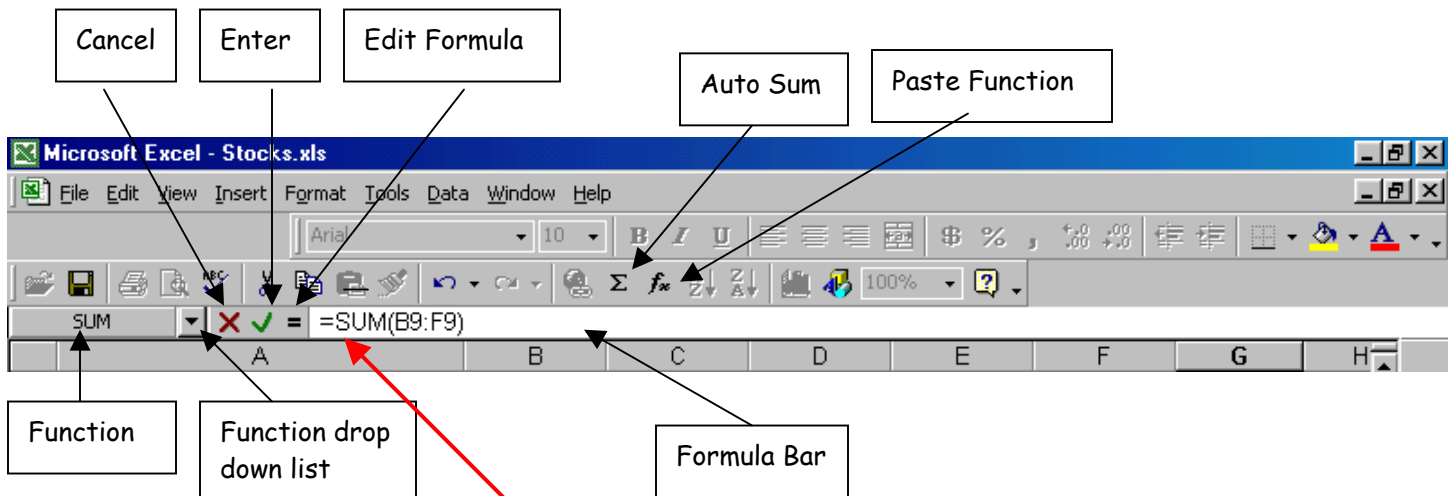


Excel Formula Basics

Excel's toolbars:



A formula must start with an = sign.

- Excel interprets the = sign as a formula and shows the **result** in the table cell.
- With no = sign, the **formula** will appear in the table cell, rather than the result.

Arithmetic Symbols Used in Formulas

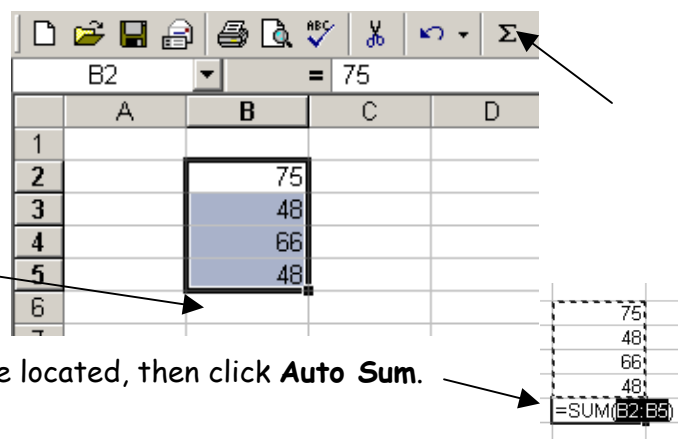
Function	Symbol	Key stroke	Shortcut
Add	+	Plus sign	Σ AutoSum
Subtract	-	Hyphen	
Multiply	*	Asterisk	
Divide	/	Forward slash	

Creating Formulas and Using Functions

- You can type the equals sign (=) and a formula in the Formula Bar
- The same formula may be entered in more than one way: =SUM(B2:B5) **OR** =(B2+B3+B4+B5)

Easy Addition Using Auto Sum

- Select the group of cells to add and click **Auto Sum**.
- Excel places the sum of the numbers in the next cell (to the right of a row, or under a column).

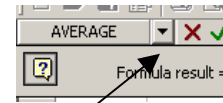


- **OR** select cell where the total should be located, then click **Auto Sum**.

Let Excel create a formula for you

When you click the = sign  Excel does the following:

- Enters an = sign in the Formula Bar
- Displays the most recently used function
- Enters a formula if you click the function
- Lets you use the drop down list to select a different function.



When you click on the function, the **Formula Palette** box appears:

Box(es) for cell references or other information.

AVERAGE

Number1 = {34.4,63.22,18.55,1

Number2 = number

= 55.252

Returns the average (arithmetic mean) of its arguments, which can be numbers or names, arrays, or references that contain numbers.



Number1: number1,number2,... are 1 to 30 numeric arguments for which you want the average.

Formula result = \$55.25

OK Cancel

An explanation appears for the active box.

Features of the Formula Palette Box

- An explanation tells you what information is needed in the active entry box
- Click the collapse box button  to switch to your worksheet
- When you select data on your worksheet, cell references appear in the palette box
- Return to the palette box by clicking the return button 

Use Paste Function to save steps

Select a cell and use the **Paste Function** *fx* icon to bring up this dialog box:

Paste Function

Function category: Function name:

All	SUM
Financial	PRODUCT
Date & Time	COUNTIF
Math & Trig	PERCENTILE
Statistical	COUNTA
Lookup & Reference	SUMIF
Database	PMT
Text	COUNT
Logical	HYPERLINK
Information	

AVERAGE(number1,number2,...)

Returns the average (arithmetic mean) of its arguments, which can be numbers or names, arrays, or references that contain numbers.

OK Cancel

When you choose a function from the **Function name** list, the **Formula Palette** box appears. (See previous section.)

Copying a formula

Use the **fill handle** **+** to drag and copy a formula in more than one cell.

Here's an example where you can copy the averaging formula to the next two columns:

1				
2		75	34	39
3		48	66	57
4		66	58	60
5		48	70	48
6		59.25		
7				

- Select the cell containing the formula you wish to copy.
- Move cursor to the lower right corner of the cell, where it becomes a small plus: **+**
- Hold your mouse button down and drag the fill handle across the desired cells to copy the formula to those cells.
- *Excel* automatically adjusts cell references for location.

Advice: always check your formula in the formula bar to be sure that the cell references are correct and that the formula makes mathematical sense.

Formula writing rules

Cell references in formulas:

- To add a group of **adjacent numbers**, list the first and last cells, separated by a colon.
Example - B4:G4
- Use commas to separate nonadjacent numbers.
Example - B4,D4,F4

If the formula contains the **function name**, cell references must be enclosed in **parentheses**.

- For example, here is the same formula written in two ways:
=PRODUCT(B5,B8)
=B5*B8