Excel Formulas

Basic math

Function	Formula	Example
To add up the total	=SUM(cell range)	=SUM(B2:B9)
To add individual items	=Value1 + Value 2	=B2+C2
Subtract	=Value1 - Value 2	=B2-C2
Multiply	=Value1 * Value2	=B2*C2
Divide	=Value1 / Value2	=B2/C2
Exponents	=Value1 ^ Value2	=B2^C2
Average	=AVERAGE(cell range)	=AVERAGE(B2:B9)
Median	=MEDIAN(cell range)	=MEDIAN(B2:B9)
Max	=MAX(cell range)	=MAX(B2:B9)
Min	=MIN(cell range)	=MIN(B2:B9)

Absolute cell references

When a formula contains an absolute reference, no matter which cell the formula occupies the cell reference does not change: if you copy or move the formula, it refers to the same cell as it did in its original location. In an absolute reference, each part of the reference (the letter that refers to the row and the number that refers to the column) is preceded by a "$" – for example, **$A$1** is an absolute reference to cell A1. Wherever the formula is copied or moved, it always refers to cell A1.

Conditional statements

Function	Formula	Example
If statement	=IF(logical test, "result if the test answer is true", "result if the test answer is false")	=IF(B2>69,"Pass","Fail")
Exact	=EXACT(Value1, value2)	=EXACT(B2, C2)

Lookup Within a Range

Function	Formula	Example
Looks up a value in the leftmost column and returns a value in the same row of the column you specify.	=VLOOKUP(value, table, output column, find closest match?)	=VLOOKUP(A2, $C$2:$D$6, 2,TRUE)

Values must be listed in ascending order, as displayed in the table:

Percent	Grade
0	F
60	D
70	C
80	B
90	A

Pulling things apart

Function	Formula	Example
To select a certain number of characters from the left	=LEFT(cellwithtext, number of characters to be returned)	=LEFT(A2, 6)
To select a certain number of characters from the right	=RIGHT(cellwithtext, number of characters to be returned)	=RIGHT(A2, 6)
Extract information from the middle	=MID(cellwithtext, start position, number of characters you want returned)	=MID(A2, 9, 4)
Find text in a field	=SEARCH("text you want to find", where you want to find it)	=SEARCH(",", A2)
Separate a last name (Example: Smith, Jane)	LEFT and SEARCH functions	=LEFT(A2, SEARCH(",", A2)-1)
Separate a first name (Example: Smith, Jane)	MID and SEARCH functions	=MID(A2, SEARCH(",", A2)+2, 20)

Putting things together

Function	Formula	Example
To combine cells with a space in-between	=CONCATENATE(text, " ", text)	=CONCATENATE(A2, " ", B2)
To combine cells with a space in-between (second option)	=text & " " & text	=A2 & " " & B2

Dealing with dates

Function	Formula	Example
Return the year	=YEAR(datefield)	=YEAR(A2)
Return the month	=MONTH(datefield)	=MONTH(A2)
Return the day	=DAY(datefield)	=DAY(A2)
Return the day of the week (1 = Sunday, 2 = Monday, 3 = Tuesday, etc.)	=WEEKDAY(datefield)	=WEEKDAY(A2)
To create a date from year, month, and day	=DATE(year, month, day)	=DATE(B2, C2, D2)