

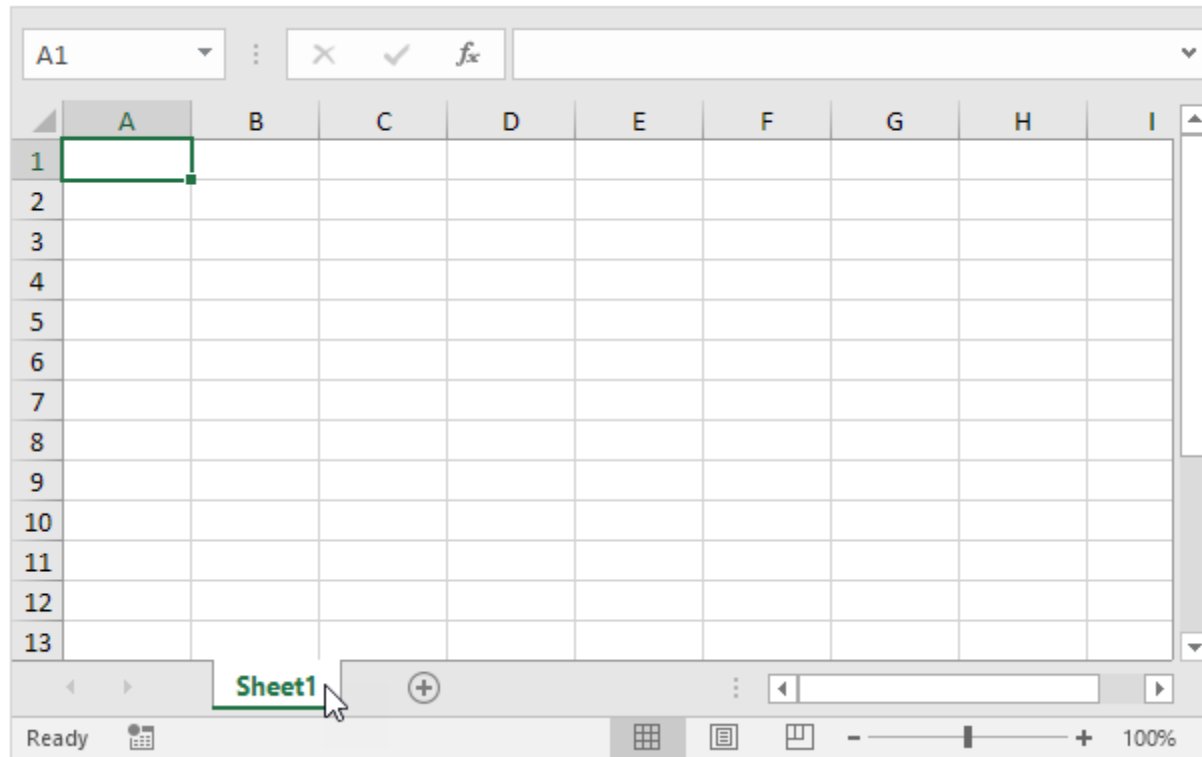
Sociedade da Informação e do Conhecimento

Aula 1

Tutorial Excel

DCT DEPARTAMENTO CIÊNCIA
E TECNOLOGIA

Worksheets

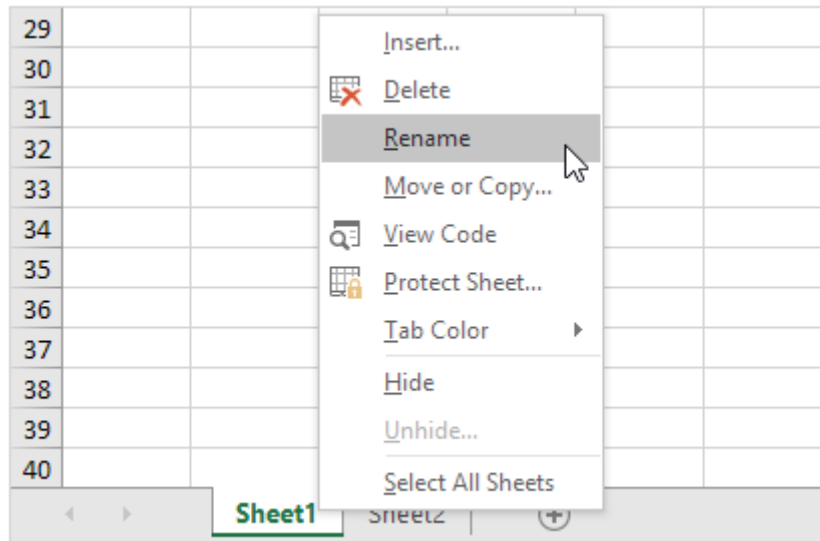


You can insert as many worksheets as you want. To quickly insert a new **worksheet**, click the plus sign at the bottom of the document window.

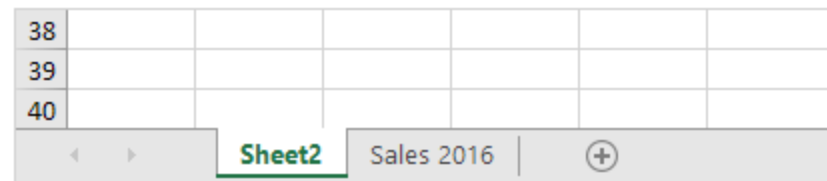
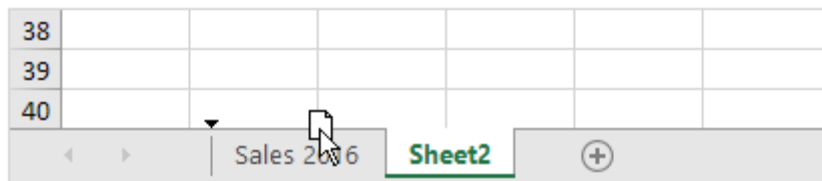


