M S EXCEL

Introduction

Microsoft Excel is a commercial spreadsheet application, written and distributed by Microsoft for Microsoft Windows and Mac OS X.

Microsoft Excel is a spreadsheet tool capable of performing calculations, analyzing data and integrating information from different programs.

By default, documents saved in Excel 2010 are saved with the .xlsx extension whereas the file extension of the prior Excel versions are .xls.

Microsoft Excel terminology

- **Workbook —** The workbook refers to an Excel spreadsheet file. The workbook houses all of the data that you have entered and allows you to sort or calculate the results. A workbook that is available to be viewed and edited by multiple users on a network is known as a Shared Workbook.
- **Worksheet —** Within the workbook is where you'll find documents called worksheets. Also known as spreadsheets, you can have multiple worksheets nestled in a workbook. Tabs at the bottom of the of the screen will indicate which of your worksheets you are currently working on. This is also known as an active worksheet or active sheet.
- **Cell —** A cell is a rectangle or block housed in a worksheet. Any data that you want to enter into your worksheet must be placed in a cell. Cells can be color coded, display text, numbers and the results of calculations, based on what you want to accomplish. An Active Cell is one that is currently opened for editing.
- **Columns and Rows —** Columns and Rows refer to how your cells are aligned. Columns are aligned vertically while rows are aligned horizontally.
- **Column and Row headings —** These headings are the lettered and numbered gray areas found just outside of columns and rows. Clicking on a heading will select the entire row or column. You can also alter the row height or column width using the headings.

- **Workspace —** Much like worksheets in a workbook, a workspace allows you to open numerous files simultaneously.
- **Ribbon —** Above the workbook is a section of command tabs called the Ribbon. A multitude of options are found behind each tab of the ribbon
- **Cell Reference —** A cell reference is a set of coordinates that identifies a specific cell. It's a combination of letters and numbers. A5, for example, would point to the cell located where column A and row 5 intersect.
- **Cell Range —** A Cell range is a collection of cells that have been identified as a group based on a variety of criteria. By using a colon (:) between cell references, Excel can determine the range, also known as an array. A range in a row, for example, could look like A1:C1, telling the formula to look at the cells in a row between A1 and C1, while B4:D9 would tell the formula to look at all cells in a box bounded by columns B and D and rows 4 and 9. A 3-D reference refers to a range that encompasses more than one worksheet in the same workbook.
- **Merged Cell —** When two or more cells are combined, it's become what is known as a merged cell.
- **Template —** A template is a formatted workbook or worksheet designed to help users fulfill a specific need in Excel. Examples of this include stock analysis, process map, and calendar.
- **Operator —** Operators are symbols or signs that indicate which calculation must be made in an expression. Operators do not necessarily refer to simple mathematical types; comparison, text concatenation or reference operators also exist.
- **Formula —** A sequence inside a cell that is used to produce a value. It must begin with an equal (=) sign. This could be a mathematical equation, cell references, functions or operator. A formula is also known as an expression.
- **Formula Bar —** Nestled between the ribbon and workbook, the Formula Bar will display the contents of an active cell. In the case of formulas, the formula bar will display all components of the formula.
- **Function —** Functions are formulas that are pre-built into Excel. They are designed to help simplify potentially complex formulas in a worksheet.
- **Error Code —** Error Codes appear if Excel finds a problem with a provided formula.

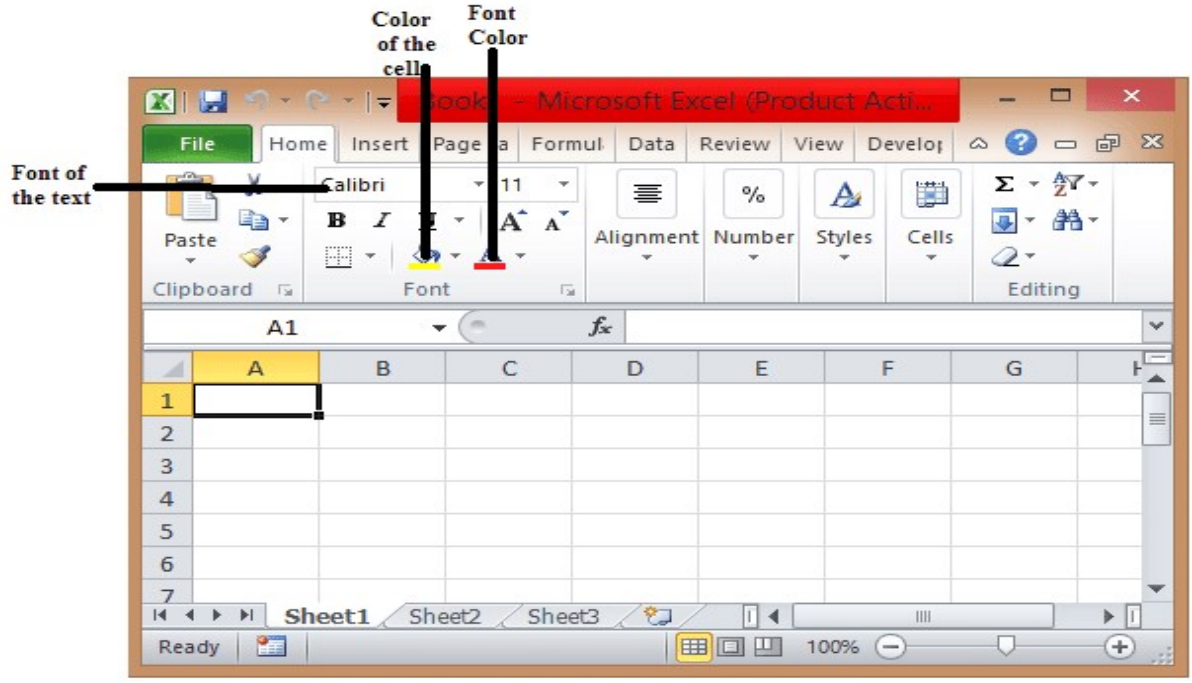
- **Cell Formatting —** This is the act of changing the in which cell data is displayed in the spreadsheet. When you format cells, only the visual appearance of the cells is changed; the value within the cells remain constant.
- **Conditional Formatting —** Formatting is applied only when the cell meets determined criteria such as duplicate values or values above or below a threshold.
- **Filter —** Filters are rules that you can employ to decide which rows in a worksheet to display. These filters can use data such as conditions or values.
- **Freeze Panes —** Freezing Panes allows you to select specific columns and/or rows to remain visible on the worksheet, even if you are scrolling, such as header cells that label a column.
- **AutoFill —** This enables you to effortless copy data to more than one cell.
- **AutoSum —** This feature will add up the numbers you have entered in your sheet and displays the total in a cell of your choosing.
- **AutoFormat —** This is an automated format application to cells that match pre-determined criteria. This could be as simple as font alignment and size.
- **Data Validation —** This feature helps to prevent incorrect data from being entered into your worksheet. This most commonly used to create drop-down lists for common terms. Data validation promotes consistency and accuracy in the data to be entered.
- **Pivot Table —** This is a data summarization tool most commonly used to sort, average to sum up data automatically. The information is pulled from one table while the results are displayed in another. Pivot Tables makes it easy to retrieve specific information from a large source of data.
- **Pivot Chart —** This type of chart provides a visual aid for pivot tables. By providing graphical representations of the pivot table data, the user can provide a level of interactivity with the data.
- **Pivot Area —** The pivot area is a point on the worksheet where you would drag a Pivot Table field in order to reorganize how a report is displayed.
- **Source Data —** This is the information used to create your pivot table. It can either exist within the worksheet or from and an external database.

- **Values Area —** In a pivot table, Value areas are identified as the cells that contain the summary information.
- **Item —** These are sub-categories of fields in your pivot table. If you have a field that is marked State, the items could be Alabama, Alaska and so on.

Excel

Excel is used for many purposes. You can store your confidential financial data as well as numerical data. Apart from storing the data, you can also retrieve and manipulate data.

Excel T



MS Excel has a grid format sheet where you can store, retrieve, organize, and manipulate numerical and financial data. It is a spreadsheet program which is ideal for storing and extracting confidential company data that can be used for entering, calculating, and comparing facts and figures for taxes, sales, and commissions.

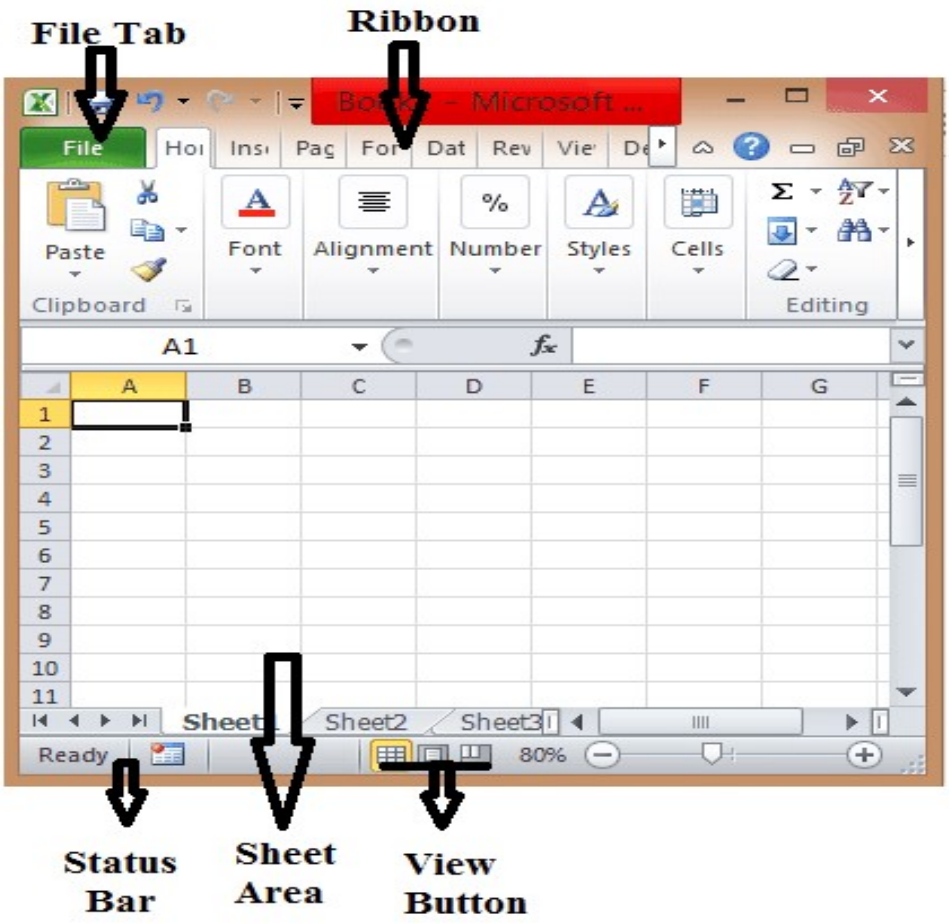
Importance of Excel Skills

Microsoft Excel has now become an important software and program for all business organizations. It has a simple interface that allows you to perform calculations and basic activities such as summing up the columns and rows. You can generate memos, sales trends for tracking, and other related data.

