Excel: VLookup Function

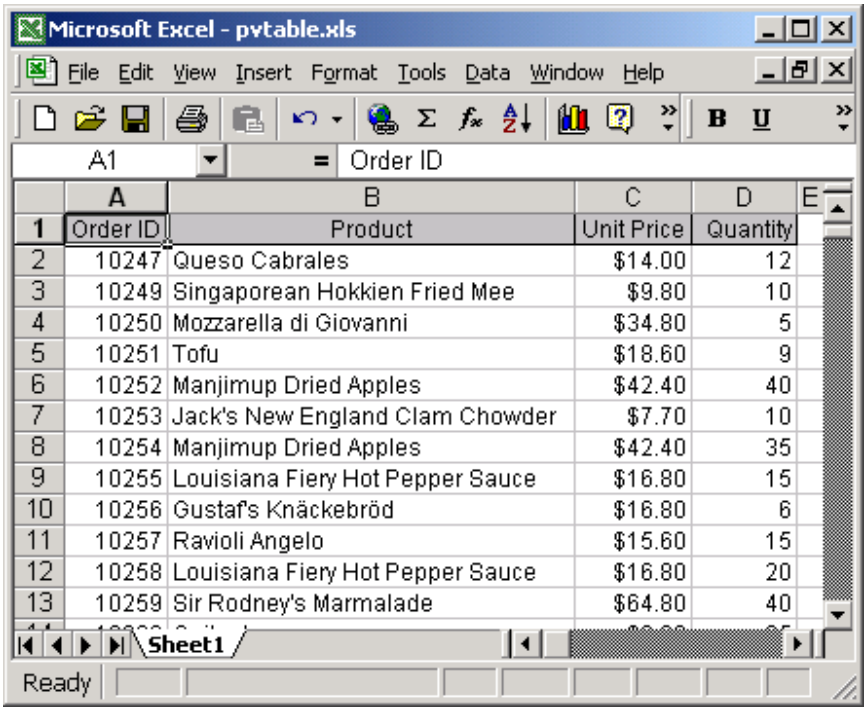
In Excel, the **VLookup** function searches for value in the left-most column of *table_array* and returns the value in the same row based on the *index_number*. The syntax for the **VLookup** function is:

VLookup(value, table_array, index_number,
not_exact_match)

value is the value to search for in the first column of the *table_array*.
table_array is two or more columns of data that is sorted in ascending order.
index_number is the column number in *table_array* from which the matching value must be returned. The first column is 1.
not_exact_match determines if you are looking for an exact match based on *value*. Enter FALSE to find an exact match. Enter TRUE to find an approximate match, which means that if an exact match if not found, then the VLookup function will look for the next largest value that is less than *value*.

Note:
If *index_number* is less than 1, the VLookup function will return #VALUE!.
If *index_number* is greater than the number of columns in *table_array*, the VLookup function will return #REF!.
If you enter FALSE for the *not_exact_match* parameter and no exact match is found, then the VLookup function will return #N/A.

For example:
Let's take a look at an example:



	A	B	C	D	E
1	Order ID	Product	Unit Price	Quantity	
2	10247	Queso Cabrales	$14.00	12	
3	10249	Singaporean Hokkien Fried Mee	$9.80	10	
4	10250	Mozzarella di Giovanni	$34.80	5	
5	10251	Tofu	$18.60	9	
6	10252	Manjimup Dried Apples	$42.40	40	
7	10253	Jack's New England Clam Chowder	$7.70	10	
8	10254	Manjimup Dried Apples	$42.40	35	
9	10255	Louisiana Fiery Hot Pepper Sauce	$16.80	15	
10	10256	Gustaf's Knäckebröd	$16.80	6	
11	10257	Ravioli Angelo	$15.60	15	
12	10258	Louisiana Fiery Hot Pepper Sauce	$16.80	20	
13	10259	Sir Rodney's Marmalade	$64.80	40	

Based on the Excel spreadsheet above:

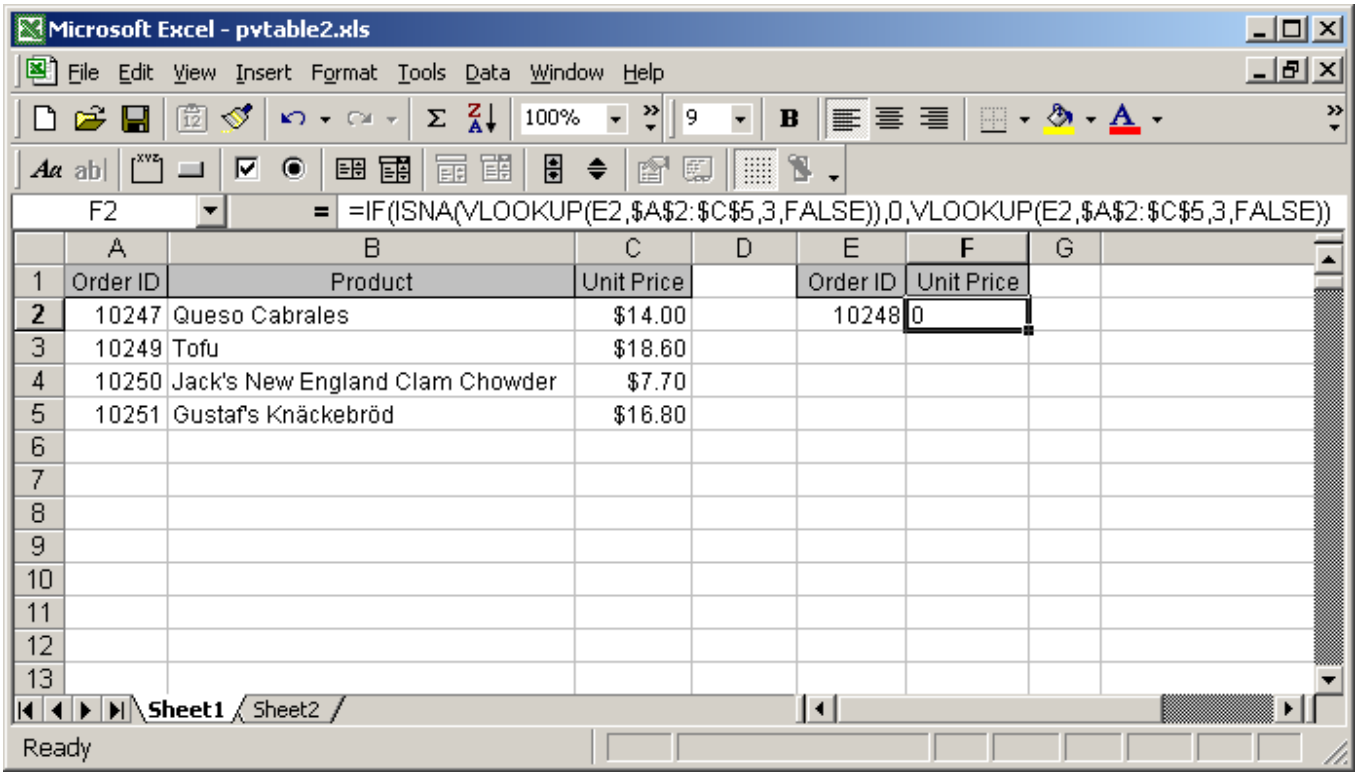
=VLookup(10251, A1:B21, 2, FALSE)	would return "Tofu"
=VLookup(10251, A1:C21, 3, FALSE)	would return $18.60
=VLookup(10248, A1:B21, 2, FALSE)	would return #N/A
=VLookup(10248, A1:B21, 2, TRUE)	would return "Queso Cabrales"

Frequently Asked Questions

Question: In Excel, I'm using the VLookup function to return a value. I want to sum the results of the VLookup, but I can't because the VLookup returns a #N/A error if no match is found. How can I sum the results when there are instances of #N/A in it?

Answer: To perform mathematical operations on your VLookup results, you need to replace the #N/A error with a 0 value (or something similar). This can be done

with a formula that utilizes a combination of the VLookup function, IF function, and ISNA function.



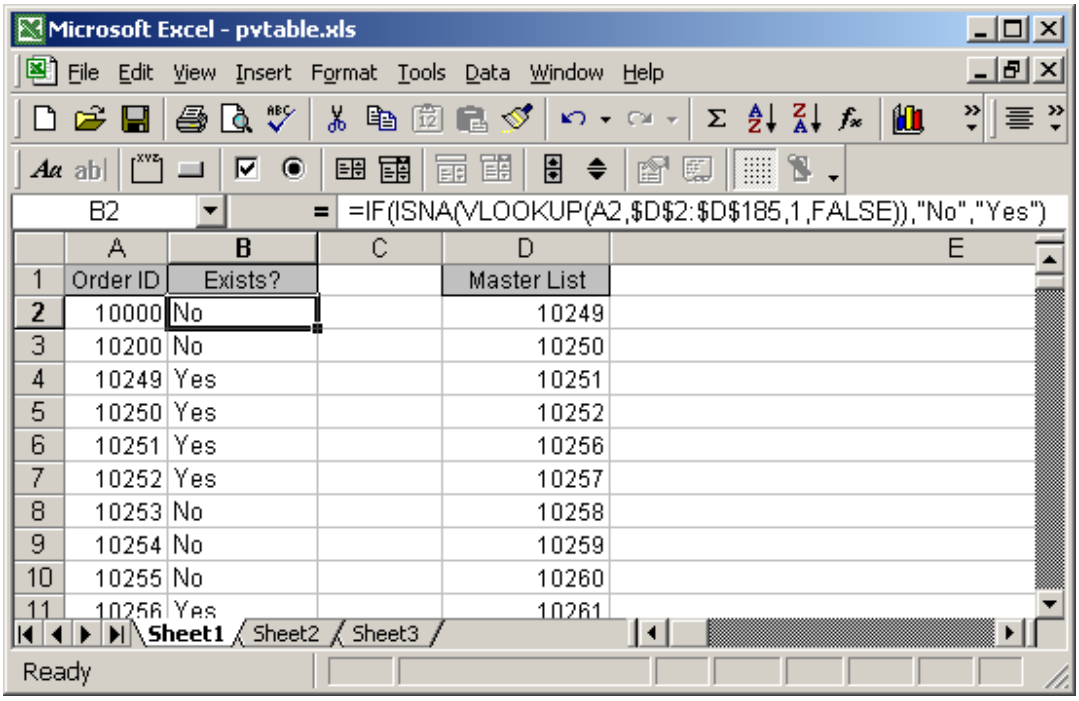
Based on the spreadsheet above:

=IF(ISNA(VLOOKUP(E2,$A$2:$C$5,3,FALSE)),0,VLOOKUP(E2,$A$2:$C$5,3,FALSE)) would return 0

First, you need to enter a FALSE in the last parameter of the VLookup function. This will ensure that the VLookup will test for an exact match.
If the VLookup function does not find an exact match, it will return the #N/A error. By using the IF and ISNA functions, you can return the **Unit Price** value if an exact match is found. Otherwise, a 0 value is returned. This allows you to perform mathematical operations on your VLookup results.

Question: I have a list of #s in column A (lets say 1-20). There is a master list in another column that may not include some of the column A #s. I want a formula in column B to say (if A1 exists in the master list, then "Yes", "No". Is this possible?

Answer: This can be done with a formula that utilizes a combination of the VLookup function, IF function, and ISNA function.



	A	B	C	D	E
1	Order ID	Exists?		Master List	
2	10000	No		10249	
3	10200	No		10250	
4	10249	Yes		10251	
5	10250	Yes		10252	
6	10251	Yes		10256	
7	10252	Yes		10257	
8	10253	No		10258	
9	10254	No		10259	
10	10255	No		10260	
11	10256	Yes		10261	

Based on the spreadsheet above:

=IF(ISNA(VLOOKUP(A2,$D$2:$D$185,1,FALSE)),"No","Yes") would return "No"

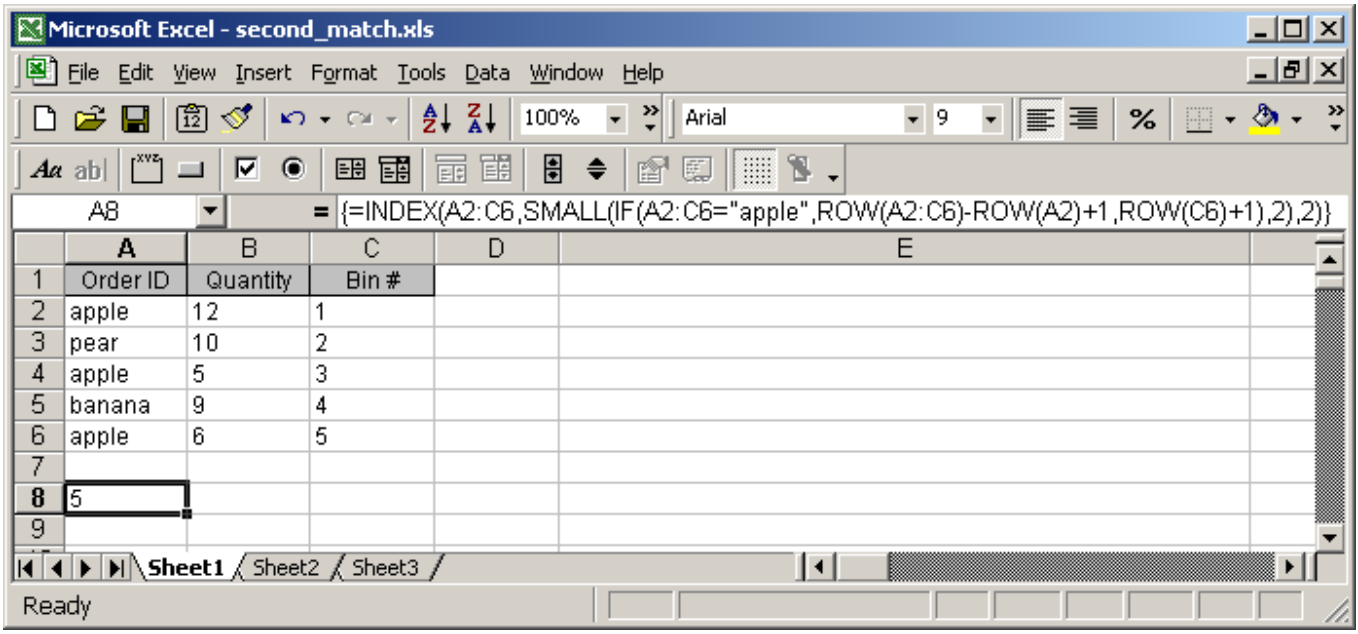
=IF(ISNA(VLOOKUP(A5,$D$2:$D$185,1,FALSE)),"No","Yes") would return "Yes"

First, you need to enter a FALSE in the last parameter of the VLookup function. This will ensure that the VLookup will test for an exact match.

If the VLookup function does not find an exact match, it will return the #N/A error. By using the IF and ISNA functions, you can return a "Yes" value if an exact match is found. Otherwise, a "No" value is returned.

Question: Is there a simple way in Excel to VLookup the second match in a column? So, for instance, If I had apple, pear, apple listed in the column (each word in a separate cell), would there be a way to look up the values to the right of the second "apple"?

Answer: This can be done with a formula that utilizes a combination of the Index function, Small function, Row function (all in an array formula).



If you wanted to return the quantity value for the second occurrence of apple, you would use the following array formula:

=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),2),2)

When creating your array formula, **you need to use Ctrl+Shift+Enter** instead of Enter. This creates {} brackets around your formula as follows:

{=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),2),2)}

If you wanted to return the quantity value for the third occurrence of apple, you would use the following array formula:

=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),3),2)

When creating your array formula, **you need to use Ctrl+Shift+Enter** instead of Enter. This creates {} brackets around your formula as follows:

{=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),3),2)}

If you wanted to return the bin # for the second occurrence of apple, you would use the following array formula:

=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),2),3)

When creating your array formula, **you need to use Ctrl+Shift+Enter** instead of Enter. This creates {} brackets around your formula as follows:

{=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),2),3)}

If you wanted to return the bin # for the third occurrence of apple, you would use the following array formula:

=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),3),3)

When creating your array formula, **you need to use Ctrl+Shift+Enter** instead of Enter. This creates {} brackets around your formula as follows:

{=INDEX(A2:C6,SMALL(IF(A2:C6="apple",ROW(A2:C6)-ROW(A2)+1,ROW(C6)+1),3),3)}

Excel: If Function

In Excel, the **If** function returns one value if a specified condition evaluates to TRUE, or another value if it evaluates to FALSE.

The syntax for the **If** function is:

If(condition, value_if_true, value_if_false)

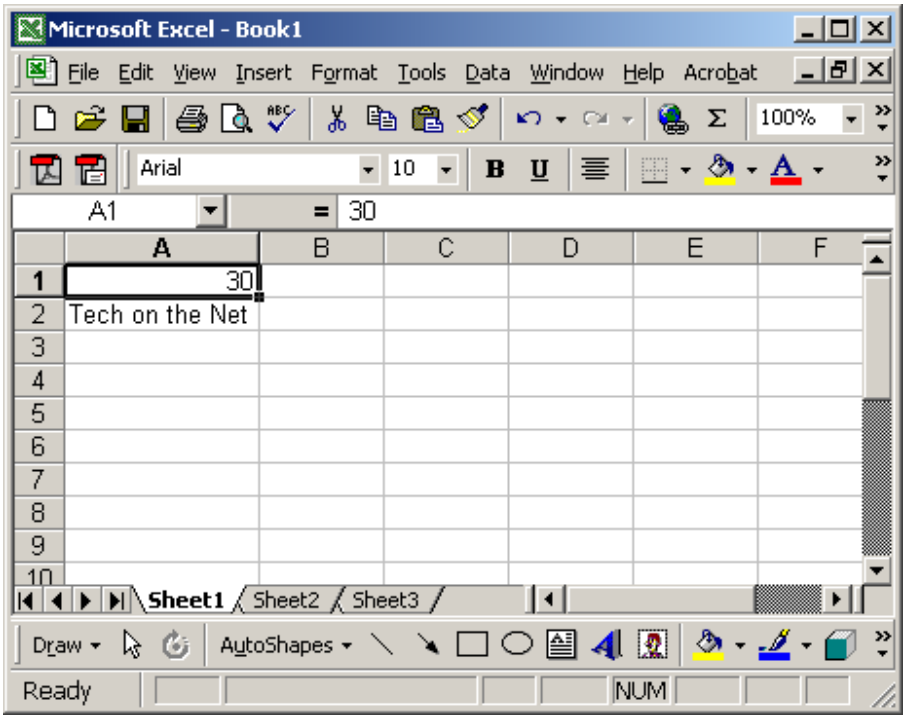
condition is the value that you want to test.

value_if_true is the value that is returned if *condition* evaluates to TRUE.

value_if_false is the value that is return if *condition* evaluates to FALSE.

For example:

Let's take a look at an example:



Based on the Excel spreadsheet above:

=If(A1>10, "Larger", "Smaller") would return "Larger".

=If(A1=20, "Equal", "Not would return "Not Equal".

Equal")

=If(A2="Tech on the Net", 12, 0) would return 12.

Learn how to nest multiple If Functions. (up to 7)

Learn how to nest multiple If Functions. (more than 7)

Frequently Asked Questions

Question: In Excel, I'd like to use the If function to create the following logic:

> if C11>=620, and C10="F"or"S", and C4<=$1,000,000, and C4<=$500,000, and C7<=85%, and C8<=90%, and C12<=50, and C14<=2, and C15="OO", and C16="N", and C19<=48, and C21="Y", then reference cell A148 on Sheet2. Otherwise, return an empty string.

Answer: The following formula would accomplish what you are trying to do:

> =IF(AND(C11>=620, OR(C10="F",C10="S"), C4<=1000000, C4<=500000, C7<=0.85, C8<=0.9, C12<=50, C14<=2, C15="OO", C16="N", C19<=48, C21="Y"), Sheet2!A148, "")

Excel: Nested IF Functions

It is possible to nest multiple **IF** functions within one Excel formula. You can nest up to 7 **IF** functions to create a complex IF THEN ELSE statement.
The syntax for the nesting the **IF** function is:

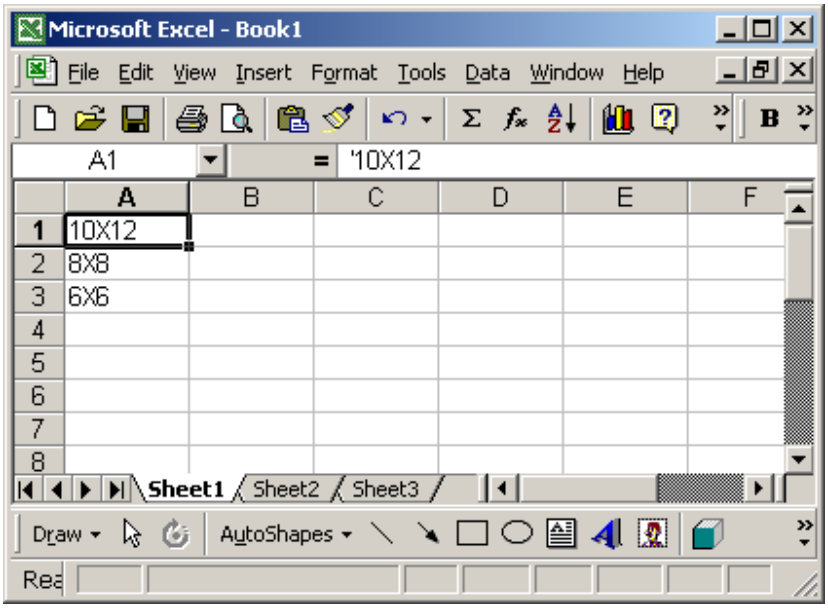
IF(condition1, value_if_true1, IF(condition2,
value_if_true2, value_if_false2)

This would be equivalent to the following IF THEN ELSE statement:

IF condition1 THEN
  value_if_true1
ELSEIF condition2 THEN
  value_if_true2
ELSE
  value_if_false2
END IF

This syntax example demonstrates how to nest two **IF** functions. You can nest up to 7 **IF** functions.
condition is the value that you want to test.
value_if_true is the value that is returned if *condition* evaluates to TRUE.
value_if_false is the value that is return if *condition* evaluates to FALSE.

For example:
Let's take a look at an example:



Based on the Excel spreadsheet above:

=IF(A1="10X12",120,IF(A1="8x8",64,IF(A1="6x6",36)))	would return 120
=IF(A2="10X12",120,IF(A2="8x8",64,IF(A2="6x6",36)))	would return 64
=IF(A3="10X12",120,IF(A3="8x8",64,IF(A3="6x6",36)))	would return 36

Frequently Asked Questions

Question: In Excel, I need to write a formula that works this way:

If (cell A1) is less than 20, then times it by 1,
If it is greater than or equal to 20 but less than 50, then times it by 2
If its is greater than or equal to 50 and less than 100, then times it by 3
And if it is great or equal to than 100, then times it by 4

Answer: You can write a nested IF statement to handle this. For example:

=IF(A1<20, A1*1, IF(A1<50, A1*2, IF(A1<100, A1*3, A1*4)))

Excel: Create custom function to exceed 7 nested If functions

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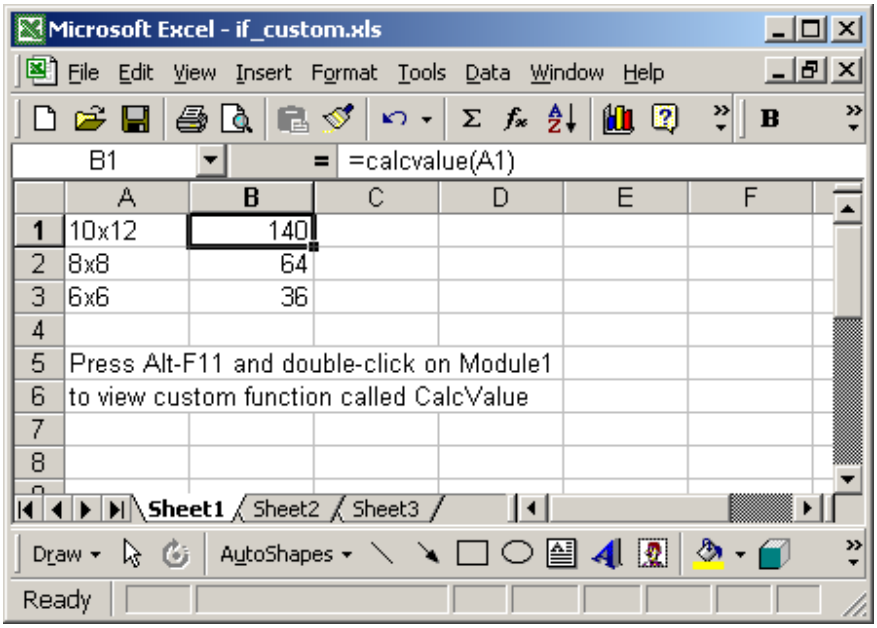
Question: I have a formula in Excel that I am using to test for 7 conditions, and each condition if true will return a different value. However, I now need to test a total of 12 possible values. The limitation of the nested IFs is that you can only

nest up to 7. Is there an alternative to this formula to test so that I can test for 12 values instead of 7?
=IF(A1="10X12",140,IF(A1="8x8",64,IF(A1="6x6",36,IF(A1="8x10",80,IF(A1="14x16",224,IF(A1="9x9",81,IF(A1="4x3",12)))))))

Answer: There is no built-in alternative formula in Excel, but you could write your own function in VBA and then call this new function instead.
Let's take a look at an example.
Download Excel spreadsheet (as demonstrated below)



In our spreadsheet, we've created a custom VBA function called CalcValue. This function accepts as a parameter a cell and returns a value based on a complex IF THEN ELSE statement. You can use this method to nest up to or more than 7 IF conditions.
You can press Alt-F11 to view the VBA code.

Macro Code:

The macro code looks like this:

```
Function CalcValue(pVal As String) As Long

   If pVal = "10x12" Then
      CalcValue = 140

   ElseIf pVal = "8x8" Then
      CalcValue = 64

   ElseIf pVal = "6x6" Then
      CalcValue = 36

   ElseIf pVal = "8x10" Then
      CalcValue = 80

   ElseIf pVal = "14x16" Then
      CalcValue = 224

   ElseIf pVal = "9x9" Then
      CalcValue = 81

   ElseIf pVal = "4x3" Then
      CalcValue = 12

   Else
      CalcValue = 0
   End If

End Function
```

Excel: Hide formulas from appearing in the edit bar

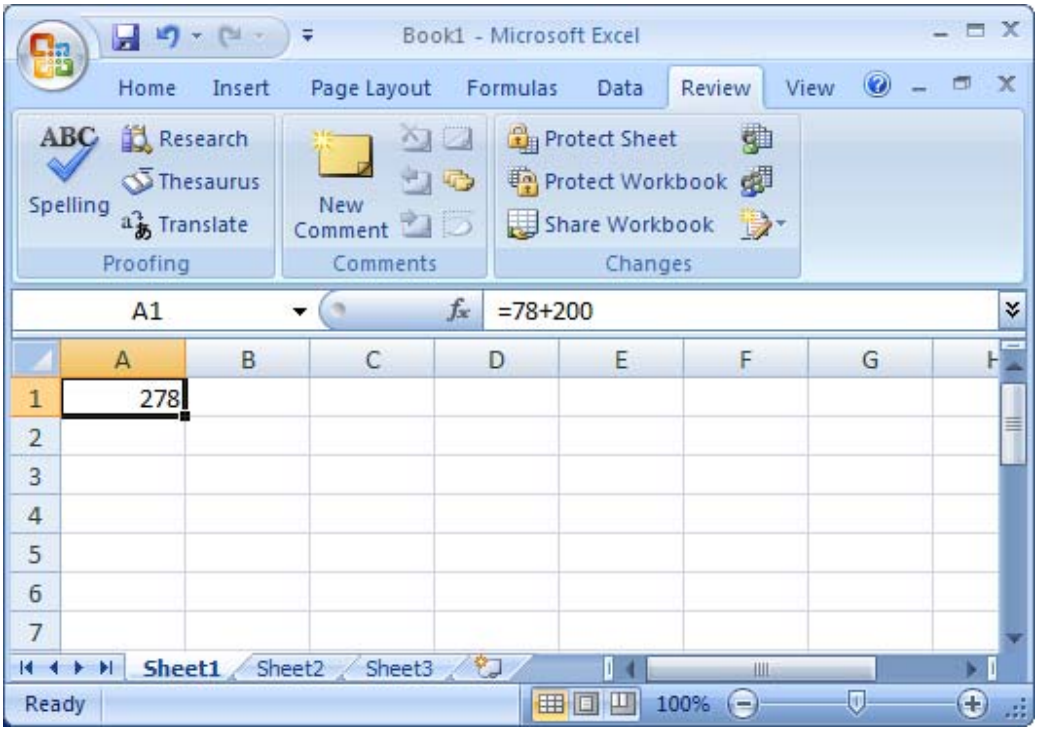
We'll demonstrate how to hide formulas from appearing in the edit bar in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

Hide formulas from appearing in the edit bar in Excel 2007

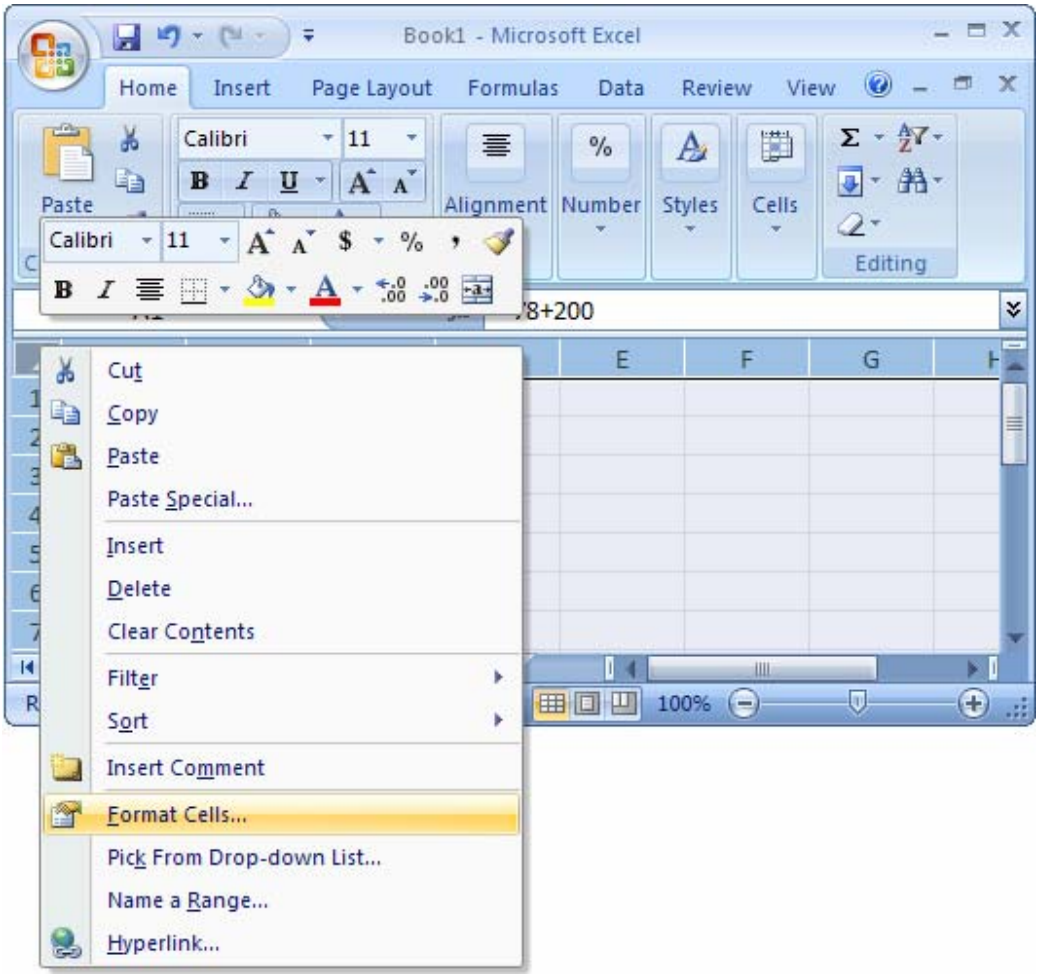
Question: I have formulas in an Excel worksheet that I don't want to be visible when that cell is selected.

Is there a way I can click on the cell and not see the formula up top?

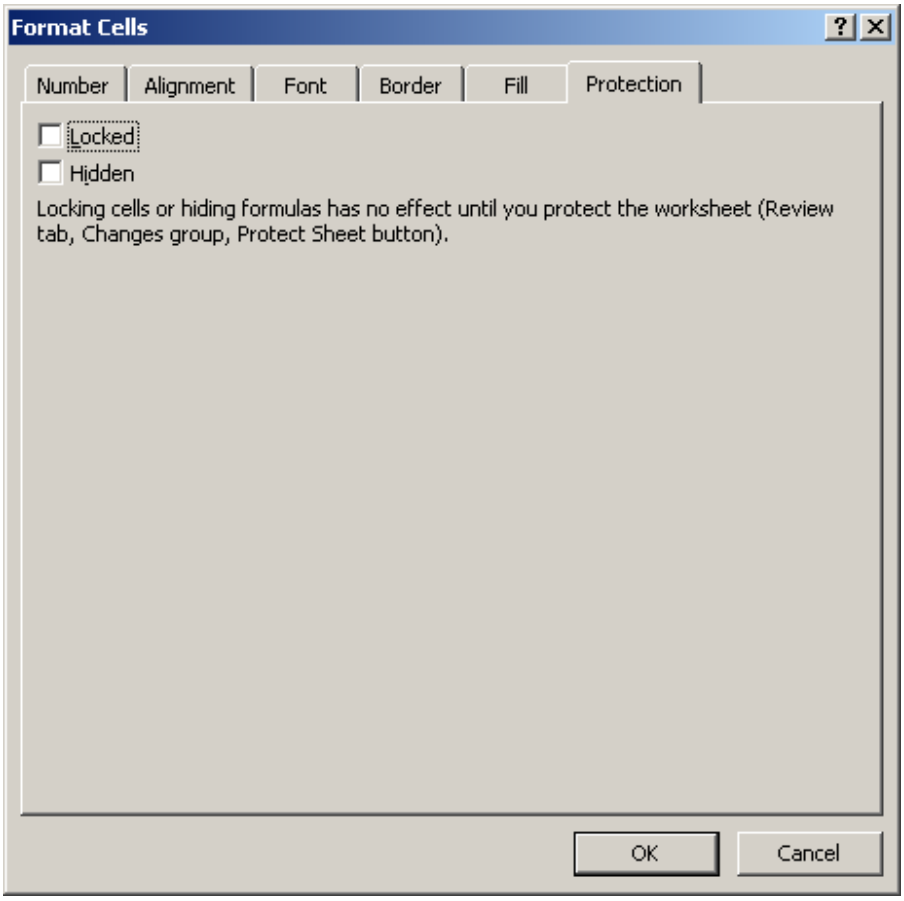
Answer: As you can see, currently the formulas are visible.



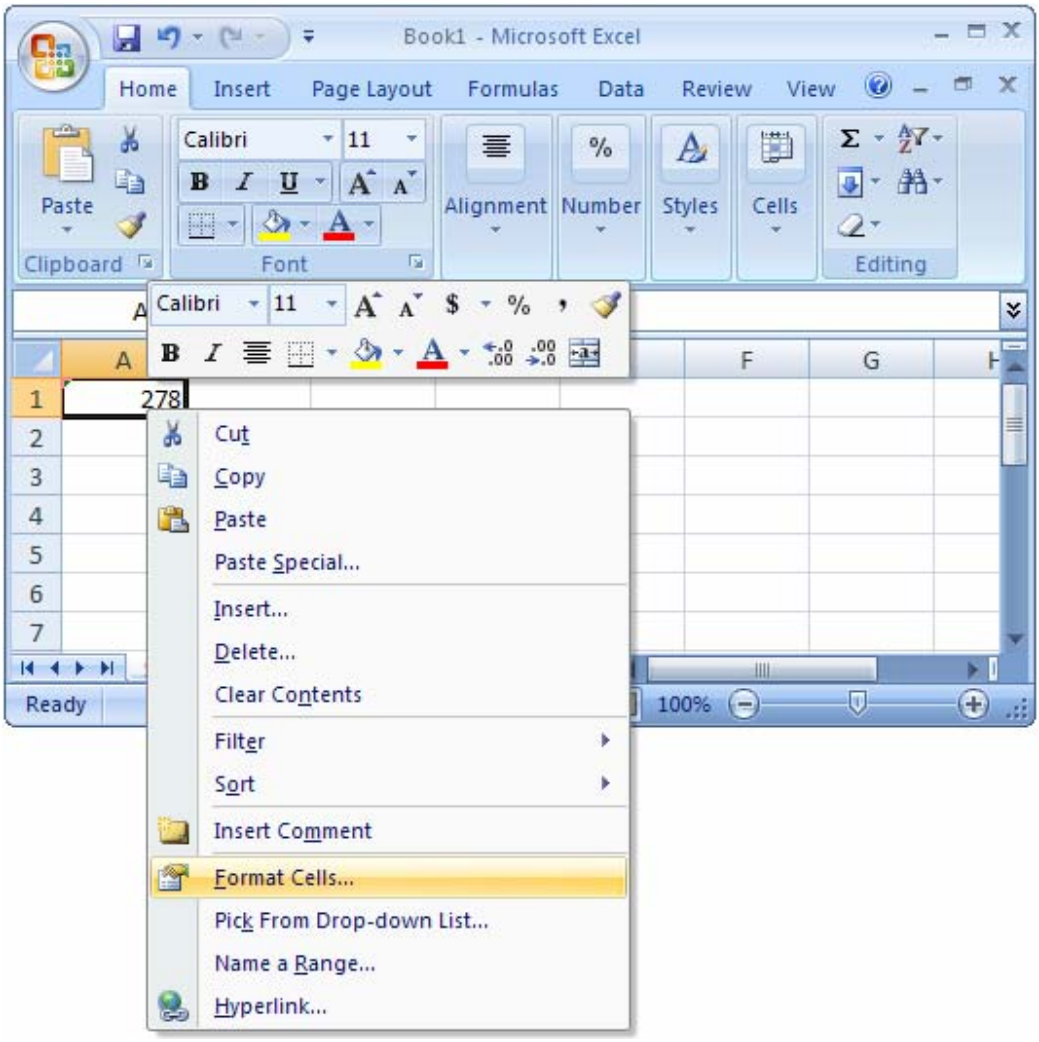
To hide the formulas, first you'll need to un-protect all of the cells on your sheet. To do this, select all of the rows and columns in your sheet. Right-click on then select "Format Cells" from the popup menu.



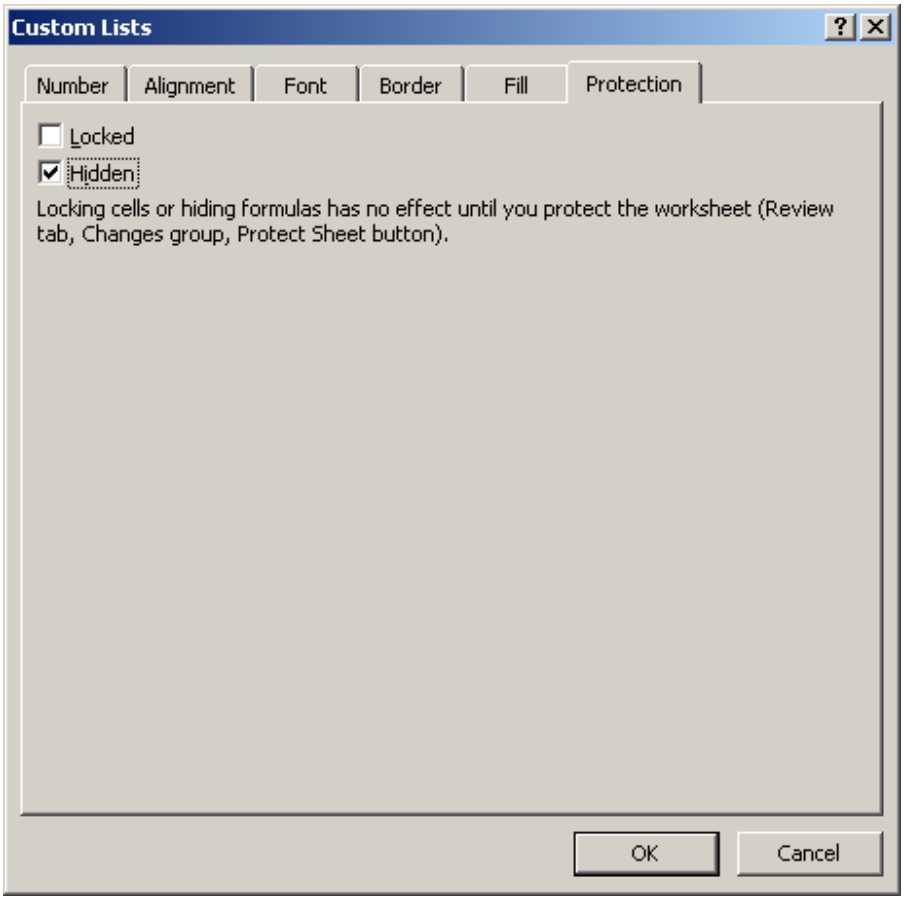
When the Format Cells window appears, select the Protection tab. Uncheck the "Locked" checkbox. Click on the OK button.



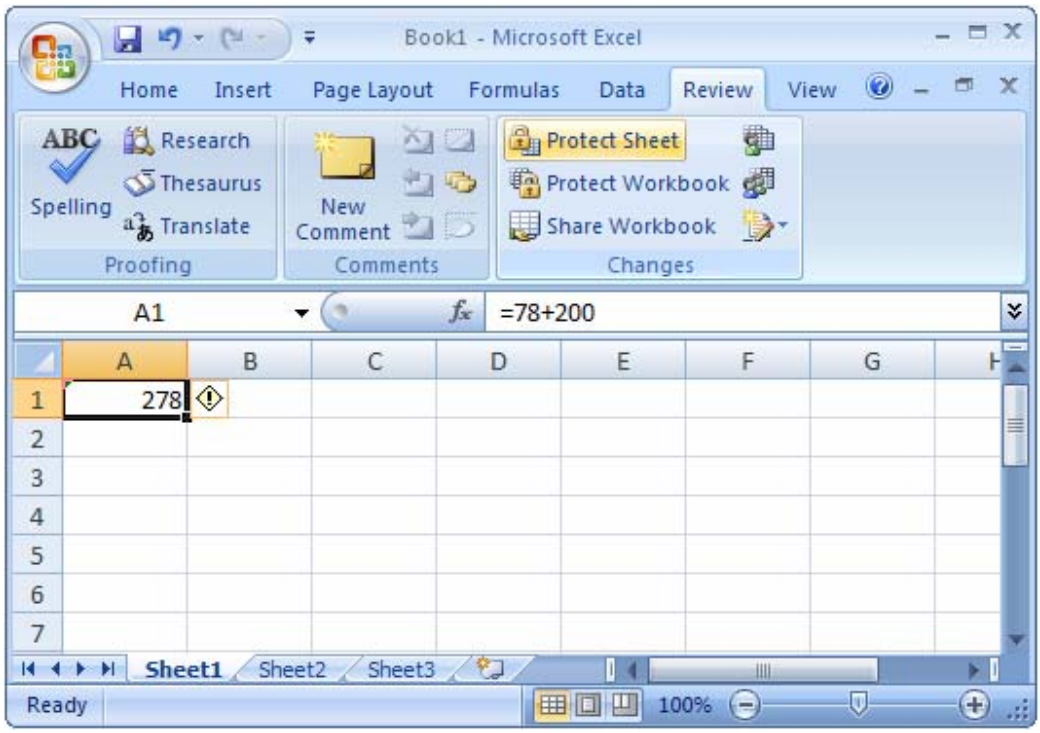
Next, select the cell(s) that you wish to hide the formulas for. Right-click and then select "Format Cells" from the popup menu.



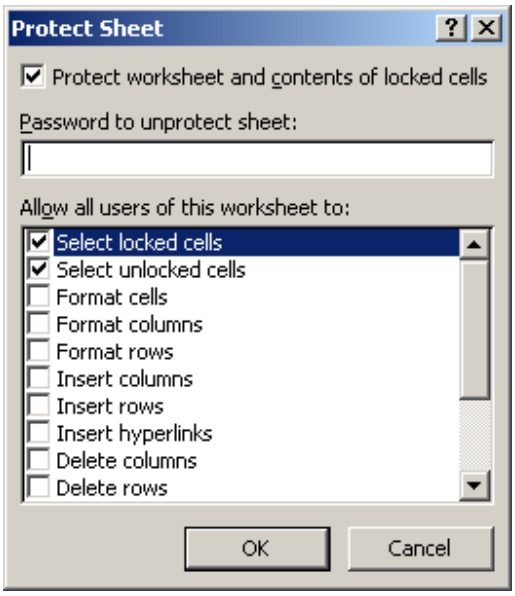
When the Format Cells window appears, select the Protection tab. Check the "Hidden" checkbox. Click the OK button.



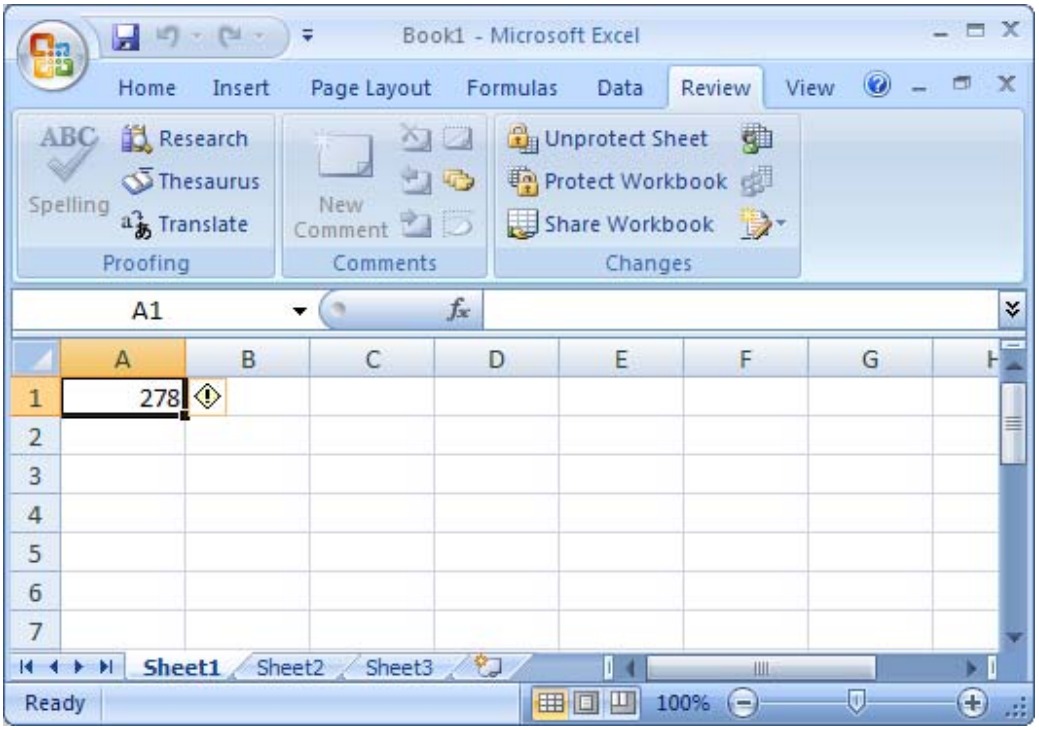
For the formulas to be hidden, you must also protect the worksheet. To do this, select the Review tab from the toolbar at the top of the screen. Then click on Protect Sheet button.



A "Protect Sheet" window will appear. You may enter a password to protect the sheet if you wish. The password is optional. Click on the OK button.



Now when you view your spreadsheet, the formula will no longer appear at the top when the cell is selected.

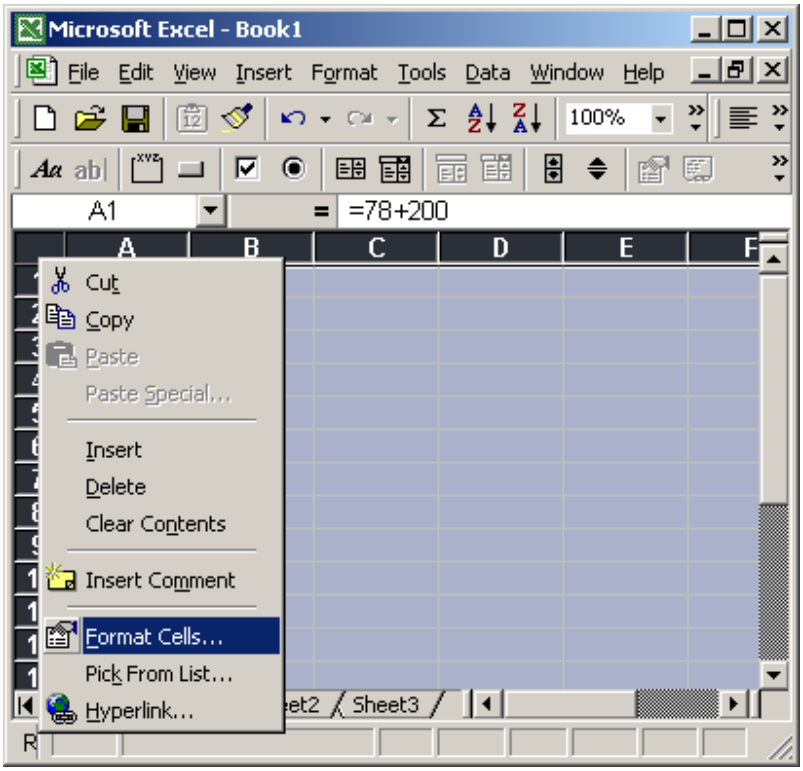


Hide formulas from appearing in the edit bar in Excel 2003/XP/2000/97

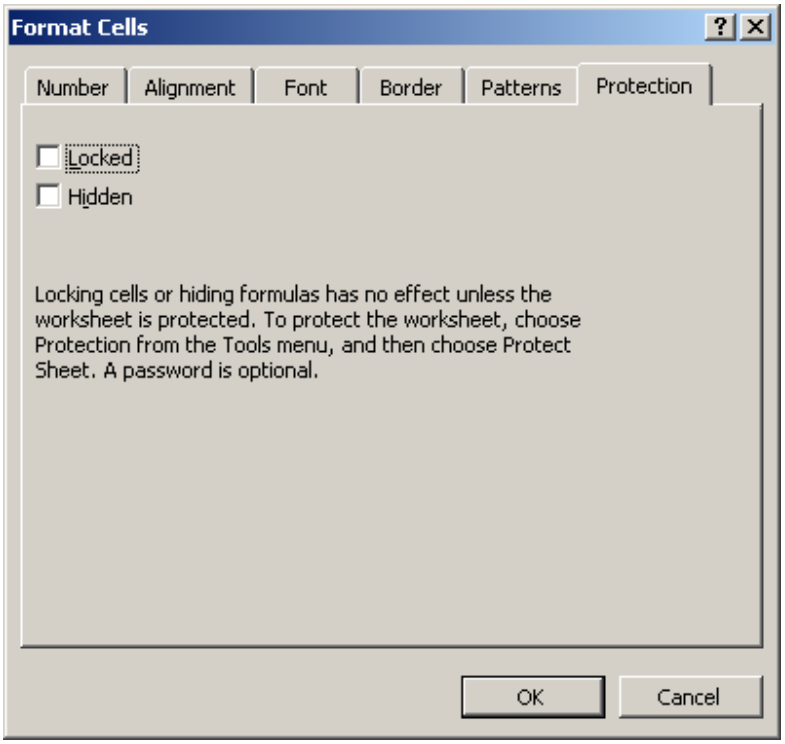
Question: I have formulas in an Excel worksheet that I don't want to be visible when that cell is selected.

Is there a way I can click on the cell and not see the formula up top?

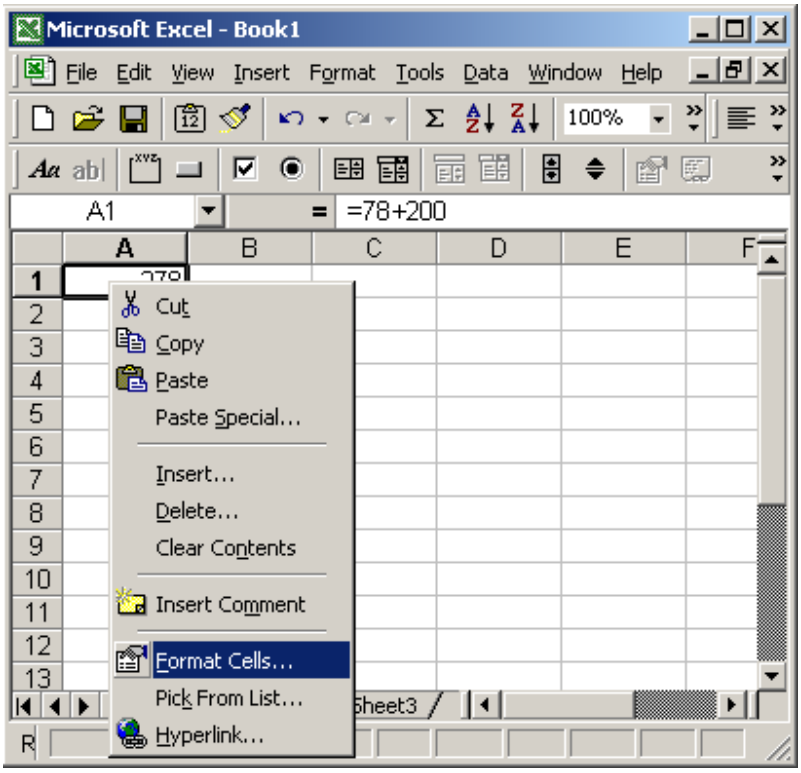
Answer: First, you'll need to un-protect all of the cells on your sheet. To do this, select all of the rows and columns in your sheet. Right-click on then select "Format Cells" from the popup menu.



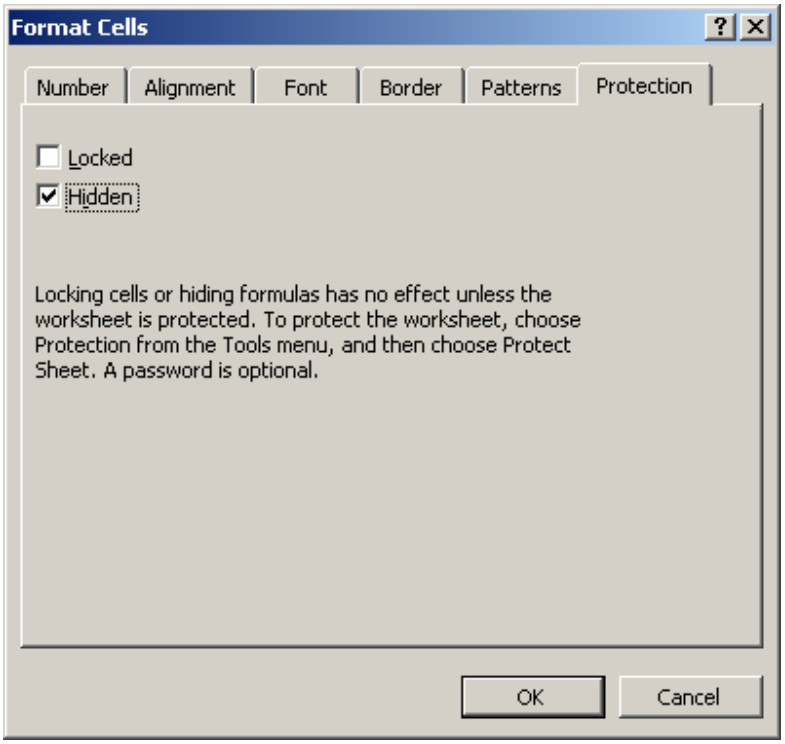
When the Format Cells window appears, select the Protection tab. Uncheck the "Locked" checkbox. Click on the OK button.



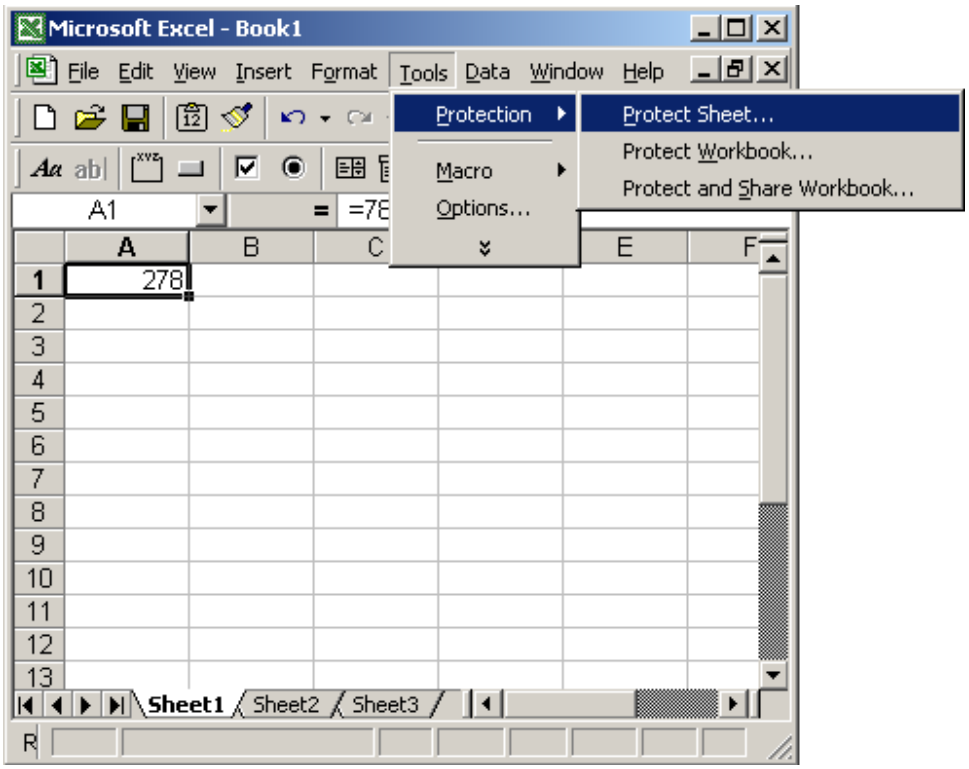
Next, select the cell(s) that you wish to hide the formulas for. Right-click and then select "Format Cells" from the popup menu.



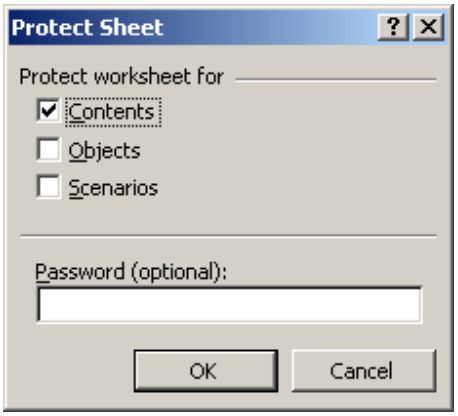
When the Format Cells window appears, select the Protection tab. Check the "Hidden" checkbox. Click the OK button.



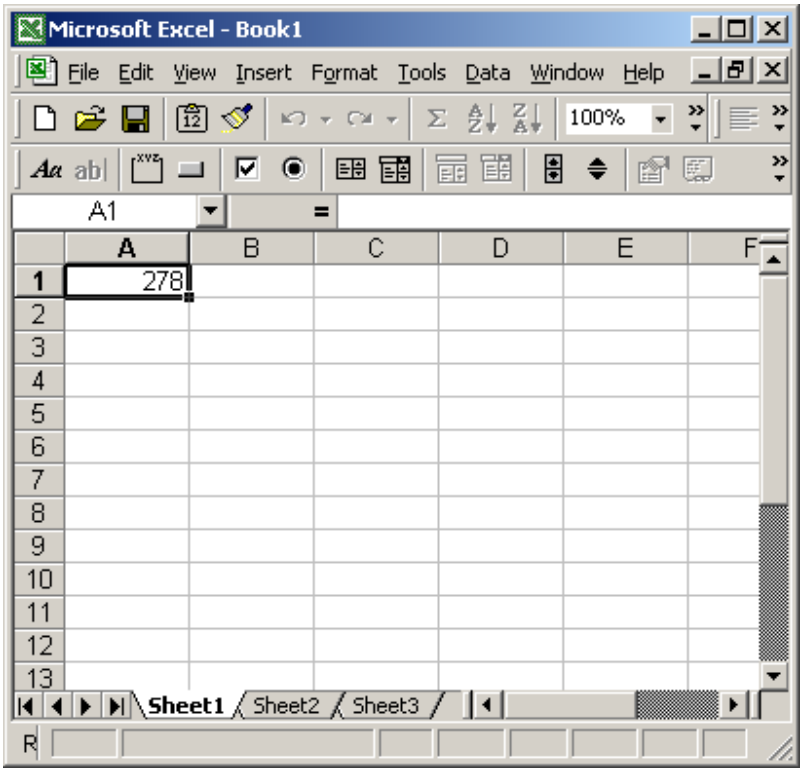
For the formulas to be hidden, you must also protect the worksheet. To do this, select Protection and then "Protect Sheet" under the Tools menu.



A "Protect Sheet" window will appear. Check the "Contents" checkbox. You may enter a password to protect the sheet if you wish. The password is optional. Click on the OK button.



Now when you view your spreadsheet, the formula will no longer appear at the top when the cell is selected.

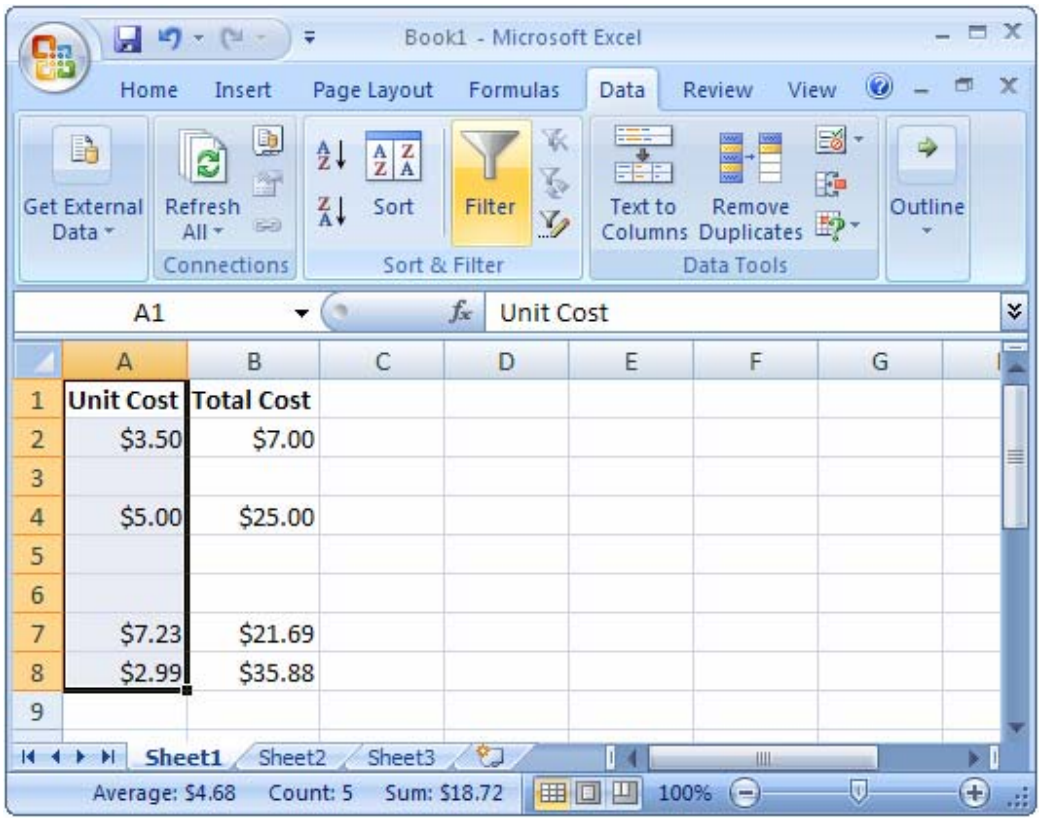


Excel: Copy and paste only nonblank cells (condensing paste range)

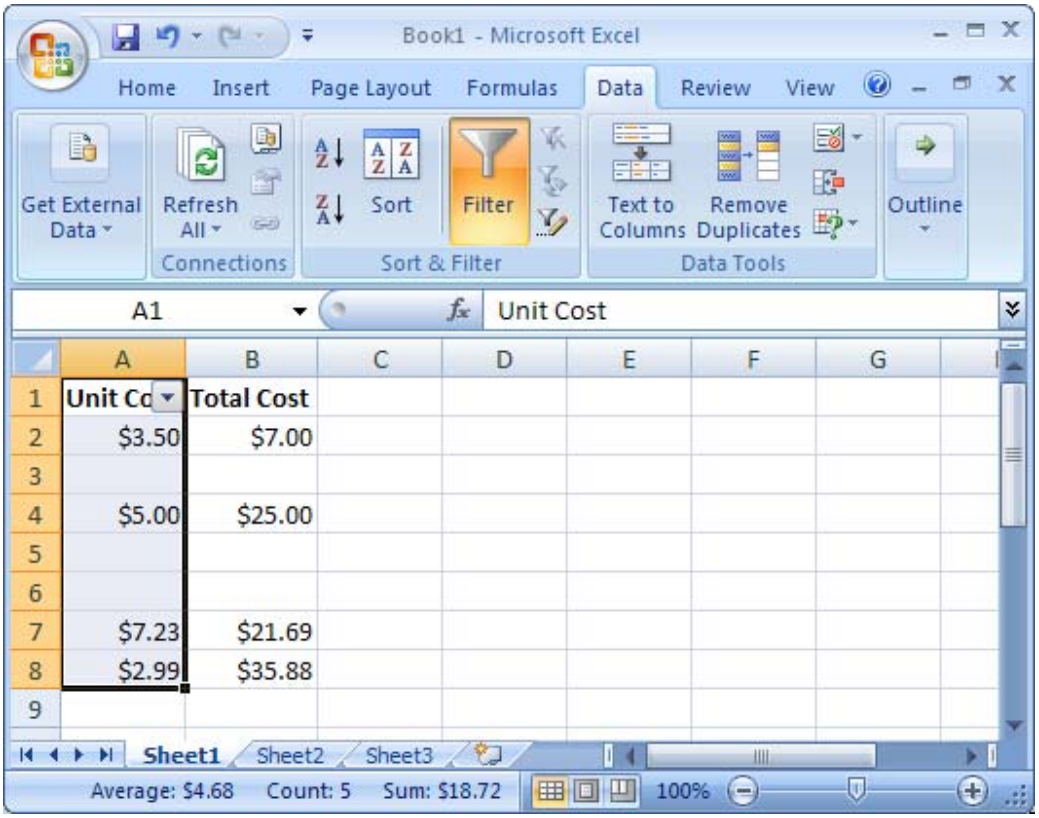
We'll demonstrate how to copy and paste only nonblank cells in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

Copy and paste only nonblank cells (condensing paste range) in Excel 2007

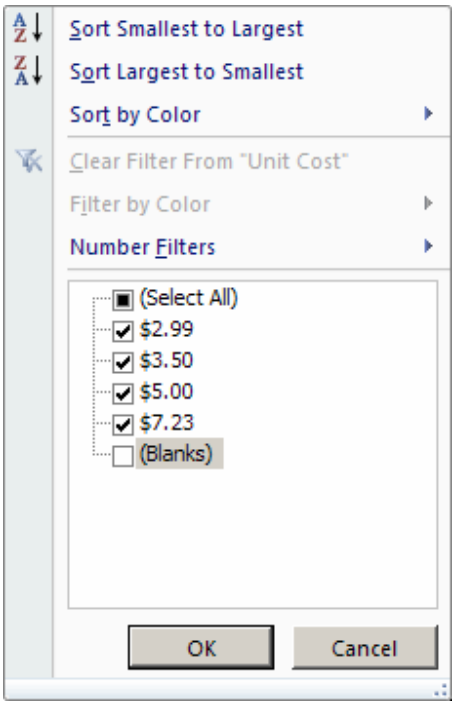
Question: In Excel, how do I copy the entries of a series of cells and paste only non-blank cells? Paste special then skip blank option doesn't seem to work.
Answer: Unfortunately, there isn't a simple solution to this question. The following example demonstrates how to copy and paste only nonblank cells.
First, highlight all of the cells (including both blank and nonblank cells) that you wish to paste. In this example, we've highlighted cells A1 to A8.
Next, select the Data tab in the toolbar at the top of the screen and click on the Filter button (see orange highlighted button in picture below).



A drop-down should appear in the first cell of your range. Click on this drop-down.

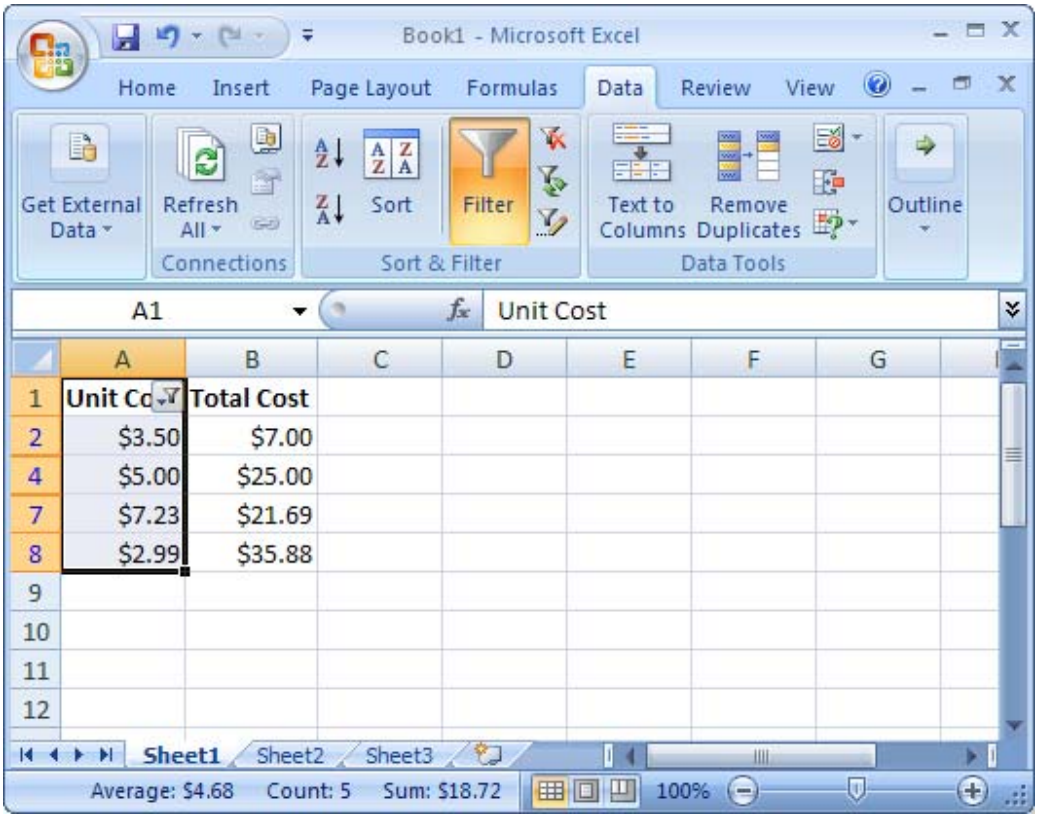


De-select the (Blanks) option and then click on the OK button.

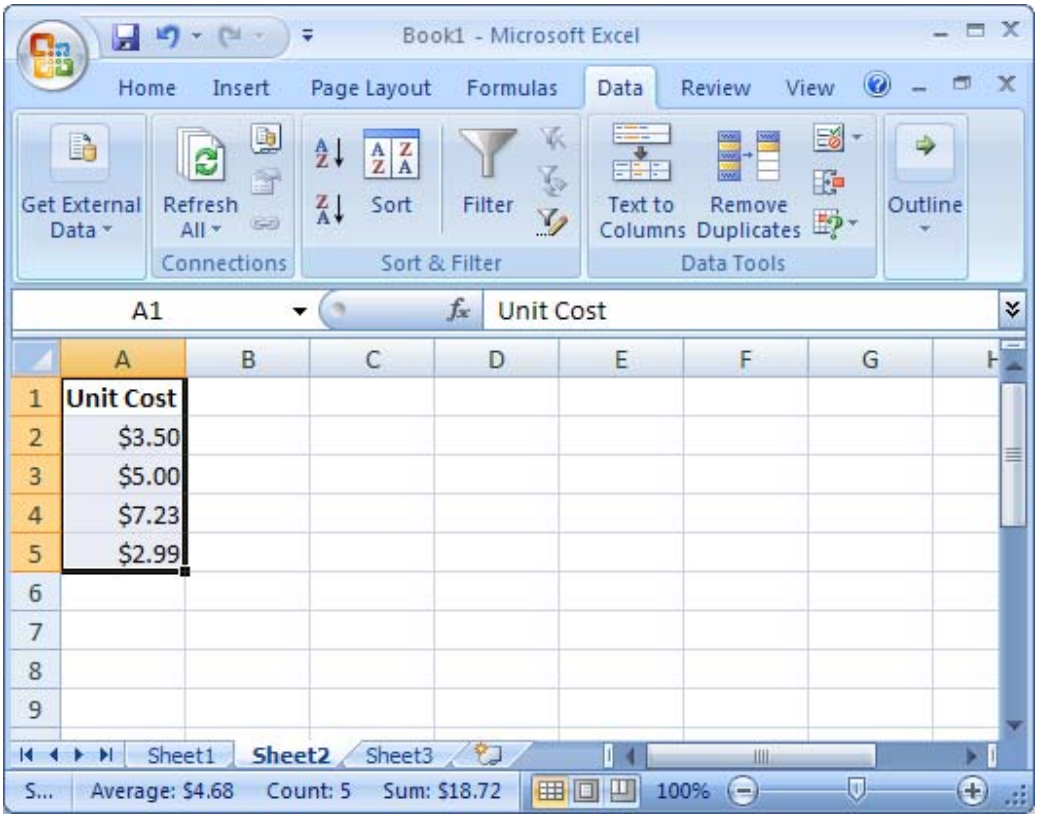


Your spreadsheet should now only display nonblank cells.

Next, copy the data using Ctrl-C.

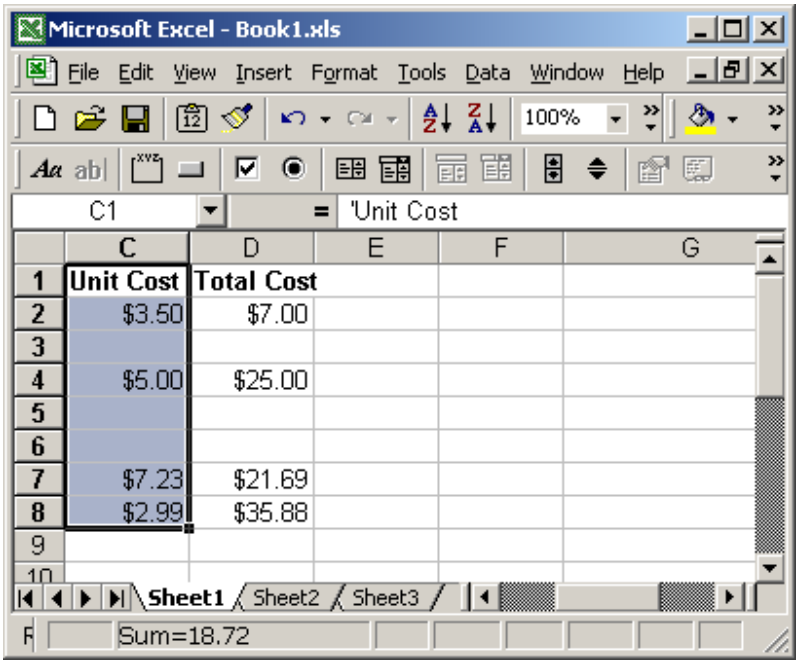


Then paste the data using Ctrl-V. In this example, we've chosen to paste the nonblank cells into Sheet2.

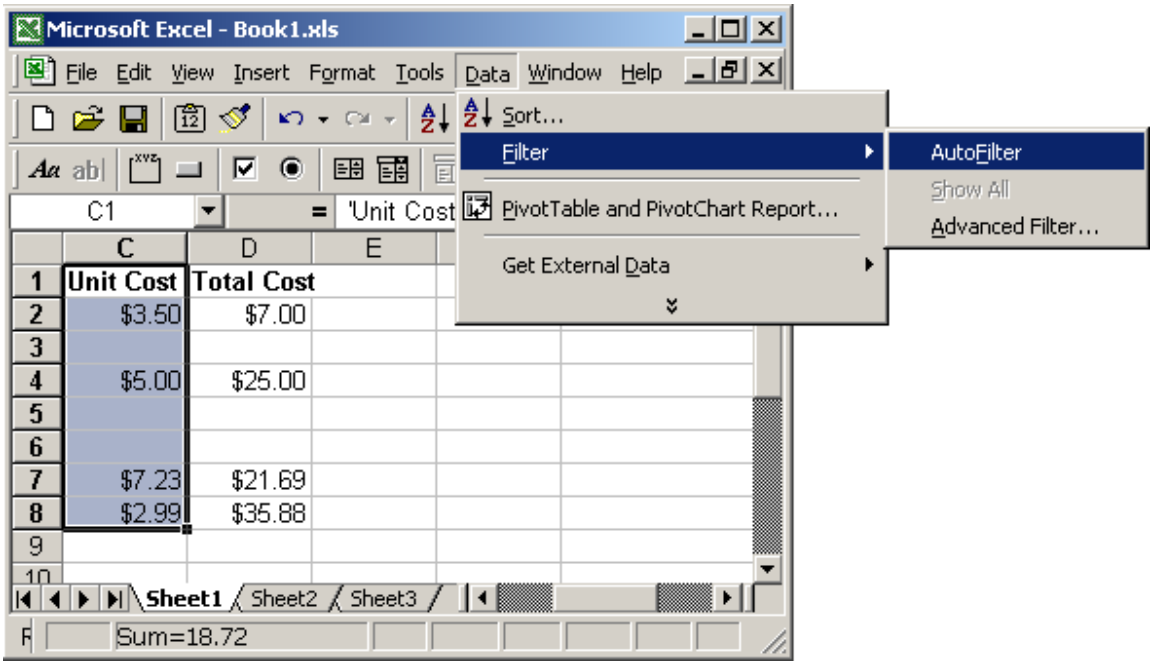


Copy and paste only nonblank cells (condensing paste range) in Excel 2003/XP/2000/97

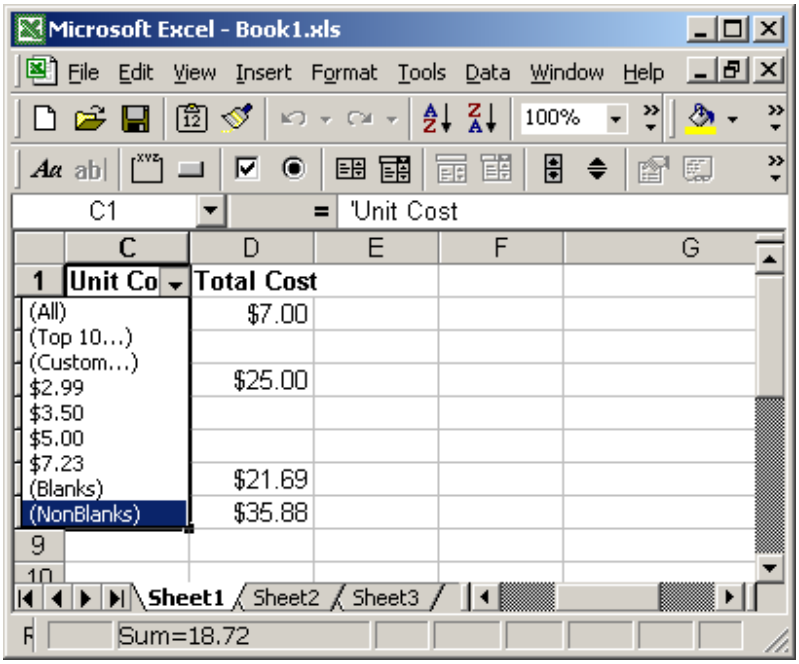
Question: In Excel, how do I copy the entries of a series of cells and paste only non-blank cells? Paste special then skip blank option doesn't seem to work.
Answer: Unfortunately, there isn't a simple solution to this question. The following example demonstrates how to copy and paste only nonblank cells. First, highlight all of the cells (including both blank and nonblank cells) that you wish to paste. In this example, we've highlighted cells C1 to C8.



