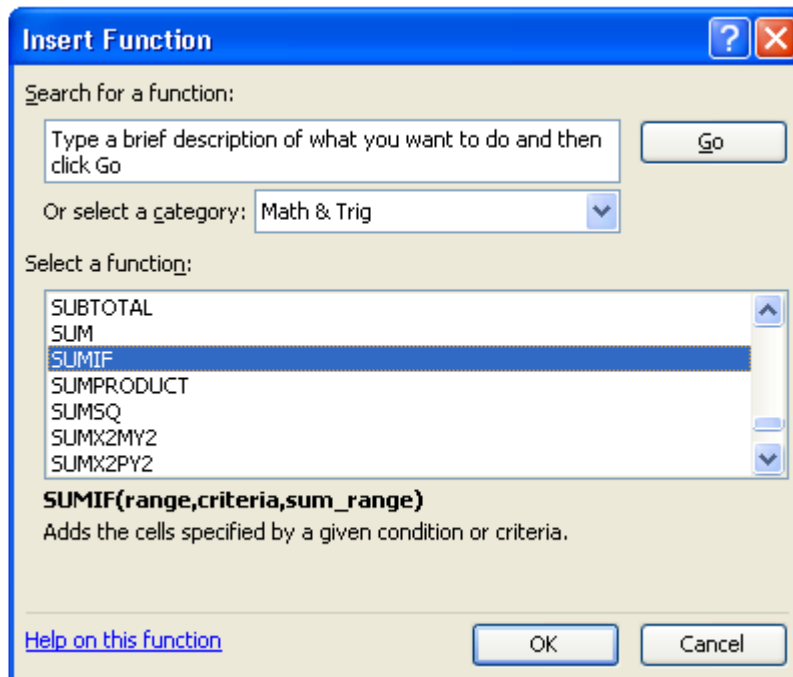
Use the mouse to click on Cell F13 to select the cell.

Step 2: Select the Paste Function menu item as shown right
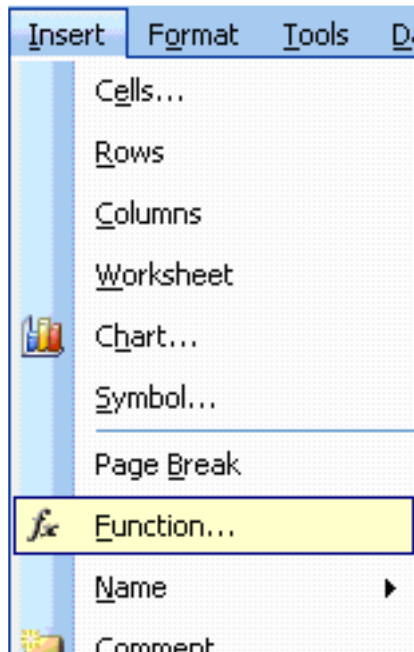
Step 3: Select the SUMIF statement from the Paste Function selection box.

In the Paste Function dialog box, select "Math & Trig" from the Function Category and "SUMIF" from the Function Name then press the OK button.

Step 4: Enter the required information into the Paste Function helper.

Helping Note: You can move the helper box around the screen by click-and-dragging anywhere in the grey area of the box.

The "Range" field determines the range of cells that Excel will examine to assess the criteria. We can either use the mouse to select the range or manually type the cell references directly into the text box. In our example the range starts at cell F4 and goes down to cell F11.

The "Criteria" is a conditional statement that is similar to the conditional statement in the IF statement. In our case we want to select all bets where the tennis player "Won" the match. In our example type in "Won" into the Criteria text box.

The "Sum_range" field tells Excel which cells to add when the criteria is met for each cell in the range. To put it in another way, we want to add together the potential winnings (Column D) for each match "Won" in Column F. In our example we can either use the mouse to select the range or manually type in D4:D11 into the Sum_range text box.

Press the OK button when you are satisfied that the formula is correct.