Rename a Worksheet

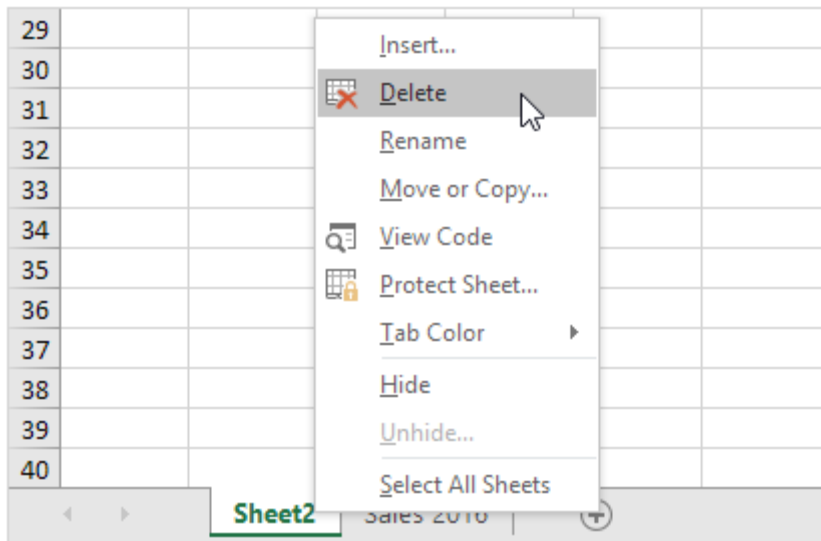
1. Right click on the sheet tab of Sheet1.
2. Choose Rename.



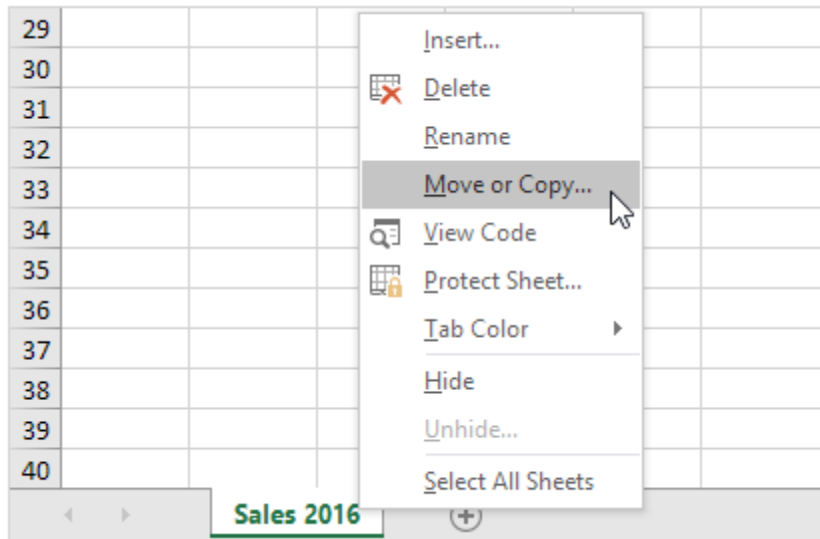
Move a Worksheet



Delete a Worksheet



Copy a Worksheet



Cell, Row, Column

1. To select cell C3, click on the box at the intersection of column C and row 3.

	A	B	C	D	E
1					
2					
3					
4					
5					

2. To select column C, click on the column C header.

	A	B	C	D	E
1					
2					
3					
4					
5					

3. To select row 3, click on the row 3 header.

	A	B	C	D	E
1					
2					
3					
4					
5					

Range Examples

1. To select the range B2:C4, click on cell B2 and drag it to cell C4.

	A	B	C	D	E
1					
2					
3					
4					
5					

2. To select a range of individual cells, hold down CTRL and click on each cell that you want to include in the range.

	A	B	C	D	E
1					
2					
3					
4					
5					

Fill a Range

1. Enter the value 2 into cell B2.

	A	B	C	D	E
1					
2		2			
3					
4					
5					

2. Select cell B2, click on the lower right corner of cell B2 and drag it down to cell B8.

	A	B	C	D	E
1					
2		2			
3					
4					
5					
6					
7					
8					
9					
10					

Move a Range

1. Select a range and click on the border of the range.

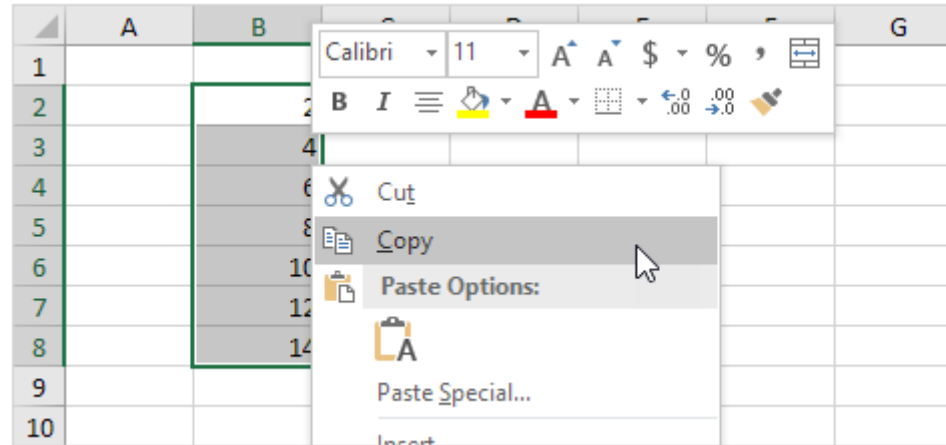
	A	B	C	D	E
1					
2		2			
3		4			
4		6			
5		8			
6		10			
7		12			
8		14			
9					
10					

