Advance Excel Assignment 5

1. How many types of conditions are available in conditional formatting on Excel?

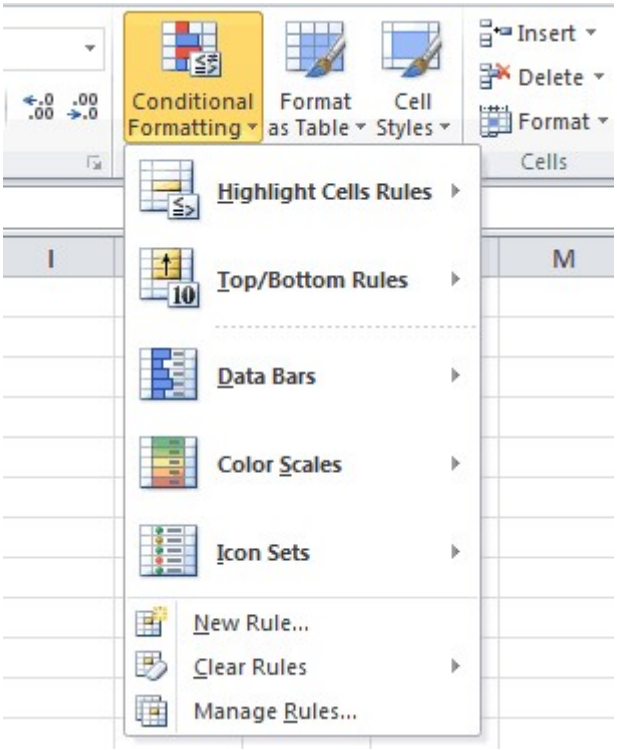
Ans - Excel Conditional Formatting can be used to alter the formatting of an Excel cell based on either:

The value of the current cell;

The value of another cell in the current worksheet;

The result of a formula (which may rely on the contents of the current cell and/or other cells in the current worksheet).

The Conditional Formatting Menu



Before entering the Conditional Formatting menu, you need to first select the cell(s) that you wish to apply the formatting to.

Next, select the Conditional Formatting option from within the 'Styles' group on the Home tab of the Excel ribbon. Clicking on this option will cause the Conditional Formatting drop-down menu to be displayed (see right).

This menu allows you to select the type of Excel Conditional Formatting that you want to apply to your cell(s). This can be either:

Highlight Cells Rules - Apply formatting to cells that satisfy a specific condition (e.g. greater than, equal to, Duplicate Values, etc.);

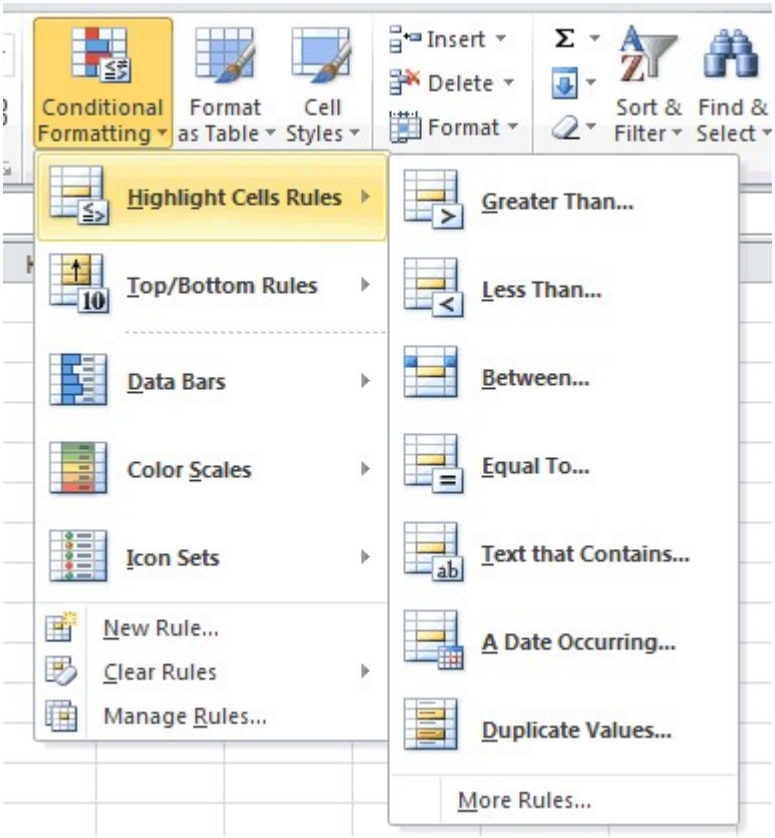
Top/Bottom Rules - Apply formatting to cells that satisfy a statistical condition in relation to other cells in the range (e.g. above average, within top 10%, etc.);

Data Bars / Color Scales / Icon Sets - Apply formatting to all cells in the range, depending on their value in relation to one another;

New rule... - Allows you to specify more complex rules, such as rules that depend on the result of a formula.

he Excel Conditional Formatting Highlight Cells Rules allow you to apply formatting to highlight cells that satisfy one or more specific conditions.

These conditions can relate to numeric values (e.g. greater than, between), dates (e.g. a date occurring...) or text values (e.g. text containing...). You can also use the Highlight Cells rules to highlight cells containing duplicate values.



The Highlight Cells conditional formatting option is listed in the Excel Conditional Formatting menu, which is generally located in the 'Styles' group of the Home tab on the Excel ribbon (see right).

When you select any of the first six Highlight Cells Rules ('Greater Than', 'Less Than, Between', 'Equal To', 'Text that Contains' or 'A Date Occurring'), a dialog box appears, which allows you to input a value or a cell reference, to compare each cell's value to.

If you enter a value to compare with, this is straightforward - the same condition is applied to all of the selected cells. However, if you insert a cell reference, the rules of absolute / relative references apply. These two cases are illustrated in the following examples:

Example 1 - Excel Conditional Formatting Using Absolute Values

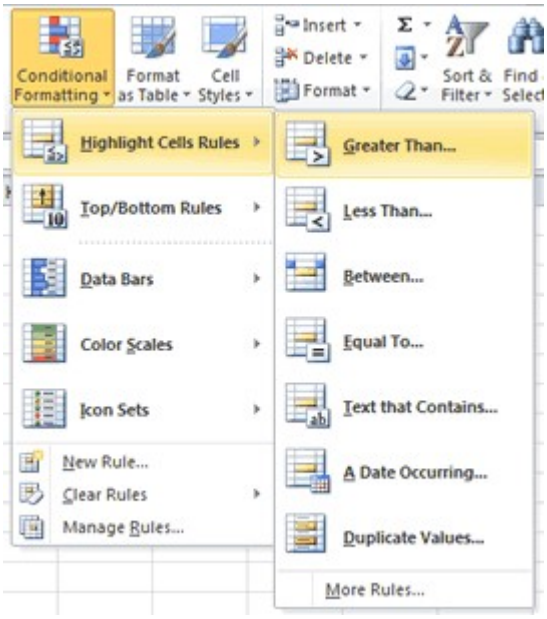
	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30
4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

Imagine you are recording monthly results in the example spreadsheet on the right, and you want to apply Excel Conditional Formatting to your cells, so that a monthly figure is highlighted if its value is greater than 60.

To do this:

Select the cells to be formatted (i.e. cells A2-D6).

Click on the Excel Conditional Formatting option from the Home tab of the Excel ribbon.