Under the Data menu, select Filter > AutoFilter.

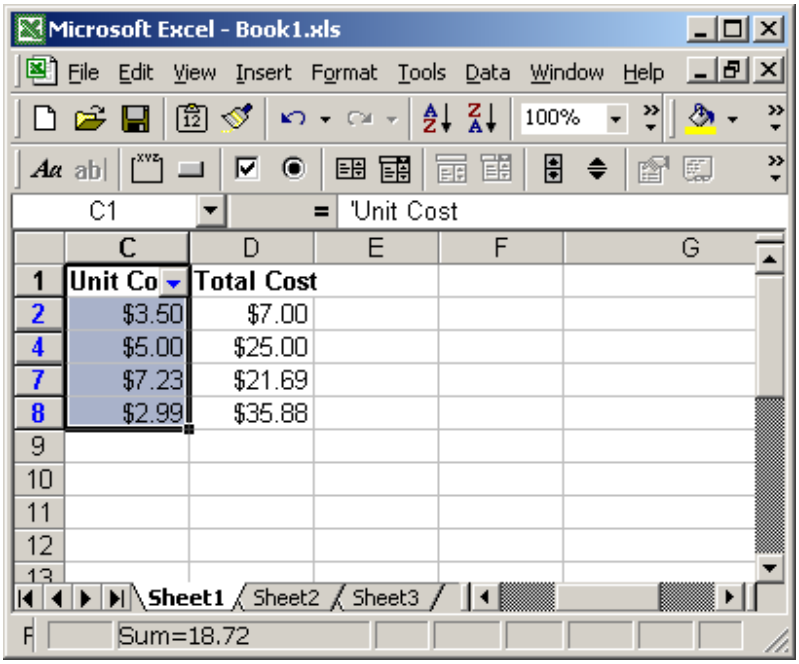


A drop-down should appear in the first cell of your range. Select NonBlanks from the drop-down.

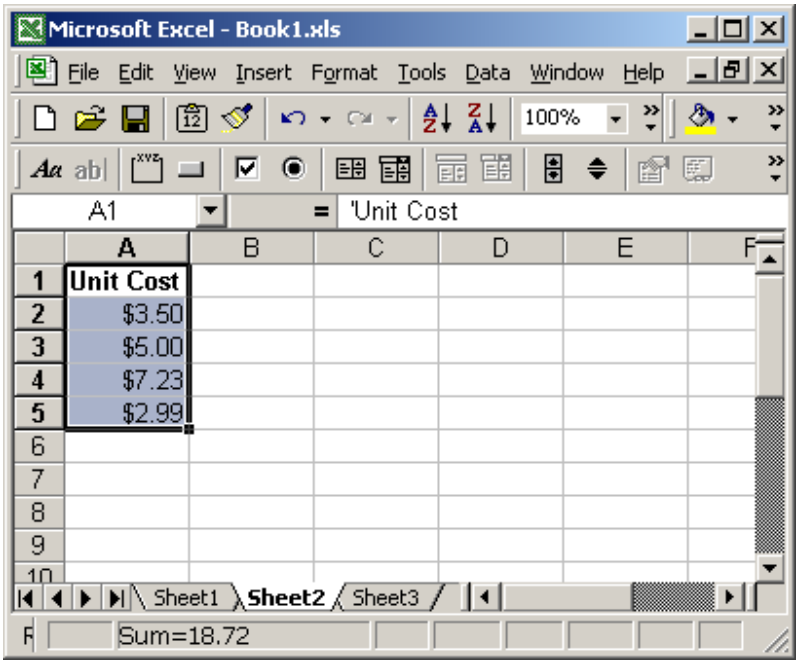


Your spreadsheet should now only display nonblank cells.

Next, copy the data using Ctrl-C.



Then paste the data using Ctrl-V. In this example, we've chosen to paste the nonblank cells into Sheet2.



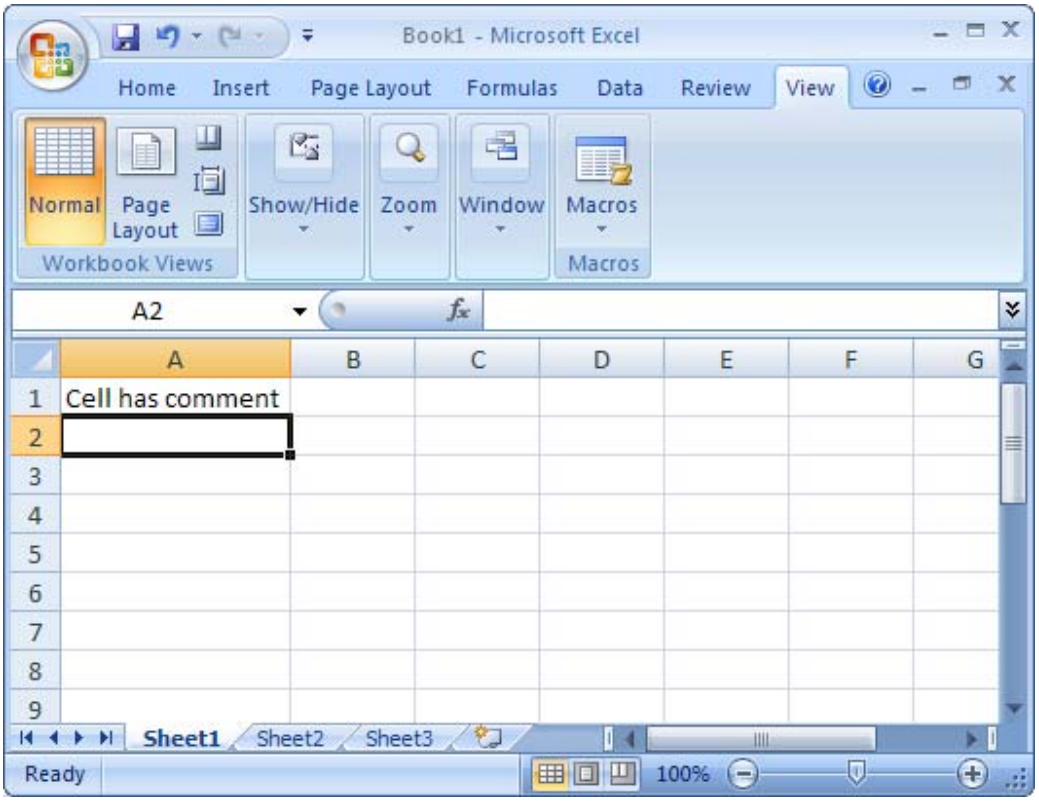
Excel: Display comment indicator next to cells with comments

We'll demonstrate how to display a comment indicator next to cells with comments in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

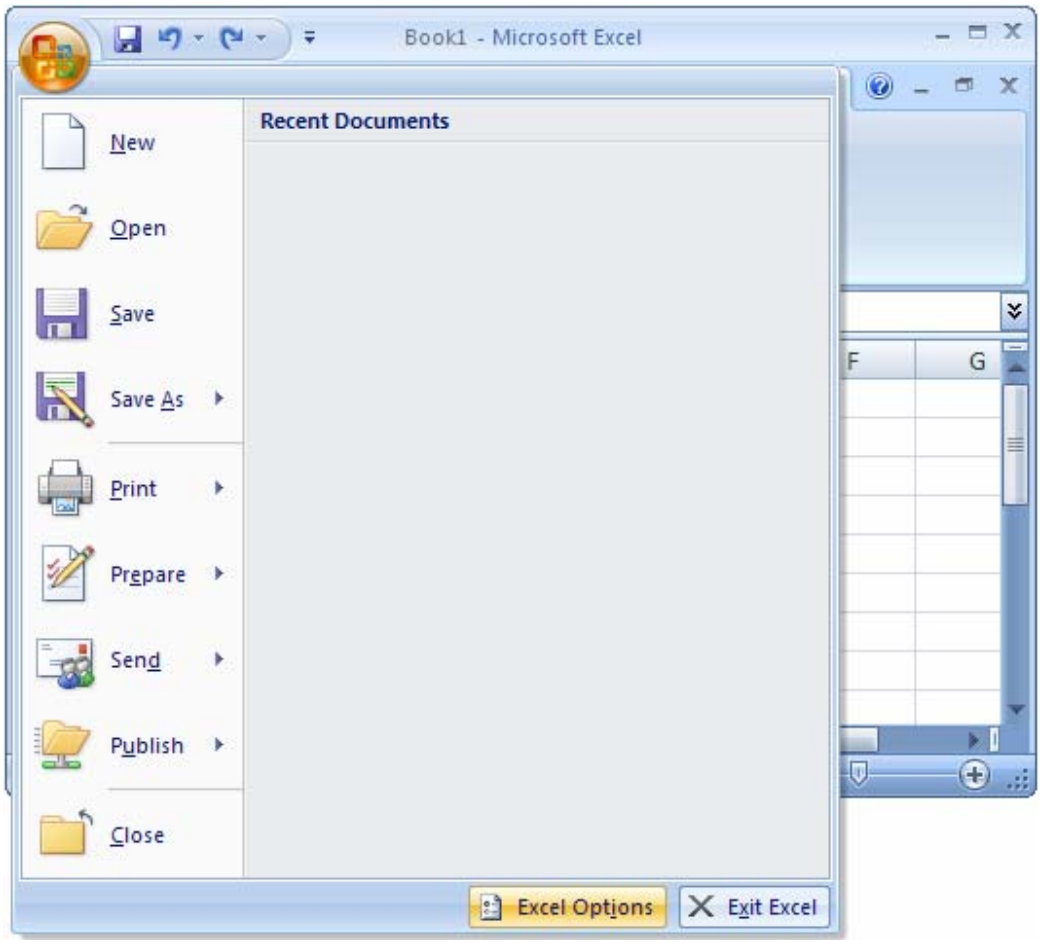
Display comment indicator next to cells with comments in Excel 2007

Question: When a comment has been inserted in a cell, the little red triangle is not being displayed to indicate a comment in a cell. What can I do to remedy this in Excel?

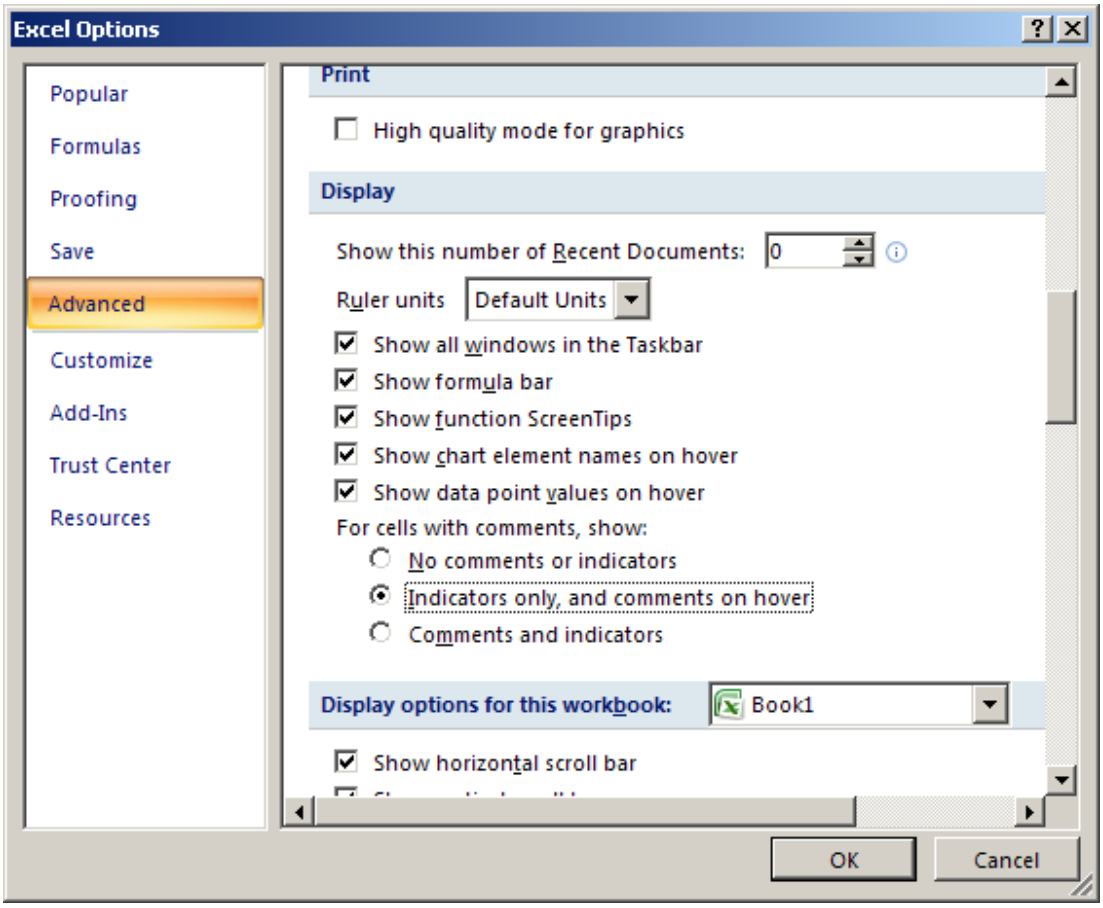
Answer: As you can see, the little red triangle is not being displayed in cell A1 even though there is a comment in that cell.



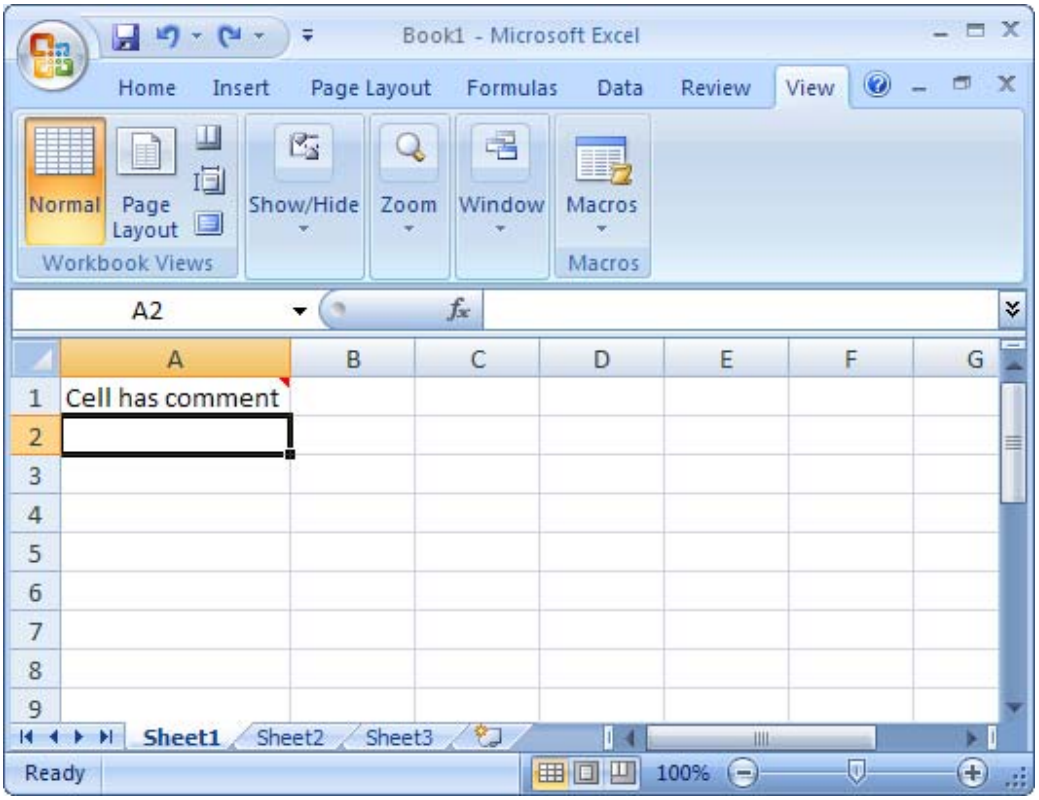
Click on the Microsoft Office button  and then click on the Excel Options button.



When the Excel Options window appears, click on the Advanced option on the left. Then scroll down to the Display section in the right side of the window and select the option called "**Indicators only, and comments on hover**".



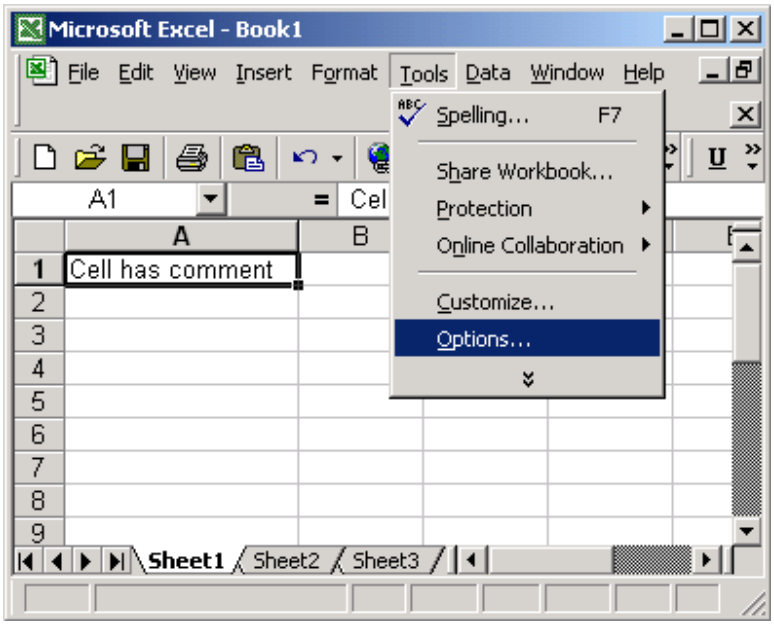
Now when you return to the Excel spreadsheet, you should see the comment indicator. The comment indicator is the red triangle positioned in the top right corner of the cells that contain comments.



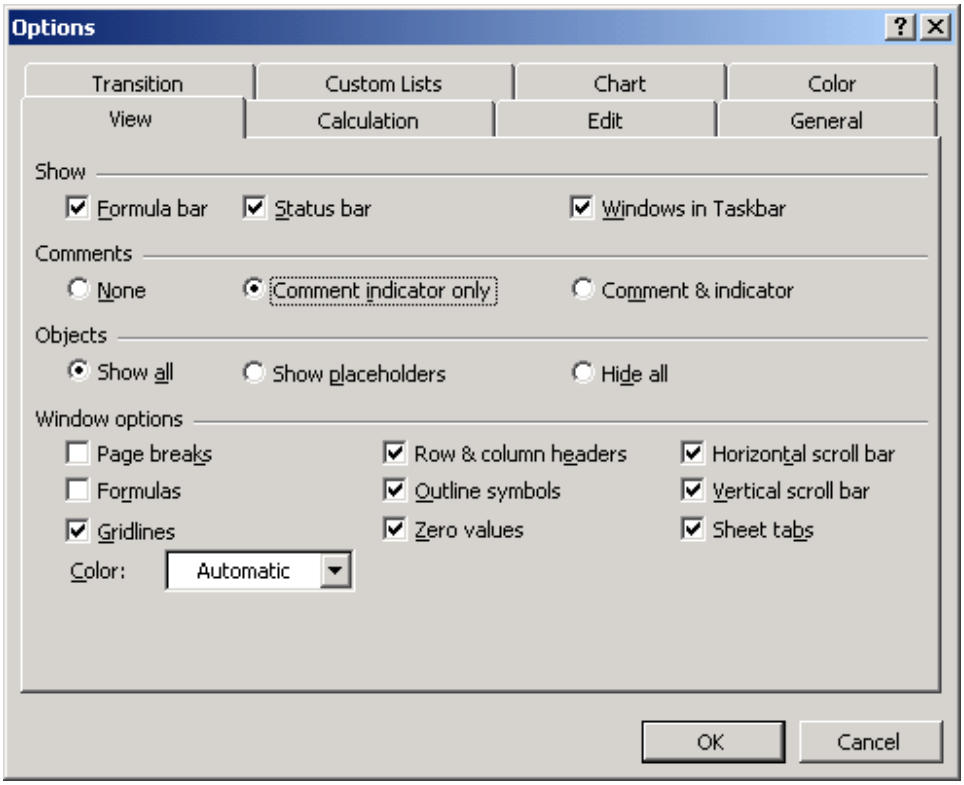
Display comment indicator next to cells with comments in Excel 2003/XP/2000/97

Question: When a comment has been inserted in a cell, the little red triangle is not being displayed to indicate a comment in a cell. What can I do to remedy this in Excel?

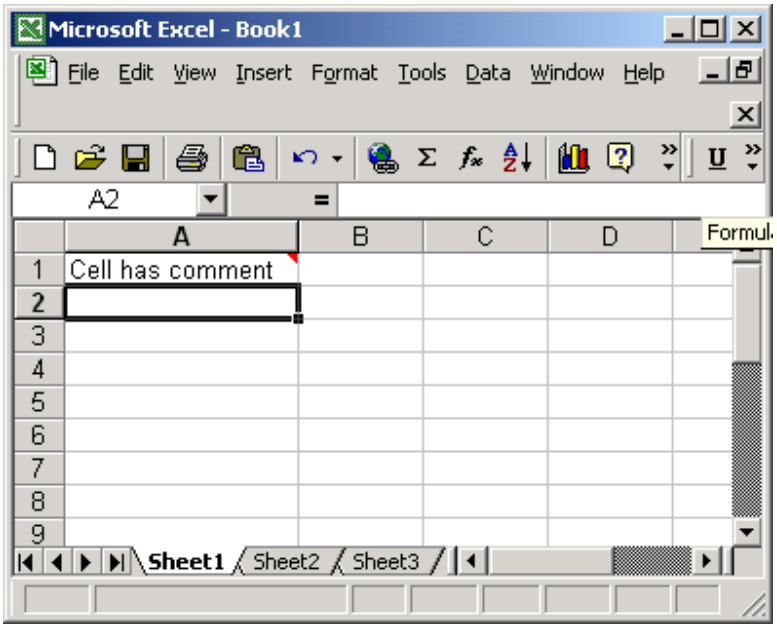
Answer: Under the Tools menu, select Options.



When the Options window appears, select the View tab. Select the option called "Comment indicator only".



Now when you return to the Excel spreadsheet, you should see the comment indicator. The comment indicator is the red triangle positioned in the top right corner of the cells that contain comments.

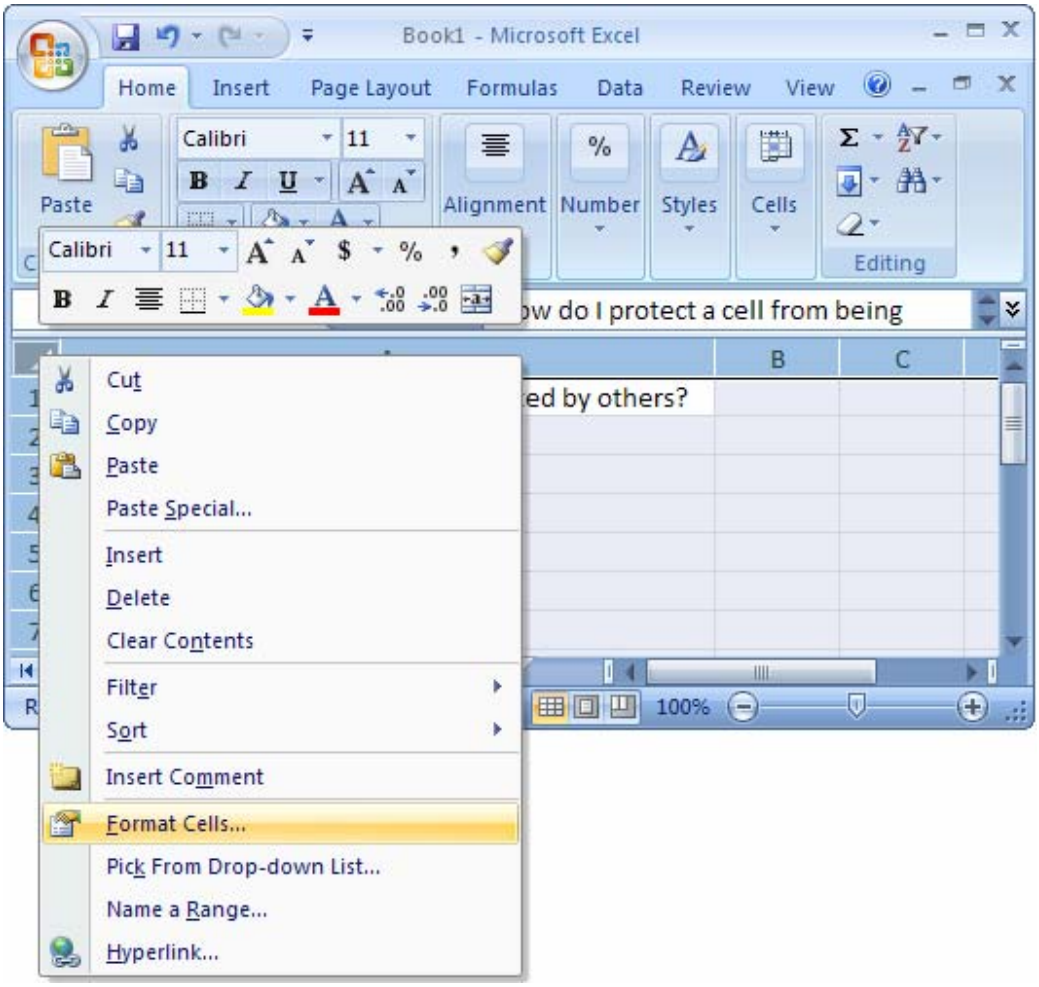


Excel: Protect a cell

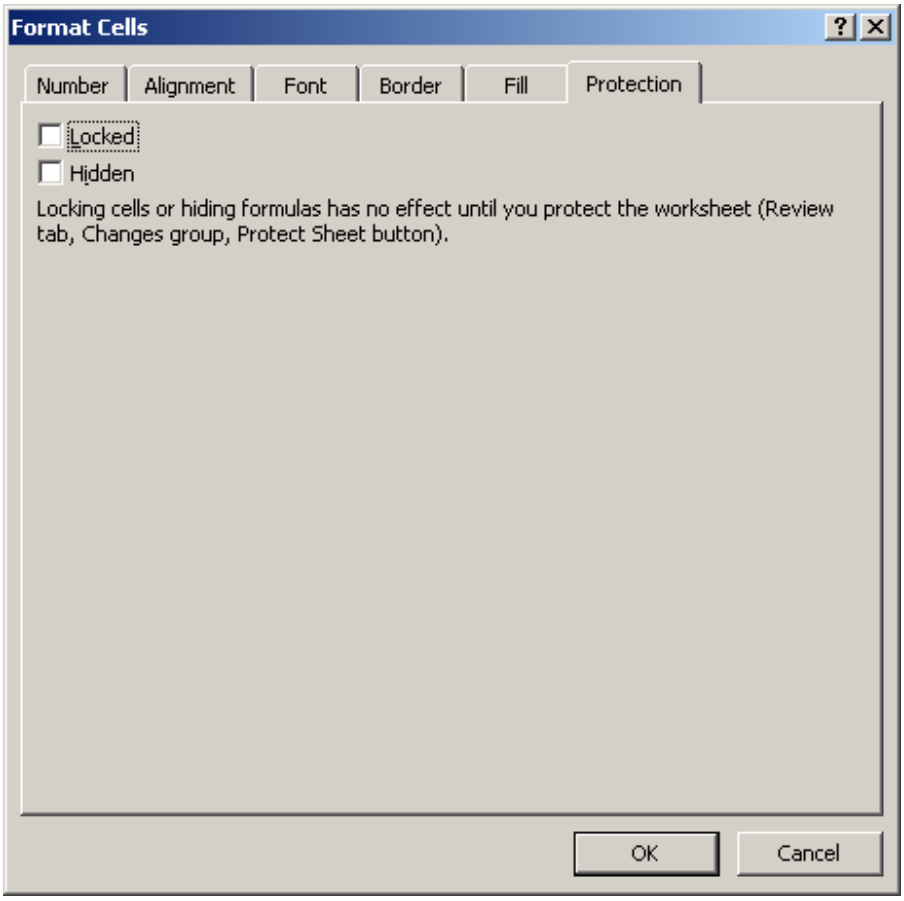
We'll demonstrate how to protect a cell in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

Protect a cell in Excel 2007

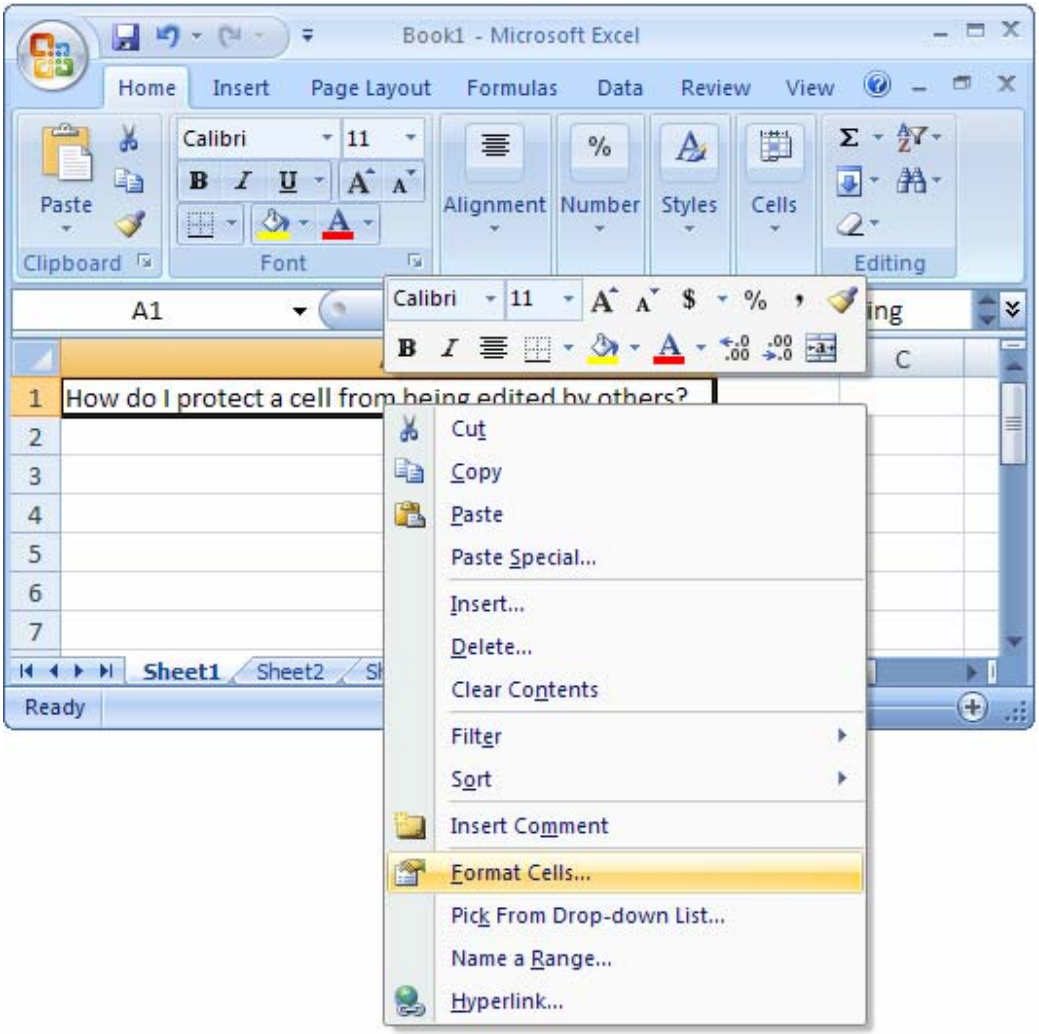
Question: How do I protect a cell from being edited by others?
Answer: First, you'll need to un-protect all of the cells on your sheet. To do this, select all of the rows and columns in your sheet. Right-click on then select "Format Cells" from the popup menu.



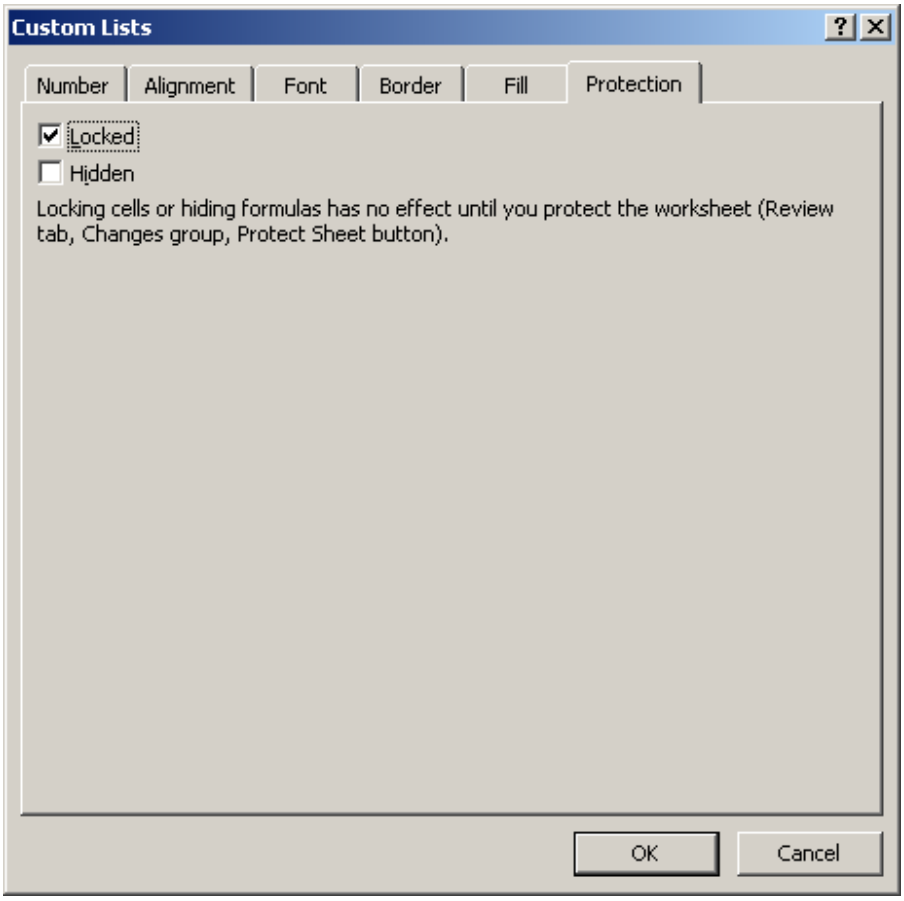
When the Format Cells window appears, select the Protection tab. Uncheck the "Locked" checkbox. Click on the OK button.



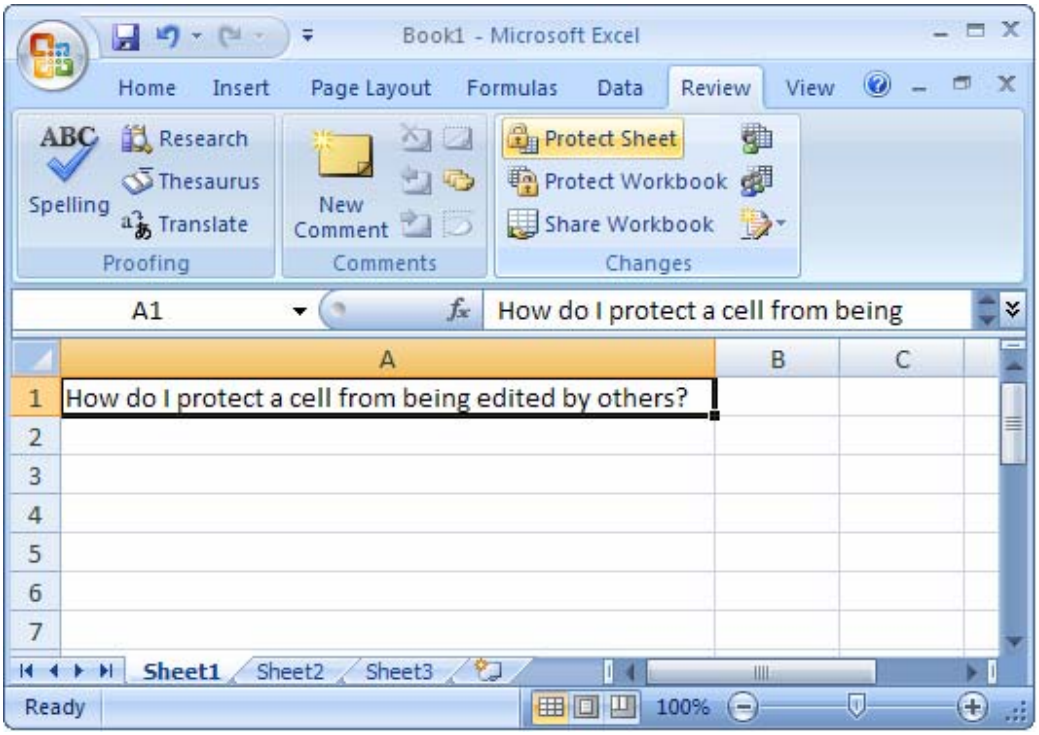
Next, select the cell(s) that you wish to protect. Right-click and then select "Format Cells" from the popup menu.



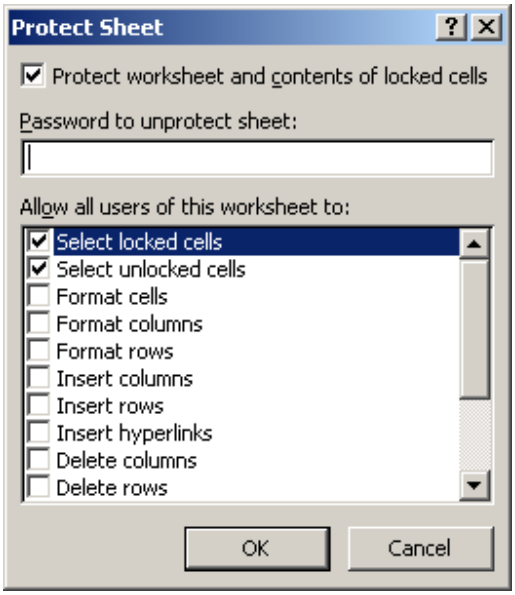
When the Format Cells window appears, select the Protection tab. Check the "Locked" checkbox. Click the OK button.



For the locking of the cells to take effect, you must also protect the worksheet. To do this, select the Review tab from the toolbar at the top of the screen. Then click on Protect Sheet button.



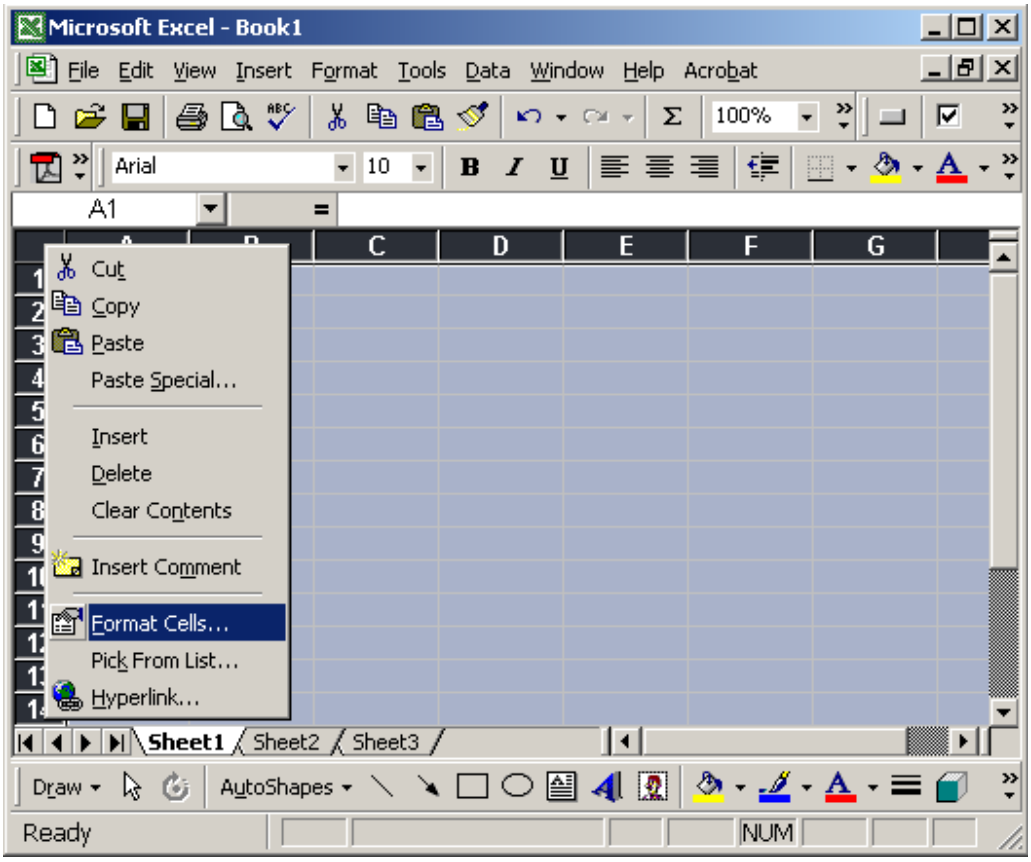
A "Protect Sheet" window will appear. You may enter a password to protect the sheet if you wish. The password is optional. Click on the OK button.



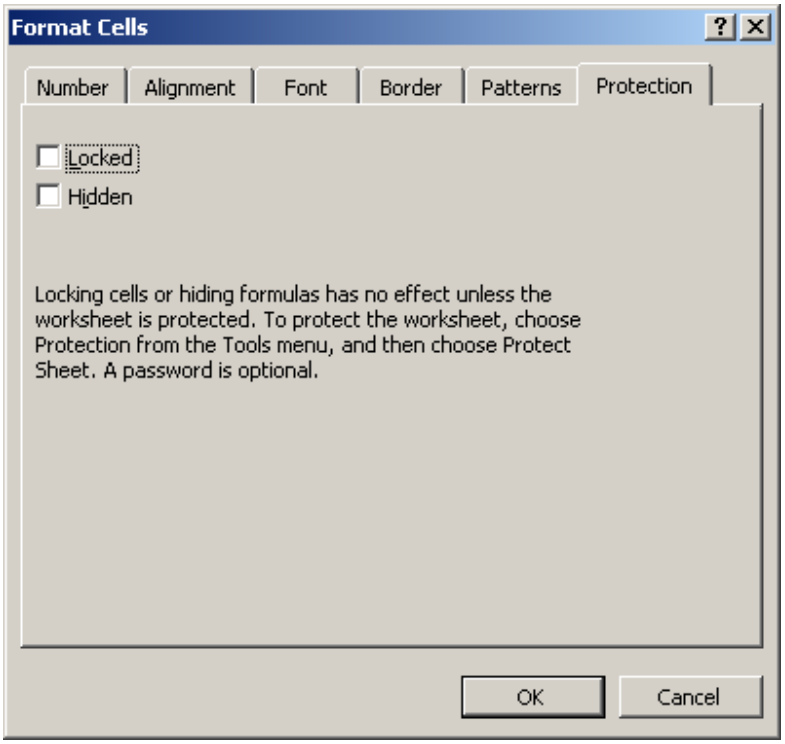
Protect a cell in Excel 2003/XP/2000/97

Question: How do I protect a cell from being edited by others?

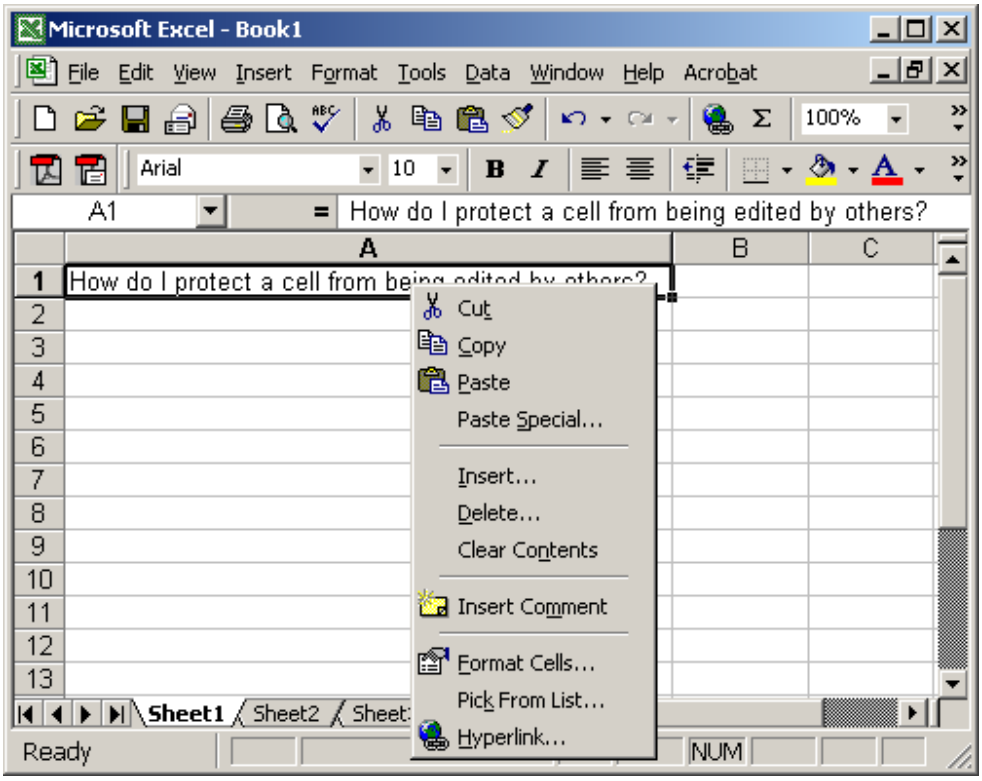
Answer: First, you'll need to un-protect all of the cells on your sheet. To do this, select all of the rows and columns in your sheet. Right-click on then select "Format Cells" from the popup menu.



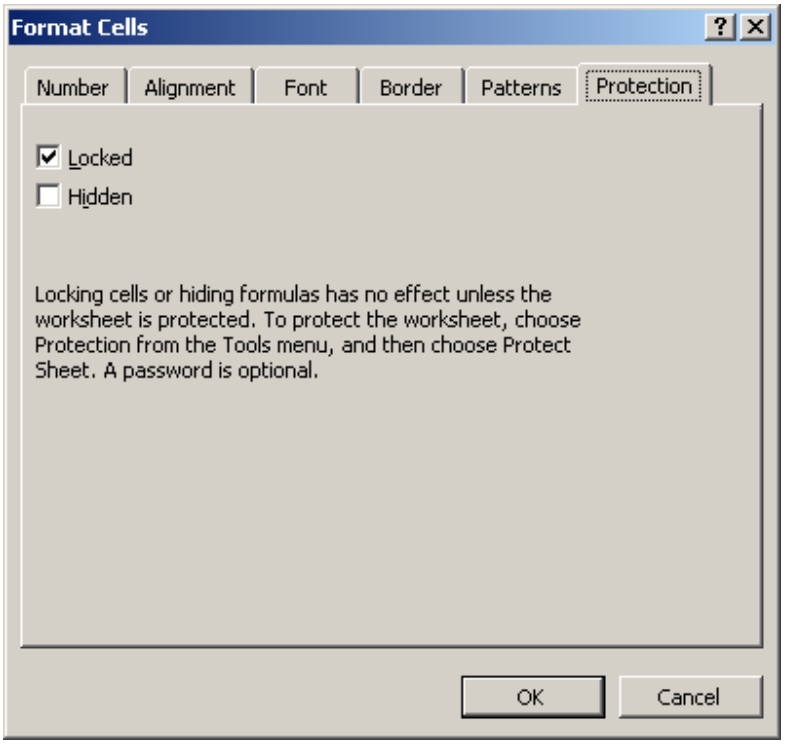
When the Format Cells window appears, select the Protection tab. Uncheck the "Locked" checkbox. Click on the OK button.



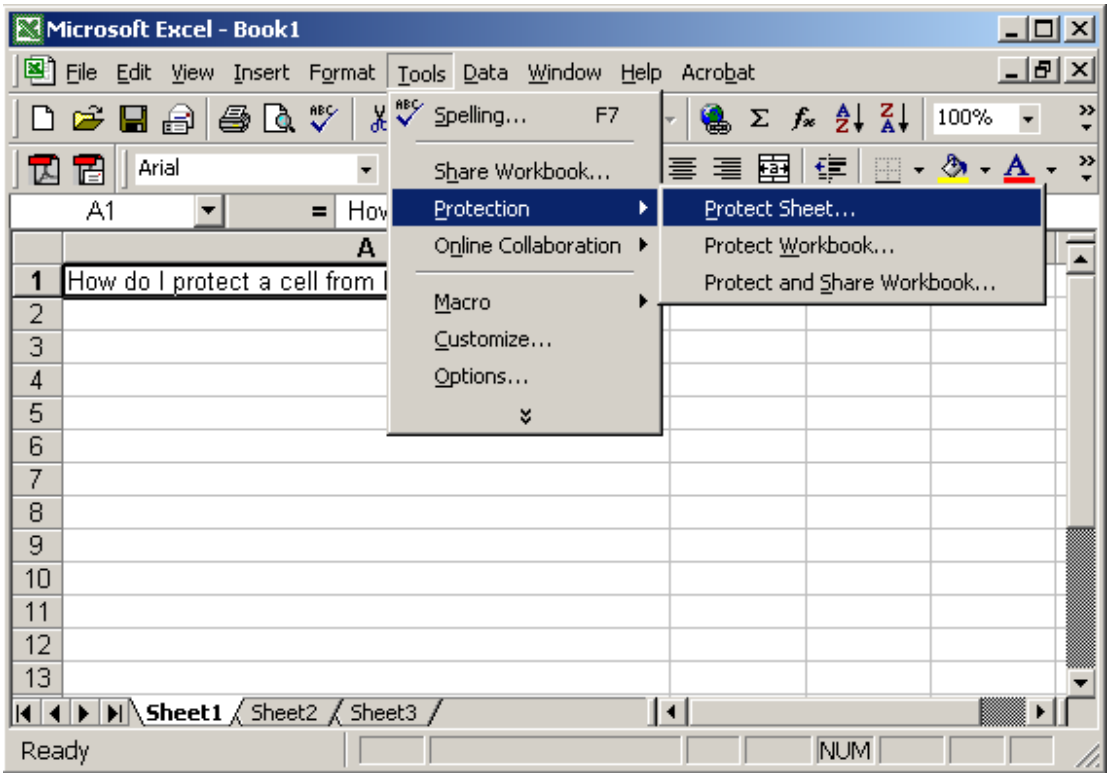
Next, select the cell(s) that you wish to protect. Right-click and then select "Format Cells" from the popup menu.



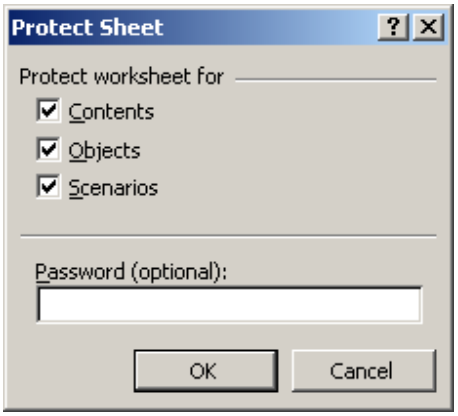
When the Format Cells window appears, select the Protection tab. Check the "Locked" checkbox. Click the OK button.



For the locking of the cells to take effect, you must also protect the worksheet. To do this, select Protection and then "Protect Sheet" under the Tools menu.



A "Protect Sheet" window will appear. You may enter a password to protect the sheet if you wish. The password is optional. Click on the OK button.



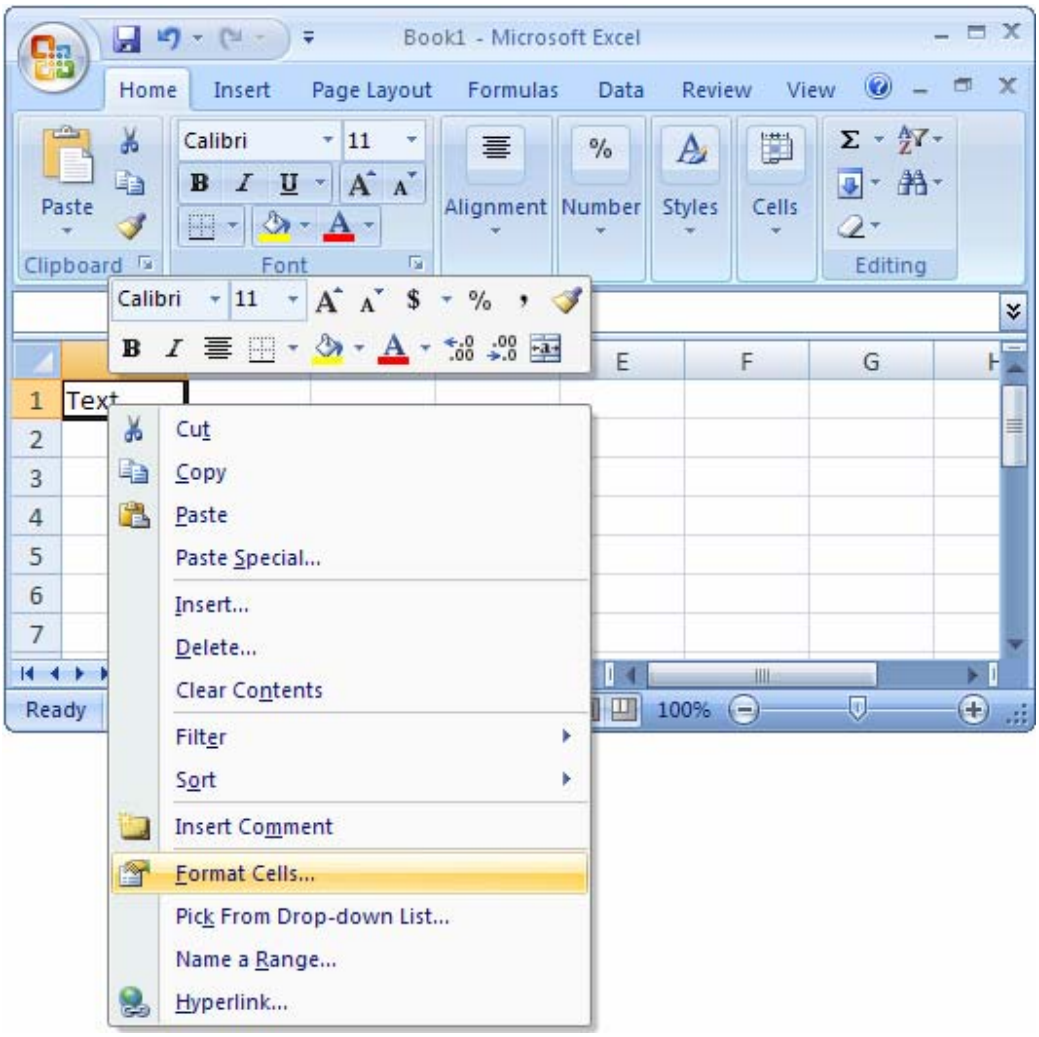
Excel: Rotate text in a cell

We'll demonstrate how to rotate text in a cell in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

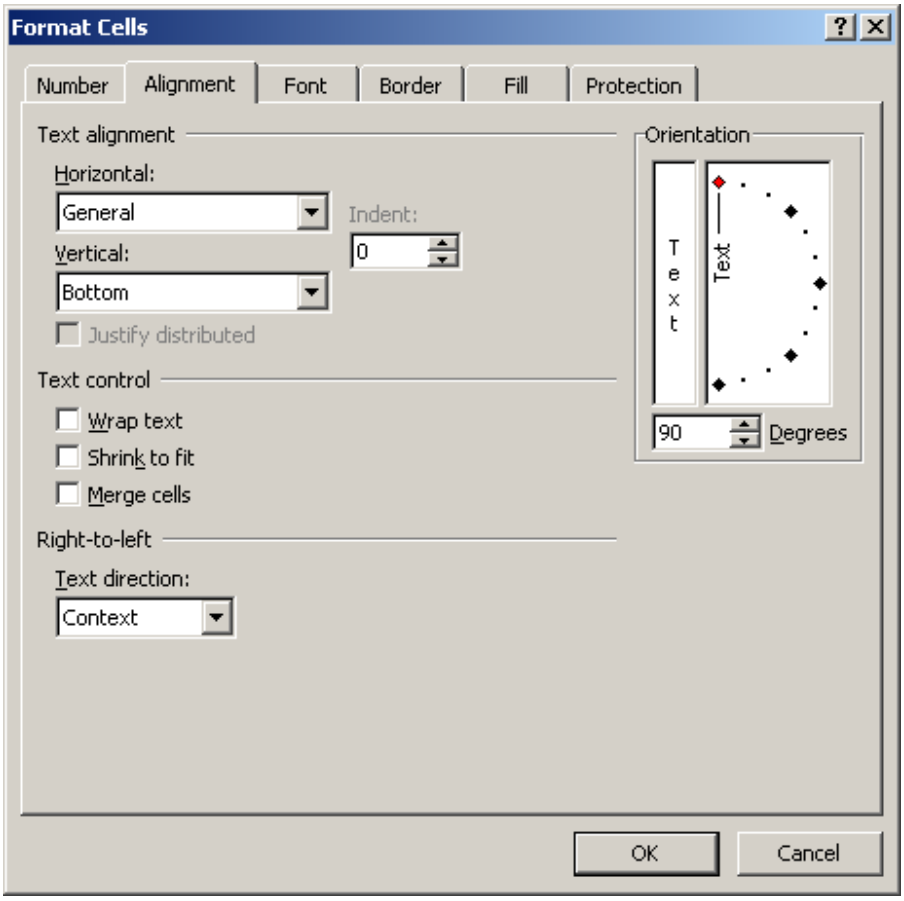
Rotate text in a cell in Excel 2007

Question: How do I rotate text in a cell?

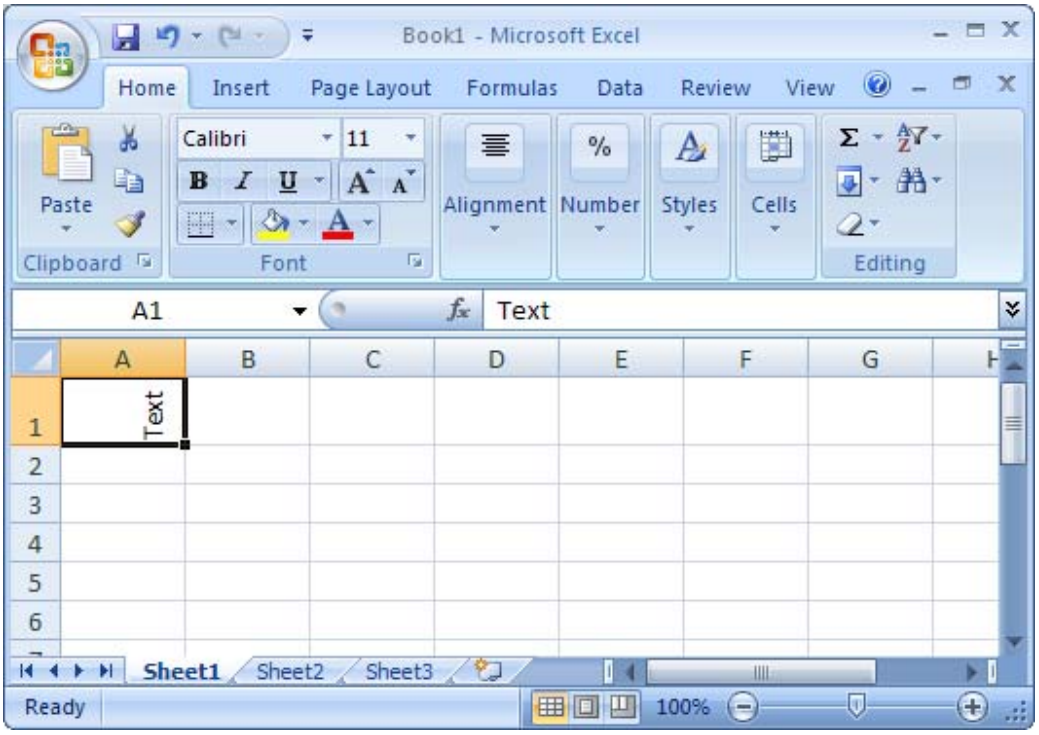
Answer: Select the cell(s) that you wish to rotate the text for. Right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Alignment tab. Then set the number of degrees that you wish to rotate the text. This value ranges from 90 degrees to -90 degrees.



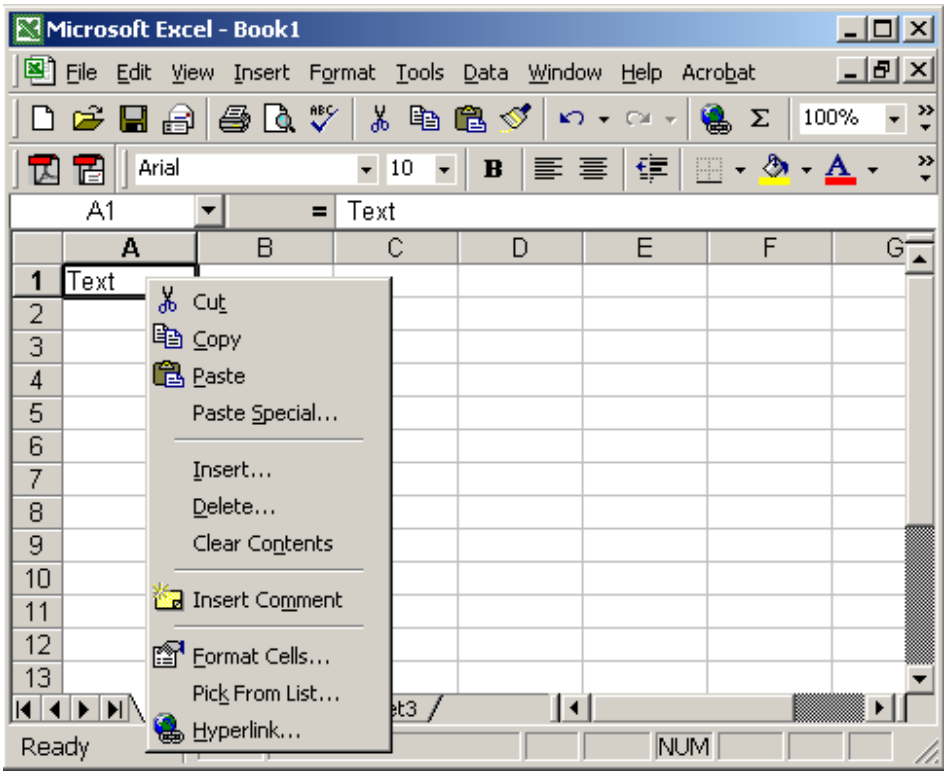
Now when you return to your spreadsheet, the text should be rotated.



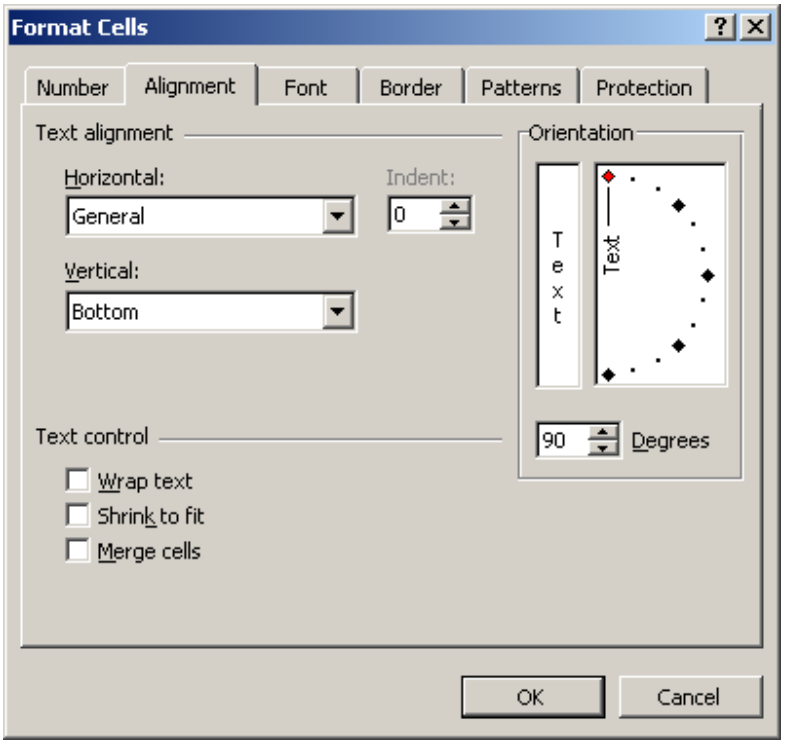
Rotate text in a cell in Excel 2003/XP/2000/97

Question: How do I rotate text in a cell?

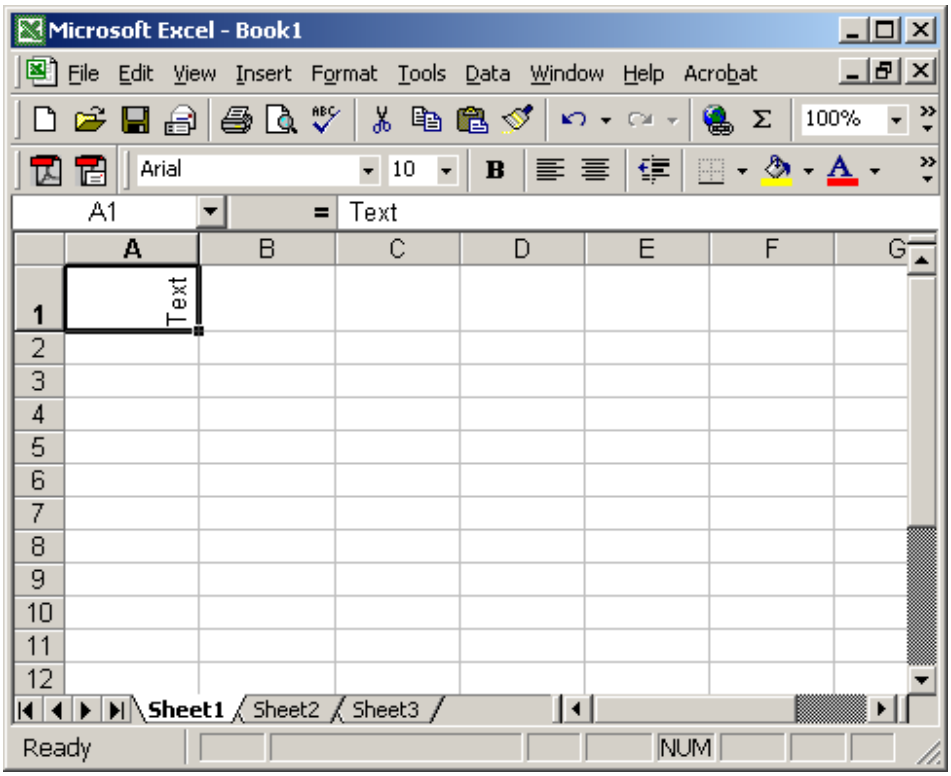
Answer: Select the cell(s) that you wish to rotate the text for. Right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Alignment tab. Then set the number of degrees that you wish to rotate the text. This value ranges from 90 degrees to -90 degrees.



Now when you return to your spreadsheet, the text should be rotated.

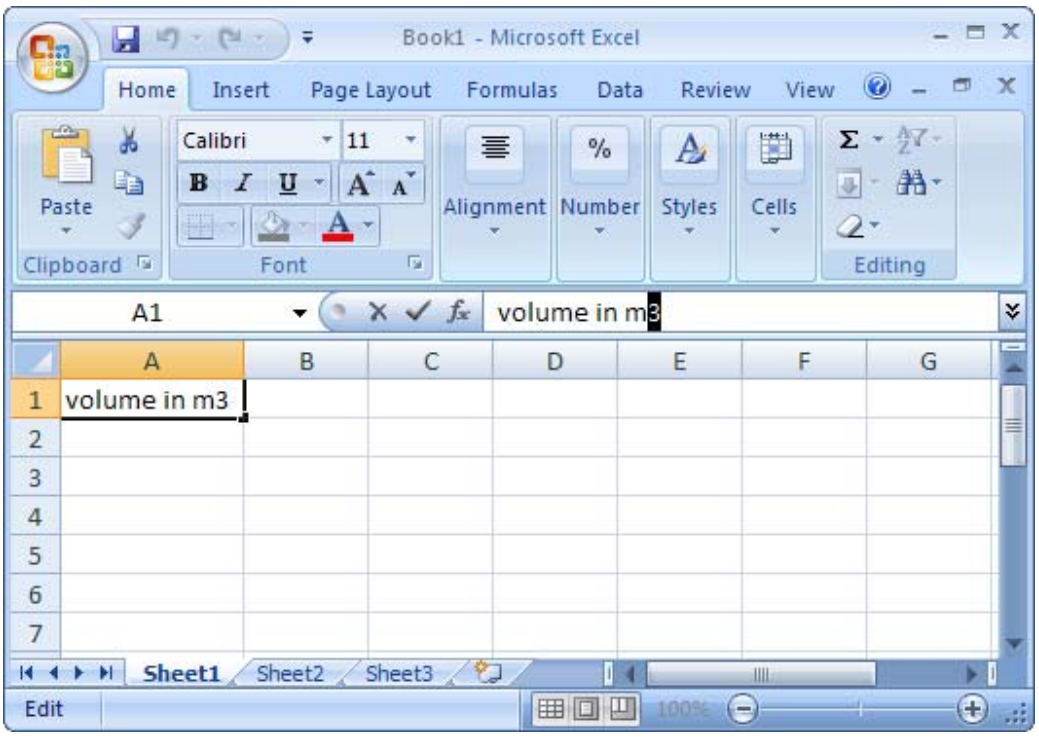


Excel: Create a superscript value in a cell

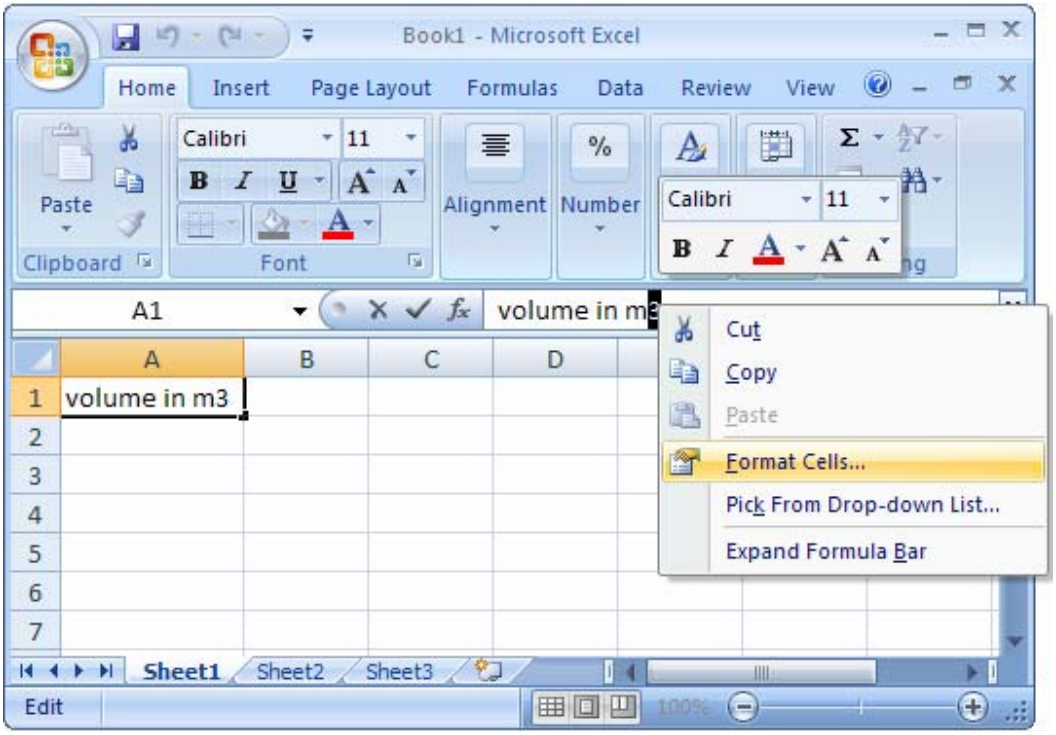
We'll demonstrate how to create a superscript value in a cell in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

Create a superscript value in a cell in Excel 2007

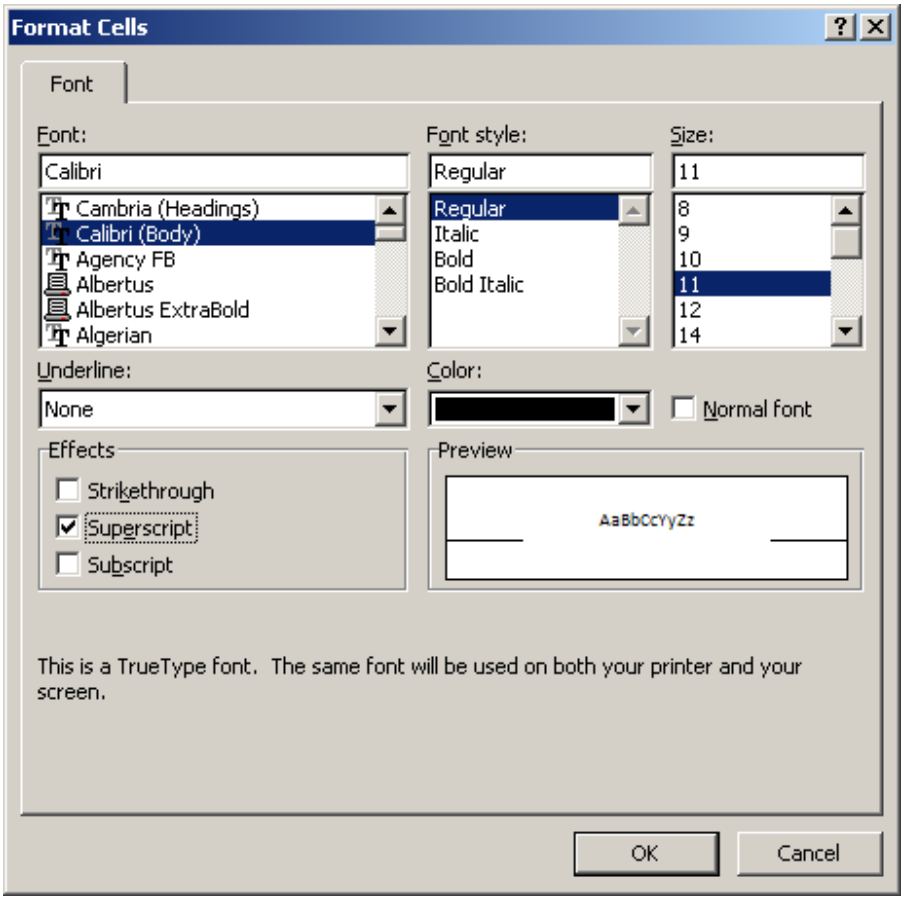
Question: How do I create a superscript value in a cell?
Answer: Select the text that you wish to convert to superscript. This can either be the entire cell or only a character in the cell.



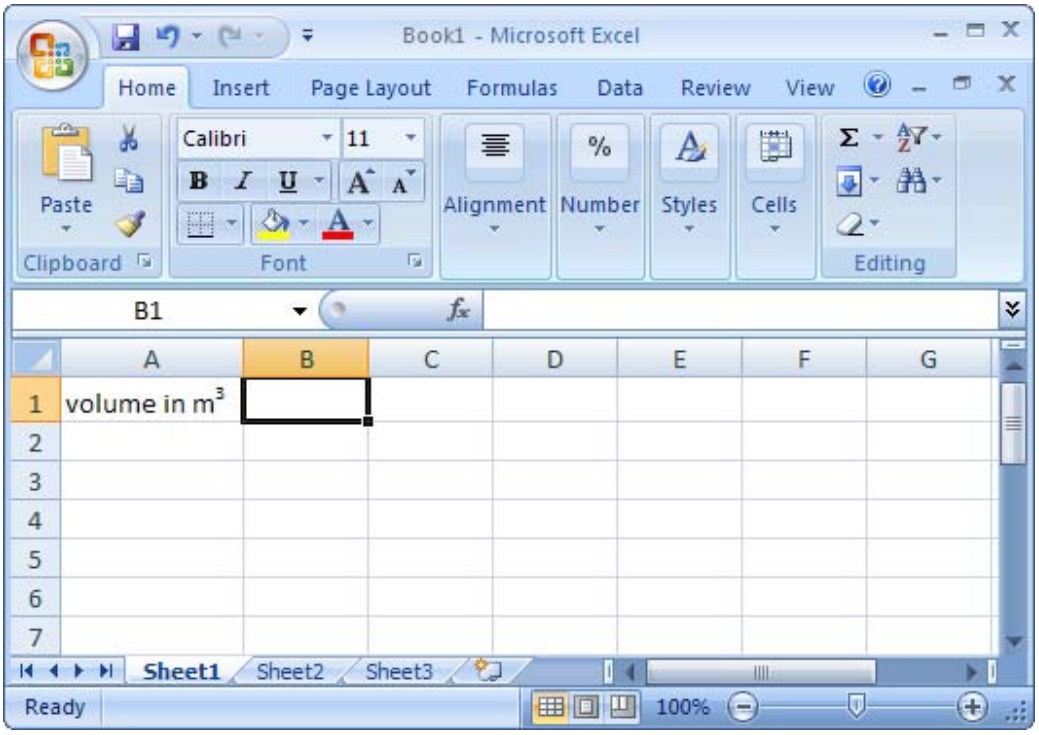
While your mouse is over the selected text, right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Font tab. Check the Superscript checkbox.



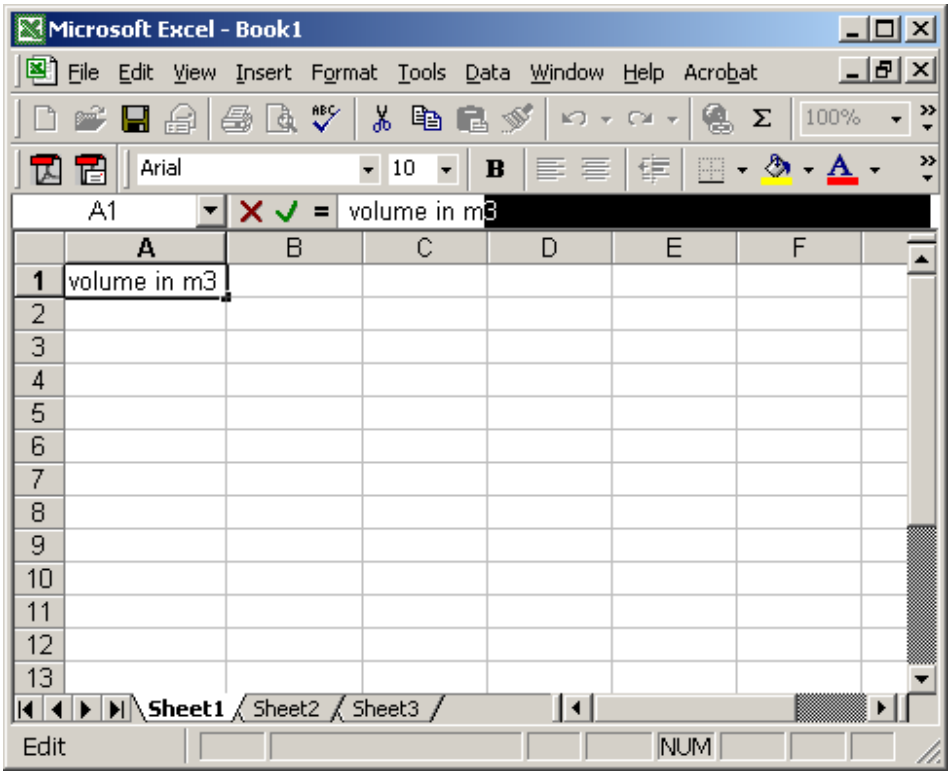
Now when you return to your spreadsheet, you should see the selected text as a superscript value.



