

Using Excel 2007 Formulas

This help sheet explains how to use some of the most useful formulas with Excel 2007.
Formulas are always preceded with the = sign

=A2+A3	Adds together the values in cells A2 and A3
=A2+5	Adds 5 to the value in cell A2
=SUM(D1:D5)	Adds together the values in the cell range D1 to D5
Σ	You can quickly add together a column of numbers by placing the cursor in a cell below the column of numbers and selecting the Autosum Σ icon from the standard window.
=SUM(E1,F1,G3)	This formula adds together a range of scattered cells.

Entering Numbers as Text

To enter a number as text that will not be acted upon by formulas precede the number with an apostrophe e.g '123 the number will be left justified in the cell.

Subtraction

=A2-A3	Deduct the value in cell A3 from the value in cell A2
=C1 - 10	Deduct 10 from the value in cell C1

Multiplication

=B4*B5	Multiplies the value in cell B4 by the value in cell B5
=A2 * 30	Multiplies the value in cell A2 by 30
=PRODUCT(C1:C3)	Multiplies together all values in the range C1 to C3 for example, if all cells contain the number 2 the formula calculates $2 \times 2 = 4 \times 2 = 8$

Addition and Multiplication

=(6+8)*10	adds together the numbers in brackets first and then multiplies the result by 10 and displays the result 140
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Division

=C1 / 5	Divide the value in cell C1 by 5
=C1 / D1	Divide the value in cell C1 by the value in cell D1

Averages

=AVERAGE(H1:H5)	Calculates the Average of the figures in the range of cells H1 to H5
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Calculating V.A.T.

The following formula calculates the amount of V.A.T. to be charged for the figure in cell A1. For this formula V.A.T. is charged at 17.5% Note that this is the formula used by customs & excise.

$$=TRUNC(A1*0.175,2)+A1$$

The cost in cell A1 is multiplied by 0.175 and truncated to two decimal places, the original figure in cell A1 is then added to the result.

Percentage Calculations

Calculating the Percentage Difference between Two Numbers

15			
16			
17	A	B	C
18			
19			
20	100	95	-5%
21			

In the following example cell C20 contains the formula $=(B20-A20)/ABS(A20)$ to calculate the percentage difference between 100 in A20 and 95 in B20. The formula divides the difference

between the second and first numbers by the absolute value of the first number to arrive at the percentage change of 5%. When working with percentage calculations test the formula using figures between 1 and 100 as it is immediately obvious if the formula is incorrect.

More Percentage Calculation Formulas

=A1*10%	Calculates 10% of the value in cell A1
= A1 + (A1 * 4%)	Increases the figure in cell A1 by 4%
= A1 – (A1 * 8%)	Decrease the figure in cell A1 by 8%

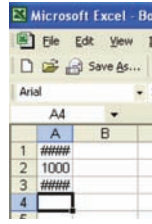
Calculating what Percentage One Number is of Another Number

For example, to work out what percentage the figure 34 is of 50 the following method can be used. Cell A12 has the value 34 and cell B12 has the value 50, at cell C12 enter the following formula **=A12/B12** this divides 34 by 50 to arrive at 68%. You can test this formula by entering 25 into cell A12, as 25 is half of 50 the answer is 50%

Other Formulas

=COUNTBLANK(J1:J10)	Counts up all the blank cells in the range J1:J10
=COUNT(J1:J10)	Counts up all the cells with values in the range J1:J10
=COUNTA(J1:J10)	Counts up all the cells in the range J1:J10 containing values or text
=COUNTIF(H1:H5,">5")	Counts up the cells in the range H1:H5 that contain a value greater than 5
=LARGE((H1:H5),1)	Displays the largest value in the range H1 to H5 note that changing the figure 1 before the last bracket to a 2 will find the second highest value in the range.
=MEDIAN(K1:K6)	Displays the Median (Mid Range Value) in the range K1:K6
=MAX(K1:K6)	Displays the Maximum value in the cell range K1:K6
=MIN(H1:H5)	Displays the Minimum value in the cell range H1:H5
=COUNTIF(K1:K6,"<6")	Counts the cells in the range K1:K6 that contain a value less than 6
=SQRT(A1)	Calculate the square root of the value in cell A1
=A1^2	Raise the number in cell A1 by the power of 2 (multiplied by itself)
=A1^3	Raise the number in cell A1 by the power of 3 e.g. figure in cell A1 is 5 5 x 5 = 25 x 5 = 125

Column Width and Formulas



If you see a line of # symbols in a formula cell then the result of the calculation is too large to be displayed in the cell. To rectify this do the following. Click on the column letter heading for the column containing the formula (in the example to the right this is column A). The whole column is selected. Place the mouse pointer on the right hand boundary of the column letter heading cell, the pointer changes to two arrows pointing left and right. Depress the left mouse button and slowly drag the mouse to the right until the result appears.

Decimal places



The default setting is no decimal places. To increase decimal places make sure you have the Home ribbon selected by clicking on the **HOME** tab. In the **NUMBER** section of the Home ribbon click on the **INCREASE DECIMAL PLACES** button (picture left). To decrease the number of decimal places click on the **DECREASE DECIMAL PLACES** button.

Date and Time

=TODAY()	Displays today's date try entering it at any blank cell you can also depress the CTRL key and press ;
	To display the current time depress the CTRL and SHIFT key and press the : key

Turning Off Grid Lines

To turn off grid lines select the **VIEW** tab from the **HOME** ribbon. In the **SHOW/HIDE** section click on the **GRID LINES** box, the ✓ mark disappears and grid lines are no longer displayed in the spreadsheet.

Displaying Formulas in Cells

To display the formulas instead of the results in formula cells select the **FORMULAS** tab from the **HOME** ribbon. In the **FORMULA AUDITING** section click on the **SHOW FORMULAS** button. Formulas are now displayed in formula cells.