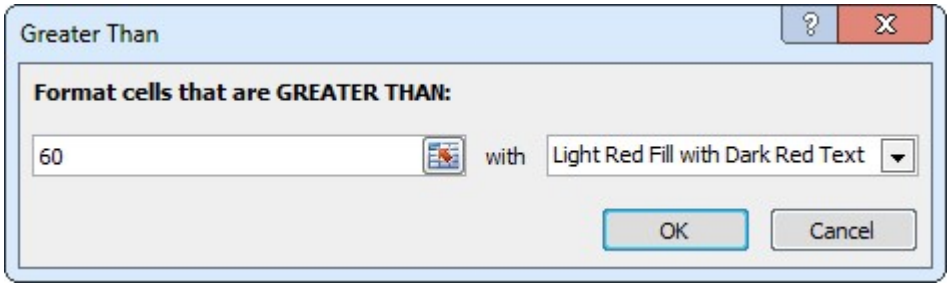


From within the 'Conditional Formatting' drop-down menu, select the Highlight Cells Rules option and from the secondary menu that appears, select the Greater Than ... option (see right).

The Conditional Formatting 'Greater Than' dialog box should then pop up (see below). Within this dialog box, enter the value 60 into the first input field (entitled 'Format cells that are GREATER THAN:').

Select a pre-defined format from the drop-down list on the right of the dialog box and click OK.

These selections are shown in the following image of the Conditional Formatting 'Greater Than' dialog box:



	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30
4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

The resulting spreadsheet is shown on the right. As required, all cells containing values that are greater than 60 have been highlighted.

Example 2 - Excel Conditional Formatting Using Cell References

	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30
4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

For this example, we will again, use the spreadsheet of monthly results (shown on the right).

In this case, we want to apply Excel Conditional Formatting, so that a monthly figure is highlighted if it is greater than the corresponding figure for the previous month.

For this, we need to apply formatting to the values in columns B-D (but not column A, as there is no previous month's data to compare the values in column A to).

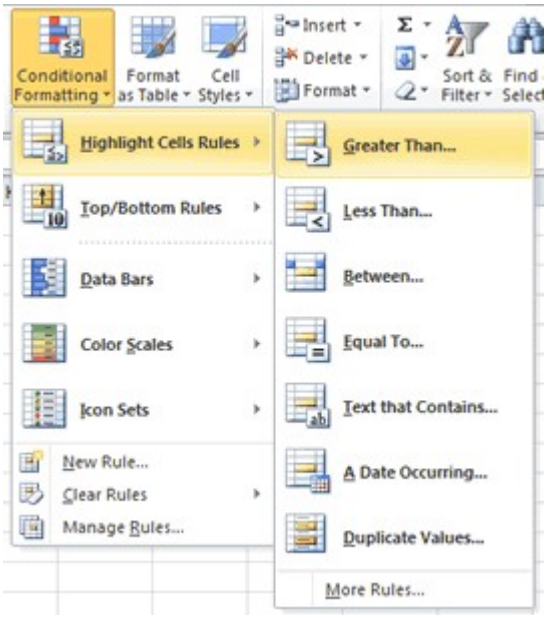
	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30
4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

Before entering the 'Conditional Formatting' menu, you need to select the cells to be formatted (i.e. cells B2-D6).

In the example on the right, cell B2 is the active cell, although all cells in the range B2-D6 have been selected.

It is important to be aware of the current active cell when using references to define Conditional Formatting. This is explained below.

Select the Excel Conditional Formatting drop-down menu from the Home tab of the Excel ribbon. Within this menu:



Select the Highlight Cells Rules option and from the secondary menu that appears, select the Greater Than ... option (see right).

The Conditional Formatting 'Greater Than' dialog box should then pop up (see below). Within this dialog box, enter the cell reference A2 in the first input field (entitled 'Format cells that are GREATER THAN:').

This can be entered by either:

Typing =A2 directly into the input field. (Note: the '=' sign is necessary. If it is omitted, Excel will interpret the condition to be a comparison with the literal text string "A2")

or

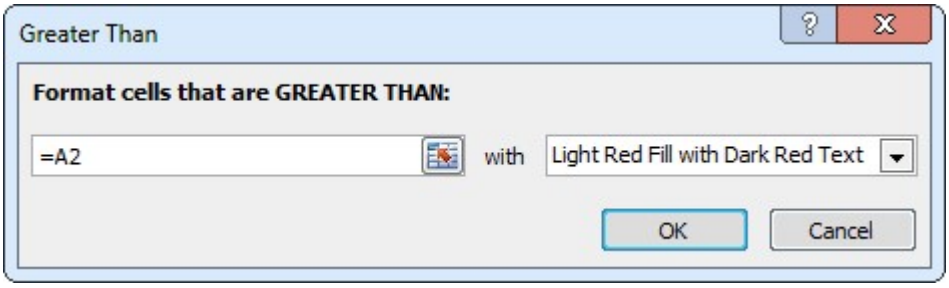
Using the mouse to click on the  or

 symbol (depending on your version of Excel), then clicking on cell A2.

(Note: if you use this method to select the cell A2, Excel will automatically insert an absolute reference - i.e. A2. You will need to remove the $ signs for this particular example)

Select a pre-defined format from the drop-down list on the right of the box and click OK.

These selections are shown in the following image of the Conditional Formatting 'GREATER THAN' dialog box:



	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30
4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

The resulting spreadsheet is shown on the right. As required, all cells containing values that are greater than the corresponding previous monthly values have been highlighted.

Common Error

	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30
4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

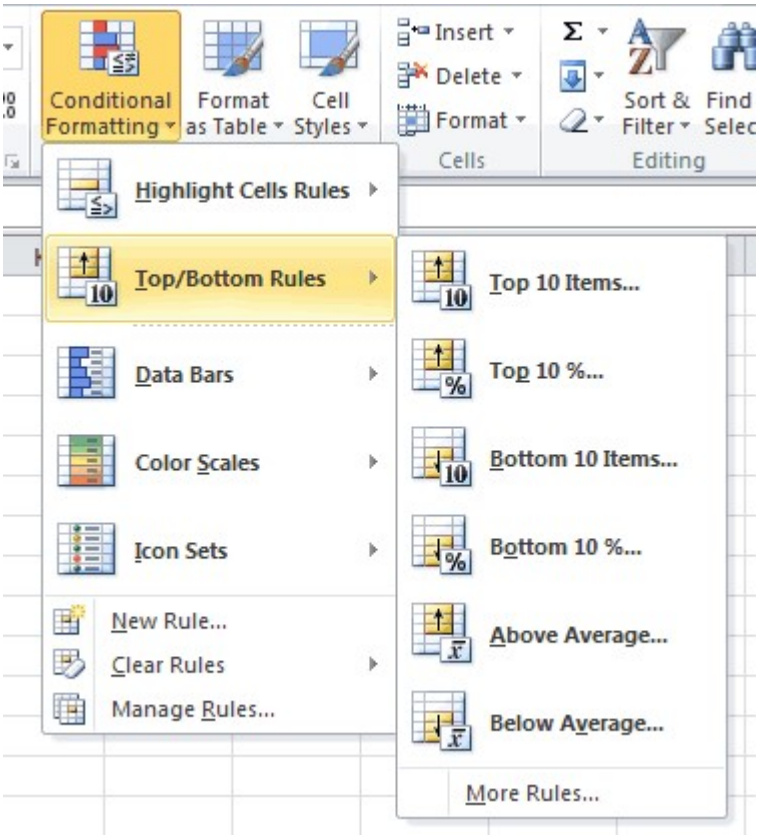
If you use the mouse to select a cell for your condition, Excel automatically inserts the $ symbol (i.e. A2 in the above example). This is an absolute reference, which tells Excel not to adjust the reference for different cells in the selected range (i.e. to compare every cell in the selected range to the value in cell A2). This results in the spreadsheet formatting shown on the right.

