An assignment on Microsoft Excel

Introduction:

Microsoft Excel is a software program produced by Microsoft that allows users to organize, format and calculate data with formulas using a spreadsheet system. This software is part of the Microsoft Office suite and is compatible with other applications in the Office suite.

How to total columns in Excel with AutoSum:

If you want to sum up a column in Excel and keep the result in your table, you can employ the AutoSum function. It will automatically add up the numbers and will show the total in the cell you select.

1. To avoid any additional actions like range selection, click on the first empty cell below the column you need to sum.

	A	B
1	Product	Price
2	Router	26.97
3	DDR 3	49.99
4	Memory DDR	52.99
5	Hard Drive	63.99
6	Video Card	117.99
7	Ultra ATA	119.95
8		

2. Navigate to the Home tab -> Editing group and click on the AutoSum button.
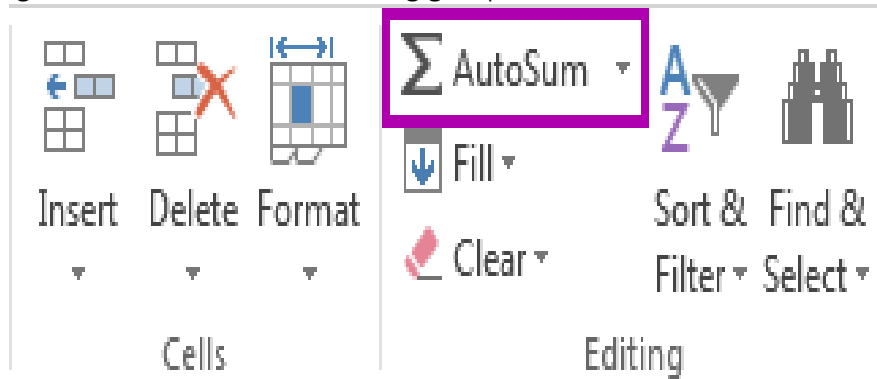
1. You will see Excel automatically add the =SUM function and pick the range with your numbers.

	A	B	C	D
1	Product	Price		
2	Router	26.97		
3	DDR 3	49.99		
4	Memory DDR	52.99		
5	Hard Drive	63.99		
6	Video Card	117.99		
7	Ultra ATA	119.95		
8		=sum(B2:B7		
9		SUM(**number1**, [number2], ...)		

2. Just press Enter on your keyboard to see the column totaled in Excel.

	A	B
1	Product	Price
2	Router	26.97
3	DDR 3	49.99
4	Memory DDR	52.99
5	Hard Drive	63.99
6	Video Card	117.99
7	Ultra ATA	119.95
8		431.88

This method is fast and lets you automatically get and keep the summing result in your table.

Subtract a Number From A Range Of Cells With A Formula:

Here a simple formula also can help you. Take the above data for example:

1. In cell C1, input the formula: =A1-99 (99 is a variable, it can be replaced by other numbers as you need), and press the Enter key,

	A	B	C
1	479		=A1-99
2	152		
3	284		
4	171		
5	320		
6	424		
7	155		
8	429		
9	337		
10	184		
11			

	A	B	C
1	479		380
2	152		53
3	284		185
4	171		72
5	320		221
6	424		325
7	155		56
8	429		330
9	337		238
10	184		85
11			

2. Keep the Cell C1 selected, and drag its AutoFill handle to the range as you need. And then all cells are extracted 99. See screenshot above.

How to calculate a running average in a column:

To calculate a running average, or a moving average, for a range of cells (a column), you use the AVERAGE function. The only trick you need to apply is to make your range changing continuously.

In the example below we want to calculate the running average of the sales from January to June.

Our ranges for the months will be as follows:

January – one cell : B2:B2
February- 2 cells B2:B3
March – 3 cell2: B2:B4 ... and so on.