The main reason behind Excel popularity is that the user can use different summation and other formulas for calculating half-yearly, quarterly, and annual reports. You can also track sales leads, taxes, project status, and get invoice reports.

Excel : Explore Window

Here you can check the important parts of the Excel window.



File Tab

In a file tab, you will find various options like opening and saving of files, creating a new sheet, print, and other related options.

Ribbon

In the ribbon, you will find various commands including Tabs, Groups, and commands wherein tabs you will find options such as home, insert, page layout etc.

View Button

In a view option, you will find normal layout, page layout, and page break option.

Sheet Area

In a sheet area, you can enter data. It has a flashing vertical bar which is known as an insertion point and represents the place where you can enter the text.

Status Bar

In a status bar, you will find the details of the sheet and the insertion location. In the bar, you will find the total number of pages and word count.

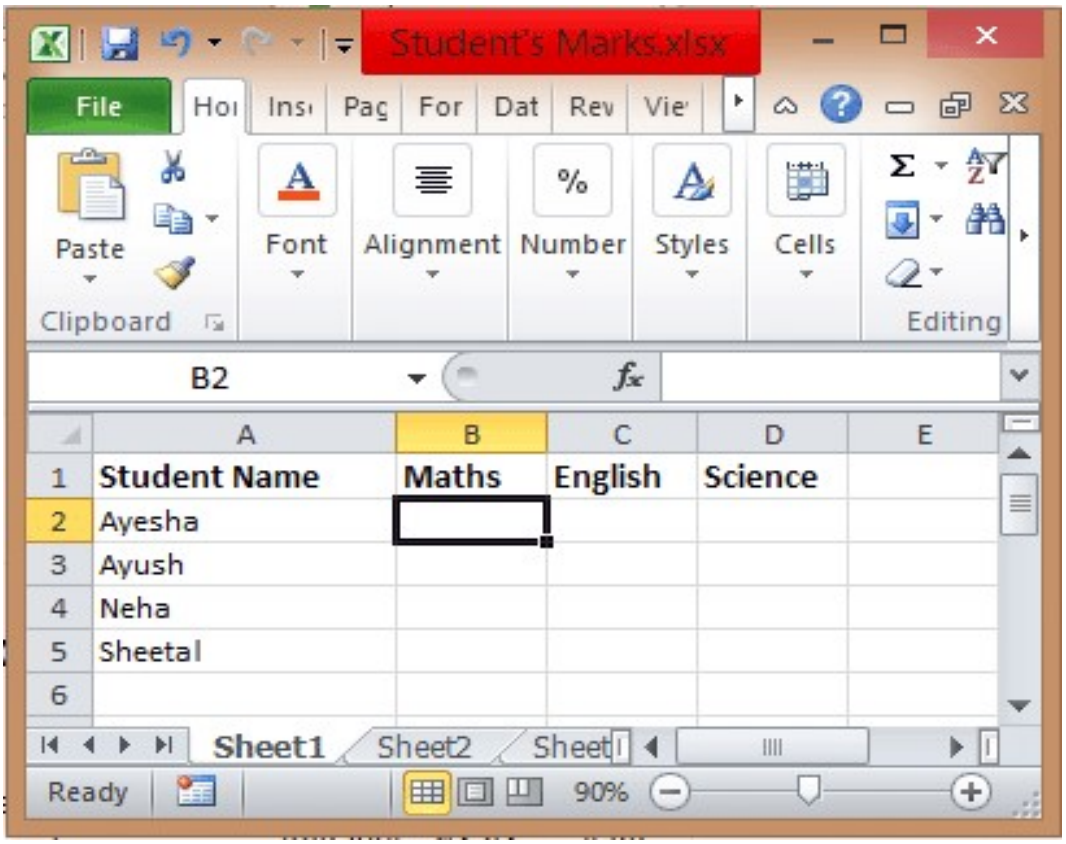
What is Excel used for?

Excel is used to keep tracking and accessing financial data and information about any company or organization. It helps in

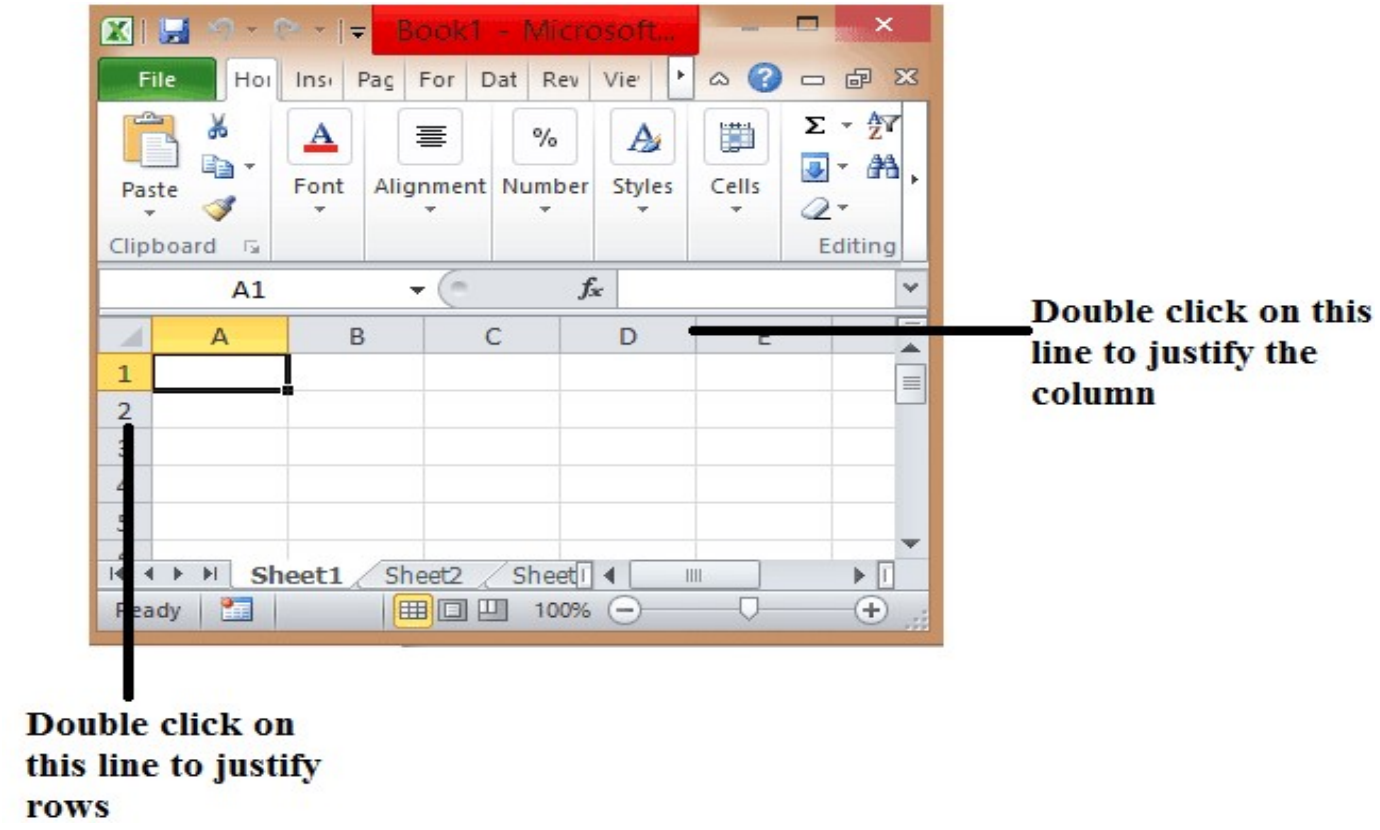
- To keep track of total sales and income earned by the customer.
- Monitoring employee's salary and customer payments.
- To keep track of expenses.
- To calculate the total work hours of an employee to pay monthly wages.
- Monitoring monthly payments on mortgages.
- Analysis through graphs and charts and to analyze the company performance in accordance with time.
- Based on three years previous data, you can calculate monthly sales.
- To note projects and tasks assigned to the particular employee.

How to use Excel?

Firstly, we will enter some data into the cell. A cell is a row number and column number. For example, let's create a worksheet for student's marks where the columns have the student name in Column A. Now enter Math, English, and Science in B1, C1, and D1. Now, we have the 5*4 grid.



To make everything visible, you can click on the Center justify icon so that all the data comes at the center underneath headings.



Excel Basic Formulas: Sum

The Sum formula is a great one to start with. Excel formulas all start with an = sign, followed by the function name and a section in parentheses to provide ranges or arguments. Start out by typing =sum(

Sum requires a range of cells you want to add together. You can type your range in, or you can select it using your mouse or input device. In this case, we will select D2:D21.

	A	B	C	D	E	F	G
1	Order Number	Date	Customer	Amount	Country	City	Phone
2	1	5/1/2016	Customer1	$125.00	Canada	Ottawa	(555) 555-0001
3	2	5/1/2016	Customer6	$175.00	Canada	Halifax	(555) 555-0006
4	3	5/1/2016	Customer2	$150.00	United States	Washington	(555) 555-0002
5	4	5/2/2016	Customer1	$250.00	Canada	Ottawa	(555) 555-0001
6	5	5/2/2016	Customer1	$215.00	Canada	Ottawa	(555) 555-0001
7	6	5/2/2016	Customer2	$315.00	United States	Washington	(555) 555-0002
8	7	5/2/2016	Customer3	$125.00	United Kingdom	London	(555) 555-0003
9	8	5/2/2016	Customer1	$ 50.00	Canada	Ottawa	(555) 555-0001
10	9	5/2/2016	Customer7	$750.00	United States	New York	(555) 555-0007
11	10	5/2/2016	Customer4	$ 35.00	France	Paris	(555) 555-0004
12	11	5/3/2016	Customer5	$250.00	China	Beijing	(555) 555-0005
13	12	5/3/2016	Customer5	$115.00	China	Beijing	(555) 555-0005
14	13	5/4/2016	Customer4	$175.00	France	Paris	(555) 555-0004
15	14	5/4/2016	Customer5	$125.00	China	Beijing	(555) 555-0005
16	15	5/4/2016	Customer1	$150.00	Canada	Ottawa	(555) 555-0001
17	16	5/4/2016	Customer7	$150.00	United States	New York	(555) 555-0007
18	17	5/4/2016	Customer1	$150.00	Canada	Ottawa	(555) 555-0001
19	18	5/4/2016	Customer1	$250.00	Canada	Ottawa	(555) 555-0001
20	19	5/4/2016	Customer4	$135.00	France	Paris	(555) 555-0004
21	20	5/4/2016	Customer2	$400.00	United States	Washington	(555) 555-0002
22							
23			Sum:	=sum(D2:D21			
24				SUM(**number1**, [number2], ...)			