2. Drag the range to its new location.

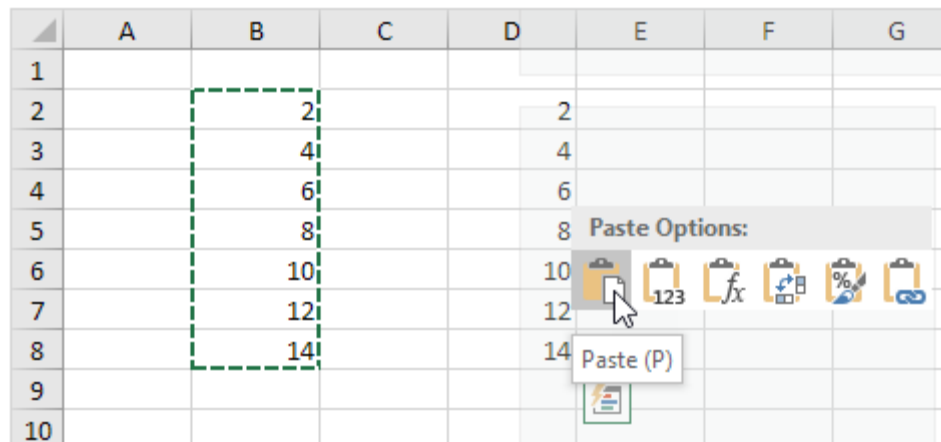
	A	B	C	D	E
1					
2				2	
3				4	
4				6	
5				8	
6				10	
7				12	
8				14	
9					
10					

Copy/Paste a Range

1. Select the range, right click, and then click Copy (or press CTRL + c).



2. Select the cell where you want the first cell of the range to appear, right click, and then click Paste under 'Paste Options:' (or press CTRL + v).

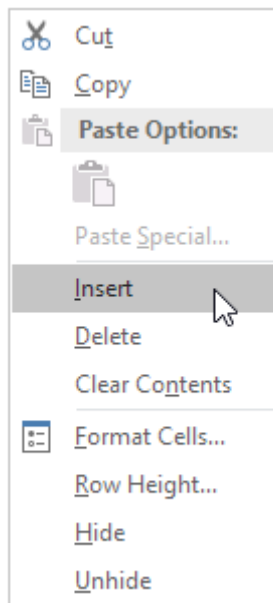


Insert Row, Column

1. Select row 3.

	A	B	C	D	E
1					
2		20			
3		40			
4		60			
5					

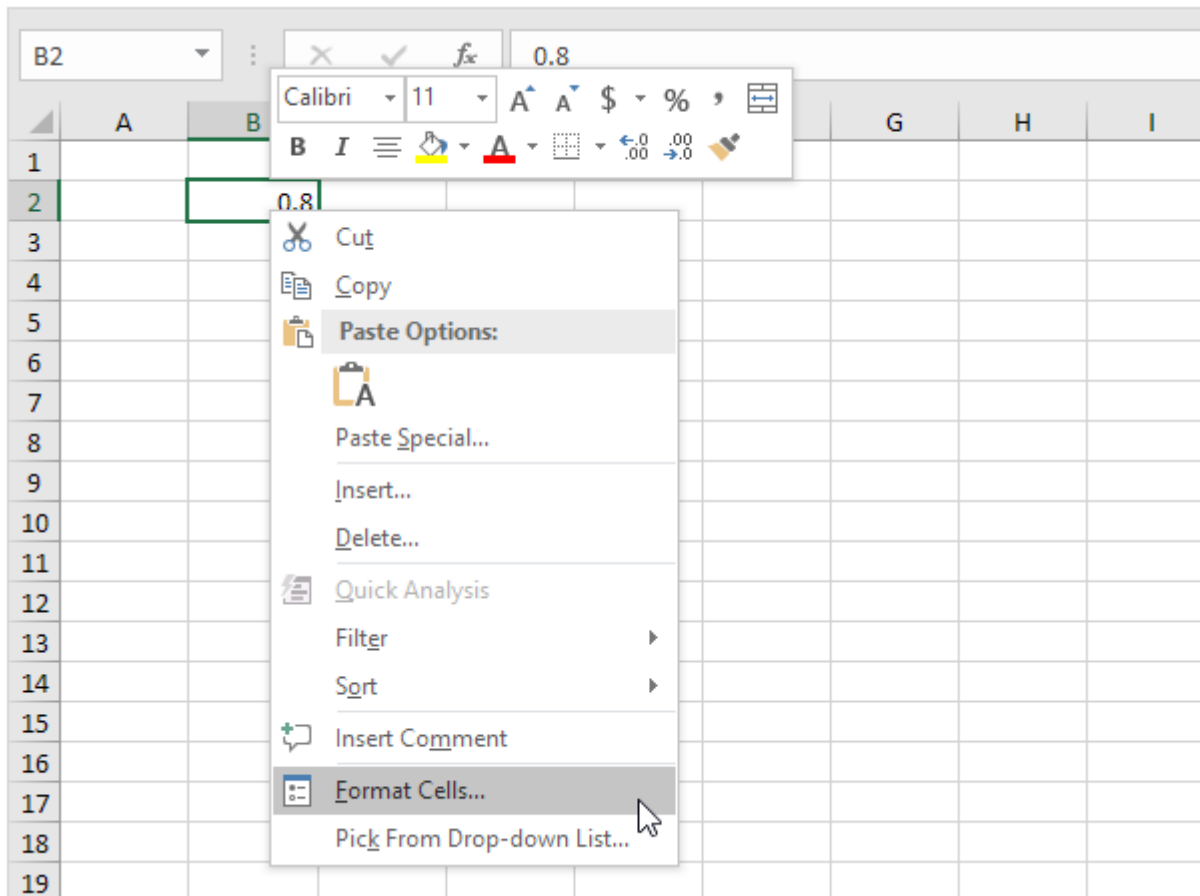
2. Right click, and then click Insert.