	A	B	C	D	E	F	G
1	**Example - Sports Betting Results**						
2							
3	**Player to Win**	**Amount Bet**	**Betting Odds**	**Potential Winnings**		**Match Result**	
4	Player 1	$ 10	4:1	$ 40		Won	
5	Player 2	$ 20	4:1	$ 80		Won	
6	Player 3	$ 10	6:1	$ 60		Won	
7	Player 4	$ 25	4:1	$ 100		Won	
8	Player 5	$ 10	10:1	$ 100		Lost	
9	Player 6	$ 5	8:1	$ 40		Lost	
10	Player 7	$ 20	2:1	$ 40		Lost	
11	Player 8	$ 15	8:1	$ 120		Lost	
12							
13	Total Amount Bet =			Total Amount Won =	D4:D11)		

Function Arguments ✕

SUMIF

Range   `F4:F11`   = {"Won";"Won";"Won

Criteria   `"Won"`   = "Won"

Sum_range   `D4:D11`   = {40;80;60;100;100;·

= 280

Adds the cells specified by a given condition or criteria.

Sum_range are the actual cells to sum. If omitted, the cells in range are used.

Formula result = $ 280

Help on this function   [OK]   [Cancel]

Step 5: Complete the spreadsheet by summing the amount bet.

Now that we know how much we have won on our better we want to complete the spreadsheet by showing how much money we originally bet.

Step 5a: Select the cell which we want to calculate the total betting amount

Click on Cell B13 as shown below.

	A	B	C	D	E
1	Example - Sports Betting Results				
2					
3	Player to Win	Amount Bet	Betting Odds	Potential Winnings	
4	Player 1	$ 10	4:1	$ 40	
5	Player 2	$ 20	4:1	$ 80	
6	Player 3	$ 10	6:1	$ 60	
7	Player 4	$ 25	4:1	$ 100	
8	Player 5	$ 10	10:1	$ 100	
9	Player 6	$ 5	8:1	$ 40	
10	Player 7	$ 20	2:1	$ 40	
11	Player 8	$ 15	8:1	$ 120	
12					
13	Total Amount Bet =			Total Amount Won = $	

Step 5b: Click on the AutoSum button Σ

By clicking on the AutoSum button you can get MS-Excel to automatically calculate the column above it. Use this function with caution and be sure to check the range of cells it has automatically selected. Once you have confirmed that the range is accurate then press the Enter key to confirm the formula.

	A	B	C	D	E
1	Example - Sports Betting Results				
2					
3	Player to Win	Amount Bet	Betting Odds	Potential Winnings	
4	Player 1	$ 10	4:1	$ 40	
5	Player 2	$ 20	4:1	$ 80	
6	Player 3	$ 10	6:1	$ 60	
7	Player 4	$ 25	4:1	$ 100	
8	Player 5	$ 10	10:1	$ 100	
9	Player 6	$ 5	8:1	$ 40	
10	Player 7	$ 20	2:1	$ 40	
11	Player 8	$ 15	8:1	$ 120	
12					
13	Total Amount Bet =	=SUM(B4:B12)		Amount Won =	
14		SUM(**number1**, [number2], …)			

Finish: The spreadsheet now automatically calculates the winnings based on the match results.

The spreadsheet will now look amazingly similar to the figure below.

	A	B	C	D	E	F
1	Example - Sports Betting Results					
2						
3	Player to Win	Amount Bet	Betting Odds	Potential Winnings		Match Result
4	Player 1	$ 10	4:1	$ 40		Won
5	Player 2	$ 20	4:1	$ 80		Won
6	Player 3	$ 10	6:1	$ 60		Won
7	Player 4	$ 25	4:1	$ 100		Won
8	Player 5	$ 10	10:1	$ 100		Lost
9	Player 6	$ 5	8:1	$ 40		Lost
10	Player 7	$ 20	2:1	$ 40		Lost
11	Player 8	$ 15	8:1	$ 120		Lost
12						
13	Total Amount Bet =	$ 115		Total Amount Won =	$	280

How do I hide some of my worksheets?

Hiding and Unhiding Worksheets

Sometimes it is useful to hide worksheets from the normal spreadsheet view. Commonly we hide sheets that contain lookup tables, default values and constants that we want in a separate spreadsheet but don't want it to be printed or viewed in normal use.

Scenario – Hiding a worksheet from normal view

Our sample spreadsheet contains a computer parts price list. We may want to have other worksheets to refer to this price list but we don't want the price list open for viewing and printing every time we open our workbook.

Step 1: Select the worksheet we want to hide from view.

Select the worksheet we want to hide from view by clicking on the worksheet tab located at the bottom of the worksheet.