Next up you can close the parenthesis, although newer versions of Excel will auto close it for you.

Sum:	=sum(D2:D21)

Excel Basic Formulas: Sum, Average, Min, Max, and Count

Using the same method, you can calculate the average, minimum value, maximum value, and count:

Sum:	=SUM(D2:D21)
Average:	=AVERAGE(D2:D21)
Max:	=MAX(D2:D21)
Min:	=MIN(D2:D21)
Count:	=COUNT(D2:D21)

Sum:	$4,090.00
Average:	$ 204.50
Max:	$ 750.00
Min:	$ 35.00
Count:	20

Here are some basic formulas, and what they do.

Sum	Adds all the cells together and gives you the total sum.
Average	Gives you the average of the selection you provide.
Min	Returns the smallest value from the selection you provide.
Max	Returns the largest value from the selection you provide.
Count	Counts how many cells have values in them.

Marksheet Format in Excel

Every organization nowadays, whether it is any multinational company, small proprietorship, school or college, etc., uses MS Excel to maintain

their data and analyze the data for taking decisions. In schools, there are more than 1000 students in various standards and divisions. It is difficult to maintain their data manually in registers. That is why the management of schools uses MS Excel to maintain data of students. In the excel mark sheet, we have to manipulate the marks of students in various ways to evaluate their performance and give the result.

Marksheet in Excel

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	XIIth Standard												
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total	Average	Grade	Result
3	1	A	1	Akhilesh	97	36	47	13	34	227	45	B	ER
4	2	A	2	Ruchi	69	85	86	51	53	344	69	B+	PASSED
5	3	A	3	Bhawna	19	72	41	53	40	225	45	B	ER
6	4	A	4	Isha	76	68	46	11	22	223	45	B	ER
7	5	A	5	Chetan	55	31	56	99	93	334	67	B+	ER
8	6	A	6	Neeti	84	57	68	30	31	270	54	B	ER
9	7	A	7	Chanchal	18	46	51	63	22	200	40	B	FAILED
10	8	A	8	Preeti	93	93	31	93	20	330	66	B+	ER
11	9	A	9	Richa	33	89	55	46	69	292	58	B	PASSED
12	10	A	10	Manish	21	27	84	82	96	310	62	B+	ER
13	11	A	11	Karun	13	48	27	26	38	152	30	F	FAILED
14	12	A	12	Madhur	85	74	26	53	84	322	64	B+	ER
15	13	A	13	Nitesh	28	31	27	77	17	180	36	B	FAILED

How to Make Marksheet in Excel Format?

Let us understand how to create mark sheet in excel.

Suppose, we have following data for marks scored in various subjects by 120 students.

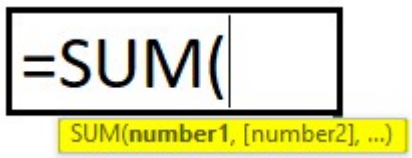
	A	B	C	D	E	F	G	H	I	J	K	L
1	XIIth Standard											
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total	Average	Grade
3	1	A	1	Akhilesh	97	36	47	13	34			
4	2	A	2	Ruchi	69	85	86	51	53			
5	3	A	3	Bhawna	19	72	41	53	40			
6	4	A	4	Isha	76	68	46	11	22			
7	5	A	5	Chetan	55	31	56	99	93			
8	6	A	6	Neeti	84	57	68	30	31			
9	7	A	7	Chanchal	18	46	51	63	22			
10	8	A	8	Preeti	93	93	31	93	20			
11	9	A	9	Richa	33	89	55	46	69			
12	10	A	10	Manish	21	27	84	82	96			
13	11	A	11	Karun	13	48	27	26	38			

We want to find the total marks scored, an average of marks (this will also help us to give students grade) and result that whether the student is passed or failed.

#1 – SUM Function

To find out the total, we will use the **SUM**

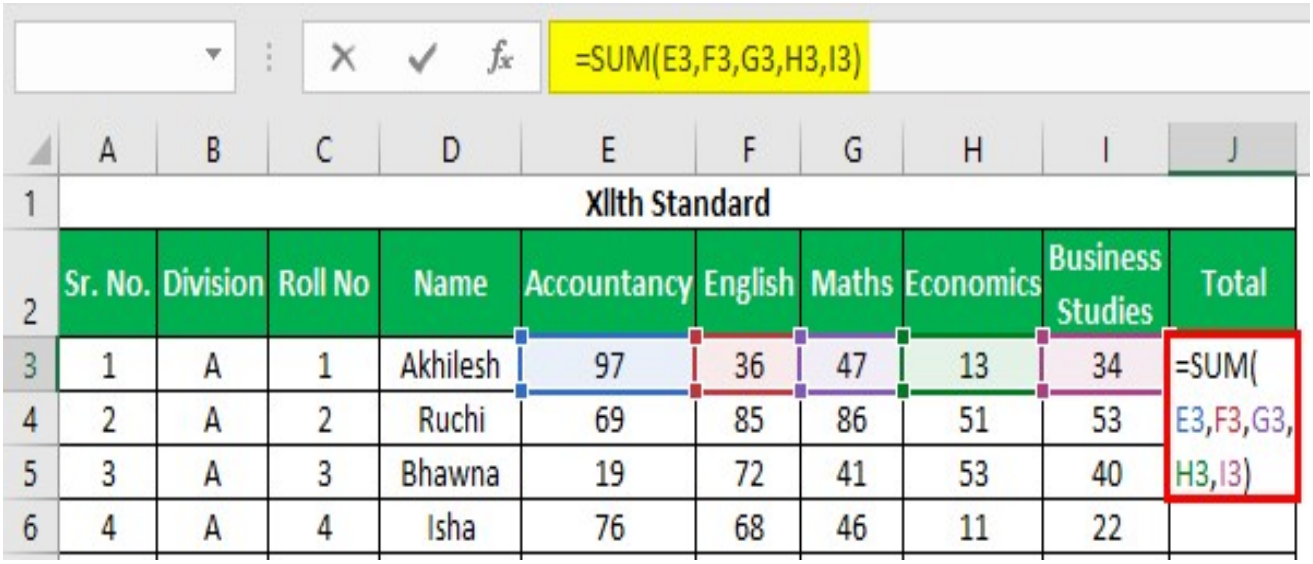
The syntax for the SUM in excel is as follows:



This function takes 255 numbers in this way to add. But we can also give the range for more than 255 numbers too as an argument for the function, to sum up.

There are various methods to specify numbers as follows:

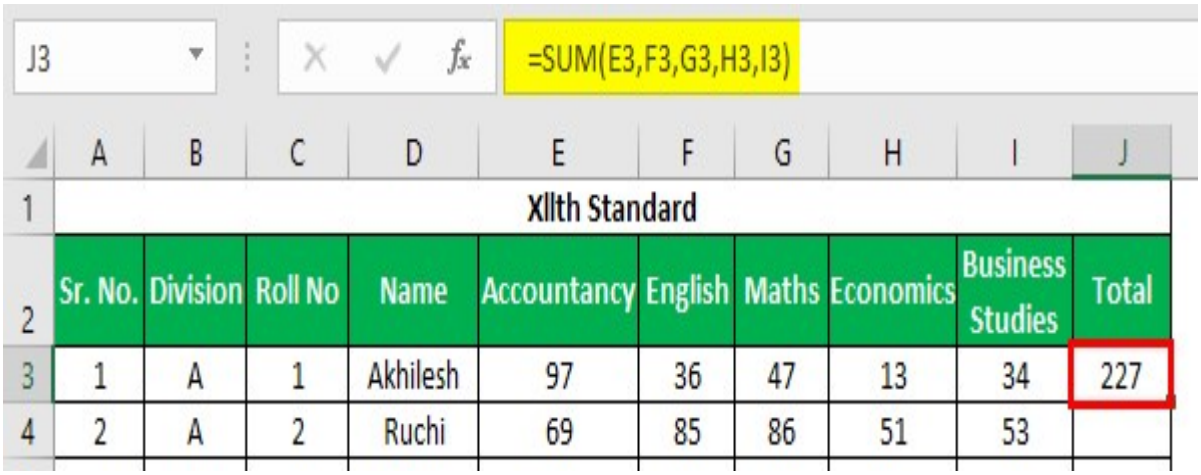
#1 – Comma Method



=SUM(E3,F3,G3,H3,I3)

	A	B	C	D	E	F	G	H	I	J
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total
3	1	A	1	Akhilesh	97	36	47	13	34	=SUM(
4	2	A	2	Ruchi	69	85	86	51	53	E3,F3,G3,
5	3	A	3	Bhawna	19	72	41	53	40	H3,I3)
6	4	A	4	Isha	76	68	46	11	22	

Total will be –



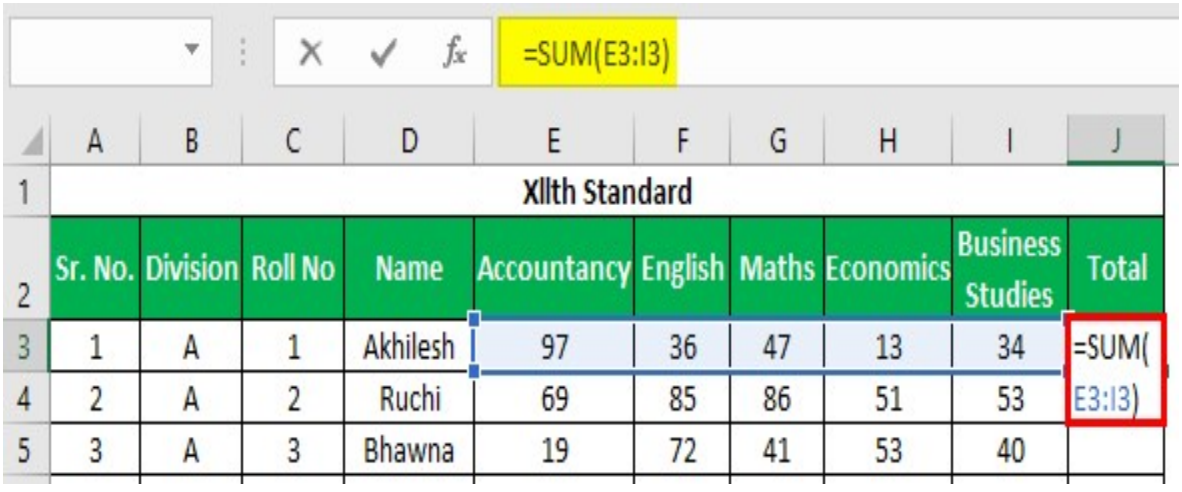
J3 =SUM(E3,F3,G3,H3,I3)

