

Here's How Some popular features of EXCEL And WORKS

1. Entering formulas in the order of precedence (EXCEL & WORKS)

Operators enclosed in parenthesis always executes first followed by multiplication or division then followed by addition or subtraction.

If a formula contains several operators the operator with a higher precedence will execute before an operator with a lower precedence.

Operators with the same precedence are performed sequentially from left to right

To override a Precedence you can place parenthesis around the operator.

The Operators that are used in Formulas are:

<u>Operation</u>	<u>Operator</u>	<u>Order of Precedence</u>
Parenthesis	()	1st
Multiplication <u>or</u>	*	2nd
Division	/	2nd
Addition <u>or</u>	+	3rd
Subtraction	-	3rd

Example 1. Let's assume Cell A20 contains a value of 1000, and Cell A21 contains the value 24. We enter the formula below to calculate the result. Note there are several operations but placing the formula in the order of precedence is important for the correct result. The result is 526. How did we get it? We followed the order of precedence. If you enter this formula differently, you will get an incorrect result.

$$=450+(5000+A20)*.20 / 12-A21 \quad \text{Result} = 526$$

4 1 2 3 5

- | | | |
|---------------|--------|---|
| 1. 5000+1000 | = 6000 | 1 st order is to remove parenthesis and perform the calcs. |
| 2. 6000 X .20 | = 1200 | 2 nd order is to perform the multiplication |
| 3. 1200 / 12 | = 100 | 3 rd order is to perform division |
| 4. 100 +450 | = 550 | 4 th order is addition |
| 5. 550 -24 | = 526 | 5 th order is subtraction |

Example 2 You wish to accomplish the same operations but you do not enter them in the order of precedence.

Correct example =450+(5000+A20)*.20

3 1 2

- | | | |
|---------------|--------|-------------------------------------|
| 1. 5000+1000 | = 6000 | |
| 2. 6000 X .20 | = 1200 | |
| 3. 1200+450 | = 1650 | Result = 1650 <u>Correct</u> |

Incorrect Example =450+5000+A20*.20

2 3 1

- | | | |
|--------------|--------|---------------------------------------|
| 1. 1000 X.20 | = 200 | |
| 2. 200+450 | = 650 | |
| 3. 650+5000 | = 5650 | Result = 5650 <u>Incorrect</u> |

2. Functions = Are built-in formulas that perform certain types of calculations automatically (EXCEL & WORKS)

Begin the function with an = sign
Excel has 233 functions, divided into 9 categories

Sample of Functions

AVERAGE	Returns the average of a range of cells
IF	Returns one value if a condition you specify evaluates to True and another value if it evaluates to False
PMT	Calculates payment for a loan based on constant payments and interest
TODAY	Returns a serial number that represents today's date
SUM	Adds all the numbers in a range of cells

=IF Example

You can test the value of a cell using the =IF function and the logical operators to perform or not perform a calculation depending if the test result is true or false.

Description of Logical Operators:

<u>Operation</u>	<u>Operator</u>
Greater Than	>
Less Than	<
Equal to	=
Not Equal	<>
Greater than or Equal	>=
Less than or Equal	<=

Example 1: In cell A5, assume your checkbook balance is \$299. You want to insert the \$3.00 service charge in a cell when the value in your checkbook falls below \$300., otherwise there is no service charge.

=IF (Logical test condition, If result is True, If result is False)

=IF(A5<300,3.00,0)
test T F

=Round

If you want to round the decimal position when Multiplying or dividing use the =Round function.

<u>B10</u>	<u>B11</u>	<u>Result</u>		
3.567 X 5.444	= 19.418748	= B10*B11		Without Rounding
3.567 X 5.444	= 19.42	=Round(B10*B11,2)		Rounding two decimals
3.567 X 5.444	= 19.419	=Round(B10*B11,3)		Rounding three decimals

3. Sorting Data in a Spreadsheet (EXCEL)

Simple Sorting : Select the cells in a column , Click on either the A-Z Icon (ascending sort) or the Z-A Icon (descending sort). Sorting is immediate.

Single or Multiple Column Sorting You can sort up to three columns using the Data, Sort Command. Select all columns you wish to be included in the sort, Click on Data, Sort. The sort drop down box will list the names (or just the letter) of every column in your spreadsheet and Ascending or Descending. Choose the columns for the first sort, followed by any other columns (up to three) you wish to sort.