Clearly, this formatting is incorrect, in that it does not compare the value in each cell with the previous month's value.

For the required result, we need to change the selection of A2 to the relative reference, A2, by removing the $ signs.

The Excel Conditional Formatting Top/Bottom Rules allow you to apply formatting to cells that satisfy a statistical condition in relation to other cells in the range (e.g. above average, within top 10%, etc.).

These conditions will only be applied to cells containing numeric values.



The Top/Bottom conditional formatting option is listed in the Excel Conditional Formatting menu, which is generally located in the 'Styles' group of the Home tab on the Excel ribbon (see right).

When you select one of the Top/Bottom Rules from the menu, the 'Top Ten Items' dialog box opens up (see below). This allows you to choose the formatting to apply to cells satisfying the chosen criteria. (e.g. Top Ten Items, Top Ten %, etc).

If you have selected a 'Top Ten' or 'Bottom Ten' option, the dialog box also gives you the option of changing the value of '10' to a different value (e.g. Top 5, Bottom 20, etc).

	A	B	C	D
1	Month 1	Month 2	Month 3	Month 4
2	20	60	50	20
3	60	30	20	30

4	30	30	70	70
5	80	20	40	10
6	50	90	10	50

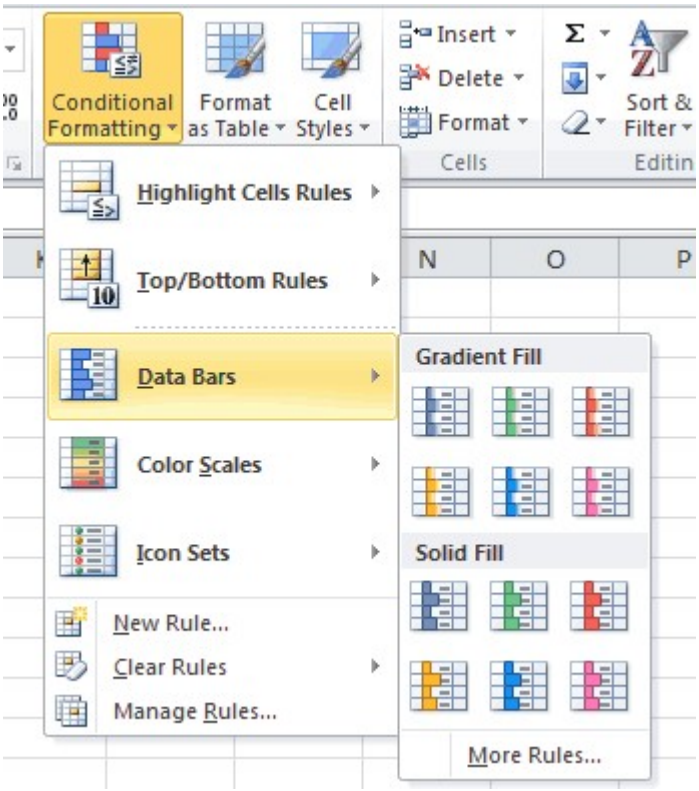
The Top 10%... formatting option has been applied to cells A2 - D5 of the spreadsheet on the right.

It can be seen that, of the 20 cells in the range A2 - D5, the two cells (i.e. 10% of the cells) with the greatest values have been formatted in pale red.

The Excel Conditional Formatting Data Bars, Color Scales and Icon Sets allow you to apply formatting to all cells in a range, depending on their value in relation to one another.

Note that these options are only applied to cells containing numeric values.

The Data Bars, Color Scales and Icon Sets conditional formatting options are listed in the Excel Conditional Formatting menu, which is generally located in the 'Styles' group of the Home tab on the Excel ribbon (see below).



In order to apply one of these options to a range of cells, simply select the range of cells to be formatted and then select one of the pre-defined formatting styles from the menu.

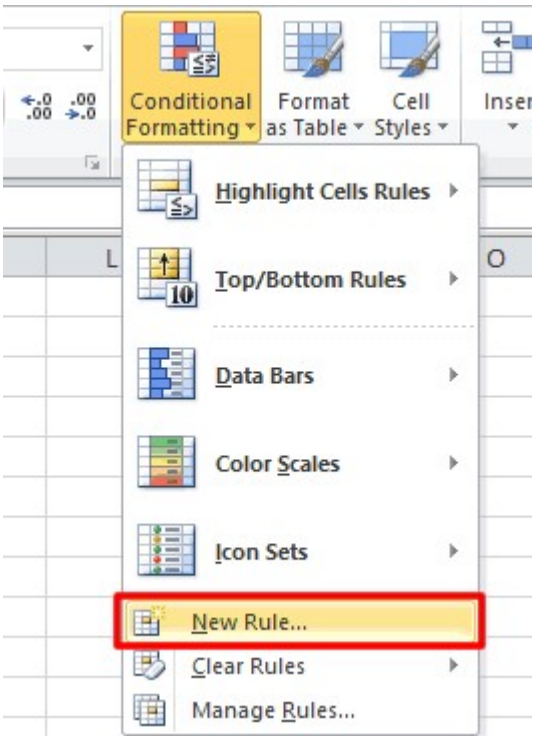
	A	B	C
1	Data Bars	Color Scales	Icon Sets
2	1	1	1
3	2	2	2
4	3	3	3
5	4	4	4
6	5	5	5
7	6	6	6
8	7	7	7
9	8	8	8
10	9	9	9
11	10	10	10

The table on the left shows examples of Data Bars, Color Scales and Icon Sets applied to the values 1 - 10 in a range of spreadsheet cells.

It is shown that, in addition to highlighting patterns in data, these options can give your spreadsheet a smart and professional look.

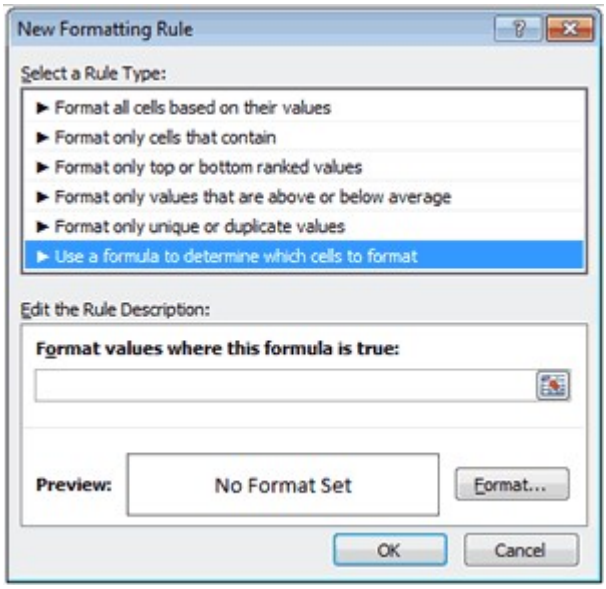
Excel Conditional Formatting can be used to alter the formatting of an Excel cell based on the values of the data in the cell to be formatted or the data in other cells of your spreadsheet.

Excel provides several simple pre-defined Conditional Formatting rules (the Highlight Cells Rules, Top/Bottom Rules and Data Bars/Color Scales/Icon Sets). However, if the rules that you want to use are more complex, you can also use Excel formulas to define your own formatting conditions.