The first cell of the range is always the same for all months : B2, so we will make it absolute reference like this: $B$2. Therefore our formulas , in C column will be like this:

January: =AVERAGE($B$2:B2)
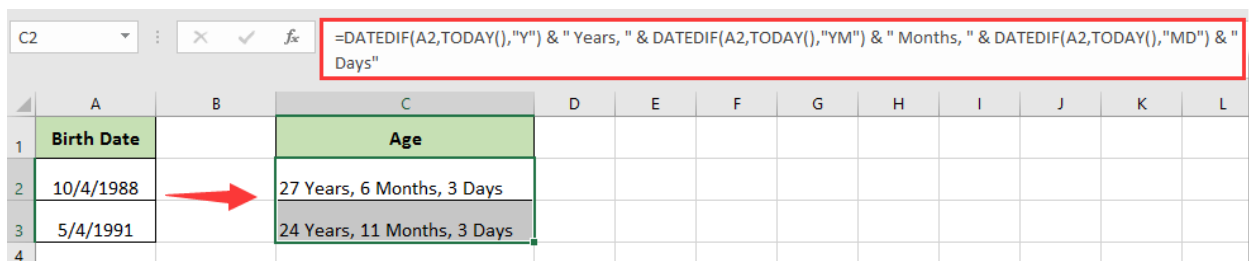February: =AVERAGE($B$2:B3)
March: =AVERAGE($B$2:B4) .... Answer so on.

Enter the first formula in cell C2 and auto fill down the rest of the range.

	A	B	C
1	Month	Sales	Average Sales
2	January	900	900.00
3	February	1050	975.00
4	March	850	933.33
5	April	1000	950.00
6	May	640	888.00
7	June	710	858.33

Convert birthdate to exact age with DATEDIF function:

Sometimes exact age is requires, and you may want to know how many years, months, and days from the birth date to current date. The following formula can help you figure out:

=DATEDIF(A2,TODAY(),"Y") & " Years, " & DATEDIF(A2,TODAY(),"YM") & " Months, " & DATEDIF(A2,TODAY(),"MD") & " Days"

See the screen shot above, this formula will show you precise result, such as 23 Years, 8 Months, and 14 Days.

Pass/Fail lifeguard test:

The Oregon Lifeguard Certification is a Pass/Fail test that requires participants to meet a minimum number of qualifications to pass. Scores of less than 70 percent fail, and those scores greater than that, pass. Column A lists the participants' names; column B shows their scores; and column C displays whether they passed or failed the course. The information in column C is attained by using an IF statement.

Once the formulas are entered, you can continue to reuse this spreadsheet forever. Just change the names at the beginning of each quarter, enter the new grades at the end of each quarter, and Excel calculates the results.

A. Enter this formula in cell C4: =IF (B4<70,"FAIL","PASS"). These means if the score in B4 is less than 70 , then enter the word FAIL in cell B4, else/otherwise enter the word PASS. Copy this formula from C4 to C5 through C13.

Count characters in cells:

When you need to count the characters in cells, use the LEN function. The function counts letters, numbers, characters, and all spaces. For example, the length of "It's 98 degrees today, so I'll go swimming" (excluding the quotes) is 42 characters—31 letters, 2 numbers, 8 spaces, a comma, and 2 apostrophes.

- To use the function, enter =LEN(cell) in the formula bar and press Enter. In these examples, cell is the cell you want to count, such as B1.
- To count the characters in more than one cell, enter the formula, and then drag the fill handle across or down the range of cells you want to use.
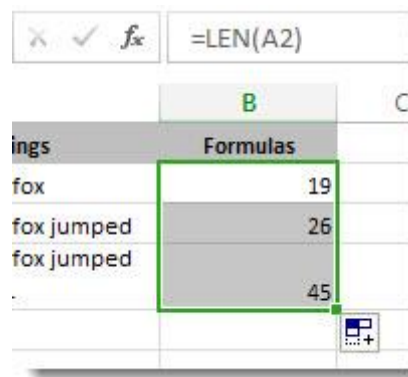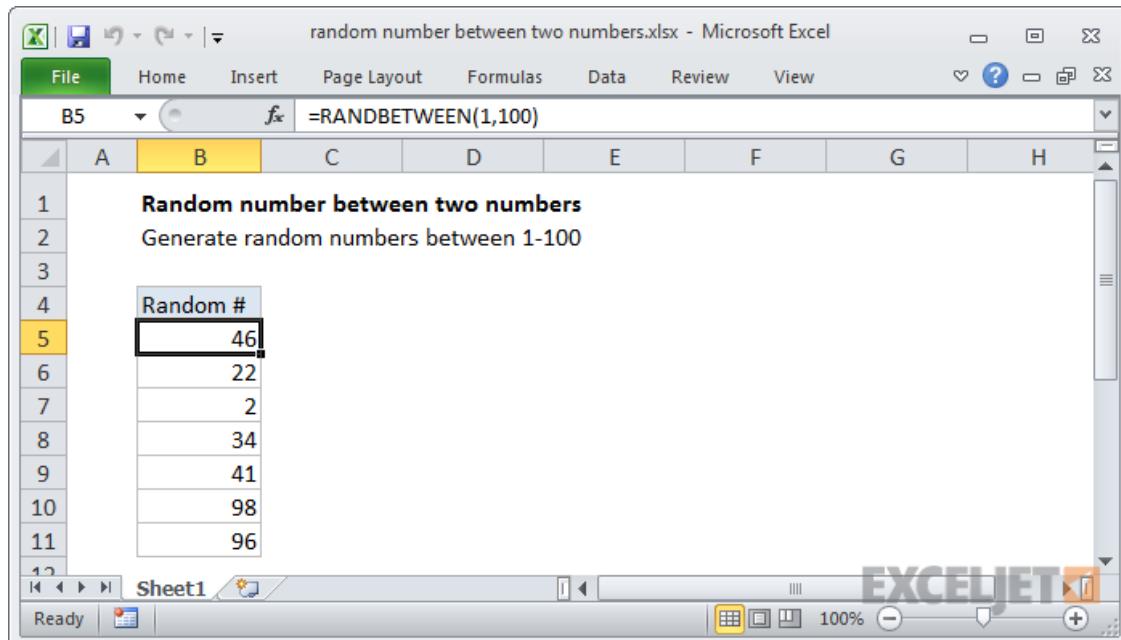

