

# OpenOffice.org Calc

## Part 2

Microsoft Excel is a spread sheet program that makes it easy for you to create, track, and update all sorts of data. Excel’s calculating functions are ideal for creating such products as inventories, check registries, or sales invoices.

**Opening Excel:**

**In order to open the Microsoft Excel program you must:**

- Click the “Start” button in the corner of the task to open the “Start Menu”
- Go to Programs
- Go to “Microsoft Excel” and click to open

**Review and Shortcuts**

**Math Formulas**

Formulas are equations that perform calculations on values in your worksheet. A formula starts with an equal sign (=). Operators specify the type of calculation that you want to perform on the elements of a formula. Microsoft Excel includes four different types of calculation operators: arithmetic, comparison, text, and reference. For example, the following formula multiplies 2 by 3 and then adds 5 to the result: =5+2\*3. When entered into a cell, this formula will display the value of the expression (i.e. 11).

Input formula into a cell in an excel worksheet:



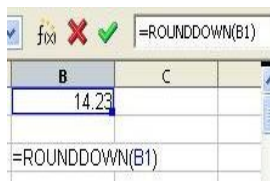
After inputting formula into cell press ENTER:

**Functions**

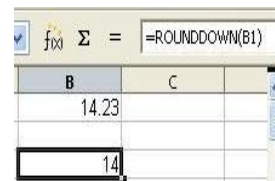
Functions are predefined formulas that perform calculations by using specific values, called arguments, in a particular order, or structure. Functions can be used to perform simple or complex calculations. Structure. The structure of a function begins with an equal sign (=), followed by the function name, an opening parenthesis, the arguments for the function separated by commas, and a closing parenthesis. Arguments can be

numbers, text, logical values such as TRUE or FALSE, arrays, error values such as #N/A, or cell references. The argument you designate must produce a valid value for that argument. Arguments can also be constants, formulas, or other functions. For example, the ROUNDDOWNB function rounds down a number in cell B1 to the closest lesser whole number: =ROUNDDOWN(B1).

Input a function into a cell in an excel worksheet:



After inputting function into cell press ENTER:



### Comments

A comment is a note that you attach to a cell, separate from other cell content. Comments are useful as reminders to yourself, such as noting how a complex formula works, or to provide feedback to other users. Click the cell you want to comment on. On the **Insert** menu, click **Comment**. In the box, type the comment text. If you don't want your name in the comment, select and delete the name. When you finish typing the text, click outside the comment box.

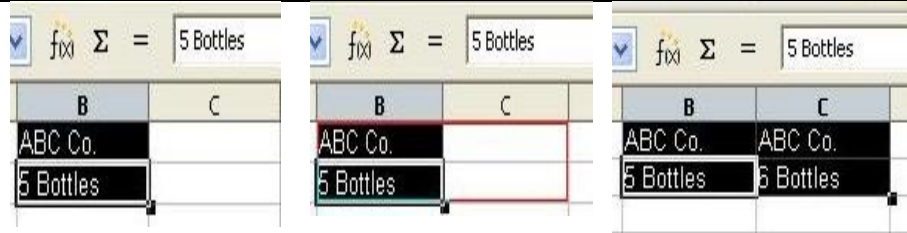
### Natural Language

natural language

### Using the Fill Handle

The fill handle allows you to copy text from one or more cells across many attached cells. To allow the use of the fill handle, click **Options** on the **Tools** menu and click the **Edit** tab. Select the **Allow cell drag and drop** check box. To use the fill handle select the cells you want to copy. Point the mouse to the bottom right-hand corner of the copied cell until you see a black '+' symbol (the fill handle). Now, drag the fill handle across the cells you want to fill, and then release the mouse button.


Copy cell(s)  
and then drag  
fill handle  
across empty  
cells:



### Right Mouse Shortcuts

When you right click the mouse while it is pointed at any cell, a list of options will appear in menu. The **Cut**, **Copy** and **Paste** commands allows you cut or copy the contents of a cell or paste contents into the cell. The **Insert** and **Delete** commands allow you to add or remove rows or columns from the worksheet. The **Clear Contents** option allows you to delete the text of the selected cell(s). **Insert Comments** is a shortcut for entering comments into a cell. The **Format Cells** command brings up a menu which allows the user to format the contents of cells including numbers, borders, fonts, alignment and patterns. **Hyperlink** allows the user to create a link to another source such as another document or a World Wide Web page.

### Format Painter

The format painter allows you to copy the format  from one cell or range to another. To copy the formatting to a cell or range, click **Format Painter** on the **Formatting** toolbar. To copy the formatting in the selected cell or range to several locations, double-click the **Format Painter** button. When you finish copying the formatting, click the button again.