To enter an Excel Conditional Formatting formula, select the New Rule... option from the Excel Conditional Formatting menu. (which is generally located in the 'Styles' group of the Home tab on the Excel ribbon (see right).

This opens up the 'New Formatting Rule' dialog box shown below:



Within the 'New Formatting Rule' dialog box select the option, 'Use a formula to determine which cells to format'. Excel then presents you with the options for creating a formula (shown in the above dialog box).

The formula that you use for your condition can be built up using any of Excel's built-in functions or operators. If the formula evaluates to TRUE, the conditional formatting is applied to the cell.

(Note that any number other than 0 is treated as the logical value TRUE and the numeric value 0 or any non-numeric values are treated as the logical value FALSE).

When entering your formula, it must always be preceded by the = sign. This is shown in the example below.

Example of Excel Conditional Formatting Using a Formula

	A	B	C	D	E	F
1	Sales ($000's)	Jan	Feb	Mar	Apr	May
2	Ben	8	20	16	40	
3	Bill	30	25	20	44	
4	Bob	15	12	24	30	
5	John	20	19	32	20	
6	Ken	40	30	32	25	

Imagine you are recording monthly sales figures for 5 employees, as shown in the spreadsheet on the right, and you wish to highlight each row that has recorded total sales figures of more than $100,000.

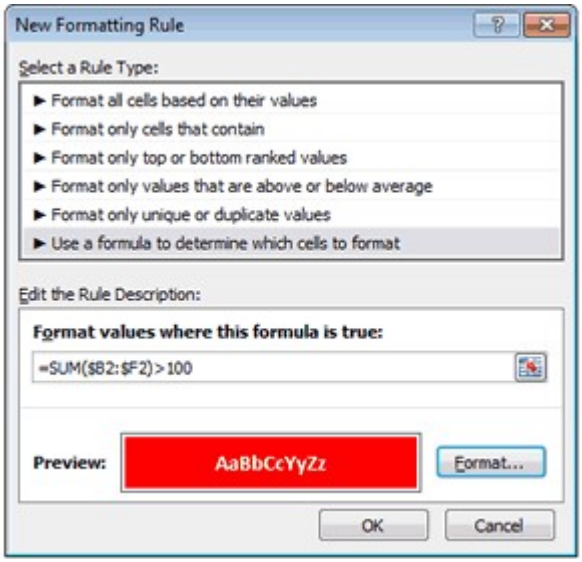
In this example, we wish to apply Excel Conditional Formatting to each entire row, based on the sum of the values in the row.

	A	B	C	D	E	F
1	Sales ($000's)	Jan	Feb	Mar	Apr	May
2	Ben	8	20	16	40	
3	Bill	30	25	20	44	
4	Bob	15	12	24	30	
5	John	20	19	32	20	
6	Ken	40	30	32	25	

Initially we need to select the rows to be formatted. Note that in the example spreadsheet on the right, cell A2 is the active cell, although all cells in rows 2 - 6 are selected.

Because A2 is the active cell, the formula entered into the Conditional Formatting menu will apply to cell A2.

However, depending on whether relative or absolute references are used in the formula, the cell references may or may not be adjusted for the other selected cells that the conditional formatting is to be applied to.



For the example spreadsheet, the formula to highlight rows that total 100 or more is:

=SUM($B2:$F2)>100

Note that, in this formula, the reference to the range $B2:$F2 uses:

Absolute References for the columns B-F. This ensures that the column references remain constant across the entire range of formatted cells.

Relative References for the row number 2. This ensures that the formula's row number increases to 3, 4, 5 & 6 when it is evaluated for the formatting of rows 3-6.

	A	B	C	D	E	F
1	Sales ($000's)	Jan	Feb	Mar	Apr	May
2	Ben	8	20	16	40	
3	Bill	30	25	20	44	
4	Bob	15	12	24	30	
5	John	20	19	32	20	
6	Ken	40	30	32	25	

The results of the above Excel Conditional Formatting definition are shown in the example spreadsheet on the right.

As required, the rows that have totals exceeding 100 are formatted in red.

2. How to insert border in Excel with Format Cells dialog?

Ans - To insert a border via the Format Cells dialog, this is what you need to do:

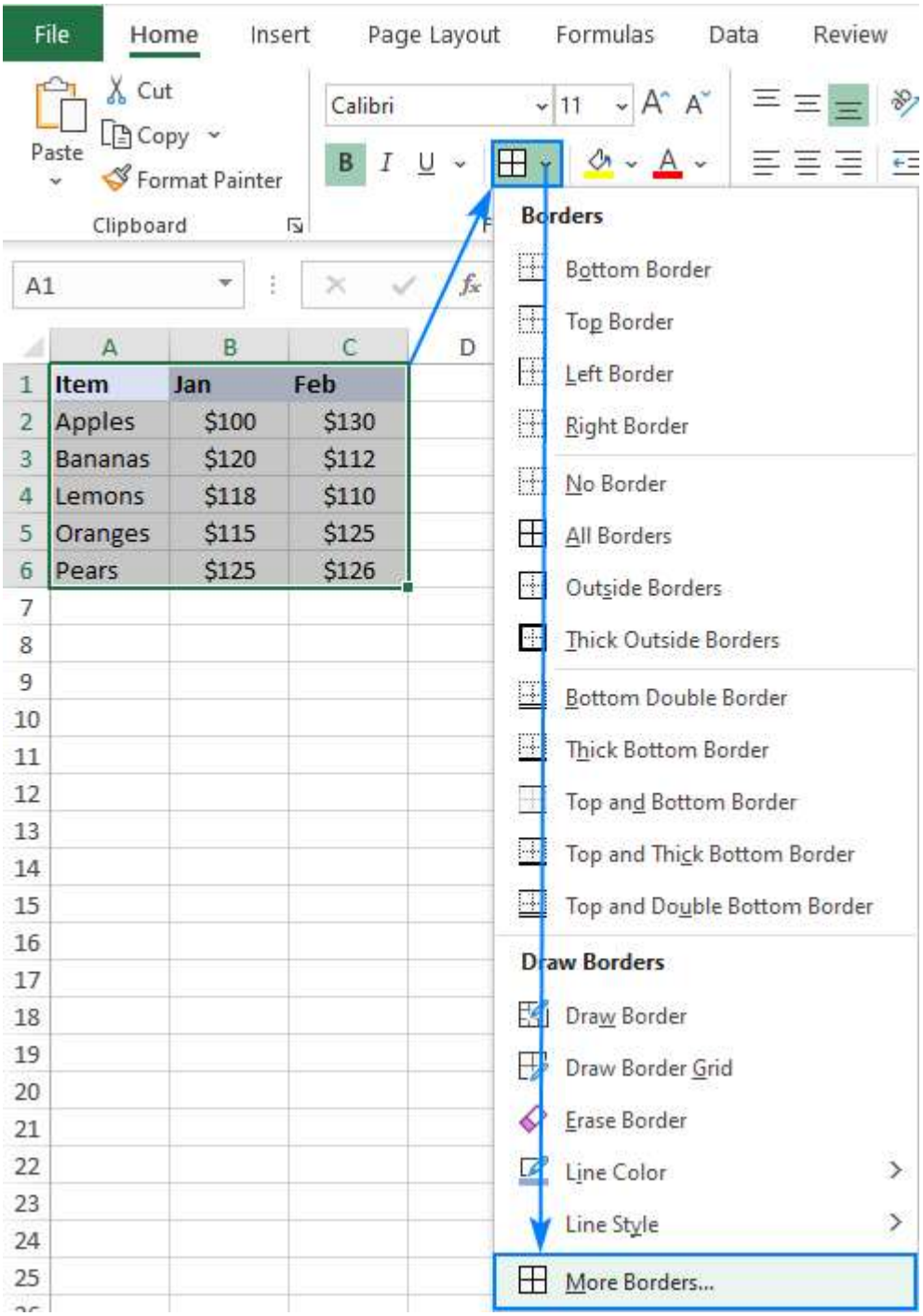
Select one or more cells to which you'd like to add borders.