	A	B	C	D	E
1					
2		20			
3					
4		40			
5		60			
6					

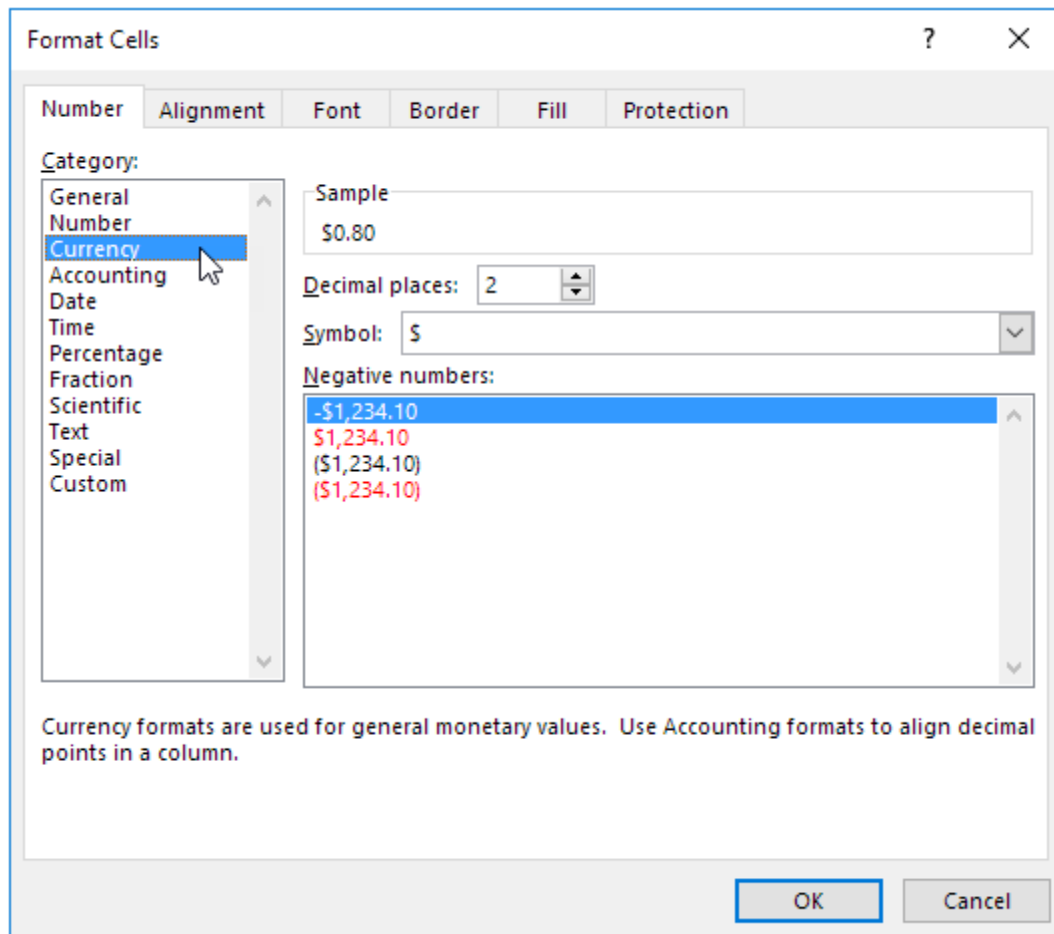
Format Cells

1. Enter the value 0.8 into cell B2.
2. Select cell B2.
3. Right click, and then click Format Cells (or press CTRL + 1).



Format Cells

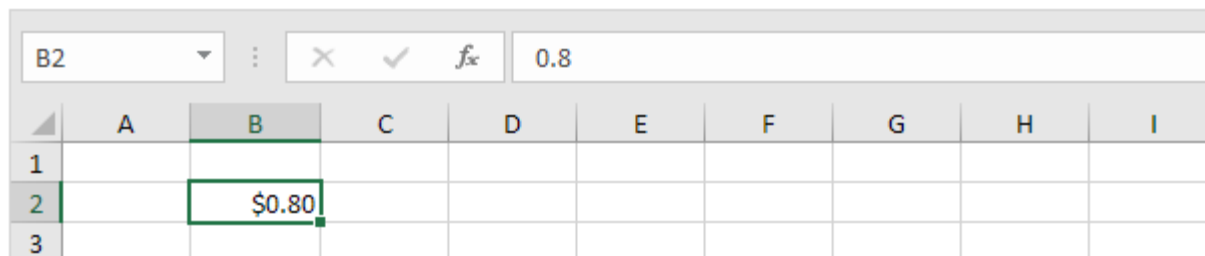
4. For example, select Currency.



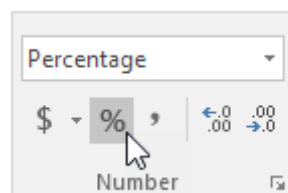
Format Cells

13

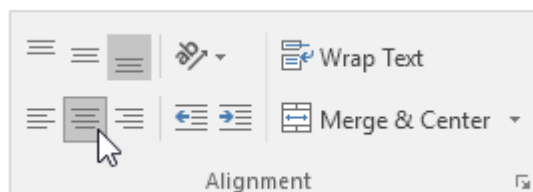
5. Click OK.



6. On the Home tab, in the Number group, click the percentage symbol to apply a Percentage format.

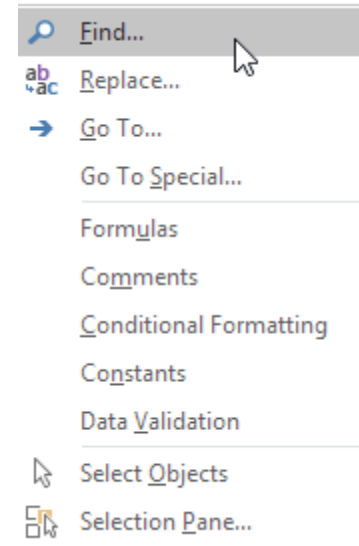
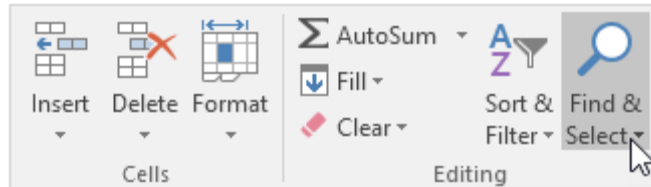