	A	B	C
1	Example - Hiding a price list from view		
2			
3	MyHampers Pty Limited Price List		
4			
5	Reference	Description	Unit Price
6	CB1	Kwacker's Chocolate Box (Small)	$ 10.00
7	CB2	Kwacker's Chocolate Box (Medium)	$ 22.00
8	CB3	Kwacker's Chocolate Box (Large)	$ 65.00
9	BD1	Chocolate Dream Basket	$ 120.00
10	BD2	Chocolate Addictions	$ 67.00
11	BD3	Supreme Chocoholic's Gift Box	$ 115.00
12	CH1	Death By Chess	$ 52.00
13	CH2	Bonus Chocolate Gift	$ 16.00
14	CH3	Christmas Tower Gift Box	$ 40.00
15	CH4	Easter Tower Gift Box	$ 50.00
16			

Hide Worksheet Example / Show Formulas / Conditional Formatting

- Microsoft Excel 2003 Tricks'n Tips header

Step 2: Select "Format | Sheet | Hide" from the menu.

Go to the top of the Excel window and click on "Format" and then highlight "Sheet", wait and then click on the "Hide" menu.
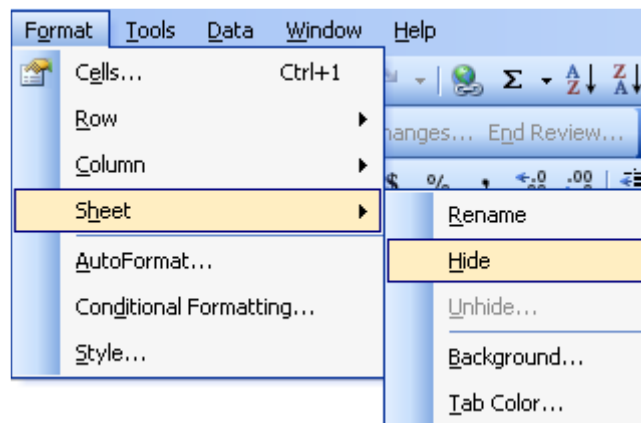
Finish: Worksheet is now hidden from normal view.

The worksheet is now hidden from view. Any references to this worksheet will still work however the user will not be able to select the worksheet from the tabs at the bottom of the workbook. You will have to "unhide" the worksheet to be able to view and make changes.

Scenario – Unhiding a worksheet for normal view

After we have hidden the worksheet from Normal view we may want to make changes to it. The normal method of doing this is to unhide the spreadsheet and place it back into normal view.

Step 1: Select "Format | Sheet | Unhide" from the menu

Go to the top of the Excel window and click on "Format", then highlight "Sheet", wait and then click on the "Unhide" menu.
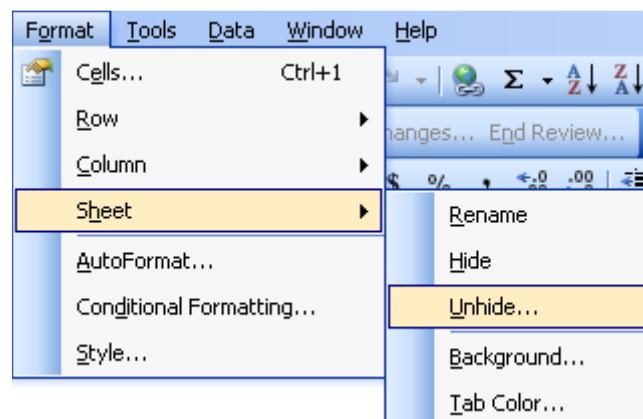
Step 2: Select worksheet to unhide.

Select the worksheet name from the Unhide dialog box. In our case we want to select the worksheet named "Hide Worksheet Example".
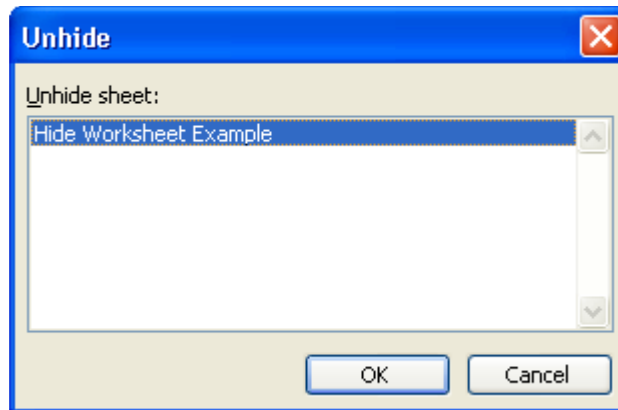
Press the OK button to unhide the worksheet.