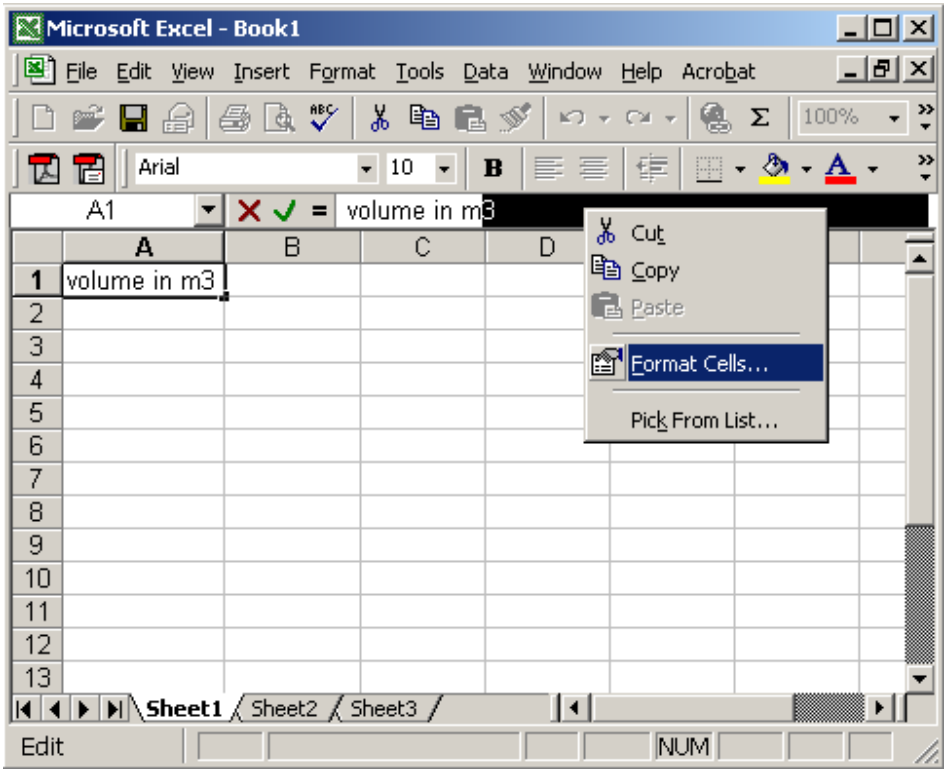
Create a superscript value in a cell in Excel 2003/XP/2000/97

Question: How do I create a superscript value in a cell?

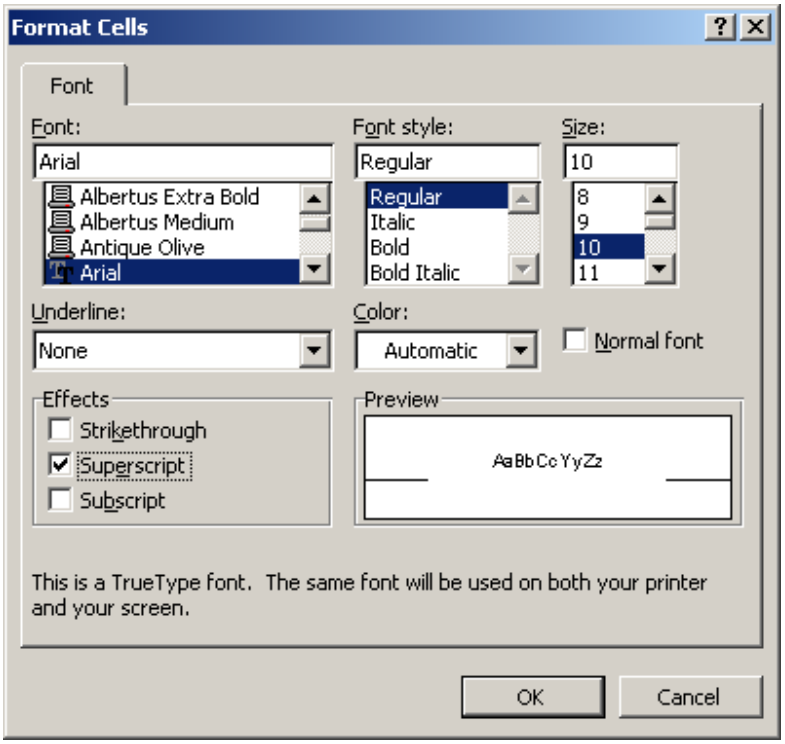
Answer: Select the text that you wish to convert to superscript. This can either be the entire cell or only a character in the cell.



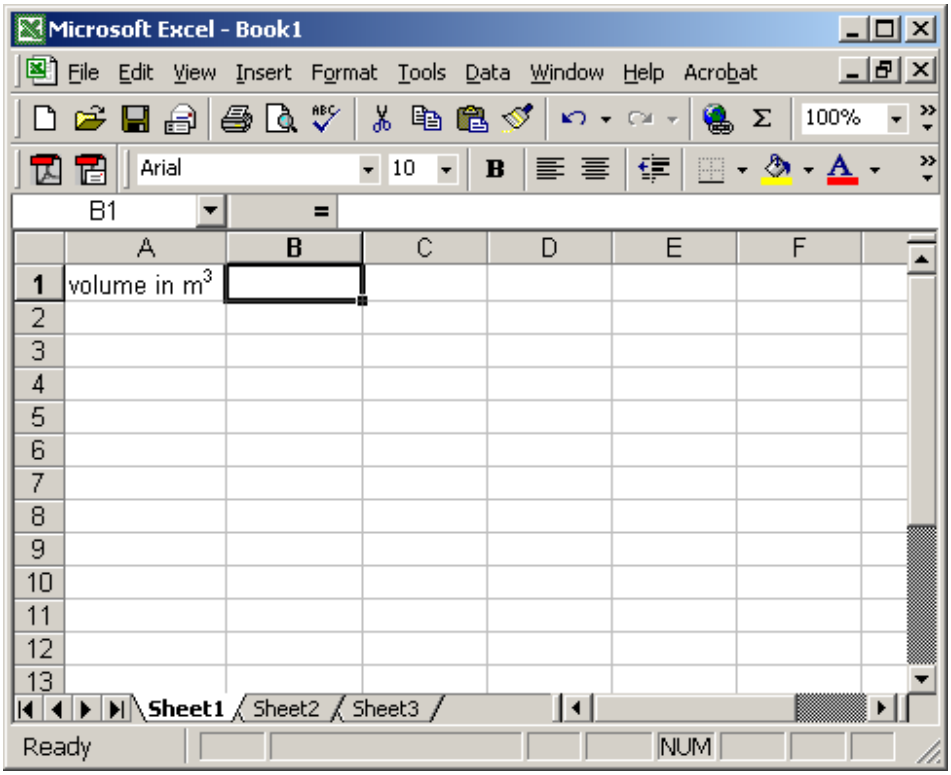
While your mouse is over the selected text, right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Font tab. Check the Superscript checkbox.



Now when you return to your spreadsheet, you should see the selected text as a superscript value.



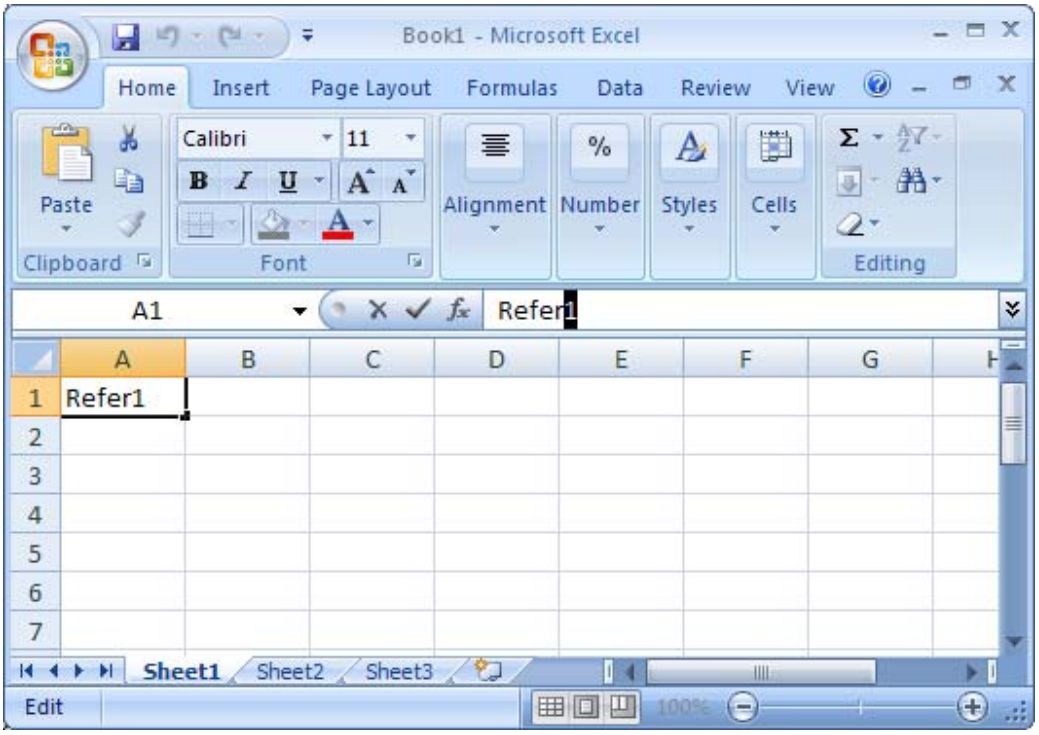
Excel: Create a subscript value in a cell

We'll demonstrate how to create a subscript value in a cell in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

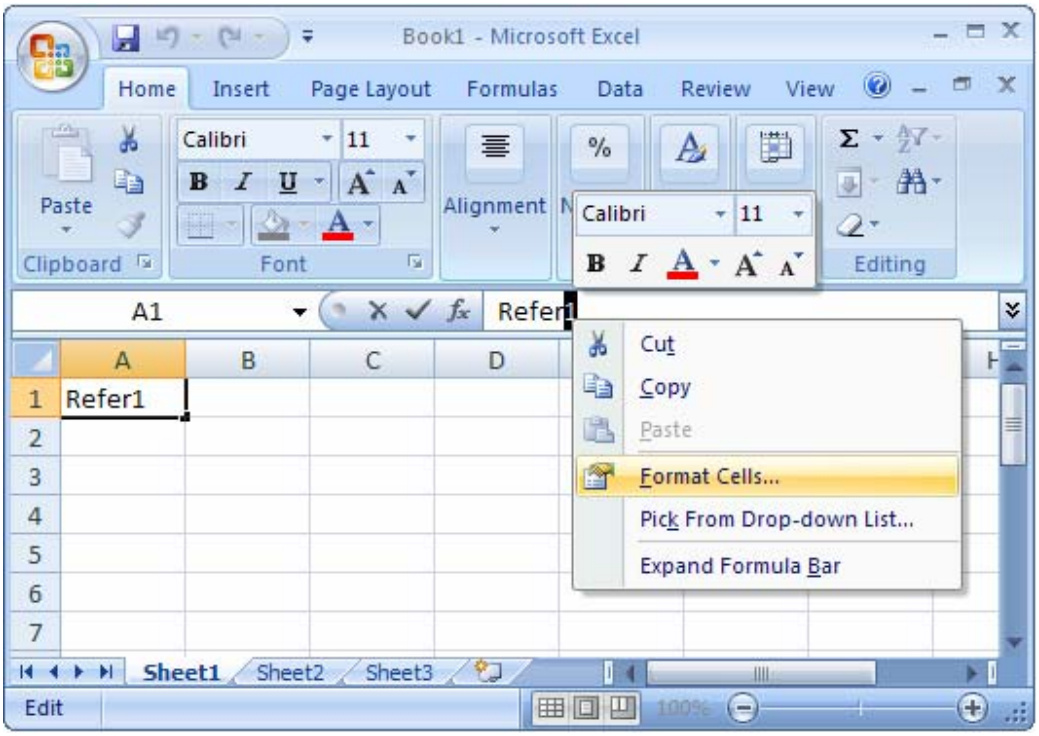
Create a subscript value in a cell in Excel 2007

Question: How do I create a subscript value in a cell?

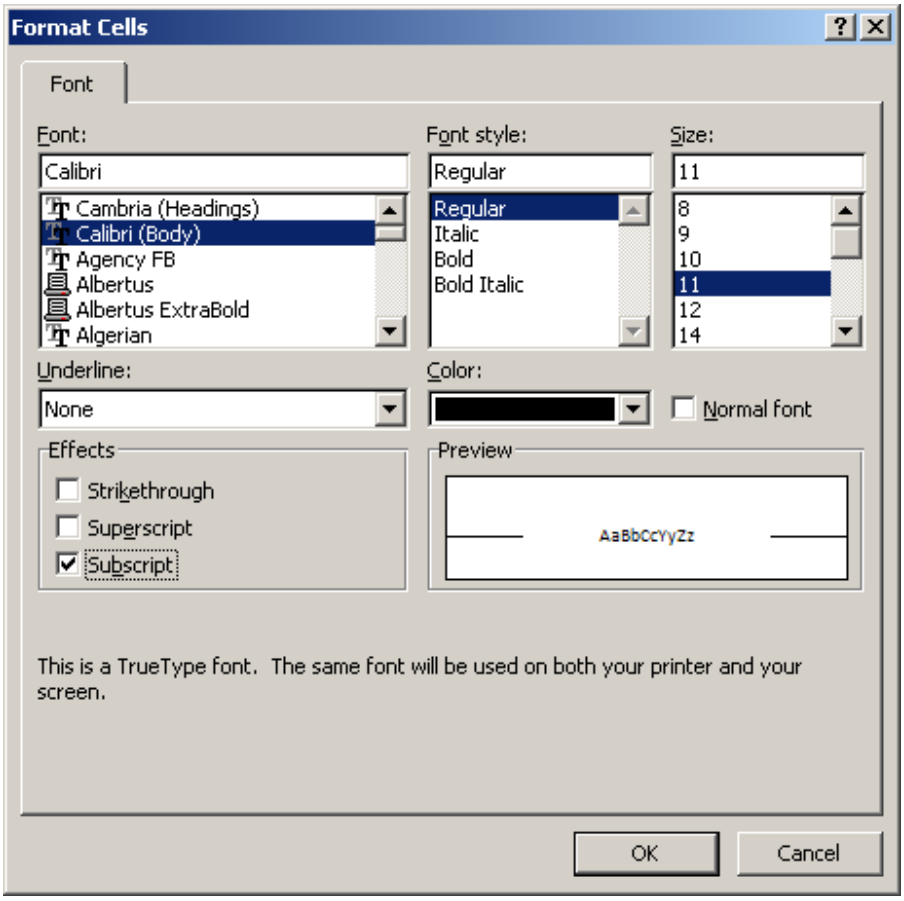
Answer: Select the text that you wish to convert to subscript. This can either be the entire cell or only a character in the cell.



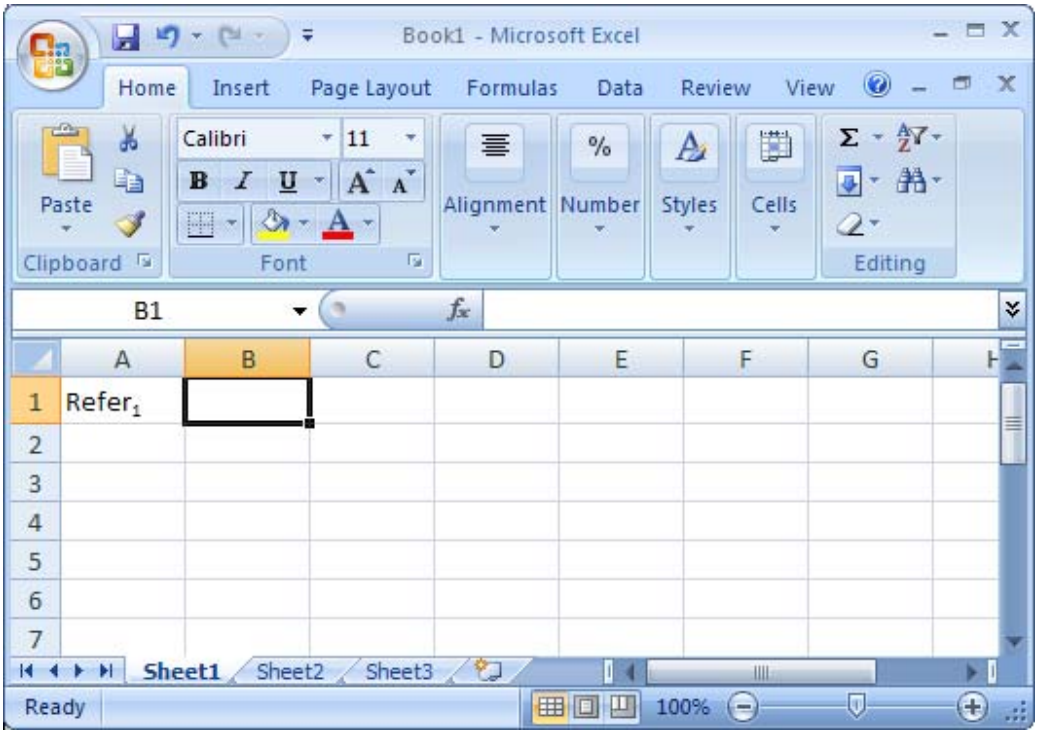
While your mouse is over the selected text, right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Font tab. Check the Subscript checkbox.



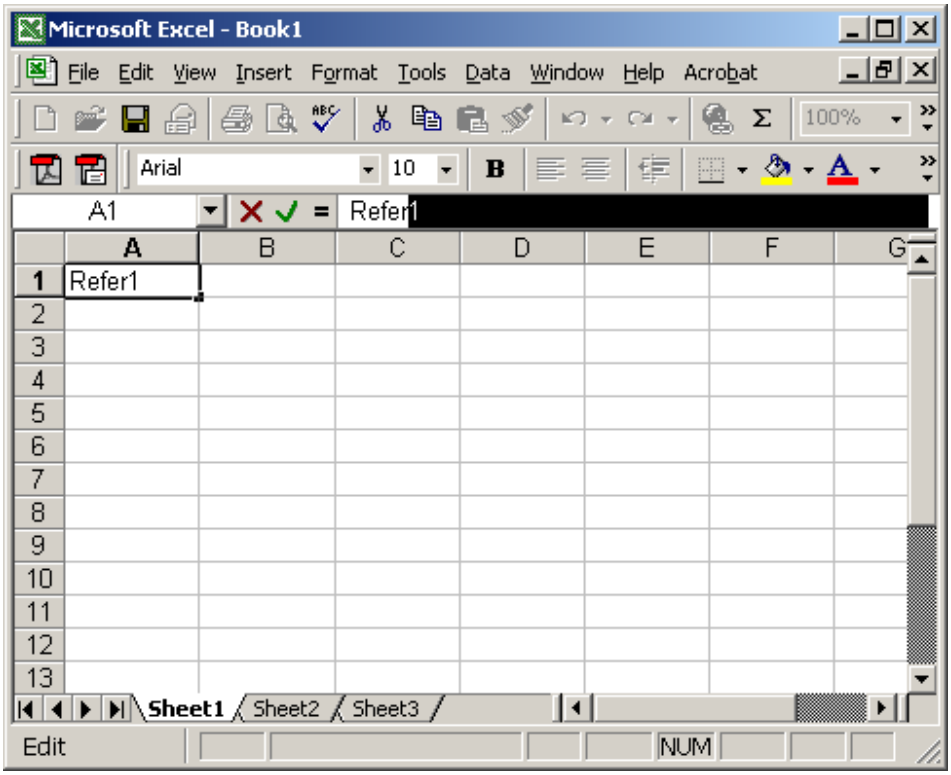
Now when you return to the spreadsheet, you should see the subscript value.



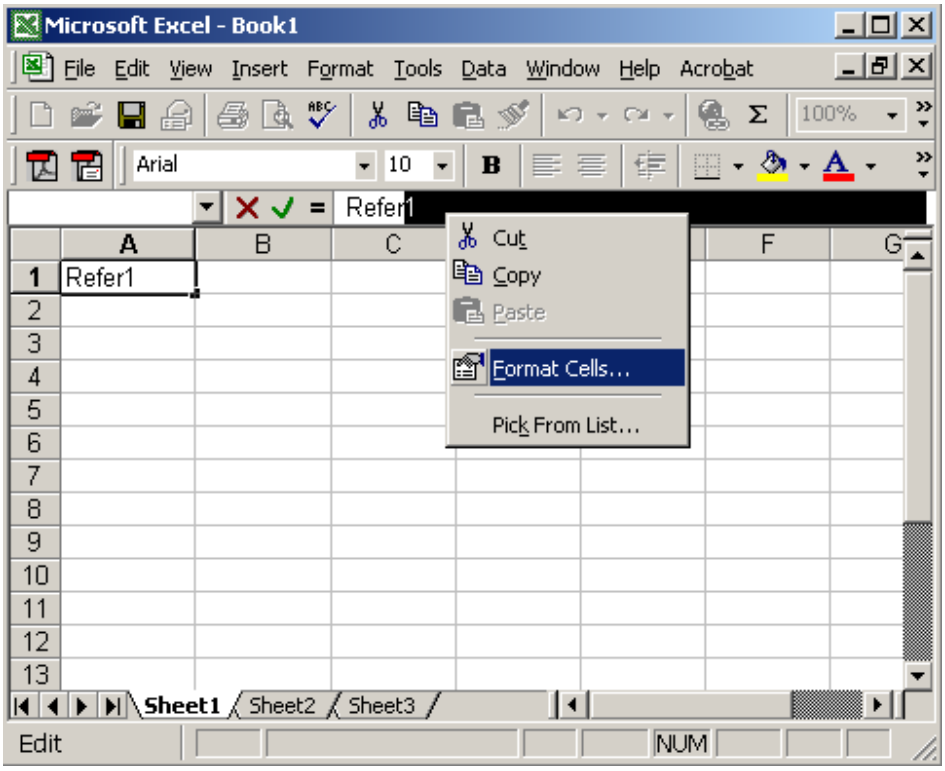
Create a subscript value in a cell in Excel 2003/XP/2000/97

Question: How do I create a subscript value in a cell?

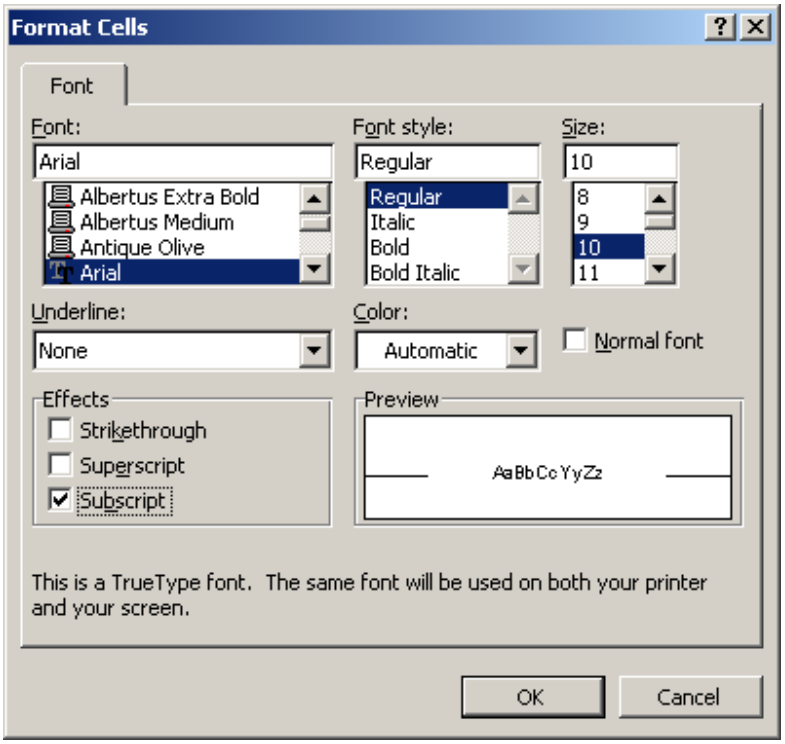
Answer: Select the text that you wish to convert to subscript. This can either be the entire cell or only a character in the cell.



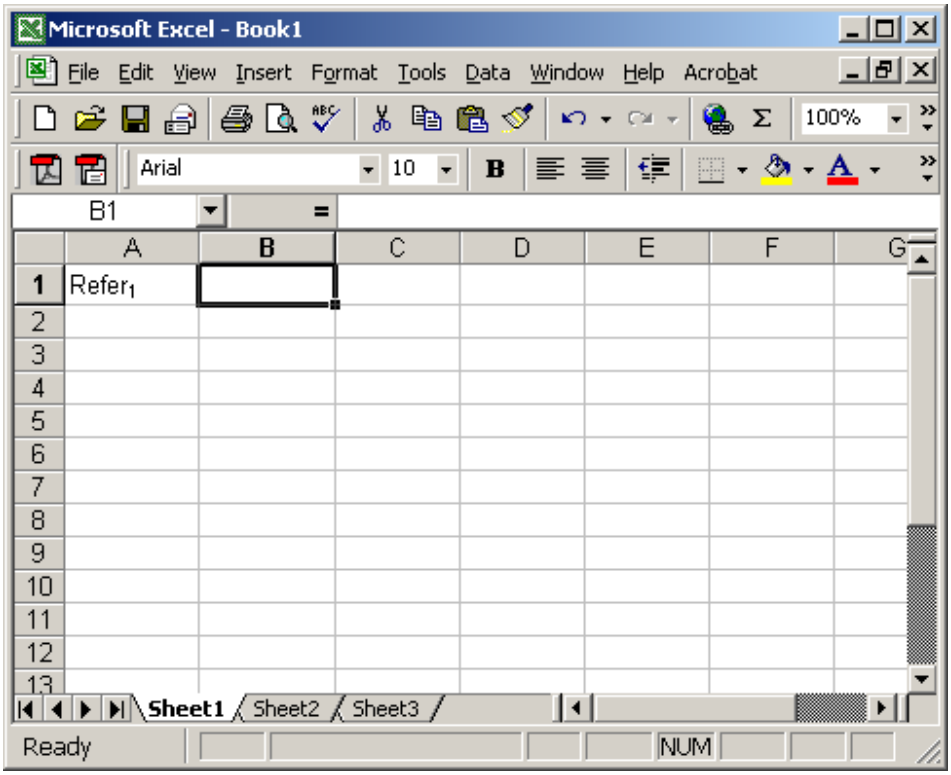
While your mouse is over the selected text, right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Font tab. Check the Subscript checkbox.



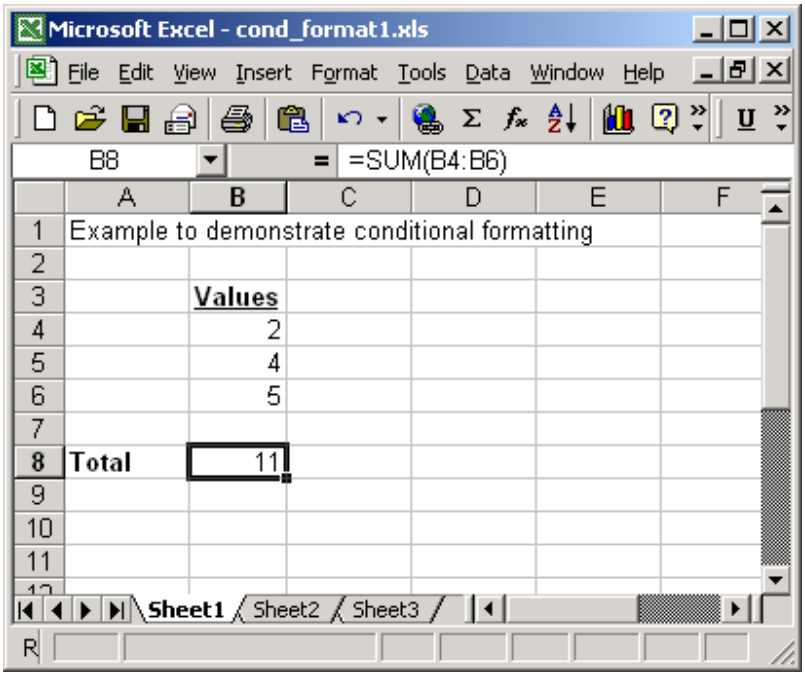
Now when you return to the spreadsheet, you should see the subscript value.



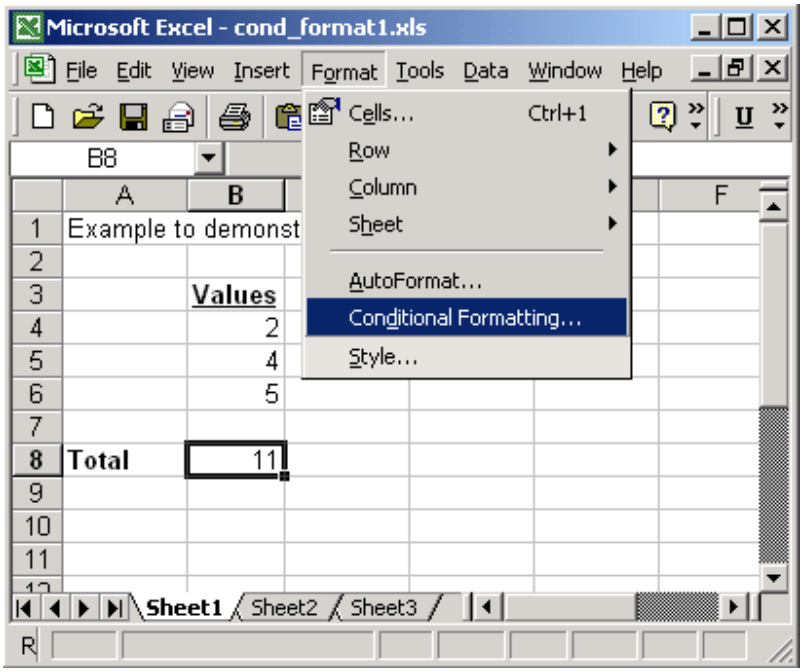
Excel: Change the font color based on the value in the cell

Question: I'm putting the sum of 3 cells in a 4th cell. If the sum is greater than 10, I would like the sum to be the color red. If the sum is less than 10, I would like the sum to be the color blue. If the sum equals 10, I want the font color to be black. Is this possible?

Answer: If you wish to change the color of the font based on the value in a cell, you will need to apply conditional formatting.
To do this, select the cell that you wish to apply the formatting to. In this example, we've selected cell B8.

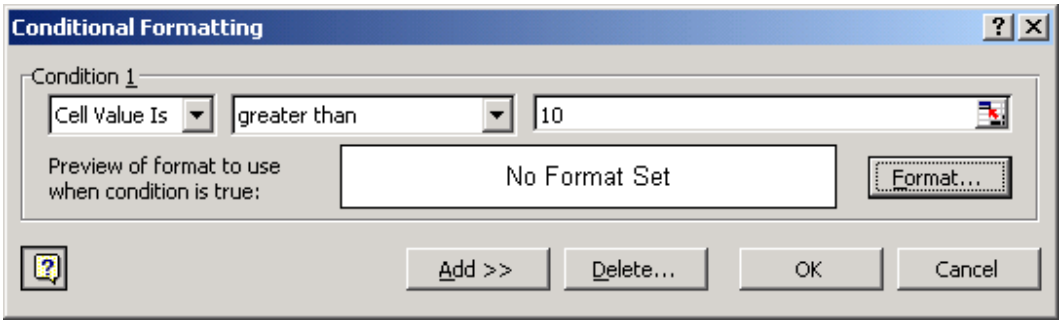


Under the Format menu, select Conditional Formatting.

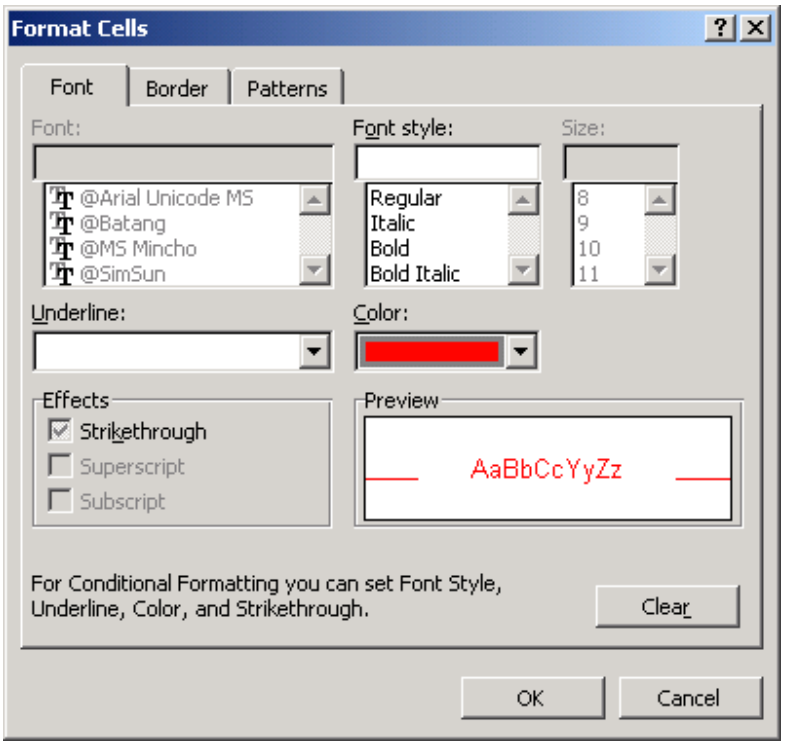


When the Conditional Formatting window appears, enter the first condition. In our example, we've selected when the cell value is greater than 10.

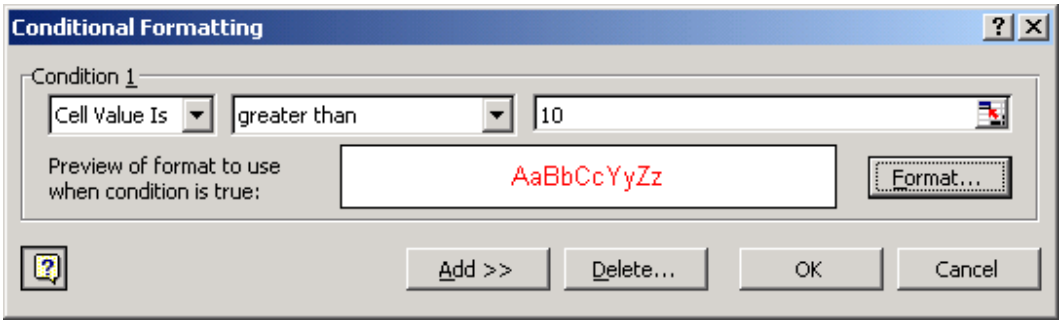
Next, we need to select what formatting to apply when this condition is met. To do this, click on the Format button.



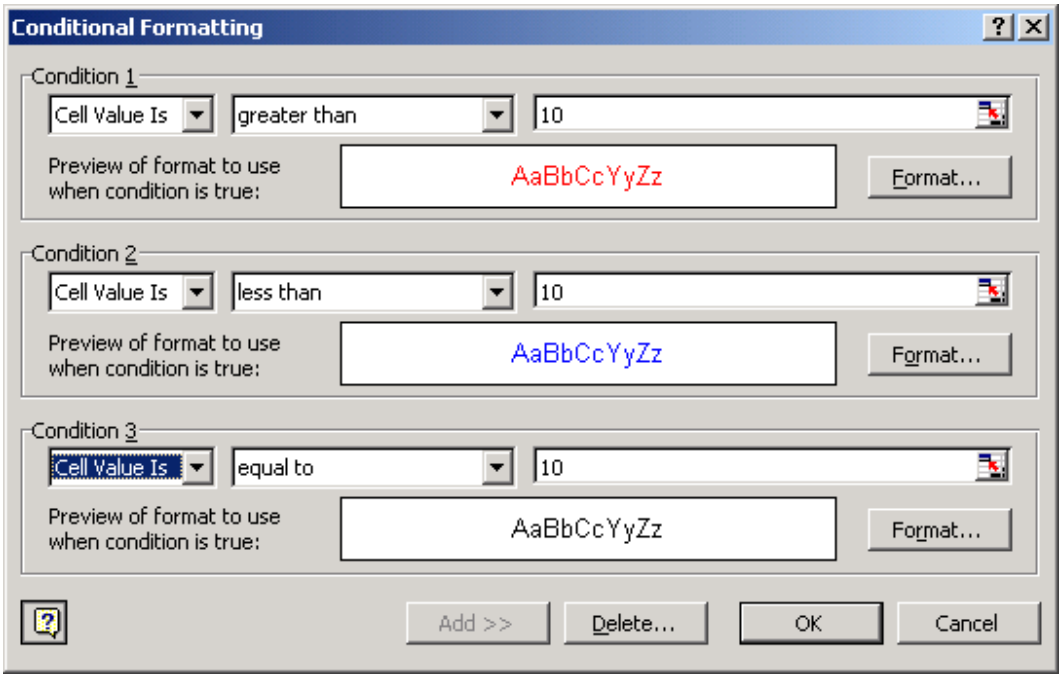
When the Format Cells window appears, select the formatting conditions that you wish to apply. We've changed the Color to Red. Then click on the OK button.



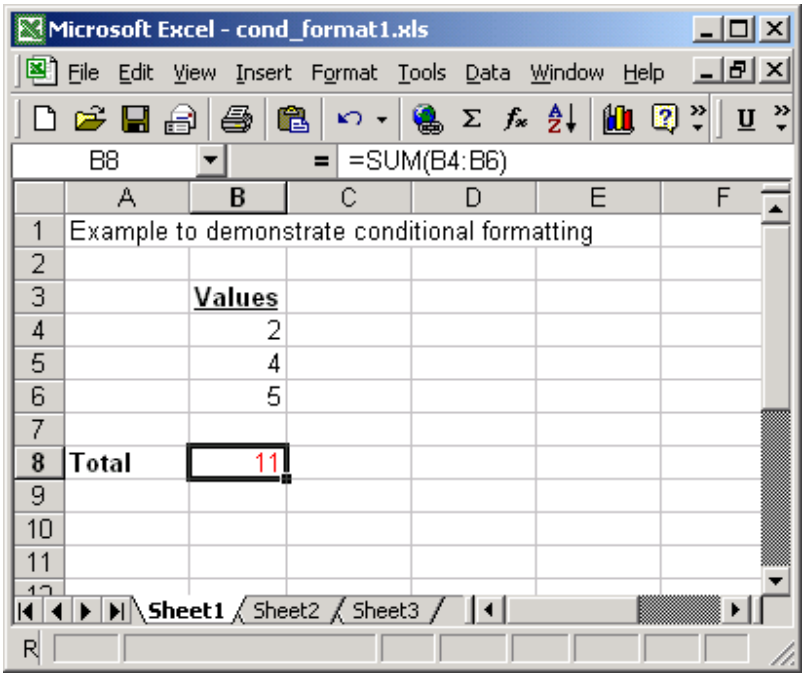
If you wish to apply more than one condition, you will need to click on the Add button.



We've added three different conditions. When you're done, click on the OK button.



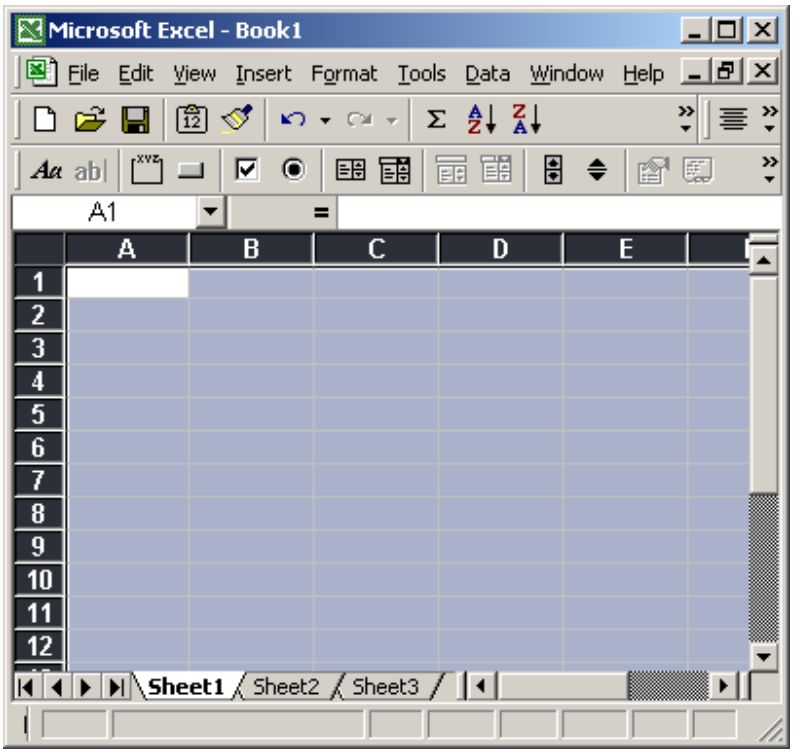
Now when you return to the spreadsheet, the conditional formatting will be applied. As you can see, the value in cell B8 appears in red.



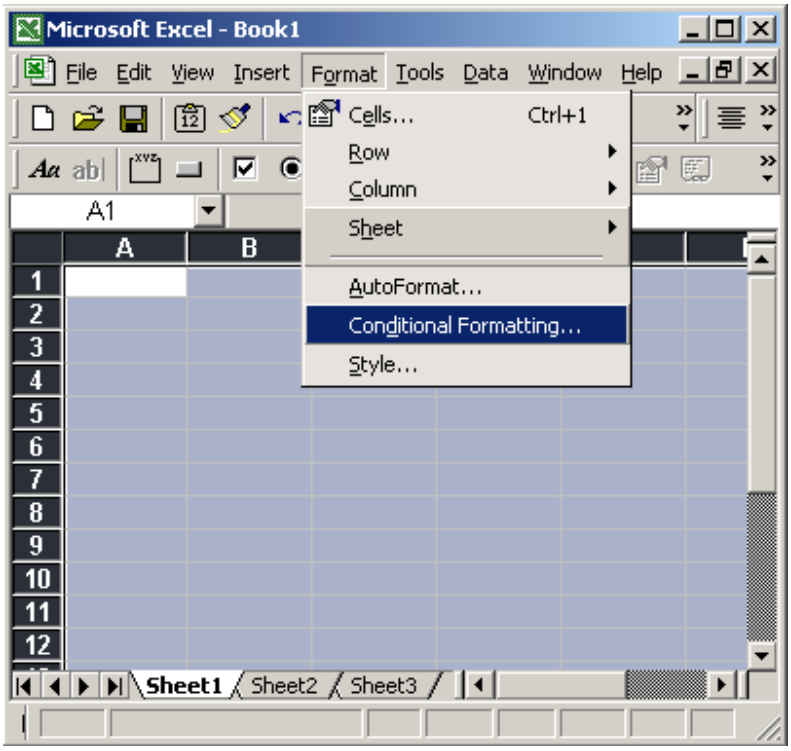
Excel: Automatically alternate row colors (dynamically)

Question: How can I set up alternating row colors in Excel? I don't want to have to change the row colors every time I insert, delete, or move a row.

Answer: Special thanks to Bertram for sending in this handy formatting trick.
If you wish to set up alternating row colors in Excel, first highlight the rows that you wish to apply the formatting to. In this example, we've selected all rows in the spreadsheet.



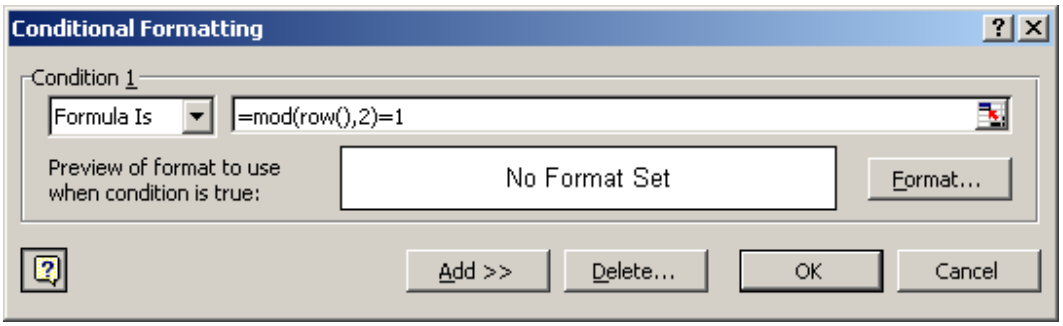
Under the Format menu, select Conditional Formatting.



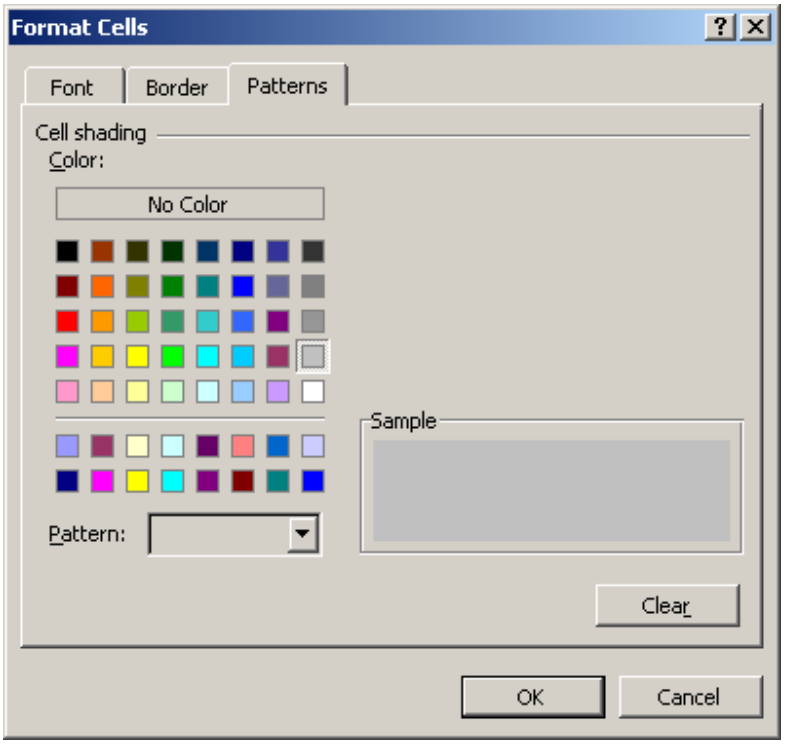
When the Conditional Formatting window appears, select "**Formula Is**" in the drop down. Then enter the following formula:

=mod(row(),2)=1

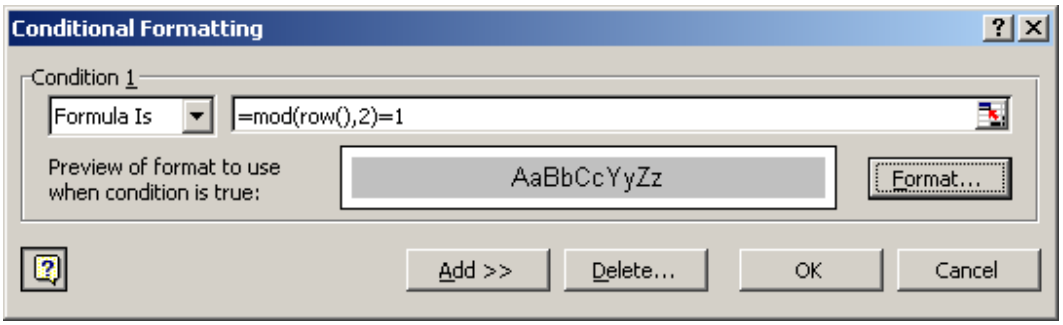
Next, we need to select the color we want to see in the alternating rows. To do this, click on the Format button.



When the Format Cells window appears, select the Patterns tab. Then select the color that you'd like to see. In this example, we've selected a light grey. Then click on the OK button.

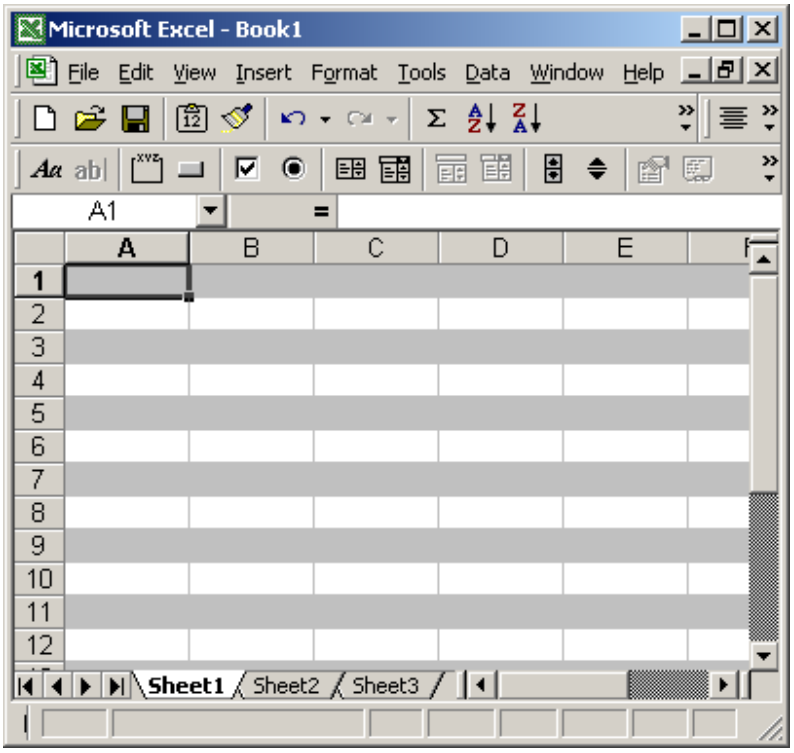


When you return to the Conditional Formatting window, you should see the following. Next, click on the OK button.



Now when you return to the spreadsheet, the conditional formatting will be applied.

As you can see, you now have alternating colors in the rows. You can insert, delete, and move rows, and you don't have to worry about reapplying formatting.



Excel: Automatically highlight highest and lowest values in a range of cells

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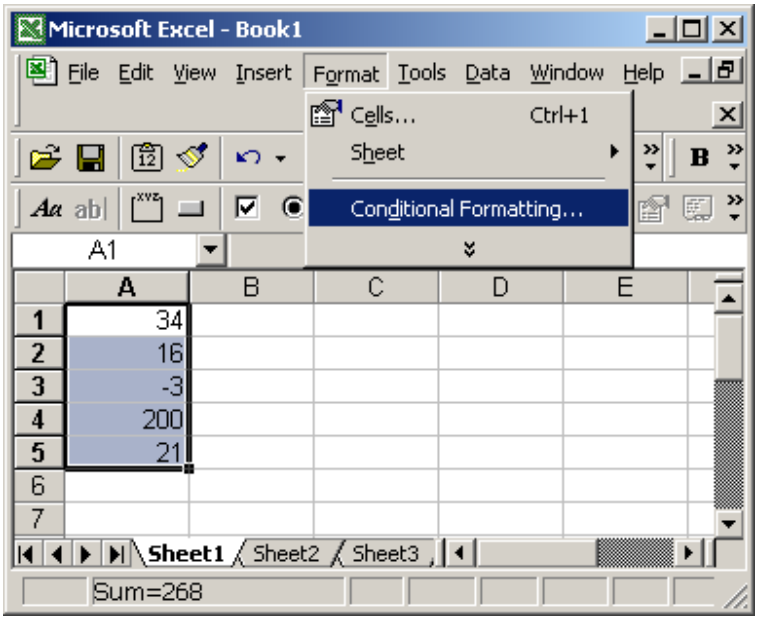
Question: In Excel, is there a way to shade one cell green if it is the highest value in a range of cells, and to shade another cell red if it is the lowest number in a range of cells?

Answer: Yes, you can use conditional formatting to highlight the highest and lowest values in a range of cells.

First highlight the range of cells. In this example, we've selected cells A1 through A5.

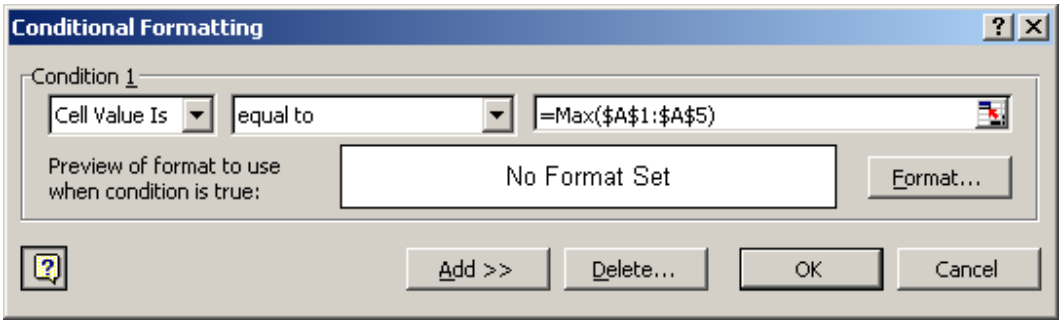
Under the Format menu, select Conditional Formatting.



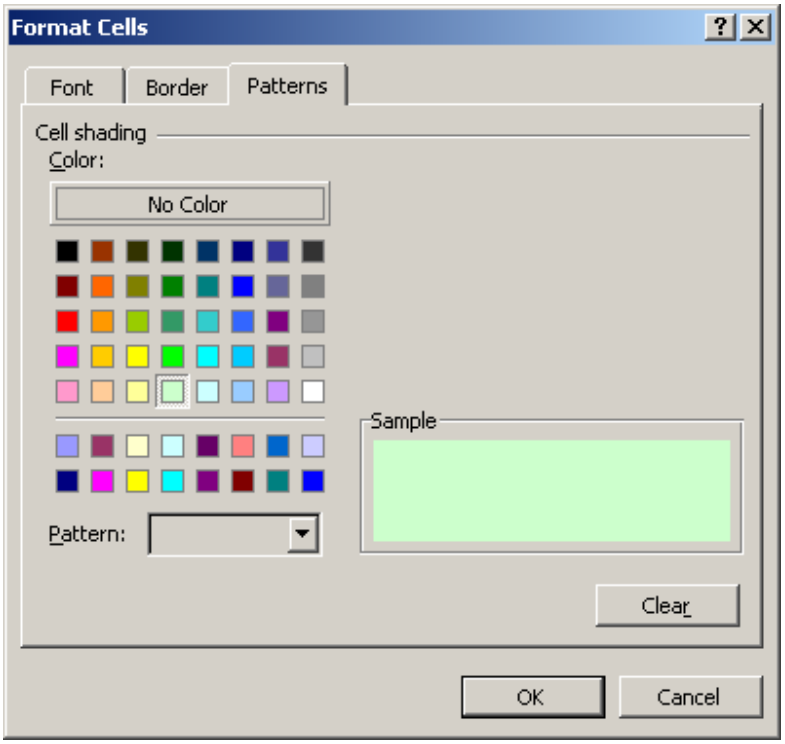
When the Conditional Formatting window appears, select "equal to" in the second drop down. Then enter the following formula:

=Max($A$1:$A$5)

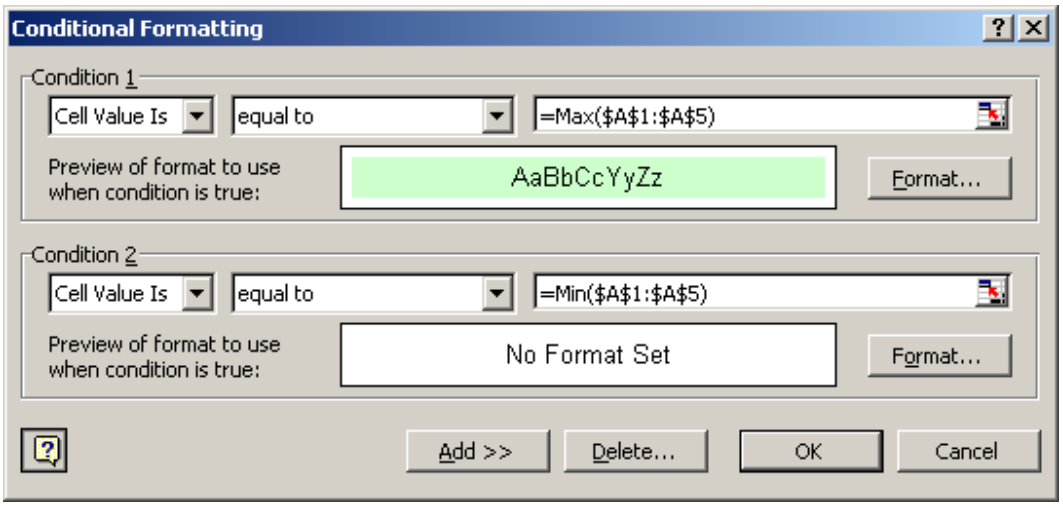
Then click on the Format button.



When the Format Cells window appears, select the Patterns tab. Then select the color that you'd like to see for the highest value in the range. In this example, we've selected light green. Then click on the OK button.



When you return to the Conditional Formatting window, you should see the following. Next, click on the Add button.

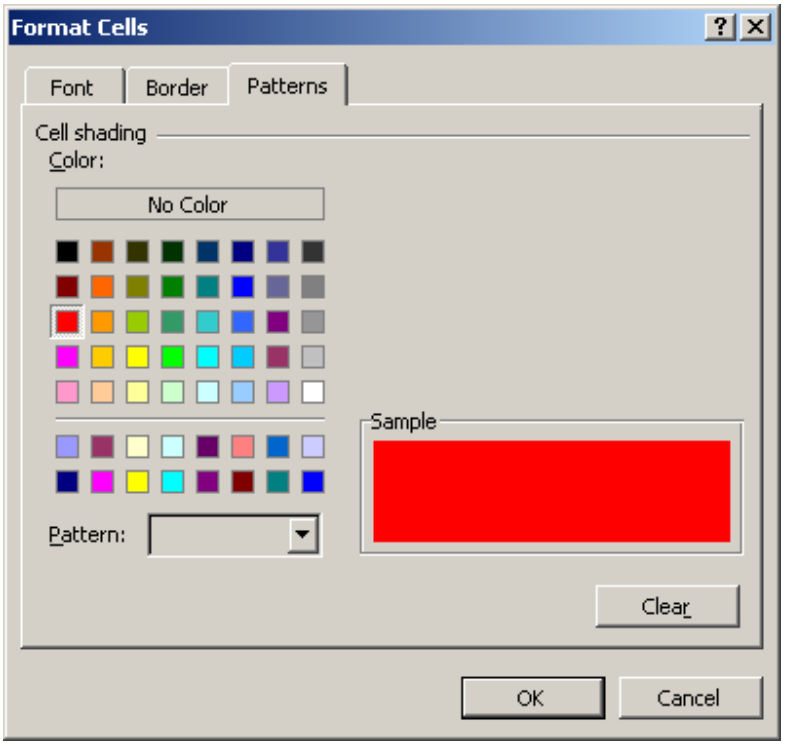


For Condition2, select "equal to" in the second drop down. Then enter the following formula:

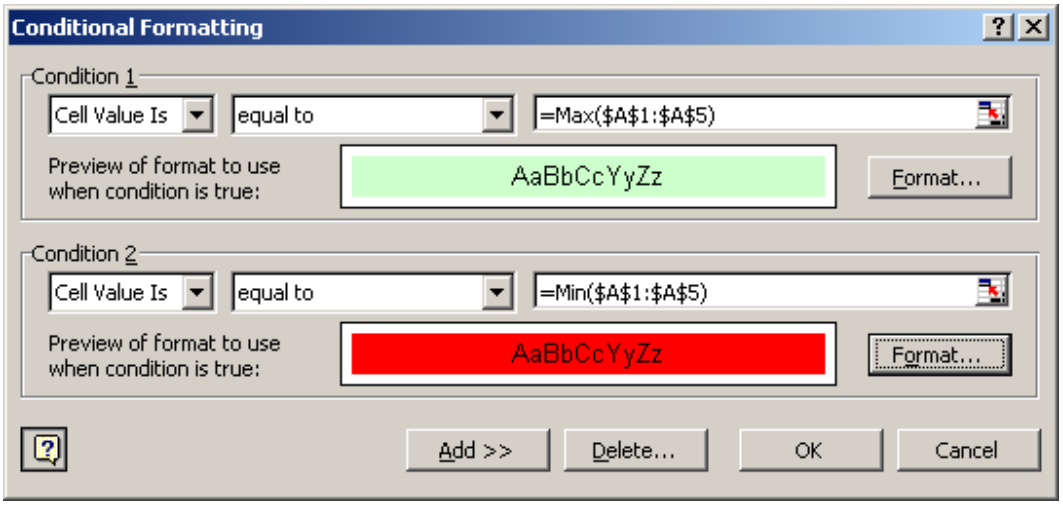
=Min($A$1:$A$5)

Then click on the Format button.

When the Format Cells window appears, select the Patterns tab. Then select the color that you'd like to see for the lowest value in the range. In this example, we've selected red. Then click on the OK button.



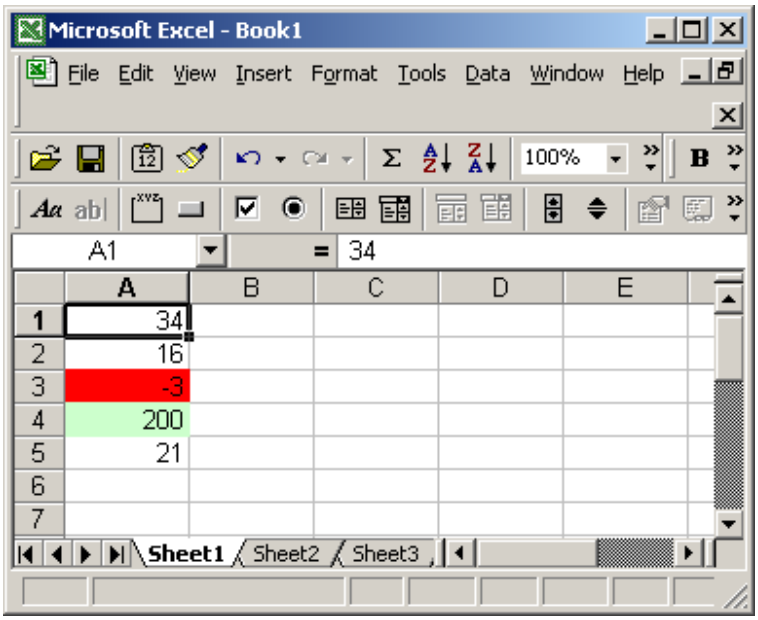
Your Conditional Formatting window should now look like this:



Click on the OK button.

Now when you return to the spreadsheet, the conditional formatting will be applied.

As you can see, the -3 value appears in a red cell while the 200 value appears in a light green cell.



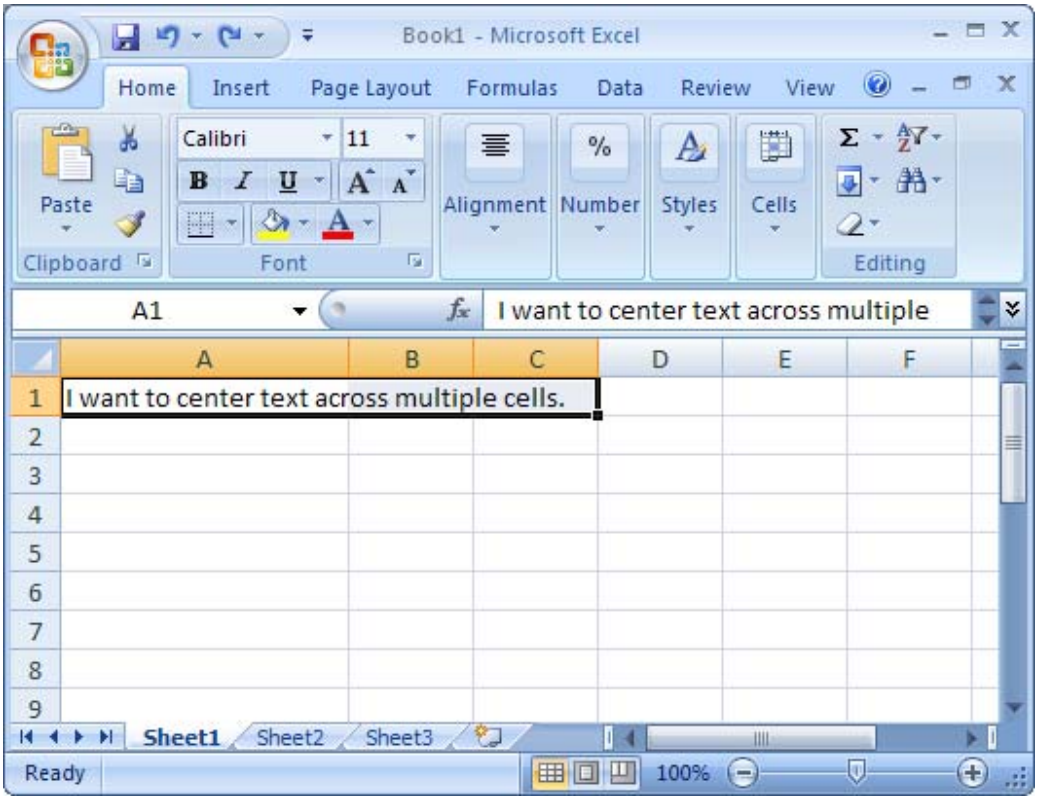
Excel: Center text across multiple cells

We'll demonstrate how to center text across multiple cells in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

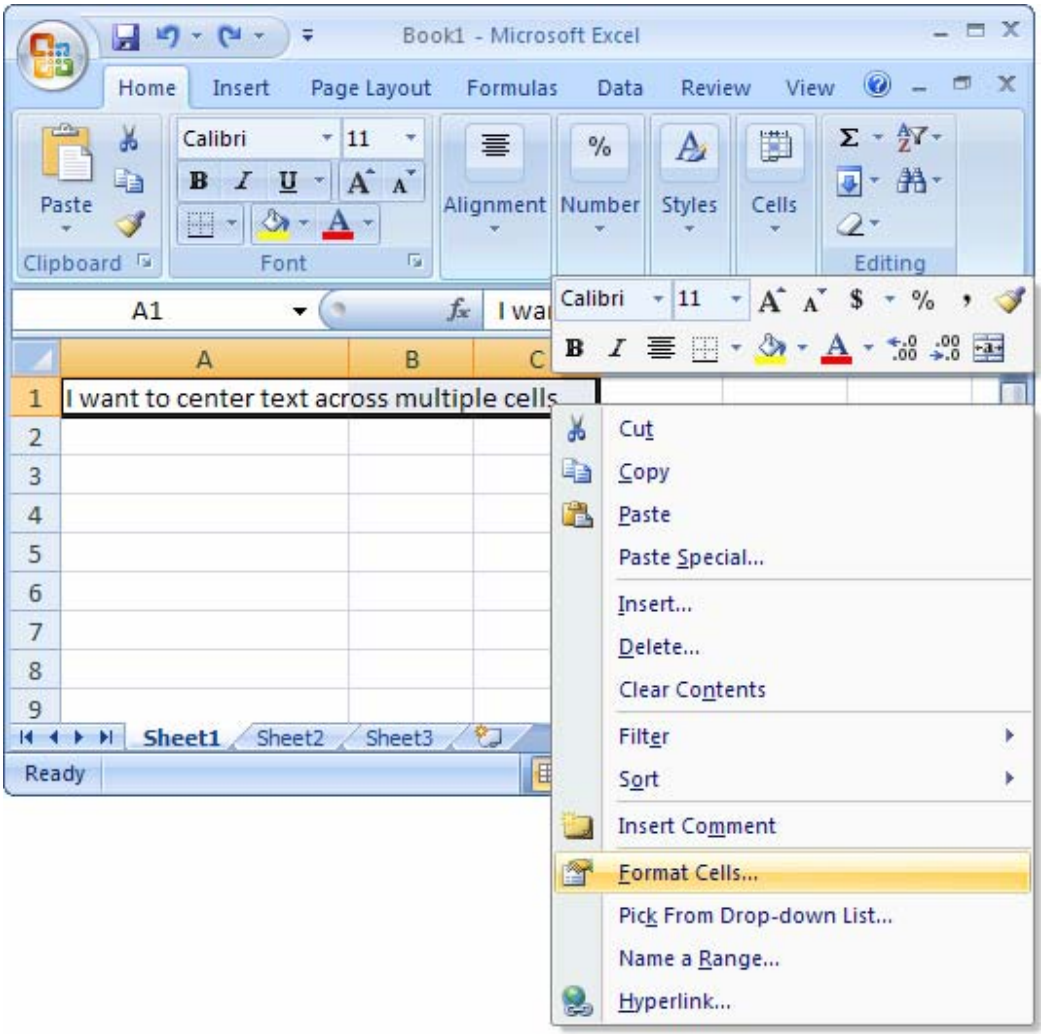
Center text across multiple cells in Excel 2007

Question: I want to center text across multiple cells but I don't want to have to merge the cells. How can I do this?

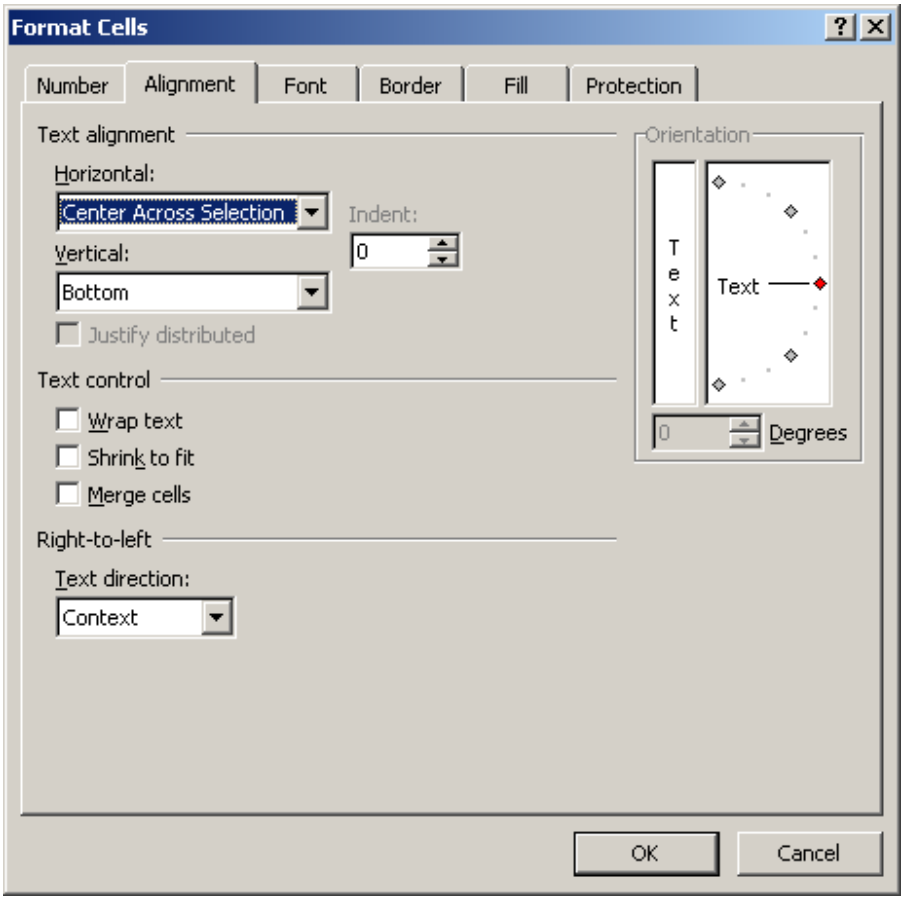
Answer: Select the cells that you wish to center the text across.



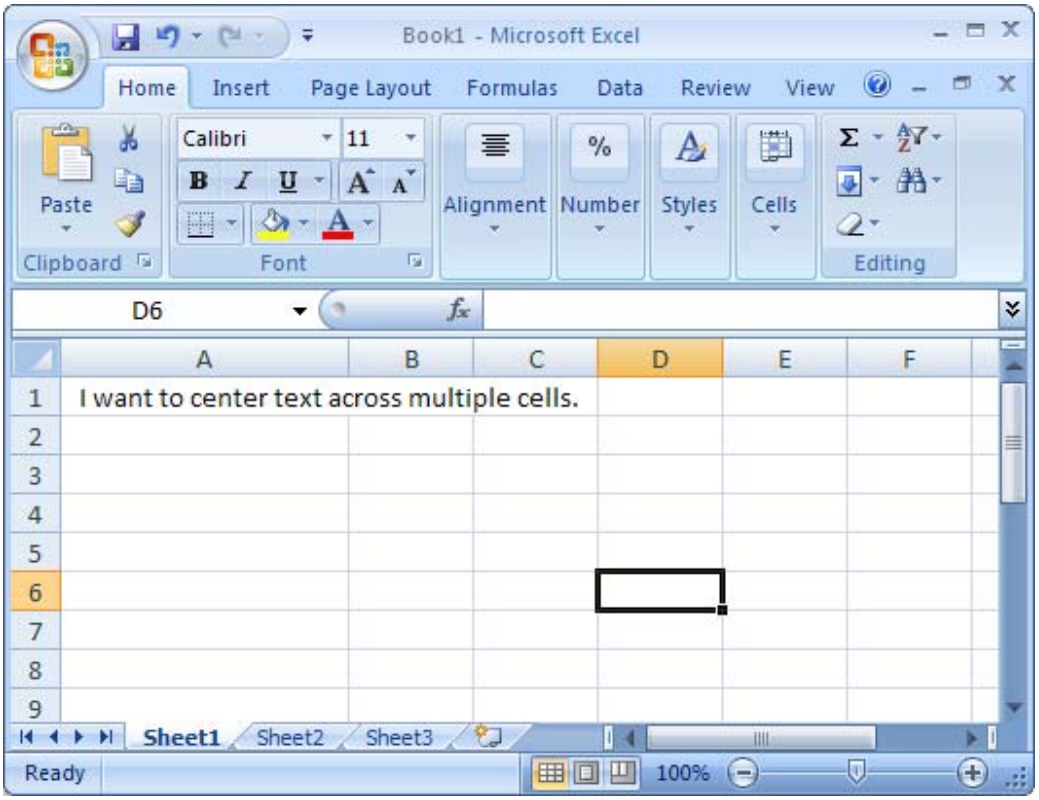
Right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Alignment tab. Click on "Center Across Selection" in the drop-down box called Horizontal.



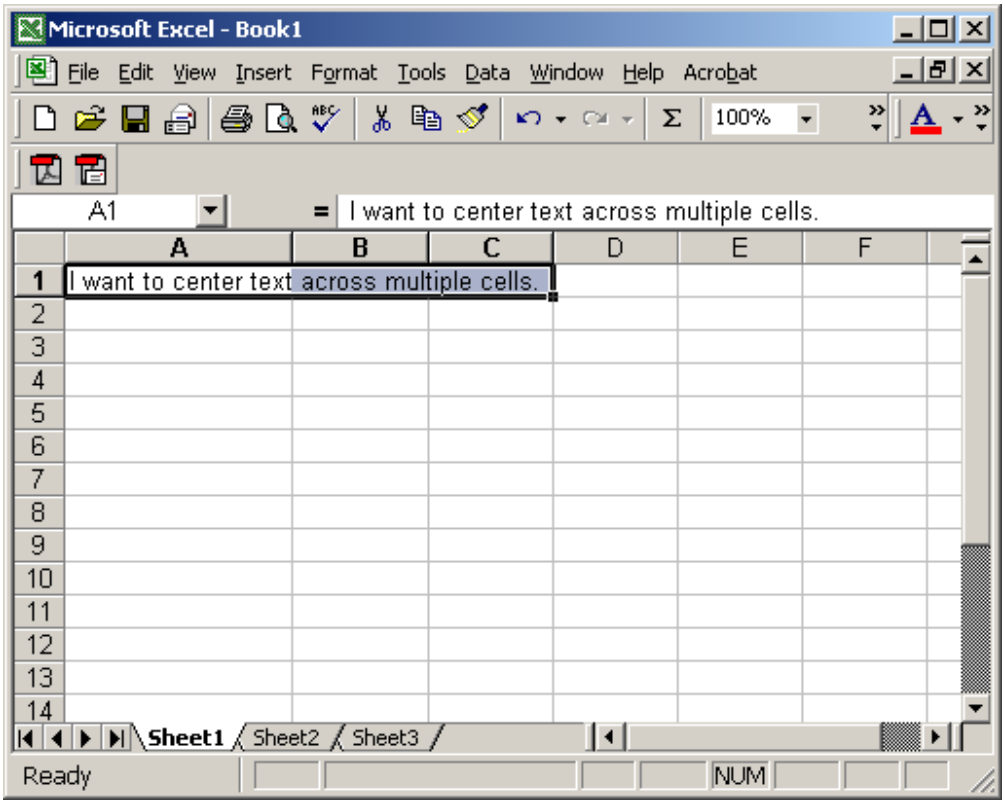
Now when you return to your spreadsheet, you should see the text centered across the cells that you selected.



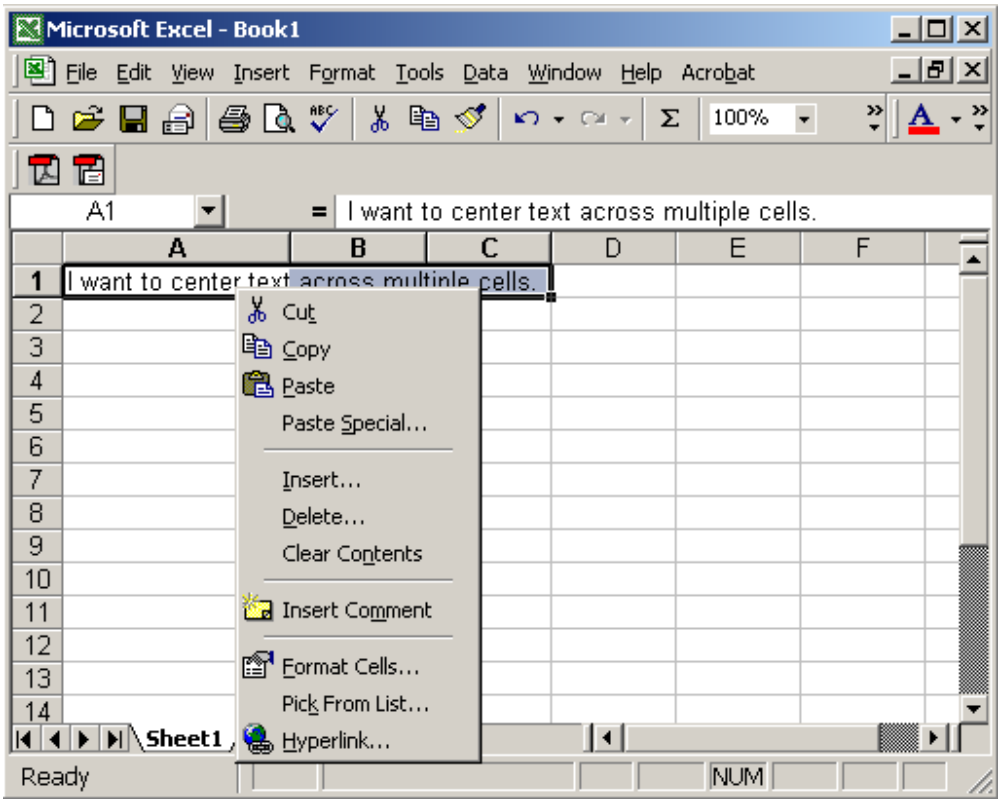
Center text across multiple cells in Excel 2003/XP/2000/97

Question: I want to center text across multiple cells but I don't want to have to merge the cells. How can I do this?

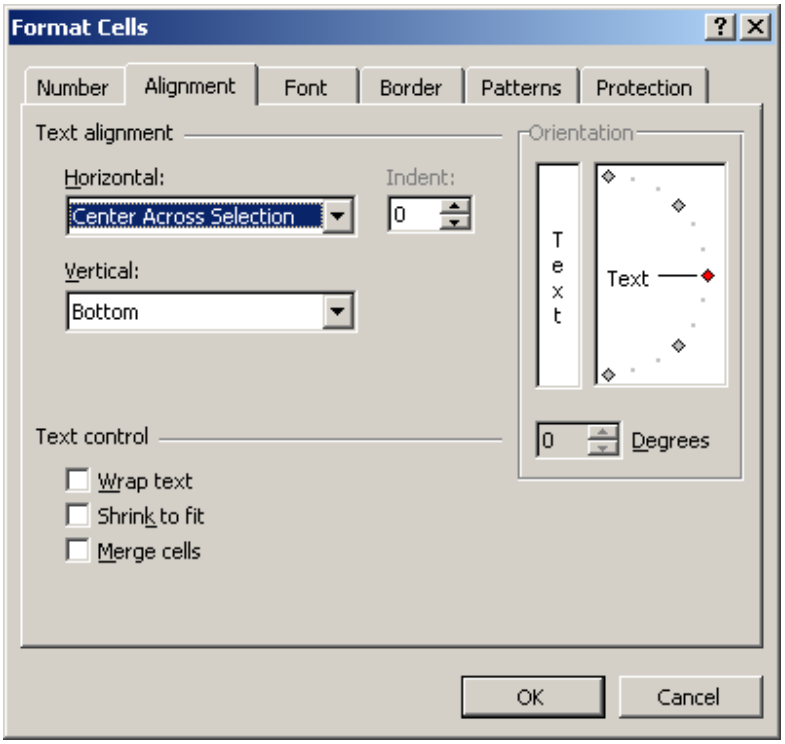
Answer: Select the cells that you wish to center the text across.