7. On the Home tab, in the Alignment group, center the number.



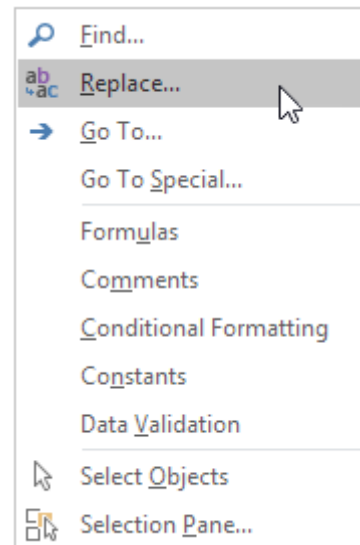
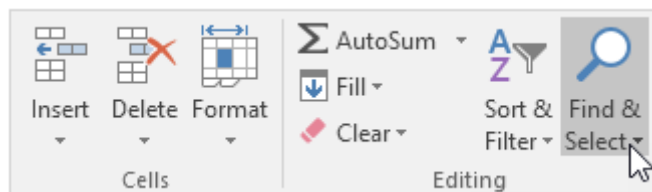
Find

1. On the Home tab, in the Editing group, click Find & Select.




Replace

1. On the Home tab, in the Editing group, click Find & Select.





Print a Worksheet

Print

 **Print**


Copies:

Printer 


 **HP Photosmart C309a series**
Ready


[Printer Properties](#)


Settings


 **Print Active Sheets**
Only print the active sheets


Pages: to

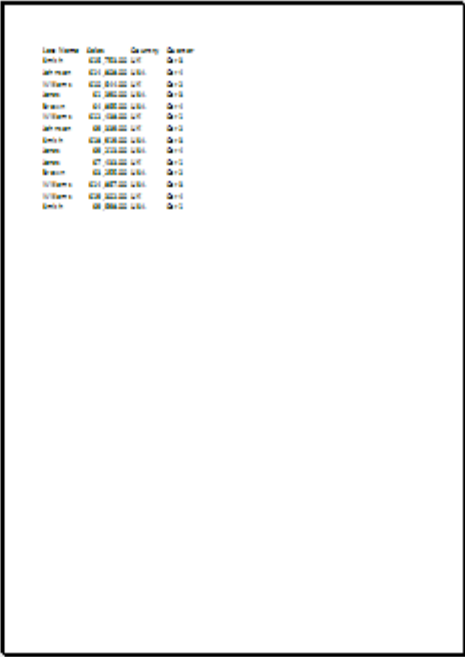
 **Print One Sided**
Only print on one side of th...

