“What is the purpose of the Excel AVERAGEIFS function?”

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The Excel AVERAGEIFS function is a mathematical tool that calculates the average value of a range of cells based on specified criteria. Its primary purpose is to help users easily and accurately find the average of a set of data that meets certain conditions. This function is particularly useful for analyzing large datasets with multiple criteria, allowing users to filter and calculate the average value of only the data they need. This can save time and effort in manually sorting and calculating averages, making it a valuable tool for data analysis and decision making.

Excel AVERAGEIFS Function

AVERAGEIFS Function

The **AVERAGEIFS** function is a premade function in Excel, which calculates the average of a range based on one or more **true** or **falsecondition**.

It is typed `=AVERAGEIFS`:

=AVERAGEIFS(**average_range**, **criteria_range1**, **criteria1, ...**)

The **conditions** are referred to as `critera1, 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.

The `average_range` is the range where the function calculates the average.

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

The symbol depends on your Language Settings.

Example AVERAGEIFS function

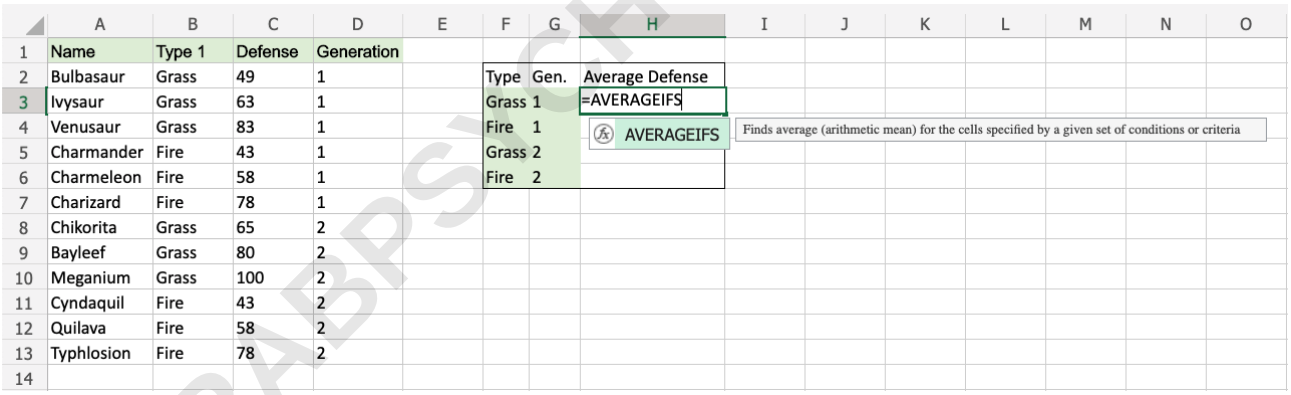
Find the average defense of Grass type 1st Generation Pokemon:

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

	A	B	C	D	E	F	G	H	I
1	Name	Type 1	Defense	Generation					
2	Bulbasaur	Grass	49	1		Gen.	Type	Average Defense	
3	Ivysaur	Grass	63	1		1	Grass		
4	Venusaur	Grass	83	1		1	Fire		
5	Charmander	Fire	43	1		2	Grass		
6	Charmeleon	Fire	58	1		2	Fire		
7	Charizard	Fire	78	1					
8	Chikorita	Grass	65	2					
9	Bayleef	Grass	80	2					
10	Meganium	Grass	100	2					
11	Cyndaquil	Fire	43	2					
12	Quilava	Fire	58	2					
13	Typhlosion	Fire	78	2					
14									

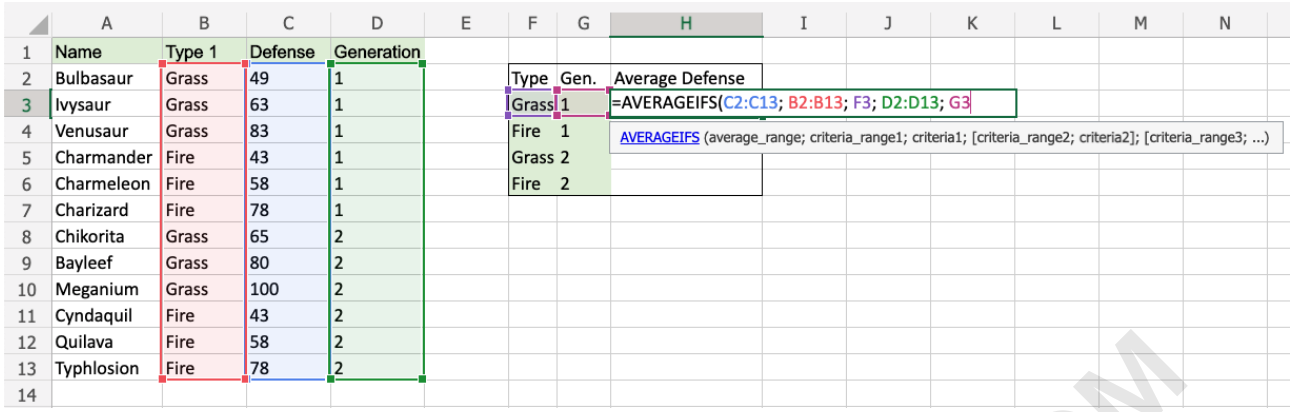
Example **AVERAGEIFS** function, step by step:

Select the cell `H3`Type `=AVERAGEIFS`Double click the **AVERAGEIFS** command



Specify the range for the average `C2:C13` (the Defense values)Type `,`Specify the range for the first condition`B2:B13` (the Type 1 values)Type `,`Specify the criteria (the cell `F3`, which has the value "Grass")Type `,`Specify the range for the second condition`D2:D13` (the Generation values)Type `,`Specify the criteria (the cell `G3`, which has the value "1")Hit enter

Note: You can add more conditions by repeating steps 9-12 before hitting enter.



