

What is the function of the COUNTIF function in Excel?

Authored by
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RECOMMENDED CITATION

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PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=157938>

The COUNTIF function in Excel is a useful tool for counting the number of cells in a range that meet a specific criteria. It allows users to specify a condition or criteria and then counts the number of cells that meet that condition within a given range. This function is particularly helpful when dealing with large data sets or when trying to quickly analyze data that meets certain criteria. Overall, the COUNTIF function helps users to efficiently and accurately count and summarize data in Excel.

Excel COUNTIF Function

COUNTIF Function

The **COUNTIF** function is a premade function in Excel, which counts cells as specified.

It is typed =COUNTIF

NOTE: The **COUNTIF** function can have basic or more advanced uses. This covers the basic use for how to count specific numbers and words.

Numbers (e.g. 90) and words (e.g. "Water") can be specified.

How to use the =COUNTIF function:

Select a cellType =COUNTIFDouble click the **COUNTIF** commandSelect a rangeType , Select a cell (the criteria, the value that you want to count)Hit enter

Note: The different parts of the function are separated by a symbol, like comma , or semicolon ;

The symbol depends on your Language Settings.

Let's see some examples!

Apply the COUNTIF function to range B2:B21, to count how many Pokemons we have in the different types:

	A	B	D	E	F	G
1	Name	Type 1	Total stats			
2	Mankey	Fighting	305			
3	Poliwrath	Water	510			
4	Victreebel	Grass	490			
5	Tentacool	Water	335		Grass	
6	Magneton	Electric	465		Water	
7	Dewgong	Water	475		Electric	
8	Cloyster	Water	525		Fighting	
9	Onix	Rock	385		Rock	
10	Dragonair	Dragon	420		Dragon	
11	Pidgeotto	Normal	349		Normal	
12	Rattata	Normal	253		Bug	
13	Beedrill	Bug	395		Poison	
14	Doduo	Normal	310		Fire	
15	Kingler	Water	475		Ghost	
16	Nidoqueen	Poison	505			
17	Hitmonchan	Fighting	455			
18	Charmeleon	Fire	405			
19	Arbok	Poison	438			
20	Gastly	Ghost	310			
21	Magikarp	Water	200			
22						
23						

We want the COUNTIF function to count the types of Pokemons, in the range G5 :G15:

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335			Grass	=COUNTIF(
6	Magneton	Electric	465			Water	COUNTIF (range; criteria)	
7	Dewgong	Water	475			Electric		
8	Cloyster	Water	525			Fighting		
9	Onix	Rock	385			Rock		
10	Dragonair	Dragon	420			Dragon		
11	Pidgeotto	Normal	349			Normal		
12	Rattata	Normal	253			Bug		
13	Beedrill	Bug	395			Poison		
14	Doduo	Normal	310			Fire		
15	Kingler	Water	475			Ghost		
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335			Grass	=COUNTIF(B2:B21	
6	Magneton	Electric	465			Water	COUNTIF (range; criteria)	
7	Dewgong	Water	475			Electric		
8	Cloyster	Water	525			Fighting		
9	Onix	Rock	385			Rock		
10	Dragonair	Dragon	420			Dragon		
11	Pidgeotto	Normal	349			Normal		
12	Rattata	Normal	253			Bug		
13	Beedrill	Bug	395			Poison		
14	Doduo	Normal	310			Fire		
15	Kingler	Water	475			Ghost		
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

The , is typed after the range is selected, which tells the function what you are looking to count.

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	=COUNTIF(B2:B21;		
6	Magnetron	Electric	465		Water	COUNTIF (range; criteria)		
7	Dewgong	Water	475		Electric			
8	Cloyster	Water	525		Fighting			
9	Onix	Rock	385		Rock			
10	Dragonair	Dragon	420		Dragon			
11	Pidgeotto	Normal	349		Normal			
12	Rattata	Normal	253		Bug			
13	Beedrill	Bug	395		Poison			
14	Doduo	Normal	310		Fire			
15	Kingler	Water	475		Ghost			
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	=COUNTIF(B2:B21;F5		
6	Magnetron	Electric	465		Water	COUNTIF (range; criteria)		
7	Dewgong	Water	475		Electric			
8	Cloyster	Water	525		Fighting			
9	Onix	Rock	385		Rock			
10	Dragonair	Dragon	420		Dragon			
11	Pidgeotto	Normal	349		Normal			
12	Rattata	Normal	253		Bug			
13	Beedrill	Bug	395		Poison			
14	Doduo	Normal	310		Fire			
15	Kingler	Water	475		Ghost			
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
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	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	1		
6	Magnetron	Electric	465		Water			
7	Dewgong	Water	475		Electric			
8	Cloyster	Water	525		Fighting			
9	Onix	Rock	385		Rock			
10	Dragonair	Dragon	420		Dragon			
11	Pidgeotto	Normal	349		Normal			
12	Rattata	Normal	253		Bug			
13	Beedrill	Bug	395		Poison			
14	Doduo	Normal	310		Fire			
15	Kingler	Water	475		Ghost			
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
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The COUNTIF function has successfully counted 1 Grass Pokemon, which is Victreebel (A4).