4. Attaching Comments to your cells (Sticky Notes) (EXCEL)

Select the cell you'd like to comment on, click on Insert, Comment. An electronic sticky note will appear with the name you used to register Excel with.

If you have a lot to say, resize your sticky note by dragging any of the small boxes around its border to stretch the box. When you completed your comment, click anywhere on your spreadsheet outside the comment box. By default the comment will disappear from the screen and a small red triangle will appear in the upper right hand corner of the cell to indicate that there's a comment attached to it. To view any comment hover your cursor over the red triangle (do not click) , but you can force to keep the comment box open: Right click the commented cell and choose Show Comment to keep the yellow box fixed in an open position.

To change or delete a comment, right click on the commented cell and choose Edit Comment (to Change) or Delete Comment (to Delete).

5. Protecting the contents of a Sheet with a Password. (EXCEL)

You can protect the contents for all cells on a sheet by using a Password. Click on Tools, Protection and enter your password on the drop down dialog box. Anyone will be able to open your worksheet and view it, but will not be able to change any of its contents. Similarly you can un-protect a sheet by following the same procedure. Passwords are case sensitive.

Using a Password to Open a worksheet.

When saving your spreadsheet, you can assign a password to the file so it will only open when the correct password is keyed. To assign a password to your worksheet, File, Save As, Options, Password to open, key in password. Passwords are case sensitive.

6. Clearing your Input Cells but not your formulas. (EXCEL)

You can clear the input values of all cells on a worksheet. Press F5 to display the Go To dialog box, click on Special. In the Special dialog box, choose Constants and select Numbers. When you click ok, all Non Formula cells will be highlighted. Press the Delete key to delete the Values.

7. Freezing Panes (EXCEL)

To avoid scrolling up and down or left and right to see what column you are working with, you can lock certain blocks of cells so they appear no matter what part of the spreadsheet you are viewing.

Assume all your columns of headers are in row 3 and all your row labels are in Column A. To freeze these areas click on cell B4, the cell directly below the row headers and just to the right of the row labels. Then select the Window, Freeze Panes command from the menu command. Excel will display two black lines, one running horizontally beneath the column headers and one vertically to the right of the row headers. Now when you scroll through the spreadsheet, the rows above the black line and the columns to the left of the black line will stay put.

To freeze only a row or a column, select the row or column, click on Window, Freeze Panes. Only the row or column will be frozen.

To thaw a frozen pane, click on Window, Unfreeze panes.

8. Viewing Multiple Excel files at one time (Splitting Windows) (EXCEL)

Assume you have two spreadsheets open at the same time and wish to view both. Click on Window, Arrange, Tile. Both spreadsheets will appear on your screen and each can be accessed. Click anywhere on either spreadsheet will make it the Active Spreadsheet. The Title Bar will be Blue for the Active Spreadsheet. .

To return your screen to view only one spreadsheet, Minimize the spreadsheet that you no longer wish to view, and Maximize the remaining spreadsheet.

9. Printing Excel Spreadsheets ; Inserting Custom Headers and Footers (EXCEL)

You can insert an automatic Time, Date Page number, Any Text, or Filename to appear in a Header or Footer on all pages of your printout. Click on View, Headers & Footers and select custom. Insert the desired option in any of the three areas.

Use File, Page Setup, Sheet to have rows repeat printing on the top of each page. Also, if you want Column & Row numbers & Gridlines are to print.

Use File, Page Setup, Margins to change the margins on your spreadsheet.

Use File, Page Setup, Page to change from Portrait printing to Landscape printing.

10. Make your column headings more distinctive. (EXCEL)

You can make your spreadsheet more readable by rotating the column headings to a custom angle. Select the Cells that contain the column headings, right click and choose Format Cells from the pop-up menu, click the Alignment tab and move the Orientation slider to a custom Angle. (Try 45 degrees first) click ok.

11. Copying Formulas (Excel & Works)

Formulas, like other cell contents, may be copied from one location to another

The cell addresses in the source formula, unless specially set up, change as they are copied to the destination cell(s)

The cells change because they are relative cell references