	A	B	C	D	E	F	G	H	I	J
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total
3	1	A	1	Akhilesh	97	36	47	13	34	227
4	2	A	2	Ruchi	69	85	86	51	53	

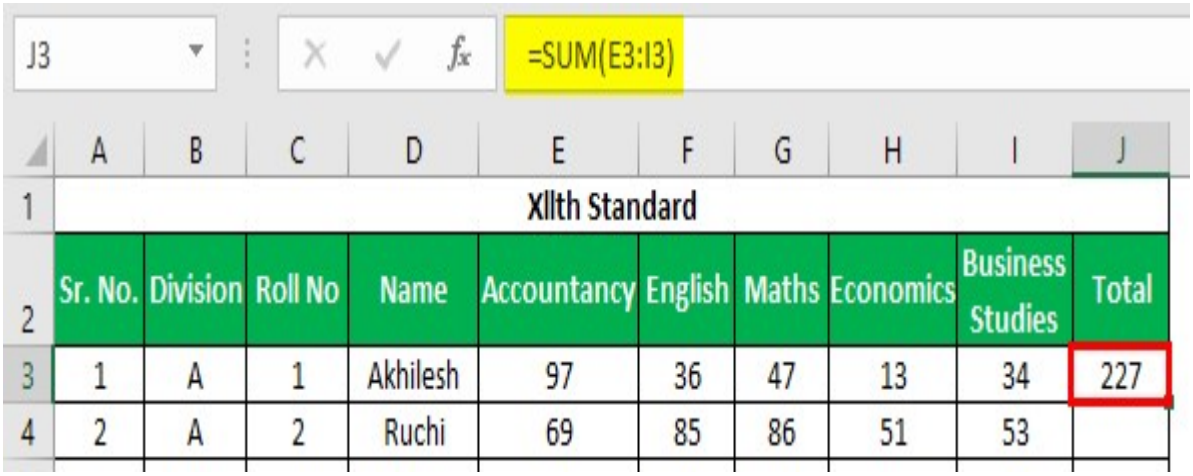
In this method, we use commas for specifying and separating the arguments. We have specified or selected various cells with commas.

#2 – Colon Method (Shift Method)

In this method, we have used **'Shift'** key after selecting the first cell (E3) and then used the Right Arrow key to select cells till I3. We can select continuous cells or specify the range with colon manually.



Total will be –



	A	B	C	D	E	F	G	H	I	J
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total
3	1	A	1	Akhilesh	97	36	47	13	34	227
4	2	A	2	Ruchi	69	85	86	51	53	

After entering the formula for the first student, we can copy down the formula using **Ctrl+D** as shortcut key after selecting the range with the first cell at the top so that this formula can be copied down.

Apply the above formula to all the remaining cells.

We get the following result.

J3 =SUM(E3:I3)

	A	B	C	D	E	F	G	H	I	J
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total
3	1	A	1	Akhilesh	97	36	47	13	34	227
4	2	A	2	Ruchi	69	85	86	51	53	344
5	3	A	3	Bhawna	19	72	41	53	40	225
6	4	A	4	Isha	76	68	46	11	22	223
7	5	A	5	Chetan	55	31	56	99	93	334
8	6	A	6	Neeti	84	57	68	30	31	270
9	7	A	7	Chanchal	18	46	51	63	22	200
10	8	A	8	Preeti	93	93	31	93	20	330

#2 – AVERAGE Function

For calculating Average Marks, we will use the **AVERAGE function**. The syntax for the **AVERAGE function** is same as **SUM function**.

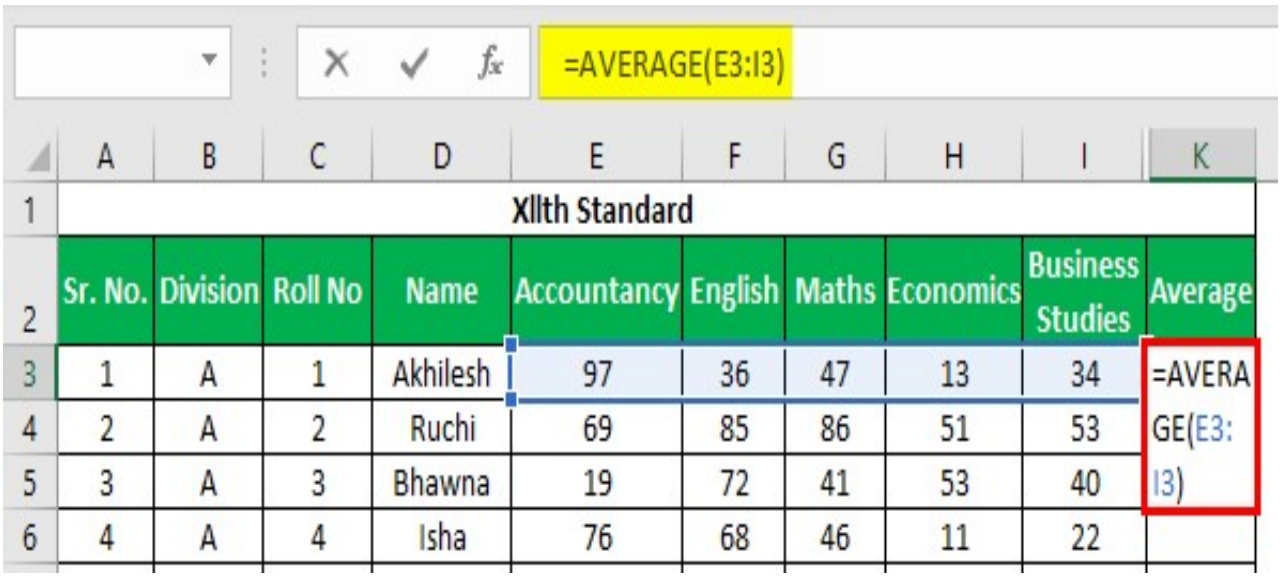
=AVERAGE(

AVERAGE(**number1**, [number2], ...)

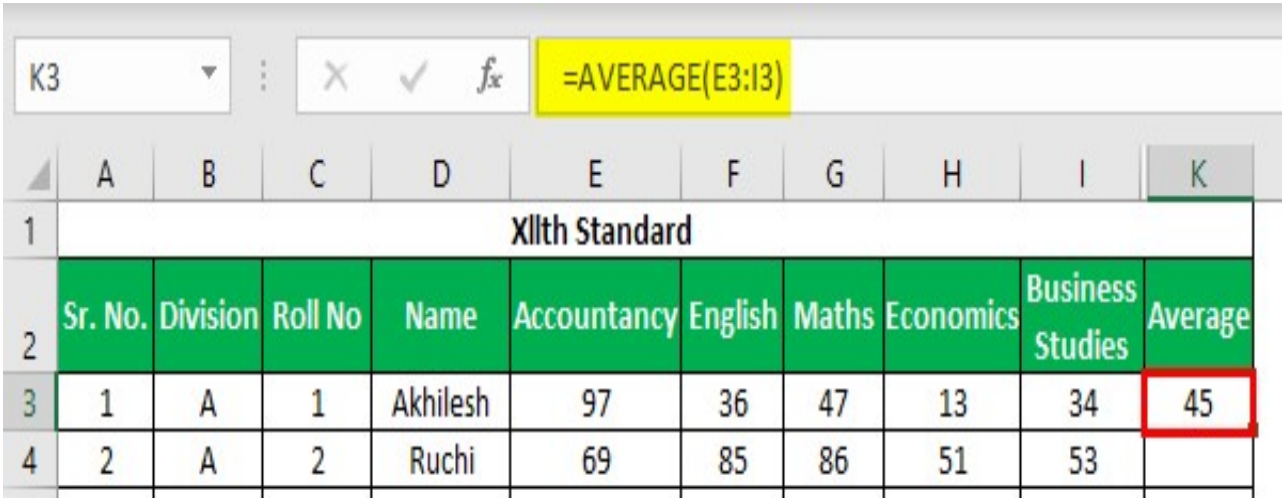
This function returns the average of its arguments.

We can pass arguments to this function in the same way as we pass arguments to the SUM function.

For evaluating average in the excel marksheet, we will use **AVERAGE function** in the following way. We will select marks scored by a student in all 5 subjects.



