

More Complex Functions

Spreadsheets can use **functions** to do more complicated things, usually with lots of cells

- functions **always** start with =
- functions use **words**
- the answers **update** when you change cells

You can use the **AutoSum button** for simple functions

This guide is about two more complex functions

More Complex Functions

COUNTIF:

Used to count the number of cells with certain sorts of values in:

- the number of cells with the number 2 in
- the number of cells when the value is greater than 10 (>10)
- the number of cells when the value is less than 7 (<7)
- the number of cells with the word "Banana"

More Complex Functions

COUNTIF:

- Find COUNTIF on the **Formulas** tab

The screenshot shows the Microsoft Excel interface with the **Formulas** tab selected. The **More Functions** button is highlighted with a red box. The **Function Library** pane is open, showing the **Statistical** category selected. The **COUNTIF** function is highlighted with a red box. A tooltip for the **COUNTIF** function is visible, showing the syntax **COUNTIF(range,criteria)** and the description: "Counts the number of cells within a range that meet the given condition."

	B	C	D	E	F
	Gold	Silver	Bronze		
	0	0	2		Average
	2	0	1		Gold
	1	1	1		Silver

More Complex Functions

COUNTIF:

- Use the pop up to tell Excel what to look for

COUNTIF

Range	B2:B93	↑	=
Criteria	=2	↑	=

Counts the number of cells within a range that meet the given condition.

Range	B2:B93
Criteria	"< 10"

Range	B2:B93
Criteria	> 20

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IF:

Used to put a value in a cell based on the value of another cell:

- put the word “None” for any other cell with the value 0
- put the word “Large” for any other cell with a value greater than 100
- put the word “Restock” in a cell when another cells is less than 10

More Complex Functions

IF:

- Find IF on the **Formulas** tab

The screenshot shows the Microsoft Excel ribbon with the **Formulas** tab selected. The **Logical** group is expanded, and the **IF** function is highlighted with a red box. A tooltip for the IF function is visible, showing its syntax and description.

Formulas ribbon groups: Insert Function, AutoSum, Recently Used, Financial, **Logical**, Text, Date & Time, Lookup & Reference, Maths & Trig, More Functions, Name Manager, Define Name, Use in Template, Create New Defined Name.

Logical group options: AND, BYCOL, BYROW, FALSE, **IF**, IFERROR, IFNA, IFS.

IF function tooltip: IF(logical_test,value_if_true,value_if_false)
Checks whether a condition has been met, and returns one value if TRUE, and another value if FALSE.

	A	D	E	F	G	H
1	Name	Location	One Day	Twenty20	First used	
2	Angel Ground	Tonbridge	0	0	1869	106
3	B. M. Close's Ground	South	0	0	1867	1
4	Bat and Ball Ground	Grays			1849	142
5	Beverley Ground	Canterbury			1843	7
6	Cheriton Road	Folkestone			1826	108
7	Crabble Athletic Ground	Dover			1807	110

More Complex Functions

IF:

- Use the pop up to enter the thing to look for and what to say if it's True or False

Function Arguments

IF

Logical_test	C2>10000000	=	FALSE
Value_if_true	"MORE THAN 10 MILLION"	=	"MORE THAN 10 MILLION"
Value_if_false	LESS THAN 10 MILLION	=	

Checks whether a condition has been met, and returns one value if TRUE, and another value if FALSE.

Value_if_false is the value that will be returned if Logical_test is FALSE. If omitted, FALSE will be returned.

To leave the cell blank, just enter a space

IF

Logical_test	G2<10	=	FALSE
Value if true	"RARELY USED"	=	"RARELY USED"
Value_if_false	" "	=	" "