### **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)

### Simple formatting tricks

Function	Formula	Example
To change a cell to proper	=PROPER(cell)	=PROPER(A2)
case		
To change a cell to upper	=UPPER(cell)	=UPPER(A2)
case		
To change a cell to lower	=LOWER(cell)	=LOWER(A2)
case		

#### **Conditional statements**

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

#### 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.

# Pulling things apart

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

## **Putting things together**

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

## 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	=WEEKDAY(datefield)	=WEEKDAY(A2)
(1 = Sunday, 2 = Monday,		
3 = Tuesday, etc.)		
To create a date from year,	=DATE(year, month, day)	=DATE(B2, C2, D2)
month, and day		