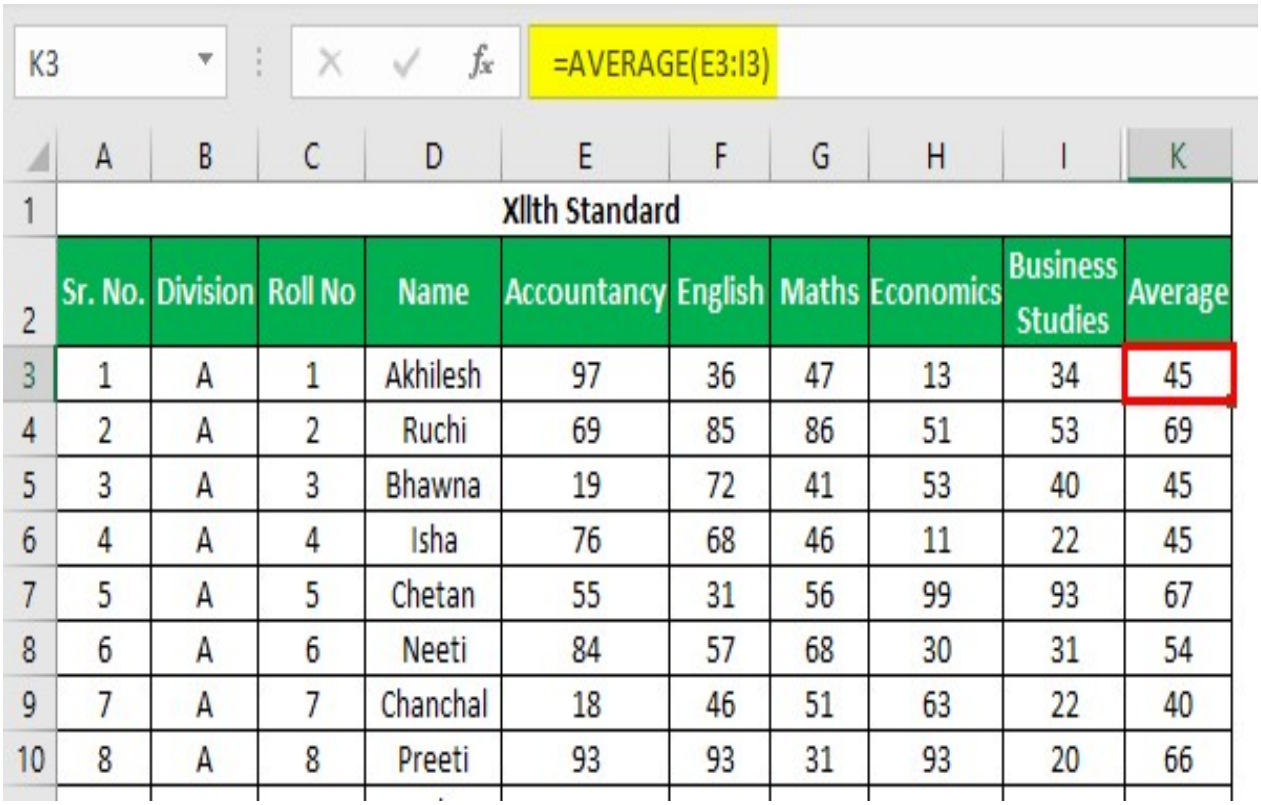
The average will be –



We will use **Ctrl+D** to copy down the function.

Apply the above formula to all the remaining cells.

We get the following result.



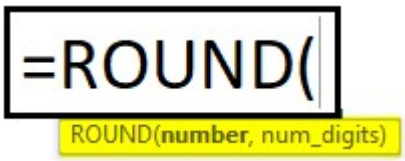
	A	B	C	D	E	F	G	H	I	K
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Average
3	1	A	1	Akhilesh	97	36	47	13	34	45
4	2	A	2	Ruchi	69	85	86	51	53	69
5	3	A	3	Bhawna	19	72	41	53	40	45
6	4	A	4	Isha	76	68	46	11	22	45
7	5	A	5	Chetan	55	31	56	99	93	67
8	6	A	6	Neeti	84	57	68	30	31	54
9	7	A	7	Chanchal	18	46	51	63	22	40
10	8	A	8	Preeti	93	93	31	93	20	66

As we can see that we have got values in decimal for average marks which doesn't look good. Now we will use the ROUND function to round the values to the nearest integer.

#3 – ROUND Function

This function is used to round the values to the specified number of digits.

The syntax for the ROUND function in excel is as follows:

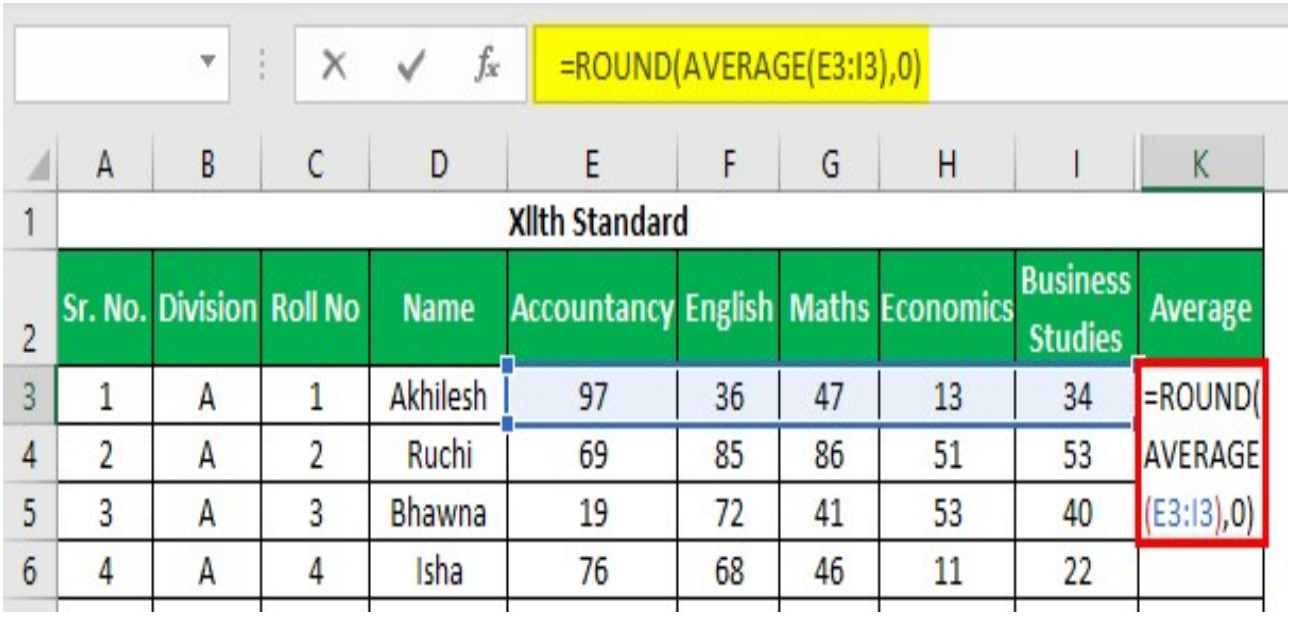


Arguments Explanation

- **Number:** For this argument, we need to provide the number which we want to round. We can give reference to the cell containing a number or specify number itself.
- **Num_digits:** In this argument, we specify the number of digits which we want after the point

in the number. If we want pure integer then we specify 0.

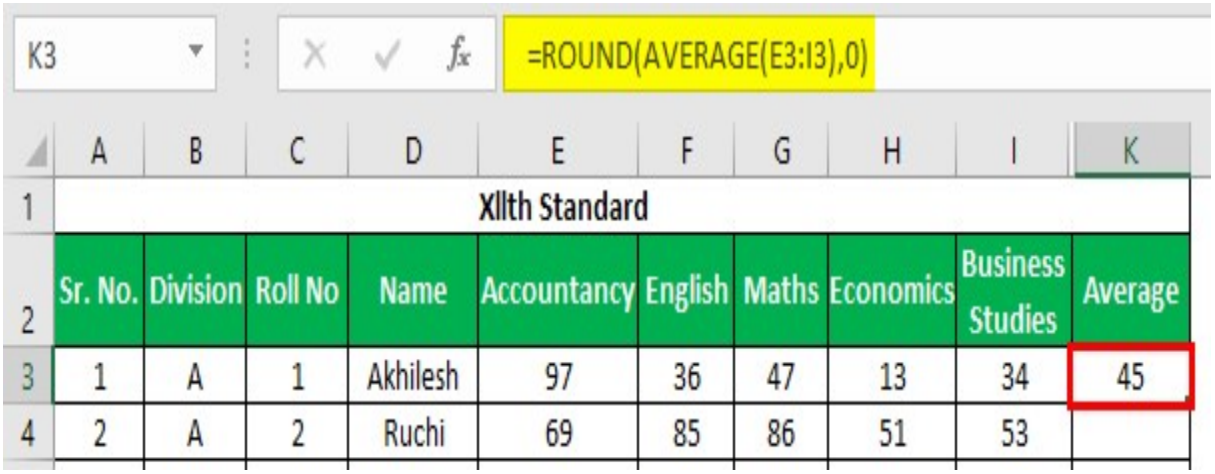
Let us use this function in excel marksheet. We will wrap up the **AVERAGE function** with **ROUND function** to round the number which will be returned by the **AVERAGE function**.



We have used the **AVERAGE function** for **number** argument and **0** for **num_digits**.

After pressing Enter, we will get the desired result i.e., number with no decimal digit.

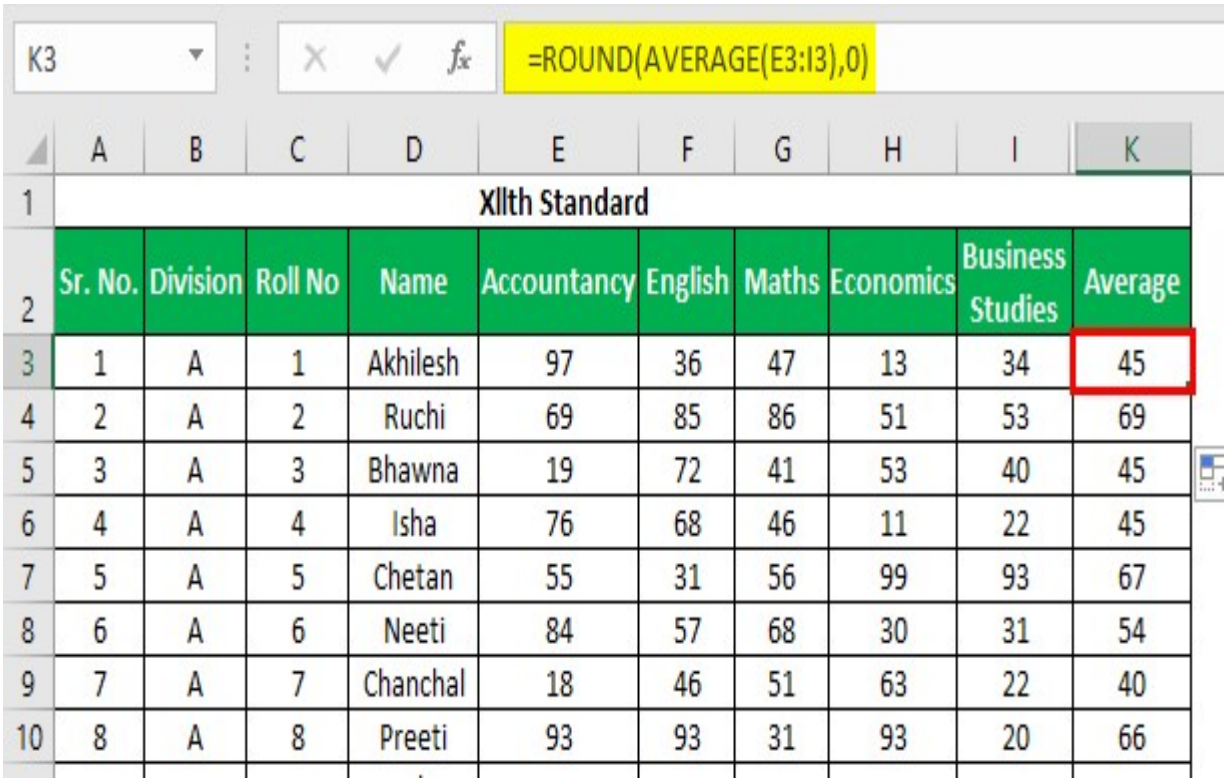
The average will be –



	A	B	C	D	E	F	G	H	I	K
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Average
3	1	A	1	Akhilesh	97	36	47	13	34	45
4	2	A	2	Ruchi	69	85	86	51	53	

Apply the above formula to all the remaining cells.

