

What is the functionality of the COUNTIFS function in Google Sheets?

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The COUNTIFS function in Google Sheets is a powerful tool that allows users to count the number of cells that meet multiple criteria within a specific range of data. This function is especially useful for analyzing large datasets and identifying specific data points based on specified conditions. It allows for the combination of multiple criteria, such as numerical values, text, or dates, to be applied simultaneously, providing a more comprehensive analysis of the data. The COUNTIFS function is essential for creating dynamic and accurate reports and summaries in Google Sheets.

Google Sheets COUNTIFS Function

COUNTIFS Function

The **COUNTIFS** function is a premade function in Google Sheets, which counts cells in a range based on one or more **true** or **false** condition.

It is typed =COUNTIFS:

=COUNTIFS(criteria_range1, criterion1, ,)

The **conditions** are referred to as `criteria1`, `criteria2`, .. and so on, which can check things like:

If a number is **greater than** another number > If a number is **smaller than** another number < If a number or text is **equal** to something =

The `criteria_range1`, `criteria_range2`, and so on, are the ranges where the function check for the conditions.

Example COUNTIFS function

Find the number of 1st Generation Water type Pokemon:

The conditions are that the type is "Water" and Generation is 1.

	A	B	C	D	E	F	G	H
1	Name	Type 1	Generation					
2	Bulbasaur	Grass	1		Type	Gen.	Count	
3	Ivysaur	Grass	1		Water	1		
4	Venusaur	Grass	1		Water	2		
5	Charmander	Fire	1		Water	3		
6	Charmeleon	Fire	1		Water	4		
7	Charizard	Fire	1					
8	Squirtle	Water	1					
9	Wartortle	Water	1					
10	Blastoise	Water	1					
11	Caterpie	Bug	1					
12	Metapod	Bug	1					
13	Butterfree	Bug	1					
14	Weedle	Bug	1					

Note: The full dataset continues after row 14, all the way down to row 759.

Example **COUNTIFS** function, step by step:

Select the cell G3 Type =COUNTIFS Click the **COUNTIFS** command

	A	B	C	D	E	F	G	H	I	J	K
1	Name	Type 1	Generation								
2	Bulbasaur	Grass	1		Type	Gen.	Count				
3	Ivysaur	Grass	1		Water	1	=COUNTIFS				
4	Venusaur	Grass	1		Water	2	COUNTIFS				
5	Charmander	Fire	1		Water	3	Count values depending on multiple criteria.				
6	Charmeleon	Fire	1		Water	4					
7	Charizard	Fire	1								
8	Squirtle	Water	1								
9	Wartortle	Water	1								
10	Blastoise	Water	1								
11	Caterpie	Bug	1								
12	Metapod	Bug	1								
13	Butterfree	Bug	1								
14	Weedle	Bug	1								

Specify the range for the type B2:B759 (the Type 1 values)Type , Specify the criteria (the cell E3, which has the value "Water")Type , Specify the range for the second conditionC2:C759 (the Generation values)Type , Specify the criteria (the cell F3, which has the value "1")Hit enter

Note: You can add more conditions by repeating steps 7-10 before hitting enter.

	A	B	C	D	E	F	G	H	I	J	K
1	Name	Type 1	Generation								
2	Bulbasaur	Grass	1		Type	Gen.	30 x				
3	Ivysaur	Grass	1		Water	1	=COUNTIFS(B2:B759; E3; C2:C759; F3				
4	Venusaur	Grass	1		Water	2	COUNTIFS(criteria_range1, criterion1, ^ X [criteria_range2, ...], [criterion2, ...]) EXAMPLE COUNTIFS(A1:A10, ">20", B1:B10, "<30") ABOUT Returns the count of a range depending on multiple criteria. criteria_range1 The range to check against criterion1. criterion1 The pattern or test to apply to criteria_range1. criteria_range2... - [optional] repeatable Additional ranges to check. criterion2... - [optional] repeatable Additional criteria to check. Learn more				
5	Charmander	Fire	1		Water	3					
6	Charmeleon	Fire	1		Water	4					
7	Charizard	Fire	1								
8	Squirtle	Water	1								
9	Wartortle	Water	1								
10	Blastoise	Water	1								
11	Caterpie	Bug	1								
12	Metapod	Bug	1								
13	Butterfree	Bug	1								
14	Weedle	Bug	1								
15	Kakuna	Bug	1								
16	Beedrill	Bug	1								
17	Pidgey	Normal	1								
18	Pidgeotto	Normal	1								
19	Pidgeot	Normal	1								
20	Rattata	Normal	1								
21	Raticate	Normal	1								

The function now counts the number of 1st Generation Water type Pokemon.

The function can be repeated for Water type Pokemon for the following Generations to compare them:

	A	B	C	D	E	F	G	H	I
1	Name	Type 1	Generation						
2	Bulbasaur	Grass	1		Type	Gen.	Count		
3	Ivysaur	Grass	1		Water	1	=COUNTIFS(B2:B759, E3, C2:C759, F3)		
4	Venusaur	Grass	1		Water	2	=COUNTIFS(B2:B759, E4, C2:C759, F4)		
5	Charmander	Fire	1		Water	3	=COUNTIFS(B2:B759, E5, C2:C759, F5)		
6	Charmeleon	Fire	1		Water	4	=COUNTIFS(B2:B759, E6, C2:C759, F6)		
7	Charizard	Fire	1				COUNTIFS(criteria_range1, criterion1, ^ X [criteria_range2, ...], [criterion2, ...]) EXAMPLE COUNTIFS(A1:A10, ">20", B1:B10, "<30") ABOUT Returns the count of a range depending on multiple criteria. criteria_range1 The range to check against criterion1. criterion1 The pattern or test to apply to criteria_range1. criteria_range2... - [optional] repeatable Additional ranges to check. criterion2... - [optional] repeatable Additional criteria to check. Learn more		
8	Squirtle	Water	1						
9	Wartortle	Water	1						
10	Blastoise	Water	1						
11	Caterpie	Bug	1						
12	Metapod	Bug	1						
13	Butterfree	Bug	1						
14	Weedle	Bug	1						
15	Kakuna	Bug	1						
16	Beedrill	Bug	1						
17	Pidgey	Normal	1						
18	Pidgeotto	Normal	1						
19	Pidgeot	Normal	1						
20	Rattata	Normal	1						
21	Raticate	Normal	1						
22	Spearow	Normal	1						
23	Fearow	Normal	1						
24	Ekans	Poison	1						

Note: You can use the filling function for the other rows, but make sure to use absolute references for the ranges.

Now, we can see the total number of Water type Pokemon between generations 1-4:

	A	B	C	D	E	F	G	H
1	Name	Type 1	Generation					
2	Bulbasaur	Grass	1		Type	Gen.	Count	
3	Ivysaur	Grass	1		Water	1	30	
4	Venusaur	Grass	1		Water	2	18	
5	Charmander	Fire	1		Water	3	25	
6	Charmeleon	Fire	1		Water	4	13	
7	Charizard	Fire	1					
8	Squirtle	Water	1					
9	Wartortle	Water	1					
10	Blastoise	Water	1					
11	Caterpie	Bug	1					
12	Metapod	Bug	1					
13	Butterfree	Bug	1					
14	Weedle	Bug	1					

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