Finish: Worksheet is now visible in the normal view.

The worksheet can now be seen in the normal view and selected using the tabs at the bottom of the workbook.

How do I look up answers in another table?

LOOKUP Function

It is often useful to create a spreadsheet where the user simply enters some information and Excel then looks up the required information and returns the result.

Scenario – Determining the exam standard for students

This example has a list of students (Column A) and their exam results (Column B) entered by the user. We then want Excel to look at that result and determine if it is a fail, pass or distinction standard.

	A	B	C
1	Example - Lookup Exam Standards		
2			
3	Student	Result	Standard
4	Paul	40%	
5	Greg	40%	
6	Peter	37%	
7	Sam	69%	
8	Penelope	20%	
9	Rima	83%	
10	Annabelle	26%	

Step 1: Select the Cell you want the result to be in

Use the mouse pointer and click on the cell where you want the result to be shown.

Click on Cell C4.

|	A	B	C
1	Example - Lookup Exam Standards		
2			
3	Student	Result	Standard
4	Paul	40%	
5	Greg	40%	
6	Peter	37%	
7	Sam	69%	
8	Penelope	20%	
9	Rima	83%	
10	Annabelle	26%	

Step 2: Select the Paste Function menu item as shown right
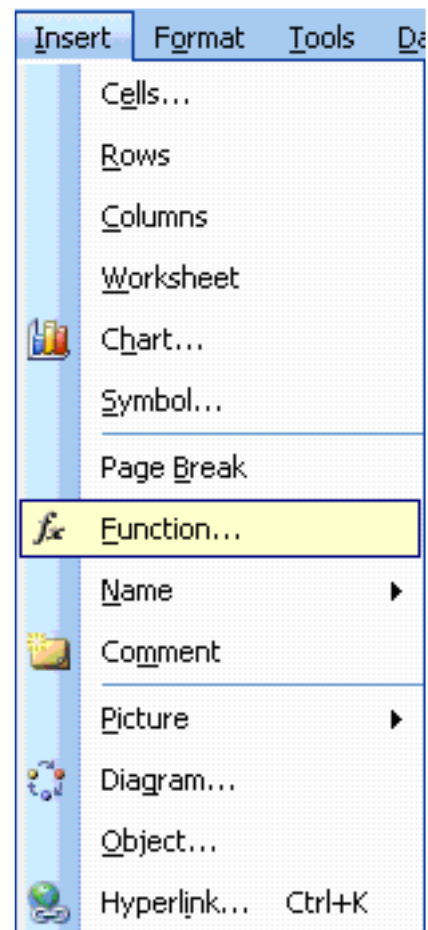
Step 3: Select the LOOKUP statement from the Select a Function selection box