### Absolute Cell Addresses

An absolute cell reference in a formula, such as \$A\$1, always refer to a cell in a specific location. If the position of the cell that contains the formula changes, the absolute address remains the same. If you copy the formula across rows or down columns, the absolute address does not adjust. For example, if you copy a relative reference, say =A1, in cell B2 to cell B3, it will change to =A2. With absolute addressing, =\$A\$1 will remain

no matter where it is copied to. By default, new formulas use relative addressing, and must be changed to absolute addressing.

### Conditional Formatting

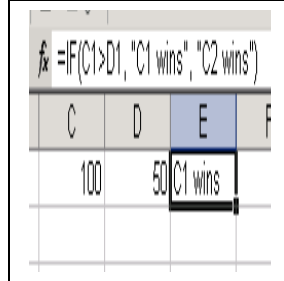
Conditional formatting

## Logical Functions

### Using =IF

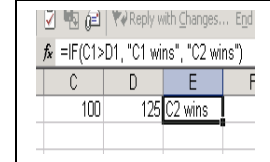
The IF function is used to conduct conditional tests on values and formulas. It returns one value if a condition you specify evaluates to TRUE and another value if it evaluates to FALSE. It is setup like so: **IF(logical\_test,value\_if\_true,value\_if\_false)**. For example, we can write =IF(C1 > D1, "C1 wins", "D1 wins"). If the value in cell C1 is greater than the value in D1 then the formula will put C1 wins in cell E1, if not it will put D1 wins into cell E1.

If the value in cell C1 is greater than the value in D1:



C	D	E	F
100	50	C1 wins	

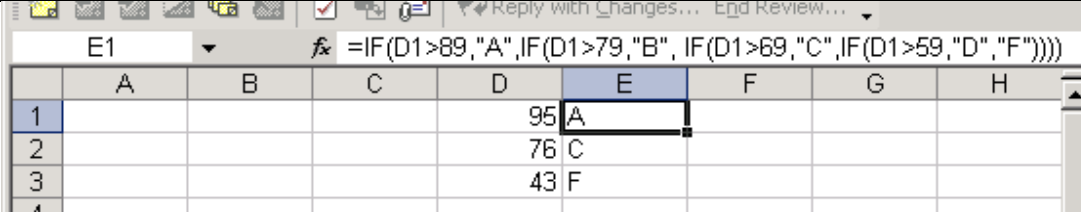
If the value in cell C1 is not greater than the value in D1



C	D	E	F
100	125	C2 wins	

### Nested =IF

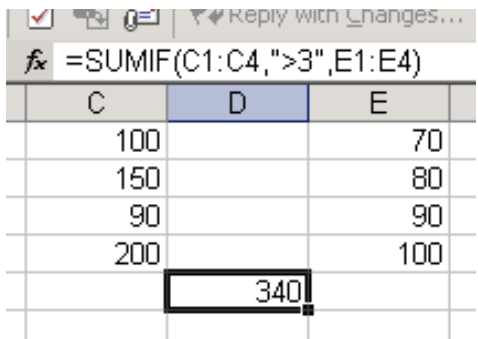
=IF(D1>89,"A",IF(D1>79,"B", IF(D1>69,"C",IF(D1>59,"D","F")))) is an example of a nested IF. A nested IF is an IF function, within another IF function. The IF function above will output a letter grade based on a numeric grade. If the value in cell D1 is greater than 89, then the test value is true and "A" will be output. If the test value is false, another IF statement will be evaluated. Finally, if all test cases are false, the IF function will return "F", meaning the student has a grade less than or equal to 59.



	A	B	C	D	E	F	G	H
1				95	A			
2				76	C			
3				43	F			

### Using =SUMIF

SUMIF adds the cells specified by a given criteria. The function is in the form **SUMIF(range, criteria, sum\_range)**. The range is the range of cells you want evaluated. Criteria is the criteria in the form of a number, expression, or text that defines which cells will be added. For example, criteria can be expressed as 32, "32", ">32" or "oranges". The sum range is the actual cells that will be added if the range meets the criteria.



C	D	E
100		70
150		80
90		90
200		100
	340	

In the example above, if the number of cells in the range C1 to C4 is greater than 3, then the sum of the values in E1 to E4 will be summated.

### USING CONDITION SUM WIZARD

### HLOOKUP / VLOOKUP

HLOOKUP searches for a value in the top row of a table or an array of values, and then returns a value in the same column from a row you specify in the table or array. Use HLOOKUP when your comparison values are located in a row across the top of a table of data, and you want to look down a specified number of rows. Use VLOOKUP when your comparison values are located in a column to the left of the data you want to find. The H in HLOOKUP stands for "Horizontal." VLOOKUP searches for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify in the table. Use VLOOKUP instead of HLOOKUP when your comparison values are located in a column to the left of the data you want to find. The V in VLOOKUP stands for "Vertical."