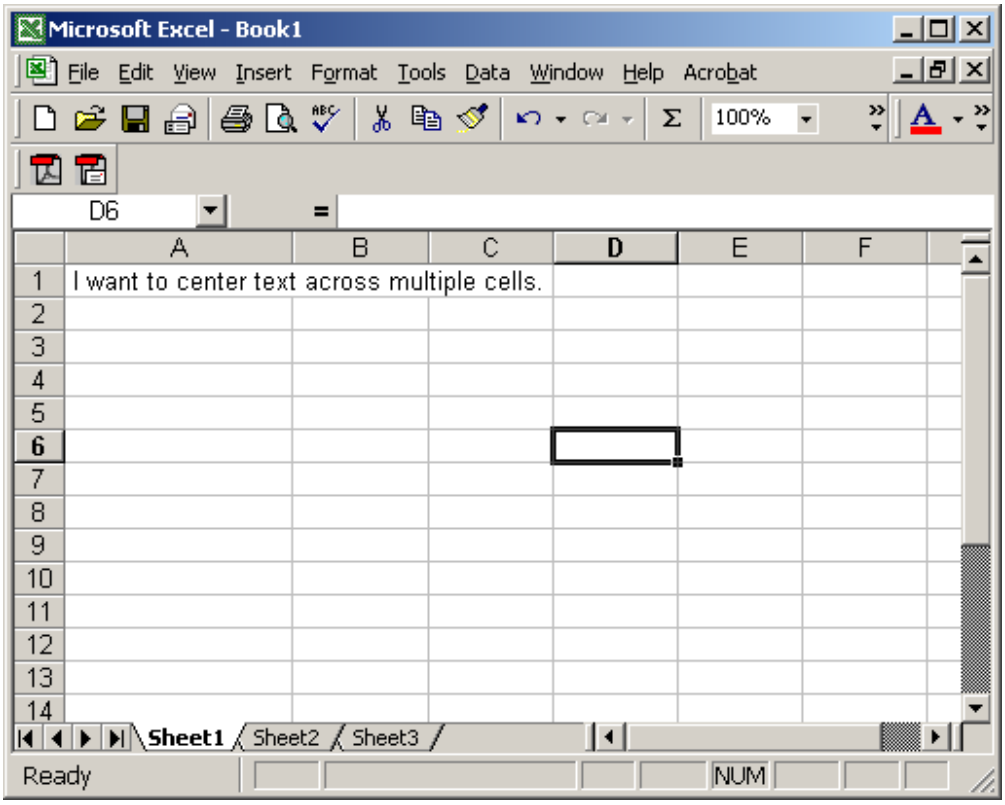
Right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Alignment tab. Click on "Center Across Selection" in the drop-down box called Horizontal.



Now when you return to your spreadsheet, you should see the text centered across the cells that you selected.



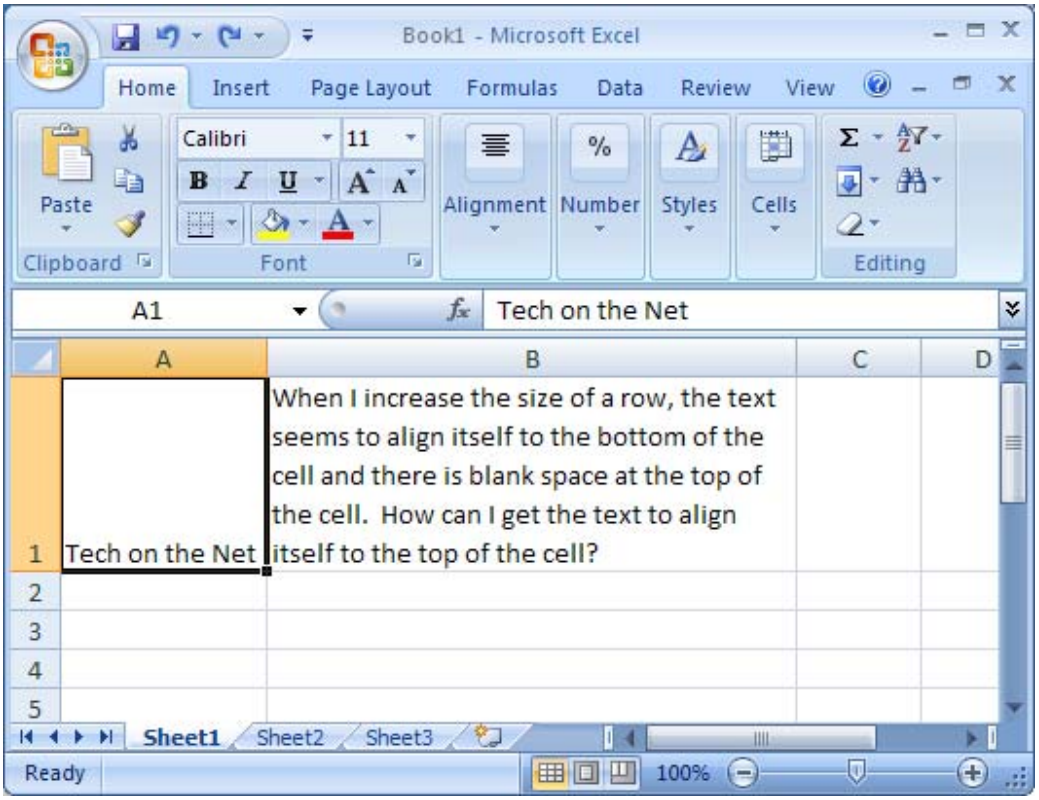
Excel: Align text to the top of the cell

We'll demonstrate how to align text to the top of the cell in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

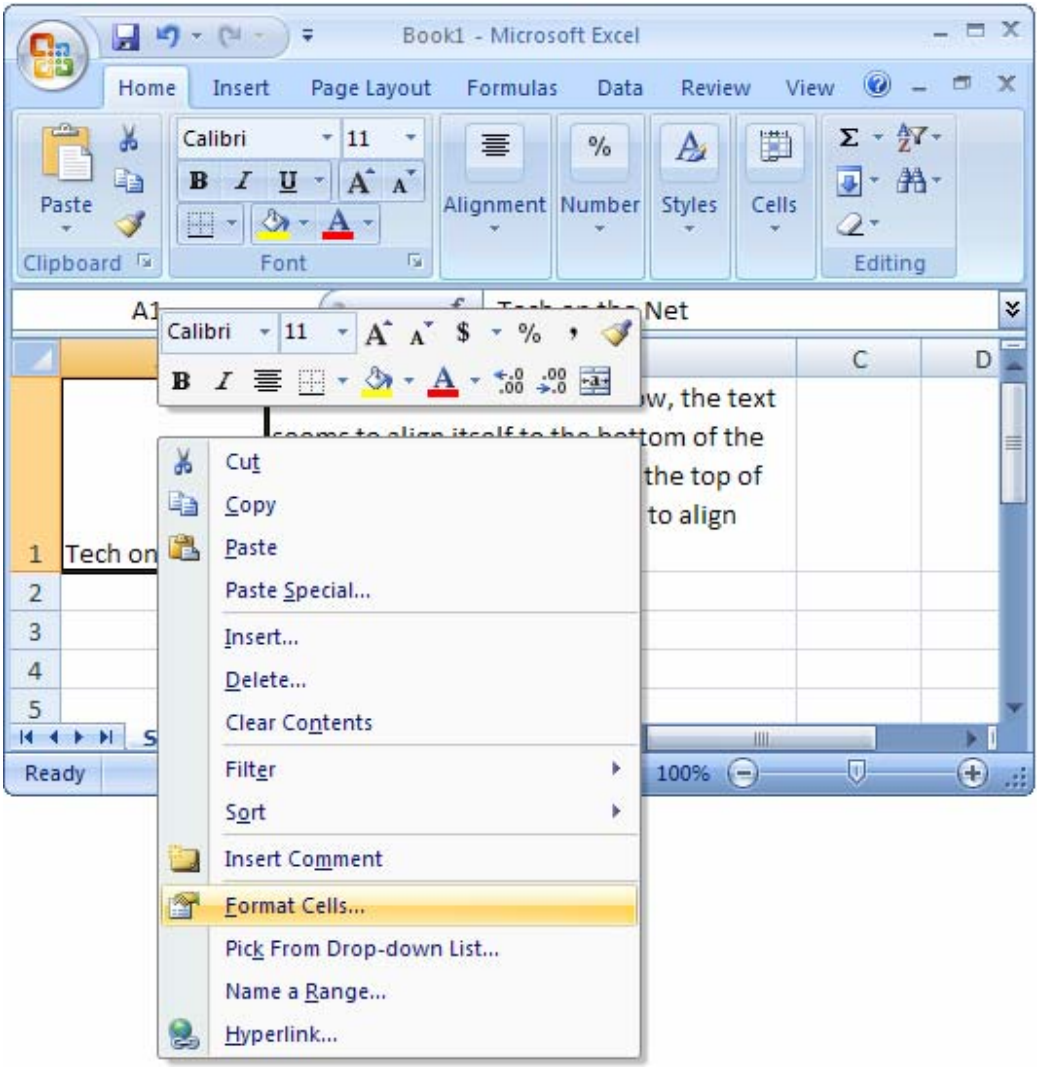
Align text to the top of the cell in Excel 2007

Question: When I increase the size of a row, the text seems to align itself to the bottom of the cell and there is a blank space at the top of the cell. How can I get the text to align itself to the top of the cell?

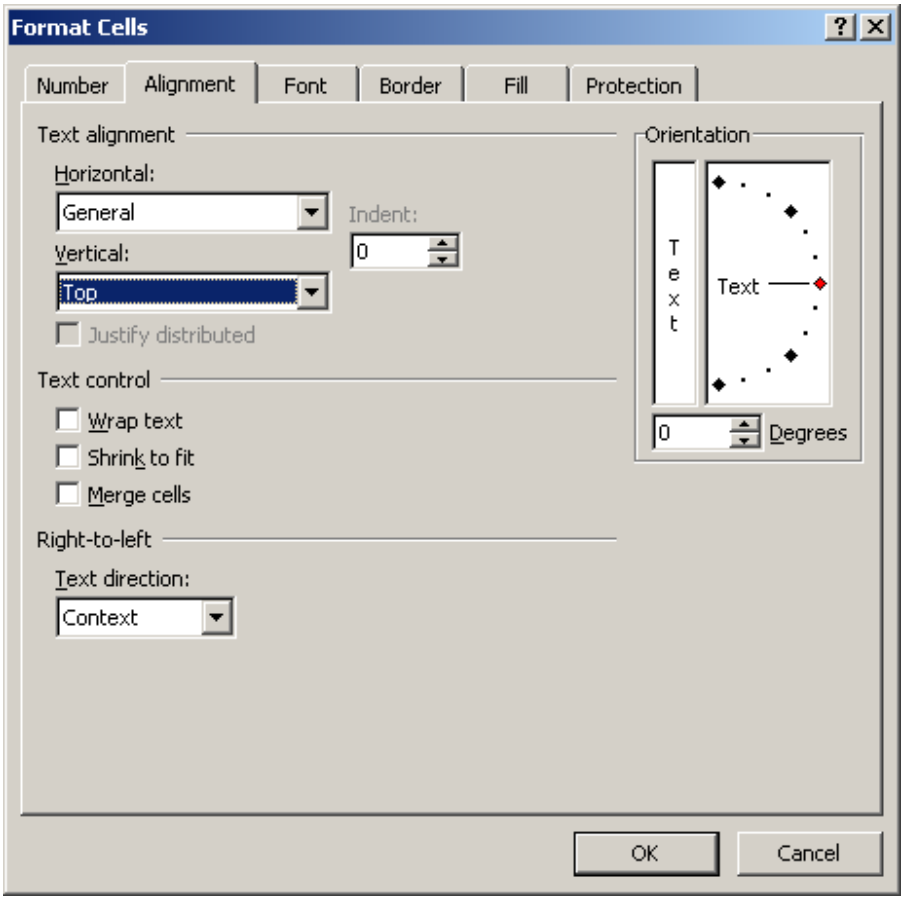
Answer: Select the cells that you wish to align.



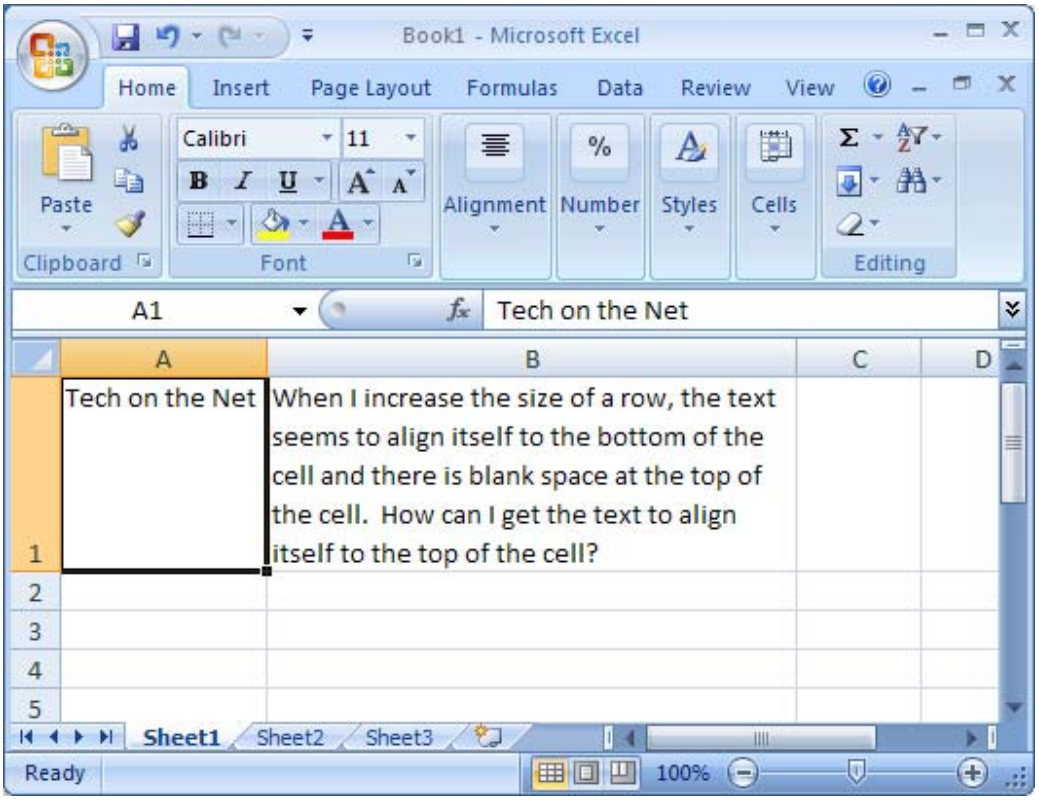
Right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Alignment tab. Then select "Top" in the drop-down box called Vertical.



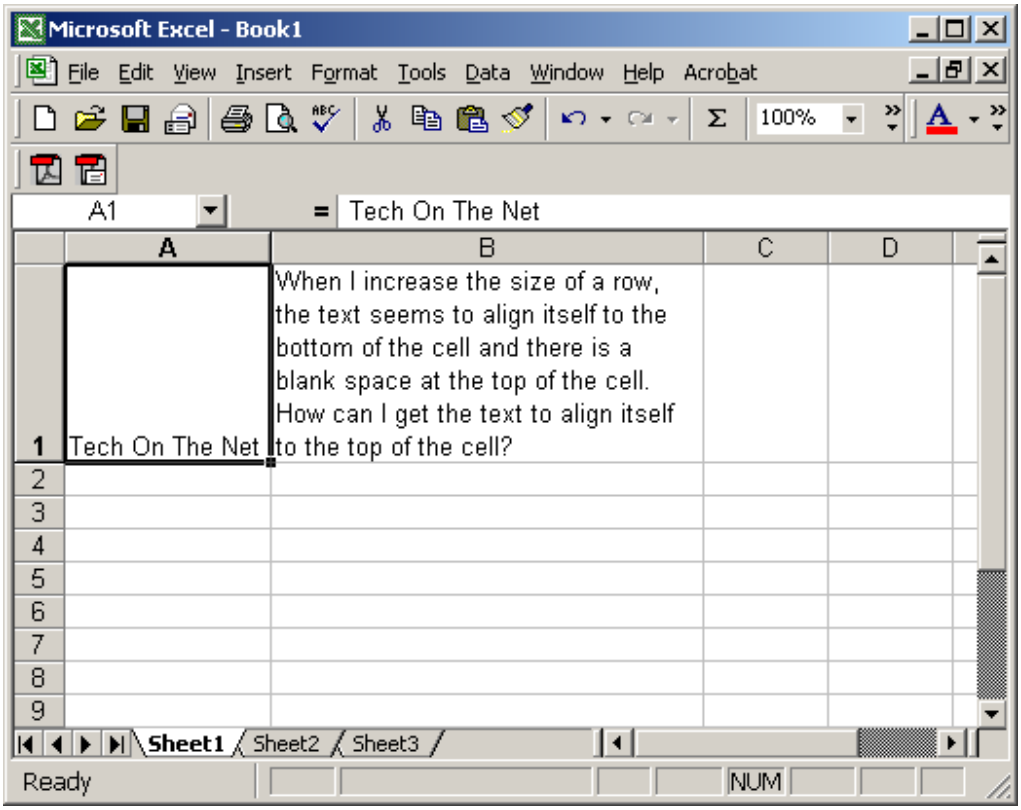
Now when you return to your spreadsheet, the cells that you've selected should be aligned to the top, as follows:



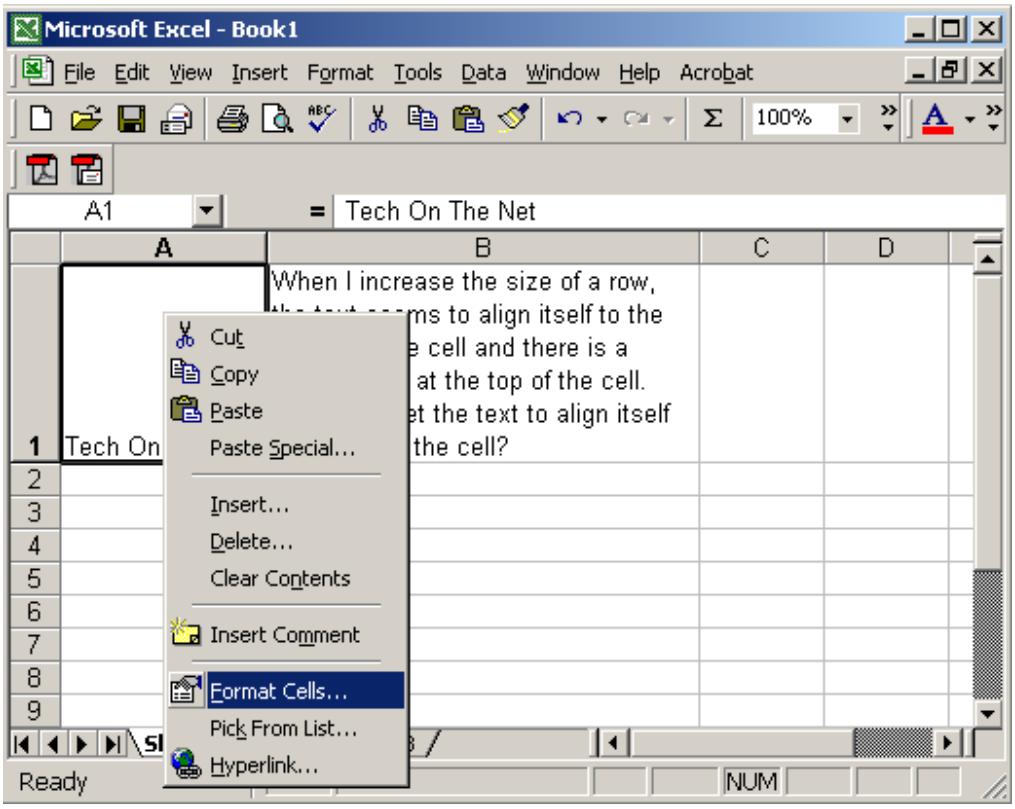
Align text to the top of the cell in Excel 2003/XP/2000/97

Question: When I increase the size of a row, the text seems to align itself to the bottom of the cell and there is a blank space at the top of the cell. How can I get the text to align itself to the top of the cell?

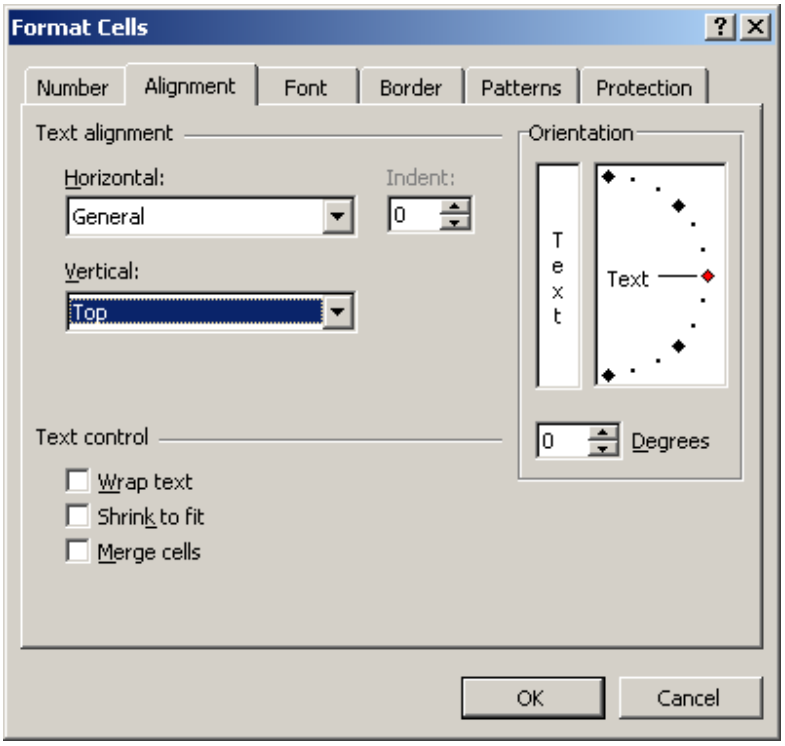
Answer: Select the cells that you wish to align.



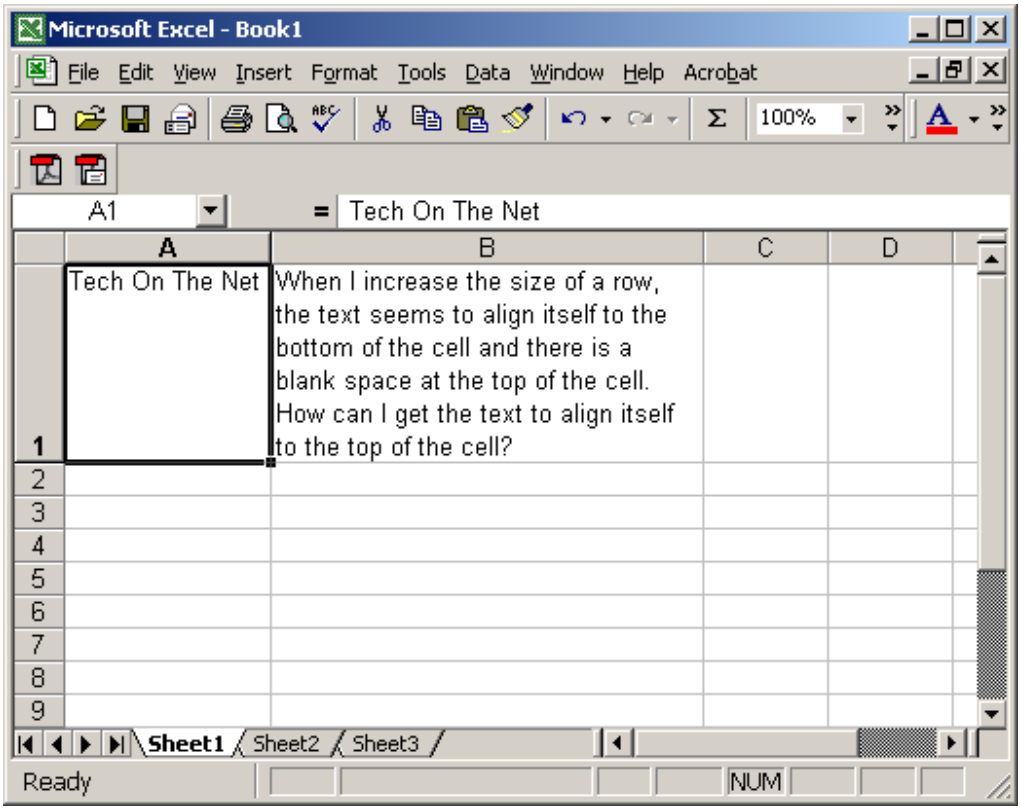
Right-click and then select "Format Cells" from the popup menu.



When the Format Cells window appears, select the Alignment tab. Then select "Top" in the drop-down box called Vertical.



Now when you return to your spreadsheet, the cells that you've selected should be aligned to the top, as follows:



Excel: Set up a cell to only allow a certain number of characters

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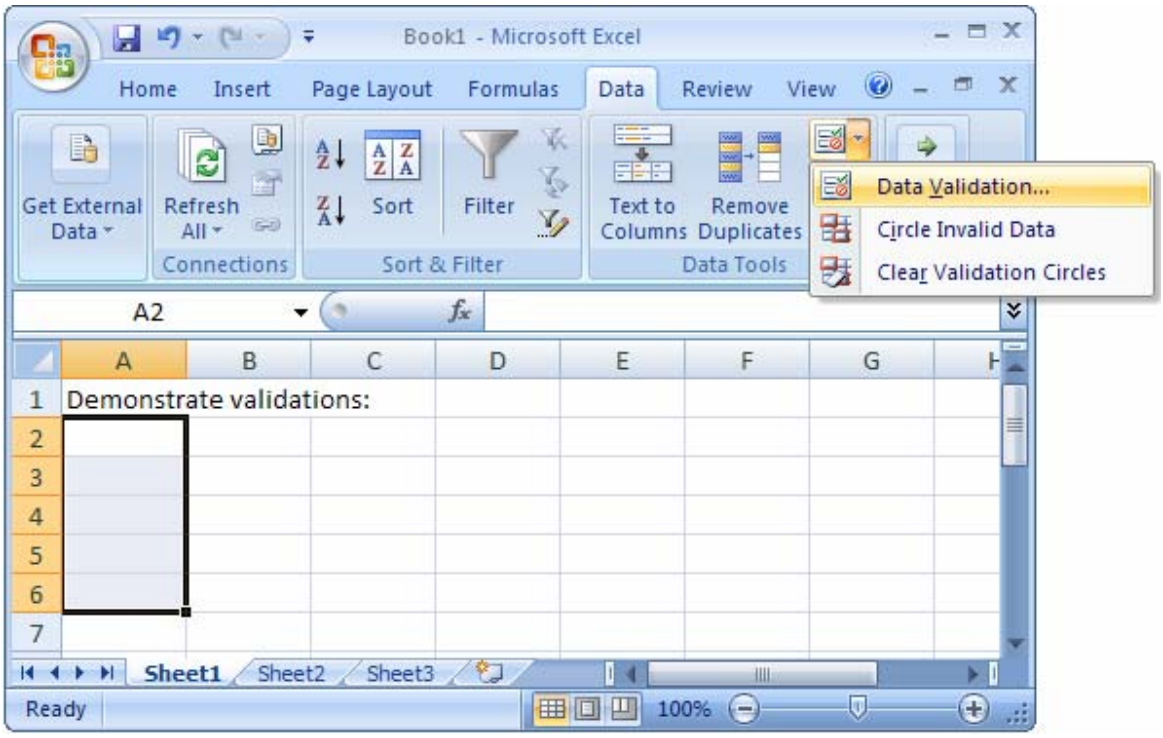
We'll demonstrate how to align text to the top of the cell in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

Set up a cell to only allow a certain number of characters in Excel 2007

Question: In Excel, I want to set up a cell to only allow 15 characters. How can I do this?

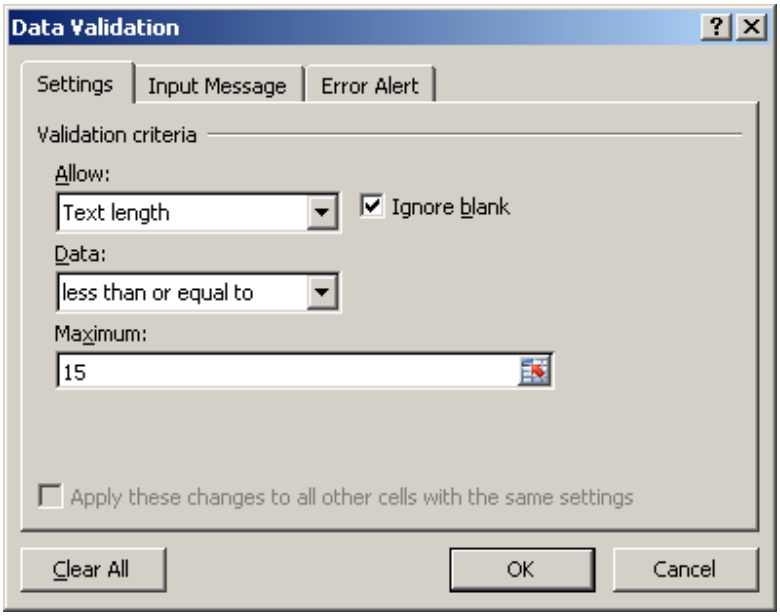
Answer: Select the cells that you wish to restrict to a certain number of characters. In this example, we've selected cells A2 to A6.

Select the Data tab in the toolbar at the top of the screen. Then click on the Data Validation drop-down and select Data Validation.

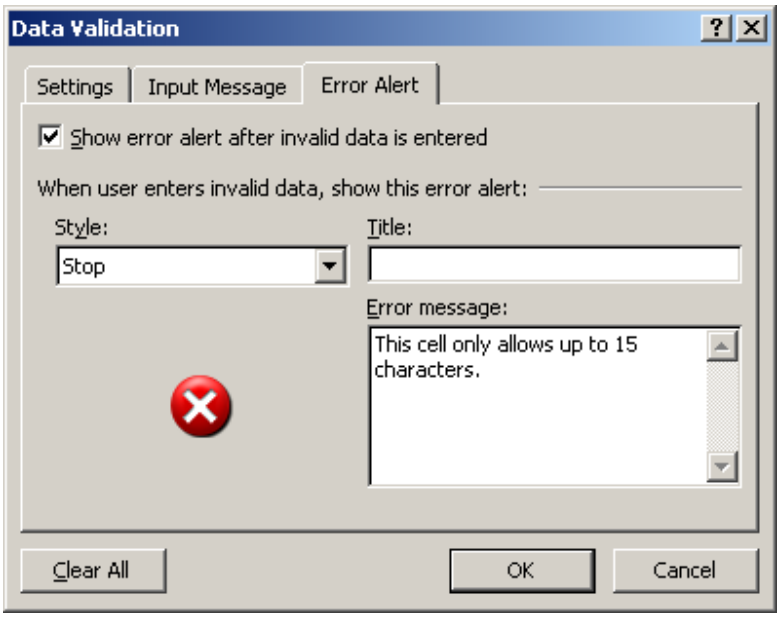


When the Data Validation window appears, set up your criteria. In this example, we've setup the cells to allow a text length of less than or equal to 15.

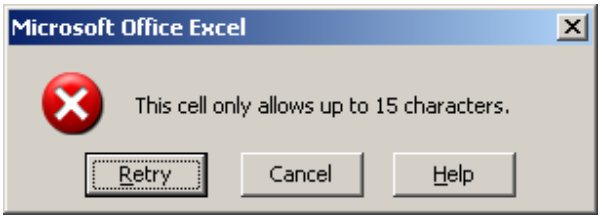
Next, click on the Error Alert tab.



Enter an Error message to appear when data entered does not conform to the validation rules.



Now if a value is entered in one of those cells that is longer than 15 characters, the following error message will appear:

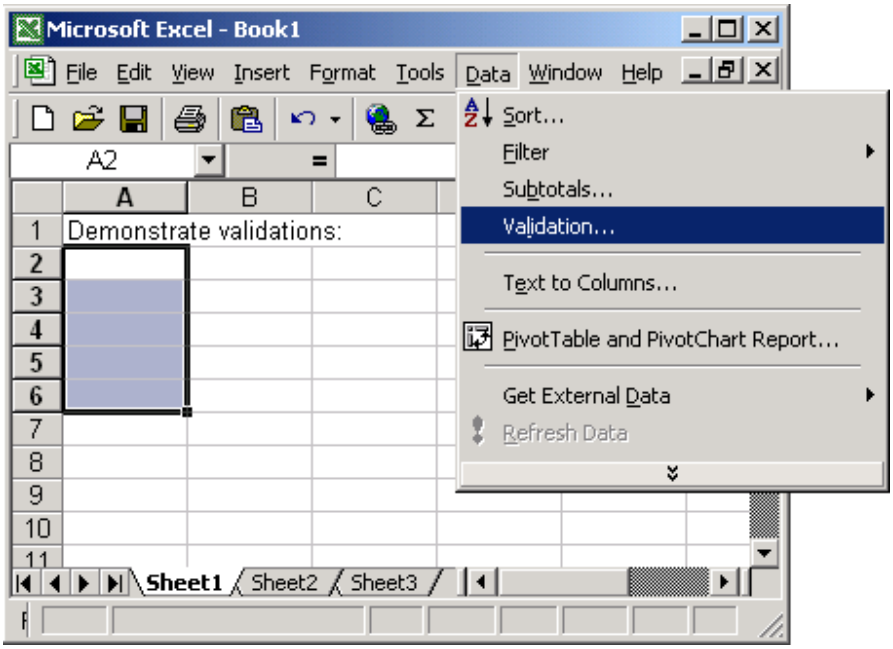


Set up a cell to only allow a certain number of characters in Excel 2003/XP/2000/97

Question: In Excel, I want to set up a cell to only allow 15 characters. How can I do this?

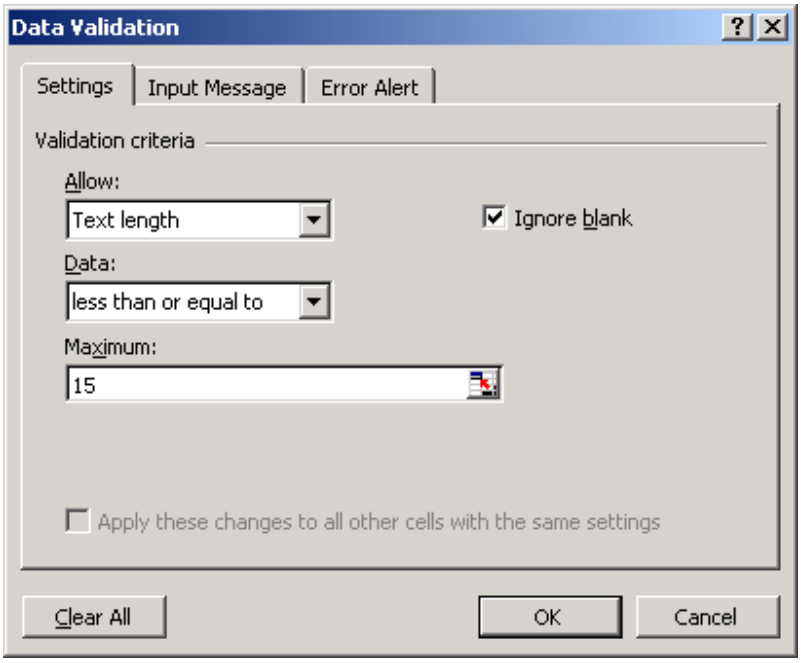
Answer: Select the cells that you wish to restrict to a certain number of characters. In this example, we've selected cells A2 to A6.

Under the Data menu, select Validation.

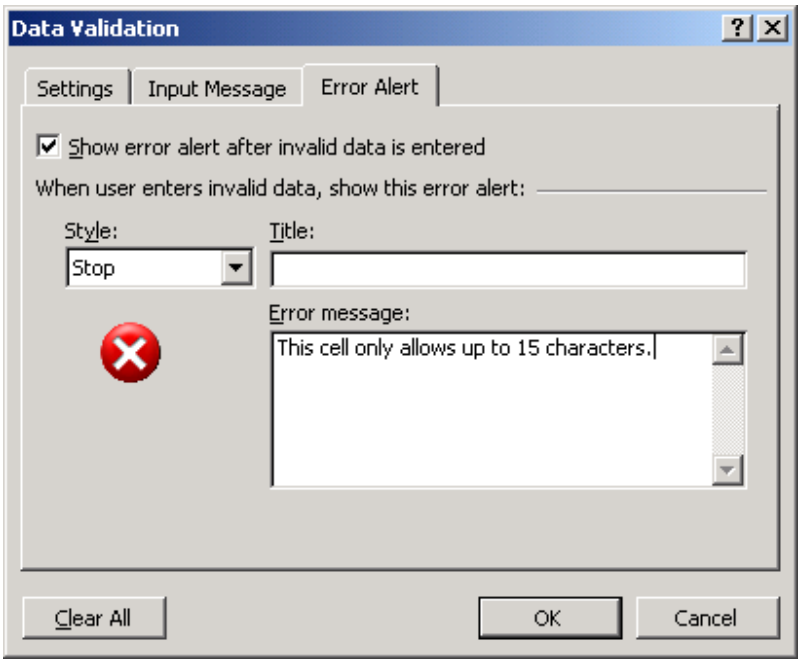


When the Data Validation window appears, set up your criteria. In this example, we've setup the cells to allow a text length of less than or equal to 15.

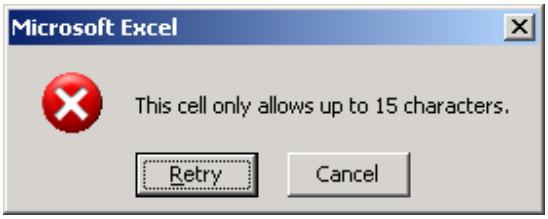
Next, click on the Error Alert tab.



Enter an Error message to appear when data entered does not conform to the validation rules.



Now if a value is entered in one of those cells that is longer than 15 characters, the following error message will appear:



Excel: Set up a cell to only allow numbers

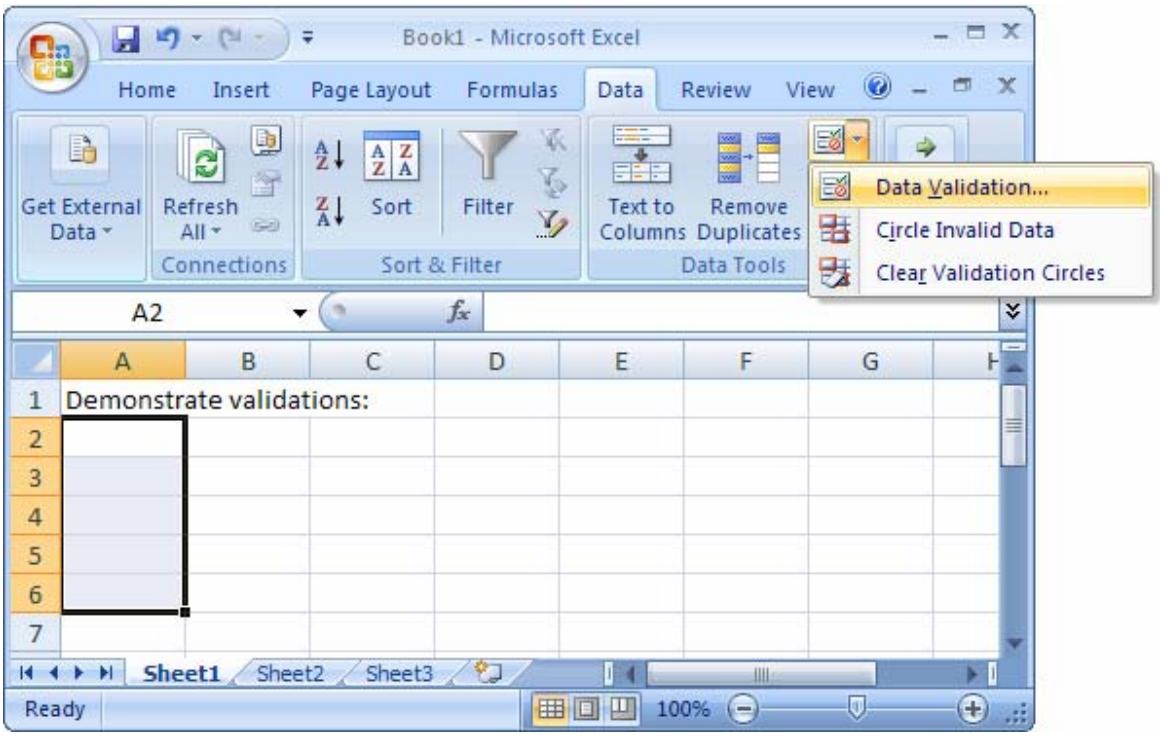
We'll demonstrate how to set up a cell to only allow numbers in Excel 2007 as well as earlier versions such as Excel 2003/XP/2000/97.

Set up a cell to only allow numbers in Excel 2007

Question: In Excel, I want to set up a cell to only allow numbers. How can I do this?

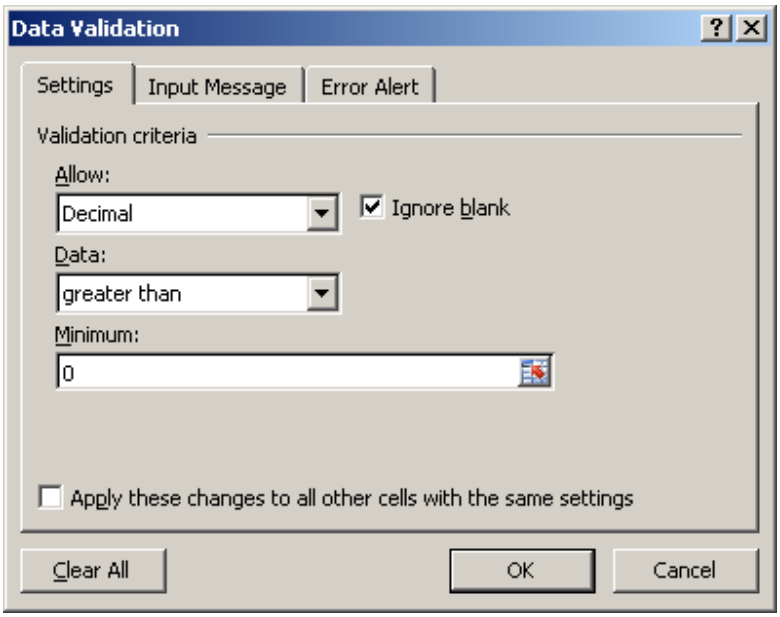
Answer: Select the cells that you wish to restrict to a certain number of characters. In this example, we've selected cells A2 to A6.

Select the Data tab in the toolbar at the top of the screen. Then click on the Data Validation drop-down and select Data Validation.

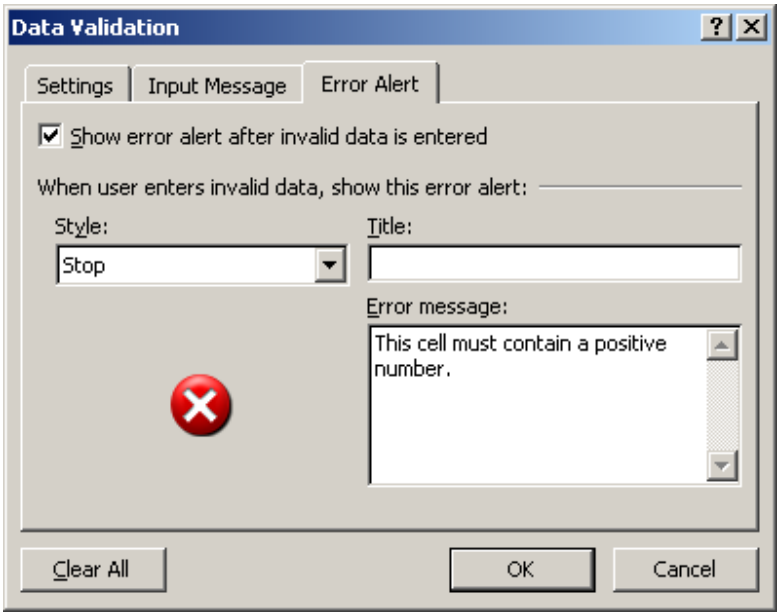


When the Data Validation window appears, set up your criteria. In this example, we've setup the cells to allow a positive number.

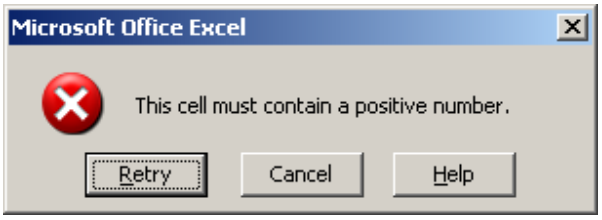
Next, click on the Error Alert tab.



Enter an Error message to appear when data entered does not conform to the validation rules.



Now if a value is entered in one of those cells is not a positive number, the following error message will appear:

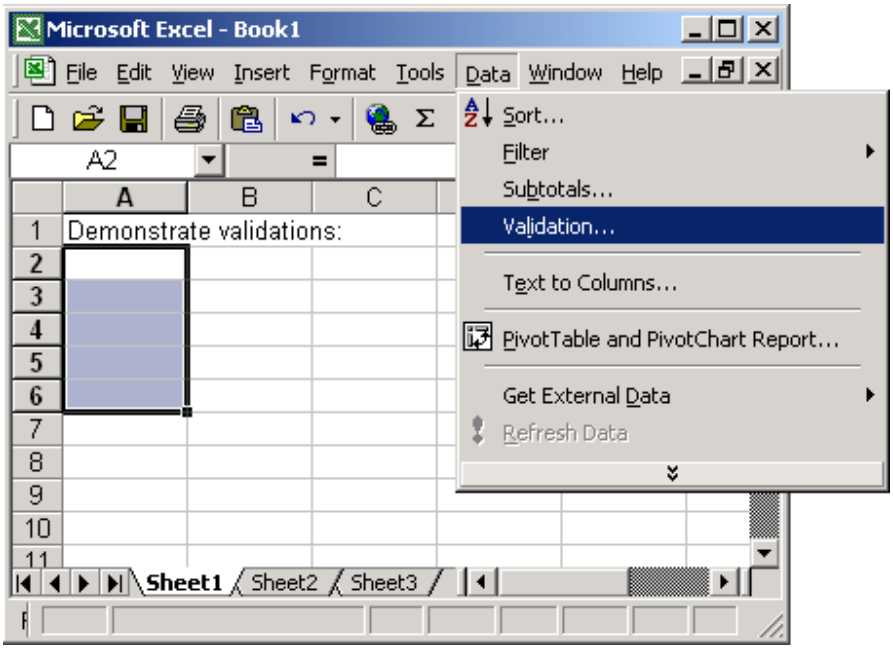


Set up a cell to only allow numbers in Excel 2003/XP/2000/97

Question: In Excel, I want to set up a cell to only allow numbers. How can I do this?

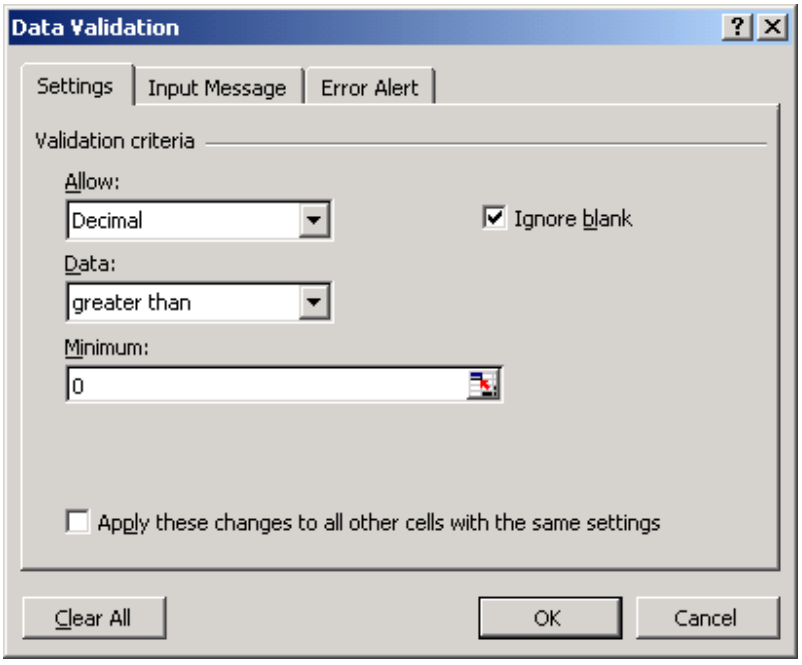
Answer: Select the cells that you wish to restrict to a certain number of characters. In this example, we've selected cells A2 to A6.

Under the Data menu, select Validation.

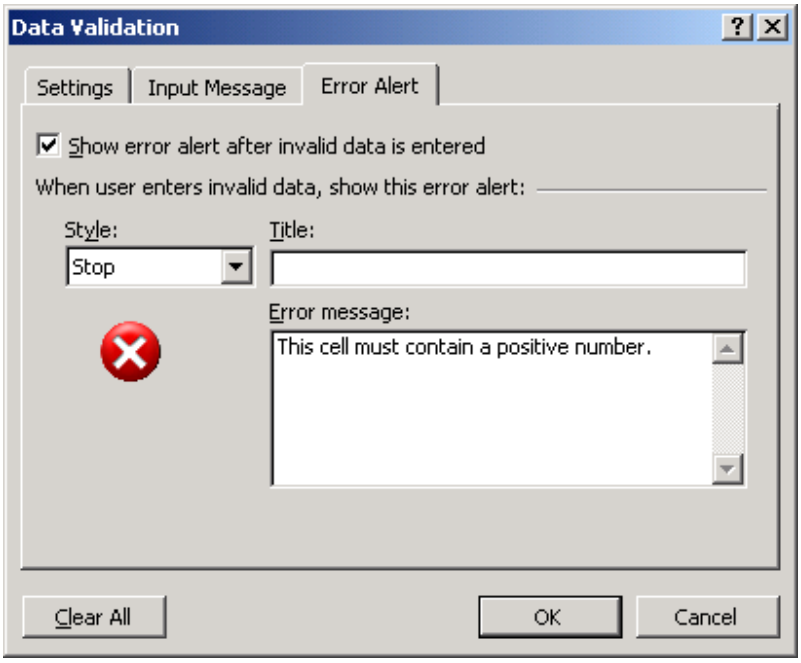


When the Data Validation window appears, set up your criteria. In this example, we've setup the cells to allow a positive number.

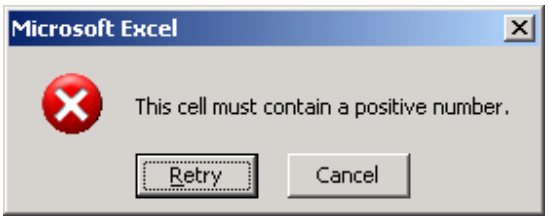
Next, click on the Error Alert tab.



Enter an Error message to appear when data entered does not conform to the validation rules.



Now if a value is entered in one of those cells is not a positive number, the following error message will appear:



Excel: SumIf Function

In Excel, the **SumIf** function adds all numbers in a range of cells, based on a given criteria.

The syntax for the **SumIf** function is:

SumIf(range, criteria, sum_range)

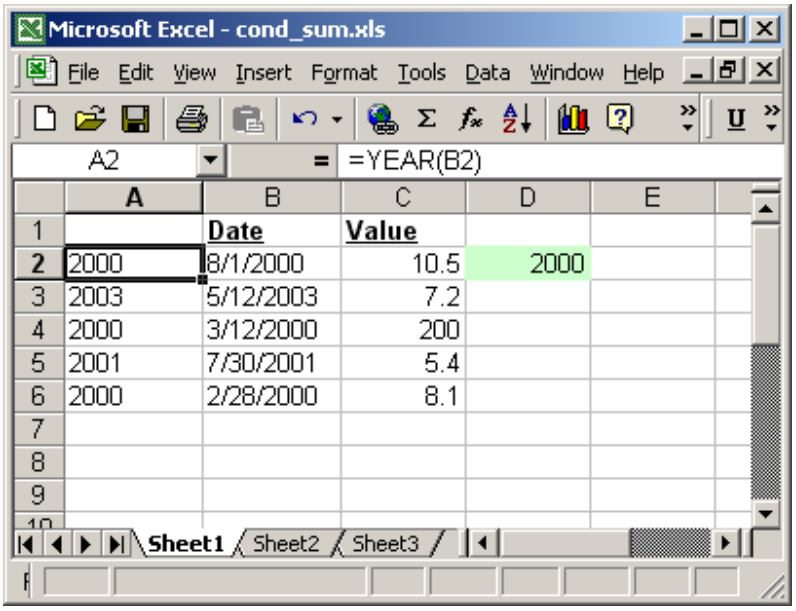
range is the range of cells that you want to apply the *criteria* against.

criteria is used to determine which cells to add.

sum_range are the cells to sum.

For example:

Let's take a look at an example:



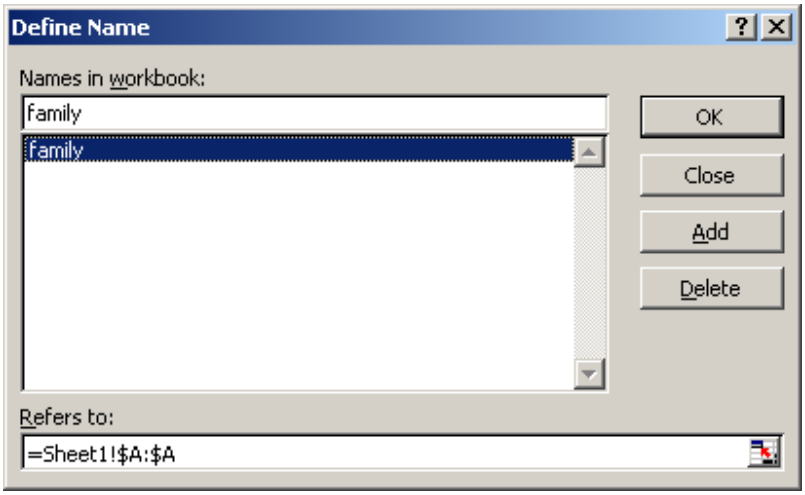
	A	B	C	D	E
1		Date	Value		
2	2000	8/1/2000	10.5	2000	
3	2003	5/12/2003	7.2		
4	2000	3/12/2000	200		
5	2001	7/30/2001	5.4		
6	2000	2/28/2000	8.1		
7					
8					
9					

Based on the Excel spreadsheet above:

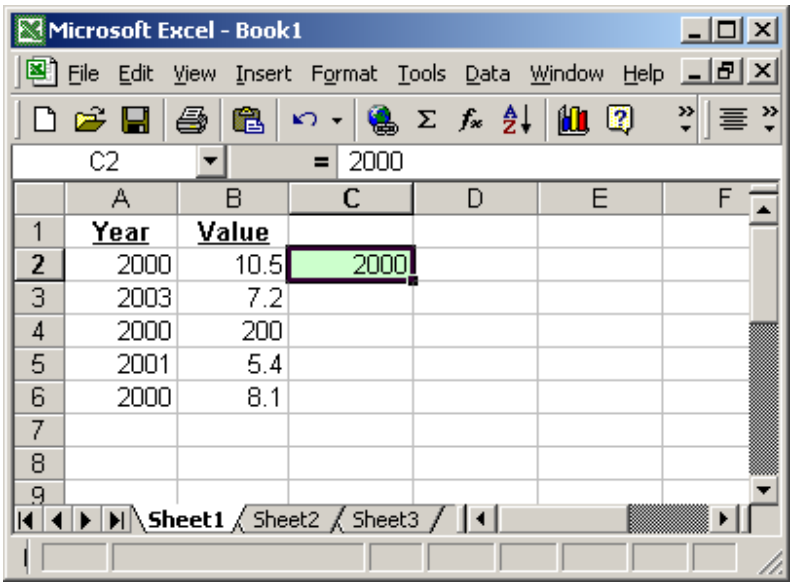
=SumIf(A2:A6, D2, C2:C6)	would return 218.6
=SumIf(A:A, D2, C:C)	would return 218.6
=SumIf(A2:A6, 2003, C2:C6)	would return 7.2
=SumIf(A2:A6, ">=2001", C2:C6)	would return 12.6

Using Named Ranges

You can also use a named range in the SumIf function. For example, we've created a named range called *family* that refers to **column A** in Sheet 1.



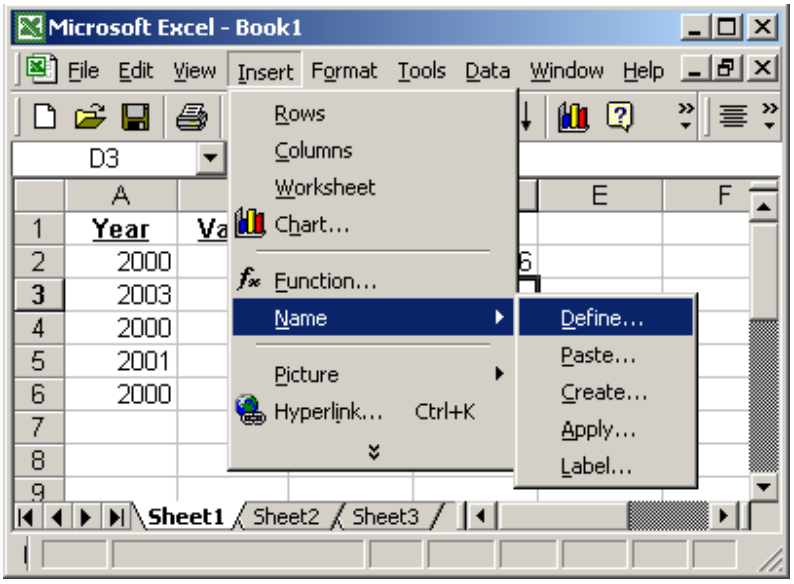
Then we've entered the following data in Excel:



Based on the Excel spreadsheet above:

=SumIf(family, C2, B:B)	would return 218.6
=SumIf(family, ">=2001", B:B)	would return 12.6

To view named ranges: Under the Insert menu, select Name > Define.



Excel: Lookup Function

In Excel, the **Lookup** function returns a value from a range (one row or one column) or from an array. There are 2 different syntaxes for the Lookup function:

Syntax #1

In Syntax #1, the **Lookup** function searches for value in the *lookup_range* and returns the value in the *result_range* that is in the same position.
The syntax for the **Lookup** function is:

Lookup(value, lookup_range, result_range)

value is the value to search for in the *lookup_range*.
lookup_range is a single row or single column of data that is sorted in ascending order. The Lookup function searches for value in this range.

result_range is a single row or single column of data that is the same size as the *lookup_range*. The Lookup function searches for the value in the *lookup_range* and returns the value from the same position in the *result_range*.

Note:

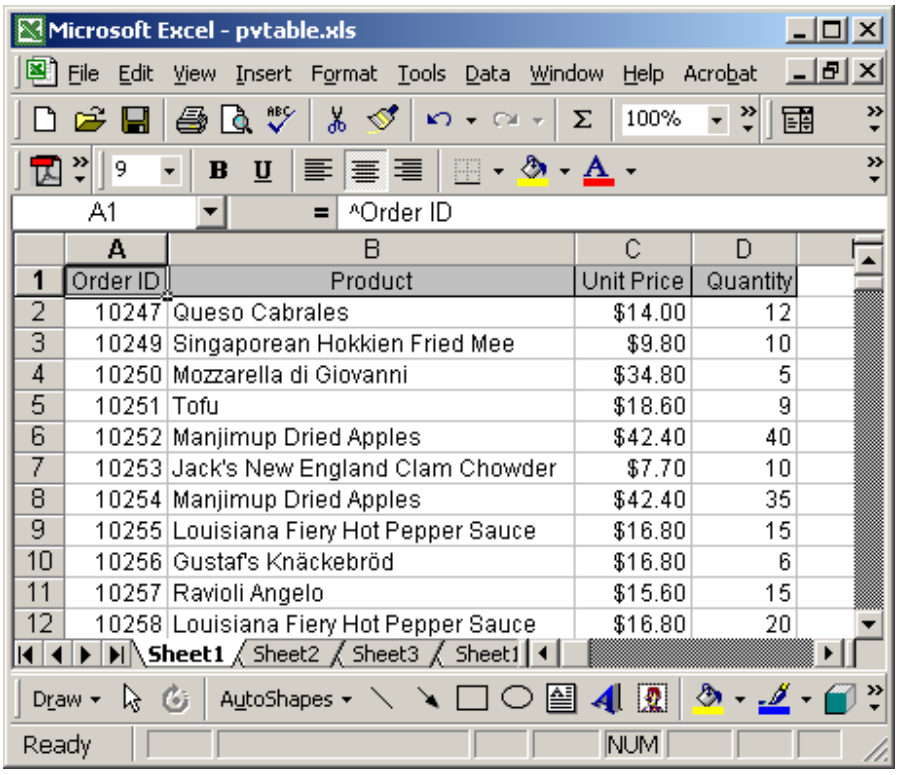
If the Lookup function can not find an exact match, it chooses the largest value in the *lookup_range* that is less than or equal to the *value*.

If the *value* is smaller than all of the values in the *lookup_range*, then the Lookup function will return #N/A.

If the values in the *Lookup_range* are not sorted in ascending order, the Lookup function will return the incorrect value.

For example:

Let's take a look at an example:



	A	B	C	D
1	Order ID	Product	Unit Price	Quantity
2	10247	Queso Cabrales	$14.00	12
3	10249	Singaporean Hokkien Fried Mee	$9.80	10
4	10250	Mozzarella di Giovanni	$34.80	5
5	10251	Tofu	$18.60	9
6	10252	Manjimup Dried Apples	$42.40	40
7	10253	Jack's New England Clam Chowder	$7.70	10
8	10254	Manjimup Dried Apples	$42.40	35
9	10255	Louisiana Fiery Hot Pepper Sauce	$16.80	15
10	10256	Gustaf's Knäckebröd	$16.80	6
11	10257	Ravioli Angelo	$15.60	15
12	10258	Louisiana Fiery Hot Pepper Sauce	$16.80	20

Based on the Excel spreadsheet above:

=Lookup(10251, A1:A21, B1:B21)	would return "Tofu"
=Lookup(10246, A1:A21,	would return #N/A

B1:B21)

=Lookup(10248, B1:B21, A1:A21)	would return "Queso Cabrales"

Syntax #2

In Syntax #2, the **Lookup** function searches for the value in the first row or column of the array and returns the corresponding value in the last row or column of the array.

The syntax for the **Lookup** function is:

Lookup(value, array)

value is the value to search for in the array. The values must be in ascending order.

array is an array of values that contains both the values to search for and return.

Note:

If the Lookup can not find an exact match, it chooses the largest value in the *array* that is less than or equal to the value.

If the value is smaller than all of the values in the *array*, then the Lookup function will return #N/A.

If the values in the array are not sorted in ascending order, the Lookup function will return the incorrect value.

For example:

Let's take a look at an example:

=Lookup("T", {"s","t","u","v";10,11,12,13})	would return 11
=Lookup("Tech on the Net", {"s","t","u","v";10,11,12,13})	would return 11
=Lookup("t", {"s","t","u","v";"a","b","c","d"})	would return "b"
=Lookup("r", {"s","t","u","v";"a","b","c","d"})	would return #N/A
=Lookup(2, {1,2,3,4;511,512,513,514})	would return 512

Excel: CountIf Function

In Excel, the **CountIf** function counts the number of cells in a range, that meets a given criteria.

The syntax for the **CountIf** function is:

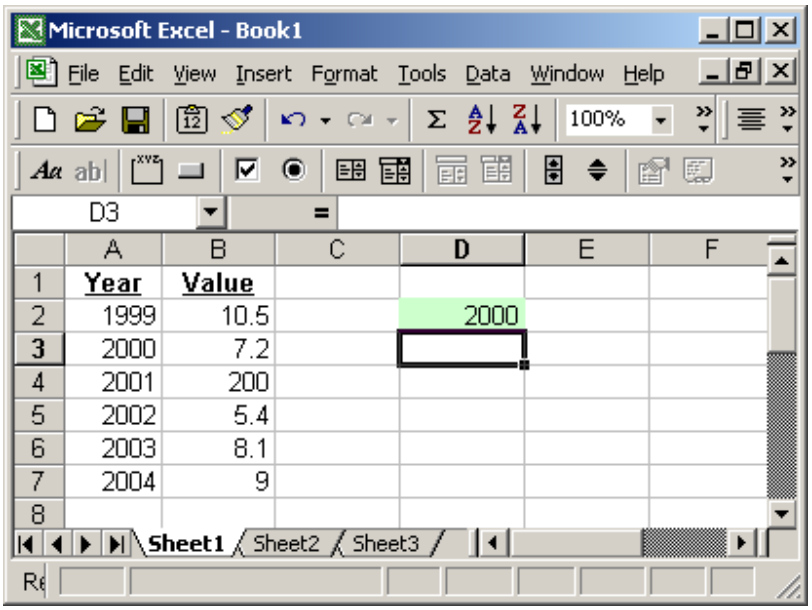
CountIf(range, criteria)

range is the range of cells that you want to count based on the *criteria*.

criteria is used to determine which cells to count.

For example:

Let's take a look at an example:

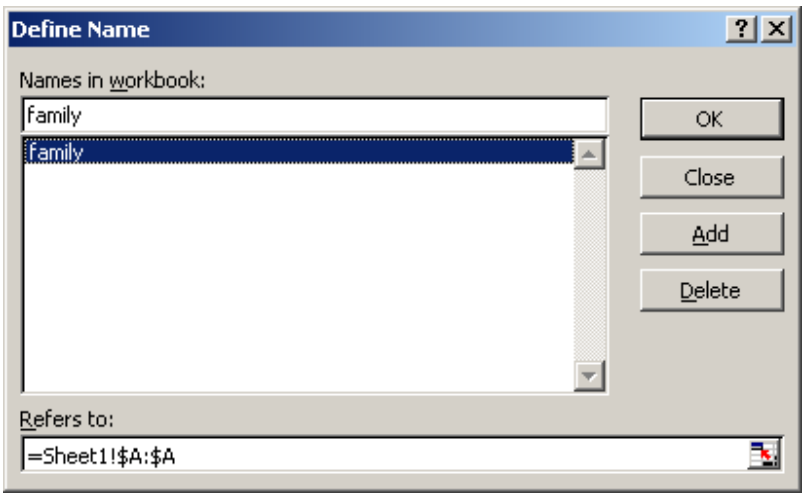


Based on the Excel spreadsheet above:

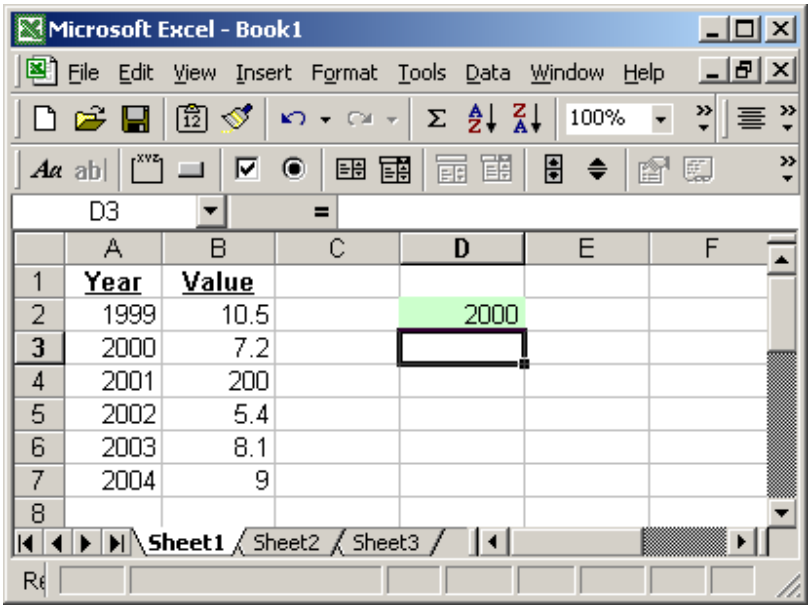
=CountIf(A2:A7, D2)	would return 1
=CountIf(A:A, D2)	would return 1
=CountIf(A2:A7, ">=2001")	would return 4

Using Named Ranges

You can also use a named range in the CountIf function. For example, we've created a named range called *family* that refers to **column A** in Sheet 1.



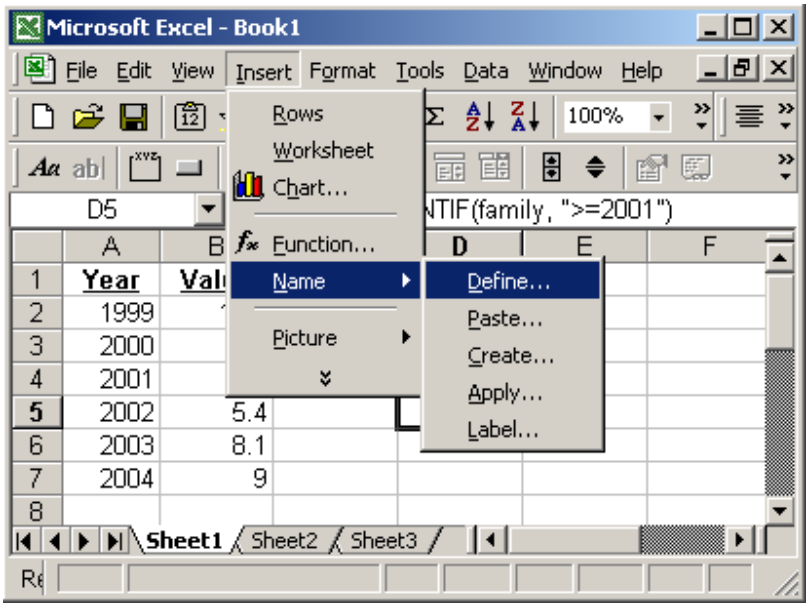
Then we've entered the following data in Excel:



Based on the Excel spreadsheet above:

=CountIf(family, D2)	would return 1
=CountIf(family, ">=2001")	would return 4

To view named ranges: Under the Insert menu, select Name > Define.



Frequently Asked Questions

Question: I'm trying to use COUNTIF on a selection of cells (not necessarily one solid range), and the syntax of the function does not allow that. Is there another way to do this?
Here's an example of what I'd like to be able to do:

=COUNTIF(A2,A5,F6,G9,">0")

Answer: Unfortunately, the COUNTIF function does not support multiple ranges. However, you could try summing multiple COUNTIFs.
For example:

=SUM(COUNTIF(A2,">0"),COUNTIF(A5,">0"),COUNTIF(F6,">0"),
COUNTIF(G9,">0"))

OR

```
=COUNTIF(A2,">0")+COUNTIF(A5,">0")+COUNTIF(F6,">0")+COU
NTIF(G9,">0")
```

Question: I am using the COUNTIF function and I would like to make the criteria equal to a cell.
For example:

```
=COUNTIF(C4:C19,">=2/26/04")
```

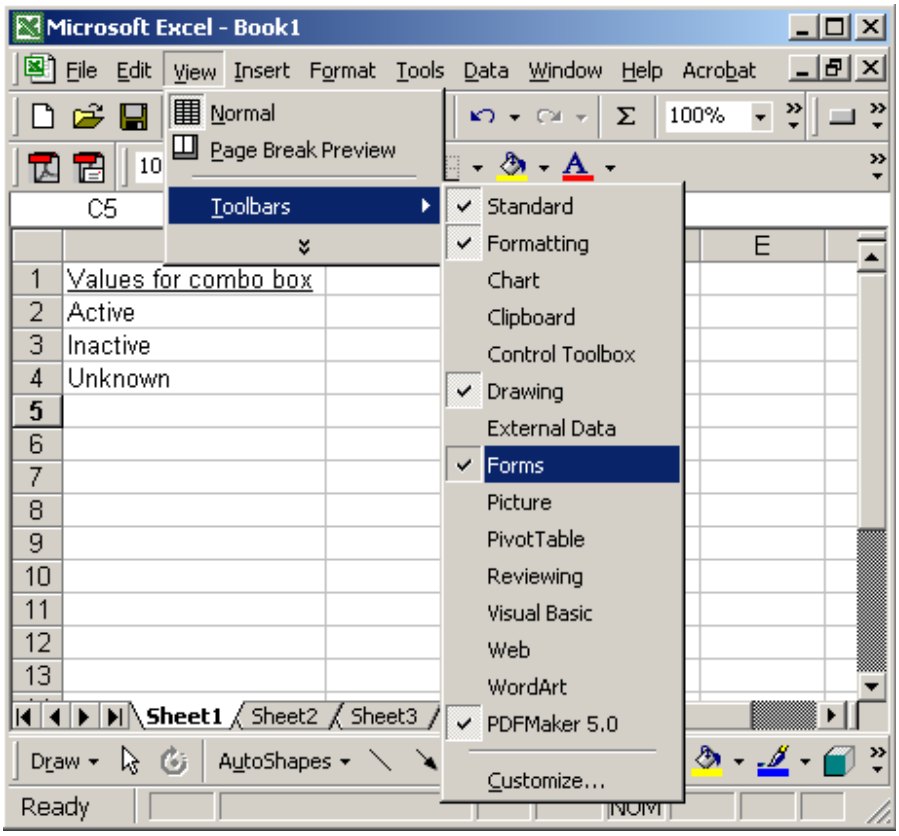
I want to replace 2/26/04 with cell A1. How do I do this?
Answer: To use a cell reference in the criteria, you could do the following:

```
=COUNTIF(C4:C19,">="&A1)
```

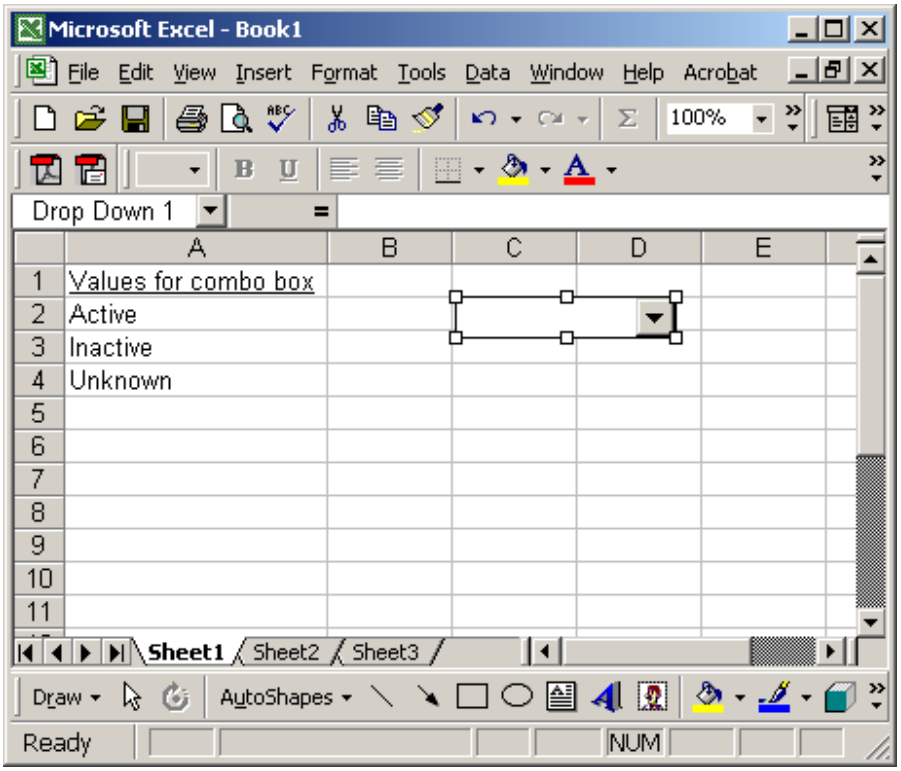
Excel: Creating a combo box in Excel

Question: I'm trying to create pull down boxes in Excel with selections to highlight and fill in the cell. How do I do that?

Answer: To create a combo box in Excel, the first thing that you need to do is display the Forms toolbar. To do this, under the View menu, select Toolbars > Forms.

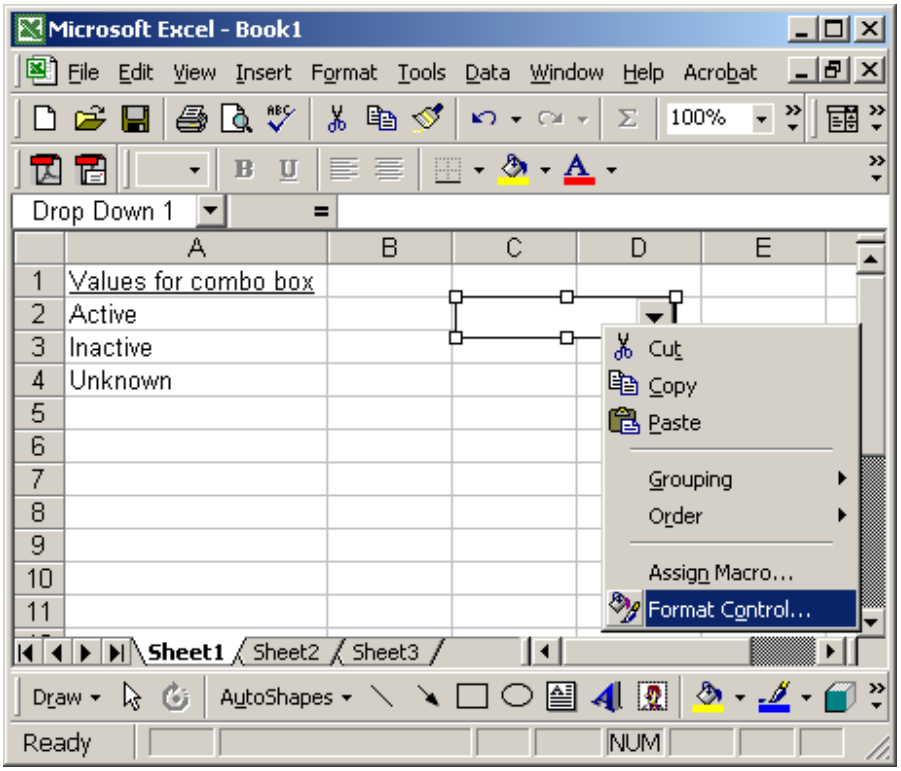


The Forms toolbar should now appear. Select the combo box icon. Then left-click on the spreadsheet where you'd like the combo box object to appear and drag the mouse pointer to the right until the combo box is the desired size.



Next, you will need to enter somewhere on your spreadsheet, the values that you'd like to appear as selections in the combo box. We've entered our values in cells A2 through A4.

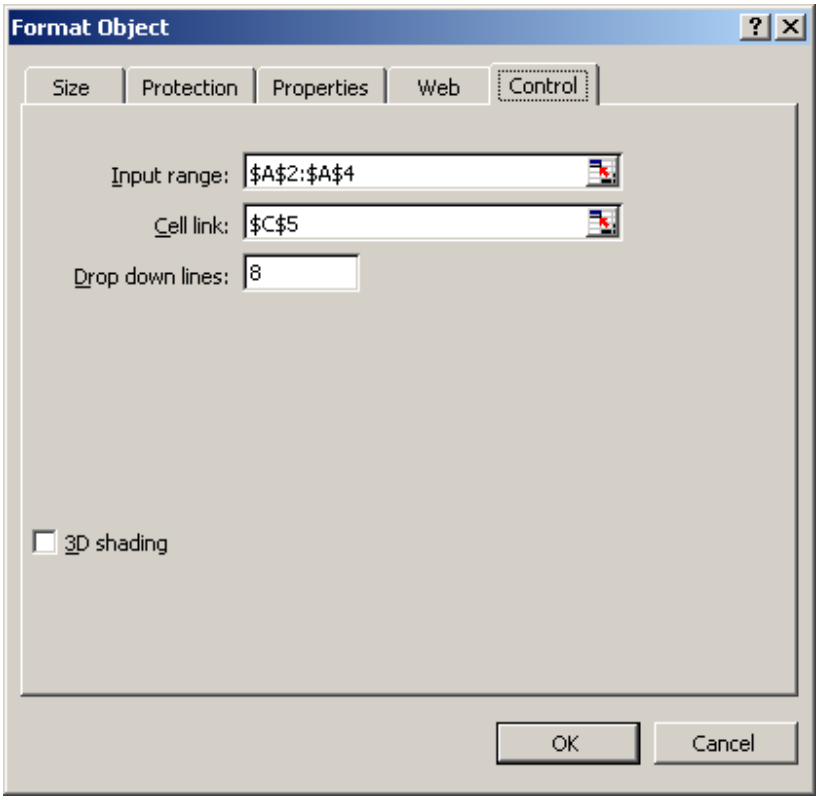
Next, right-click on the combo box and select *Format Control* from the popup menu.