In the Paste Function dialog box, select "Lookup & Reference" from the Function Category and "LOOKUP" from the Function Name.
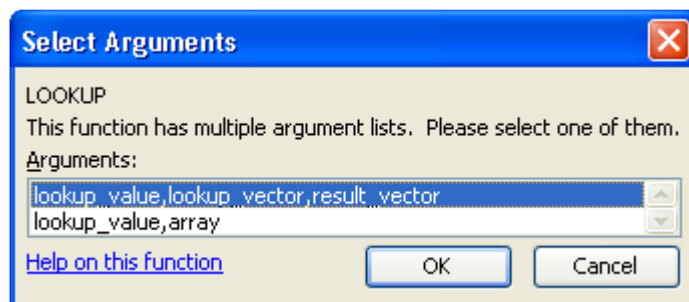
Press the OK button to confirm your selection.
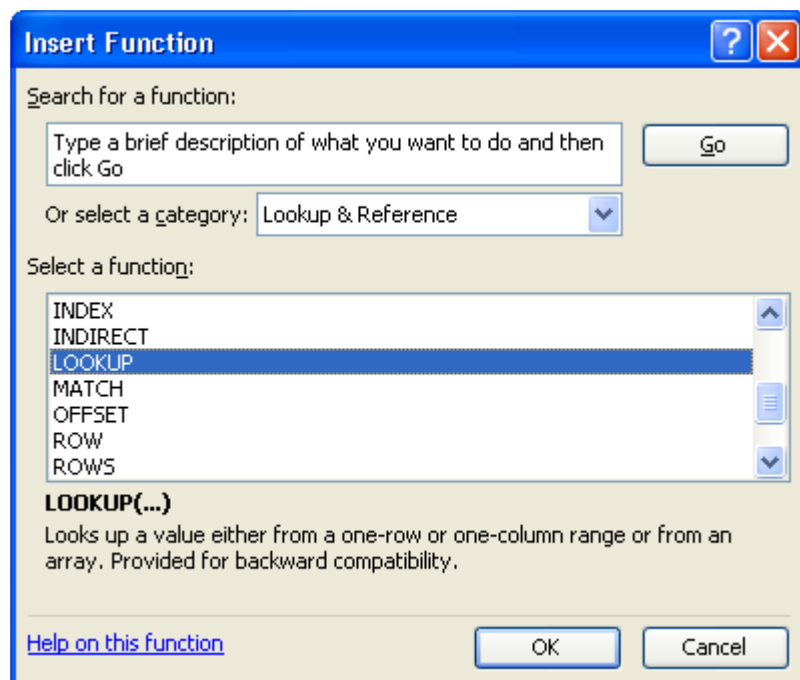
Step 4: Select the desired LOOKUP function from the "Select Arguments" dialog box.

Microsoft Excel will present you with a "Select Arguments" dialog box. This is because the LOOKUP function can be used in different ways. We need to tell Excel how we want to use the LOOKUP function so it can present us with the most useful Paste Function helper for our needs.

In our example we want to select the three-argument helper. Click on "lookup_value,lookup_vector,result_vector" row.

Press the OK button to confirm your selection.

Step 5: Enter the required information into the Paste Function helper.

Helping Note: You can move the helper box around the screen by click-and-dragging anywhere in the grey area of the box.

The "Lookup_value" determines which cell Excel will look in to determine the search value. We can either use the mouse to select the cell or manually type the cell reference directly into the text box. Note that this is a single cell. In our example we want to use that lines result cell (Cell B4) as the lookup value.

The "Lookup_vector" is the range of values that Excel compares the "Lookup_value" to. We always start with an "{" bracket, then the lowest number, next number, next number until we reach the minimum value of the highest group, then end the list with a "}" bracket. For our example we enter "{0,0.5,0.75}" into the "Lookup_vector" text box.

There are a number of rules that the Lookup function uses.

Rule 1: In the cases where the "Lookup_value" is smaller than the lowest value in the "Lookup_vector", the result will by "#N/A error".

Rule 2: If an exact match is not made then the result will be the largest value in "Lookup_vector" that is less than or equal to the "lookup_value".

Helping Note: Microsoft Excel stores percentages as a decimal (0.00) number. Example results of 0% to 100% equate to a decimal range of 0.00 to 1.00.

The "Result_vector" is the range of values that Excel will look at to return the result. If "Lookup_value" is the same as the third item in the "Lookup_vector" list then Excel will return the third item in the "Result_vector" list. For our example, we enter the three grades that will be returned, {"Fail","Pass","Distinction"}.

Press the OK button to confirm your selection.

Step 7: Copy the equation to all the required result cells.

Use the mouse and click on Cell C4 to select the equation we want to copy.

	A	B	C
1	Example - Lookup Exam Standards		
2			
3	Student	Result	Standard
4	Paul	3%	Fail
5	Greg	90%	
6	Peter	31%	
7	Sam	19%	
8	Penelope	25%	
9	Rima	59%	
10	Annabelle	52%	

Copy the cell by either

Method 1) pressing Ctrl and C at the same time, or

Method 2) pressing the copy button 🖻 in the toolbar.

Select the range of cells from C5 to C10. You can do this with the mouse by click-and-holding the mouse on cell C5 and the drag-and-release the mouse over cell C10. The screen will look similar to figure to the right.