Open the Format Cells dialog box by doing one of the following:

Click the down arrow next to the Borders button, and then click More Borders at the bottom of the drop-down list.

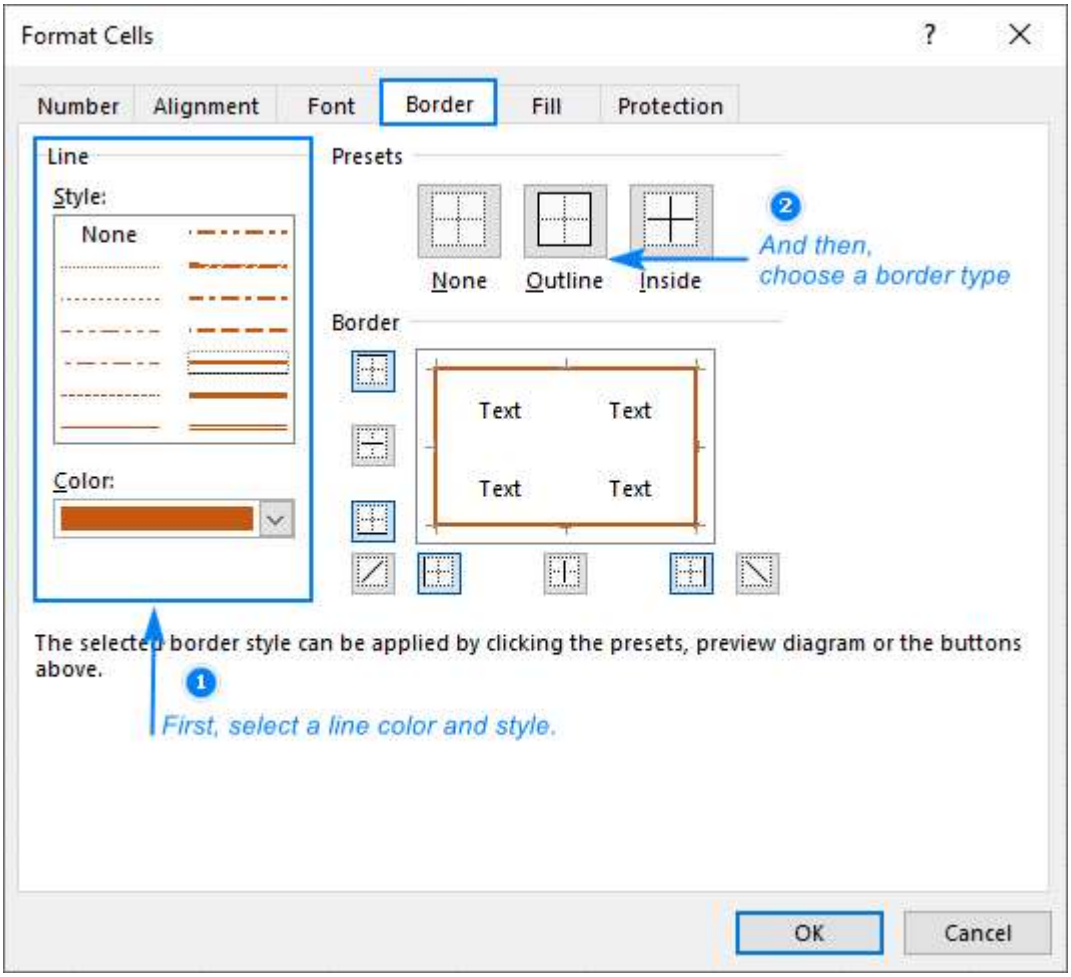
Right click the selected cells and choose Format Cells… from the context menu.

Press Ctrl+1 shortcut.



In the Format Cells dialog box, switch to the Border tab and choose the line style and color first. And then, either use Presets to add the outside or inside borders or construct the desired border by selecting individual elements such as border top, bottom, right or left. The preview diagram will reflect the changes immediately.

When done, click OK.



Excel border shortcuts

To quickly insert and remove cell borders, Excel provides a couple of keyboard shortcuts.

Add outside border

To add an outline border around the current selection, press the following keys at the same time.

Windows shortcut: Ctrl + Shift + &

Mac shortcut: Command + Option + 0

Remove all borders

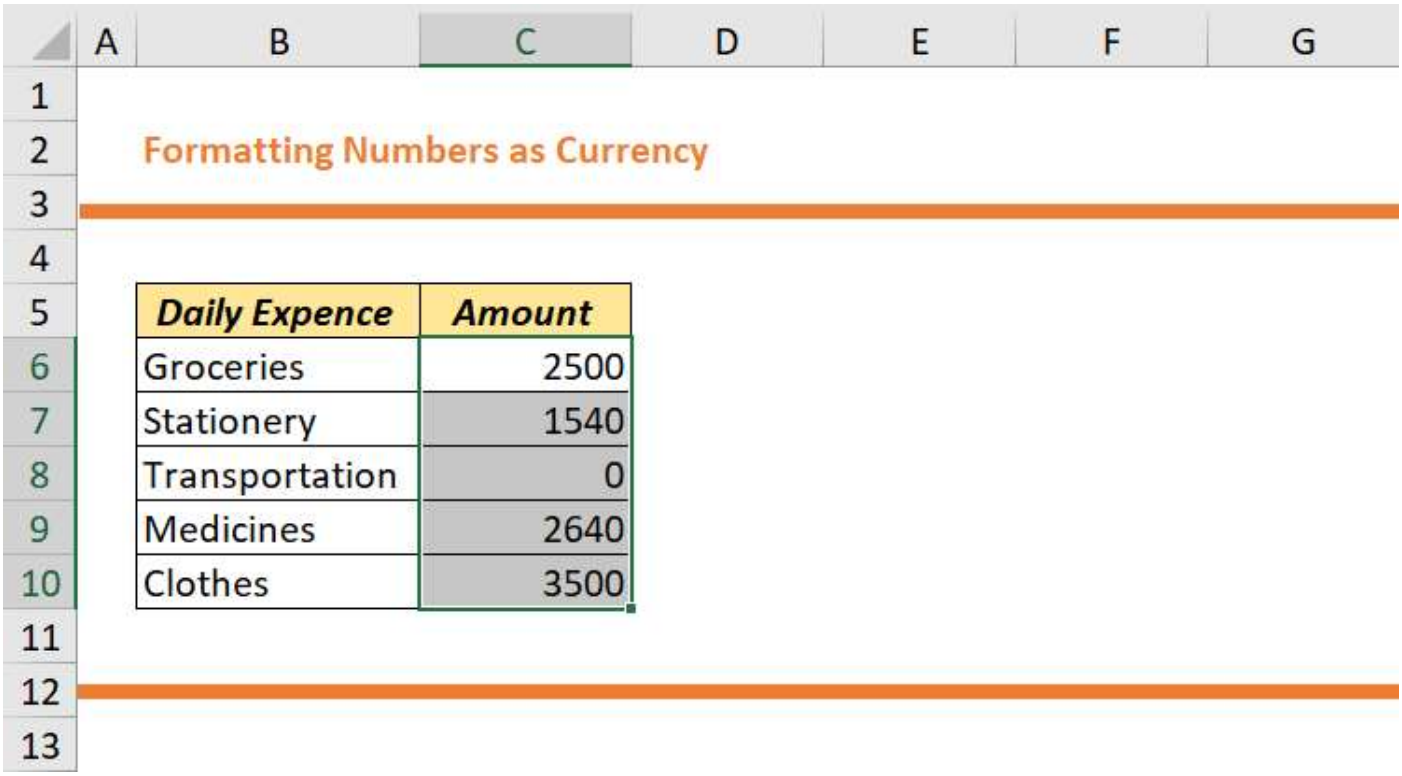
To remove all borders within the current selection, use the following key combinations.