- To count a total number of characters in several cells, use the SUM functions along with LEN. For example, =SUM((LEN(cell1),LEN(cell2),(LEN(cell3)))). In this example, the LEN function counts the characters in each cell and the SUM function adds the counts.
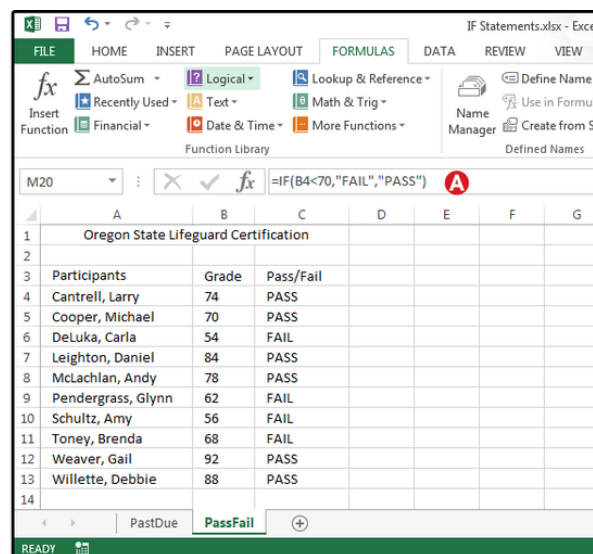
Use an IF statement to convert numeric scores to a pass-fail status.

Random number between two numbers:

RANDBETWEEN:

Explanation

To generate random integers between two numbers, you can use the RANDBETWEEN function. In the example shown, the formula in B5 is:

=RANDBETWEEN(1,100)
This formula is then copied down from B5 to B11. The result is random numbers between1-100.

Note that the RANDBETWEEN function will generate new numbers whenever a change is triggered on the worksheet. That includes any edits to the worksheet, also simply opening the workbook.

To prevent random numbers from being calculated again, copy the formulas, then use Paste Special>Values to replace the formulas with their calculated values.

Calculate the difference between two dates:

Use the DATEDIF function when you want to calculate the difference between two dates. First put a start date in a cell, and an end date in another. Then type a formula like one of the following.

Difference in days

=DATEDIF(D9,E9,**"d"**)			
D	**E**	**F**	**G**
Start date	End date	Result	
1/1/2014	5/6/2016	856	

In this example, the start date is in cell D9, and the end date is in E9. The formula is in F9. The "d" returns the number of full days between the two dates.

Difference in weeks:

=DATEDIF(D13,E13,"d")**/7**			
D	**E**	**F**	**G**
Start date	End date	Result	
1/1/2014	5/6/2016	122.29	

In this example, the start date is in cell D13, and the end date is in E13. The "d" returns the number of days. Butnotice the /7 at the end. That divides the number of days by 7, since there are 7 days in a week. Note that this result also needs to be formatted as a number. Press CTRL + 1. Then click Number > Decimal places: 2.