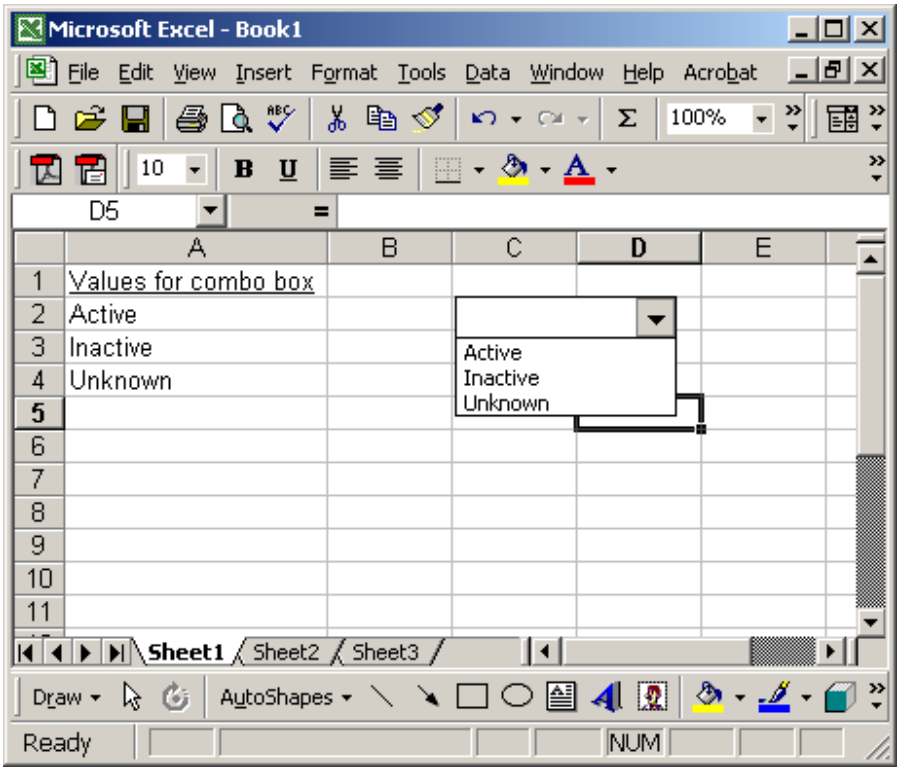
When the *Format Object* window appears, select the Control tab. Then select the input range for the combo box. This is the cells that contain the values that you wish to see in the combo box.

Then select the Cell link. This the cell that is linked to the combo box. This cell will display the combo box selection.

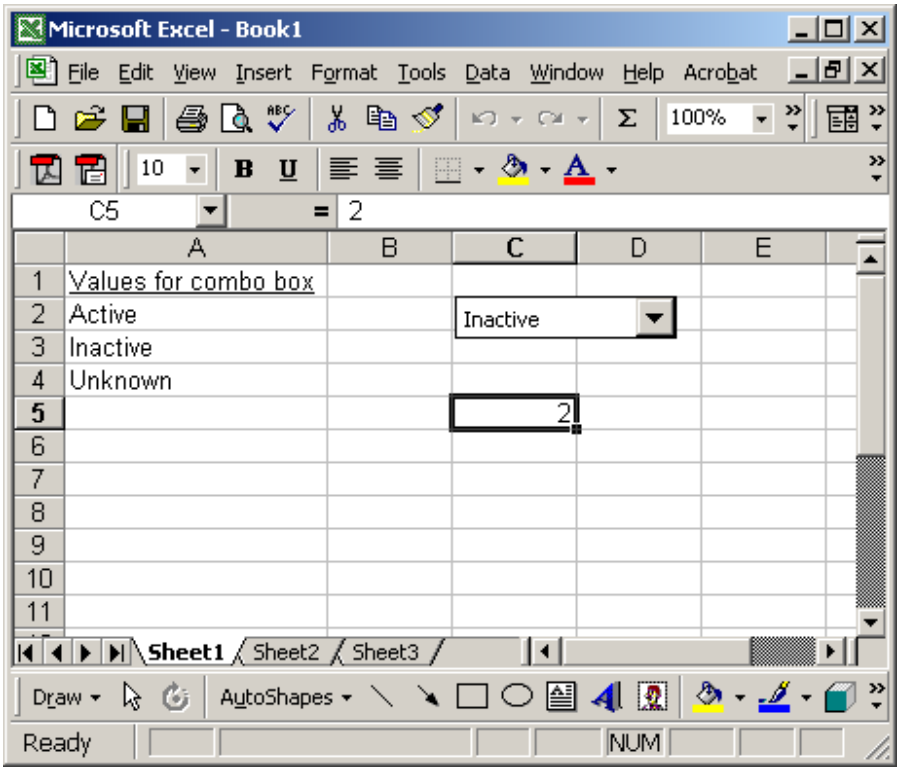
Click on the OK button.



Now when you return to the spreadsheet, your combo box should display a selection of values. In our example, it displays Active, Inactive, and Unknown.



When you select a value, the linked cell should display the index of the selection. In this case, we selected "Inactive", so cell C5 displays a 2. The value of 2 represents the 2nd value in the combo box.



If you need to translate C5 back to the combo box selection, you can use the following formula: (but do **not** place this formula in cell C5, place it in a cell that you are currently not using)

=INDEX(A2:A4, C5)

The INDEX formula would return the value "Inactive".

Excel: Concatenate Function

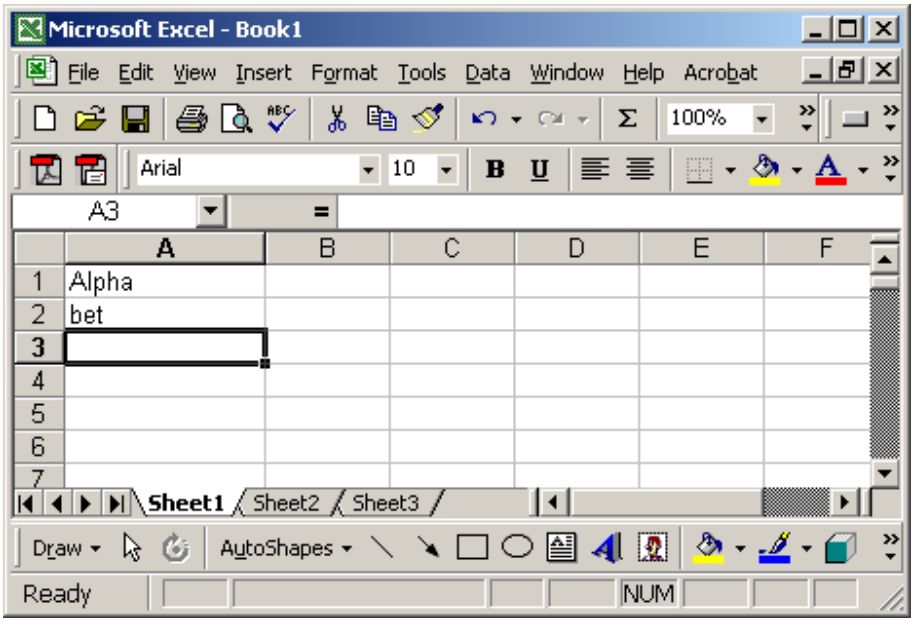
In Excel, the **Concatenate** function allows you to join 2 or more strings together. The syntax for the **Concatenate** function is:

Concatenate(text1, text2, ... text_n)

There can be up to 30 strings that are joined together.

For example:

Let's take a look at an example:



Based on the Excel spreadsheet above:

=Concatenate(A1, A2)	would return "Alphabet"
=Concatenate("Tech on the ", "Net")	would return "Tech on the Net"
=Concatenate(A1, "bet soup")	would return "Alphabet soup"

Excel: Match Function

In Excel, the **Match** function searches for a value in an array and returns the relative position of that item.

The syntax for the **Match** function is:

Match(value, array, match_type)

value is the value to search for in the *array*.

array is a range of cells that contains the *value* that you are searching for.

match_type is optional. It the type of match that the function will perform. The possible values are:

match_type	Explanation
1 (default)	The Match function will find the largest value that is less than or equal to *value*. You should be sure to sort your *array* in ascending order. If the *match_type* parameter is omitted, the Match function assumes a match_type of 1.
0	The Match function will find the first value that is equal to *value*. The *array* can be sorted in any order.
-1	The Match function will find the smallest value that is greater than or equal to *value*. You should be sure to sort your *array* in descending order.

Note:

The Match function does not distinguish between upper and lowercase when searching for a match.

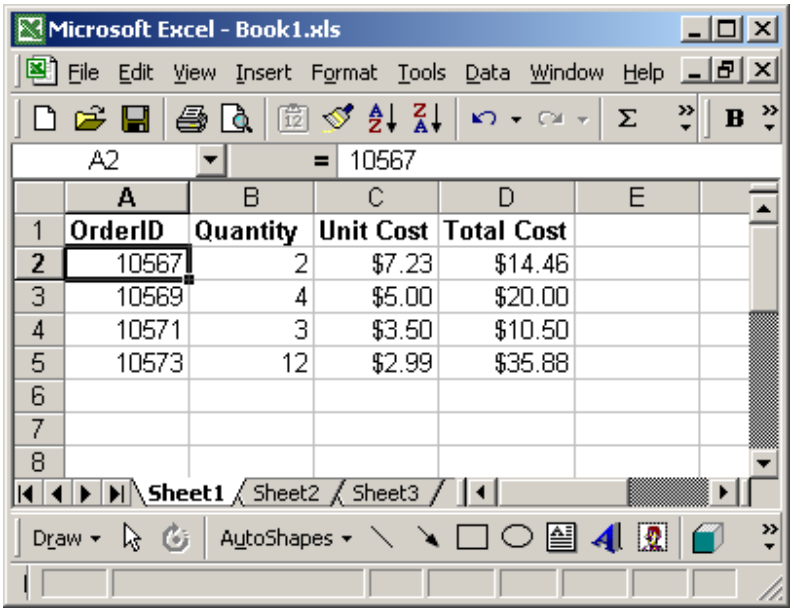
If the Match function does not find a match, it will return a #N/A error.

If the *match_type* parameter is 0 and a text value, then you can use wildcards in the *value* parameter.

Wild card	Explanation
*	matches any sequence of characters
?	matches any single character

For example:

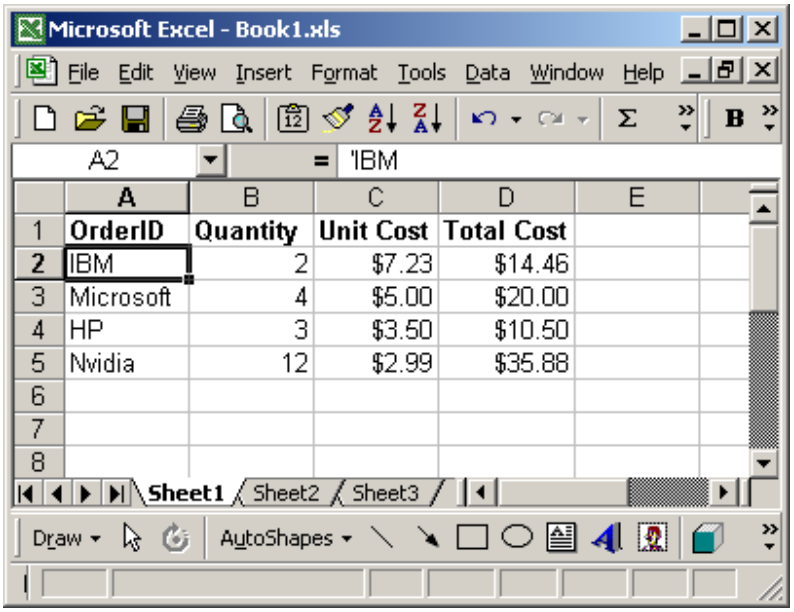
Let's take a look at an example:



Based on the Excel spreadsheet above:

=Match(10572, A2:A5, 1)	would return 3
=Match(10572, A2:A5)	would return 3
=Match(10573, A2:A5, 1)	would return 4
=Match(10572, A2:A5, 0)	would return #N/A
=Match(10573, A2:A5, 0)	would return 4
=Match(3.49, C2:C5, -1)	would return 3
=Match(3.50, C2:C5, -1)	would return 3

Let's take a look at how we can use wild cards in the Match function.



Based on the Excel spreadsheet above:

=Match("I?M", A2:A5, 0)	would return 1
=Match("M*t", A2:A5, 0)	would return 2
=Match("M?t", A2:A5, 0)	would return #N/A

Excel: HLookup Function

In Excel, the **HLookup** function searches for value in the top row of *table_array* and returns the value in the same column based on the *index_number*.

The syntax for the **HLookup** function is:

HLookup(value, table_array, index_number, not_exact_match)

value is the value to search for in the first row of the *table_array*.

table_array is two or more rows of data that is sorted in ascending order.

index_number is the row number in *table_array* from which the matching value must be returned. The first row is 1.

not_exact_match determines if you are looking for an exact match based on *value*. Enter FALSE to find an exact match. Enter TRUE to find an approximate match, which means that if an exact match if not found, then the HLookup function will look for the next largest value that is less than *value*.

Note:

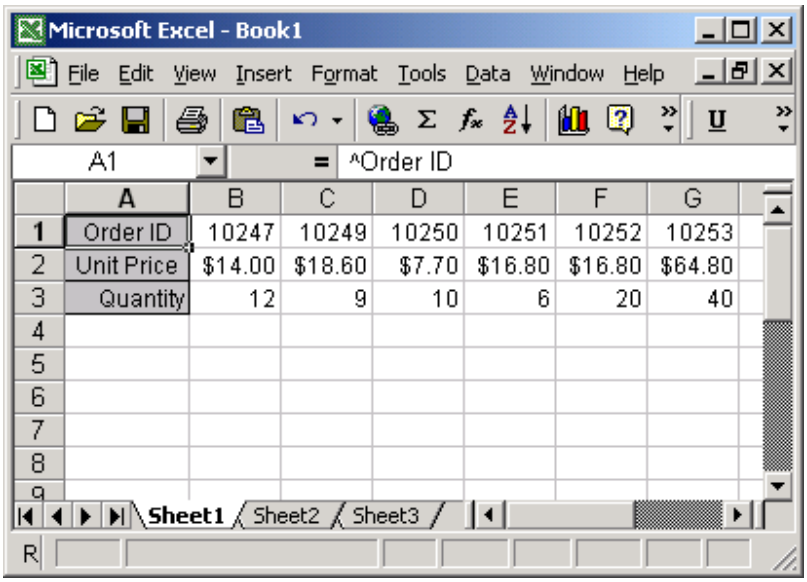
If *index_number* is less than 1, the HLookup function will return #VALUE!.

If *index_number* is greater than the number of columns in *table_array*, the HLookup function will return #REF!.

If you enter FALSE for the *not_exact_match* parameter and no exact match is found, then the HLookup function will return #N/A.

For example:

Let's take a look at an example:



	A	B	C	D	E	F	G
1	Order ID	10247	10249	10250	10251	10252	10253
2	Unit Price	$14.00	$18.60	$7.70	$16.80	$16.80	$64.80
3	Quantity	12	9	10	6	20	40
4							
5							
6							
7							
8							
9							

Based on the Excel spreadsheet above:

=HLookup(10251, A1:K3, 2, FALSE)	would return $16.80
=HLookup(10251, A1:K3, 3, FALSE)	would return 6
=HLookup(10248, A1:K3, 2,	would return #N/A

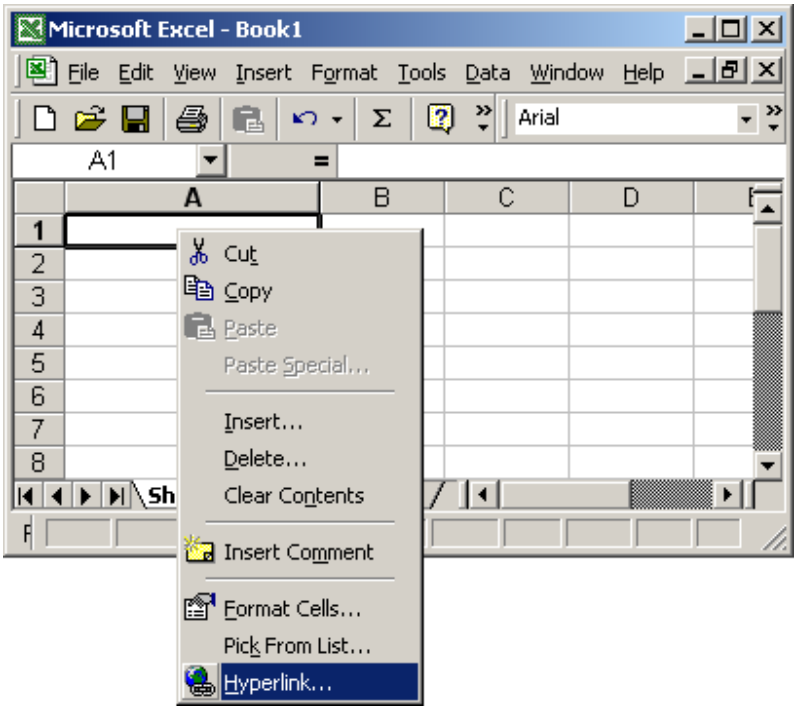
FALSE)

=HLookup(10248, A1:K3, 2, TRUE) would return $14.00

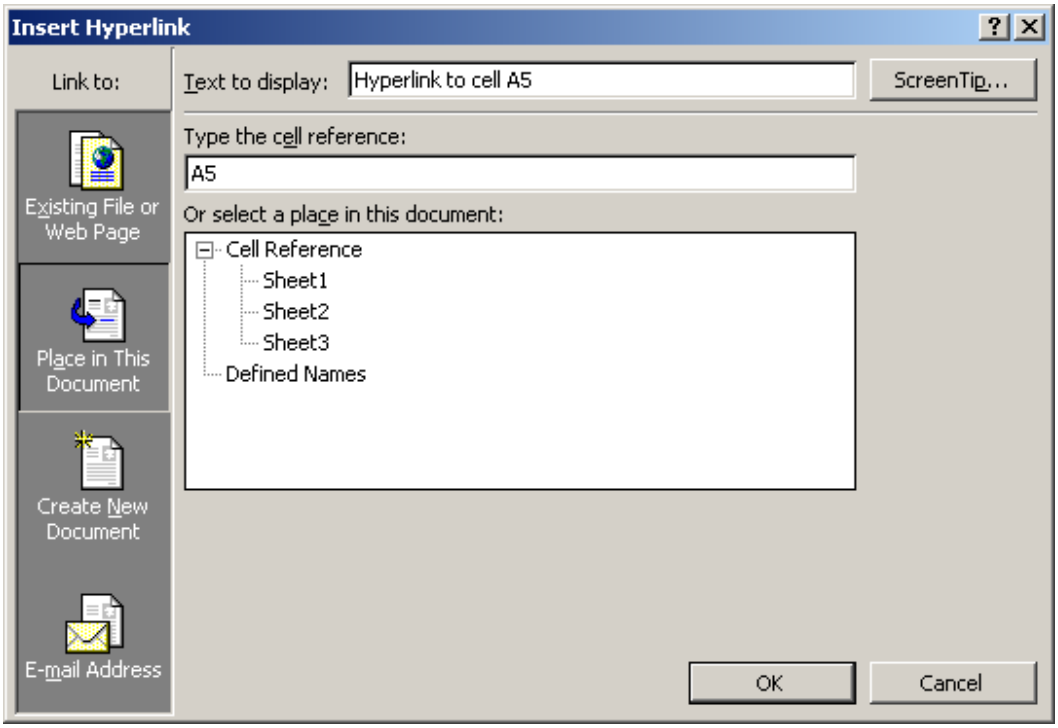
Excel: Create a hyperlink to another cell

Question: I want to create a hyperlink in Excel. How do I specify a particular location that a hyperlink should point to?

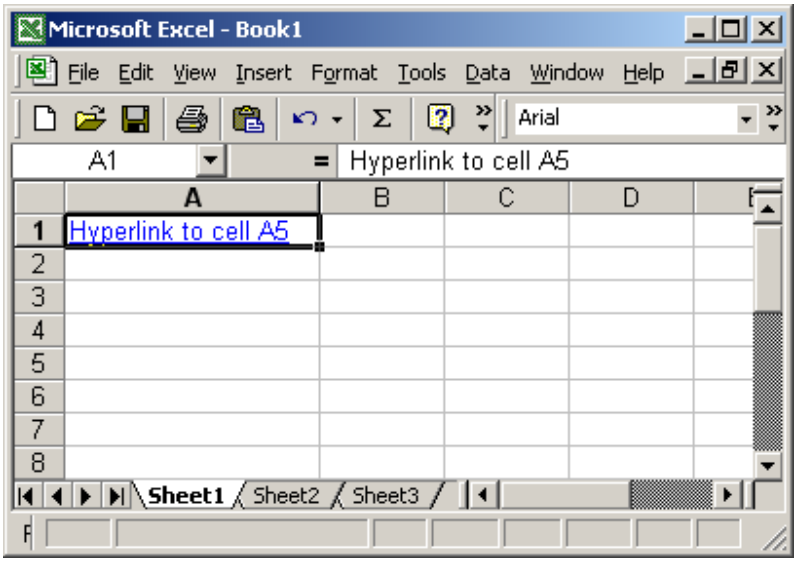
Answer: To create a hyperlink to another cell in your spreadsheet, right click on the cell where the hyperlink should go. Select Hyperlink from the popup menu.



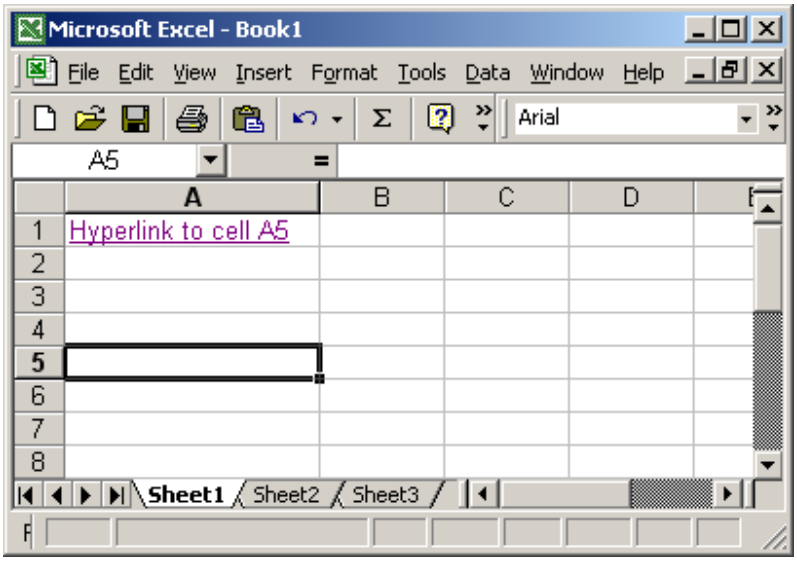
When the *Insert Hyperlink* window appears, click on the "Place In This Document" on the left. Enter the text to display. In this example, we've entered "Hyperlink to cell A5". This is the value that will be displayed in Excel.
Next enter the cell reference that the hyperlink points to. We've chosen to link to cell A5. Click the OK button.



Now when you return to the spreadsheet, you should see the hyperlink.

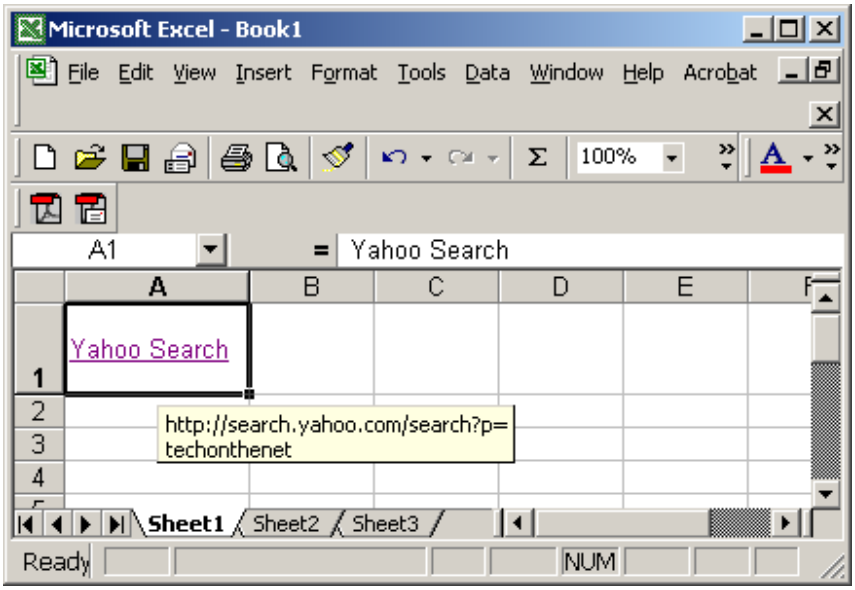


If you click on the hyperlink, your active cell should become cell A5.



Excel: Extract hyperlink address(web addresses ONLY)

Question: I've downloaded a table from the web with hyperlink references into Excel. What I need to do is examine the hypertext link and extract a small part of that link. All I seem to get is the details of the link in a pop up box (yellow) and any attempt to filter out detail only results in the display of the destination ?
Is there a way I can examine a hyperlink details without invoking the hyperlink?



Answer: Below is a function that you can include in your spreadsheet to extract the hyperlink address from a cell in Excel.

```
Function HyperLinkText(pRange As Range) As String

    Dim ST1 As String
    Dim ST2 As String

    If pRange.Hyperlinks.Count = 0 Then
      Exit Function
    End If

    ST1 = pRange.Hyperlinks(1).Address
    ST2 = pRange.Hyperlinks(1).SubAddress

    If ST2 <> "" Then
      ST1 = "[" & ST1 & "]" & ST2
    End If

    HyperLinkText = ST1
```

End Function

Then you can reference this new function in your spreadsheet.
For example in cell B1, you could enter the following:

=HyperLinkText(A1)

Excel: Extract hyperlink address (files and web addresses)

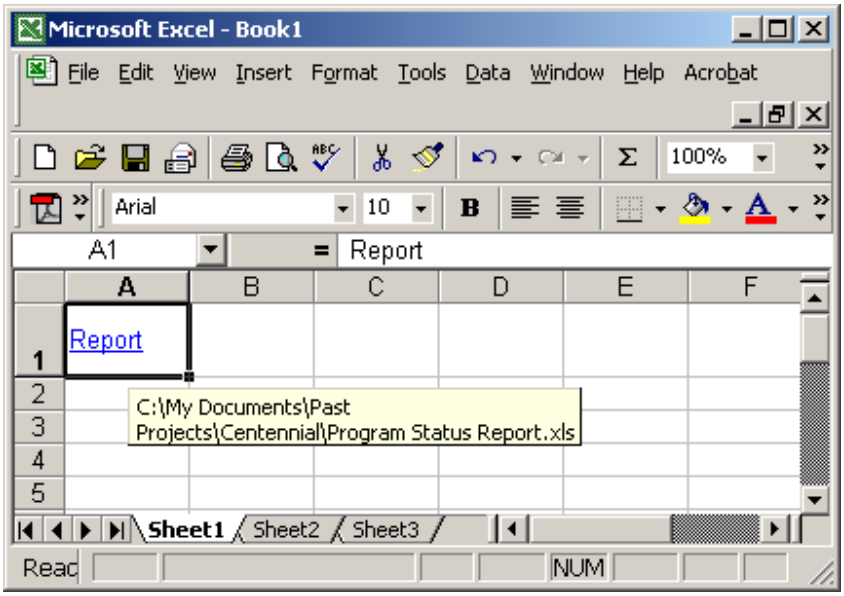
Question: I have an Excel spreadsheet that contains hyperlink addresses to files. I tried extracting the hyperlink address for these files, however I'm not getting the complete Address. The complete Address should be:

C:\My Documents\Past Projects\Centennial\Program Status Report.xls

But I only get:

\..\..\Past Projects\Centennial\Program Status Report.xls

Is there a way to always get the complete hyperlink address?



Answer: Below are two functions that you can include in your spreadsheet to extract the complete hyperlink address for either a **file** or a **web address**.

```
Function HyperLinkText(pRange As Range) As String

    Dim ST1      As String
    Dim ST2      As String
    Dim LPath    As String
    Dim ST1Local As String

    If pRange.Hyperlinks.Count = 0 Then
        Exit Function
    End If

    LPath = ThisWorkbook.FullName

    ST1 = pRange.Hyperlinks(1).Address
    ST2 = pRange.Hyperlinks(1).SubAddress

    If Mid(ST1, 1, 15) = "..\..\..\..\..\" Then
```

```
        ST1Local = ReturnPath(LPath, 5) & Mid(ST1,
    15)
    ElseIf Mid(ST1, 1, 12) = "..\..\..\..\" Then
        ST1Local = ReturnPath(LPath, 4) & Mid(ST1,
    12)
    ElseIf Mid(ST1, 1, 9) = "..\..\..\" Then
        ST1Local = ReturnPath(LPath, 3) & Mid(ST1, 9)
    ElseIf Mid(ST1, 1, 6) = "..\..\" Then
        ST1Local = ReturnPath(LPath, 2) & Mid(ST1, 6)
    ElseIf Mid(ST1, 1, 3) = "..\" Then
        ST1Local = ReturnPath(LPath, 1) & Mid(ST1, 3)
    Else
        ST1Local = ST1
    End If

    If ST2 <> "" Then
       ST1Local = "[" & ST1Local & "]" & ST2
    End If

    HyperLinkText = ST1Local

End Function


Function ReturnPath(pAppPath As String, pCount As Integer) As
String

    Dim LPos    As Integer
    Dim LTotal  As Integer
    Dim LLength As Integer
```

```
    LTotal = 0
    LLength = Len(pAppPath)

    Do Until LTotal = pCount + 1
        If Mid(pAppPath, LLength, 1) = "\" Then
           LTotal = LTotal + 1
        End If
        LLength = LLength - 1
    Loop

    ReturnPath = Mid(pAppPath, 1, LLength)

End Function
```

Then you can reference these new functions in your spreadsheet.
For example in cell B1, you could enter the following:

```
=HyperLinkText(A1)
```

Excel: Delete all hyperlinks on a sheet

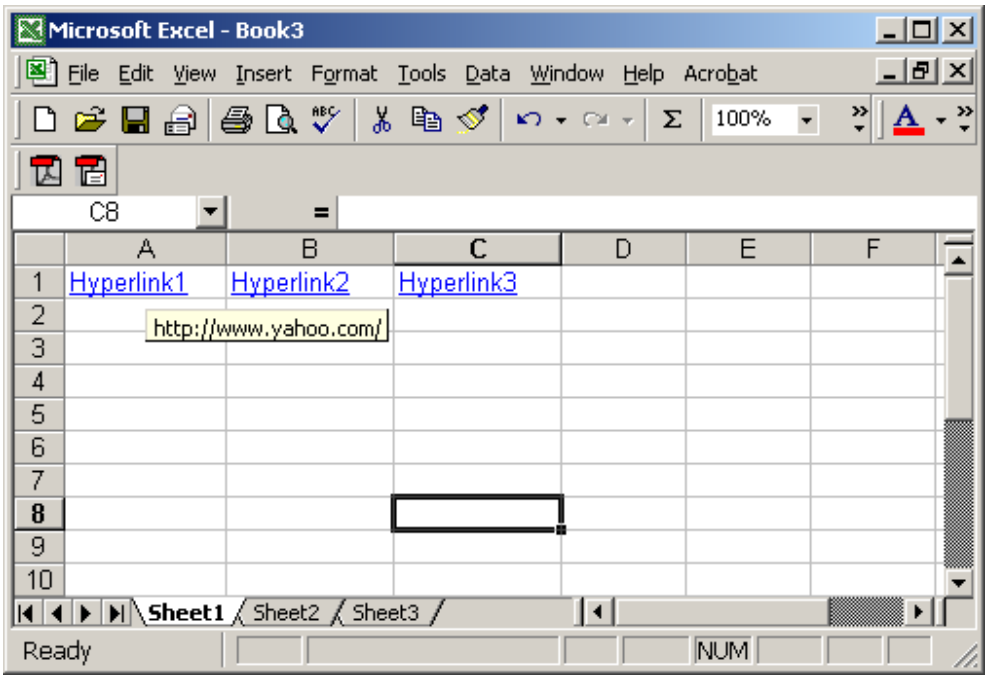
Question: I've had a hyperlink problem in my Excel files for ages: false hyperlinks had crept in (even in empty cells) and were multiplying regularly whenever I inserted new lines. How can I delete all hyperlinks in a sheet at once and not have to delete them cell by cell?

Answer: You will need to create a macro to delete the hyperlink addresses in your Excel sheet.

Open your Excel spreadsheet that you wish to remove the hyperlinks from. Press <ALT>-F11 to go to the Visual Basic editor. Create a new module. You can do this by selecting *Module* under the *Insert* menu.
Paste the following code into your new module:

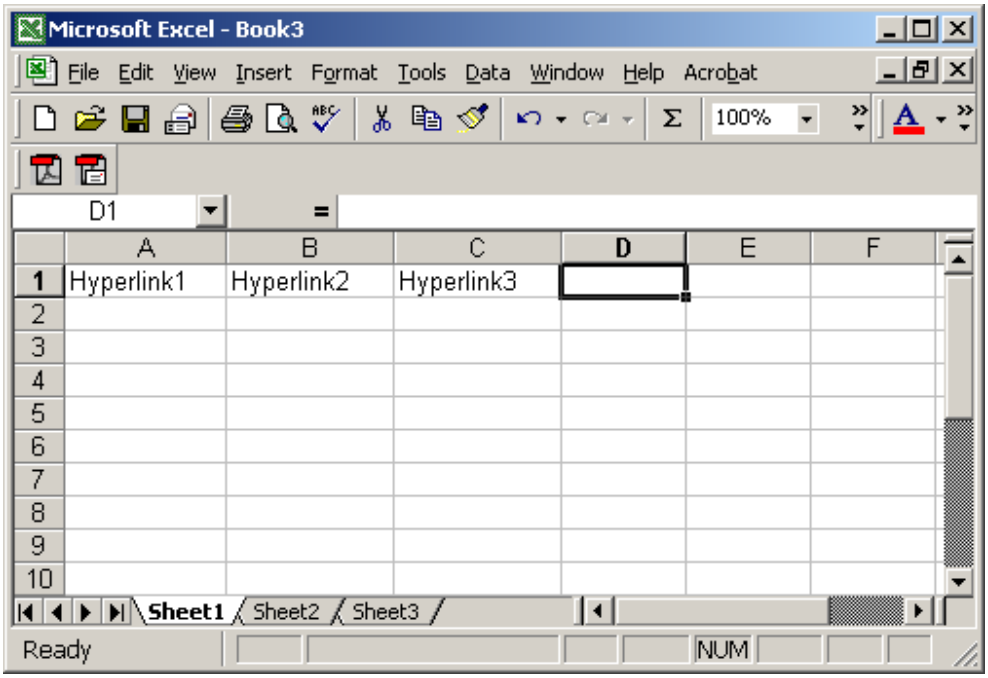
```
Sub RemoveHyperlinks()

    'Remove all hyperlinks from the active sheet
    ActiveSheet.Hyperlinks.Delete

End Sub
```

Close the Visual Basic editor window by selecting "Close and Return to Microsoft Excel" under the *File* menu.
Now, go to the sheet that contains the hyperlinks that you wish to delete. Here is an example of a sheet with multiple hyperlink addresses:



Under the Tools menu, select Macro > Macros. Highlight the macro called "RemoveHyperlinks" and click on the Run button.

Now your hyperlinks should be deleted as you can see by the example below:



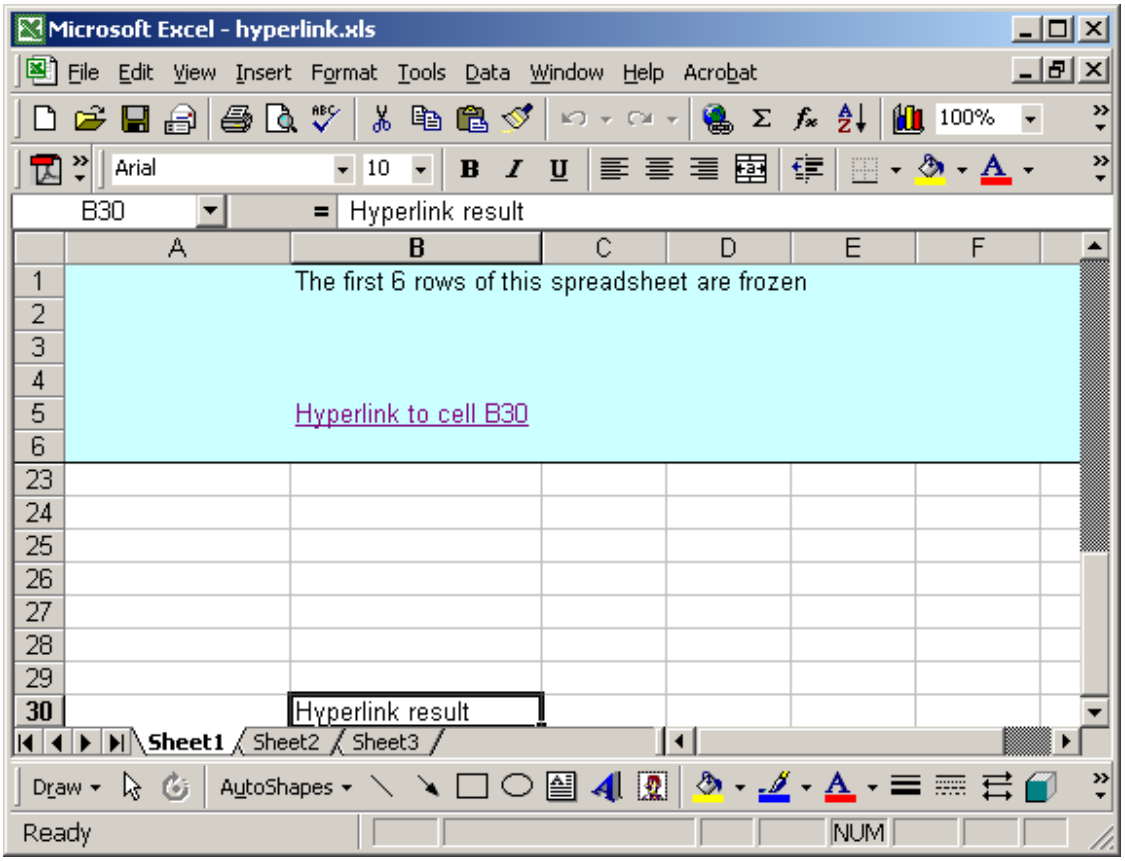
If you need to remove hyperlinks from other sheets, just repeat the steps above.

Excel: View hyperlink result at top of viewing area

Question: I have an Excel worksheet that has the first 6 rows frozen. In the first 6 rows, I have hyperlinks to different cells in column B. When I click the hyperlinks, Excel tends to show the cell at the bottom of the viewing page.
I want the cell that the hyperlink refers to be displayed in the next row after the frozen rows. Can this be done?

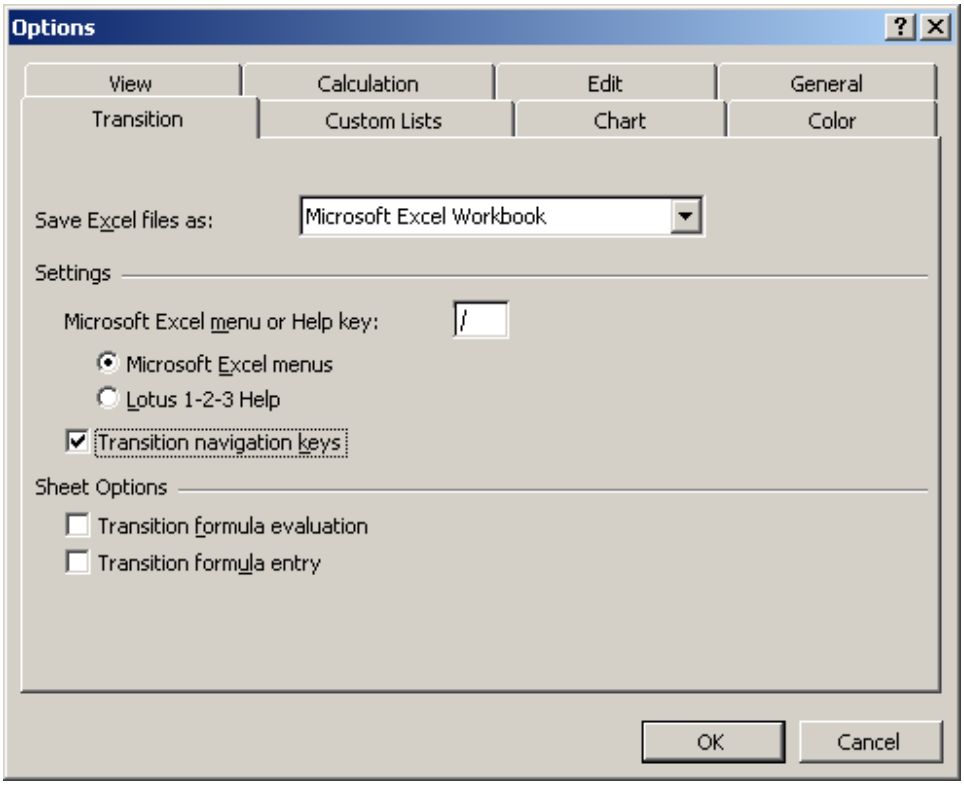
Answer: Let's take a look at an example.

Below, we have an Excel spreadsheet with the first 6 rows hidden. In cell B5, we've created a hyperlink to cell B30. When we click on the hyperlink in cell B5, the spreadsheet looks as follows:

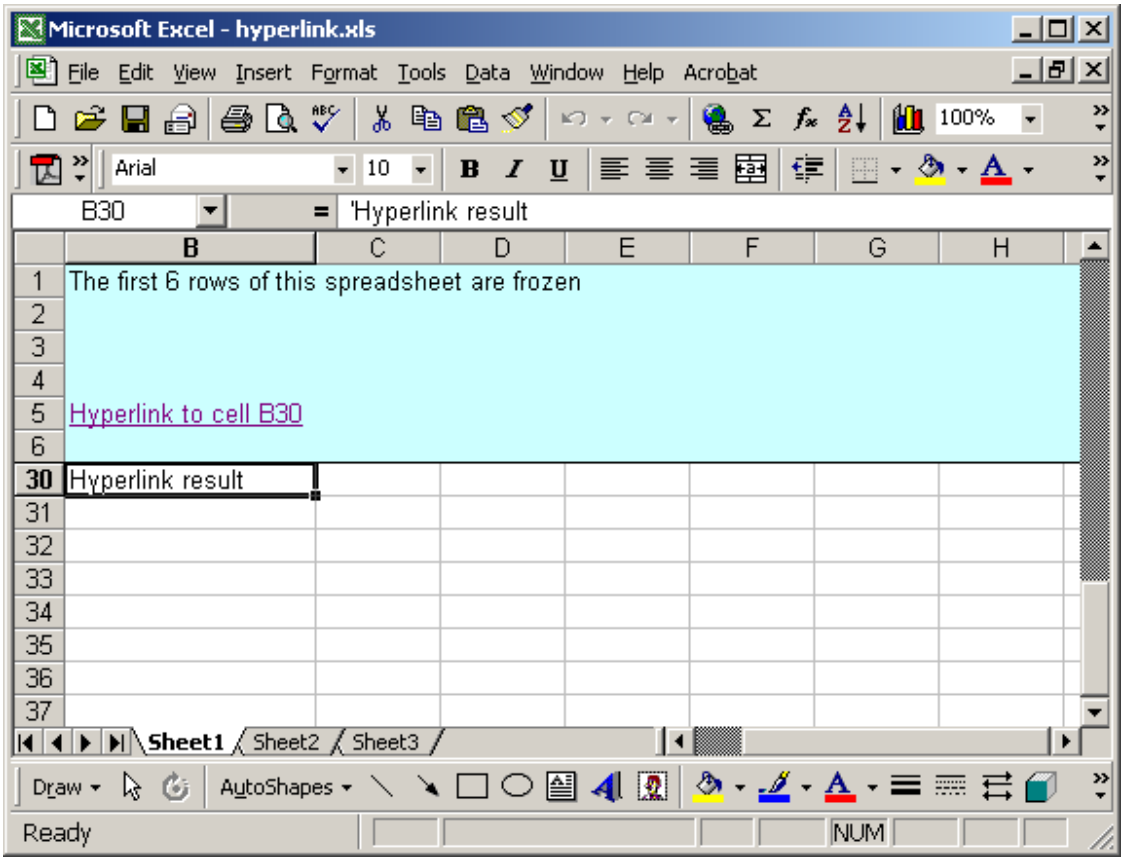


The hyperlink is at the bottom of the viewing area in the spreadsheet. We want to see row 30 directly under row 6.

To fix this, select Options under the Tools menu. When the Options window appears, click on the Transition tab. Then select the option called "Transition navigation keys". Click on the OK button.



Now when you click on the hyperlink in cell B5, your spreadsheet should look as follows:



Excel: Update cell based on hyperlink selected

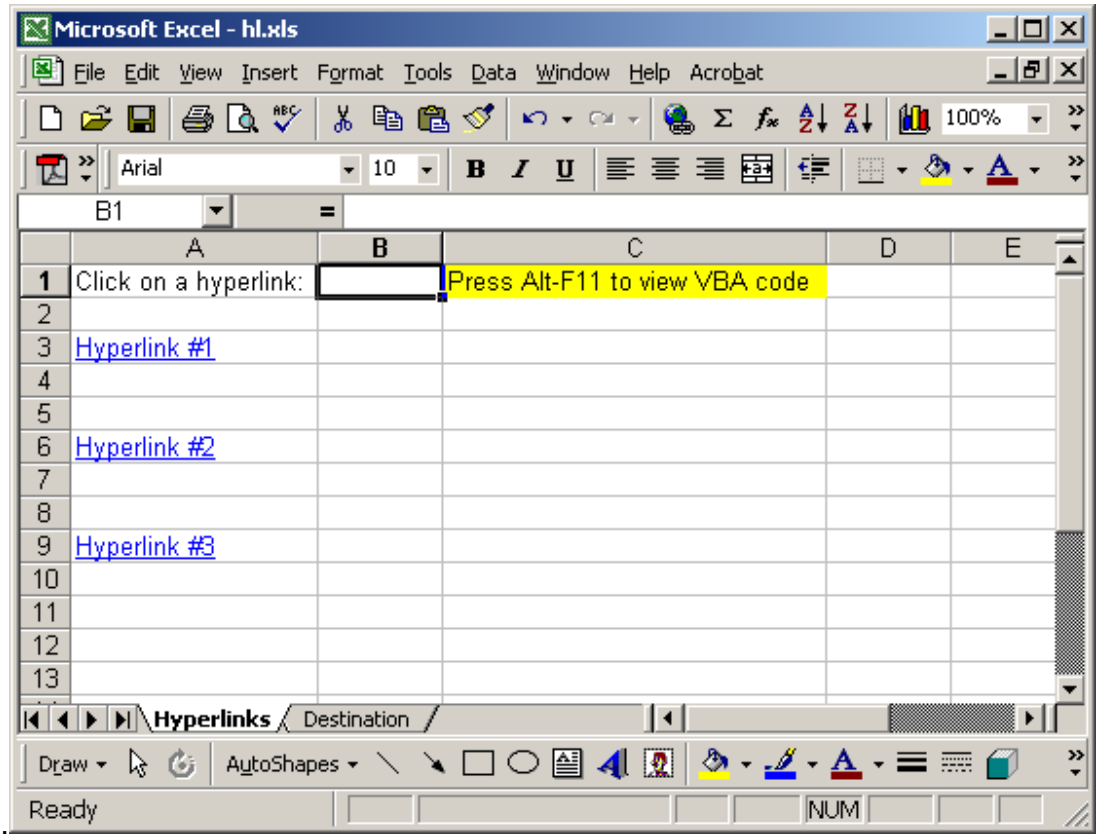
Question: I have created a hyperlink from one worksheet to another within the same file. But when the linked worksheet is pulled up, I want to populate the designated field with some text. The text will change depending on the hyperlink selected, but all the links will connect to the same worksheet and the same field. The field I am wanting to populate controls numerous lookup functions.
HELP!! Can this be done?

Answer: Yes, this can be done by utilizing macros on two Excel workbook "events".

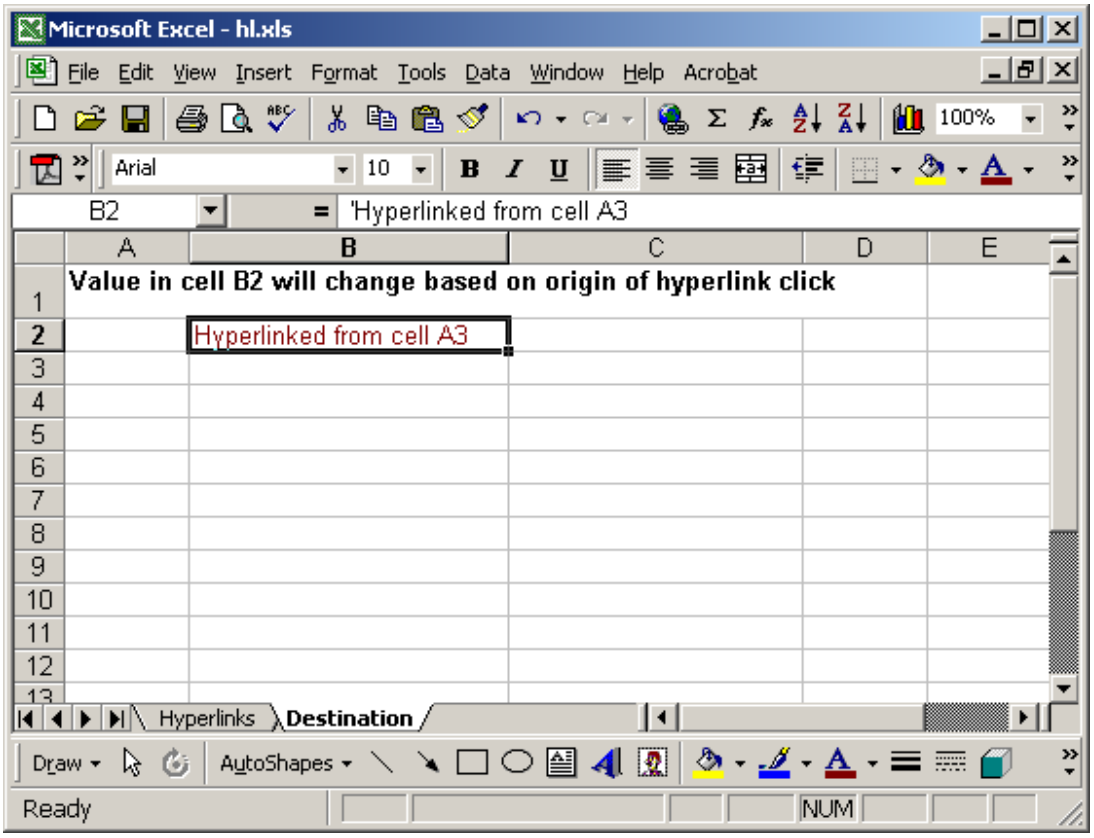
Let's take a look at an example.

Download Excel spreadsheet (as demonstrated below)

In our spreadsheet, there are two sheets called Hyperlinks and Destination. The Hyperlinks sheet contains three hyperlinks in cell A3, A6, and A9. All three hyperlinks point to cell B2 in the Destination sheet



When a hyperlink is clicked, the Destination sheet is activated and cell B2 will display text showing which hyperlink was selected. In our example below, we've selected "Hyperlink #1" in cell A3.



You can view the macros by pressing Alt-F11 and double-clicking on the *ThisWorkbook* object in the left window.

There are three components to this solution:

1. There is a global variable called GSourceCell which contains the cell reference when the hyperlink was selected.
2. There is a workbook event called "SheetSelectionChanged". When this event fires, the GSourceCell variable will be populated
3. There is a workbook event called "SheetFollowHyperlink". When this event fires, cell B2 in the Destination sheet will be populated with text.

Macro Code:

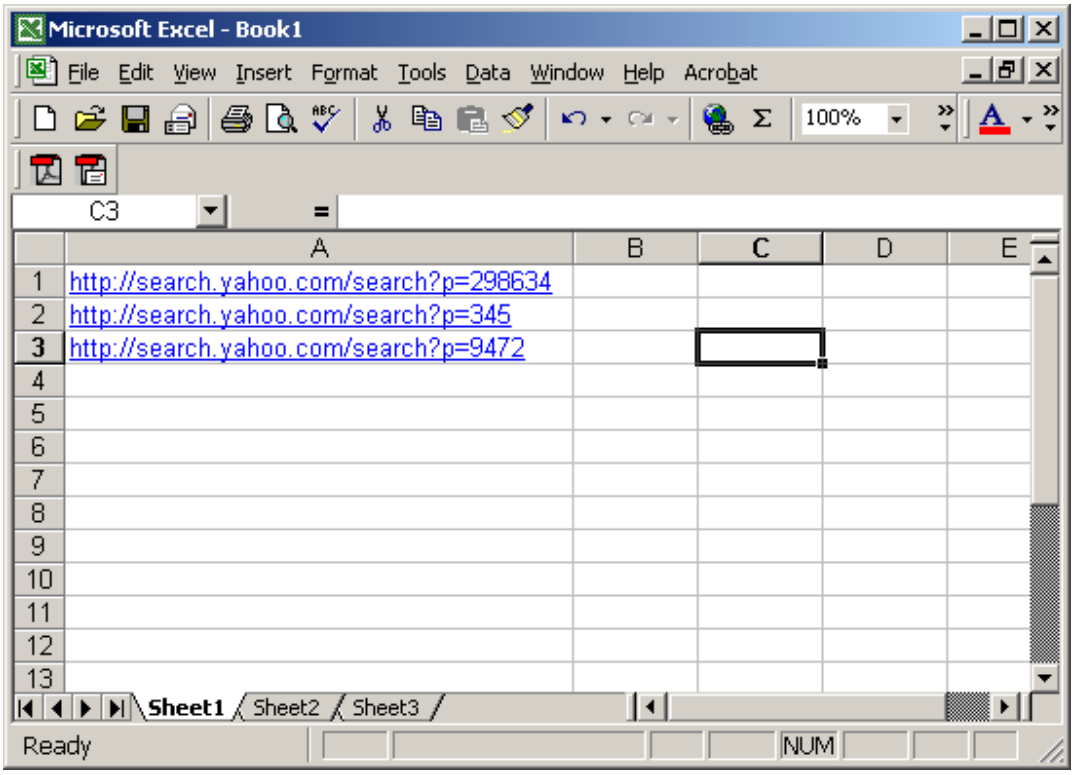
The macro code looks like this:

```
Private Sub Workbook_SheetFollowHyperlink(ByVal Sh As Object,
ByVal Target As Hyperlink)

   'Update cell B2 in Destination sheet based on the origin of
hyperlink
   If Sh.Name = "Hyperlinks" Then
      If GSourceCell = "A3" Then
         Sheets("Destination").Range("B2").Value = "Hyperlinked
from cell A3"
      ElseIf GSourceCell = "A6" Then
         Sheets("Destination").Range("B2").Value = "Hyperlinked
from cell A6"
      ElseIf GSourceCell = "A9" Then
         Sheets("Destination").Range("B2").Value = "Hyperlinked
from cell A9"
      Else
         Sheets("Destination").Range("B2").Value = ""
      End If
   End If

End Sub


Private Sub Workbook_SheetSelectionChange(ByVal Sh As
Object, ByVal Target As Range)

   If Sh.Name = "Hyperlinks" Then
      'Capture last active cell on Hyperlinks worksheet and store in
global variable
      GSourceCell = Target.Address(False, False)
   End If
```

End Sub

Excel: Filter final series of numbers in hyperlink address

Question: I've downloaded a table from the web with hyperlink references into Excel. I need to filter out the final series of numbers for each hyperlink address and put them as a number in a column. How can I do this?



Answer: Below is a function that you can include in your spreadsheet to filter the final series of numbers in a hyperlink address in Excel.

```
Function FinalNumberSeries(pCell) As Long
```

```
    Dim LChar As String
    Dim LLength As Integer
    Dim LStart As Integer
    Dim LExit As Boolean

    LLength = Len(pCell)
    LStart = LLength
    LExit = False

    'Search backwards through the string until a non-
    numeric
    'character is found
    Do Until LExit = True
      LChar = Mid(pCell, LStart, 1)

      If IsNumeric(LChar) = False Then
        LExit = True
      ElseIf LStart = 1 Then
        LExit = True
    End If

    LStart = LStart - 1
    Loop

    FinalNumberSeries = Mid(pCell, LStart + 2)

End Function
```

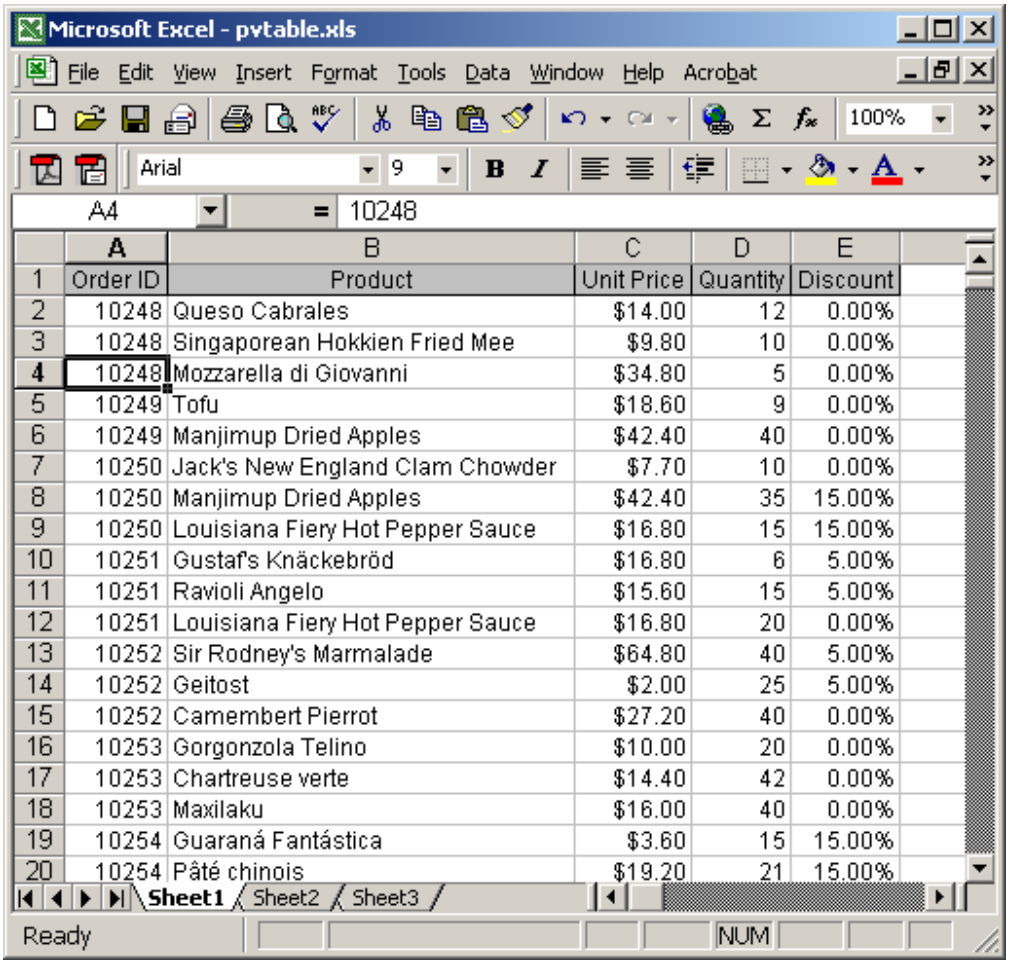
Then you can reference this new function in your spreadsheet.
For example in cell B1, you could enter the following:

=FinalNumberSeries(A1)

Excel: Create a pivot table

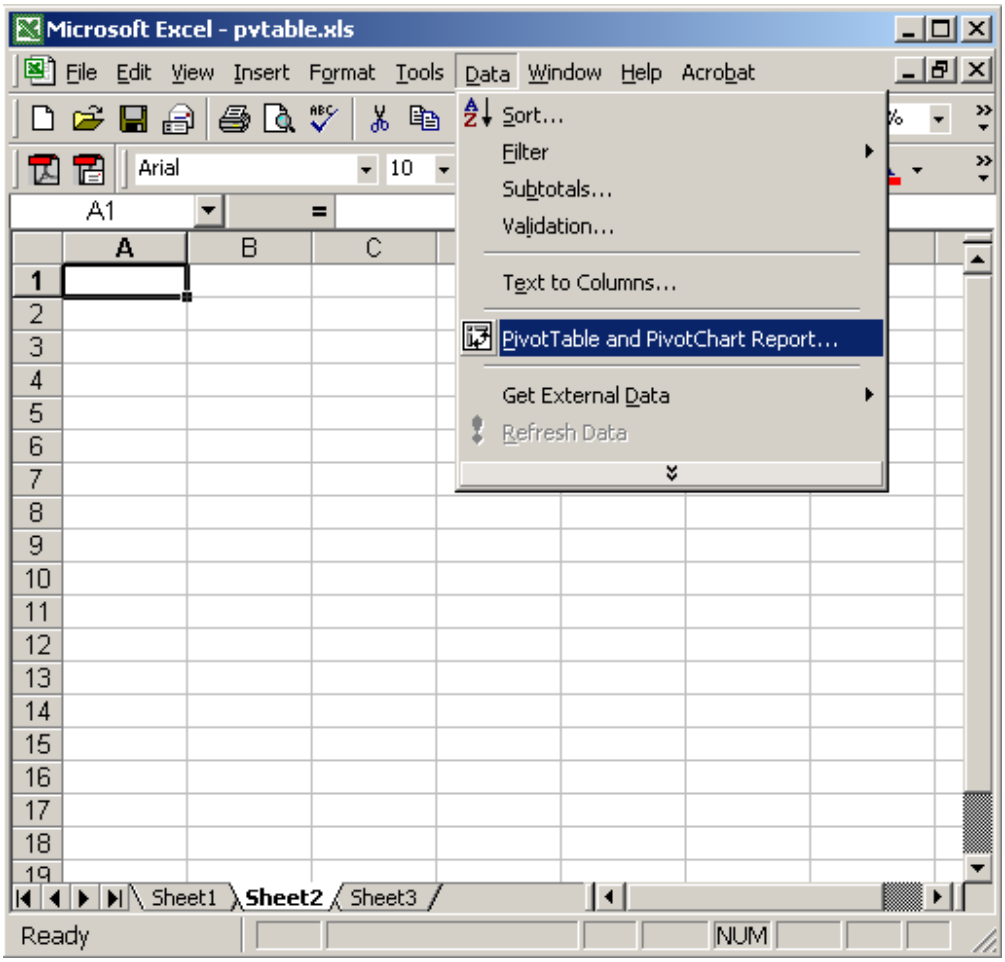
Question: How do I create a pivot table in Excel?

Answer: We'll start by creating a very simple pivot table. The example that follows has been done in Excel 2000, so the screen may look different if you are using a different version of Excel. Either way, it will give you a basic understanding of pivot tables.
First, our data that we want to use to populate the pivot table resides on Sheet1.

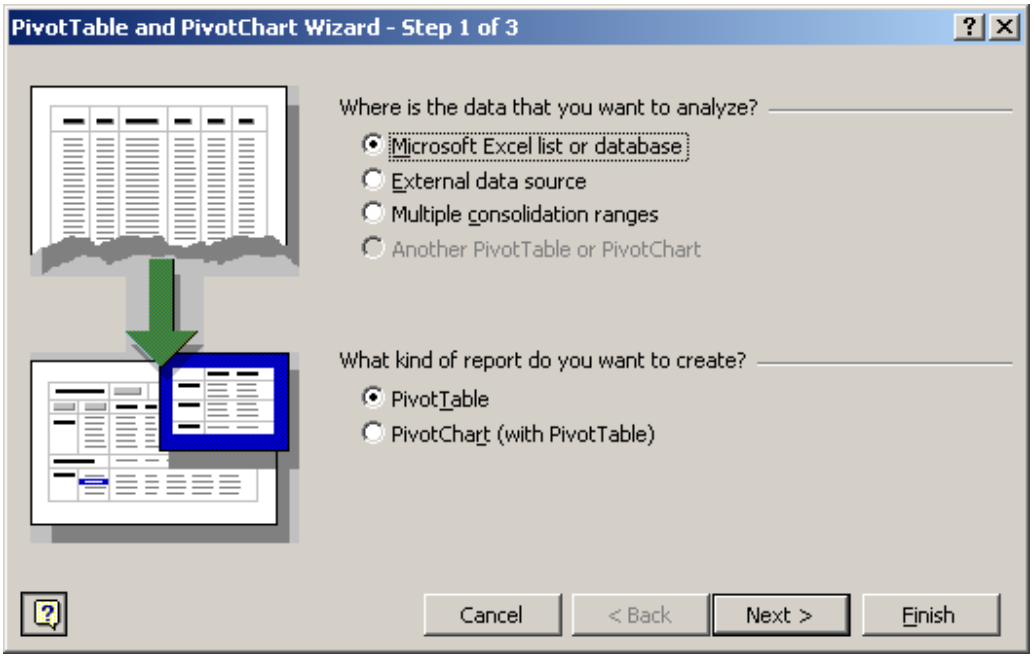


	A	B	C	D	E
1	Order ID	Product	Unit Price	Quantity	Discount
2	10248	Queso Cabrales	$14.00	12	0.00%
3	10248	Singaporean Hokkien Fried Mee	$9.80	10	0.00%
4	10248	Mozzarella di Giovanni	$34.80	5	0.00%
5	10249	Tofu	$18.60	9	0.00%
6	10249	Manjimup Dried Apples	$42.40	40	0.00%
7	10250	Jack's New England Clam Chowder	$7.70	10	0.00%
8	10250	Manjimup Dried Apples	$42.40	35	15.00%
9	10250	Louisiana Fiery Hot Pepper Sauce	$16.80	15	15.00%
10	10251	Gustaf's Knäckebröd	$16.80	6	5.00%
11	10251	Ravioli Angelo	$15.60	15	5.00%
12	10251	Louisiana Fiery Hot Pepper Sauce	$16.80	20	0.00%
13	10252	Sir Rodney's Marmalade	$64.80	40	5.00%
14	10252	Geitost	$2.00	25	5.00%
15	10252	Camembert Pierrot	$27.20	40	0.00%
16	10253	Gorgonzola Telino	$10.00	20	0.00%
17	10253	Chartreuse verte	$14.40	42	0.00%
18	10253	Maxilaku	$16.00	40	0.00%
19	10254	Guaraná Fantástica	$3.60	15	15.00%
20	10254	Pâté chinois	$19.20	21	15.00%

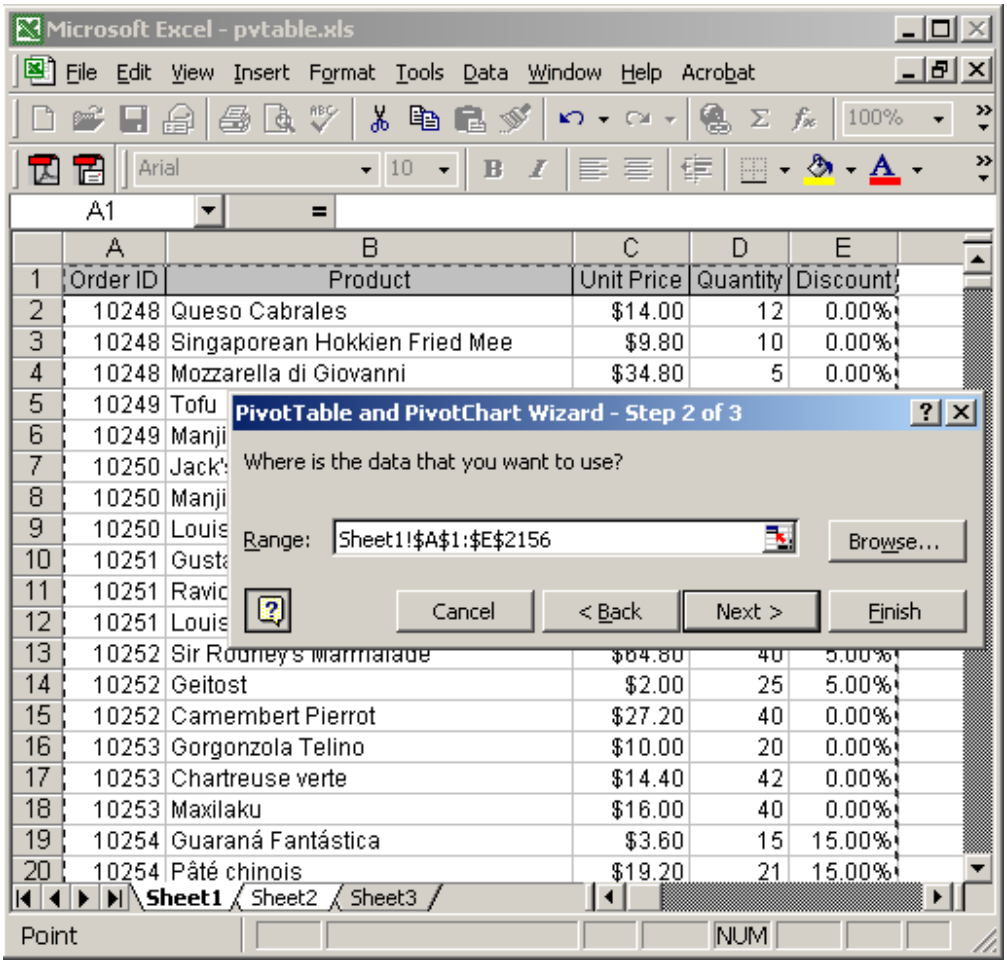
Under the Data menu, select "PivotTable and PivotChart Report".



A PivotTable wizard should appear. Make sure that the "Microsoft Excel list or database" and "PivotTable" options are chosen. Click on the Next button.

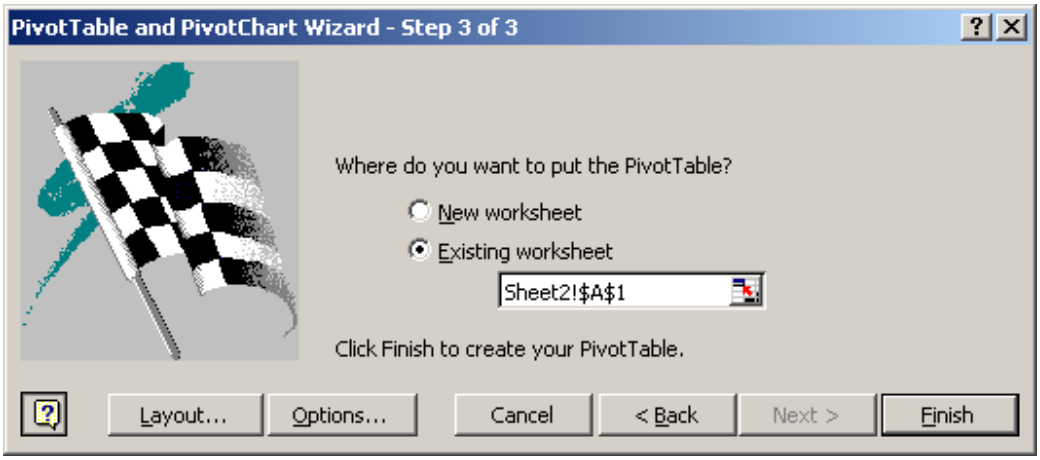


Select the range of data for the pivot table and click on the Next button. In this example, we've chosen data from Sheet1.



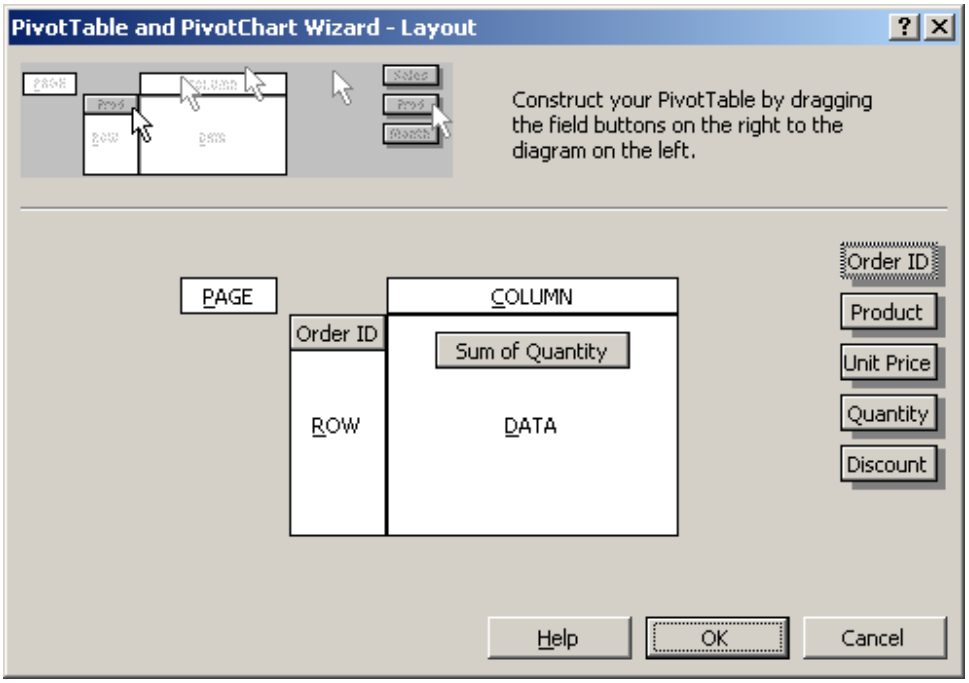
Select the position to create the new pivot table. It will automatically default to the cell that was highlighted when you started this process. In this example, we want to create our pivot table on Sheet2 in cell A1.

Click on the Layout button.

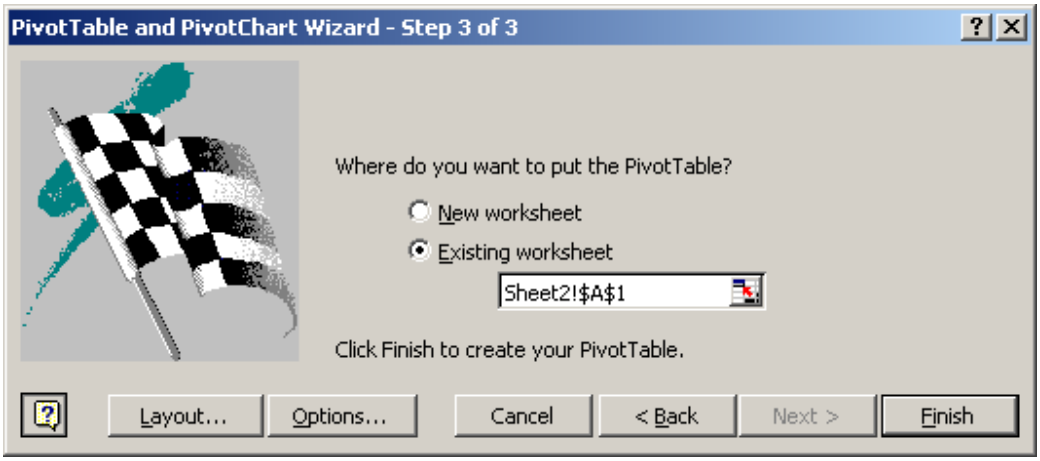


Now drag the fields that you want to appear in the Page, Row, Column, and Data sections of the pivot table. In this example, we've dragged the Order ID field to the Row section and the Quantity to the Data section.

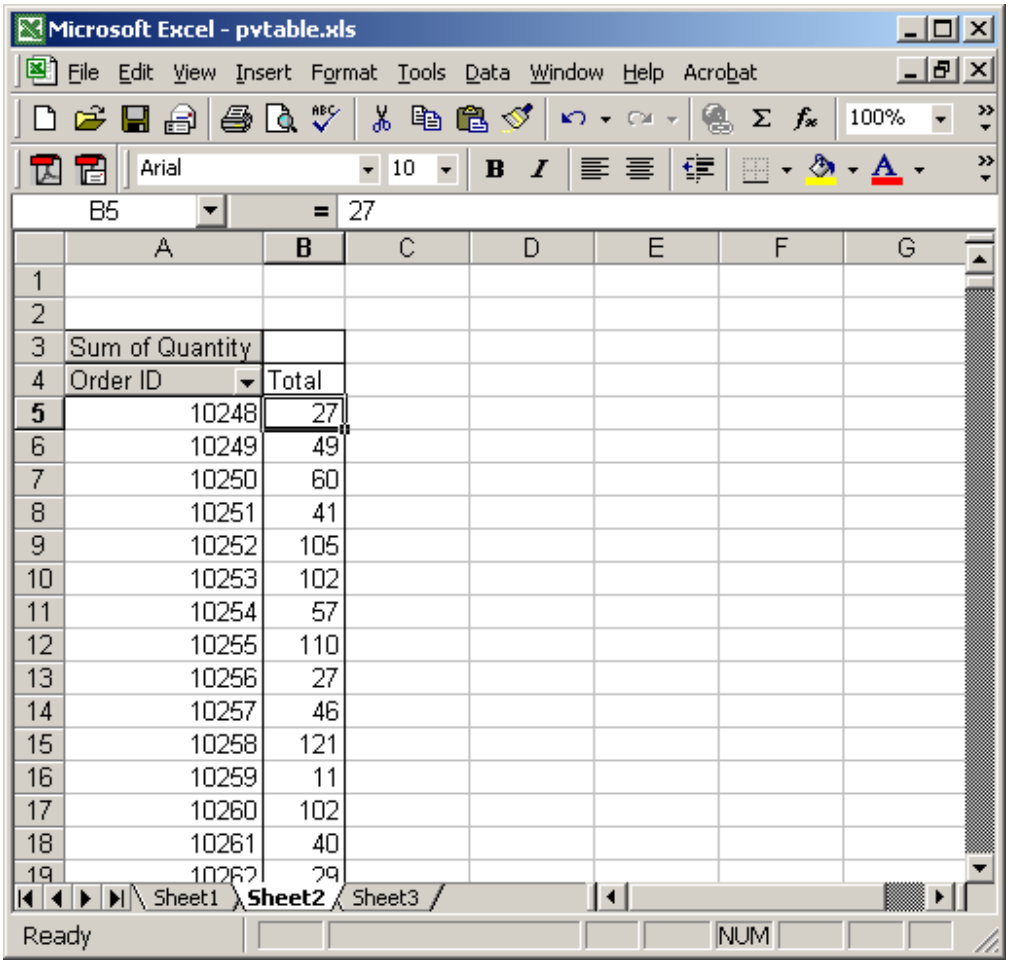
Click on the OK button to continue.



Now click on the Finish button.



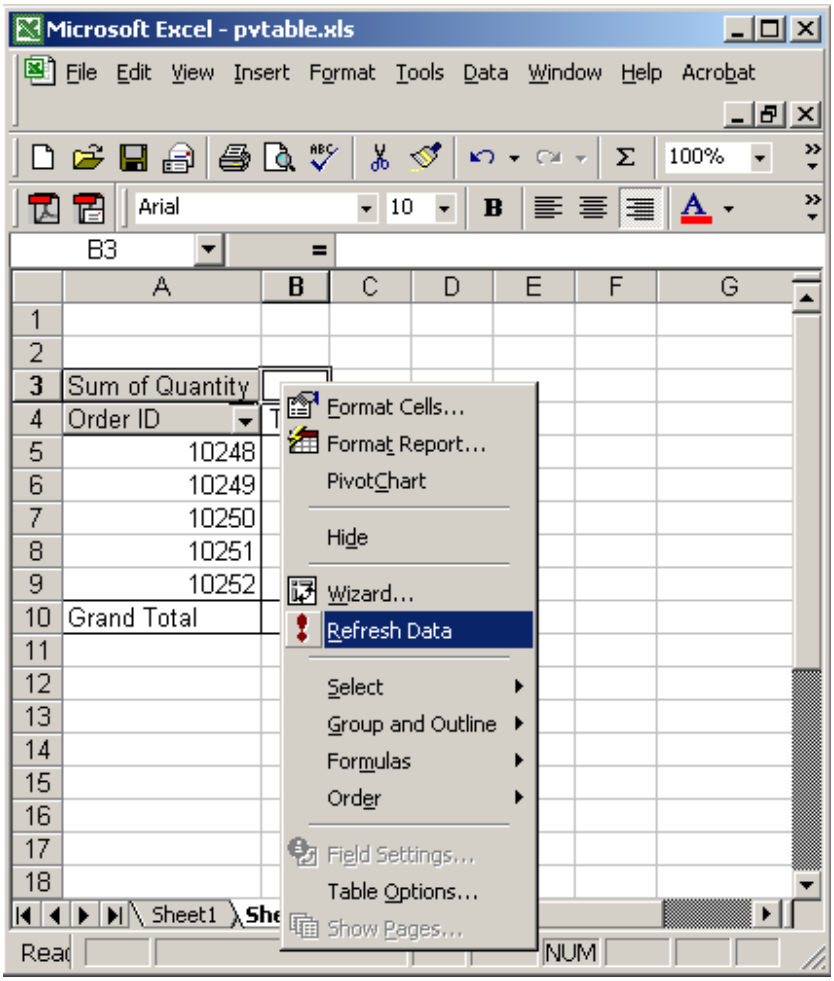
Your pivot table should now appear on Sheet2. What this pivot table displays is the total quantity for each order ID.