Let's count the Water Pokemons in G6

The same steps apply

Select G6 Type =COUNTIF Select B2:B21 Type (,) Select F6 (Specifying Water as criteria) Hit enter

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335			Grass	1	
6	Magnetron	Electric	465			Water	=COUNTIF(B2:B21;F6	
7	Dewgong	Water	475			Electric	COUNTIF (range; criteria)	
8	Cloyster	Water	525			Fighting		
9	Onix	Rock	385			Rock		
10	Dragonair	Dragon	420			Dragon		
11	Pidgeotto	Normal	349			Normal		
12	Rattata	Normal	253			Bug		
13	Beedrill	Bug	395			Poison		
14	Doduo	Normal	310			Fire		
15	Kingler	Water	475			Ghost		
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	1		
6	Magneton	Electric	465		Water	6		
7	Dewgong	Water	475		Electric			
8	Cloyster	Water	525		Fighting			
9	Onix	Rock	385		Rock			
10	Dragonair	Dragon	420		Dragon			
11	Pidgeotto	Normal	349		Normal			
12	Rattata	Normal	253		Bug			
13	Beedrill	Bug	395		Poison			
14	Doduo	Normal	310		Fire			
15	Kingler	Water	475		Ghost			
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

That is great! The COUNTIF function has counted 6 Water Pokemons in B2:B21.

Let's count the rest of the types more effectively. We want to continue the function from G6:G15. Making use of the Filling Function and Absolute References.

Step by step:

Double click G6 Lock the range references absolute (B2:B21). Type dollar signs before the columns and row. Type 4 dollar signs in total. =COUNTIF(\$B\$2:\$B\$21,F6).

Note: We want F6 to remain relative. Because we want it to move downwards. Do not add dollar signs (\$) to it. Hit enter Fill the range G6:G15

	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	1		
6	Magneton	Electric	465		Water	=COUNTIF(\$B\$2:\$B\$21;F6)		
7	Dewgong	Water	475		Electric	COUNTIF (range; criteria)		
8	Cloyster	Water	525		Fighting			
9	Onix	Rock	385		Rock			
10	Dragonair	Dragon	420		Dragon			
11	Pidgeotto	Normal	349		Normal			
12	Rattata	Normal	253		Bug			
13	Beedrill	Bug	395		Poison			
14	Doduo	Normal	310		Fire			
15	Kingler	Water	475		Ghost			
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

G6		fx		=COUNTIF(\$B\$2:\$B\$21;F6)				
	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	1		
6	Magneton	Electric	465		Water	6		
7	Dewgong	Water	475		Electric			
8	Cloyster	Water	525		Fighting			
9	Onix	Rock	385		Rock			
10	Dragonair	Dragon	420		Dragon			
11	Pidgeotto	Normal	349		Normal			
12	Rattata	Normal	253		Bug			
13	Beedrill	Bug	395		Poison			
14	Doduo	Normal	310		Fire			
15	Kingler	Water	475		Ghost			
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

G6		fx =COUNTIF(\$B\$2:\$B\$21;F6)						
	A	B	D	E	F	G	H	I
1	Name	Type 1	Total stats					
2	Mankey	Fighting	305					
3	Poliwrath	Water	510					
4	Victreebel	Grass	490					
5	Tentacool	Water	335		Grass	1		
6	Magneton	Electric	465		Water	6		
7	Dewgong	Water	475		Electric	1		
8	Cloyster	Water	525		Fighting	2		
9	Onix	Rock	385		Rock	1		
10	Dragonair	Dragon	420		Dragon	1		
11	Pidgeotto	Normal	349		Normal	3		
12	Rattata	Normal	253		Bug	1		
13	Beedrill	Bug	395		Poison	2		
14	Doduo	Normal	310		Fire	1		
15	Kingler	Water	475		Ghost	1		
16	Nidoqueen	Poison	505					
17	Hitmonchan	Fighting	455					
18	Charmeleon	Fire	405					
19	Arbok	Poison	438					
20	Gastly	Ghost	310					
21	Magikarp	Water	200					
22								
23								

That saved us alot of time! **Good job!**

A Non-Working Example

Let's try an example that will not work

Fill G5 : G15 without locking the references to see what happens.

	A	B	D	E	F	G
1	Name	Type 1	Total stats			
2	Mankey	Fighting	305			
3	Poliwrath	Water	510			
4	Victreebel	Grass	490			
5	Tentacool	Water	335		Grass	=COUNTIF(B2:B21;F5)
6	Magnetron	Electric	465		Water	=COUNTIF(B3:B22;F6)
7	Dewgong	Water	475		Electric	=COUNTIF(B4:B23;F7)
8	Cloyster	Water	525		Fighting	=COUNTIF(B5:B24;F8)
9	Onix	Rock	385		Rock	=COUNTIF(B6:B25;F9)
10	Dragonair	Dragon	420		Dragon	=COUNTIF(B7:B26;F10)
11	Pidgeotto	Normal	349		Normal	=COUNTIF(B8:B27;F11)
12	Rattata	Normal	253		Bug	=COUNTIF(B9:B28;F12)
13	Beedrill	Bug	395		Poison	=COUNTIF(B10:B29;F13)
14	Doduo	Normal	310		Fire	=COUNTIF(B11:B30;F14)
15	Kingler	Water	475		Ghost	=COUNTIF(B12:B31;F15)
16	Nidoqueen	Poison	505			
17	Hitmonchan	Fighting	455			
18	Charmeleon	Fire	405			
19	Arbok	Poison	438			
20	Gastly	Ghost	310			
21	Magikarp	Water	200			
22						
23						
24						
25						
26						
27						
28						

If the references for the range are kept relative, the fill function will move the range downwards, including blank cells and missing the range where the data is.

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