

OFFICE XP - EXCEL FUNCTIONS AND FEATURES

Microsoft EXCEL performs simple calculations with the use of formulas.

	A	B	C
1	15	10	5
2			

=A1+B1+C1

Microsoft EXCEL contains built in formulas, called functions, which allow you to perform lengthy or complex calculations with ease.

	A	B	C
1	15	10	5
2			

=SUM(A1:C1)

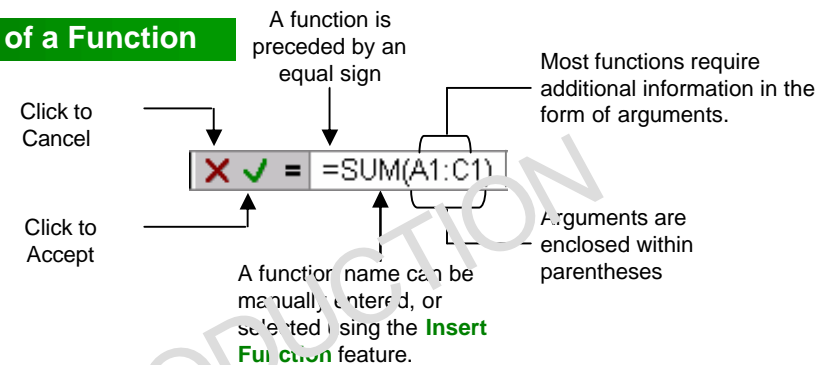
A cell is identified by its column letter and row number (A1 or B15, etc.) This address is called the *cell reference*. There are three types of cell references:

- Relative (B2) A relative cell location (e.g. one column to the right and one row down)
- Absolute (B\$2\$) A fixed cell location (e.g. column A, row 1)
- Mixed (B\$2 or \$B2) A combination of relative and fixed (e.g. column is relative but always use row 2, or always use column B but the row is relative)

A Few Useful Functions

SUM	Add the values in a range or series.
MIN	Find the lowest value in a range or series.
MAX	Find the highest value in a range or series.
MEDIAN	Find the median value in a range or series.
AVERAGE	Average the values in a range or series.
TODAY	Return today's date.
NOW	Returns the current date and time.
COUNT	Returns the number of values in a range or series.

Anatomy of a Function






Writing a Formula using Functions

Insert Function Dialog Box

The first screenshot shows the 'Insert Function' dialog box. It has a search field, a 'Go' button, and a list of functions. The 'IF' function is selected. The second screenshot shows the 'Function Arguments' dialog box for the 'SUM' function. It has fields for 'Number1' and 'Number2', and a 'Formula result' field showing '54'.

Function Arguments Dialog Box



There are over 300 functions in EXCEL 2002. The **Insert Function** feature gives you access to the entire list.

- Select the cell that is to contain the result of the calculation.
- Click the arrow to the right of the **AutoSum** button, and select **More Functions** from the menu. 
- To narrow down the list of functions, type a description of the function in the **Search for a function** box, or **select a category** from the drop down list.
- Choose a **Function name** and click **OK**.
- Type the arguments.
 - or
- Click  to return to the worksheet. Select the appropriate cell or range.
- Click  to return to the Function Arguments dialog box.
- Click **OK**.

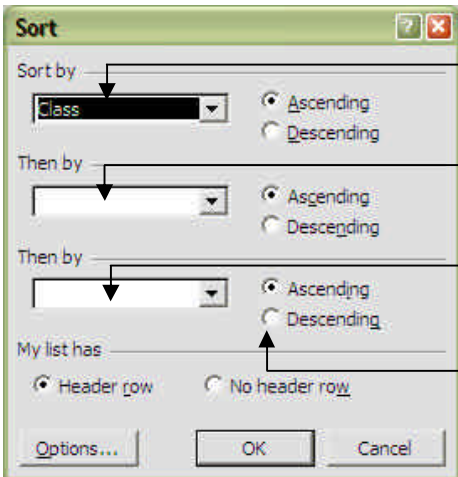
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Sorting

To quickly sort data: Click a cell in the column by which you want to sort. Then...

- Click  to sort in ascending order.
- Click  to sort in descending order.

To sort data on up to three levels at a time: Click a cell in the data region. Then...



- From the **Data** menu, choose **Sort**.
- In the **Sort by** box, click on the name or number of the column to be the first sort level.
- In the **Then by** box, click on the name or number of the column to be the second sort level.
- In the second **Then by** box, click on the name or number of the column to be the third sort level.
- To change the sort order on any level, click **Ascending** or **Descending** next to the level.
- Click **OK**.

Keyboard Shortcuts

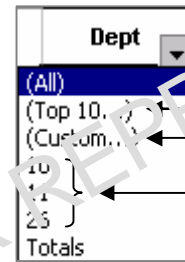
Edit a cell	F2	Get Help	F1
Fill Down	CTRL+D	Print	CTRL+P
Fill Right	CTRL+R	Save a workbook	CTRL+S
Fill Range with current entry	CTRL+ENTER	Open a workbook	CTRL+O
Repeat Last Action	F4	Close a workbook	CTRL+F4
Change a cell reference type (Absolute, Relative, Mixed)	F4 (in edit mode)	Create a workbook	CTRL+N
Paste Function	Shift+F3	Top of worksheet	CTRL+HOME
AutoSum	ALT+=	End of data region	CTRL+END
Switch between displaying values and formulas	CTRL+' (apostrophe)	Goto	CTRL+G
		Undo	CTRL+Z

Filtering

To quickly filter data: Click a cell in the data region. Then...

	B	C	D
	Dept	Class	Lot
(All)		76	5295
(Top 10...)		77	5537
(Custom...)		77	5444
10		77	5444
11		77	5437
26		76	5291
Totals	10	76	5221

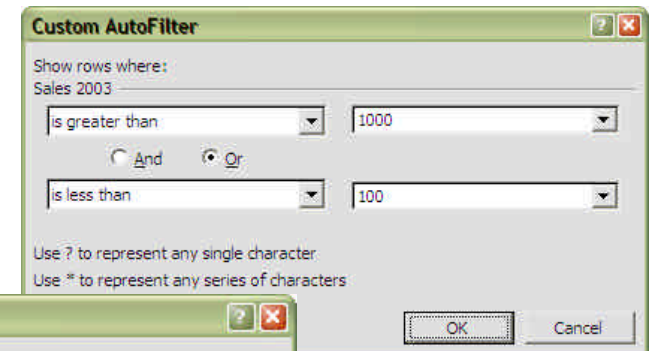
- From the **Data** menu, choose **Filter**, then **AutoFilter**.
- Click on the drop down arrow in the column on which you want to set filter criteria.
- Click the criteria by which you want to filter.



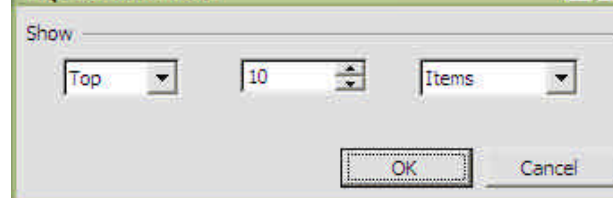
- Display all data.
- Select the highest (or lowest) values.
- Select 2 levels of criteria.
- Select existing criteria.

Custom AutoFilter

When choosing **Custom...** Select one or two levels of criteria.



Top 10 AutoFilter



When using **Top 10...**

- Select **Top** or **Bottom**.
- Enter the number of items to view.
- Choose to filter on **Items** or **Percent**.
- Click **OK**.