Excel: Refresh a pivot table

Question: How do I refresh a pivot table?

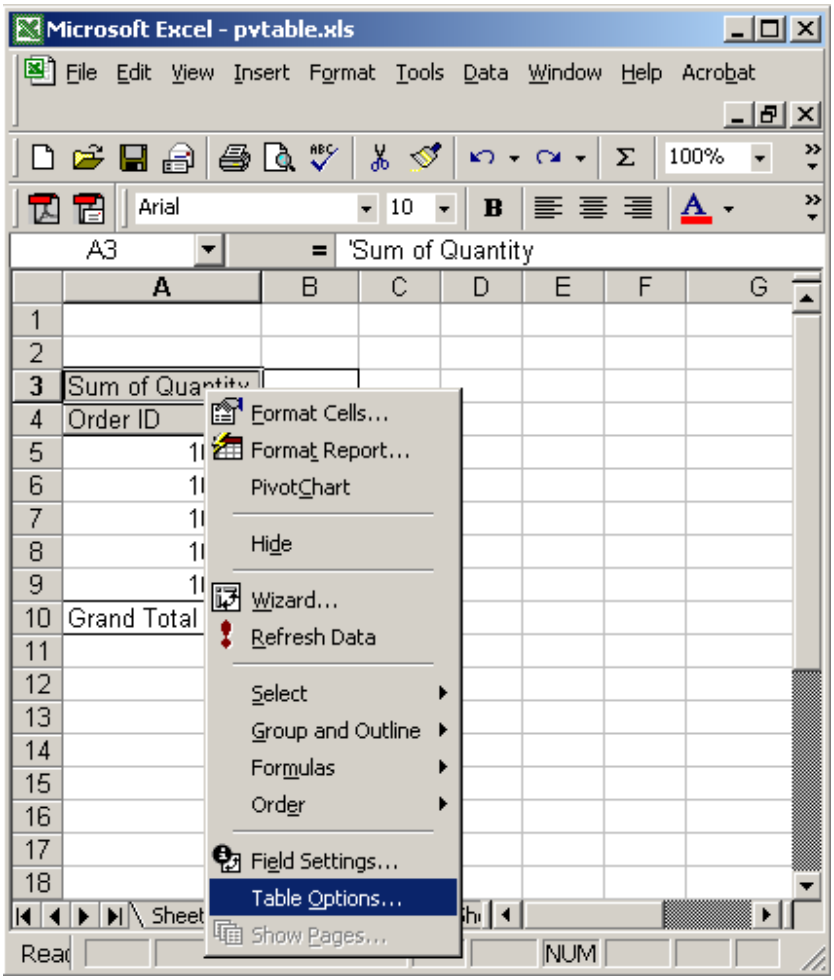
Answer: To refresh a pivot table in Excel, select a cell in the pivot table. Right-click and then select "Refresh Data" from the popup menu.



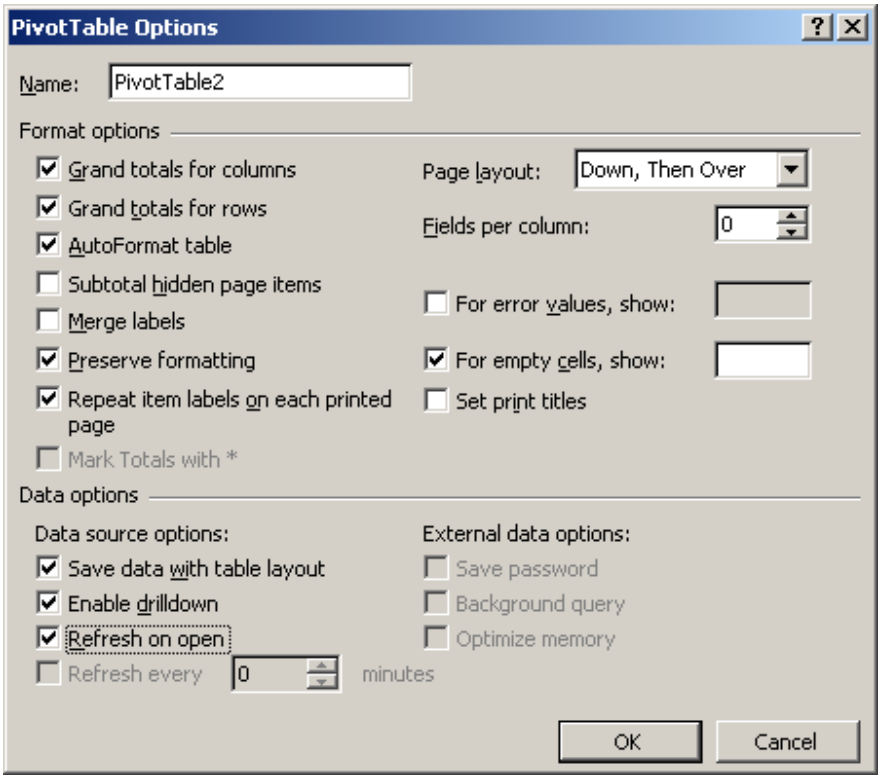
Excel: Automatically refresh pivot table when file is opened

Question: How do I get a pivot table to automatically refresh when the Excel spreadsheet is opened?

Answer: Select a cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



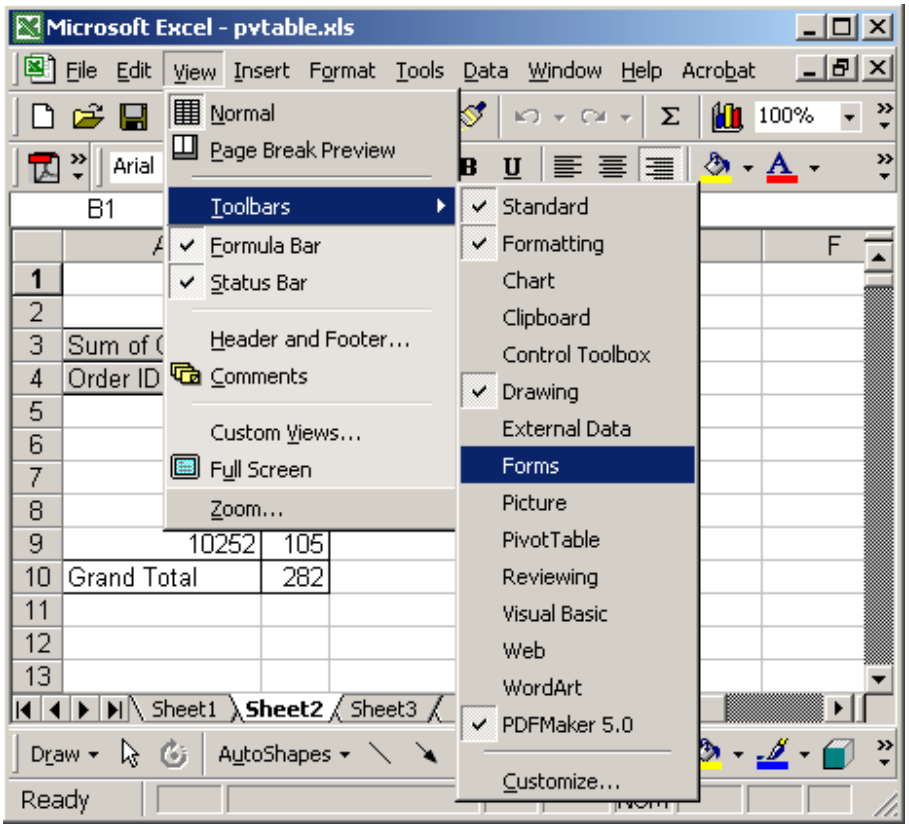
When the PivotTable Options window appears, check the checkbox called "Refresh on open". Click on the OK button.



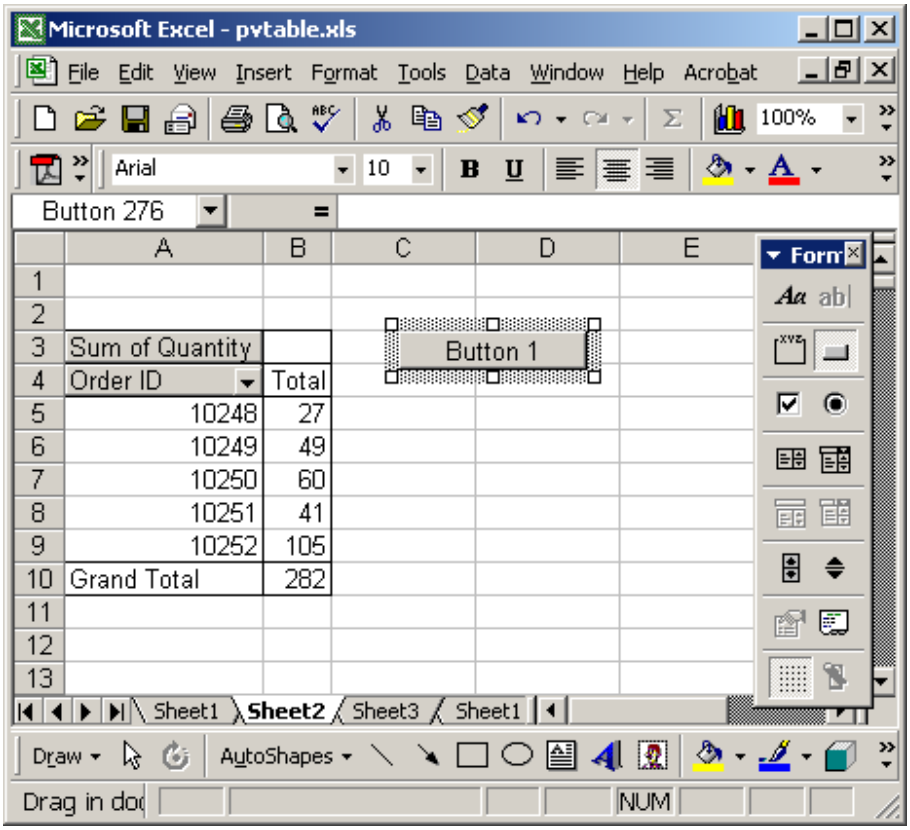
Excel: Refresh multiple pivot tables with a button

Question: Is it possible to create a button in Excel that will refresh/update multiple pivot tables?

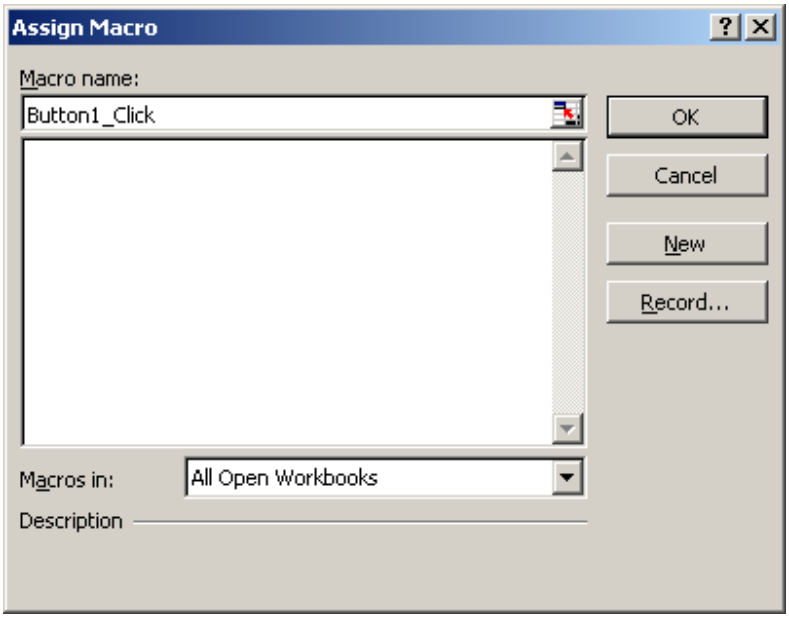
Answer: Yes, you can refresh multiple pivot tables with a button. To do this: Under the *View* menu, select Toolbars > Forms.



Create a button in your spreadsheet using the Forms toolbar. To do this, click on the button icon (currently highlighted in picture below) and click on your spreadsheet where you would like the button to appear.

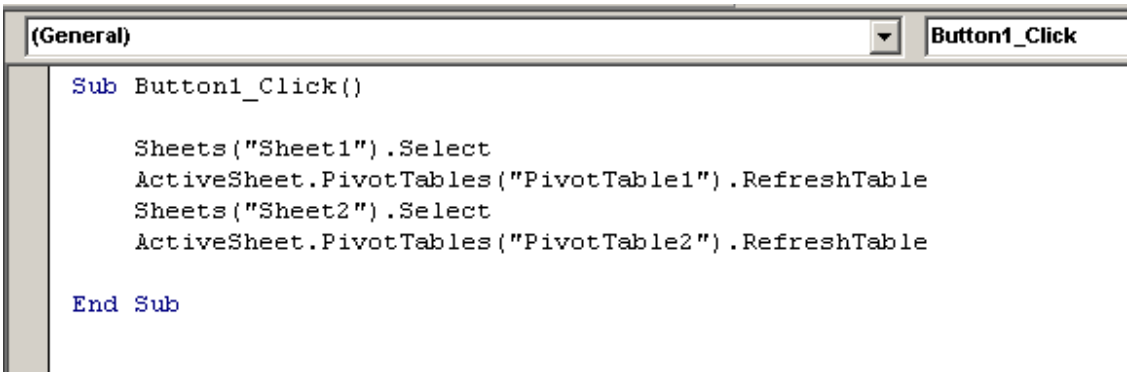


After creating the button, the *Assign Macro* window should appear. Click on the "New" button.



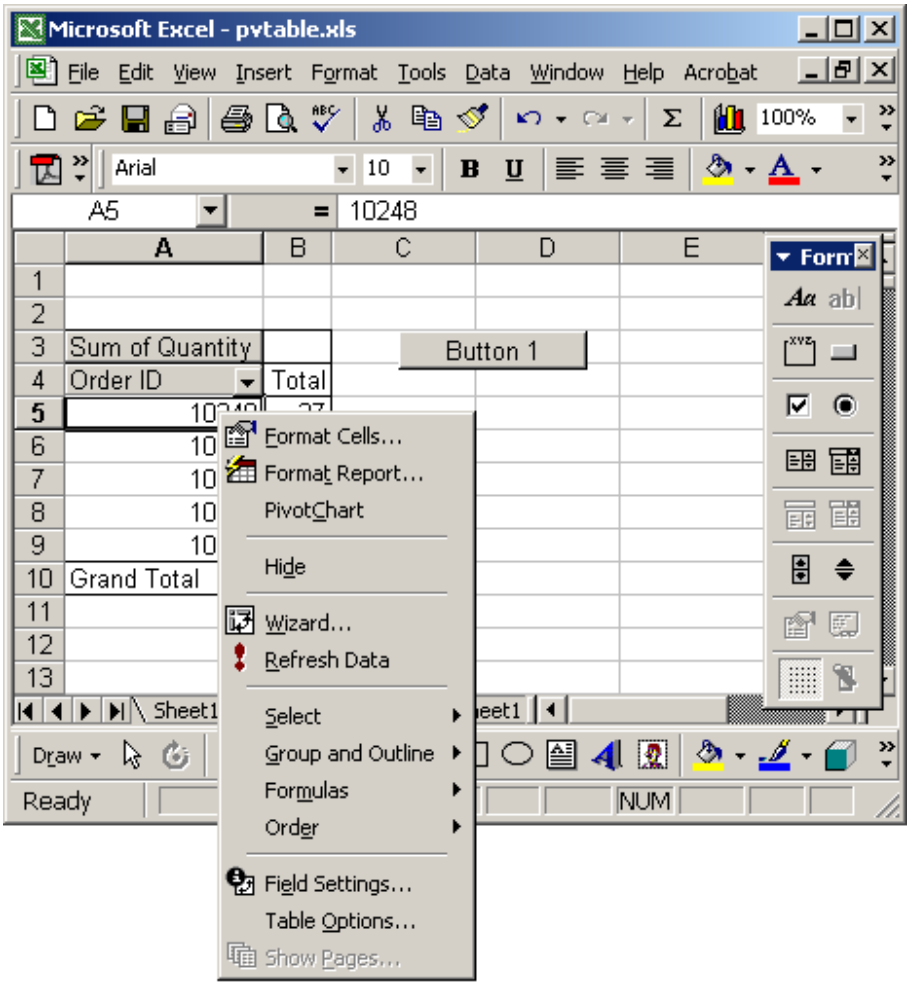
Then paste in similar code as below in the Button_Click event:

```
Sheets("Sheet1").Select
ActiveSheet.PivotTables("PivotTable1").RefreshTable
Sheets("Sheet2").Select
ActiveSheet.PivotTables("PivotTable2").RefreshTable
```



You will need to replace the Sheet1 and Sheet2 with the names of your sheets and PivotTable1 and PivotTable2 with the names of your pivot tables.

To find out the name of a pivot table, right-click on the pivot table and select *Table Options*.



Excel: Automatically refresh pivot table when data in a sheet changes

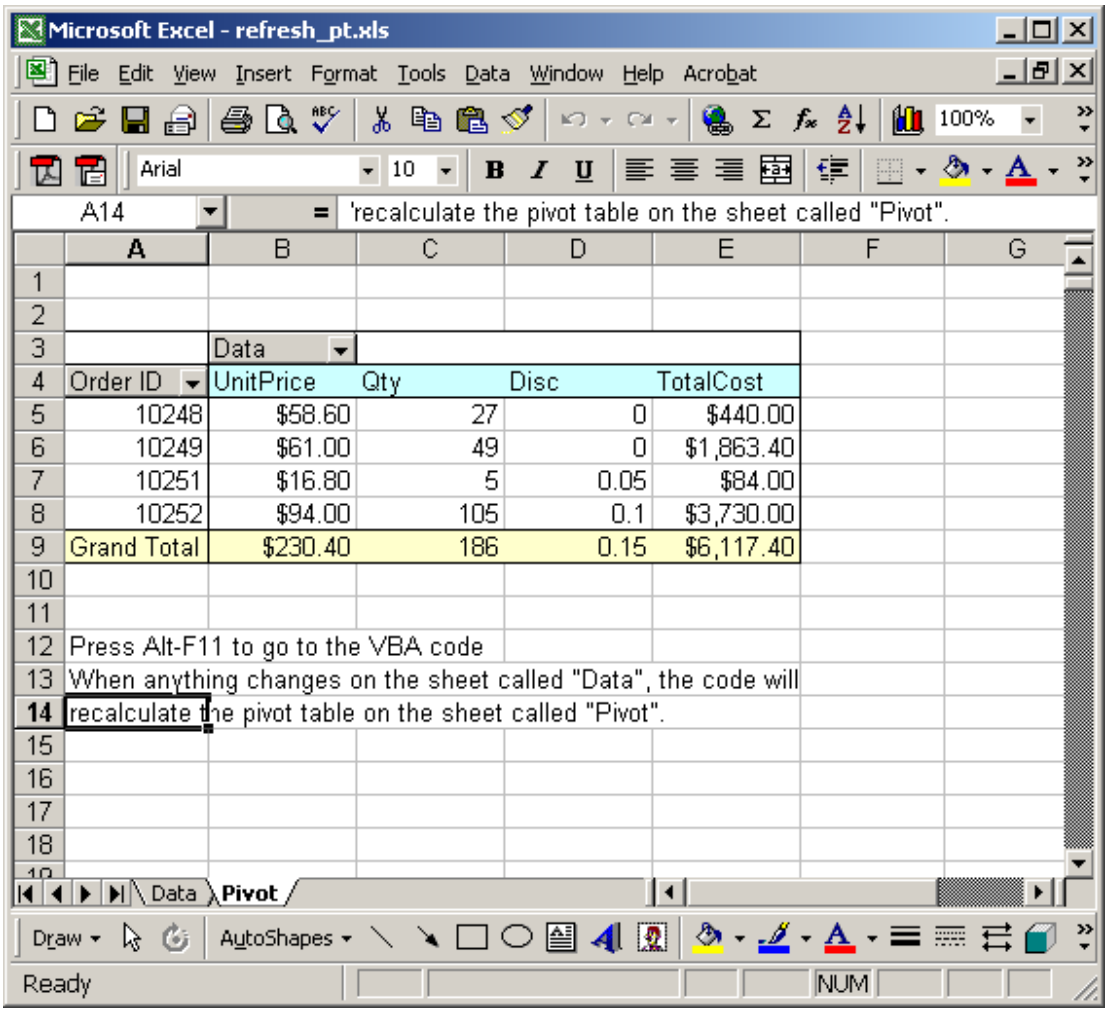
---

Question: I'm looking for a macro that would automatically refresh a pivot table whenever data is changed in an Excel worksheet. Is this possible?

Answer: There are several "events" available within an Excel spreadsheet where you can place VBA code. In your case, we want to refresh the pivot table when the "Worksheet_Calculate" event fires.

Let's take a look at an example.

Download Excel spreadsheet (as demonstrated below)



In our spreadsheet, there are two sheets - one is called *Data* which contains the source data for the pivot table. Another sheet is called *Pivot* which contains the pivot table.

On the sheet called *Data*, we've placed code on the "Worksheet_Calculate" event, so that whenever the data changes on the "Data" sheet, the pivot table will be refreshed.

You can press Alt-F11 to view the VBA code.

Note: This only will work, if you have the spreadsheet set to calculate "automatically". This is the default for most Excel spreadsheets, but some people turn this feature off.

Macro Code:

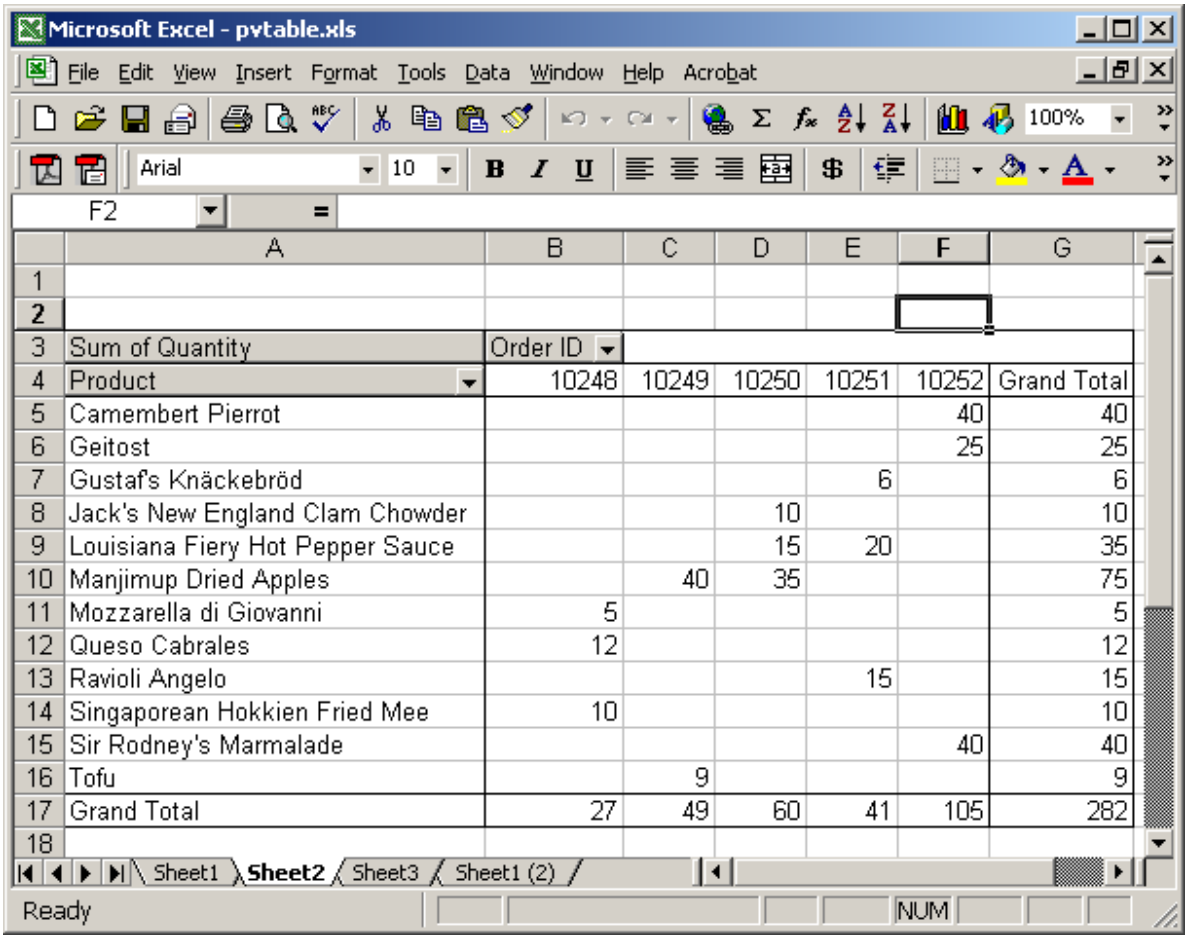
The macro code looks like this:

```
Private Sub Worksheet_Calculate()

    'If data on this worksheet changes, refresh the pivot table
    Sheets("Pivot").PivotTables("PivotTable1").RefreshTable

End Sub
```

Excel: Remove grand totals for columns

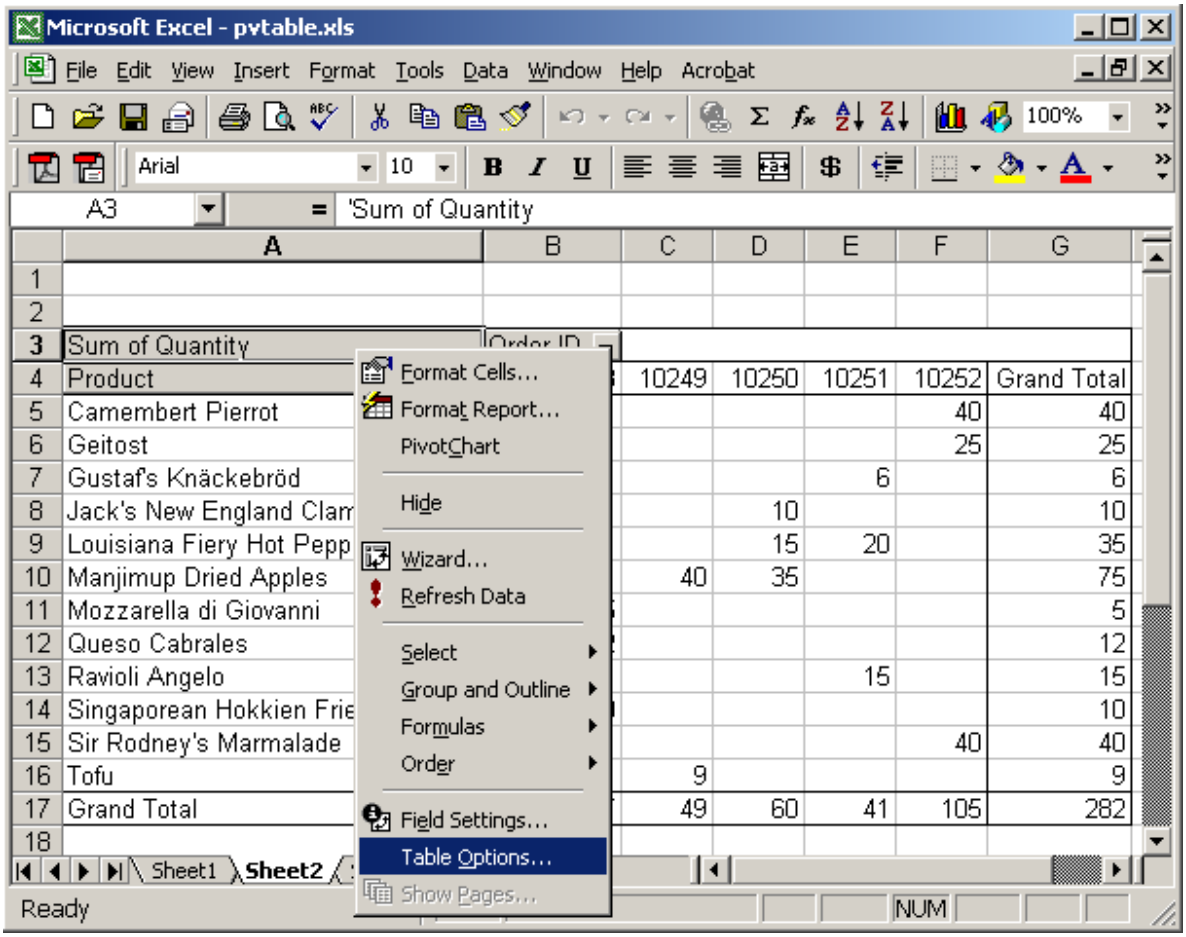
Question: On a pivot table, how do I remove grand totals for columns?

Answer: Below is a pivot table with a grand total for the column called OrderID.

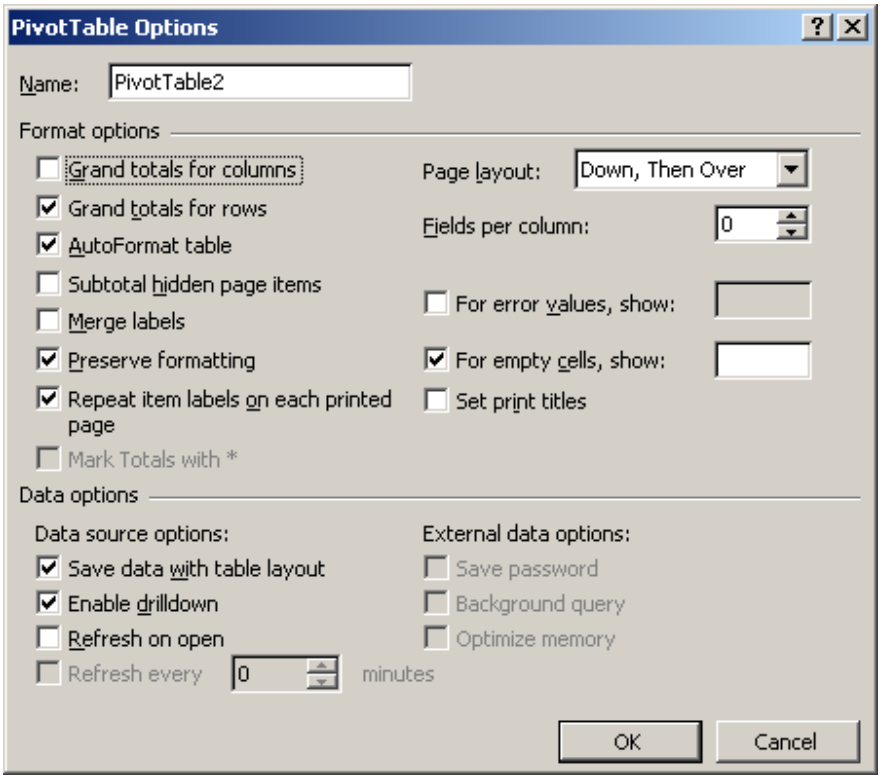


	A	B	C	D	E	F	G
1							
2							
3	Sum of Quantity	Order ID					
4	Product	10248	10249	10250	10251	10252	Grand Total
5	Camembert Pierrot					40	40
6	Geitost					25	25
7	Gustaf's Knäckebröd				6		6
8	Jack's New England Clam Chowder			10			10
9	Louisiana Fiery Hot Pepper Sauce			15	20		35
10	Manjimup Dried Apples		40	35			75
11	Mozzarella di Giovanni	5					5
12	Queso Cabrales	12					12
13	Ravioli Angelo				15		15
14	Singaporean Hokkien Fried Mee	10					10
15	Sir Rodney's Marmalade					40	40
16	Tofu		9				9
17	Grand Total	27	49	60	41	105	282
18							

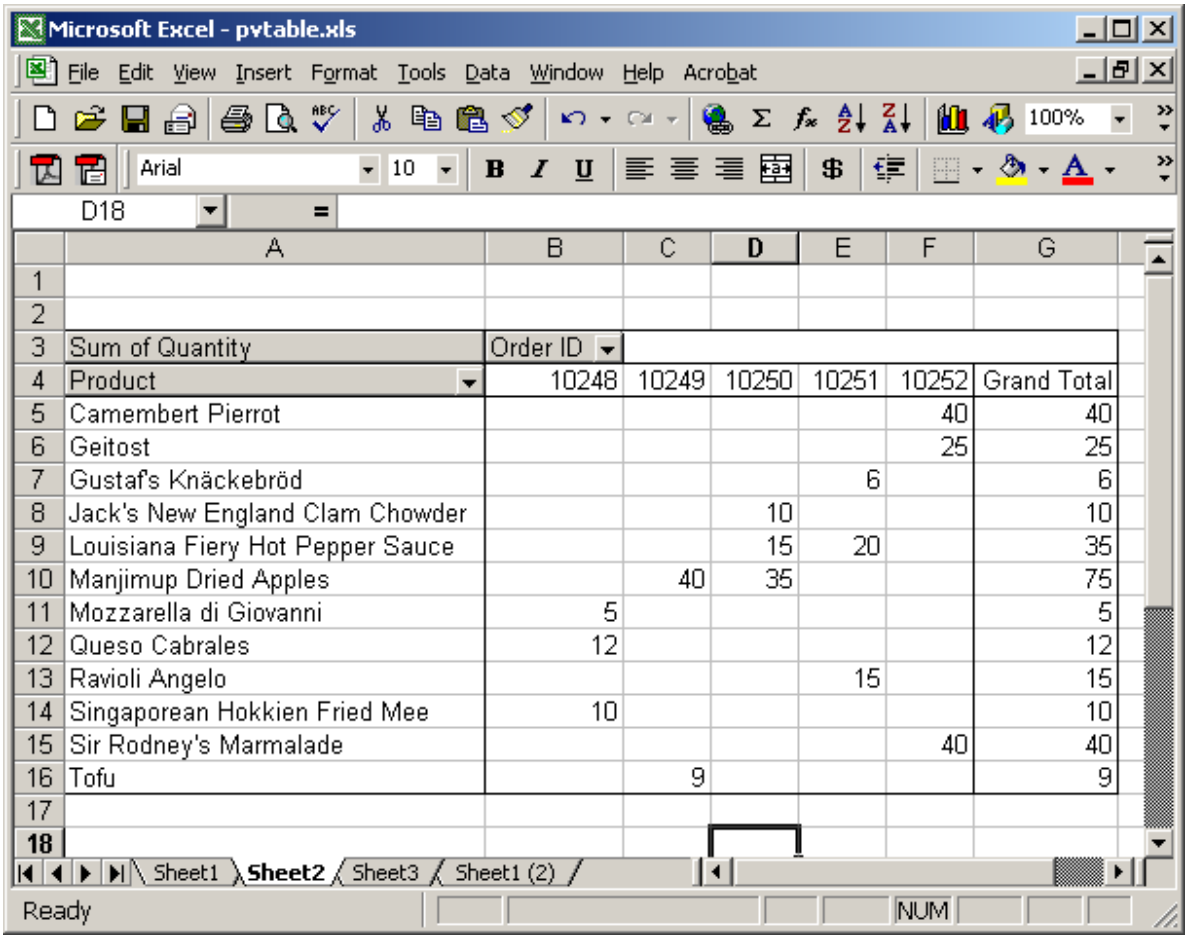
To remove this column grand total, select a cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



When the PivotTable Options window appears, uncheck the checkbox called "Grand totals for columns". Click the OK button.



Now when you return to the spreadsheet, the grand total for the OrderID column will no longer be visible.

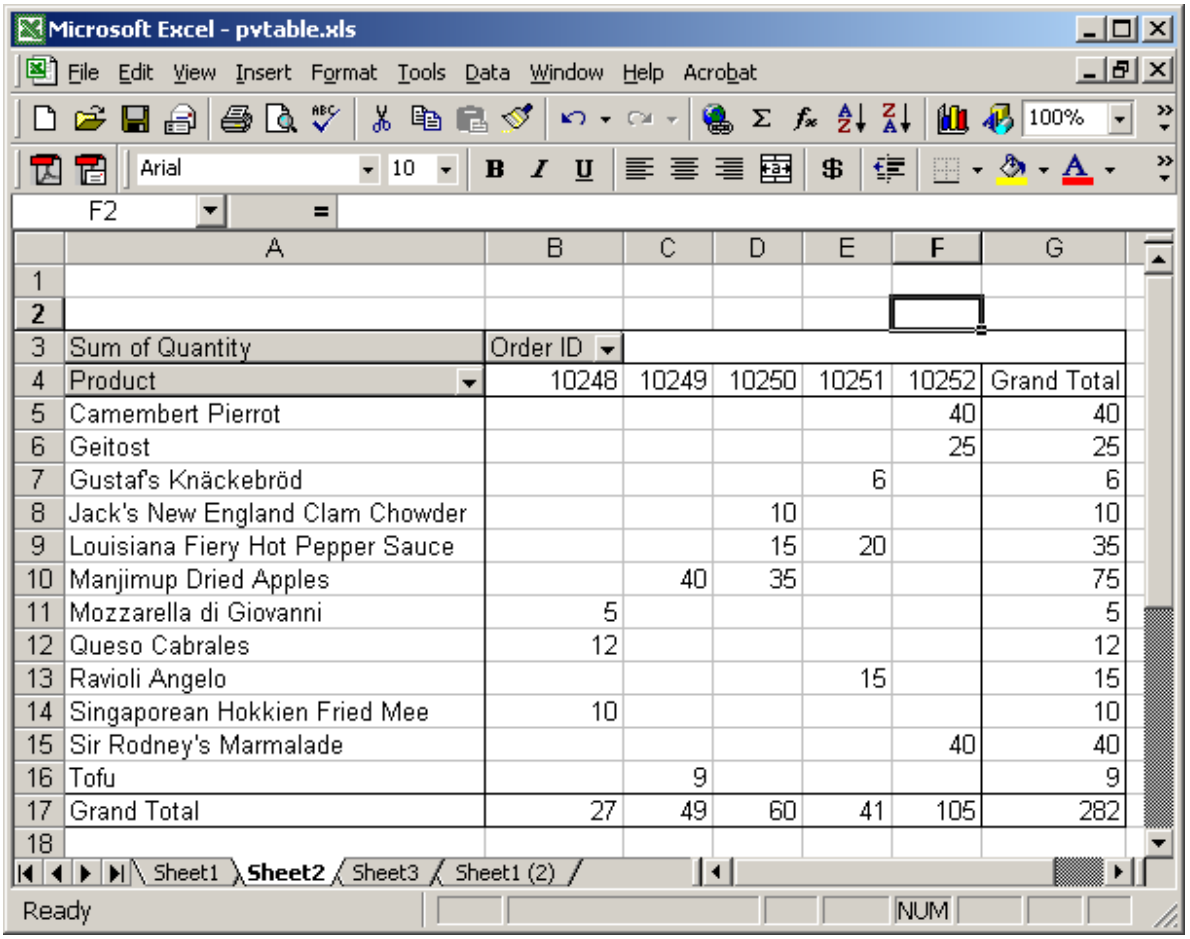


	A	B	C	D	E	F	G
1							
2							
3	Sum of Quantity	Order ID					
4	Product	10248	10249	10250	10251	10252	Grand Total
5	Camembert Pierrot					40	40
6	Geitost					25	25
7	Gustaf's Knäckebröd				6		6
8	Jack's New England Clam Chowder			10			10
9	Louisiana Fiery Hot Pepper Sauce			15	20		35
10	Manjimup Dried Apples		40	35			75
11	Mozzarella di Giovanni	5					5
12	Queso Cabrales	12					12
13	Ravioli Angelo				15		15
14	Singaporean Hokkien Fried Mee	10					10
15	Sir Rodney's Marmalade					40	40
16	Tofu		9				9
17							
18							

Excel: Remove grand totals for rows

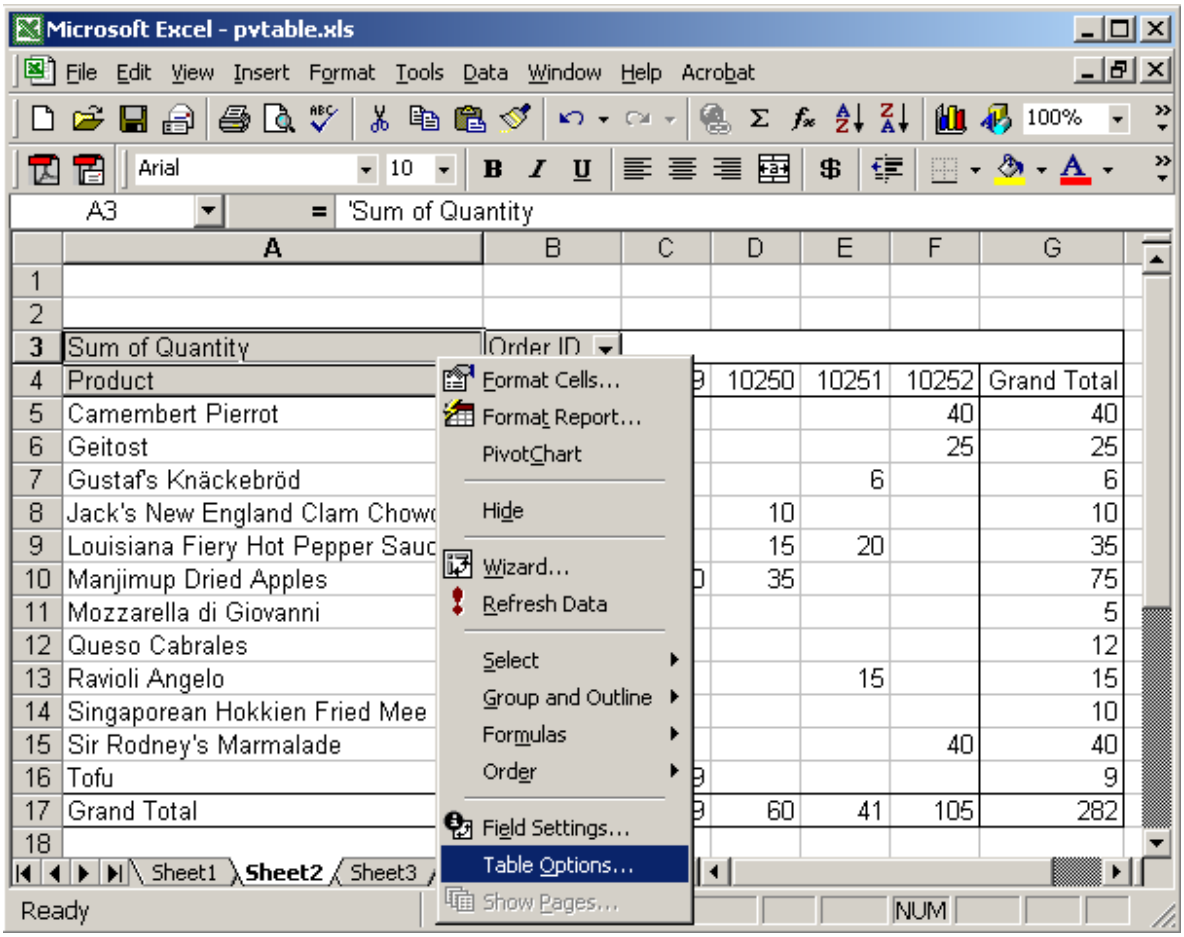
Question: On a pivot table, how do I remove the grand totals for rows?

Answer: Below is a pivot table with a grand total for the row called Product.

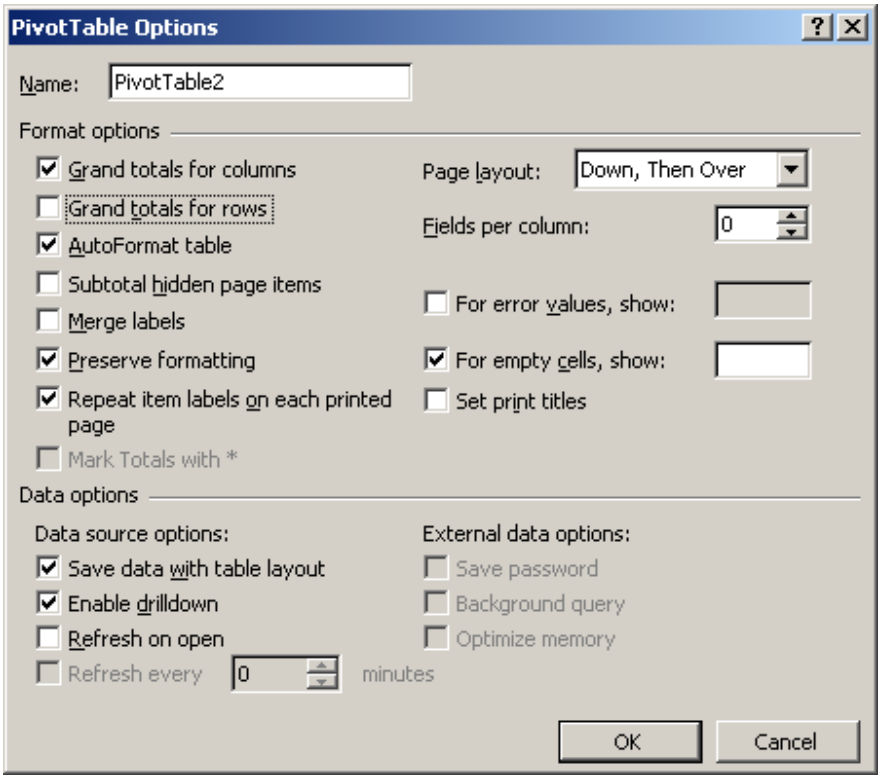


	A	B	C	D	E	F	G
1							
2							
3	Sum of Quantity	Order ID					
4	Product	10248	10249	10250	10251	10252	Grand Total
5	Camembert Pierrot					40	40
6	Geitost					25	25
7	Gustaf's Knäckebröd				6		6
8	Jack's New England Clam Chowder			10			10
9	Louisiana Fiery Hot Pepper Sauce			15	20		35
10	Manjimup Dried Apples		40	35			75
11	Mozzarella di Giovanni	5					5
12	Queso Cabrales	12					12
13	Ravioli Angelo				15		15
14	Singaporean Hokkien Fried Mee	10					10
15	Sir Rodney's Marmalade					40	40
16	Tofu		9				9
17	Grand Total	27	49	60	41	105	282
18							

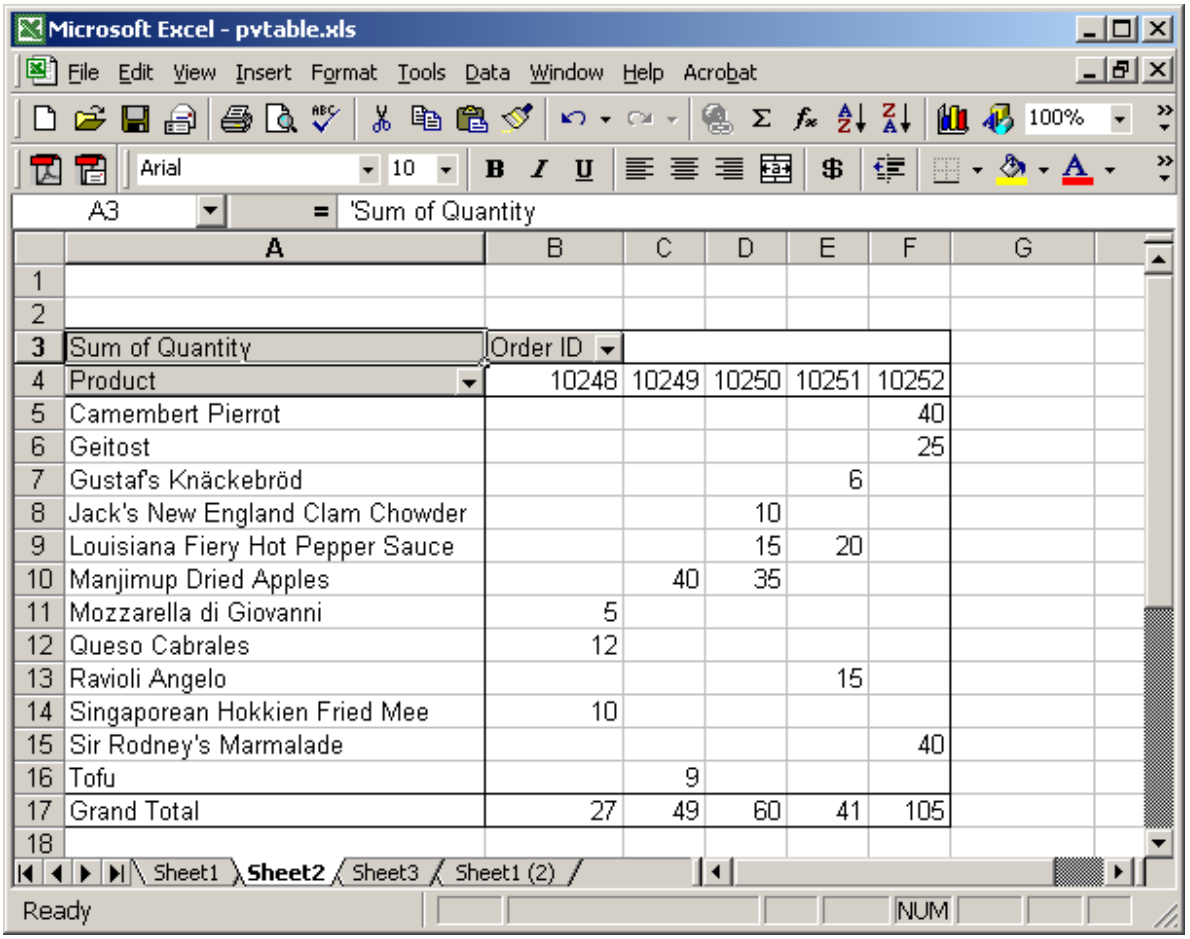
To remove this row grand total, select a cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



When the PivotTable Options window appears, uncheck the checkbox called "Grand totals for rows". Click the OK button.



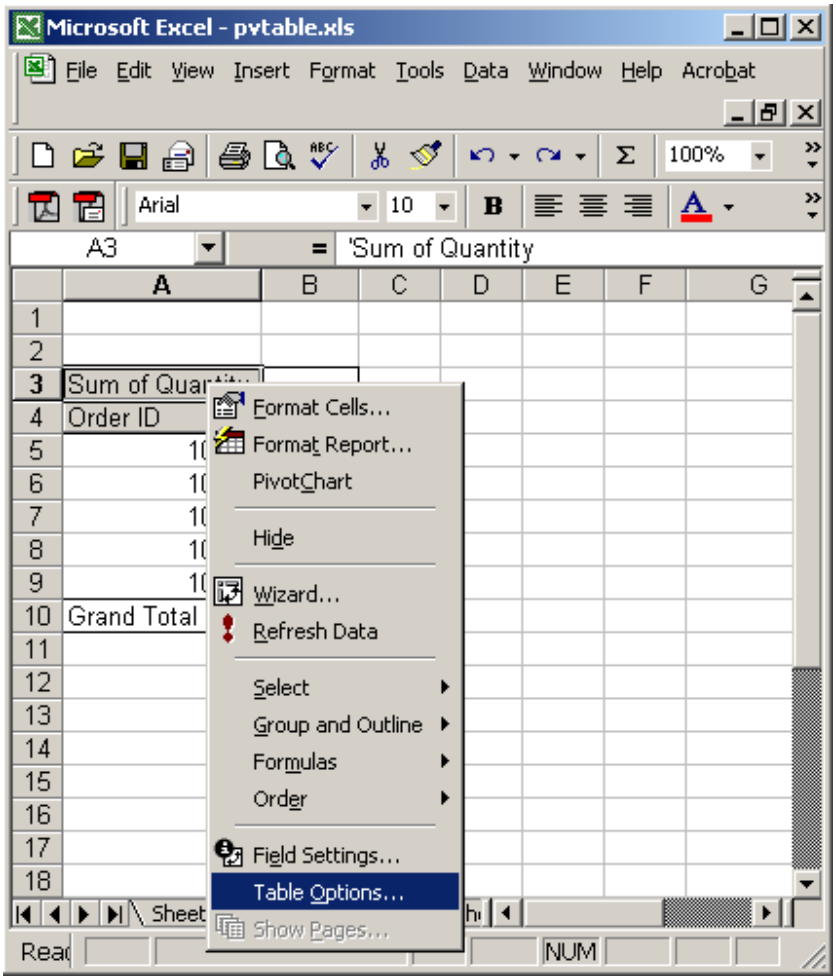
Now when you return to the spreadsheet, the grand total for the Product row will no longer be visible.



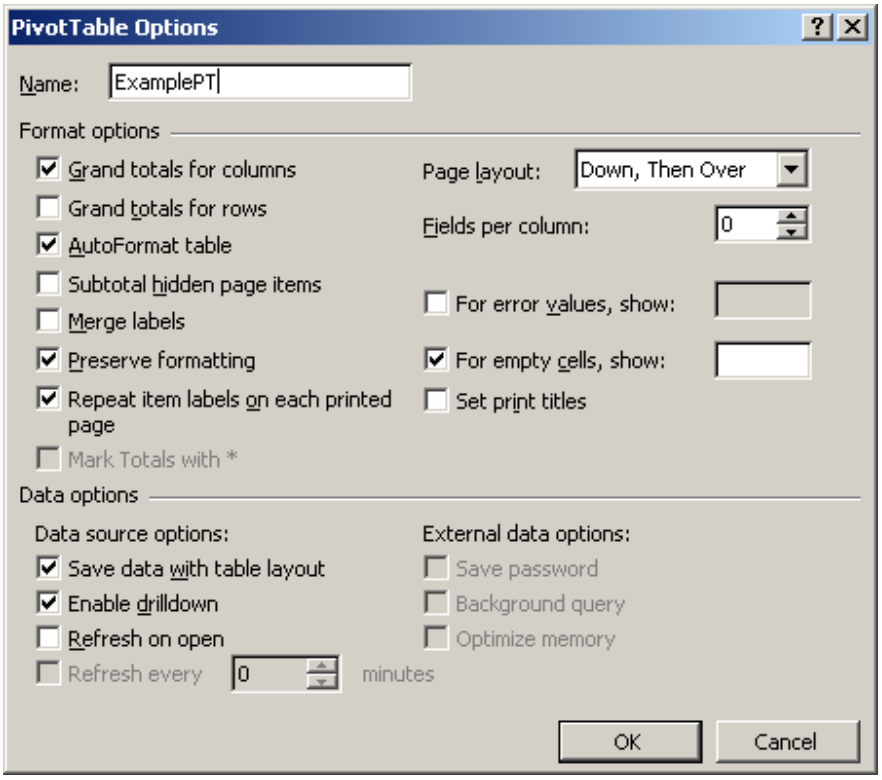
Excel: Change pivot table name

Question: How do I change the name associated with a pivot table?

Answer: Select a cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



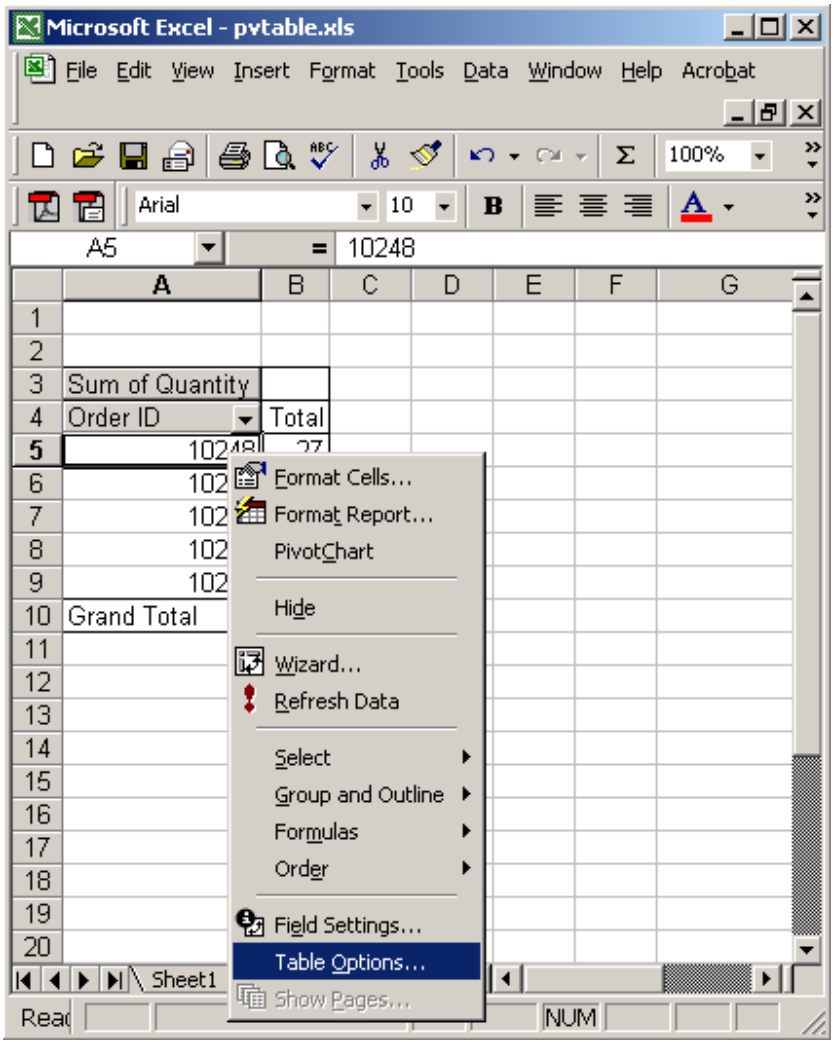
When the PivotTable Options window appears, enter the new name for the pivot table in the Name field. Click the OK button. In this example, we've renamed our pivot table to ExamplePT.



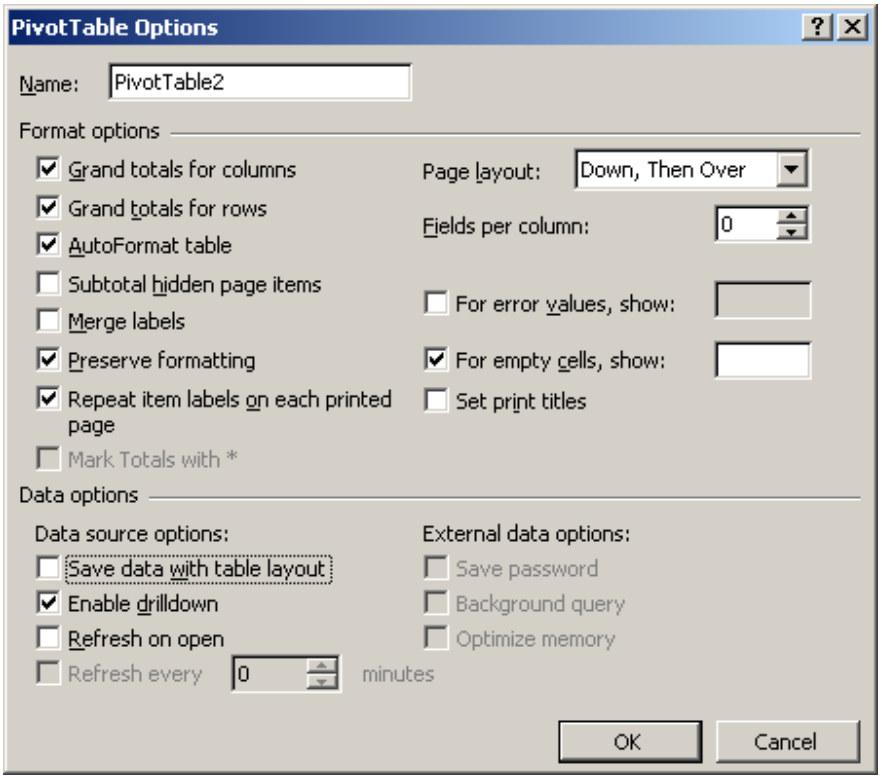
Excel: Do not save data with table layout

Question: After I created a pivot table, the size of the Excel spreadsheet became quite large. This was due to the fact that the data behind the pivot table was saved with the table layout. How do I prevent Excel from saving the data with the table layout?

Answer: Select a cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



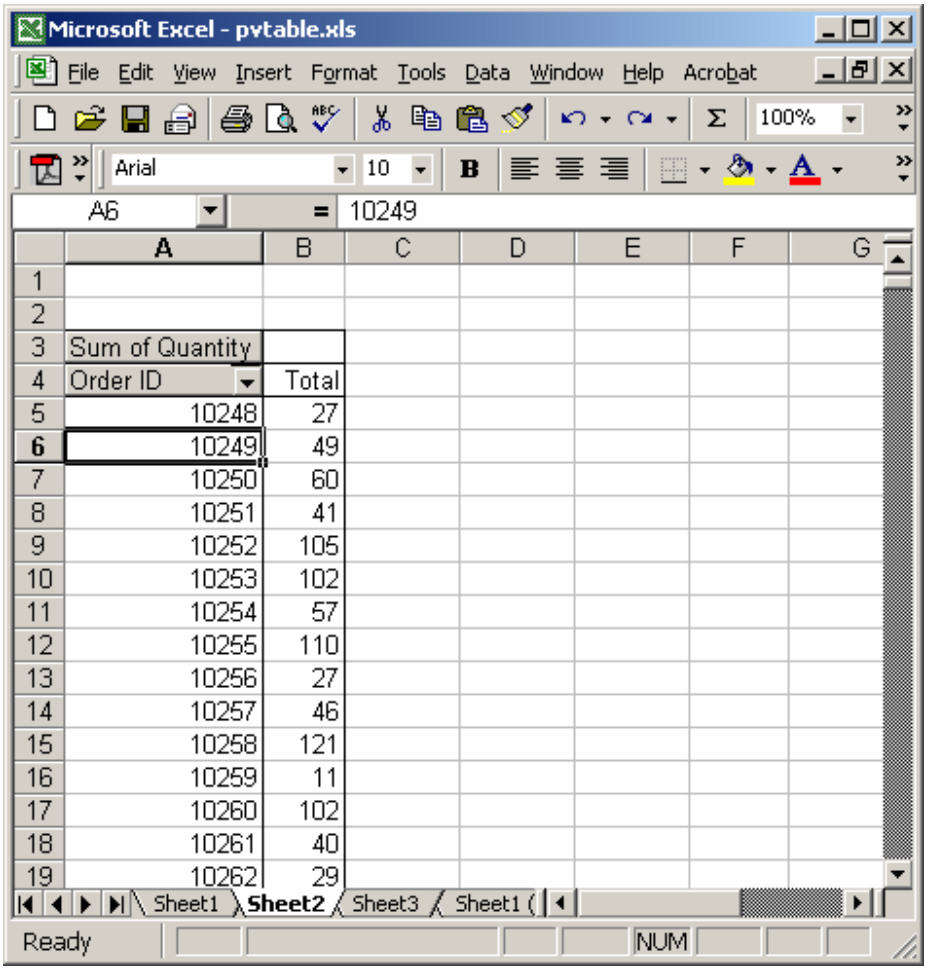
When the PivotTable Options window appears, **uncheck** the checkbox called "Save data with table layout". Click on the OK button.



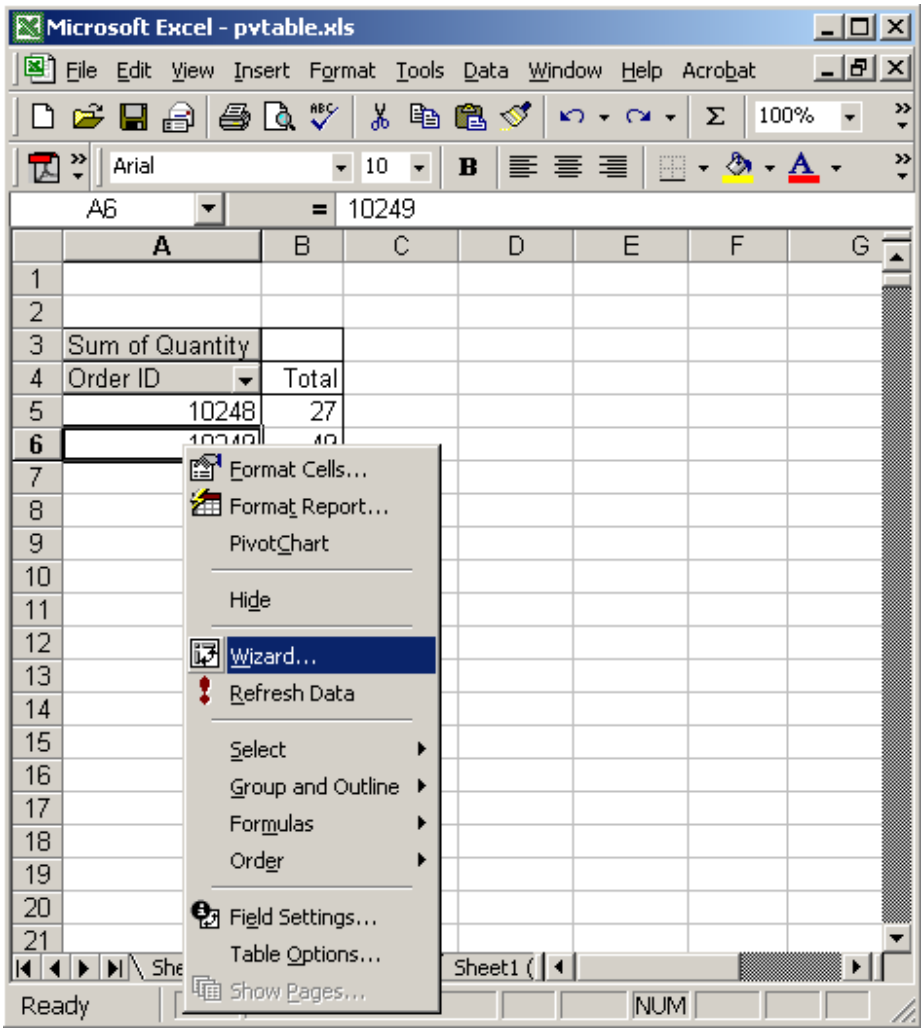
Excel: Display pivot table wizard

Question: Once I've created a pivot table, how do I get back to the Pivot Table Wizard?

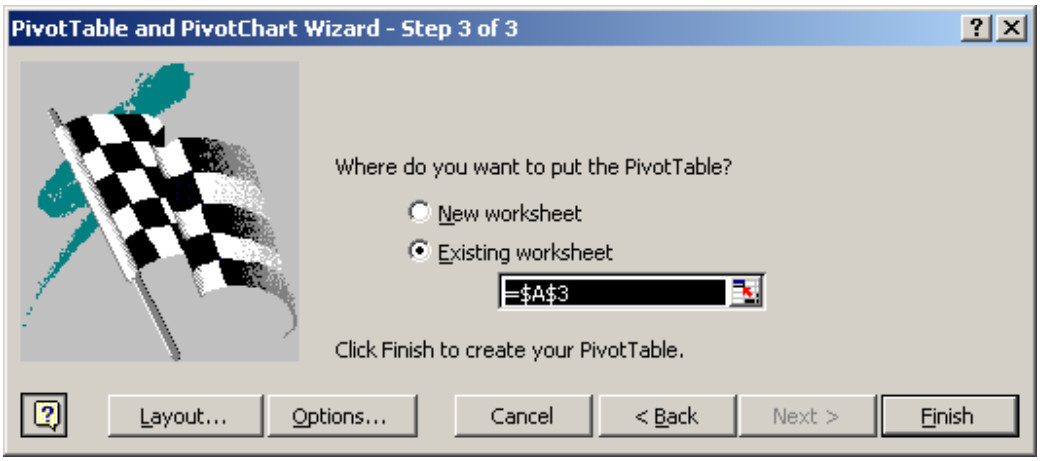
Answer: To return to the Pivot Table Wizard, select any cell in the pivot table.



Right-click and then select "Wizard" from the popup menu.



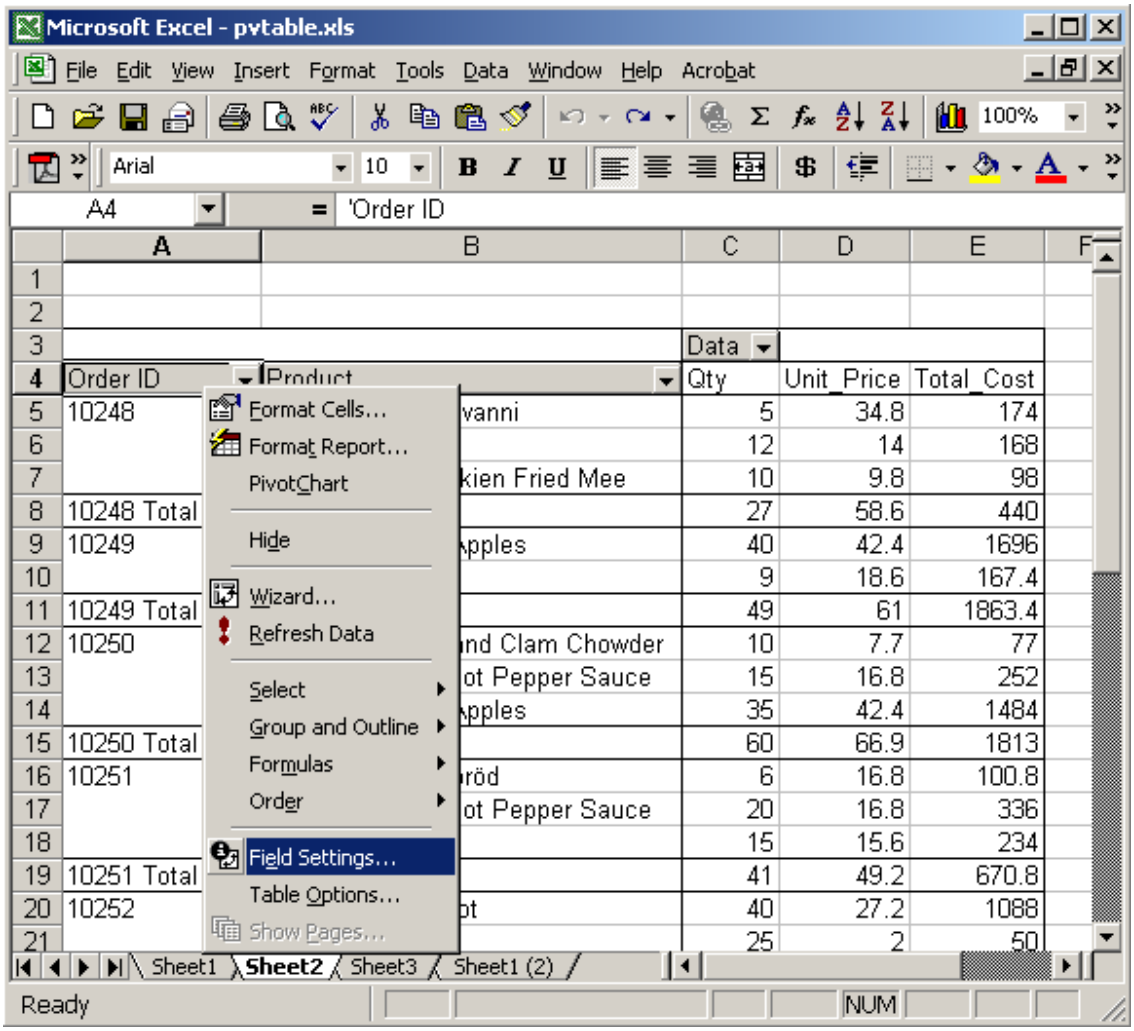
You should now see the Pivot Table Wizard.



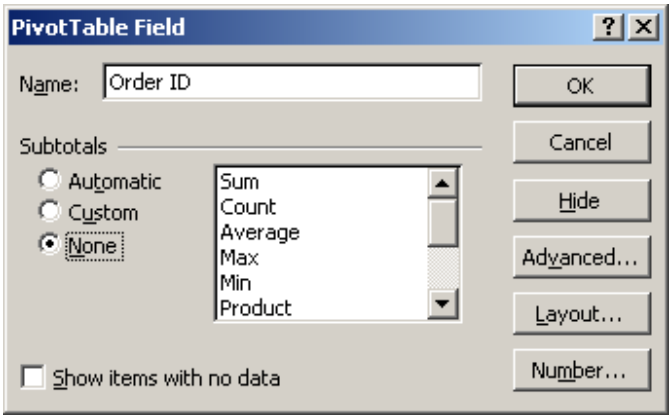
Excel: Remove subtotals on pivot table rows

Question: How do I remove subtotals on a pivot table row?

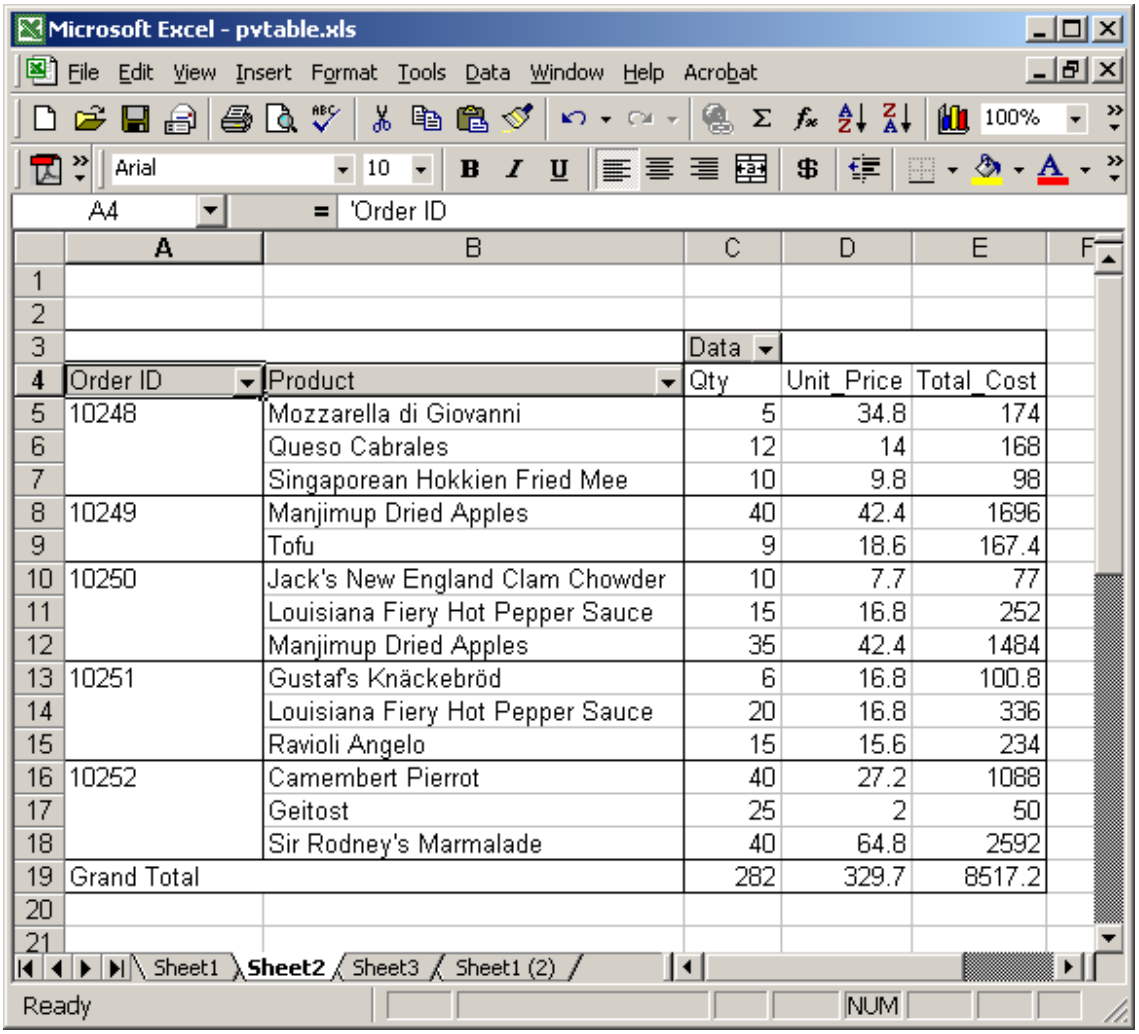
Answer: Select the row heading that you wish to remove subtotals on. Right-click and then select "Field Settings" from the popup menu. In this example, we've chosen the row heading called Order ID.



When the *PivotTable Field* window appears, select the "None" subtotals option. Click on the OK button.



Now when you return to the spreadsheet, the subtotals for each OrderID are no longer visible.