Difference in months

=DATEDIF(D5,E5,**"m"**)			
D	**E**	**F**	**G**
Start date	End date	Result	
1/1/2014	5/6/2016	28	

In this example, the start date is in cell D5, and the end date is in E5. In the formula, the "m" returns the number of full months between the two days.

Difference in years

In this example, the start date is in cell D2, and the end date is in E2. The "y" returns the number of full years between the two days.

Time Difference between two dates:

To calculate the time between two dates and times, you can simply subtract one from the other. However, you must apply formatting to each cell to ensure that Excel returns the result you want.

1. Type two full dates and times.

In one cell, type a full start date/time. And in another cell, type a full end date/time. Each cell should have a month, day, year, hour, minute, and a space before the AM or PM.
2. Set the 3/14/12 1:30 PM format.

Select both cells, and then press CTRL + 1 (or ⌘ + 1 on the Mac). Then select Date > 3/14/12 1:30 PM. This isn't the date you'll set, it's just a sample of how the format will look. Note that in versions prior to Excel 2016, this format might have a different sample date like 3/14/01 1:30 PM.
3. Subtract the two.

```
=E84-D84
```

D	E	F
Start date/time	End date/time	Difference
1/1/16 1:00 PM	1/2/16 2:00 PM	1.041666667

In another cell, subtract the start date/time from the end date/time. The result will probably look like a number and decimal. You'll fix that in the next step.

4. Set the [h]:mm format.

Accounting	Type:
Date	
Time	[h]:mm
Percentage	
Fraction	General
Scientific	0
Text	0.00
Special	#,##0
Custom	#,##0.00
	#,##0_);(#,##0)
	#,##0_);[Red](#,##0)

Highlight Duplicate Cells Using Conditional Formatting:
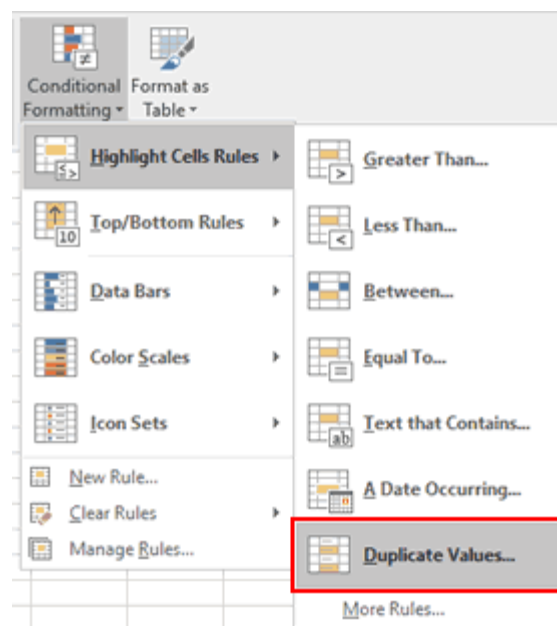
- Select the range of cells to be formatted.

- Select the Conditional Formatting drop-down menu from the Home tab at the top of your Excel workbook.
  Within this menu:

o Select the Highlight Cells Rules option and from the secondary menu that appears, select the Duplicate Values... option;

o A 'Duplicate Values' dialog box will pop up. The drop down menu in the left hand side of this window should show the value 'Duplicate' (although this can be changed to show unique values only, instead of duplicates).
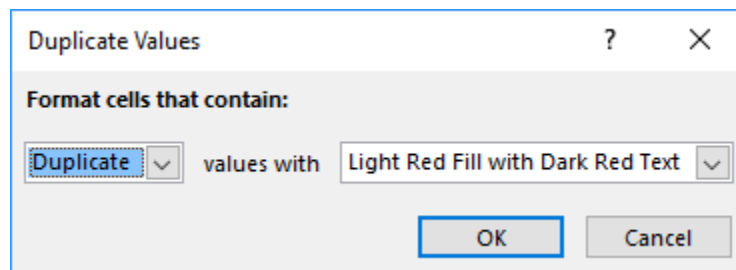
o Click OK.

Formatting cells A2-A10 of the example spreadsheet in this way, produces the following result:

Conclusion: This are the basic work of MS excel. We need to practice more and more for efficient use of excel.

Why Should I Learn Microsoft Excel?

We all deal with numbers in one way or the other. We all have daily expenses which we pay for from the monthly income that we earn. For one to spend wisely, they will need to know their income vs. expenditure. Microsoft Excel comes in handy when we want to record, analyze and store such numeric data.