We get the following result.



K3 | =ROUND(AVERAGE(E3:I3),0)

	A	B	C	D	E	F	G	H	I	K
1	XIIth Standard									
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Average
3	1	A	1	Akhilesh	97	36	47	13	34	45
4	2	A	2	Ruchi	69	85	86	51	53	69
5	3	A	3	Bhawna	19	72	41	53	40	45
6	4	A	4	Isha	76	68	46	11	22	45
7	5	A	5	Chetan	55	31	56	99	93	67
8	6	A	6	Neeti	84	57	68	30	31	54
9	7	A	7	Chanchal	18	46	51	63	22	40
10	8	A	8	Preeti	93	93	31	93	20	66

#4 – IF Function

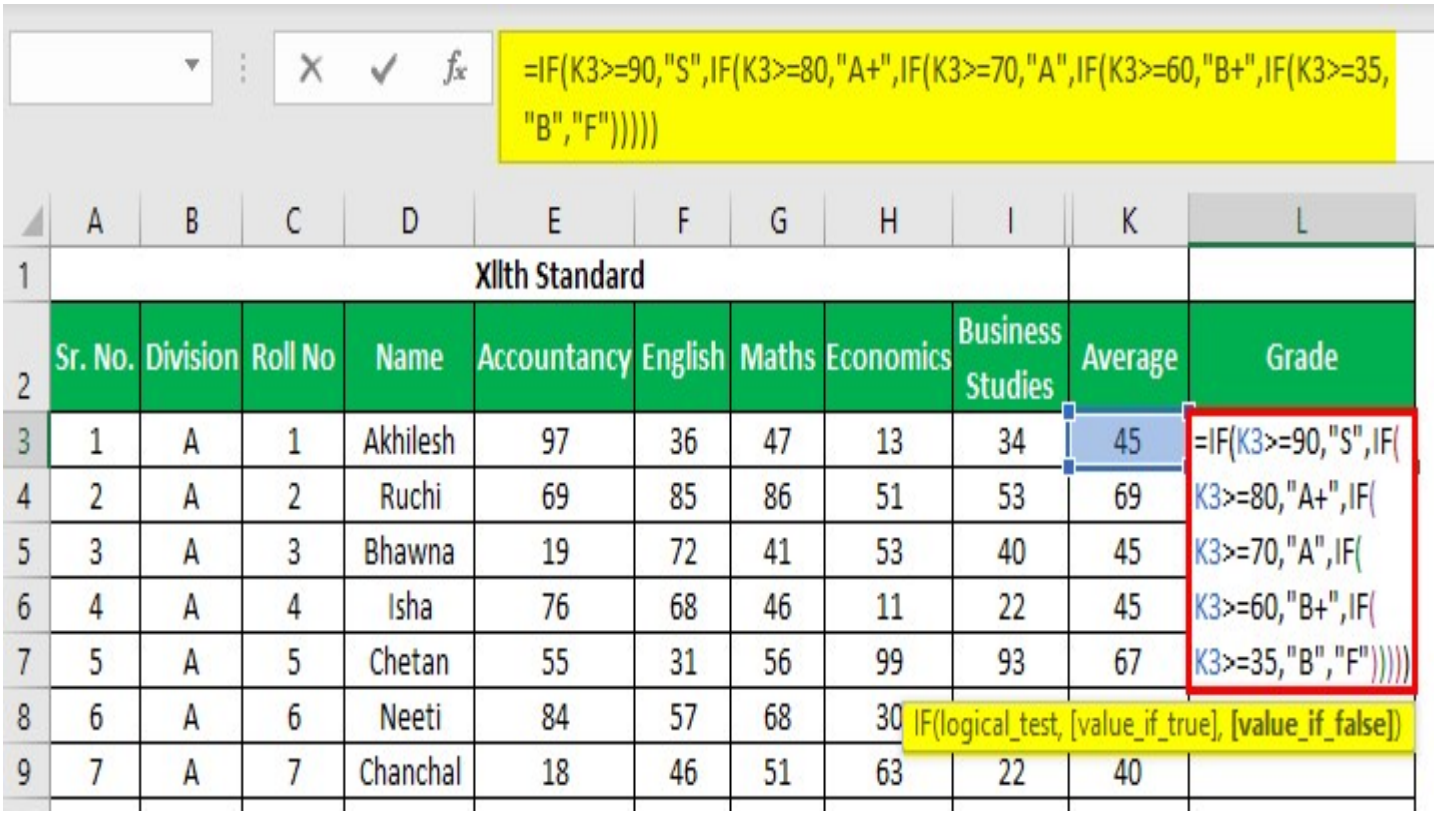
Now to find out the grade, we have the following criteria.

- If the student has scored average marks greater than or equal to 90 then Student will get grade S

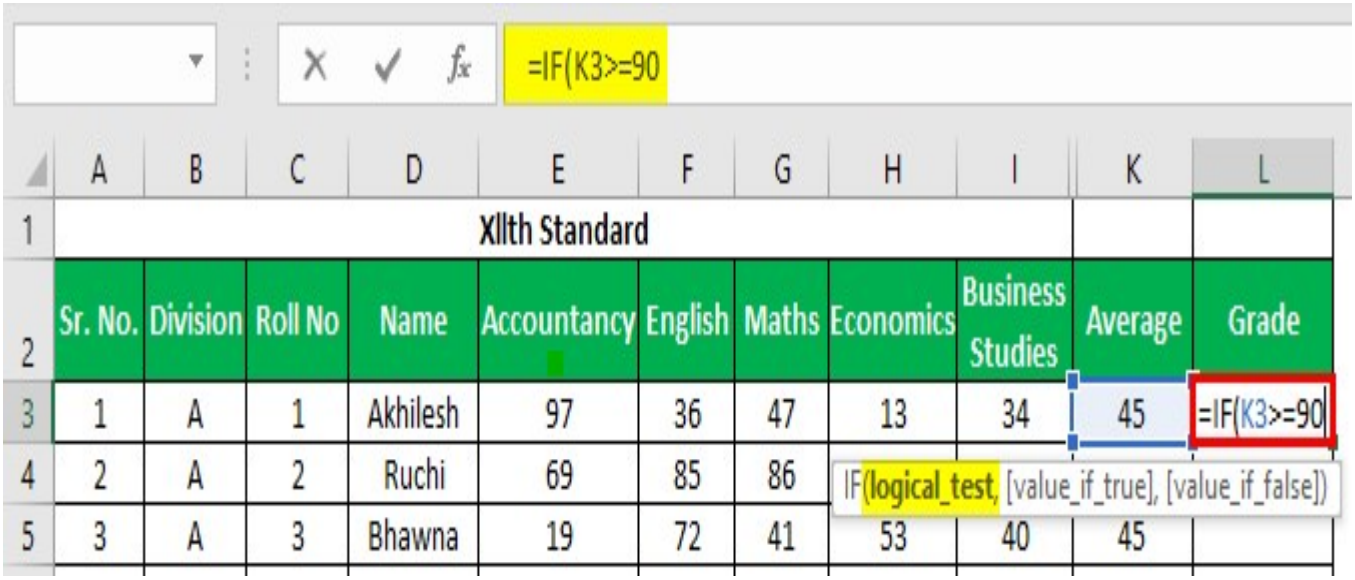
- If the student has scored average marks greater than or equal to 80 then Student will get grade A+
- If the student has scored average marks greater than or equal to 70 then Student will get grade A
- If the student has scored average marks greater than or equal to 60 then Student will get grade B+
- If the student has scored average marks greater than or equal to 35 then Student will get grade B
- If the student has scored average marks less than 35 then Student will get grade F.

To apply these criteria, we will use the **IF function in excel** multiple times. This is called **NESTED IF in excel also** as we will use **IF function** to give an argument to the **IF function** itself.

We have used the following formula to evaluate grade in excel marksheet.



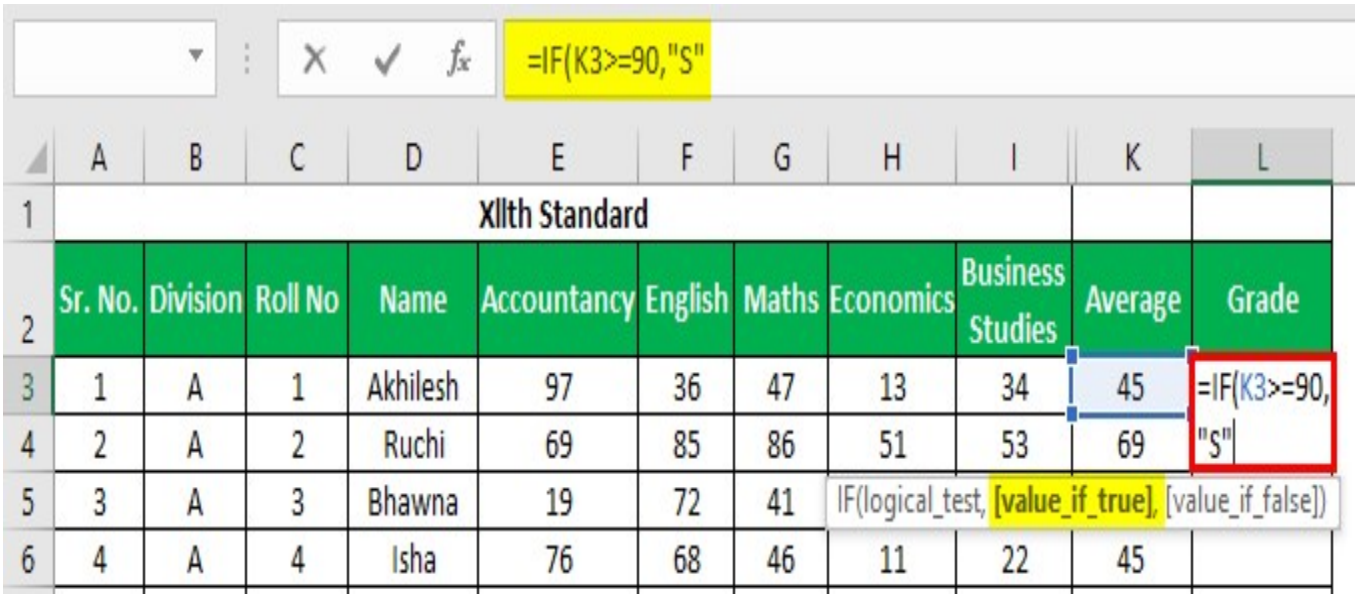
Let us understand the logic applied in the formula.