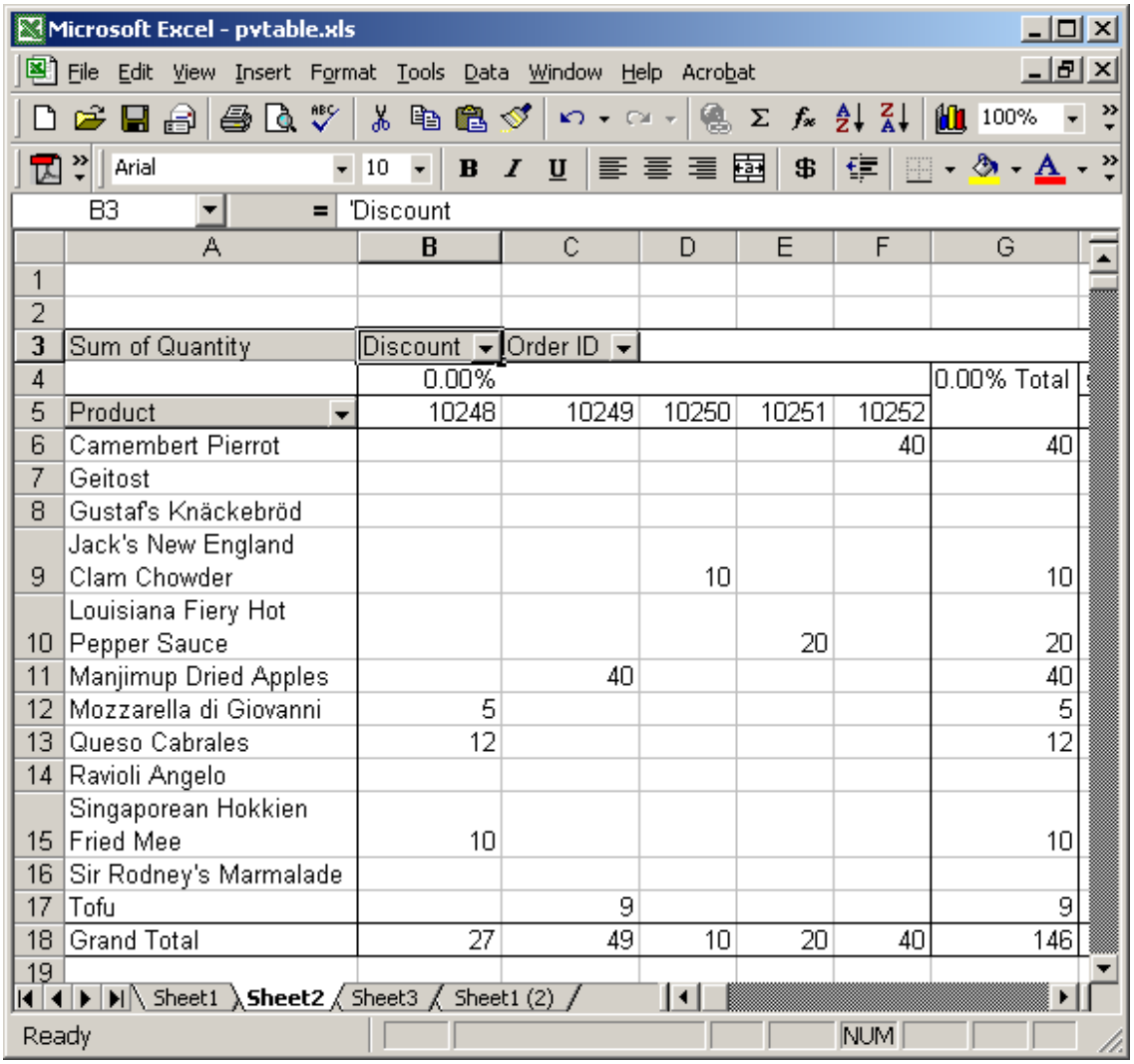


	A	B	C	D	E
1					
2					
3			Data		
4	Order ID	Product	Qty	Unit_Price	Total_Cost
5	10248	Mozzarella di Giovanni	5	34.8	174
6		Queso Cabrales	12	14	168
7		Singaporean Hokkien Fried Mee	10	9.8	98
8	10249	Manjimup Dried Apples	40	42.4	1696
9		Tofu	9	18.6	167.4
10	10250	Jack's New England Clam Chowder	10	7.7	77
11		Louisiana Fiery Hot Pepper Sauce	15	16.8	252
12		Manjimup Dried Apples	35	42.4	1484
13	10251	Gustaf's Knäckebröd	6	16.8	100.8
14		Louisiana Fiery Hot Pepper Sauce	20	16.8	336
15		Ravioli Angelo	15	15.6	234
16	10252	Camembert Pierrot	40	27.2	1088
17		Geitost	25	2	50
18		Sir Rodney's Marmalade	40	64.8	2592
19	Grand Total		282	329.7	8517.2
20					
21					

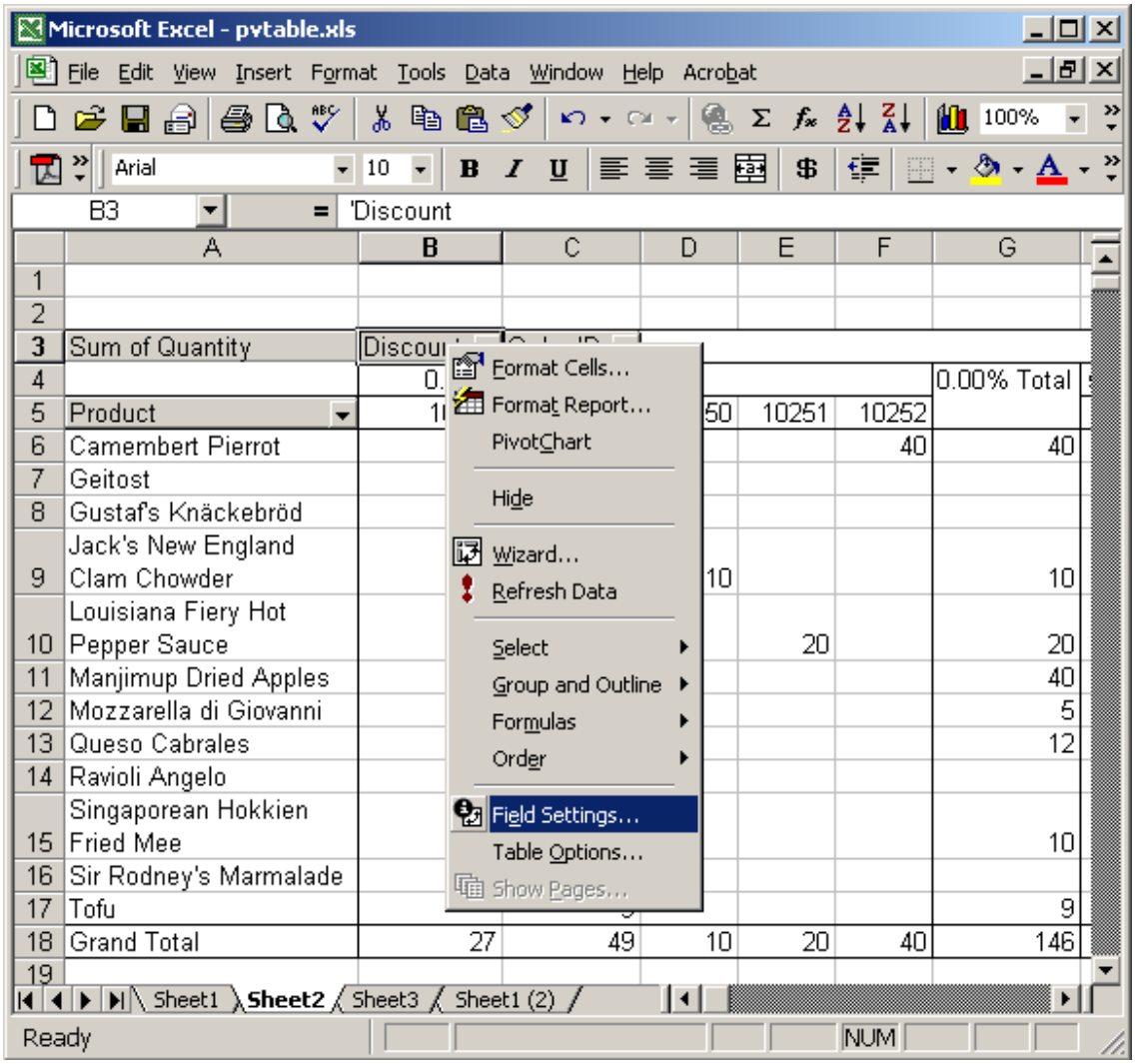
Excel: Remove subtotals on pivot table columns

Question: How do I remove subtotals on a pivot table column?

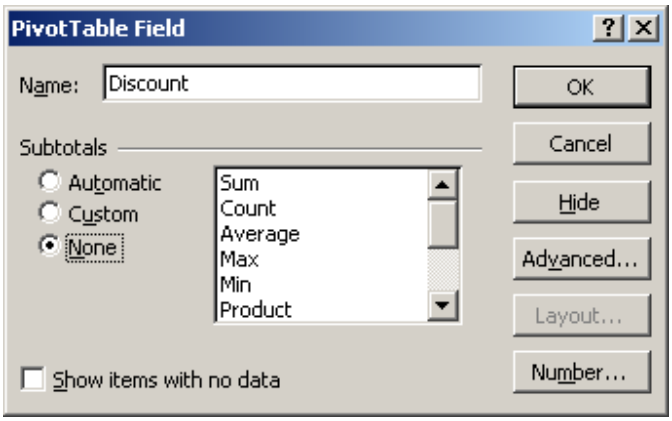
Answer: Select the column heading that you wish to remove subtotals on. In this example, we've chosen the column heading called Discount.



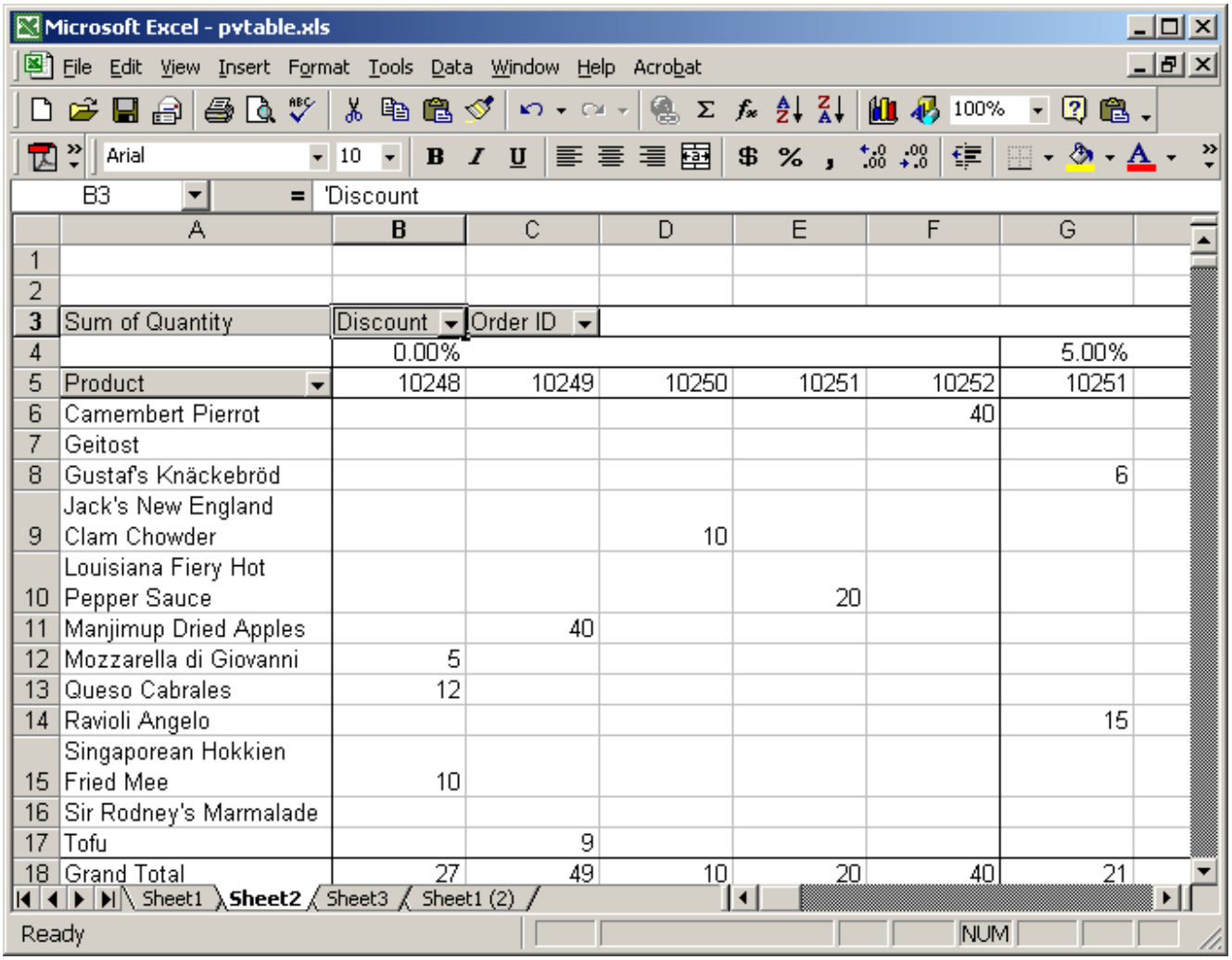
Right-click and then select "Field Settings" from the popup menu.



Under subtotals, select the "None" option. Click on the OK button.



Now when you return to the spreadsheet, the subtotals for each Discount are no longer visible.

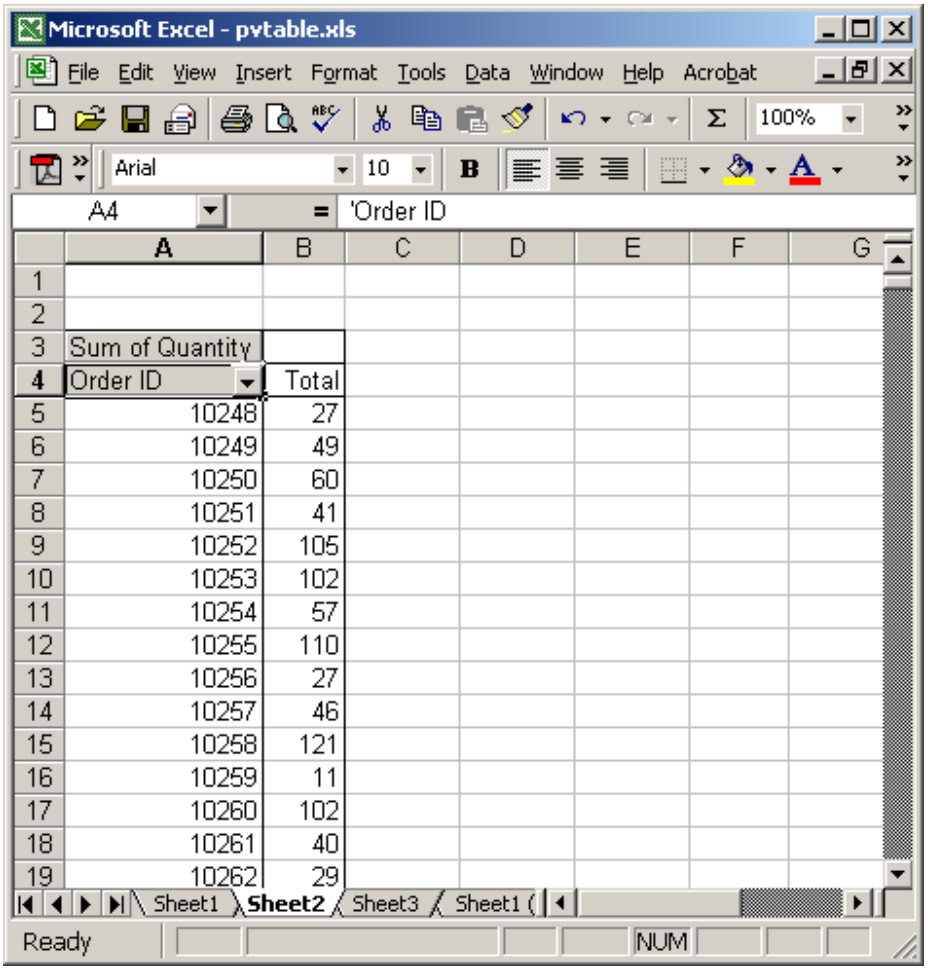


	A	B	C	D	E	F	G
1							
2							
3	Sum of Quantity	Discount	Order ID				
4		0.00%					5.00%
5	Product	10248	10249	10250	10251	10252	10251
6	Camembert Pierrot					40	
7	Geitost						
8	Gustaf's Knäckebröd						6
9	Jack's New England Clam Chowder			10			
10	Louisiana Fiery Hot Pepper Sauce				20		
11	Manjimup Dried Apples		40				
12	Mozzarella di Giovanni	5					
13	Queso Cabrales	12					
14	Ravioli Angelo						15
15	Singaporean Hokkien Fried Mee	10					
16	Sir Rodney's Marmalade						
17	Tofu		9				
18	Grand Total	27	49	10	20	40	21

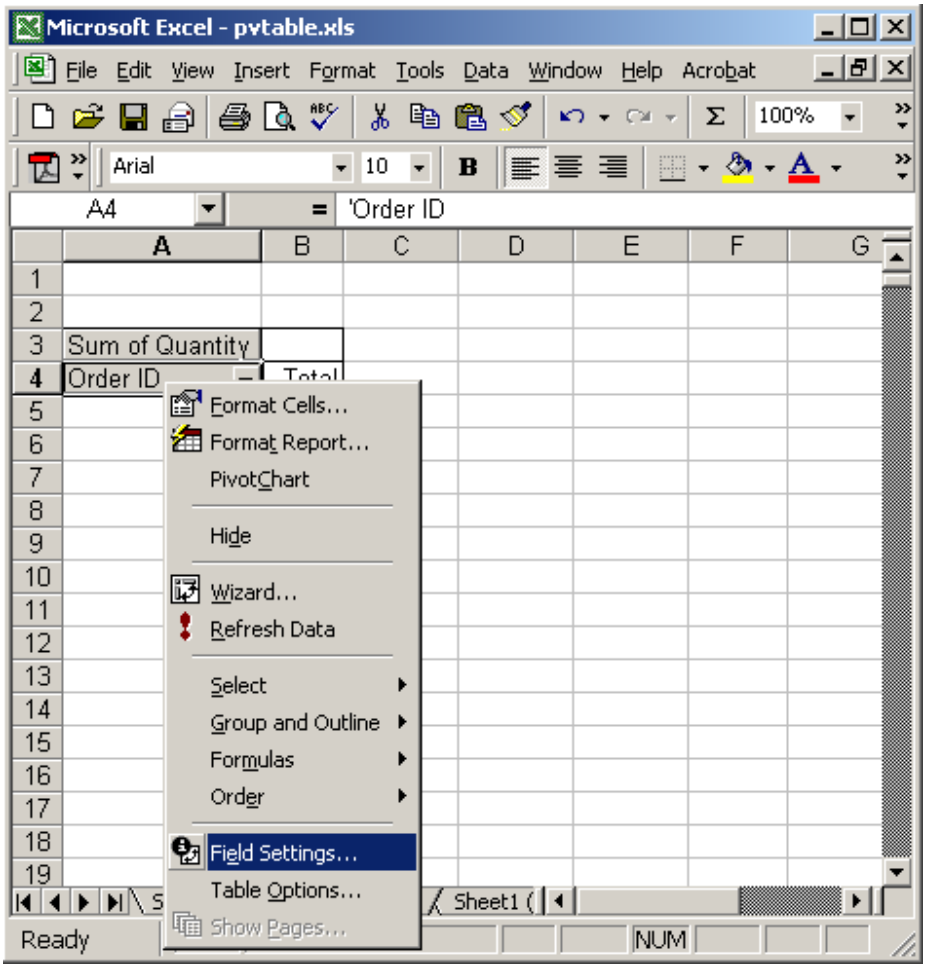
Excel: Show Top 10 results

Question: How do I show only the top 10 results in a pivot table?

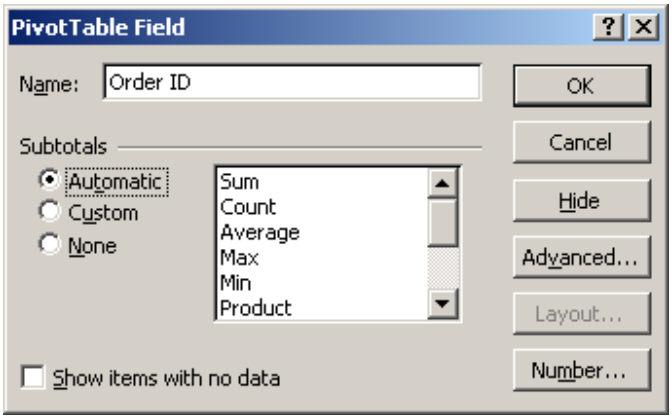
Answer: Select a row heading in the pivot table. In this example, we've chosen the row heading called Order ID.



Right-click and then select "Field Settings" from the popup menu.

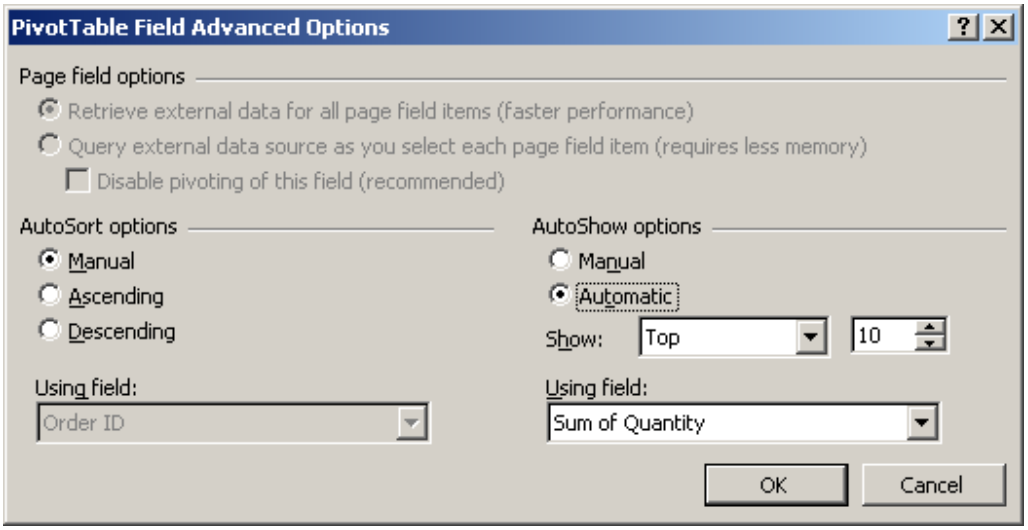


When the *PivotTable Field* window appears, click on the Advanced button.

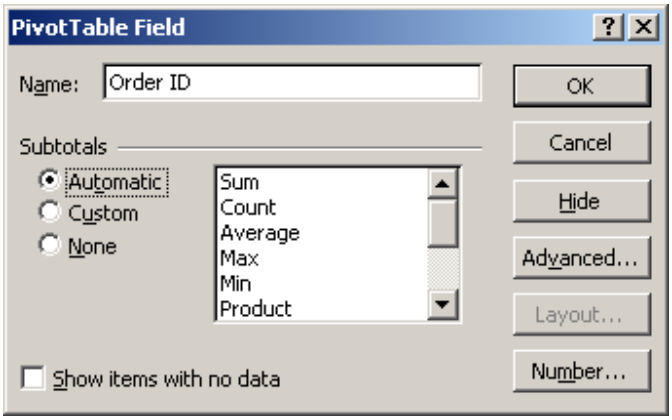


Under the AutoShow options, select Automatic. Select *Top* and the number of items that you wish to view. Now click on the OK button.

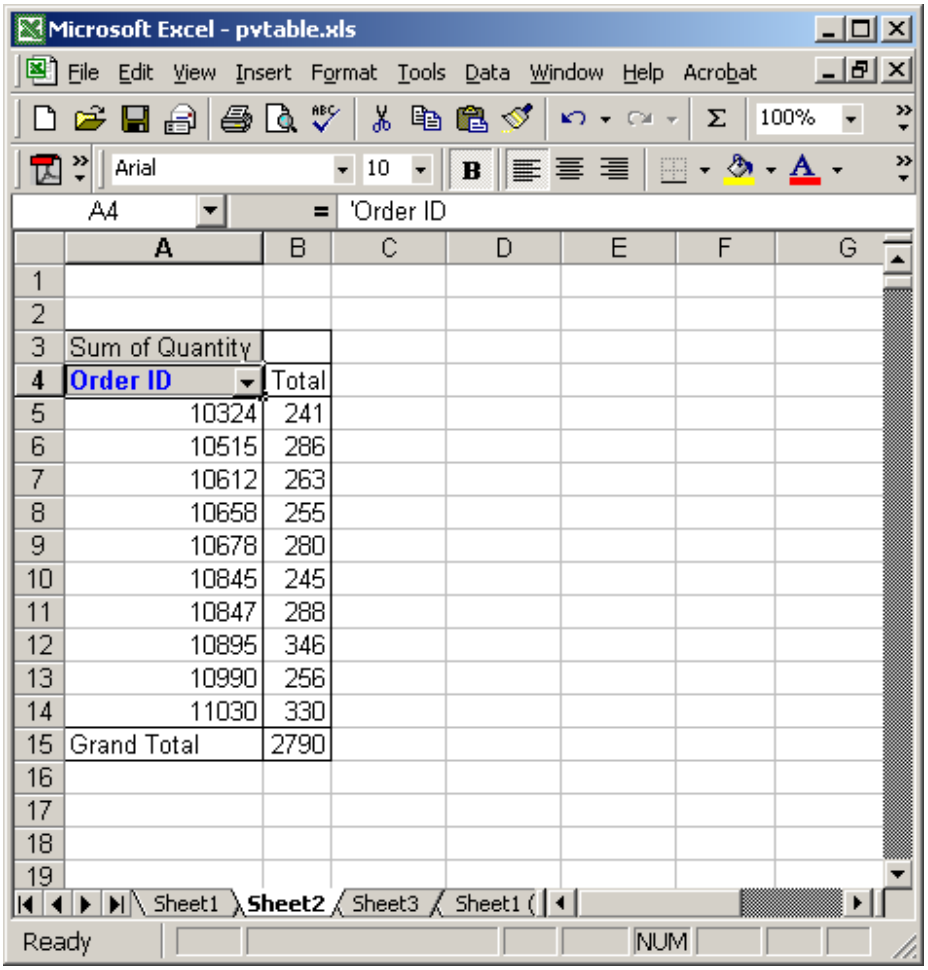
In this example, we've chosen the Top 10 values based on the "Sum of Quantity" field.



This will return you to the *PivotTable Field* window. Click on the OK button.



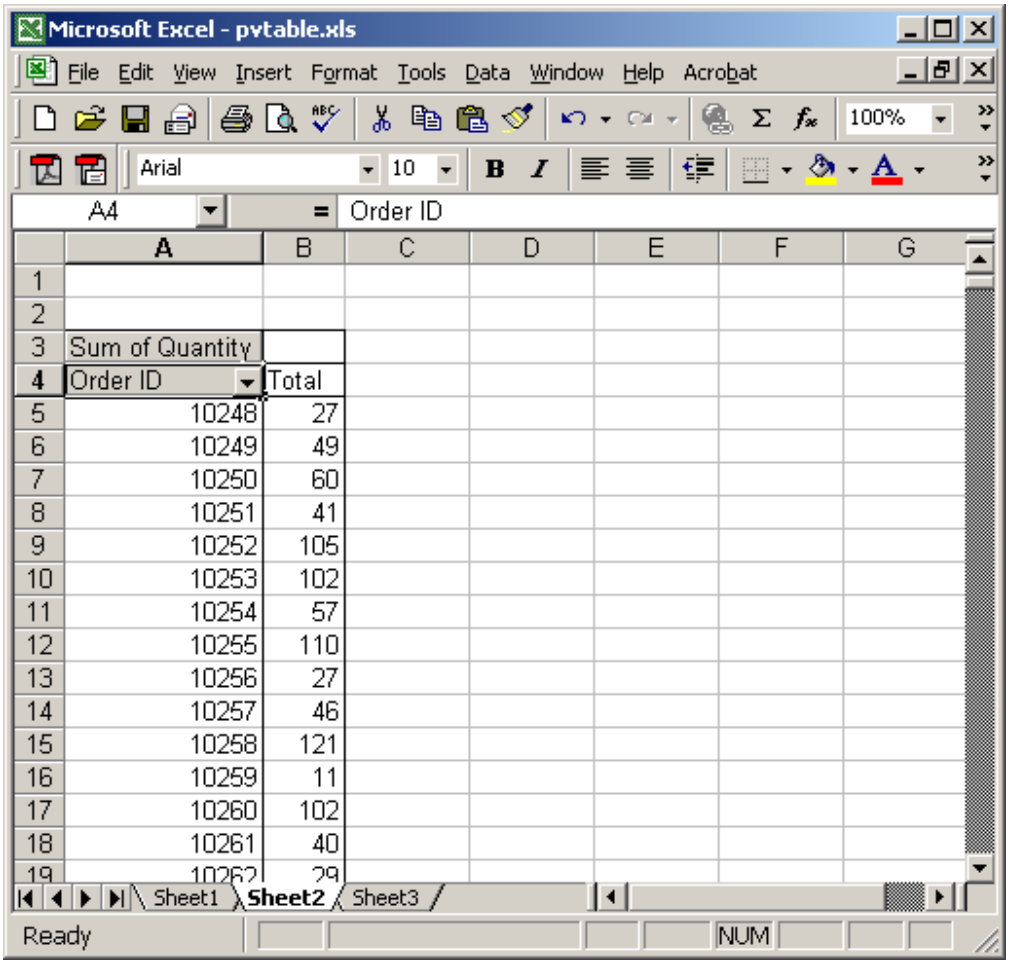
Now when you view your spreadsheet, you should only see the top 10 values based on quantity.



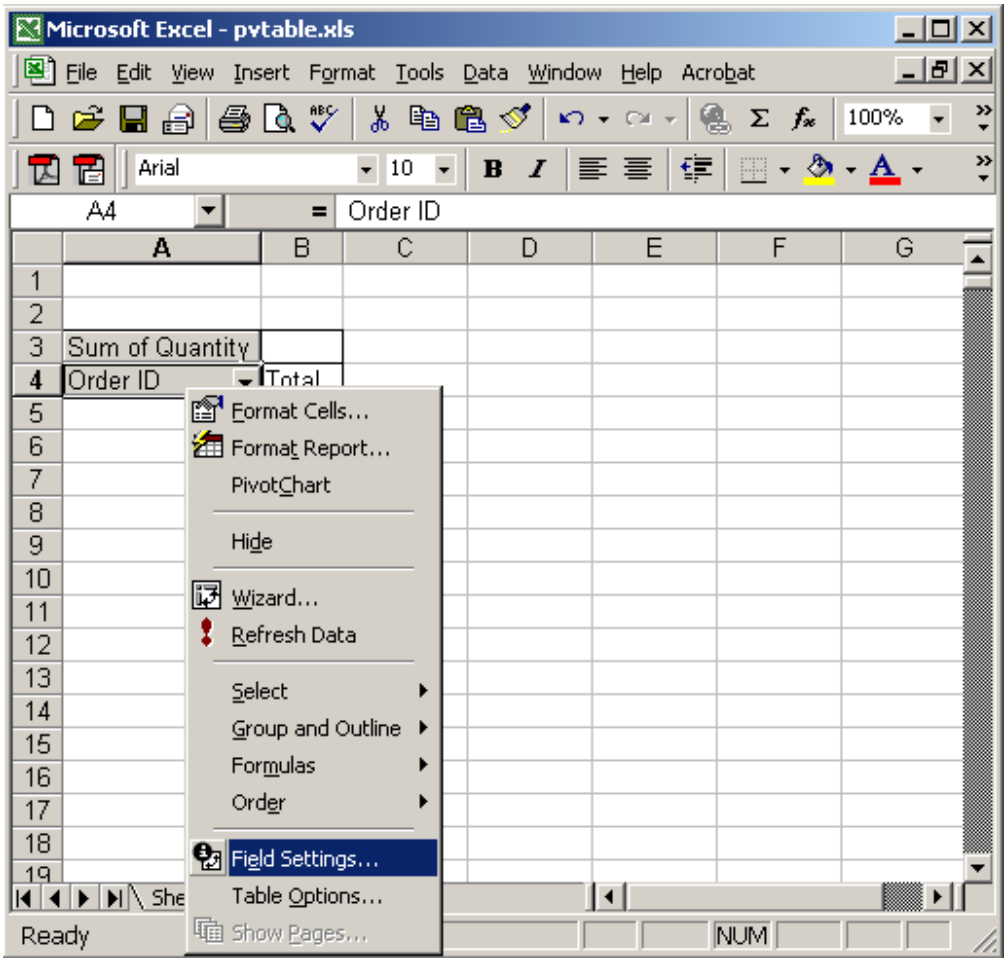
Excel: Show Bottom 10 results

Question: How do I show only the bottom 10 results in a pivot table?

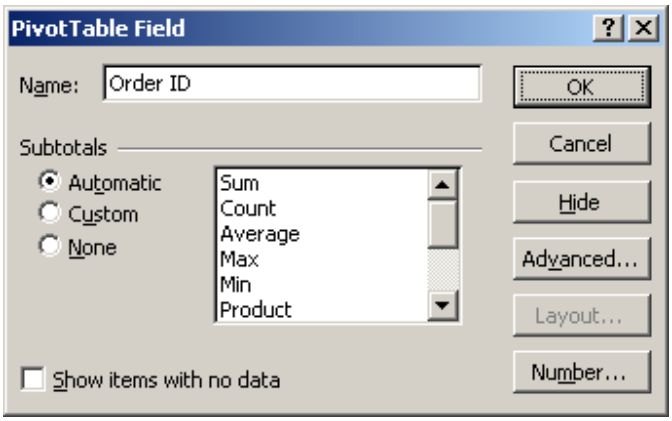
Answer: Select the row heading in the pivot table. In this example, we are selecting the Order ID heading.



Right-click and then select "Field Settings" from the popup menu.

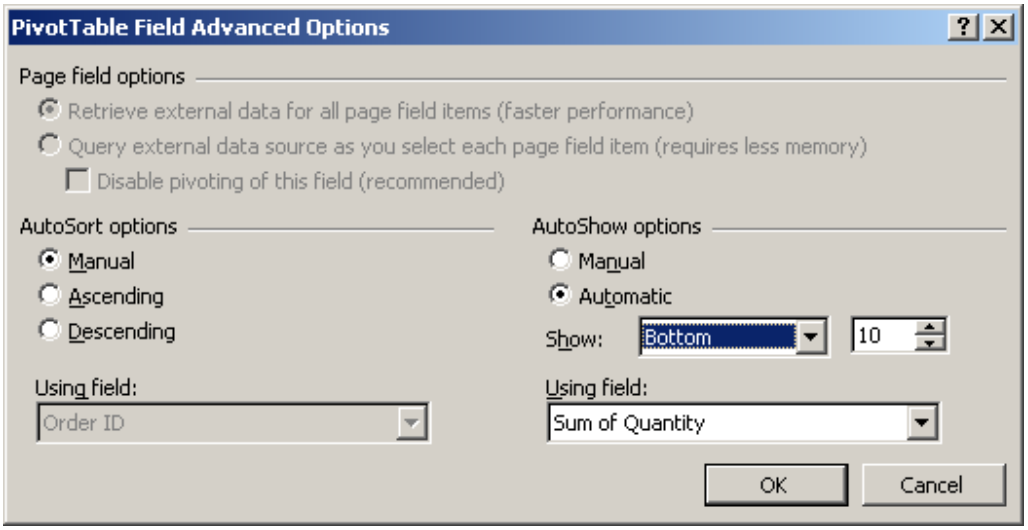


When the *PivotTable Field* window appears, click on the Advanced button.

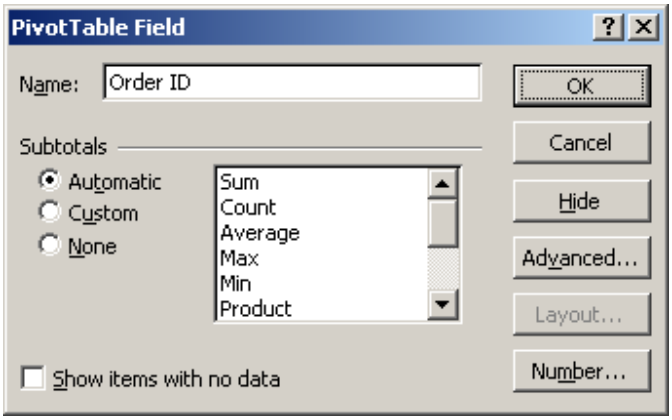


Under the AutoShow options, select Automatic. Select *Bottom* and the number of items that you wish to view. Now click on the OK button.

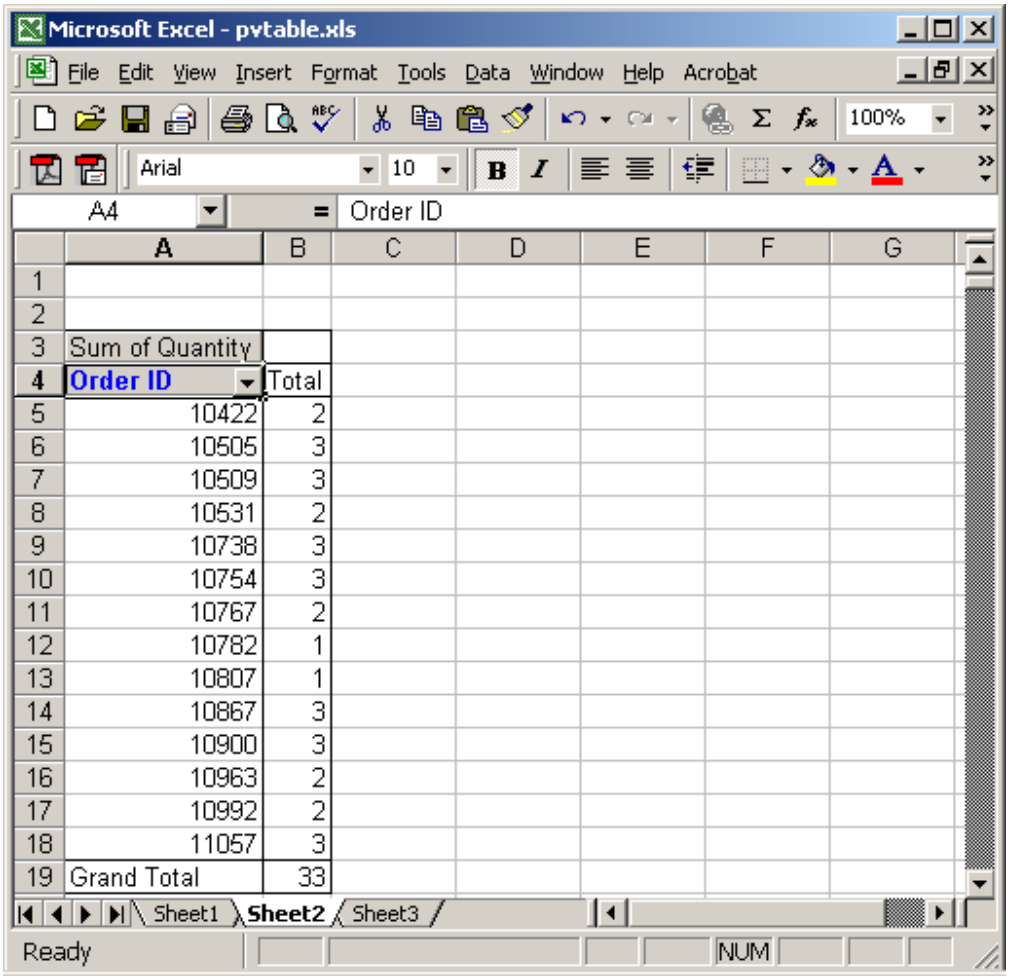
In this example, we've chosen the Bottom 10 values based on the "Sum of Quantity" field.



This will return you to the *PivotTable Field* window. Click on the OK button.



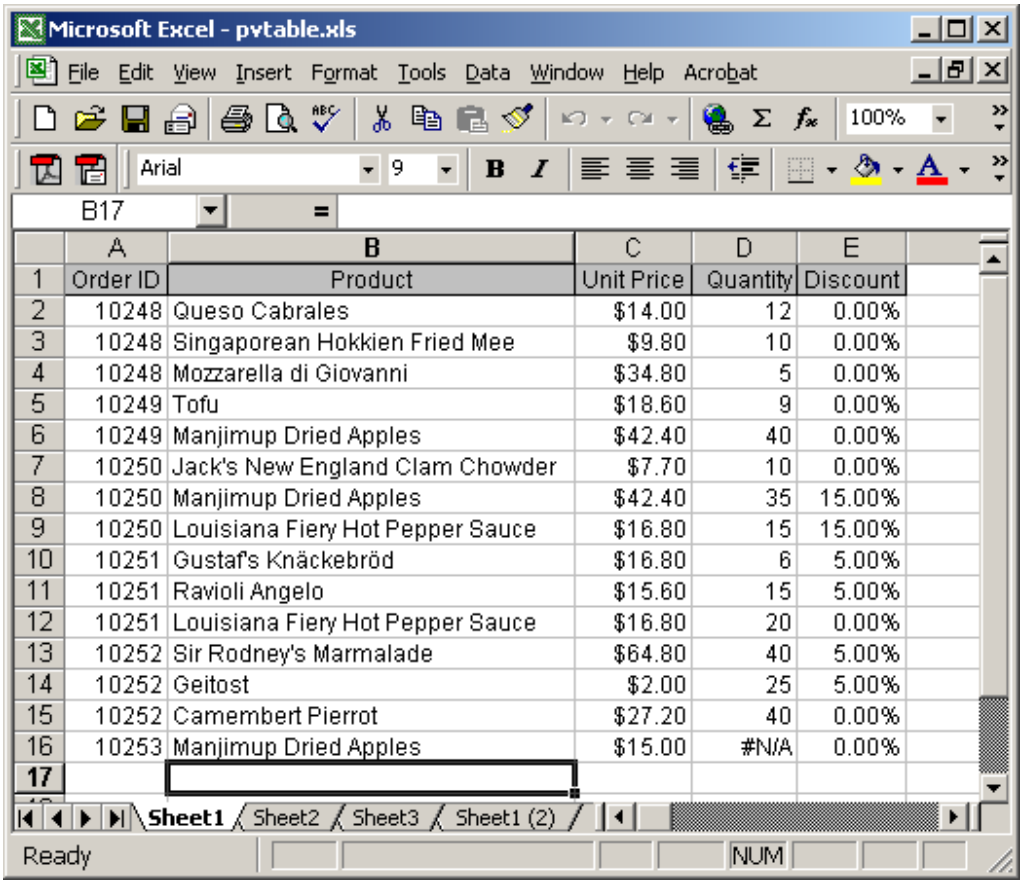
Now when you view your spreadsheet, you should only see the bottom 10 values based on quantity.



Excel: Change how errors are displayed

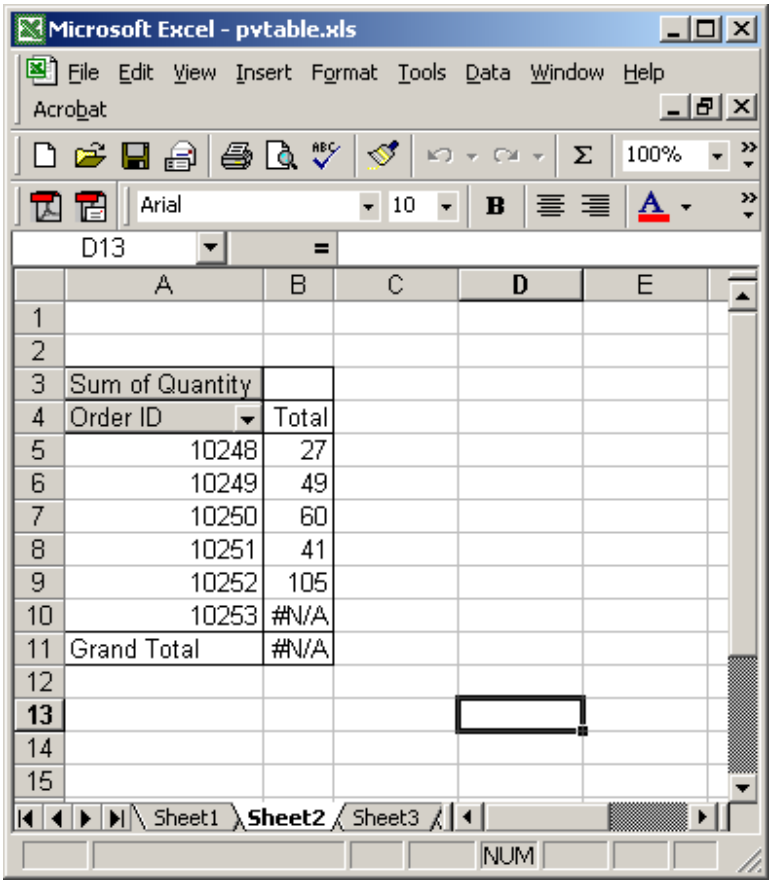
Question: I don't want to see errors in the pivot table. How do I replace all errors with another value?

Answer: Let's first take a look at an example of an error in a pivot table. This is a picture of our underlying data for the pivot table. You can see in row 16 that the quantity entry has an error in it. This could be the result of a vlookup function, for example.

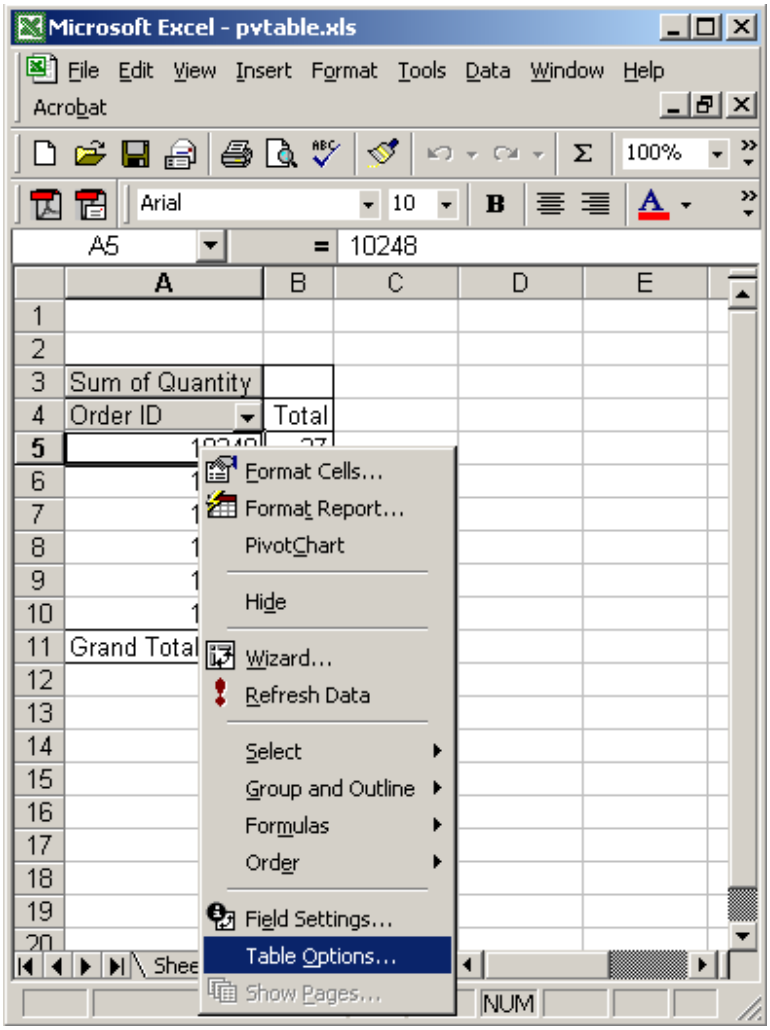


	A	B	C	D	E
1	Order ID	Product	Unit Price	Quantity	Discount
2	10248	Queso Cabrales	$14.00	12	0.00%
3	10248	Singaporean Hokkien Fried Mee	$9.80	10	0.00%
4	10248	Mozzarella di Giovanni	$34.80	5	0.00%
5	10249	Tofu	$18.60	9	0.00%
6	10249	Manjimup Dried Apples	$42.40	40	0.00%
7	10250	Jack's New England Clam Chowder	$7.70	10	0.00%
8	10250	Manjimup Dried Apples	$42.40	35	15.00%
9	10250	Louisiana Fiery Hot Pepper Sauce	$16.80	15	15.00%
10	10251	Gustaf's Knäckebröd	$16.80	6	5.00%
11	10251	Ravioli Angelo	$15.60	15	5.00%
12	10251	Louisiana Fiery Hot Pepper Sauce	$16.80	20	0.00%
13	10252	Sir Rodney's Marmalade	$64.80	40	5.00%
14	10252	Geitost	$2.00	25	5.00%
15	10252	Camembert Pierrot	$27.20	40	0.00%
16	10253	Manjimup Dried Apples	$15.00	#N/A	0.00%
17					

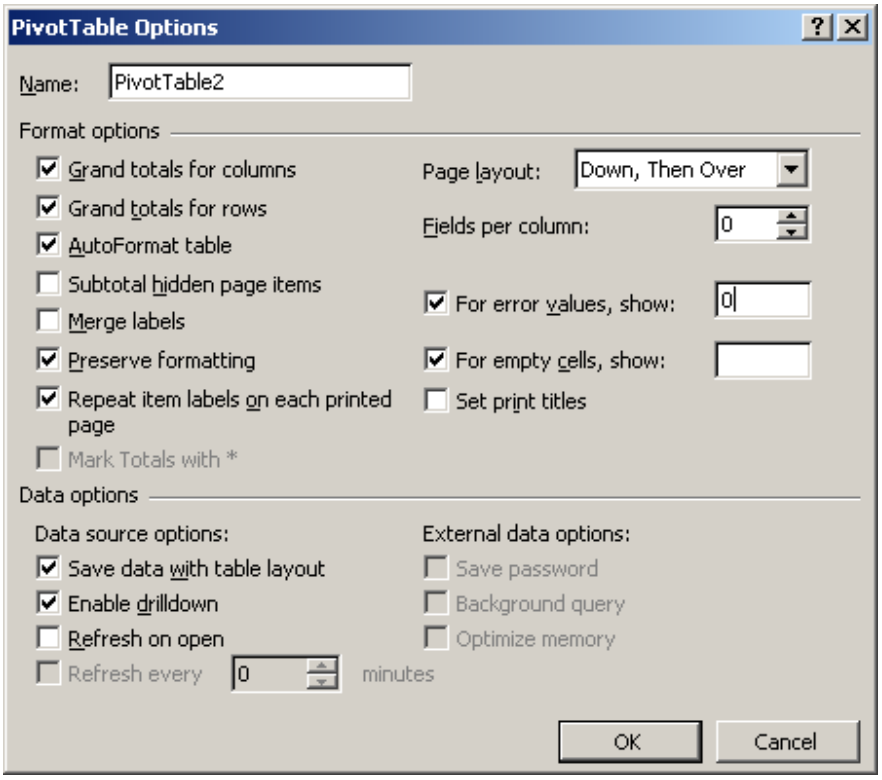
Now when you take a look at the pivot table that uses this data, you can see the error in the pivot table.



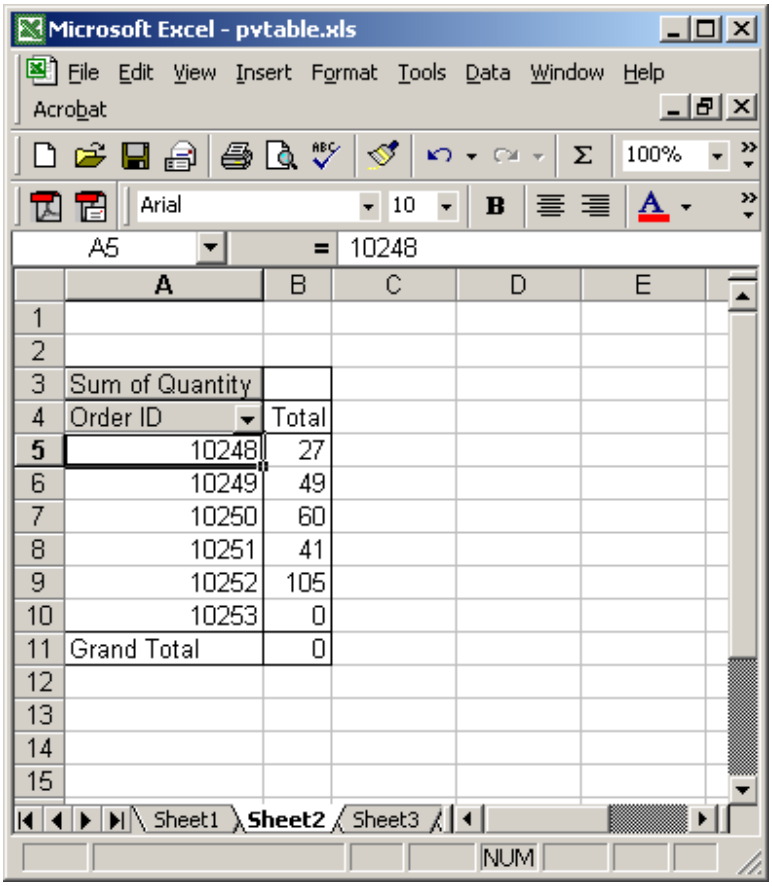
You can replace this error with a more appropriate value. To do this, select a cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



When the PivotTable window appears, check the checkbox called "For error values, show". Then enter the value that you wish to see in the pivot table instead of the error. Click on the OK button. In this example, we've decided to replace the error with a 0.



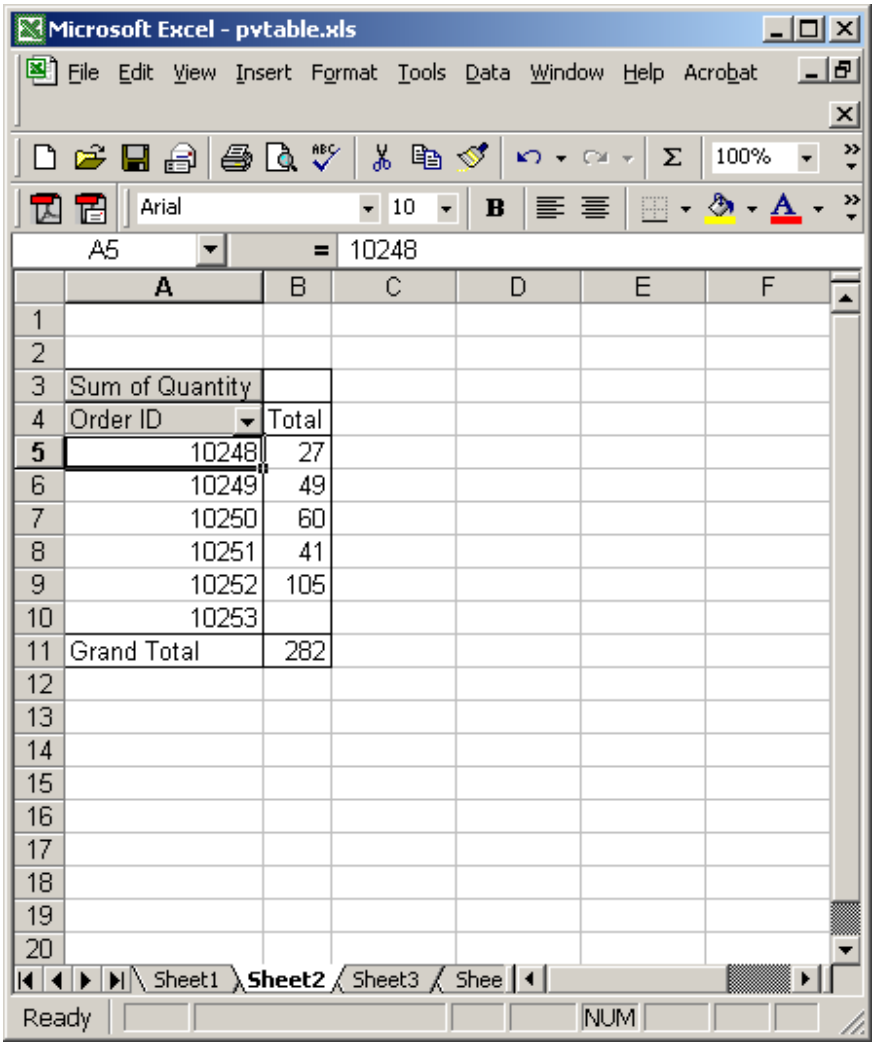
Now when we return to the pivot table, this is what we'll see.



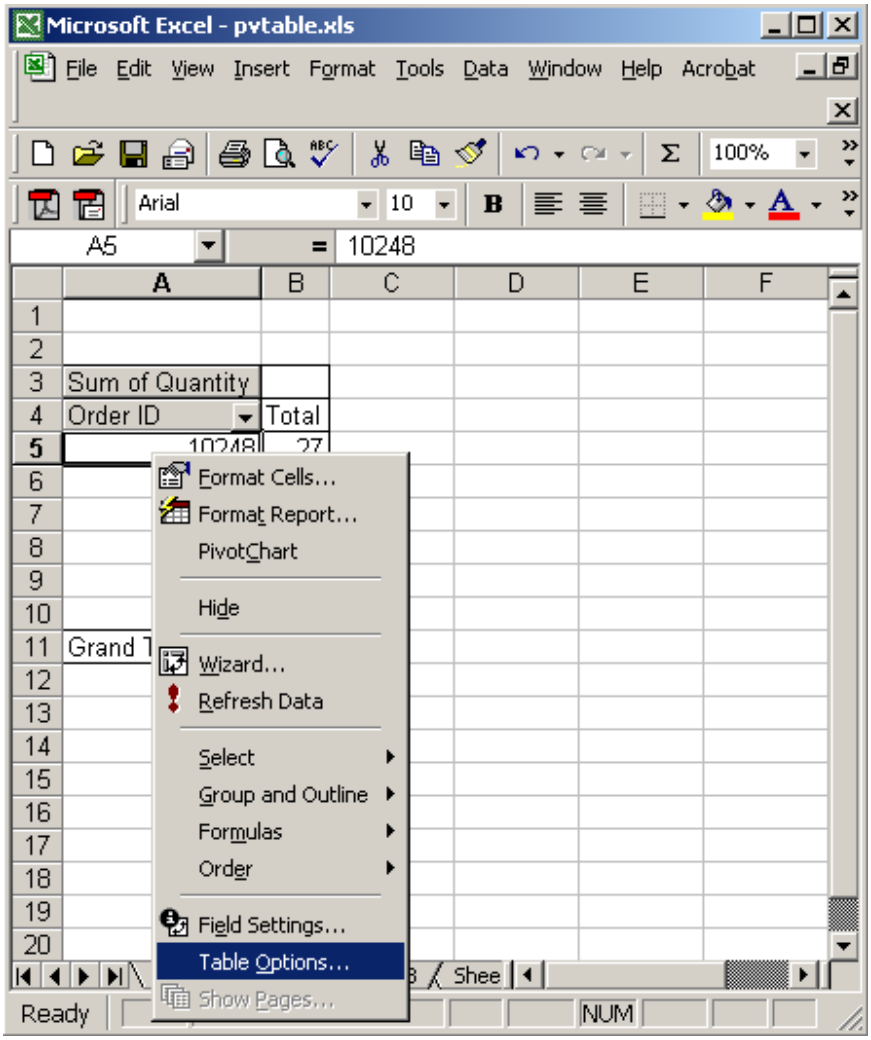
Excel: Change how empty cells are displayed

Question: I don't want to see empty cells in a pivot table. How do I replace all empty cells with another value?

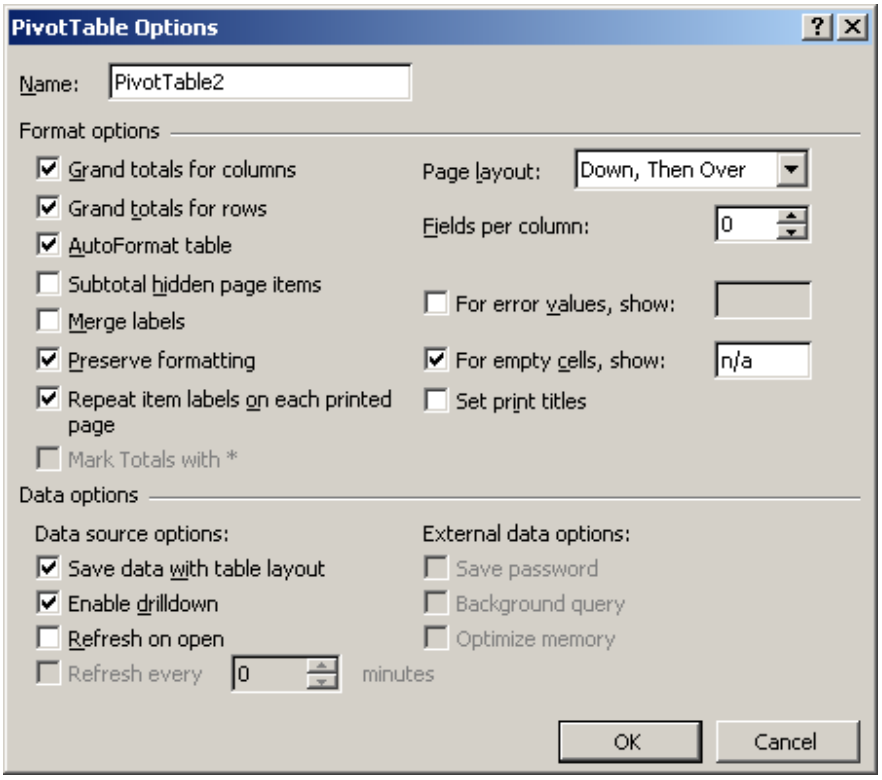
Answer: First, let's explain what an empty cell is. In the example below, we have order # 10253 that does not have any quantity (row 10 in spreadsheet). Therefore, the quantity is showing as a blank cell.



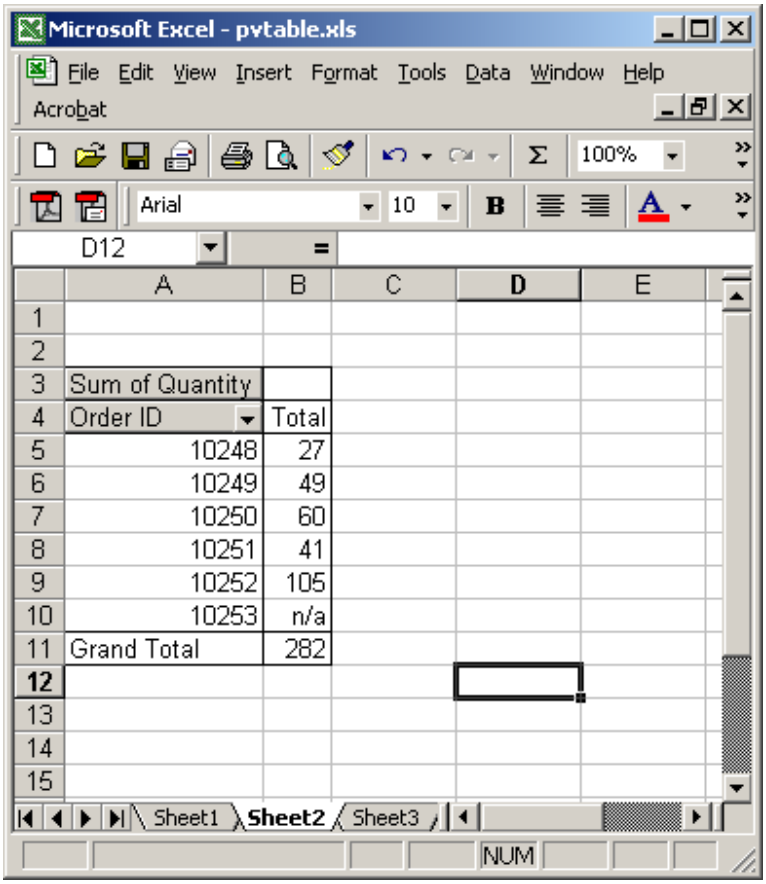
We'd like to replace all empty cells with the value "n/a". To do this, select any cell in the pivot table. Right-click and then select "Table Options" from the popup menu.



When the PivotTable window appears, check the checkbox called "For empty cells, show". Then enter the value that you wish to see in the pivot table instead of the empty cell. Click on the OK button. In this example, we want all blank cells to show as "n/a".



Now when we return to the pivot table, we see "n/a" as the quantity value for order #10253.



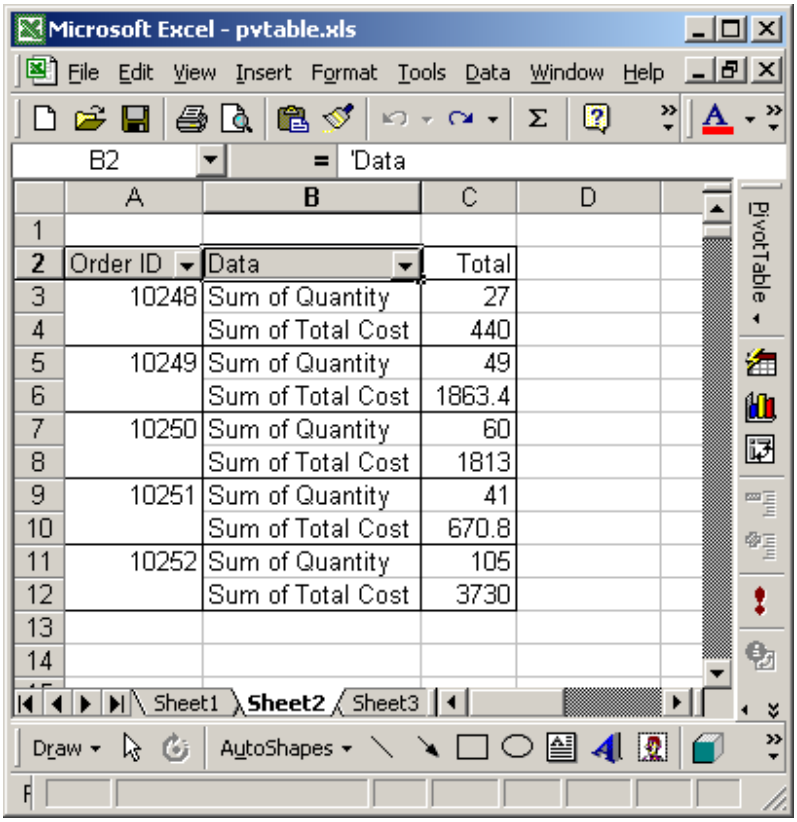
Excel: Display the fields in the Data Section in multiple columns

---

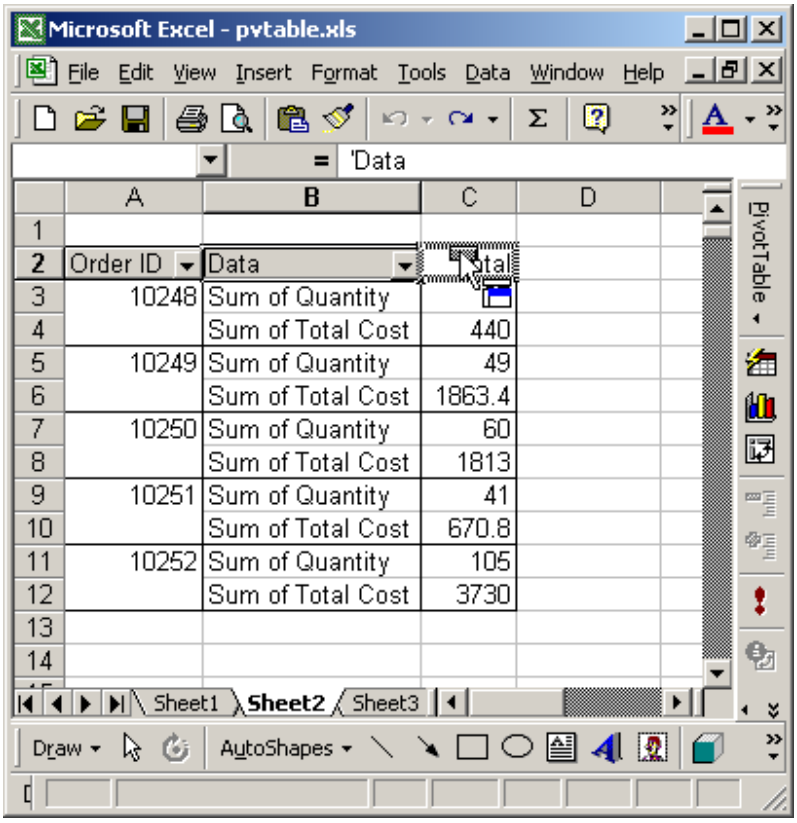
Question: I've created a pivot table in Excel with two fields in the Data Section of the pivot table. These fields are the sum of the Quantity as well as the sum of the Total cost of an order. The pivot table seems to be populating the Data Section in a single column and I want to see the results in two columns.

How can I set up my pivot table so that the Quantity and Total cost (in the data section) values show up in two columns instead of being listed in one?

Answer: By default, Excel will probably format your data section of your pivot table to populate all values in one column, as seen below:

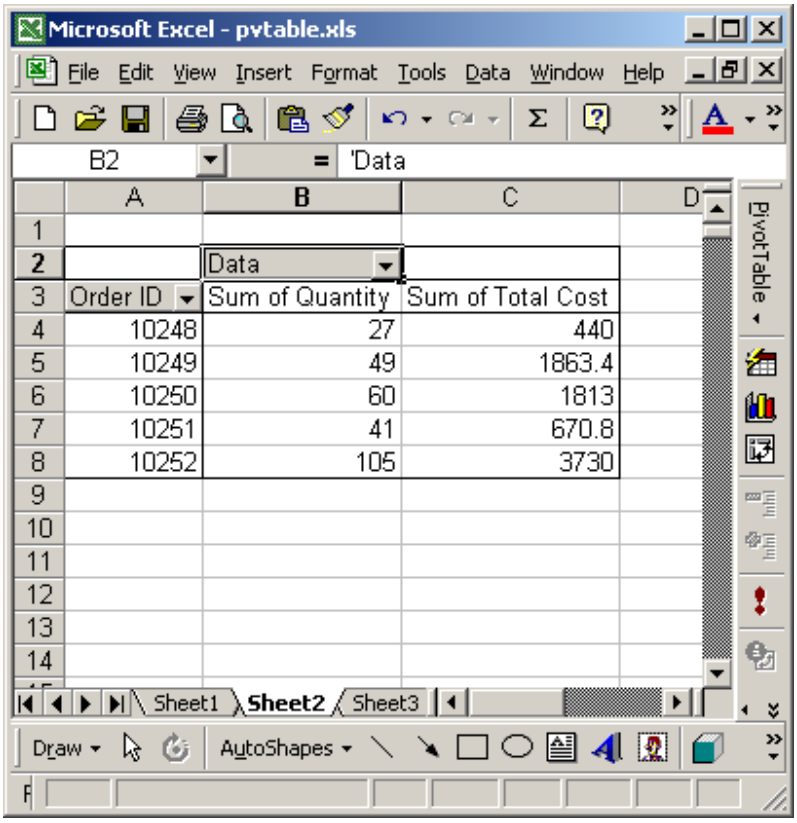


In this example, you can see that the "Sum of Quantity" as well as "Sum of Total Cost" fields are being displayed in one column. To change the pivot table so that each field is in its own column, first highlight the label called "Data".



Next, while your mouse cursor is over the Data label, click and hold down the Left Mouse Button. Slowly drag your mouse cursor to the right until you see the mouse cursor change to a picture similar to the above. This is usually when your cursor is over the label called Total.

Now, let go of the Left Mouse Button.



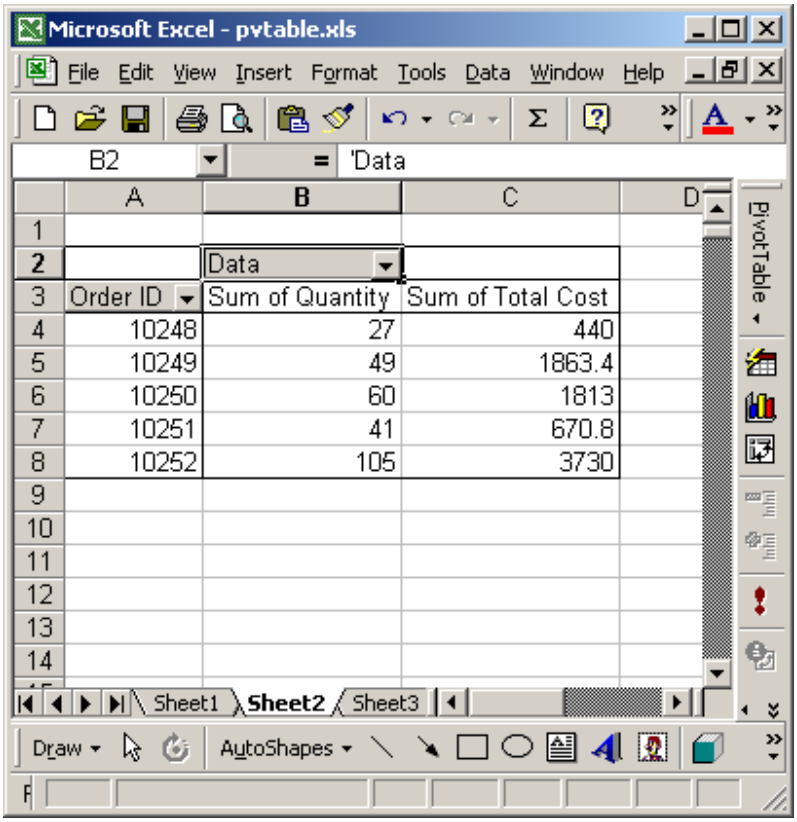
Now your pivot table should display the "Sum of Quantity" and "Sum of Total Cost" fields in their own columns.

Excel: Display the fields in the Data Section in a single column

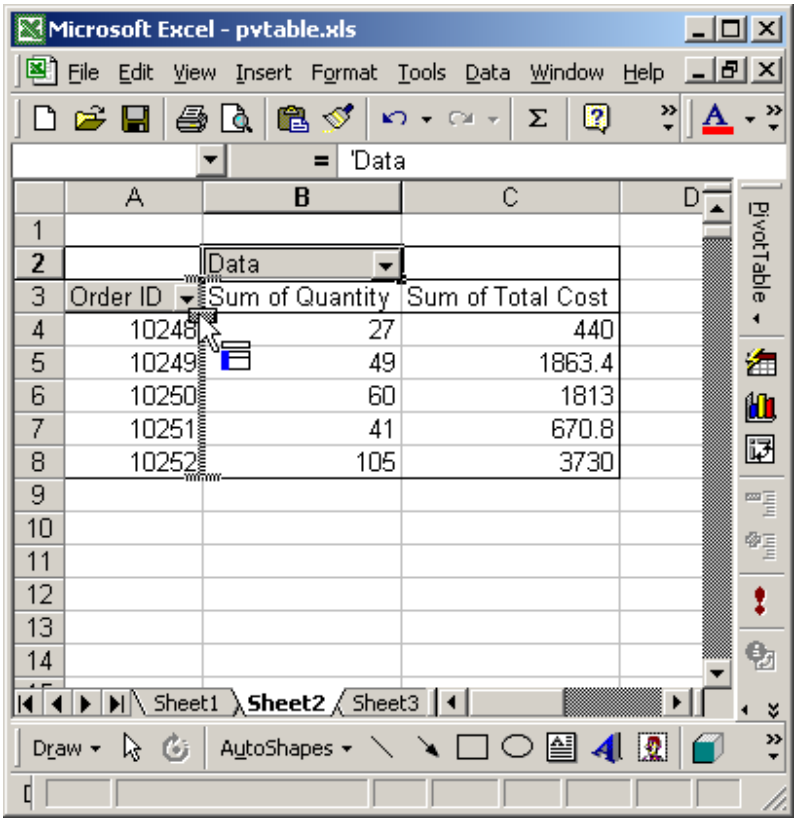
---

Question: I've created a pivot table in Excel with two fields in the Data Section of the pivot table. These fields are the sum of the Quantity as well as the sum of the Total cost of an order. The pivot table seems to be populating the data section in multiple columns and I want to see the results in a single column.
How can I set up my pivot table so that the Quantity and Total cost (in the data section) values show up in a single column instead of being listed in two?

Answer: Excel may format your data section of your pivot table to populate your values in multiple columns, as seen below:

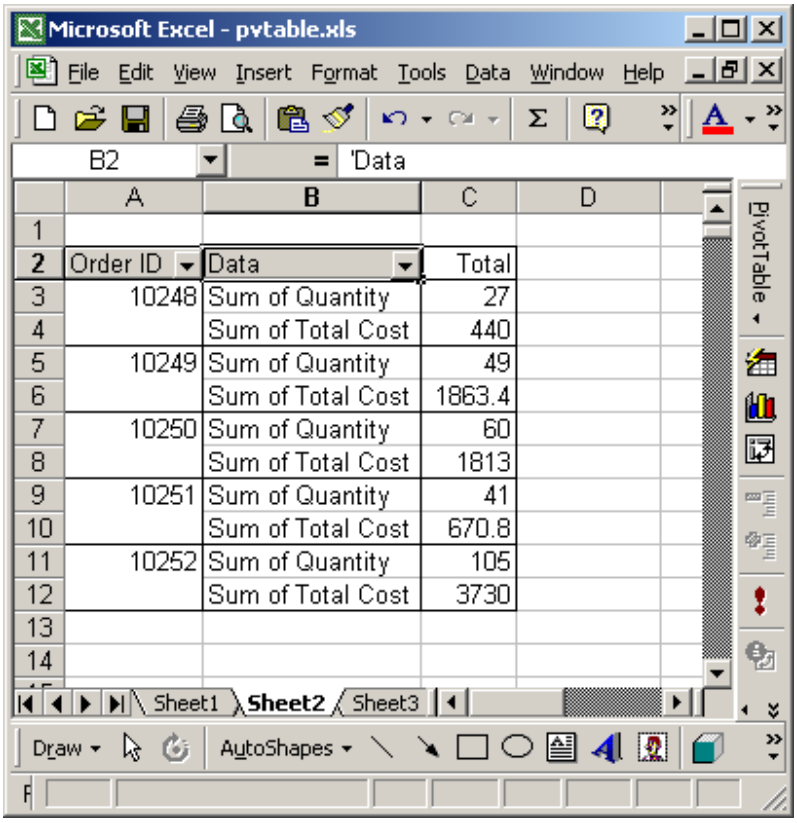


In this example, you can see that the "Sum of Quantity" as well as "Sum of Total Cost" fields are being displayed in multiple columns. To change the pivot table so that the fields are populated in a single column, first highlight the label called "Data".



Next, while your mouse cursor is over the Data label, click and hold down the Left Mouse Button. Slowly drag your mouse cursor to the left until you see the mouse cursor change to a picture similar to the above. This is usually when your cursor is next to your Row Section (ie: Order ID field).

Now, let go of the Left Mouse Button.

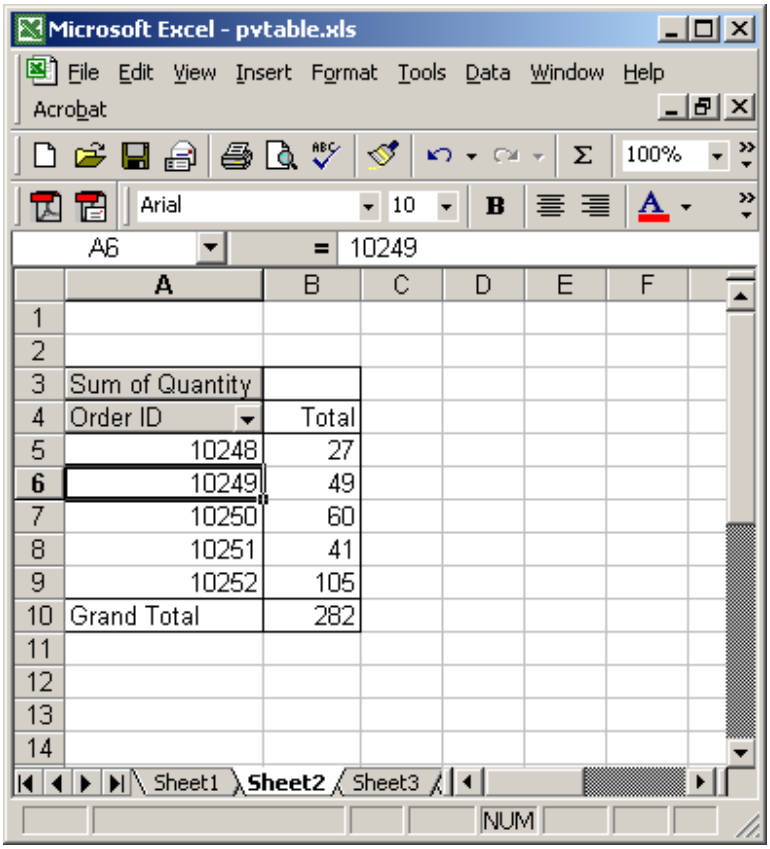


Now your pivot table should display the "Sum of Quantity" and "Sum of Total Cost" fields in a single column, populating down.

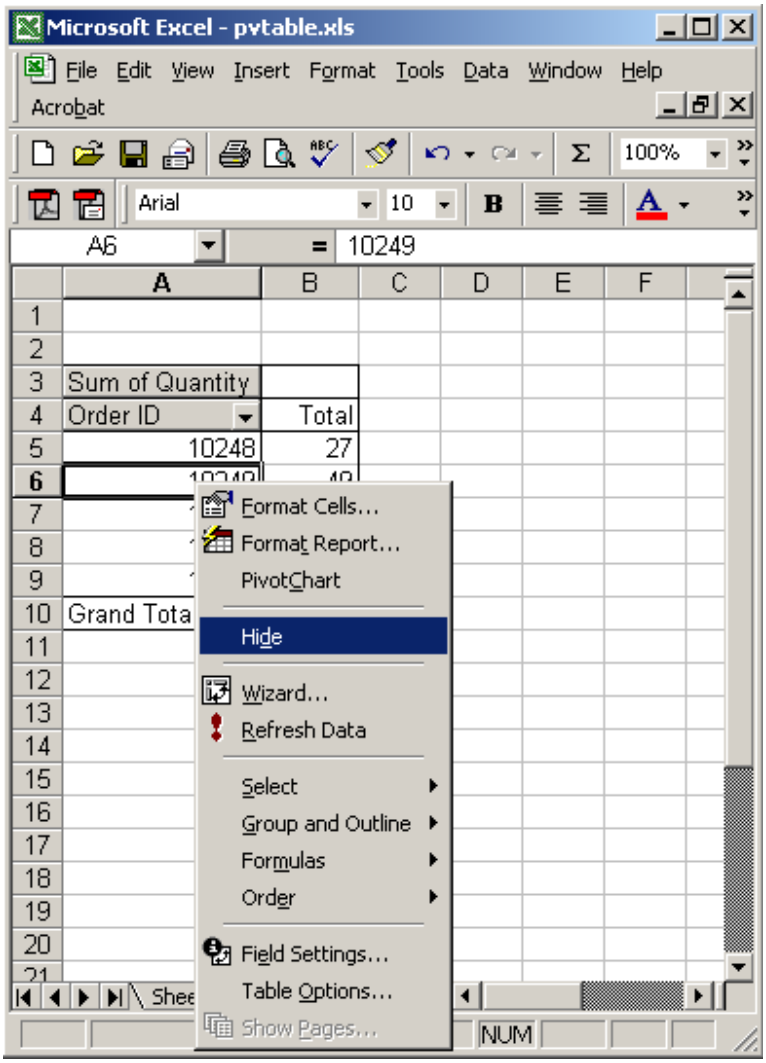
Excel: Hide a value

Question: How do I hide a value in a pivot table?