	A	B	C
1	Example - Lookup Exam Standards		
2			
3	Student	Result	Standard
4	Paul	87%	Distinction
5	Greg	58%	
6	Peter	91%	
7	Sam	60%	
8	Penelope	10%	
9	Rima	32%	
10	Annabelle	36%	

Now paste the cell information into the highlighted range. You can do this by either

Method 1) pressing Ctrl and V at the same time, or

Method 2) pressing the paste button 📋 in the toolbar.

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Finish: The standard will be shown as soon as the results are entered by the user.

The spreadsheet will now look similar to the figure below.

	A	B	C
1	**Example - Lookup Exam Standards**		
2			
3	**Student**	**Result**	**Standard**
4	Paul	40%	Fail
5	Greg	45%	Fail
6	Peter	37%	Fail
7	Sam	69%	Pass
8	Penelope	20%	Fail
9	Rima	83%	Distinction
10	Annabelle	26%	Fail

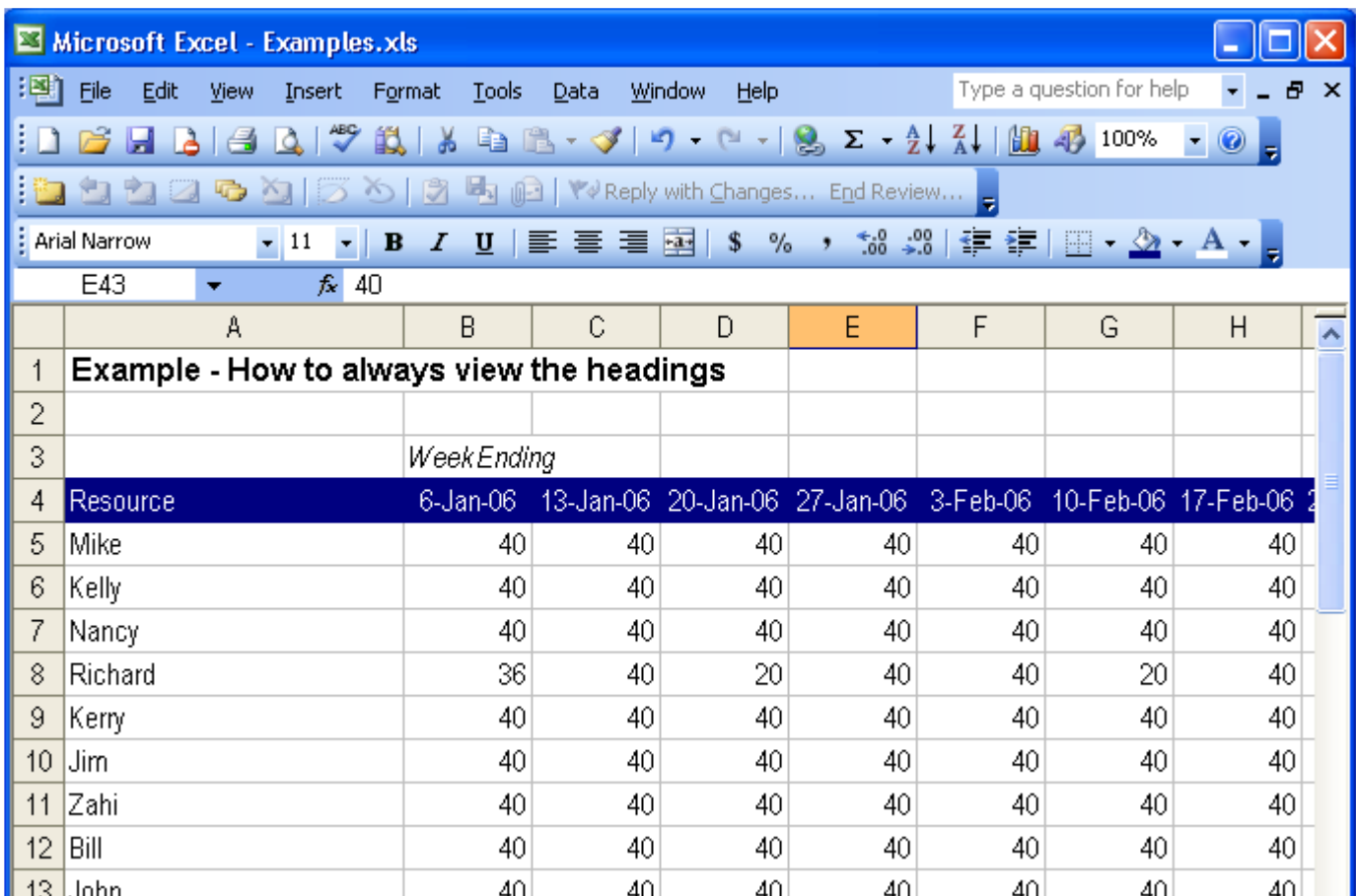## _How do I freeze headings so I don't lose them when I scroll around?_