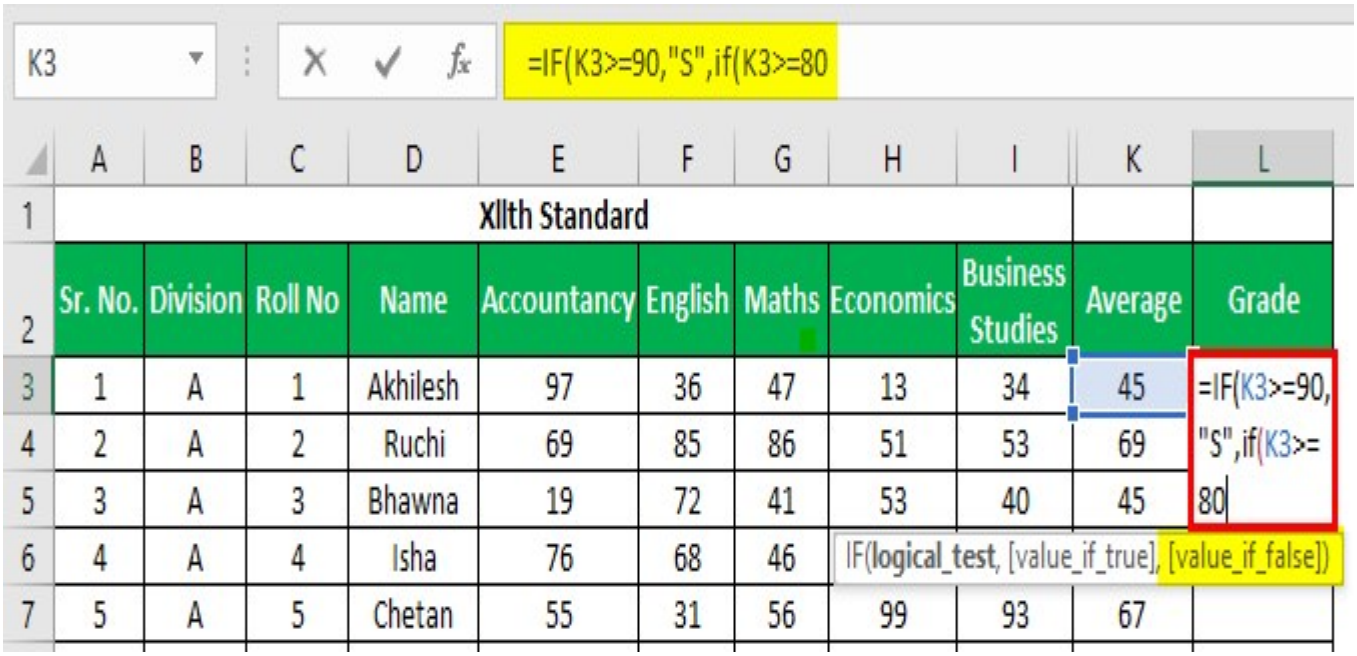
As we can see that for **'logical_test'** which is the criterion, we have given reference of K3 cell containing AVERAGE of marks and have used logical operators which is **'Greater Than'** and **'Equal To'** and then compared the value with 90.

It means if the average marks scored by the student is greater than or equal to 90 then write the value which we will specify in the '**value_if_true'** argument and if this criterion is not satisfied by the average marks then what should be written in the cell as **'Grade'**, that we will specify for **'value_if_false'** argument.

For **'value_if_true'** argument, we will specify text (Grade) within double quotes i.e., **"S"**.

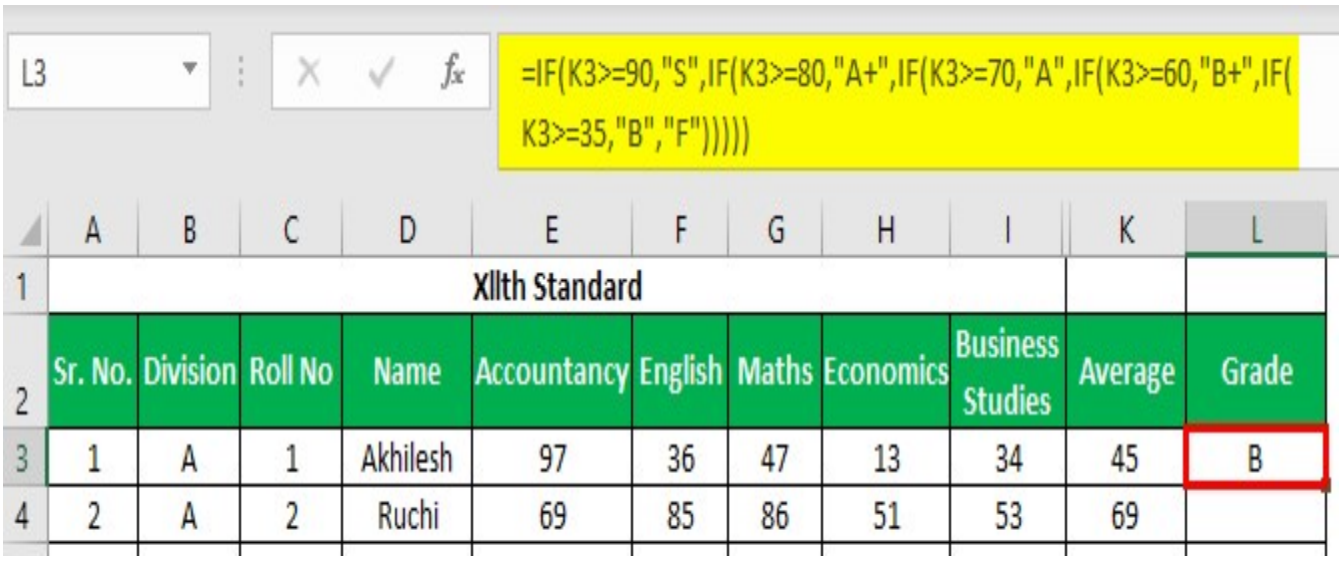


For **'value_if_false'** argument, we will again start writing **IF function** as we have many more criteria and the corresponding grade to assign if this criterion is not satisfied.



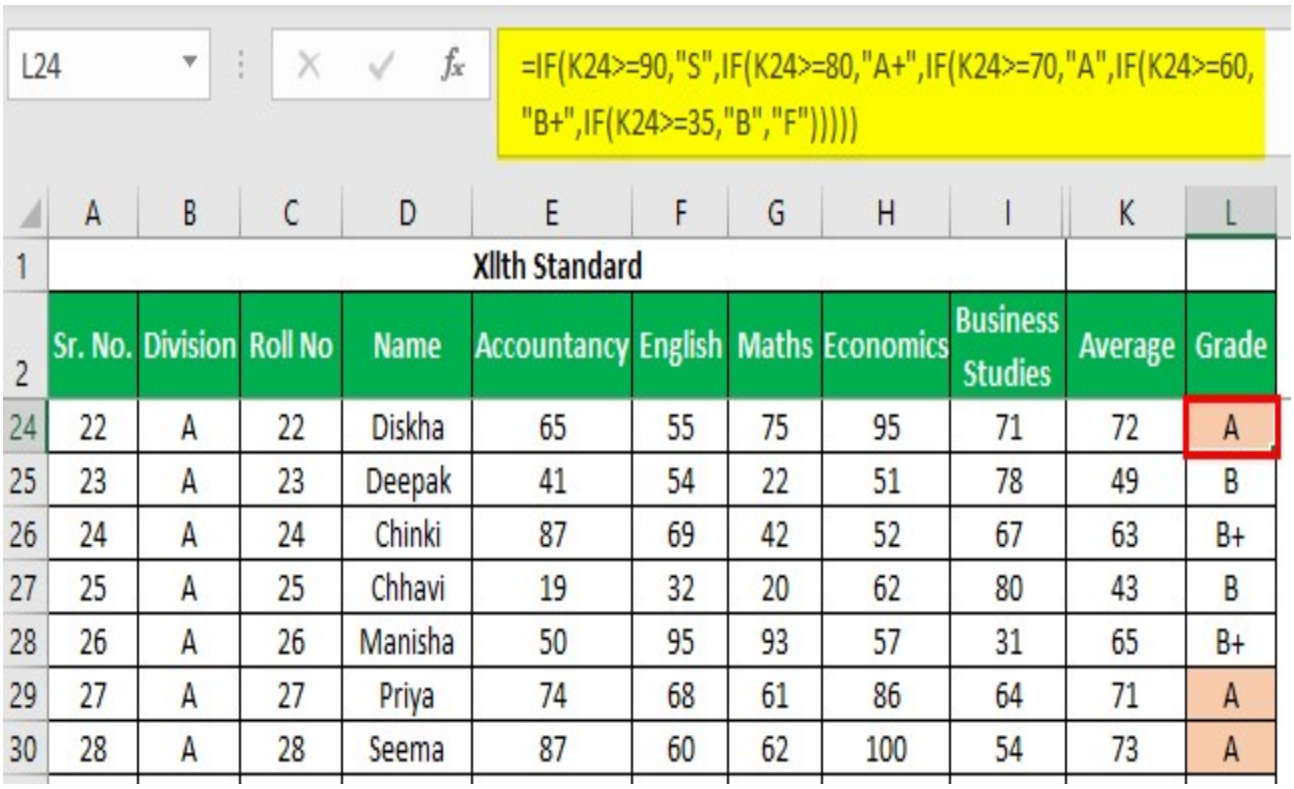
Now we have started writing **IF function** again for **'value_if_false'** argument and specified the criteria to compare average marks with 80 this time.

The result will be –



	A	B	C	D	E	F	G	H	I	K	L
1	XIIth Standard										
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Average	Grade
3	1	A	1	Akhilesh	97	36	47	13	34	45	B
4	2	A	2	Ruchi	69	85	86	51	53	69	

If average marks are greater than or equal to 70 but less than 80 (first IF function criteria), then Student will get **'A'** grade.



