REFERENCE) Formula Fundamentals - Printable
Five Missing Keys to Formula Proficiency

1 Formula Vs. Function

Formula = an expression which performs any calculation within a spreadsheet.

Function = a predefined type of calculation within a formula.

FROC (the 4 possible elements of a formula)

a) **F**unction = a predefined type of calculation within a formula. *(e.g. SUM, AVERAGE, COUNT, etc.)*

b) **R**eference = a naming system for identifying a cell's location. *(e.g. A1, B5, G6, etc.)*

c) **O**perator = a type of calculation to perform on the elements of a formula. *(e.g. +, -, <, >, etc.)*

d) **C**onstant = a static ("hard-coded") value within of a formula. *(e.g. 9, "purple", 10/10/2020, etc.)*

2 Syntax (Building blocks to speak the language of Excel Formulas)

Arithmetic Operators		Comparison Operators	
+	plus	<	less than
-	minus	>	greater than
*	multiply	<=	less than or equal to
/	divide	>=	greater than or equal to
^	exponent	=	equal to
		<>	NOT equal to

Other Symbols		
,	comma	must be used to separate arguments within a function
( )	parentheses	must be used with every single function
		can also be used to force order of operations (PEMDAS)
" "	double quotes	must be used to reference text inside of a formula
$	dollar sign	can be used to anchor a cell reference (when formula is copied and pasted)
&	ampersand	concatenates or joins characters together
:	colon	must be used to indicate a range of cells (i.e. A1:A5 means A1 through A5)
'	apostrophe	can be used in front of a formula to show formula text (instead of calculating)

3 Placeholders (Save formulas as you go with temp values like "blah")

Example: =IF(5+5=10,"blah true","blah false")

4 Helper Columns (Simplify calculations into bite-sized chunks)

Example: YEAR, MONTH, DAY functions, and then use the DATE function

5 Help - Leverage the ExcelShir Help Hierarchy

a) **B**uilt-In help articles

b) **I**nternet (i.e. online forums)

c) **P**hone a friend or colleague

d) **E**xpert - find an expert (e.g. clarity.fm)

Memory Trick: "Need help? Type **BIPE**!")