Windows shortcut: Ctrl + Shift + _

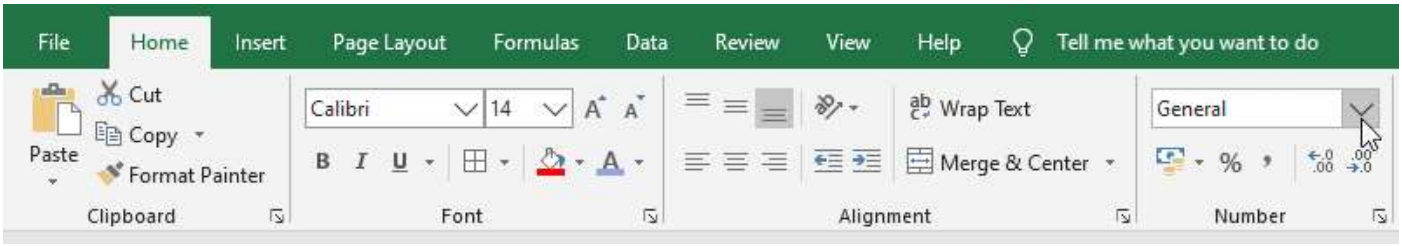
Mac shortcut: Command + Option + _

3. How to Format Numbers as Currency in Excel?

Ans - Step 1: Select the range of cells that you want to Format.



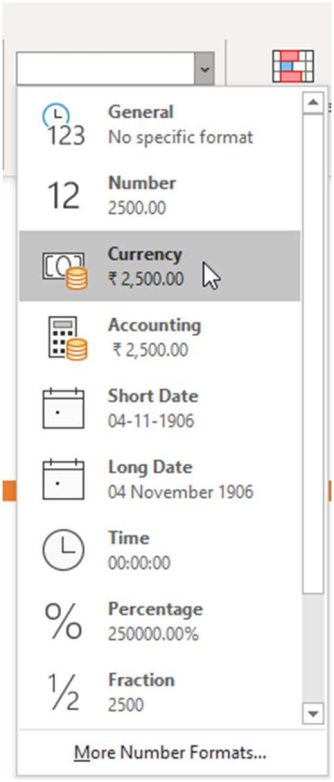
Step 2: After you select the required data, Go to Home tab >> Number group >> Click on the down arrow in the Number Format box.

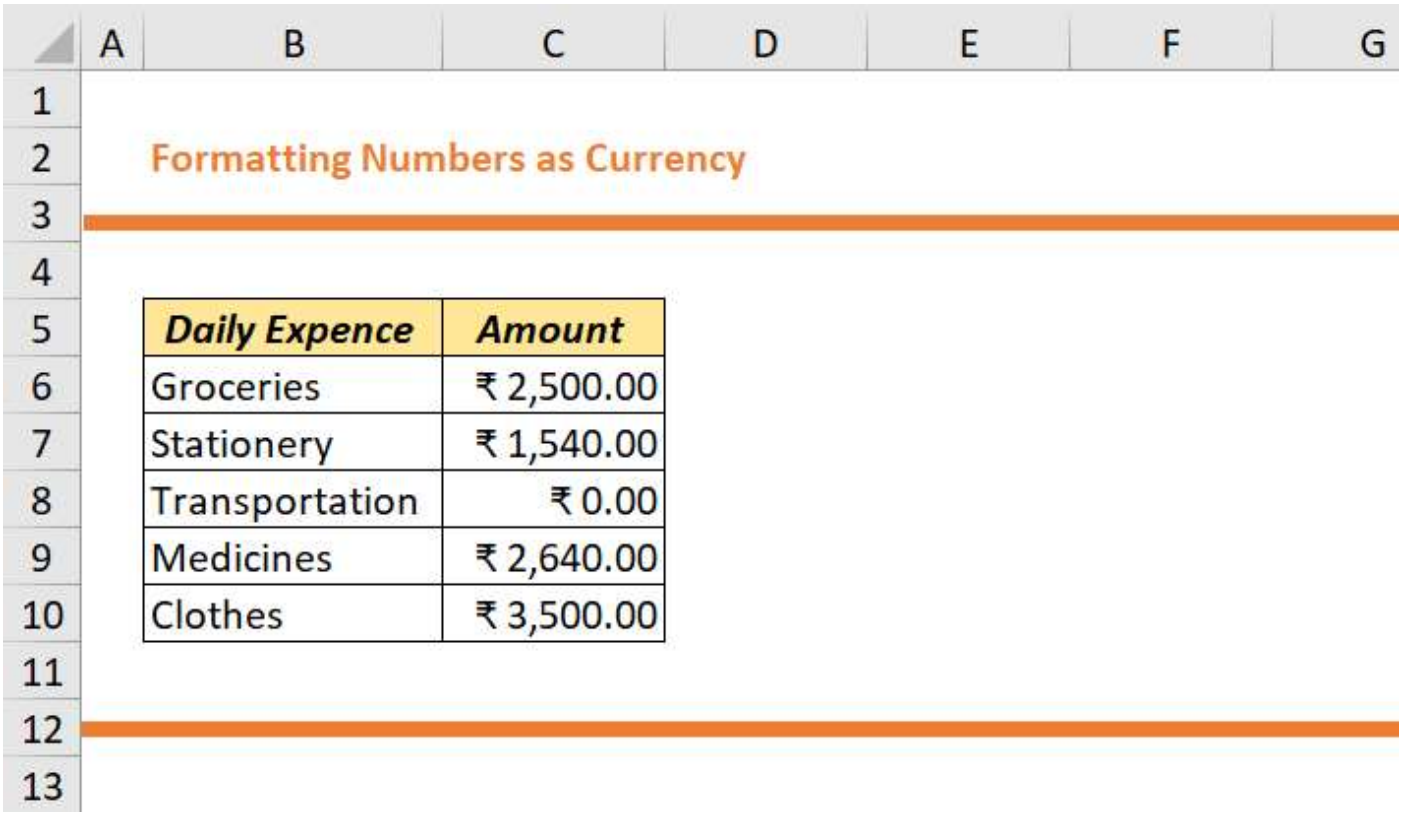


Step 3: Now, Click on the Currency option from the given list.

You will see that the currency symbol (₹) has appeared just before the first digit in the cell and the decimal points are aligned. Also, you will notice that in the place where the Transportation cost is 0, the amount column shows it as₹ 0.00.

Note: Shortcut key for formatting numbers as currency is Ctrl+Shift+4.