 **Collated**
1,2,3 1,2,3 1,2,3

 **Portrait Orientation**

 **A4**
8.27" x 11.69"

 **Normal Margins**
Left: 0.7" Right: 0.7"

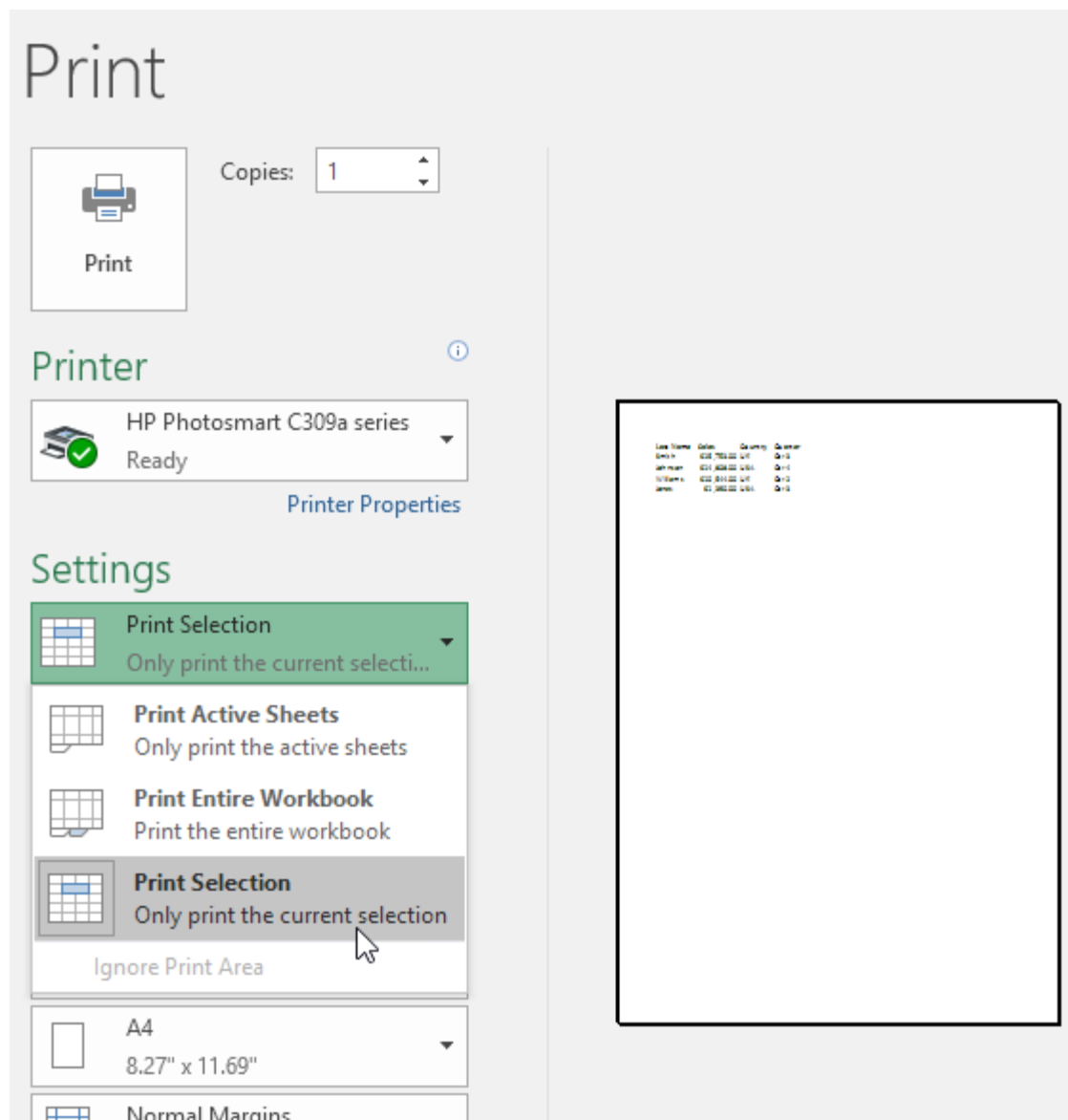


Line	Name	Salary	Country	Gender
1	John	1200	USA	M
2	Jane	1500	USA	F
3	John	1800	USA	M
4	Jane	2100	USA	F
5	John	2400	USA	M
6	Jane	2700	USA	F
7	John	3000	USA	M
8	Jane	3300	USA	F
9	John	3600	USA	M
10	Jane	3900	USA	F
11	John	4200	USA	M
12	Jane	4500	USA	F
13	John	4800	USA	M
14	Jane	5100	USA	F
15	John	5400	USA	M
16	Jane	5700	USA	F
17	John	6000	USA	M
18	Jane	6300	USA	F
19	John	6600	USA	M
20	Jane	6900	USA	F

To print a worksheet in **Excel**, execute the following steps.

1. On the File tab, click Print.
2. To preview the other pages that will be printed, click 'Next Page' or 'Previous Page' at the bottom of the window.

What to Print




Instead of **printing** the entire worksheet, you can also only print the current selection.


1. First, select the range of cells you want to print.
2. Next, under Settings, select Print Selection.


Orientation

Print

 **Print**


Copies:

Printer 


 HP Photosmart C309a series
Ready


[Printer Properties](#)


Settings


 **Print Active Sheets**
Only print the active sheets


Pages: to

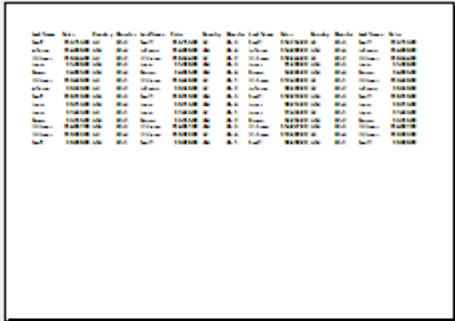
 **Print One Sided**
Only print on one side of th...

 **Collated**
1,2,3 1,2,3 1,2,3

 **Landscape Orientation**

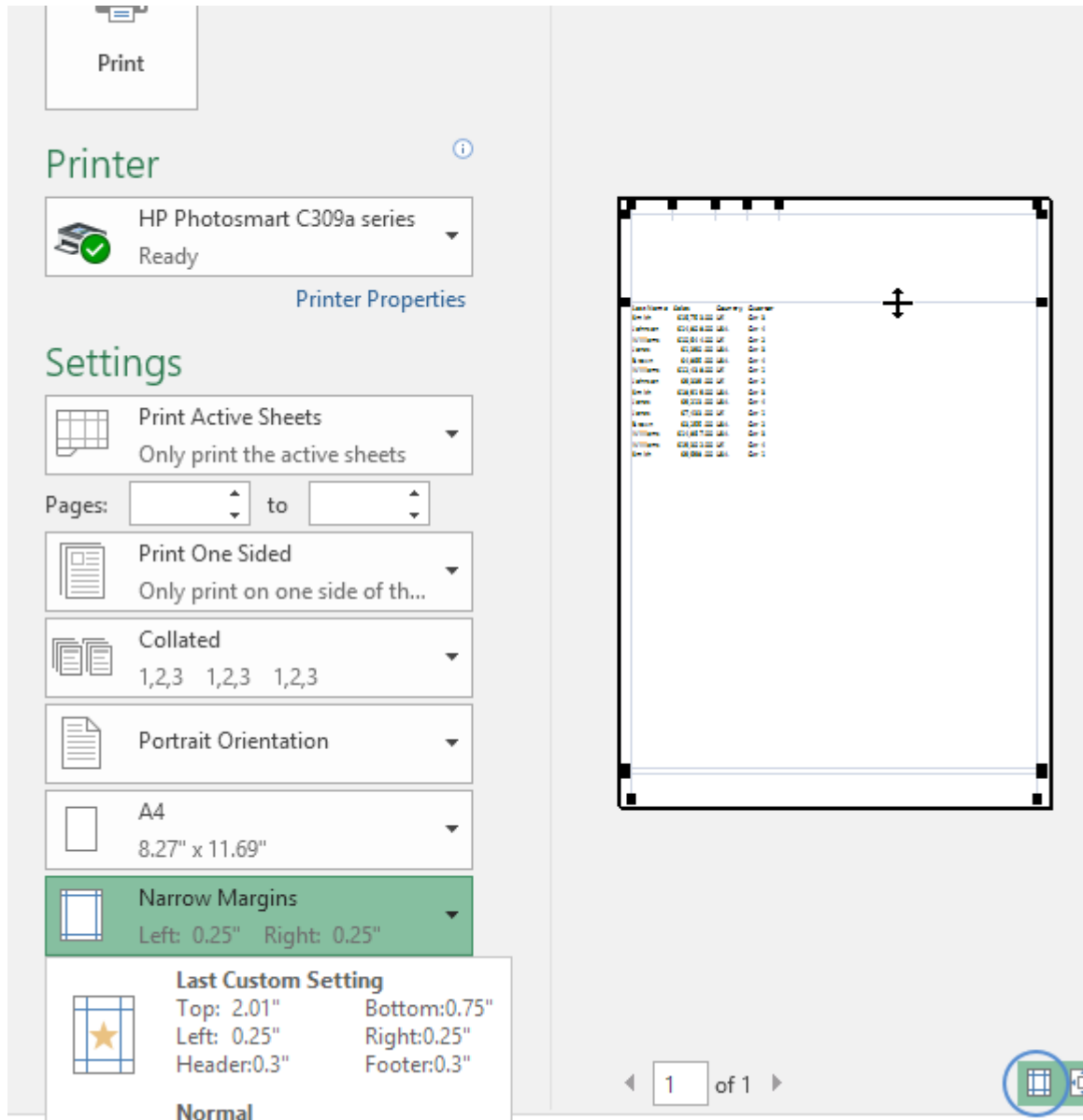
 Portrait Orientation

 Landscape Orientation



You can switch between Portrait Orientation (more rows but fewer columns) and Landscape Orientation (more columns but fewer rows).