Freeze Panes

MS-Excel is a useful tool for presenting data on a page. There comes a point where the data being presented does fit on the screen and we have to scroll down and across to see the information. If you scroll down enough then it becomes difficult to know what headings relate to each column. The same applies to row headings when we scroll right. The way to go about this is to tell MS-Excel to freeze the headings so that when you scroll off the page you can still see the headings. This is called "Freeze Pane".

Scenario – Formatting a large table to make it easy to read

You may have a large timesheet system that lists the people involved in a project down the left-hand side and the hours worked across the page. We want to format the page so that the user can scroll left and right, as well as up and down and still see the weeks headings and the team members name.

The figure below shows the spreadsheet in a normal format. With this default view, the use would not be able to scroll right and still see the resource name connected to each week.
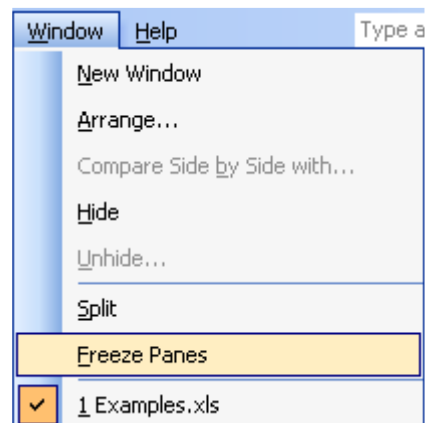
Step 1: Select the first cell which contains data

For the freeze pane function to work, you need to tell MS-Excel what is a heading and what is data. To do this you must select the very first cell which contains data in it. Excel assumes that everything above and to the left of it is a heading for the table.

Click on Cell B5 as shown below.

	A	B	C	D	E
1	Example - How to always view the headings				
2					
3		Week Ending			
4	Resource	6-Jan-06	13-Jan-06	20-Jan-06	27-Jan-06
5	Mike	40	40	40	40
6	Kelly	40	40	40	40
7	Nancy	40	40	40	40
8	Richard	36	40	20	40
9	Kerry	40	40	40	40
10	Jim	40	40	40	40
11	Zahi	40	40	40	40
12	Bill	40	40	40	40
13	John	40	40	40	40

Step 2: Select "Window | Freeze Panes" menu item from the menu

Window | Help | Type a

New Window

Arrange...

Compare Side by Side with...

Hide

Unhide...

Split

Freeze Panes

✓ 1 Examples.xls

Finish: The Worksheet will now have black lines signifying the location of the heading

The row and column headings are now frozen. This allows the user to scroll all the way to the right and all the way down the bottom of the table and be still able to view the resource names and weeks worked.

	A	L	M	N	O	P	Q	R
1	Example - How to alwa							
2								
3								
4	Resource	17-Mar-06	24-Mar-06	31-Mar-06	7-Apr-06	14-Apr-06	21-Apr-06	28-Apr-06
10	Jim	40	40	40	40	40	40	40
11	Zahi	40	40	40	40	40	40	40
12	Bill	40	40	40	40	40	40	40
13	John	40	40	40	40	40	40	40
14	Ma	40	40	40	40	40	40	40
15	Jim	40	40	10	40	40	40	40
16	Steven	40	40	40	40	40	40	40
17	Jacques	40	40	40	40	40	40	40
18	Andrew	40	40	40	40	40	40	40
19	Jimmy	40	40	40	40	40	40	40
20	Geoffrey	40	40	40	40	40	40	40
21	Muqtada	40	40	40	40	40	40	40
22	Ellen	40	40	40	40	40	40	40
23	Hugo	40	40	40	40	40	40	40
24	George	40	40	40	40	40	40	40

Helping Note: If you want to unfreeze the columns and row headings then go to "Window | UnFreeze Panes". This will take the table back to its default state.