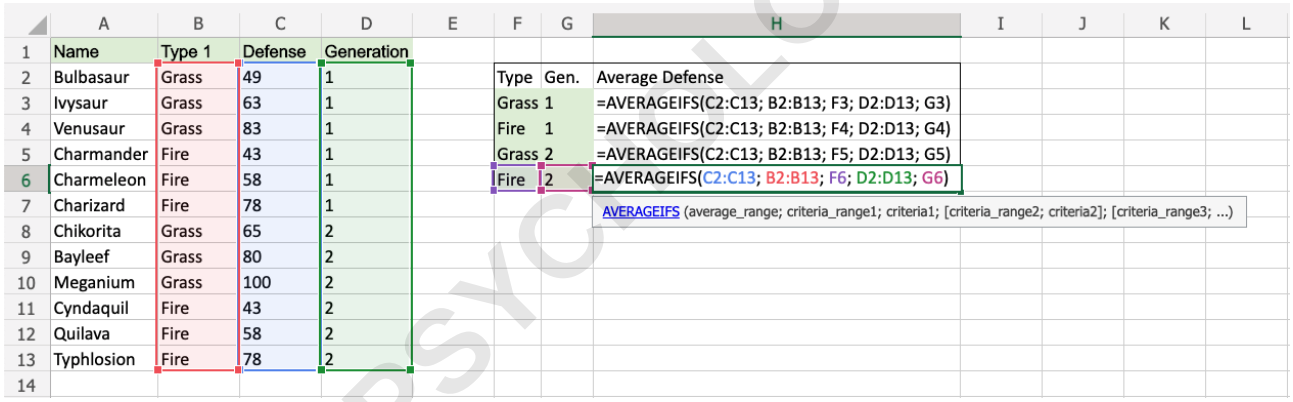
	Name	Type 1	Defense	Generation
2	Bulbasaur	Grass	49	1
3	Ivysaur	Grass	63	1
4	Venusaur	Grass	83	1
5	Charmander	Fire	43	1
6	Charmeleon	Fire	58	1
7	Charizard	Fire	78	1
8	Chikorita	Grass	65	2
9	Bayleef	Grass	80	2
10	Meganium	Grass	100	2
11	Cyndaquil	Fire	43	2
12	Quilava	Fire	58	2
13	Typhlosion	Fire	78	2

Type	Gen.	Average Defense
Grass	1	=AVERAGEIFS(C2:C13; B2:B13; F3; D2:D13; G3
Fire	1	
Grass	2	
Fire	2	

AVERAGEIFS (average_range; criteria_range1; criteria1; [criteria_range2; criteria2]; [criteria_range3; ...)

The function now calculates the average defense value of the 1st Generation Grass type Pokemon: Bulbasaur, Ivysaur and Venusaur.

The function can be repeated for Fire type Pokemon and 2nd Generation to compare them:



	Name	Type 1	Defense	Generation
2	Bulbasaur	Grass	49	1
3	Ivysaur	Grass	63	1
4	Venusaur	Grass	83	1
5	Charmander	Fire	43	1
6	Charmeleon	Fire	58	1
7	Charizard	Fire	78	1
8	Chikorita	Grass	65	2
9	Bayleef	Grass	80	2
10	Meganium	Grass	100	2
11	Cyndaquil	Fire	43	2
12	Quilava	Fire	58	2
13	Typhlosion	Fire	78	2

Type	Gen.	Average Defense
Grass	1	=AVERAGEIFS(C2:C13; B2:B13; F3; D2:D13; G3)
Fire	1	=AVERAGEIFS(C2:C13; B2:B13; F4; D2:D13; G4)
Grass	2	=AVERAGEIFS(C2:C13; B2:B13; F5; D2:D13; G5)
Fire	2	=AVERAGEIFS(C2:C13; B2:B13; F6; D2:D13; G6)

AVERAGEIFS (average_range; criteria_range1; criteria1; [criteria_range2; criteria2]; [criteria_range3; ...)

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 average defense values of each type between generations:

	A	B	C	D	E	F	G	H	I
1	Name	Type 1	Defense	Generation					
2	Bulbasaur	Grass	49	1		Type	Gen.	Average Defense	
3	Ivysaur	Grass	63	1		Grass	1	65,00	
4	Venusaur	Grass	83	1		Fire	1	59,67	
5	Charmander	Fire	43	1		Grass	2	81,67	
6	Charmeleon	Fire	58	1		Fire	2	59,67	
7	Charizard	Fire	78	1					
8	Chikorita	Grass	65	2					
9	Bayleef	Grass	80	2					
10	Meganium	Grass	100	2					
11	Cyndaquil	Fire	43	2					
12	Quilava	Fire	58	2					
13	Typhlosion	Fire	78	2					
14									

Notice how the 2nd Generation Grass type Pokemon got more defense, but the Fire type stayed the same.