Page Margins



1. Select one of the predefined margins (Normal, Wide or Narrow) from the Margins drop-down list.
2. Or click the 'Show Margins' icon at the bottom right of the window. Now you can drag the lines to manually change the page margins.

Scaling

Print

Copies: 1

Printer

HP Photosmart C309a series
Ready

Printer Properties

Settings

Print Active Sheets
Only print the active sheets

Pages: to

Print One Sided
Only print on one side of th...

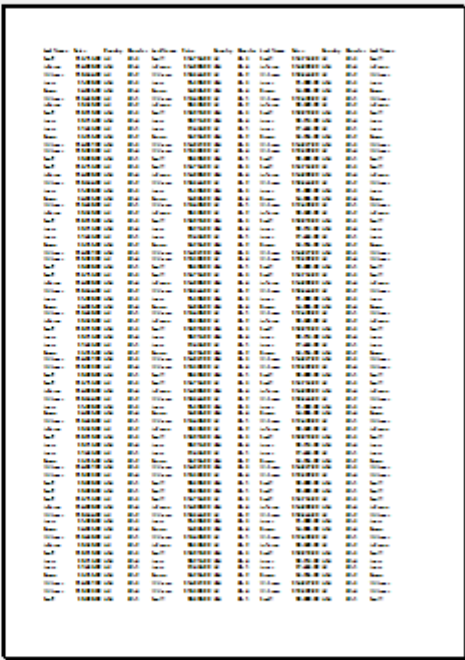
Collated
1,2,3 1,2,3 1,2,3

Portrait Orientation

A4
8.27" x 11.69"

Normal Margins
Left: 0.7" Right: 0.7"

Fit Sheet on One Page
Shrink the printout so that it...



1. Select 'Fit Sheet on One Page' from the Scaling drop-down list.

Formulas and Functions

A **formula** is an expression which calculates the value of a cell. **Functions** are predefined formulas and are already available in **Excel**.

For example, cell A3 below contains a formula which adds the value of cell A2 to the value of cell A1.

	A	B	C	D	E	F
1	2					
2	3					
3	5					
4						

For example, cell A3 below contains the SUM function which calculates the sum of the range A1:A2.

	A	B	C	D	E	F
1	2					
2	3					
3	5					
4						

Operator Precedence

Excel uses a default order in which calculations occur. If a part of the formula is in parentheses, that part will be calculated first. It then performs multiplication or division calculations.

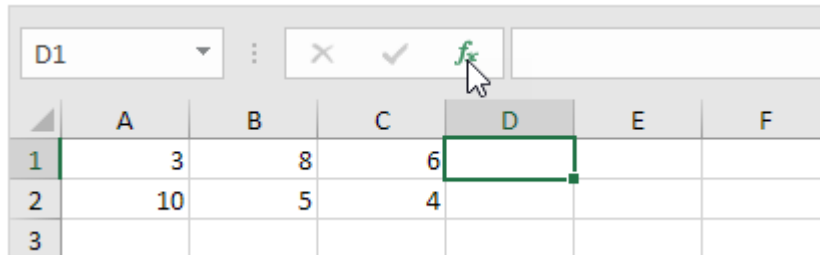
Copy/Paste a Formula

When you copy a formula, Excel automatically adjusts the cell references for each new cell the formula is copied to.

Insert a Function

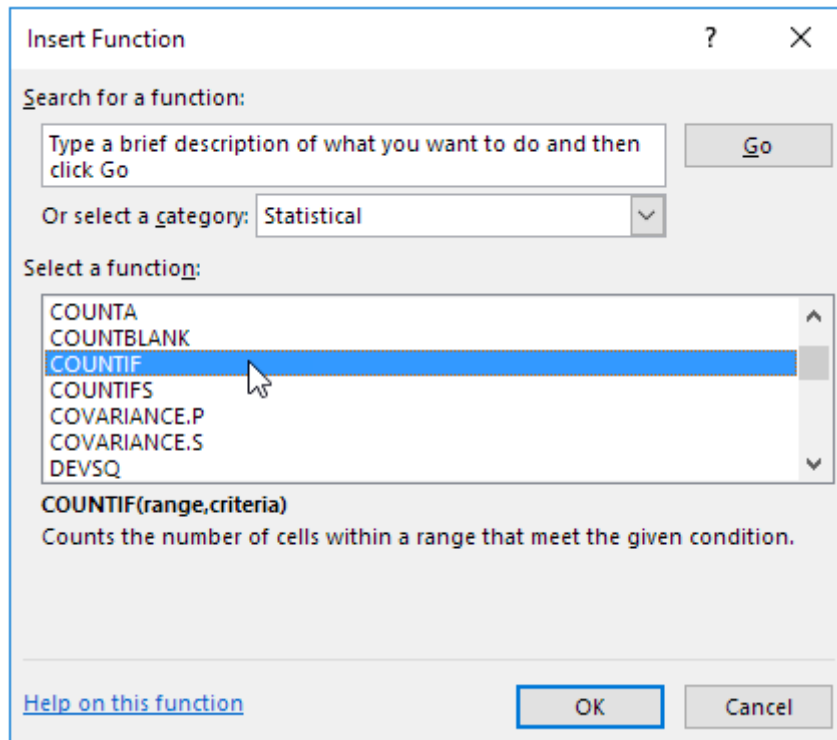
Every function has the same structure. For example, SUM(A1:A4). The name of this function is SUM. The part between the brackets (arguments) means we give Excel the range A1:A4 as input. This function adds the values in cells A1, A2, A3 and A4. It's not easy to remember which function and which arguments to use for each task. Fortunately, the Insert Function feature in Excel helps you with this. To insert a function, execute the following steps.

1. Select a cell.
2. Click the Insert Function button.



Insert a Function

3. Search for a function or select a function from a category. For example, choose COUNTIF from the Statistical category.