Helping Note: You can freeze just the top rows by selecting the first row with data in it and then using the freeze function. This method does not freeze and columns. The same principle can be used to freeze columns but not rows.

How do I make my Worksheet tabs colourful?

Adding Colour to Worksheets

It is often nice to add a touch of colour to your worksheets. As a new function to MS-Excel 2003, you are now able to easily colour individual worksheet tabs. For example, you may want to colour a summary worksheet blue to highlight its importance to the user.

**Scenario – Creating excitement on a blank worksheet**

Our sample spreadsheet has a blank worksheet with a dull gray tab. In this example we will change the colour from gray to a more exciting colour.

Step 1: Select the worksheet tab we want to change the colour of

Select the worksheet tab we want to change the colour of by clicking on the worksheet tab located at the bottom of the worksheet.
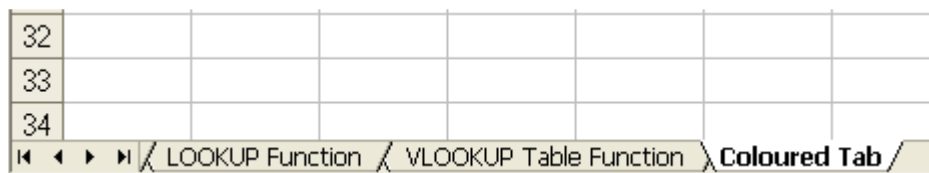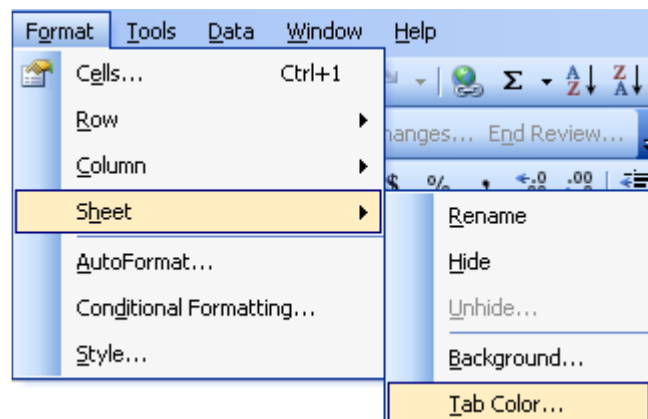

Step 2: Select the change Tab Colour dialog box
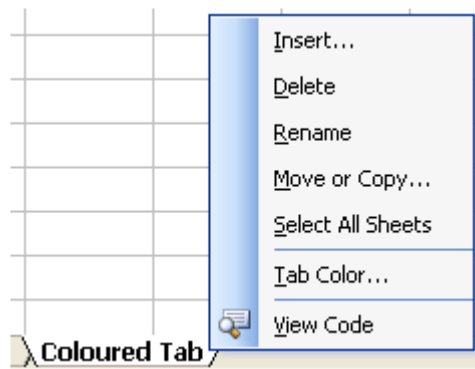
Method 1: Right-Click on the worksheet tab we want to change the colour of, as shown below.

Method 2: Select "Format | Sheet | Tab Color…" from the menu

**Step 3: Select the colour on the colour palette chart**

Select the colour you want to change the worksheet tab to on the Format Tab Color dialog box (shown below). In this example, we want the tab to be gold in colour.

Finish: The Worksheet tab is now the coloured

Coloured worksheet tabs look different depending on their selection state. These two "looks" are shown below.

Selected Worksheet Tab View:
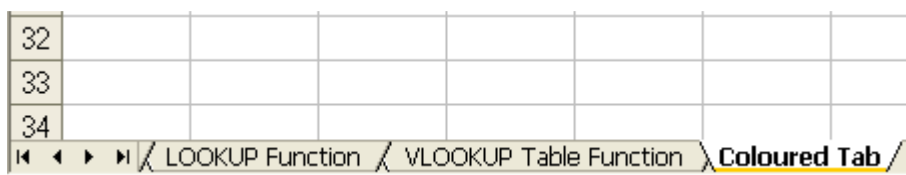
Background Worksheet Tab View:

9 780980 492200 >