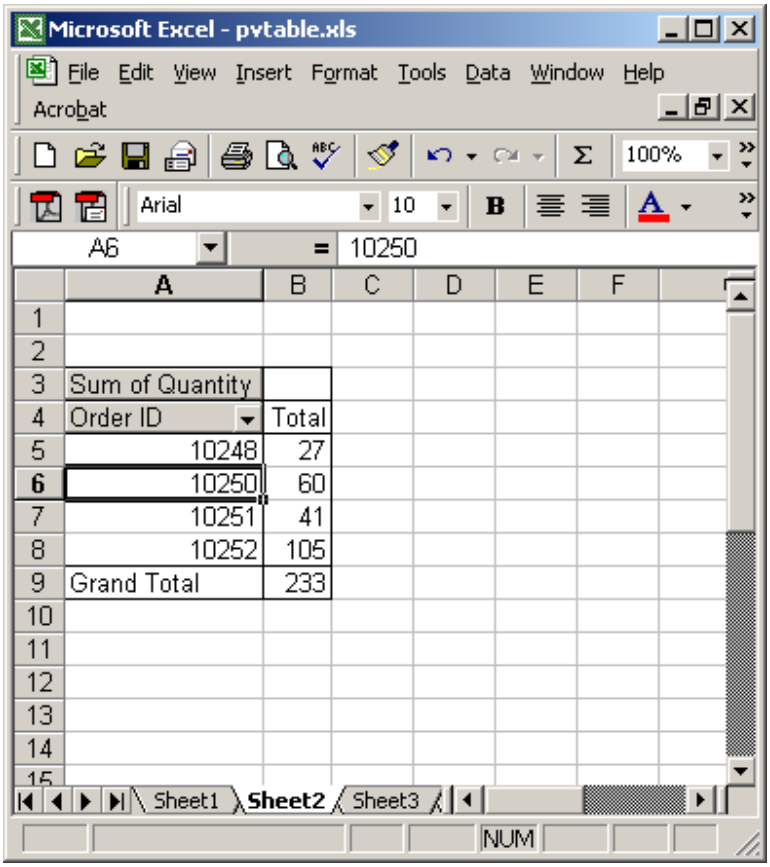
Answer: Select the value that you wish to hide. In this example, we are going to order Order #10249.



Right-click and the select "Hide" from the popup menu.



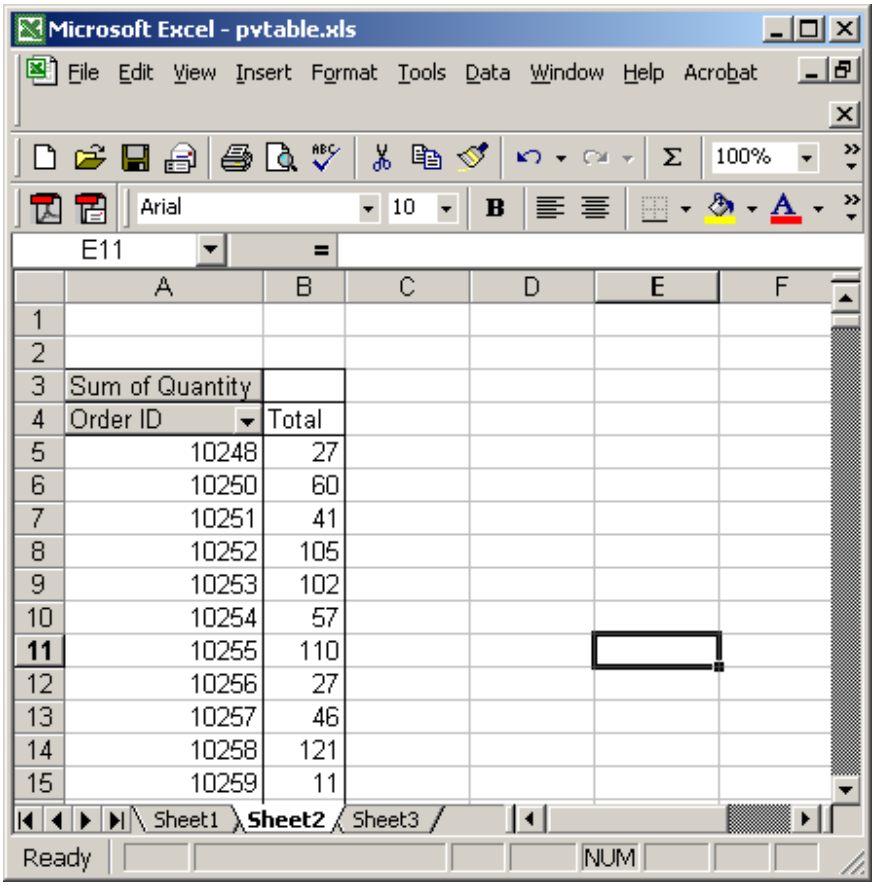
The Order #10249 is now hidden.



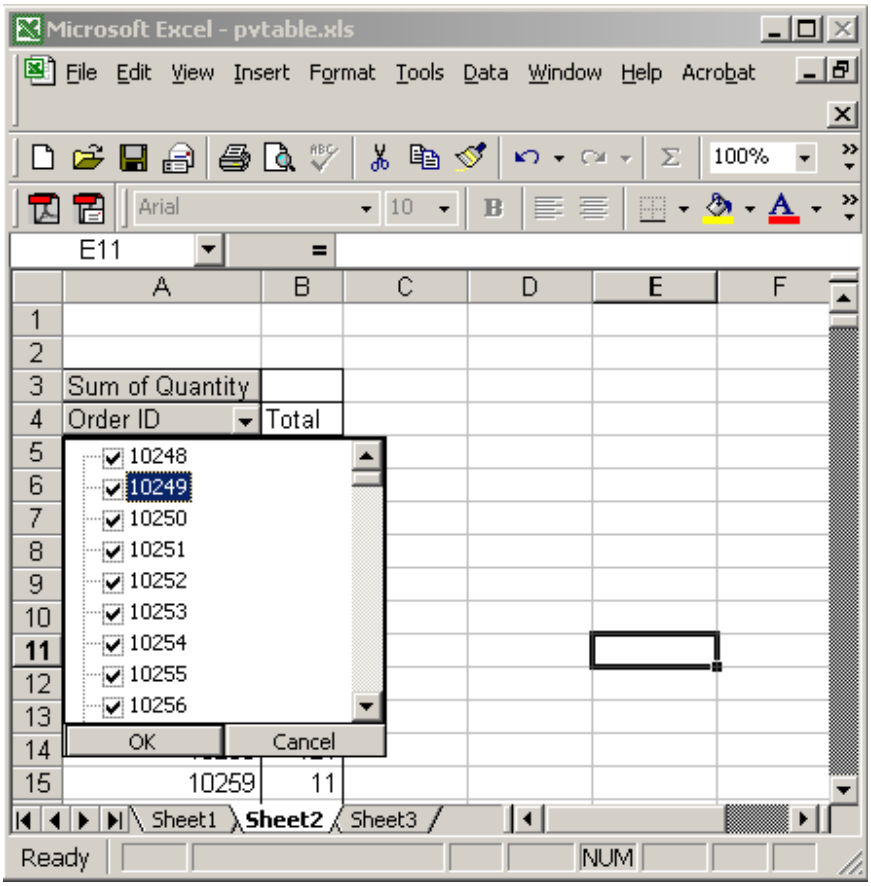
Excel: Display a hidden value

Question: How do I display a hidden value in a pivot table in Excel?

Answer: To explain how to display a hidden value in an Excel pivot table, we'll take a look at an example. In this case, the entry for Order ID 10249 is hidden.

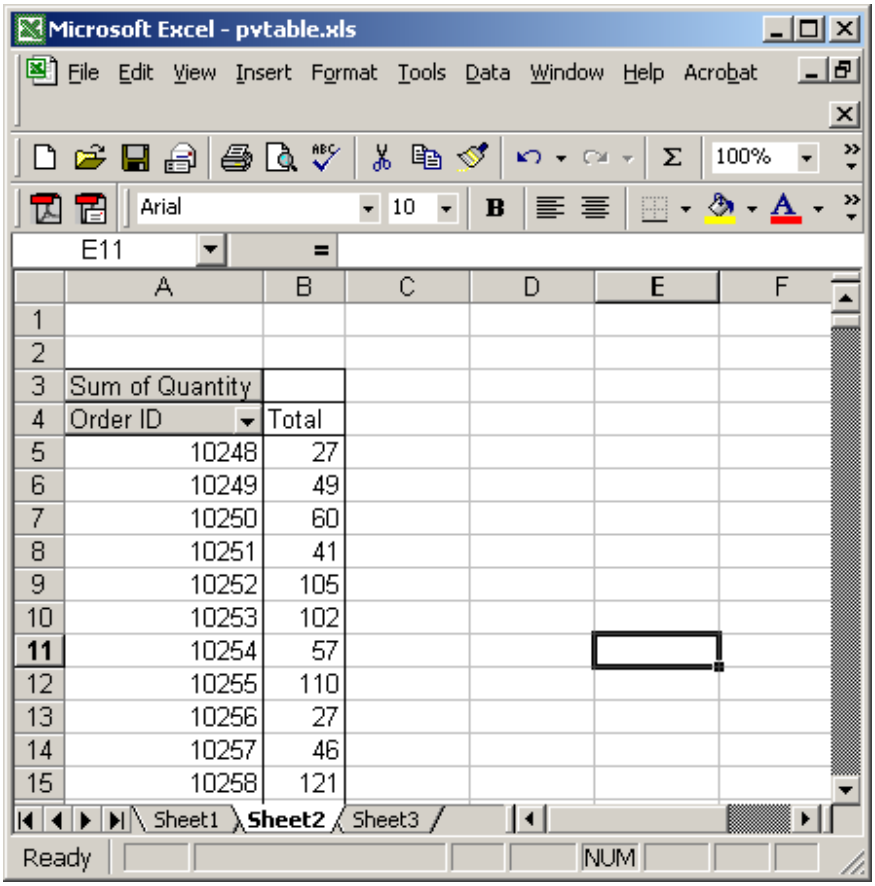


Click on the arrow to the right of the field that has the hidden value. In this example, the field that has the hidden value is called Order ID, so we'll click on the arrow to the right of the Order ID field.



Check the box to the left of the value that you want to display. Click on the OK button. In this example, we've checked the box for Order ID 10249.

Just to summarize, all checked values are visible in the pivot table and all unchecked values are hidden in the pivot table.

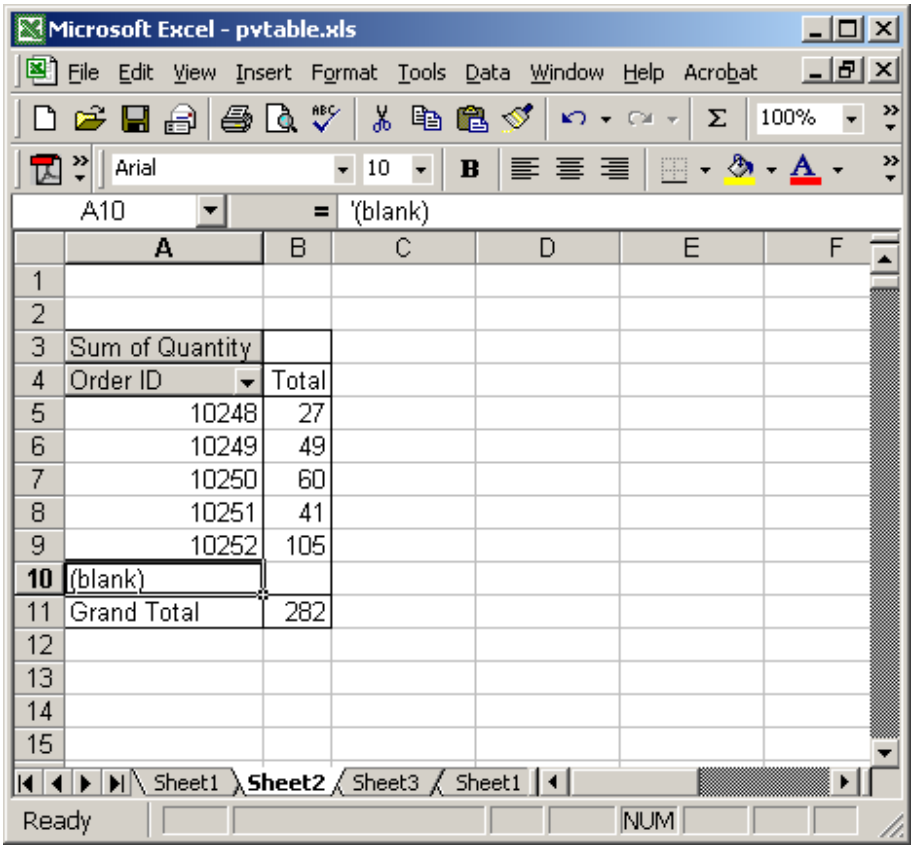


Now when we return to the pivot table, we can see the details for Order ID 10249.

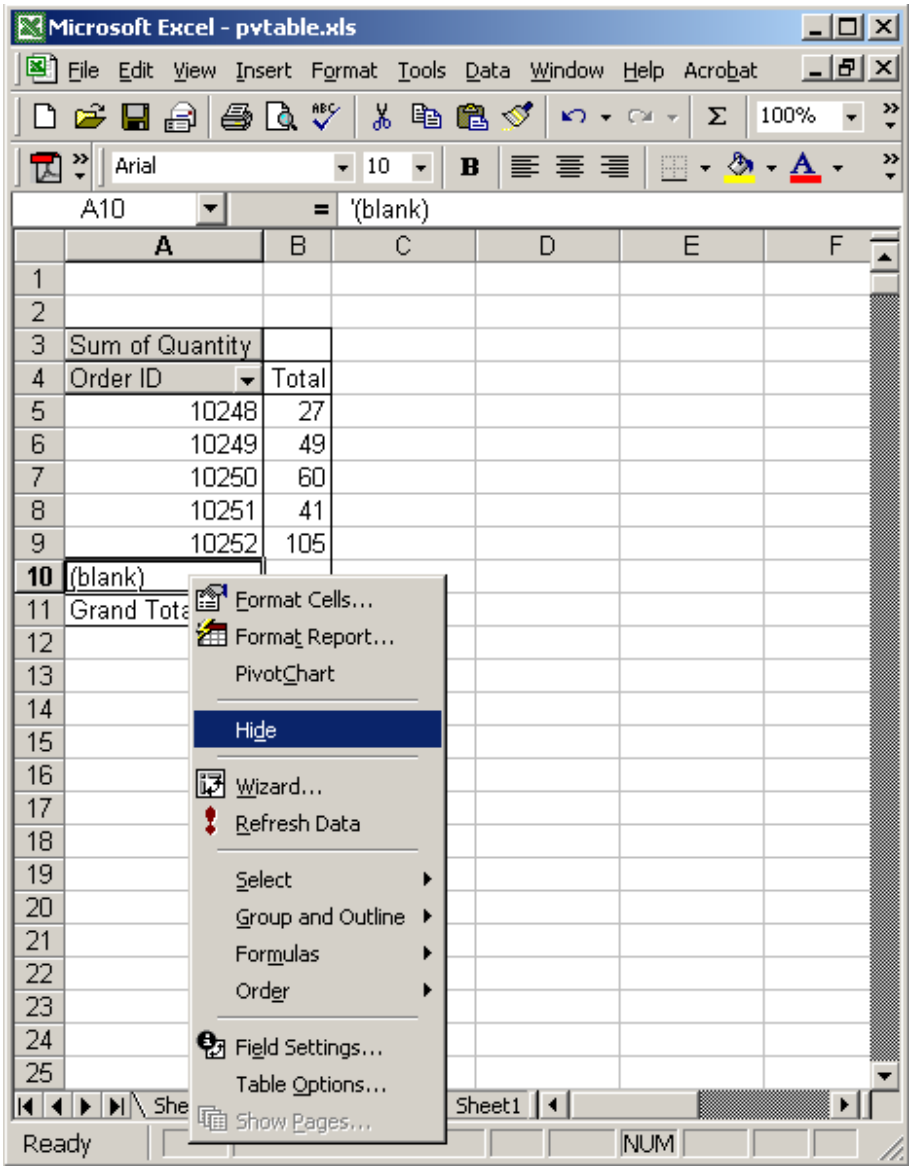
Excel: Hide empty cells in a pivot table

Question: How do I hide empty cells in an Excel pivot table?

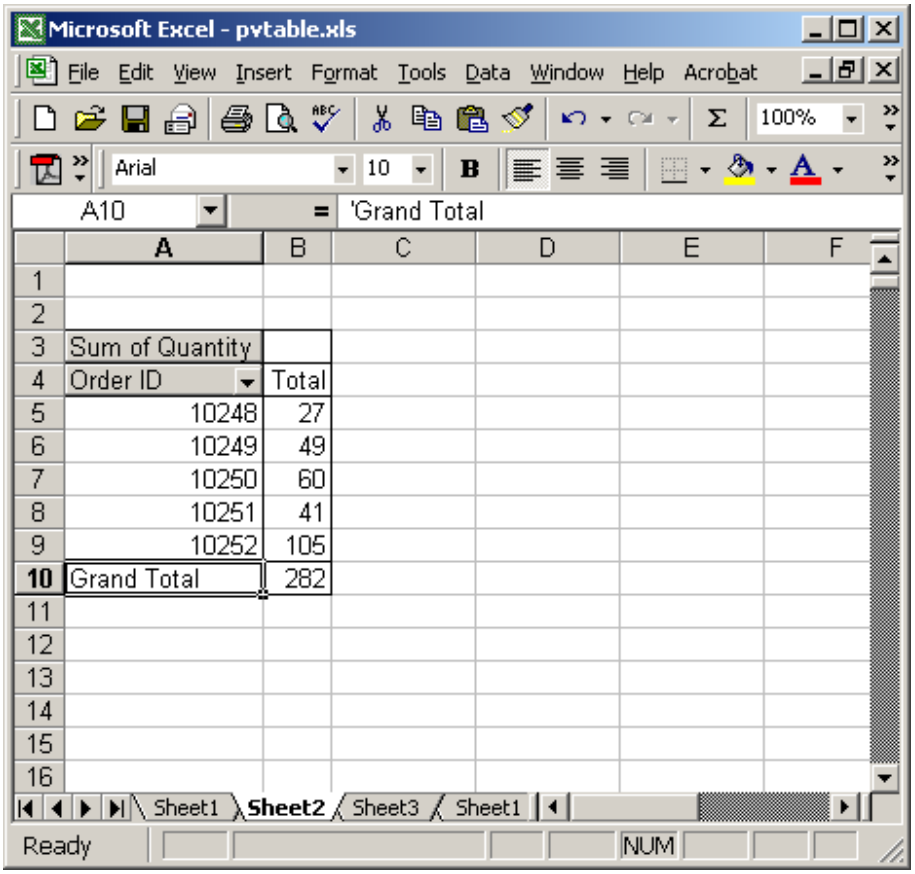
Answer: To hide empty cells in a pivot table, select the empty cell in the pivot table.



Right-click and select *Hide* from the popup menu.



Now whenever the OrderID is blank, the data will be hidden in the pivot table.

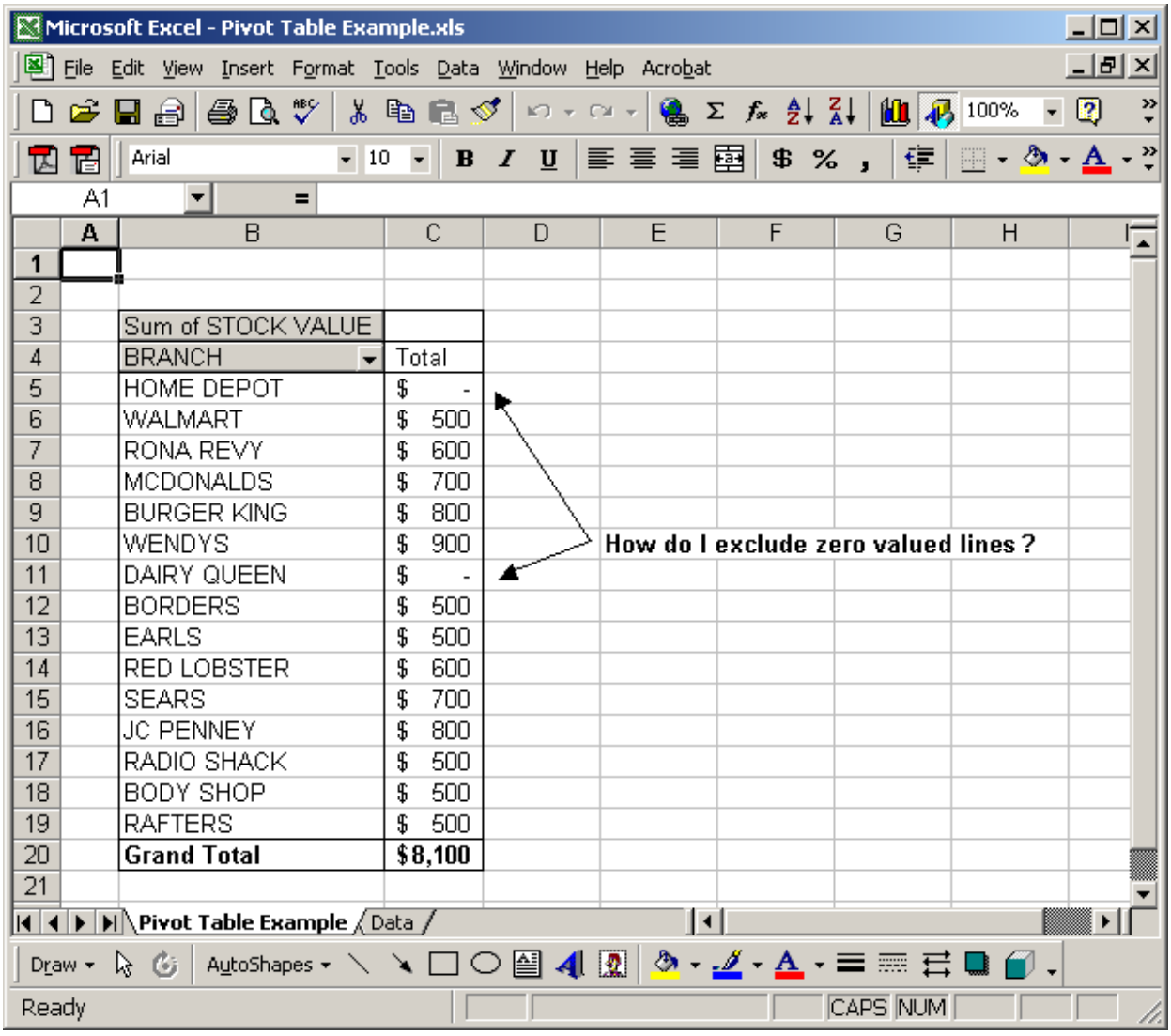


Excel: Hide zero value lines within a pivot table

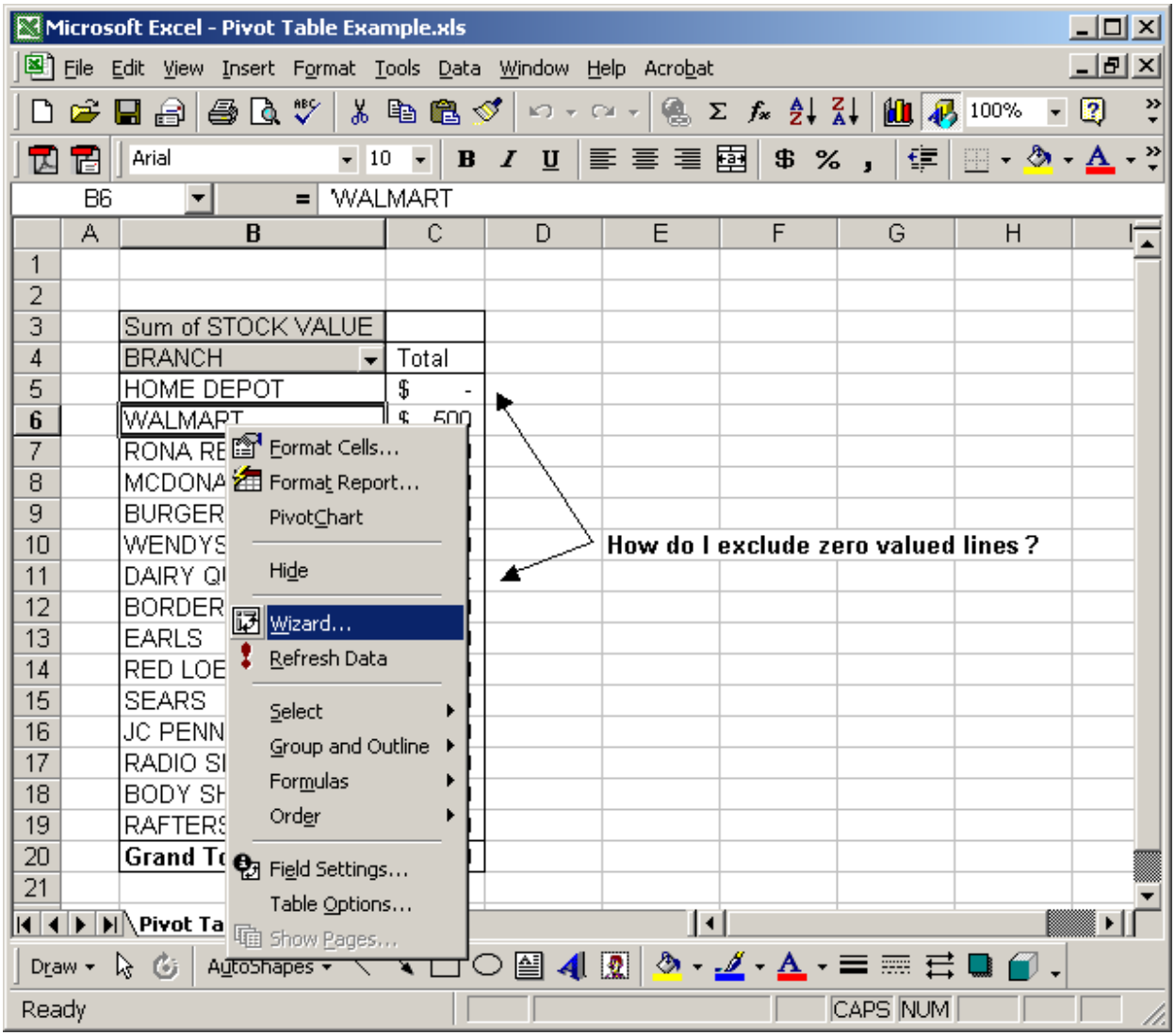
Question: I wonder if you can help, is there a way in which you are able to hide zero valued lines within a pivot table ? i.e. I have a table with two columns branch name and stock value and I would like to hide the branches with no value against them - is this possible ?

Your help on this would be much appreciated.

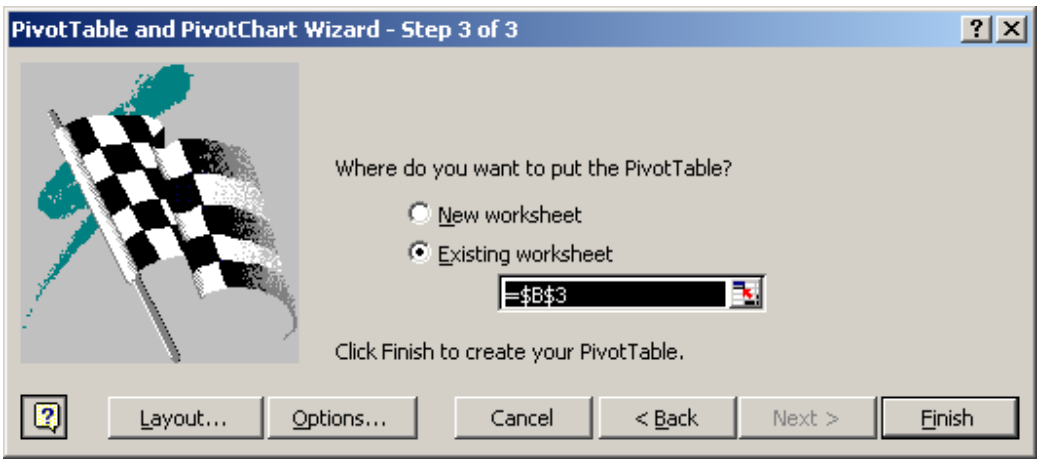
Answer: Let's take a look at an example. Below is an Excel spreadsheet that contains values that are zeros. We want to hide these lines from being displayed in the pivot table.



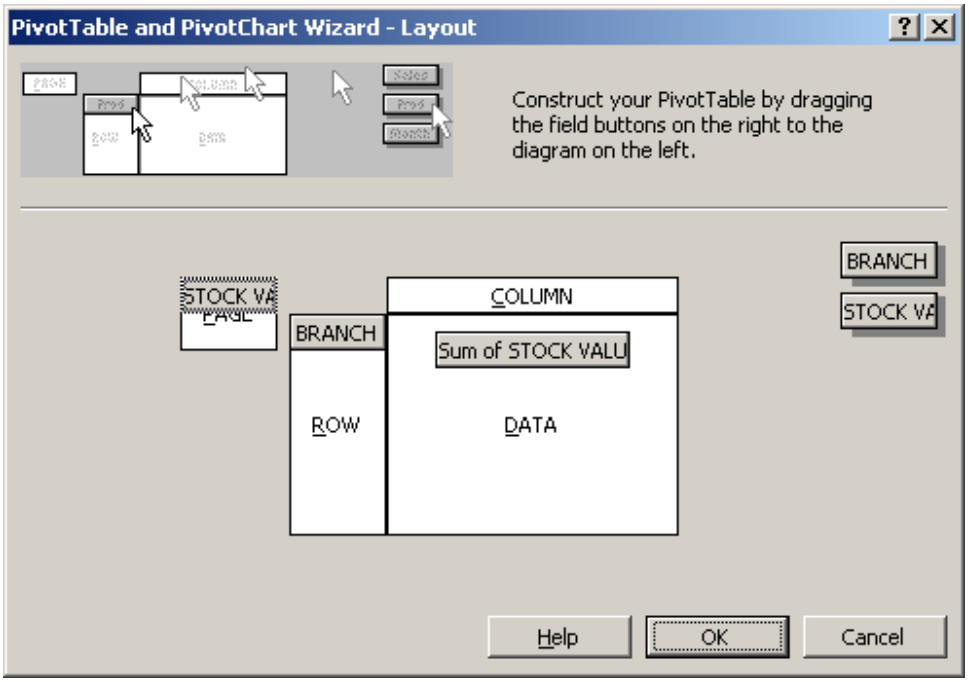
Right-click in the Pivot table and select Wizard from the popup menu.



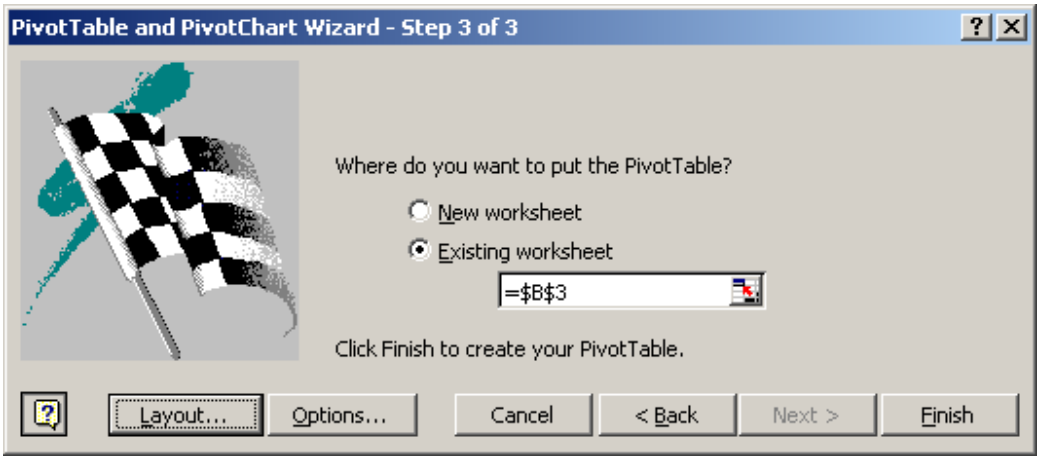
When the PivotTable Wizard appears, click on the Layout button.



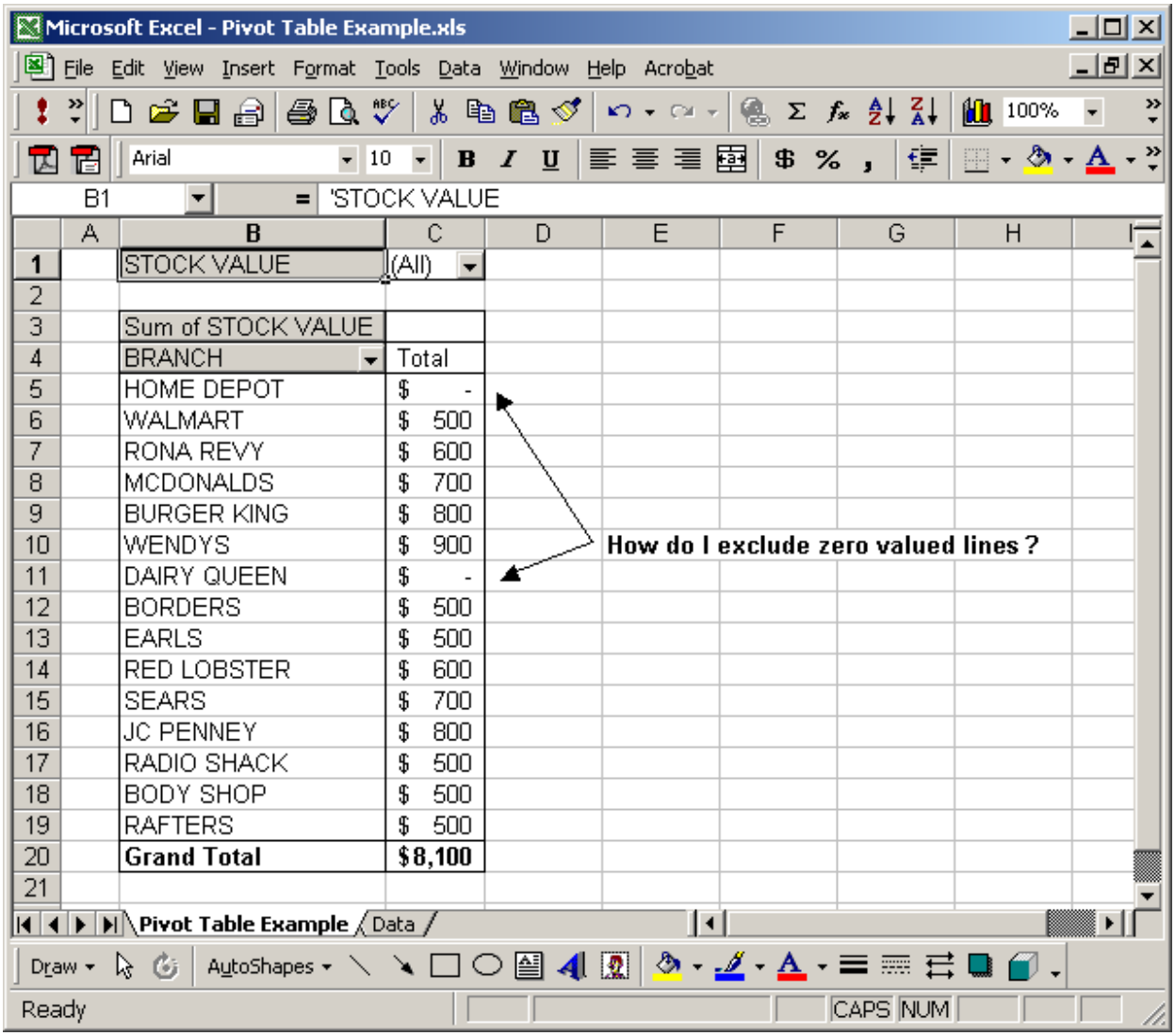
Drag the STOCK VALUE field to the PAGE section. Click on the OK button.



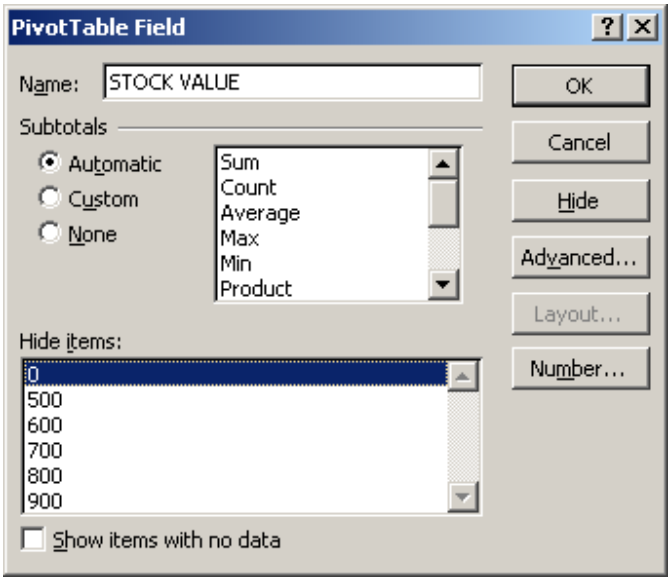
Click on the Finish button to return to the spreadsheet.



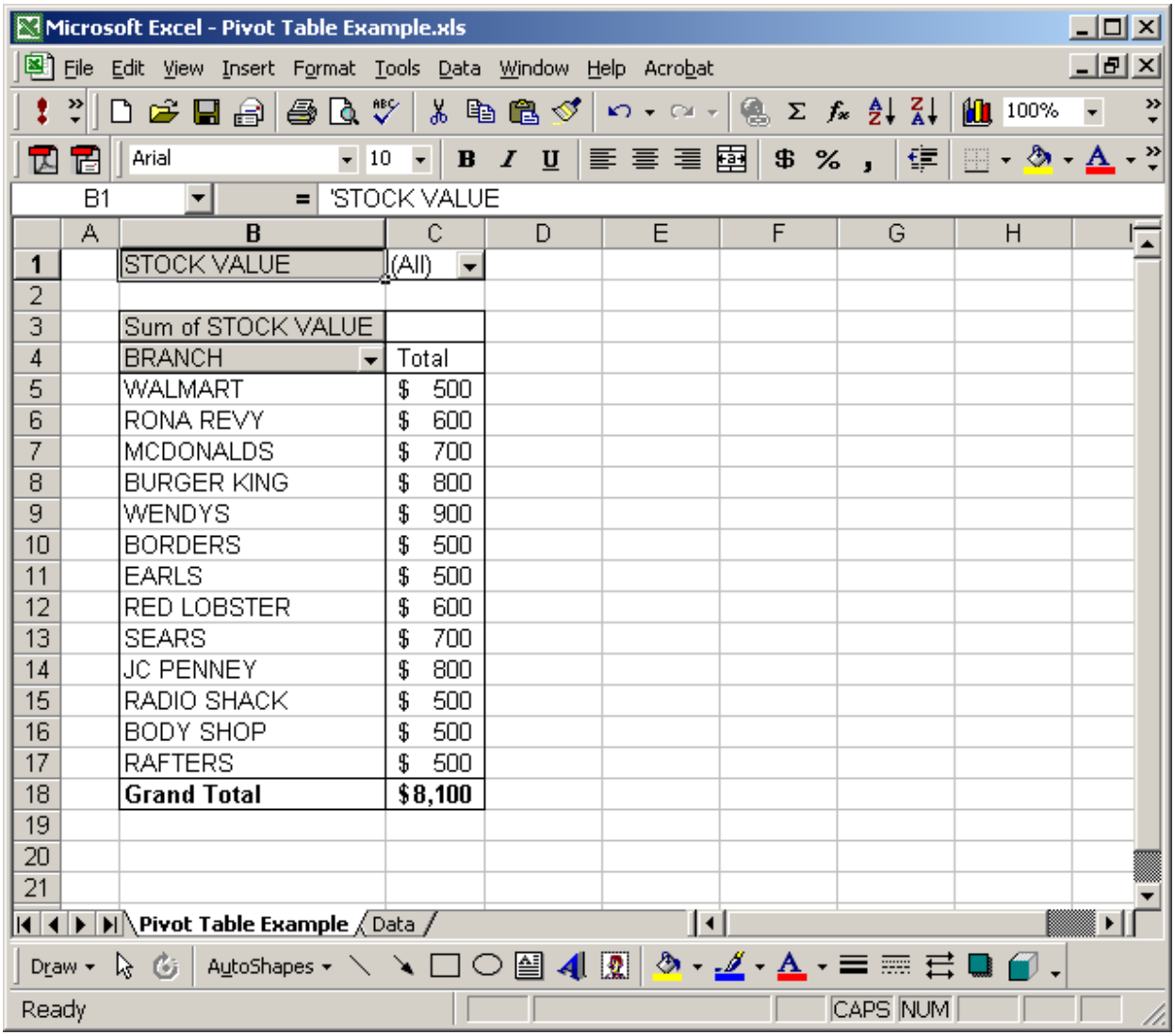
Double-click on the Stock Value field in the Page section.



Highlight the 0 in the Hide Items window. Click on the OK button.



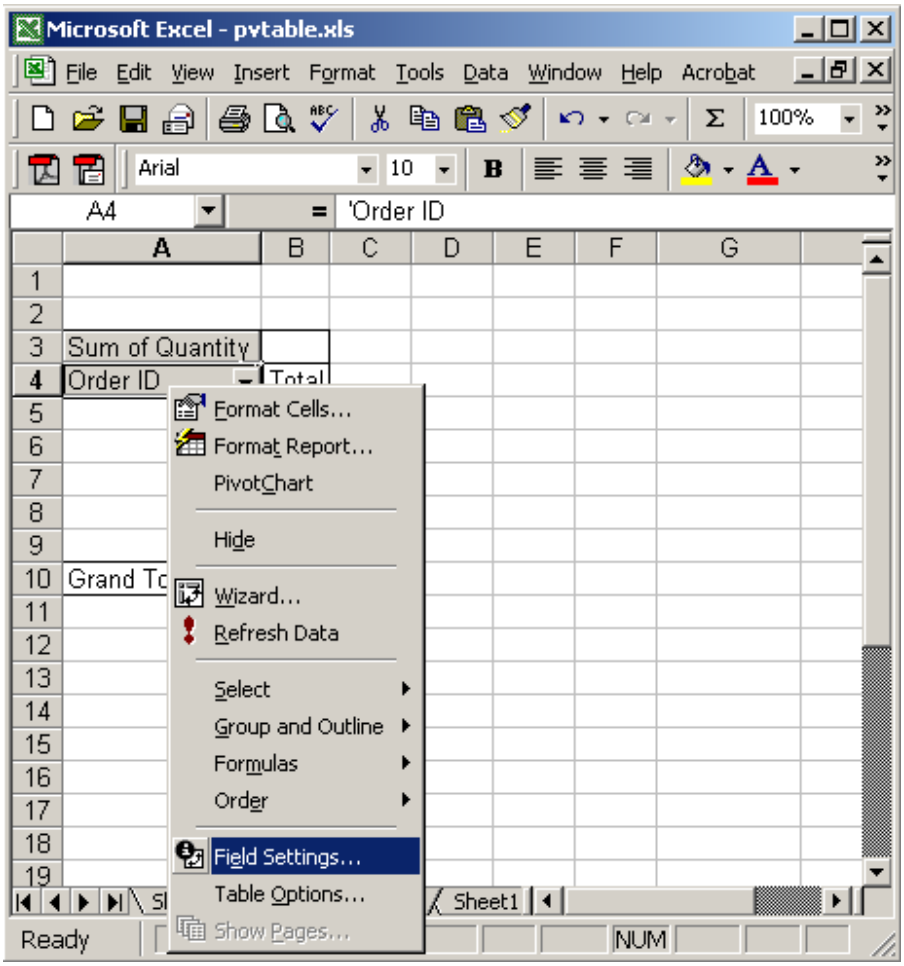
Now when you return to the spreadsheet, the blank/zero lines should be hidden.



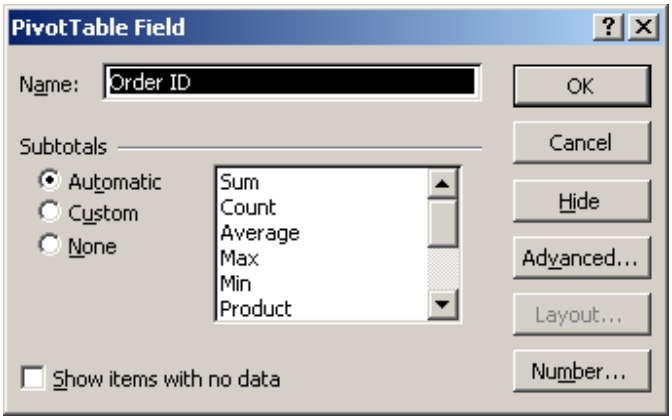
Excel: Sort pivot table results

Question: How do I sort the pivot table results?

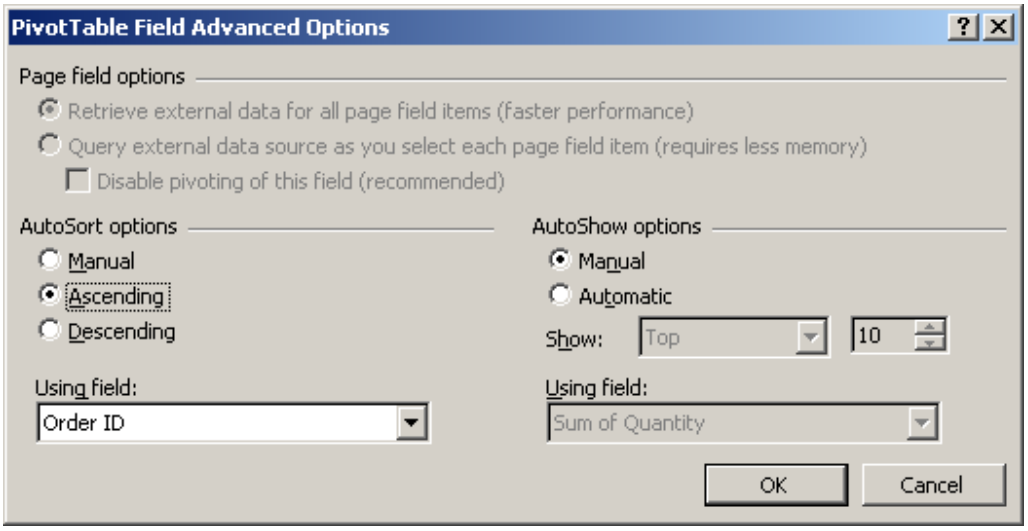
Answer: Select the row heading that you wish to sort on. Right-click and then select "Field Settings" from the popup menu. In this example, we've selected the row heading called Order ID.



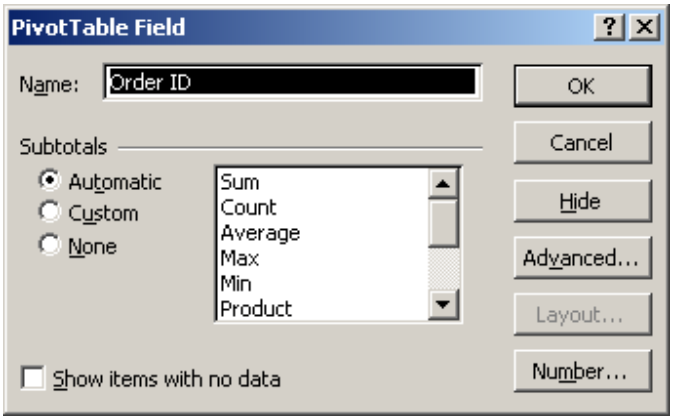
When the *PivotTable Field* window appears, click on the Advanced button.



Under the AutoSort options, select either Ascending or Descending depending on the sort order that you wish to select. Click on the OK button. In this case, we've chosen to sort the Order ID field in ascending order.



This will return you to the *PivotTable Field* window. Click on the OK button.



Excel: GetPivotData Example #1

The **GetPivotData** function returns data from a pivot table. It can retrieve summary data from a pivot table as long as the summary data is visible.
The syntax for the **GetPivotData** function is:

GetPivotData(pivot_table, name)

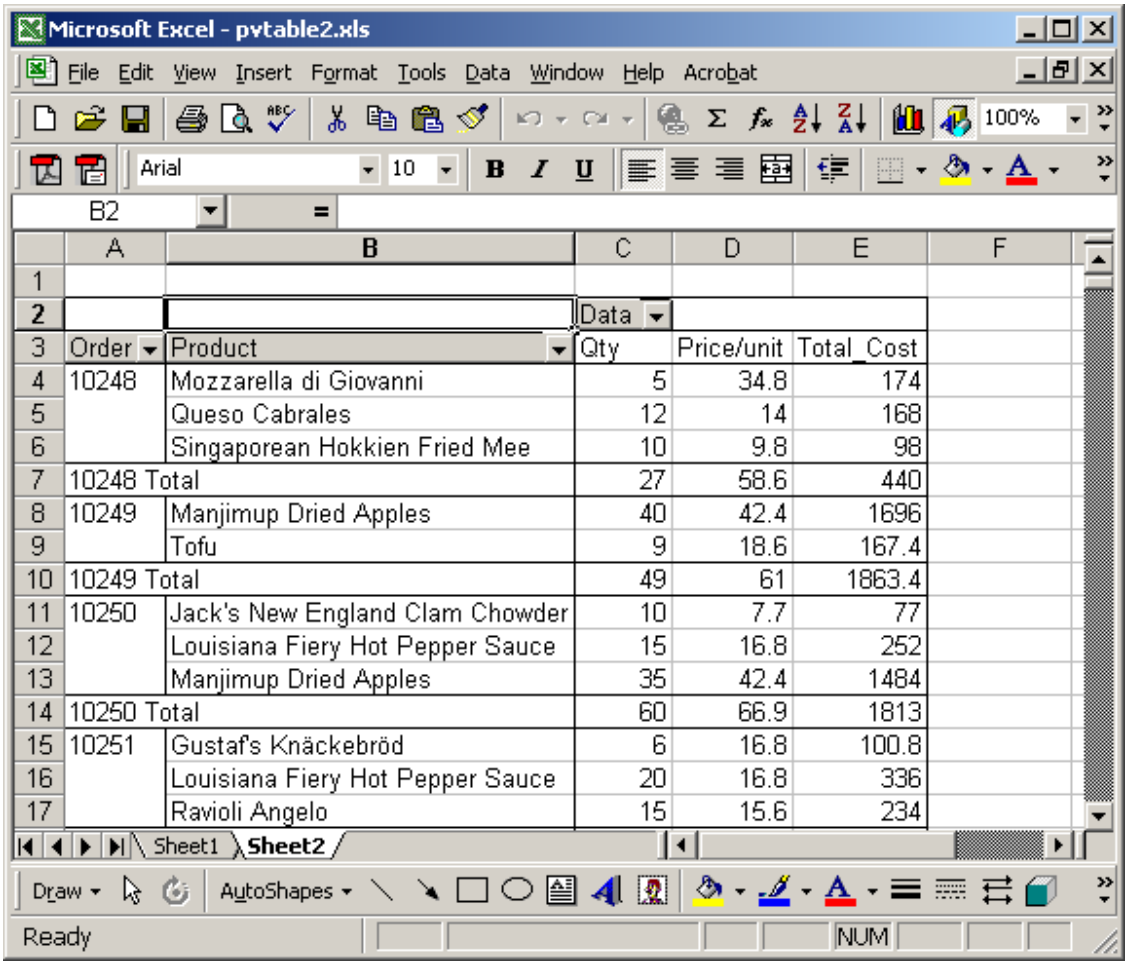
pivot_table is generally a named range that has been set up to point to the pivot table.

name is the name of the summary value that you wish to retrieve.

For Example:

Let's take a look at an example.

Below we have an Excel spreadsheet that has a pivot table on Sheet2. We've set up a named range called *PivotTable* that references this pivot table (Sheet2!$A:$E).



=GetPivotData(PivotTable,"10249 Qty")	would return 49
=GetPivotData(PivotTable,"10249 Price/unit")	would return 61
=GetPivotData(PivotTable,"10249 Total_Cost")	would return 1863.4
=GetPivotData(PivotTable,"10249 Tofu	would return 167.4

Total_Cost")

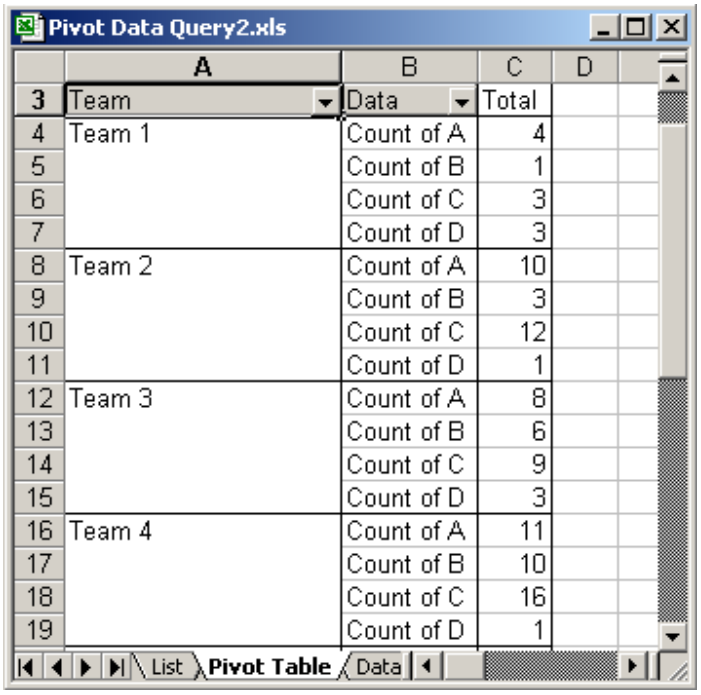
Excel: GetPivotData Example #2

The **GetPivotData** function returns data from a pivot table. It can retrieve summary data from a pivot table as long as the summary data is visible.
The syntax for the **GetPivotData** function is:

GetPivotData(pivot_table, name)

pivot_table is generally a named range that has been set up to point to the pivot table.
name is the name of the summary value that you wish to retrieve.

For Example:
Let's take a look at an example.
Below we have an Excel spreadsheet that has a pivot table on the sheet called "Pivot Table". We've set up a named range called *team_count* that references this pivot table ('Pivot Table'!$A:$C).



=GetPivotData (team_count,"'Team 1' 'Count of B'")	would return 1
=GetPivotData (team_count,"'Team 2' 'Count of B'")	would return 3
=GetPivotData (team_count,"'Team 2' 'Count of C'")	would return 12

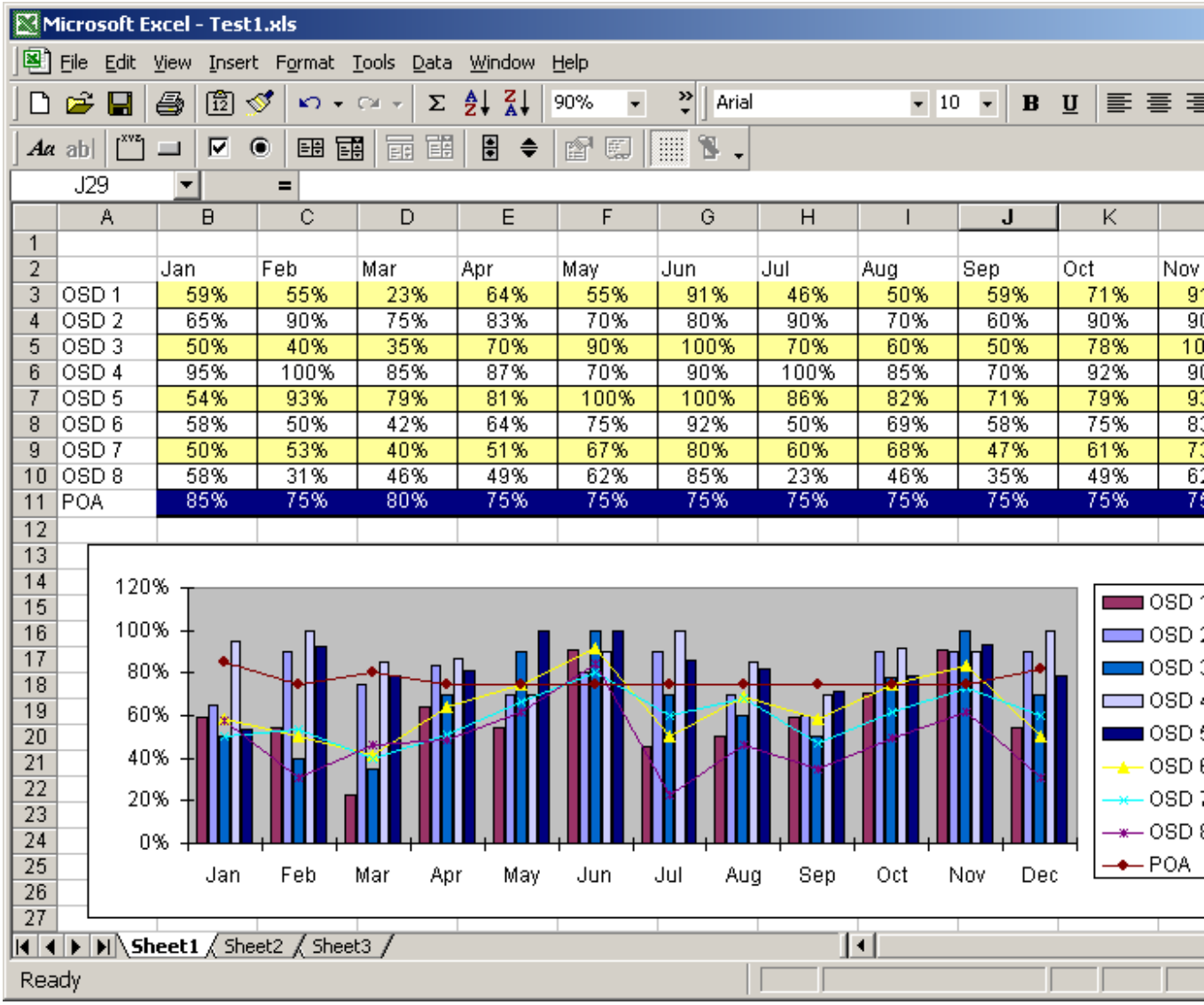
Excel: Create a column/line chart with 8 columns line

Question: I have a question with Excel charts.

How can I make a column/line chart. I have 8 rows that I would like graphed in columns and 1 row on the same graph but in the form of a line. I have tried using the chart wizard, custom chart type c Column". This format, however, only allows 5 rows of data to appear in the form of columns. Then data will default in to the form of lines. Is there a way to prevent this from happening?

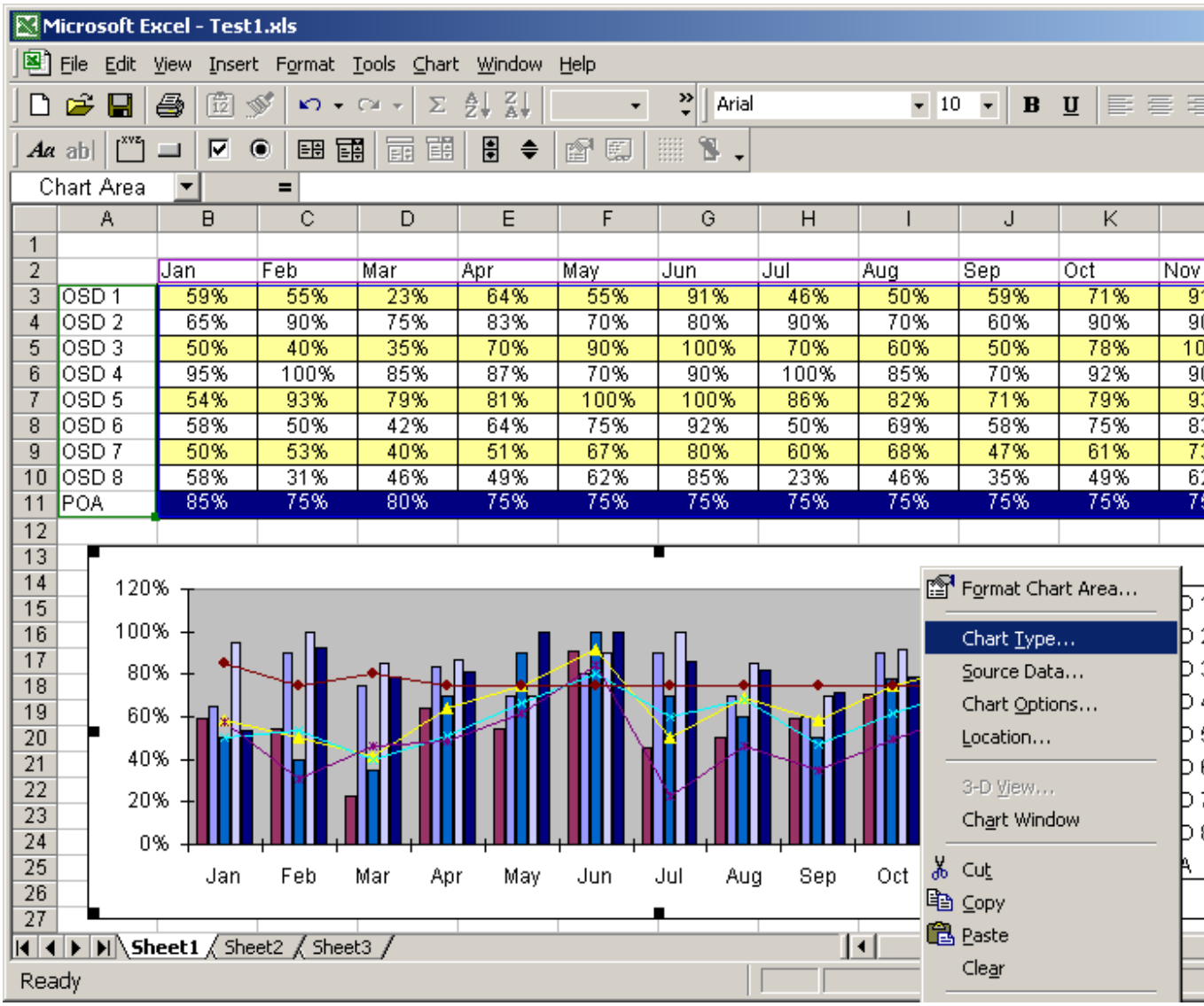
Answer: The chart wizard in Excel is a good way to create the starting point for your chart. Howeve sometimes need to perform some formatting after your chart is created.

In this example, we want OSD1 through OSD 8 to appear as columns and POA to appear as a line

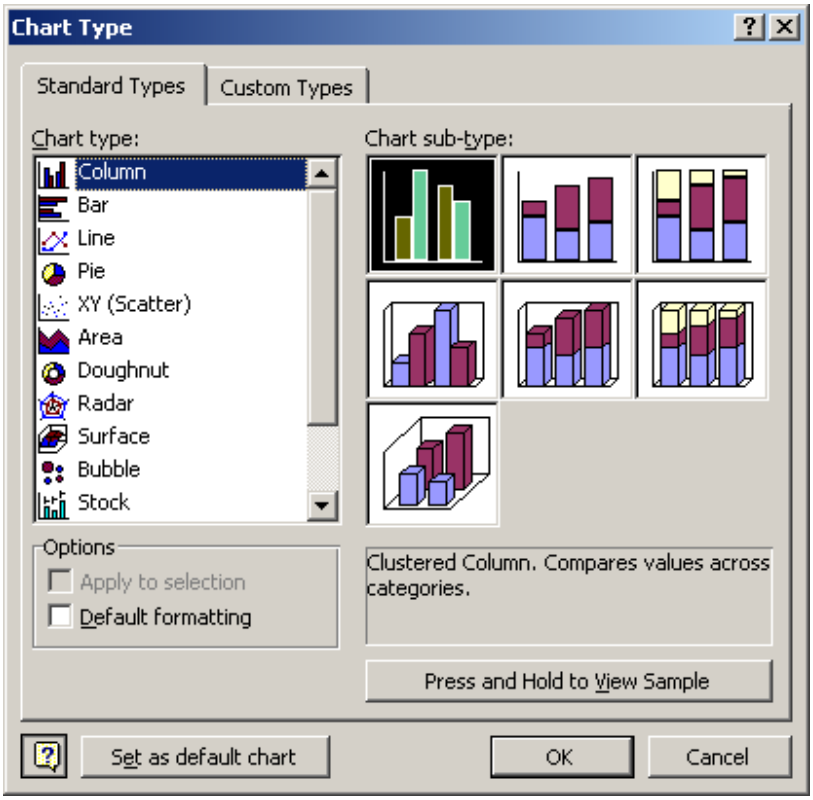


	A	B	C	D	E	F	G	H	I	J	K
1											
2		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
3	OSD 1	59%	55%	23%	64%	55%	91%	46%	50%	59%	71%	91
4	OSD 2	65%	90%	75%	83%	70%	80%	90%	70%	60%	90%	90
5	OSD 3	50%	40%	35%	70%	90%	100%	70%	60%	50%	78%	10
6	OSD 4	95%	100%	85%	87%	70%	90%	100%	85%	70%	92%	90
7	OSD 5	54%	93%	79%	81%	100%	100%	86%	82%	71%	79%	93
8	OSD 6	58%	50%	42%	64%	75%	92%	50%	69%	58%	75%	83
9	OSD 7	50%	53%	40%	51%	67%	80%	60%	68%	47%	61%	71
10	OSD 8	58%	31%	46%	49%	62%	85%	23%	46%	35%	49%	62
11	POA	85%	75%	80%	75%	75%	75%	75%	75%	75%	75%	75

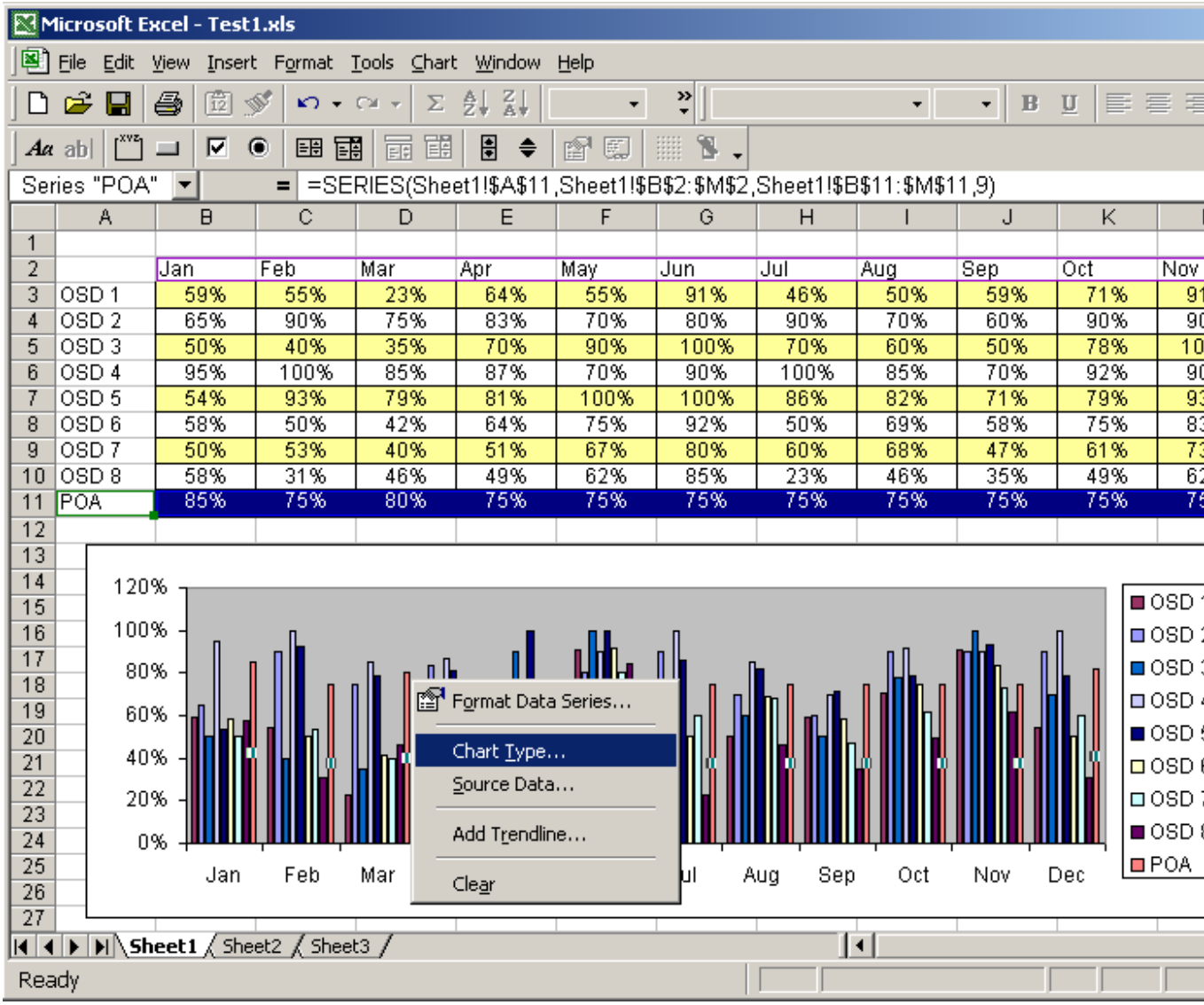
To do this, highlight the full chart and right-click. Select Chart Type from the popup menu.



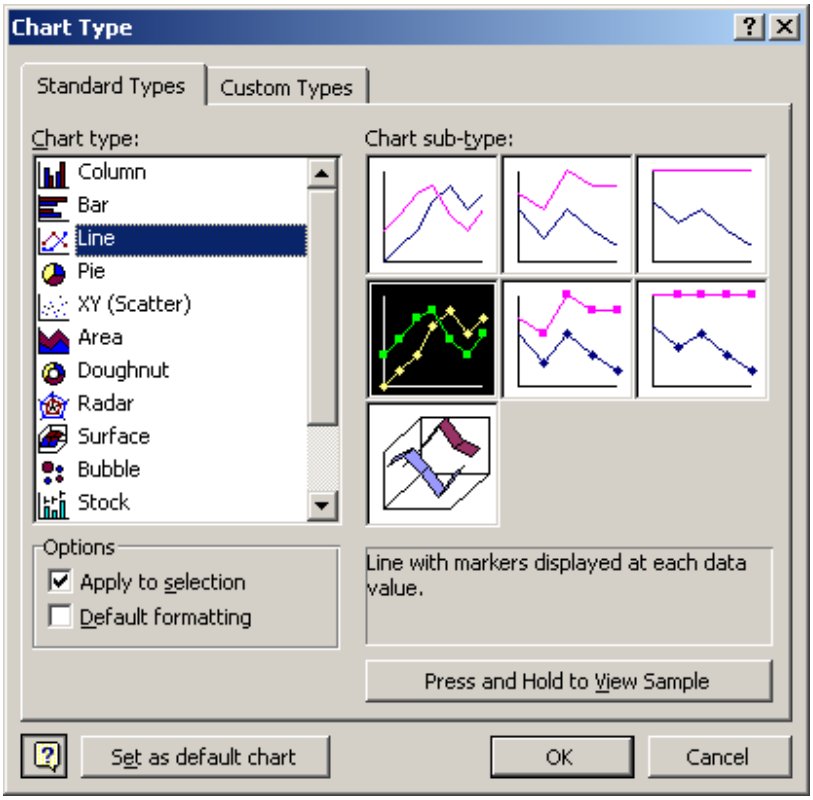
When the Chart Type window appears, select **Column** as the Chart type and click on the OK buttor



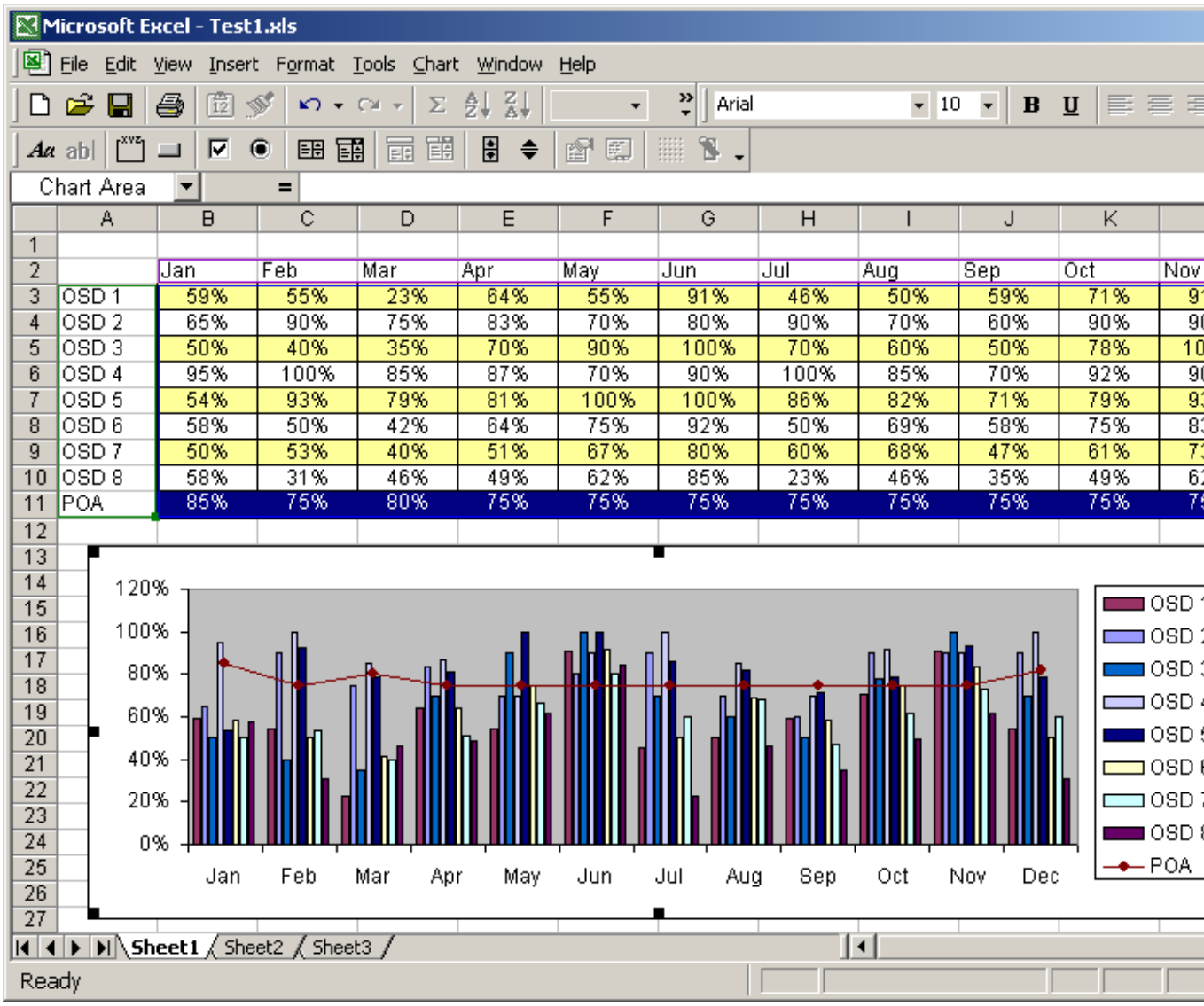
Now, in the chart, select the POA data series. A selection box should appear on all POA column ob
and select Chart Type from the popup menu.



When the Chart Type window appears, select **Line** and click on the OK button.



Now when you view the chart, OSD 1 through OSD 8 should appear as columns and POA should a



Array Formulas are formulas that work with arrays, instead of individual numbers, as arguments to the functions that make up the formula.

Introduction To Array Formulas

When an array formula is displayed, it is surrounded by braces `{}`. You do not enter the braces. Instead, when you enter an array formula, you press `Ctrl+Shift+Enter`, rather than just `Enter`. Excel will automatically add the

braces. You must press Ctrl+Shift+Enter when you first enter an array formula, and also each time you edit the formula later. If you enter or array formula without pressing Ctrl+Shift+Enter, it will return an incorrect result or a #VALUE! error.

For example, consider the formula

```
=IF(A1=B1,1,0)
```

This will return either 1, if A1=B1, or 0 if they are not equal. But suppose you want to get a count of
the number of cells in a range, A1:A10, which are equal to the corresponding cells in B1:B10. By using an array formula, you can do this with a single formula by passing arrays to the =IF function, and summing up the results:

```
=SUM(IF(A1:A10=B1:B10,1,0))
```

By entering this as an array formula, you are instructing the =IF function to "loop" through the range A1:A10, compare each element to the corresponding element in B1:B10, and return an array of 1's and 0's, each element of which indicates the result of each comparison. The =SUM function adds up this array, and returns a single number indicating the number of cells in A1:A10 which are equal to their counterparts in B1:B10.

When you use more than one range in an array formula, all of the ranges *must* contain the same number of elements. Otherwise, an error is returned.

Array formulas are ideal for counting cells in a range with multiple criteria. For example, suppose in A2:A10 we have a product-name, in B2:B10 we have a salesman-name, and in C2:C10 we have number of units sold:

To compute the number of *Phones* sold by *Smith*, we would use the following array formula:

```
=SUM((A2:A10="Phone")*(B2:B10="Smith")
*C2:C10)
```

This formula works by looping, looking at the elements in the three ranges A2:A10, B2:B10, and C2:C10. These three ranges do not have to be in adjacent columns, or even in the same rows, but
they *must* contain the same *number* of rows.

	A	B	C
1	*Product*	*Salesman*	*Units Sold*
2	Fax	Brown	1
3	Phone	Smith	10
4	Fax	Jones	20
5	Fax	Smith	30
6	Phone	Jones	40
7	PC	Smith	50
8	Fax	Brown	60
9	Phone	Davis	70
10	PC	Jones	80

The ranges are looped though "simultaneously." Element `Ai` is evaluated in the same iteration as elements `Bi` and `Ci`.

If element `Ai` is *Phone*, a `1` (`True`) is returned. Otherwise, `0` (`False`) is returned. If element `Bi` is *Smith*, a `1` is returned, otherwise `0` is returned. Then `Ci` is returned. These three values are multiplied together. The product will be either `0` (if either or both of the `Ai` or `Bi` comparisons were false) or `Ci`. Summing these results together gives of the sum of entries `Ci` where `Ai` is "Phone" and `Bi` is "Smith".

Logical Operations With Array Formulas

In addition to the AND operation described above, you can also use array formulas to perform an OR, and XOR, or even a NAND (Not AND) operation.

Addition simulates the OR operation. If either one or both conditions are true, addition will return a non-zero result. Using the example above, we can count the number of sales, in which either a Fax was sold, or Jones was the salesman (or both).

```
=SUM(IF((A2:A10="Fax")+(B2:B10="Jones"),1,0))
```

```
=SUM(IF(MOD((A2:A10="Fax")+(B2:B10="Jones"),2),1,0))
```

The MOD operator in the above formula returns 0 when either both conditions (Fax, Jones) are True or when both are False. It returns 1 only when either exactly one of the conditions is True.

NAND is an Negative And operation, which returns true when neither or one of the elements is True. It returns False when BOTH elements are True.

```
=SUM(IF((A2:A10="Fax")+(B2:B10="Jones")<>2,1,0))
```

This counts all sales, except those in which Jones sold a Fax.

You can combine these formulas to create rather complex logical tests. Just be careful to make sure that you parentheses are in the right places.

Formulas That Return Arrays

The other "flavor" of array formulas are functions that return arrays *as their result.* To work with these types of functions, you must enter the same formula into an array of cells. As is often the case, an example best explains this.

	A	B	C
1	2	0	1
2	0	2	1
3	1	2	0
4			
5	0.33	-0.33	0.33
6	-0.17	0.17	0.33
7	0.33	0.67	-0.67

Suppose we have a matrix in `A1:C3`. We can use the **`=MINVERSE`** function to return the inverse of this matrix. Since the inverse of a matrix is itself a matrix, we've got to enter the **`=MINVERSE`** function as an array formula.

Select a range of cells, `A5:C7,` in our example, with the same number of rows and columns as the original matrix, enter **`=MINVERSE(A1:C3)`**, and press `Ctrl+Shift+Enter`. This enters the `=MINVERSE` function as an array formula into all of the selected cells, and the inverse matrix will be returned into this array. You'll notice that when you enter a formula into an array of cells, you cannot alter a single cell in the array. You must edit or delete the entire array.