Insert a Function

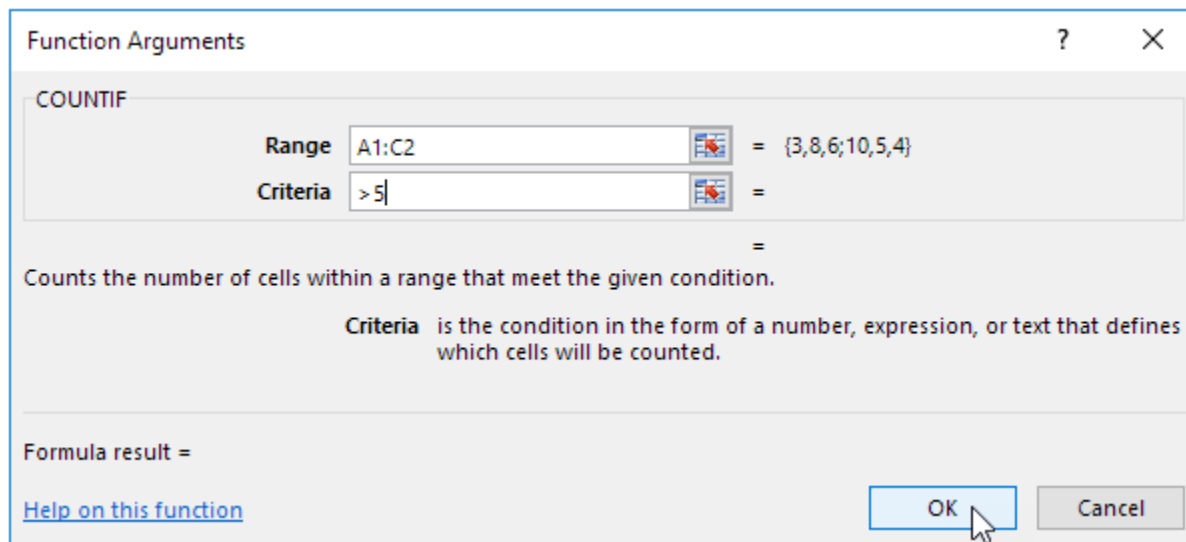
4. Click OK.

The 'Function Arguments' dialog box appears.

5. Click in the Range box and select the range A1:C2.

6. Click in the Criteria box and type >5.

7. Click OK.



The screenshot shows the 'Function Arguments' dialog box for the COUNTIF function. The dialog has a title bar with a question mark and a close button. The function name 'COUNTIF' is displayed at the top. Below it, the 'Range' field contains 'A1:C2' and the 'Criteria' field contains '>5'. To the right of the 'Range' field, the values '{3,8,6;10,5,4}' are listed. Below the 'Criteria' field, there is an equals sign. A descriptive text below the fields states: 'Counts the number of cells within a range that meet the given condition.' Further down, a definition for 'Criteria' is provided: 'Criteria is the condition in the form of a number, expression, or text that defines which cells will be counted.' At the bottom, there is a 'Formula result =' field, a 'Help on this function' link, and 'OK' and 'Cancel' buttons. A mouse cursor is pointing at the 'OK' button.

Function Arguments

COUNTIF

Range A1:C2 = {3,8,6;10,5,4}

Criteria >5 =

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

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

Formula result =

[Help on this function](#) OK Cancel

Insert a Function

The COUNTIF function counts the number of cells that are greater than 5.

D1		✕ ✓ <i>f_x</i>		=COUNTIF(A1:C2,">5")		
	A	B	C	D	E	F
1	3	8	6	3		
2	10	5	4			
3						

Count

To count the number of cells that contain numbers, use the COUNT function.

A7									
	A	B	C	D	E	F	G	H	I
1	10								
2	1								
3	7								
4	20								
5	3								
6									
7	5								
8									

Countif

To count cells based on one criteria (for example, greater than 9), use the following COUNTIF function.

A7									
	A	B	C	D	E	F	G	H	I
1	10								
2	1								
3	7								
4	20								
5	3								
6									
7	2								
8									

Countifs

To count cells based on multiple criteria (for example, green and greater than 9), use the following COUNTIFS function.

B7		=COUNTIFS(A1:A5,"green",B1:B5,">9")	
	A	B	
1	red	10	
2	green	1	
3	red	7	
4	green	20	
5	red	3	
6			
7		1	
8			

If

The IF function checks whether a condition is met, and returns one value if true and another value if false.

1. For example, take a look at the IF function in cell C2 below.

C2									
	A	B	C	D	E	F	G	H	I
1	Name	Score	Result						
2	Richard	93	Pass						
3	Jennifer	60	Pass						
4	James	58	Fail						
5	Lisa	79	Pass						
6	Sharon	41	Fail						
7									

Cell References

Relative Reference

By default, Excel uses **relative references**. See the formula in cell D2 below. Cell D2 references (points to) cell B2 and cell C2. Both references are relative.

COUNTIF ✕ ✓ <i>f_x</i> =B2*C2									
	A	B	C	D	E	F	G	H	I
1	Product	Quantity	Price	Amount					
2	bread	2	1.5	=B2*C2					
3	butter	1	1.2						
4	cheese	3	2						
5	ham	3	1.8						
6									

1. Select cell D2, click on the lower right corner of cell D2 and drag it down to cell D5.

COUNTIF ✕ ✓ <i>f_x</i> =B5*C5									
	A	B	C	D	E	F	G	H	I
1	Product	Quantity	Price	Amount					
2	bread	2	1.5	3					
3	butter	1	1.2	1.2					
4	cheese	3	2	6					
5	ham	3	1.8	=B5*C5					
6									

Functions

Round

1. Round a number to two decimal places.

B1 : ✕ ✓ <i>f_x</i> =ROUND(A1,2)									
	A	B	C	D	E	F	G	H	I
1	114.7261	114.73							
2									

2. Round a number to one decimal place.

B1 : ✕ ✓ <i>f_x</i> =ROUND(A1,1)									
	A	B	C	D	E	F	G	H	I
1	114.7261	114.7							
2									



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