Daily Expence	Amount
Groceries	₹ 2,500.00
Stationery	₹ 1,540.00
Transportation	₹ 0.00
Medicines	₹ 2,640.00
Clothes	₹ 3,500.00

Bonus step: In a similar way, if one wants their data to be in the accounting format, there is an option of Accounting in the same list in the Number Group on the Home Tab.

Formatting Numbers as Currency

Daily Expence	Amount
Groceries	₹ 2,500.00
Stationery	₹ 1,540.00
Transportation	₹ -
Medicines	₹ 2,640.00
Clothes	₹ 3,500.00

Here, the only difference is that the currency symbol and the decimal points both will be aligned. And also the place where the cost was zero, will be shown as a hyphen (-) and not ₹ 0.00.

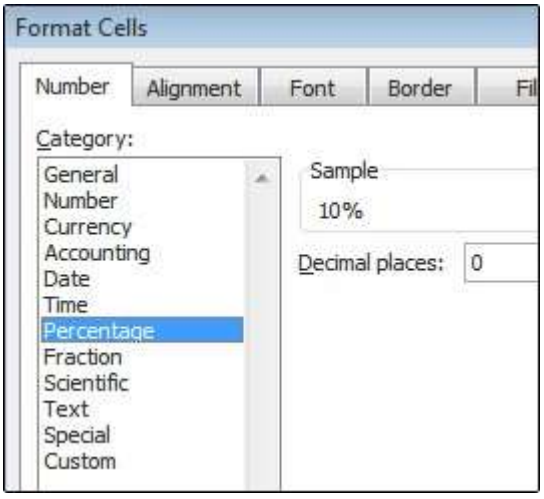
So, just by following these simple steps you will be able to format numbers as currency in Excel.

4. What are the steps to format numbers in Excel with the Percent style?

Ans -To quickly apply percentage formatting to selected cells, click Percent Style % in the Number group on the Home tab, or press Ctrl+Shift+%. If you want more control over the format, or you want to change other aspects of formatting for your selection, you can follow these steps.

On the Home tab, in the Number group, click the icon next to Number to display the Format Cells dialog box.

In the Format Cells dialog box, in the Category list, click Percentage.



In the Decimal places box, enter the number of decimal places that you want to display. For example, if you want to see 10% instead of 10.00%, enter 0 in the Decimal places box.

5. What is a shortcut to merge two or more cells in excel?

Ans- To merge two or more cells, highlight them and then press the following keys at the same time: ALT H+M+M. Merge and center cells: If you would like to merge cells and center your text at the same time, you can highlight the cells and press these keys: ALT H+M+C.

6. How do you use text commands in Excel?

Ans-In its simplest form, the TEXT function says:

=TEXT(Value you want to format, "Format code you want to apply")

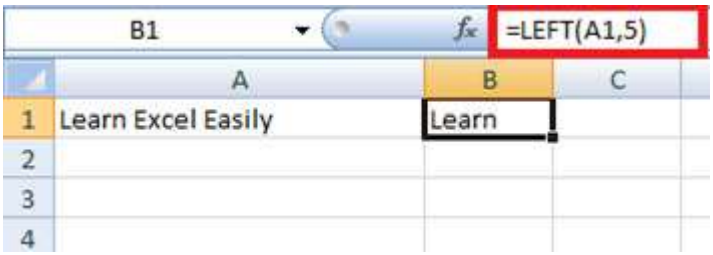
Here are some popular examples, which you can copy directly into Excel to experiment with on your own. Notice the format codes within quotation marks.

Formula	Description
=TEXT(1234.567,"$#,##0.00")	Currency with a thousands separator and 2 decimals, like $1,234.57. Note that Excel rounds the value to 2 decimal places.
=TEXT(TODAY(),"MM/DD/YY")	Today’s date in MM/DD/YY format, like 03/14/12
=TEXT(TODAY(),"DDDD")	Today’s day of the week, like Monday
=TEXT(NOW(),"H:MM AM/PM")	Current time, like 1:29 PM
=TEXT(0.285,"0.0%")	Percentage, like 28.5%
=TEXT(4.34 ,"# ?/?")	Fraction, like 4 1/3

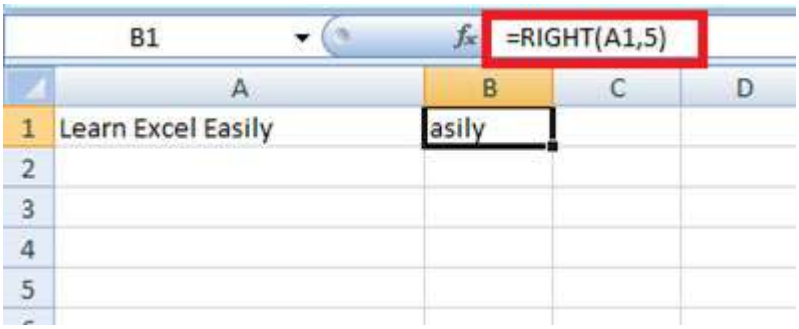
Formula	Description
=TRIM(TEXT(0.34,"# ?/?"))	Fraction, like 1/3. Note this uses the TRIM function to remove the leading space with a decimal value.
=TEXT(12200000,"0.00E+00")	Scientific notation, like 1.22E+07
=TEXT(1234567898,"[<=9999999]###-####;(###) ###-####")	Special (Phone number), like (123) 456-7898
=TEXT(1234,"0000000")	Add leading zeros (0), like 0001234
=TEXT(123456,"##0° 00' 00"")	Custom - Latitude/Longitude

1.Left()

You can use the Left function when you want to extract the leftmost characters from a string. Syntax =left(text, num_char)



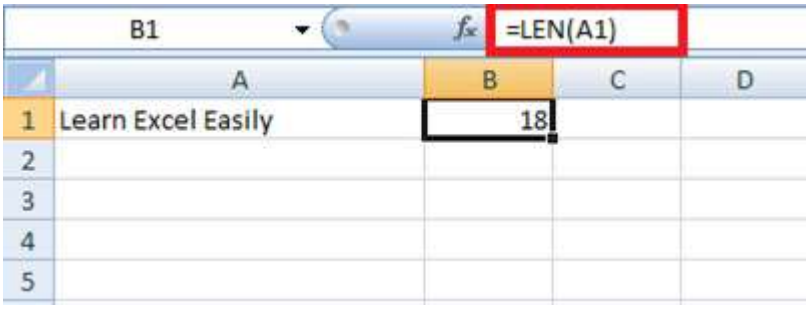
Similarly, you can also use the Right function to extract the rightmost characters from a string.



2. Len ()

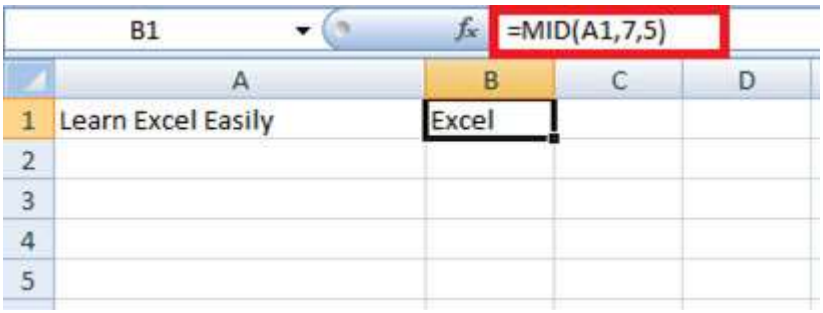
Len function in Excel helps you to know the length of a string that is number of characters in a string. Syntax = LEN(text)

Note – Spaces are included while calculating length.