L24

=IF(K24>=90,"S",IF(K24>=80,"A+",IF(K24>=70,"A",IF(K24>=60,"B+",IF(K24>=35,"B","F")))))

	A	B	C	D	E	F	G	H	I	K	L
1	XIIth Standard										
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Average	Grade
24	22	A	22	Diskha	65	55	75	95	71	72	A
25	23	A	23	Deepak	41	54	22	51	78	49	B
26	24	A	24	Chinki	87	69	42	52	67	63	B+
27	25	A	25	Chhavi	19	32	20	62	80	43	B
28	26	A	26	Manisha	50	95	93	57	31	65	B+
29	27	A	27	Priya	74	68	61	86	64	71	A
30	28	A	28	Seema	87	60	62	100	54	73	A

In this way, we will apply **IF function** in the same formula for 5 times, as we have **6** criteria.

Make sure as we have opened brackets for, **IF function** 5 times, we need to close all brackets.

 # 5 – COUNTIF

For finding out **Result,** whether a student is "PASSED" or "FAILED", we have to apply the following criteria.

- If the student has scored greater than 200 as total marks and scored greater than 33 in all subjects then the student is PASSED.
- If a student has scored less than 33 in 1 or 2 subjects and total marks are greater than 200 then the student has got ER (Essential Repeat).
- If the student has scored less than 33 in more than 2 subjects or less than or equal to 200 as total marks, then the student is FAILED.

As we need to evaluate a number of subjects in which student has scored less than 33, we need to use **COUNTIF function** which will count numbers based on the specified criterion.

The syntax for the COUNTIF function is as follows:

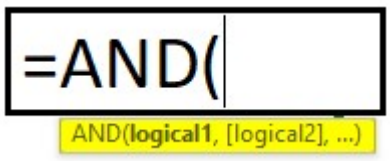
Arguments

- **Range:** Here we need to give reference to the cells containing a number to compare the criterion with.

- **Criteria:** To specify the criterion, we can use logical operators so that only those numbers will be counted which will satisfy the criterion.

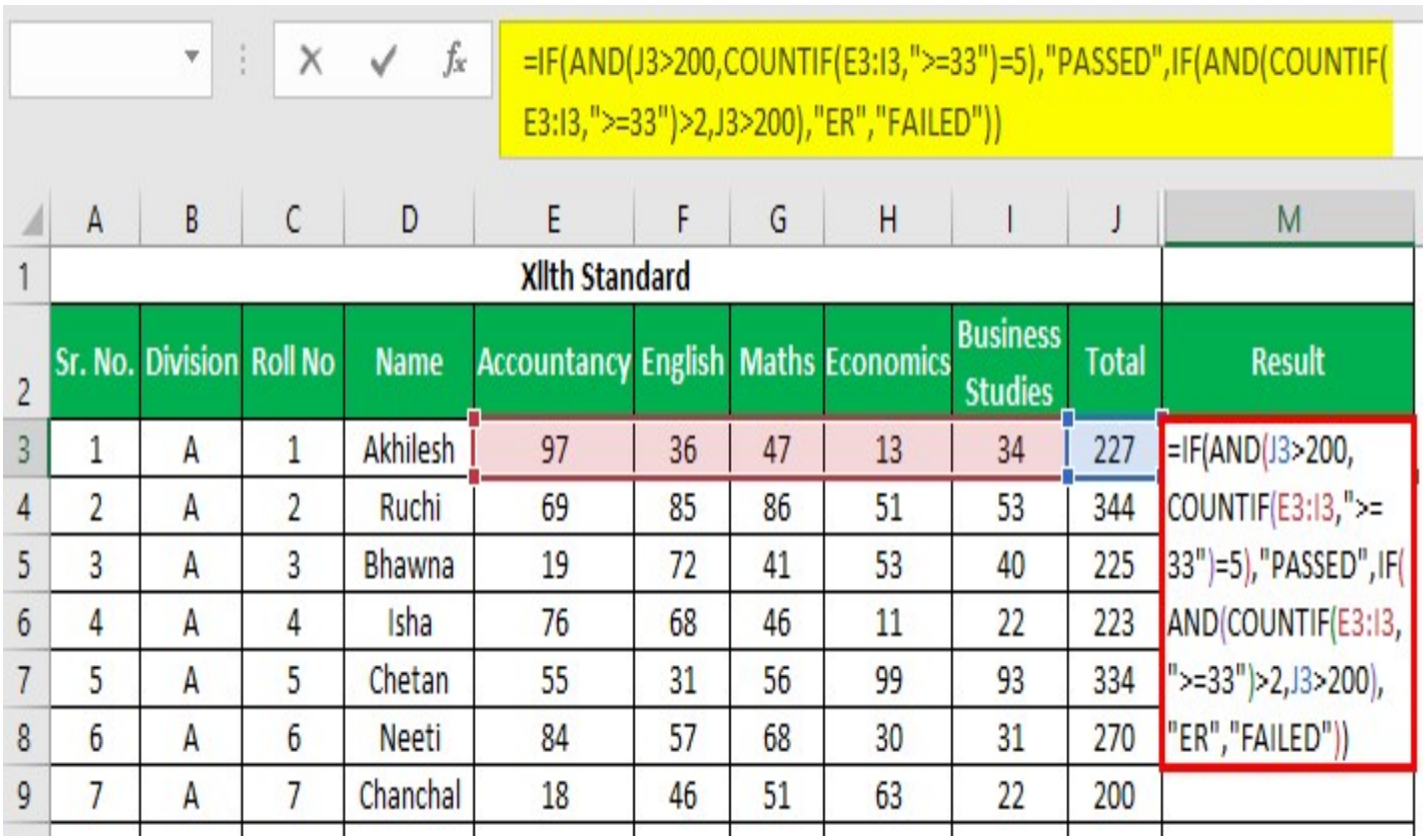
AND Function

The syntax for AND function excel is as follows:



In AND function, we specify the criteria. If all the criteria are satisfied, then only TRUE comes. We can specify up to 255 criteria.

The formula which we have applied is as follows:

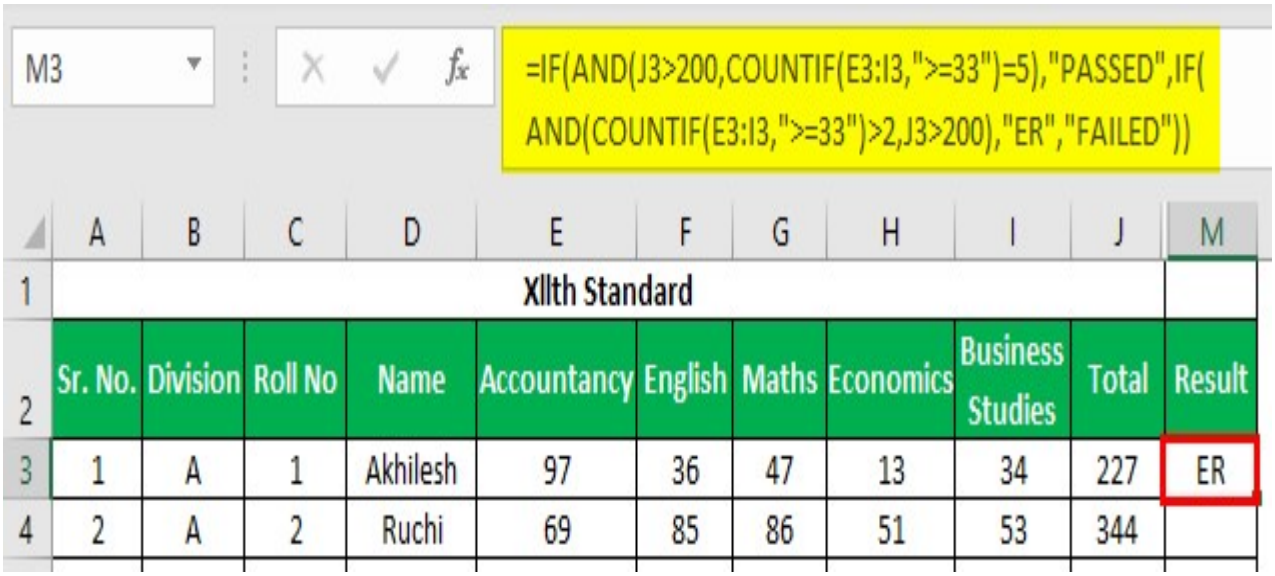


=IF(AND(J3>200,COUNTIF(E3:I3,">=33")=5),"PASSED",IF(AND(COUNTIF(E3:I3,">=33")>2,J3>200),"ER","FAILED"))

	A	B	C	D	E	F	G	H	I	J	M
1	XIIth Standard										
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total	Result
3	1	A	1	Akhilesh	97	36	47	13	34	227	=IF(AND(J3>200, COUNTIF(E3:I3,">= 33")=5),"PASSED",IF(AND(COUNTIF(E3:I3, ">=33")>2,J3>200), "ER","FAILED"))
4	2	A	2	Ruchi	69	85	86	51	53	344	
5	3	A	3	Bhawna	19	72	41	53	40	225	
6	4	A	4	Isha	76	68	46	11	22	223	
7	5	A	5	Chetan	55	31	56	99	93	334	
8	6	A	6	Neeti	84	57	68	30	31	270	
9	7	A	7	Chanchal	18	46	51	63	22	200	

As this can be seen, we have used **AND function** inside **IF function** to give multiple criteria and **COUNTIF function** inside **AND function** to count the number of subjects in which student has scored greater than or equal to 33.

The result will be –



	A	B	C	D	E	F	G	H	I	J	M
1	XIIth Standard										
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total	Result
3	1	A	1	Akhilesh	97	36	47	13	34	227	ER
4	2	A	2	Ruchi	69	85	86	51	53	344	

Apply the above formula to all the remaining cells.

We get the following result.

M3

=IF(AND(J3>200,COUNTIF(E3:I3,">=33")=5),"PASSED",IF(AND(COUNTIF(E3:I3,">=33")>2,J3>200),"ER","FAILED"))

	A	B	C	D	E	F	G	H	I	J	M
1	XIIth Standard										
2	Sr. No.	Division	Roll No	Name	Accountancy	English	Maths	Economics	Business Studies	Total	Result
3	1	A	1	Akhilesh	97	36	47	13	34	227	ER
4	2	A	2	Ruchi	69	85	86	51	53	344	PASSED
5	3	A	3	Bhawna	19	72	41	53	40	225	ER
6	4	A	4	Isha	76	68	46	11	22	223	ER
7	5	A	5	Chetan	55	31	56	99	93	334	ER
8	6	A	6	Neeti	84	57	68	30	31	270	ER
9	7	A	7	Chanchal	18	46	51	63	22	200	FAILED

Things to Remember about Marksheet in Excel

- Make sure to close the brackets for the **IF function.**
- While specifying any text in the function, please use double quotes (” “) as we have used while writing “Passed”, “Failed”, “ER” etc.