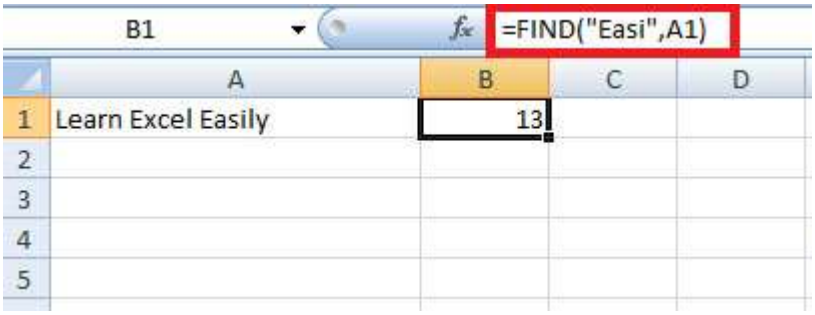
3. Mid ()

Mid function in Excel is used to extract the characters from the middle of a string. Syntax = MID(text, start_char, num_chars)



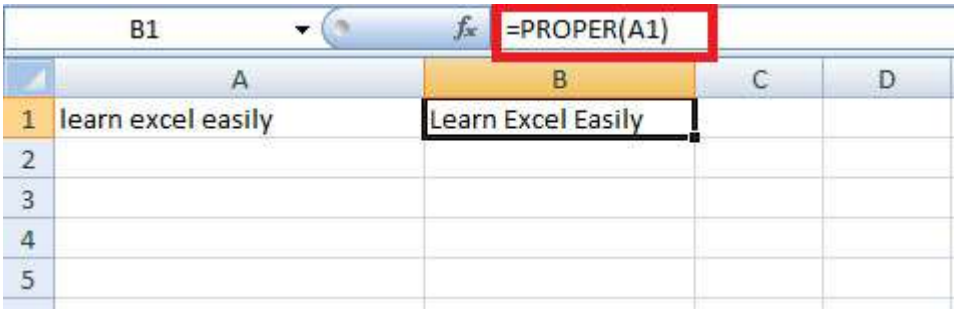
4. Find ()

Find function in Excel is used when you want to know the position of certain characters in a particular string. Syntax =FIND(find_text, within_text,[start_num])



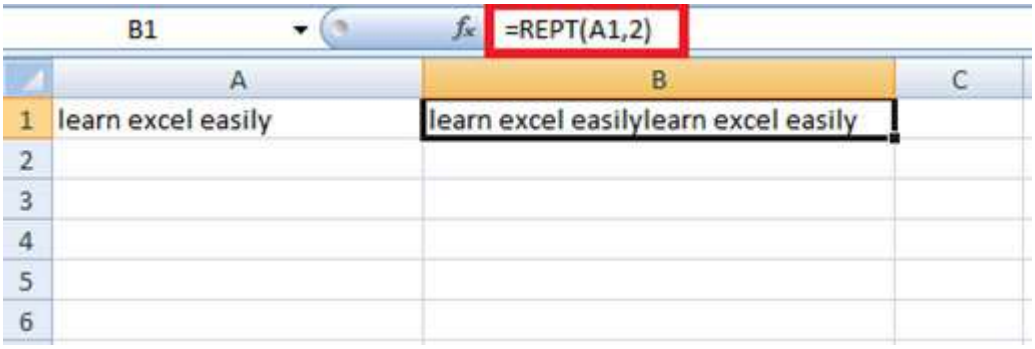
5. Proper ()

Proper function in Excel capitalizes each word in the string that is, it converts the case into proper case. Syntax =PROPER(Text)



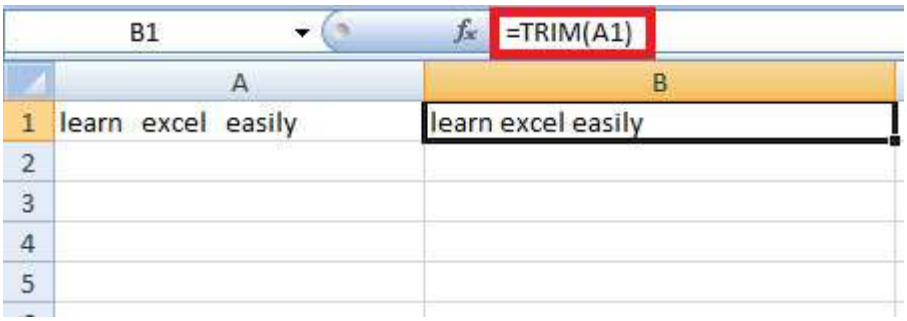
6. Rept ()

Rept function in Excel is used when you want a certain text to be repeated certain number of times. Syntax =REPT(Text, number_times)



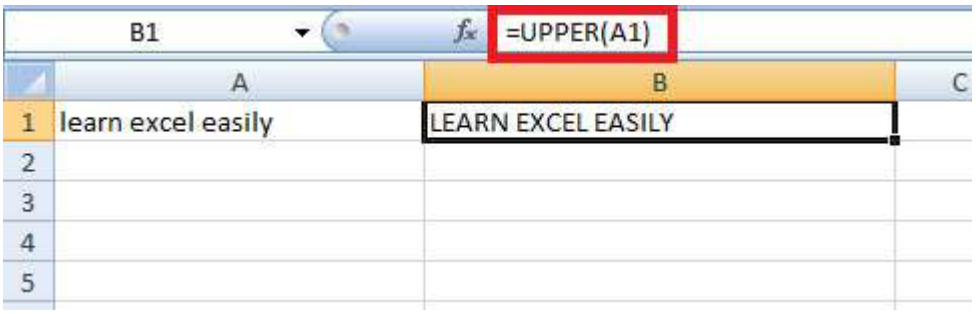
7. Trim()

Trim function in Excel removes the unnecessary spaces from a particular string. Syntax =TRIM(Text)



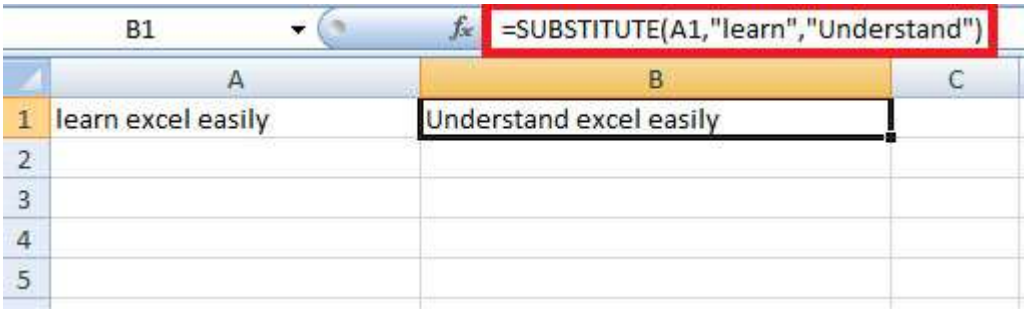
8. Upper()

Upper function in Excel converts the text into Upper case from lower case. Syntax =UPPER(Text)



9. Substitute ()

Substitute function in Excel helps to replace existing text with a new text in a particular string. Syntax =SUBSTITUTE(text, old_text, new_text, instance number)



10. Concatenate ()

Concatenate function in Excel helps to join the text of two or more cells. Syntax =CONCATENATE(text1, text2….)