How can the AVERAGEIFS function in Google Sheets be used to calculate the average of a range based on multiple criteria?

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The AVERAGEIFS function in Google Sheets is a useful tool for calculating the average of a range of data that meets specific criteria. It allows users to define multiple criteria and only calculates the average for data points that satisfy all of those criteria. This function is particularly helpful when working with large data sets that require precise filtering. By using the AVERAGEIFS function, users can easily calculate the average of a range based on specific conditions, such as a specific date range, product category, or customer segment. This not only saves time but also ensures accuracy in the calculations. Overall, the AVERAGEIFS function in Google Sheets provides a convenient and efficient way to calculate averages based on multiple criteria.

Google Sheets AVERAGEIFS Function

AVERAGEIFS Function

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

It is typed `=AVERAGEIFS`:

=AVERAGEIFS(**average_range**, **criteria_range1**, **criterion1, ...**)

The **conditions** are referred to as `criterion1, criterion2, ..` 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.

Example AVERAGEIFS function

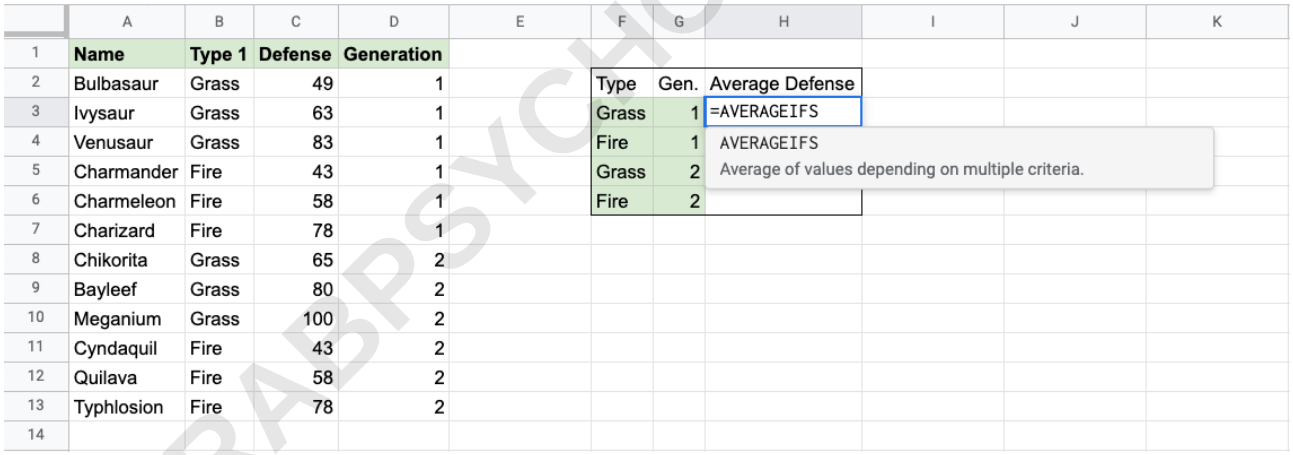
Find the average defense of Grass type 1st Generation Pokemon:

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		Type	Gen.	Average Defense	
3	Ivysaur	Grass	63	1		Grass	1		
4	Venusaur	Grass	83	1		Fire	1		
5	Charmander	Fire	43	1		Grass	2		
6	Charmeleon	Fire	58	1		Fire	2		
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									

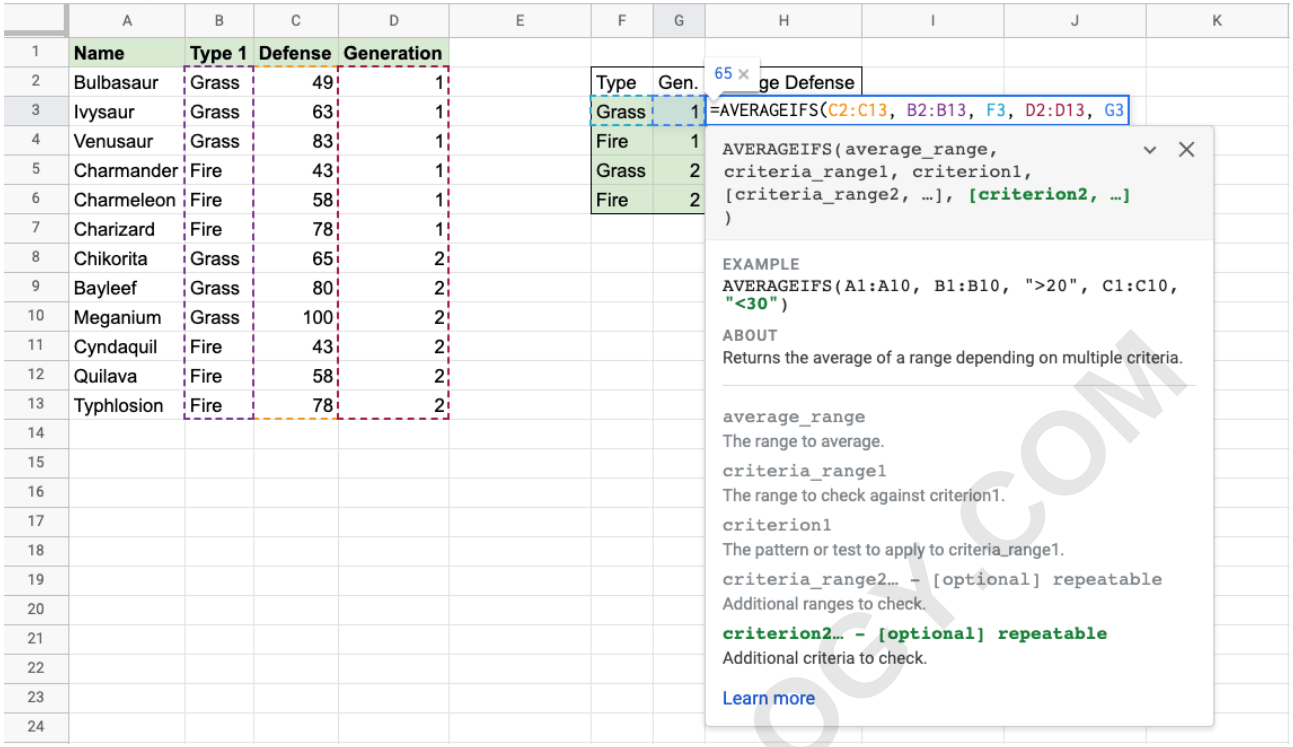
Example **AVERAGEIFS** function, step by step:

Select the cell `H3`Type `=AVERAGEIFS`Click the **AVERAGEIFS** command



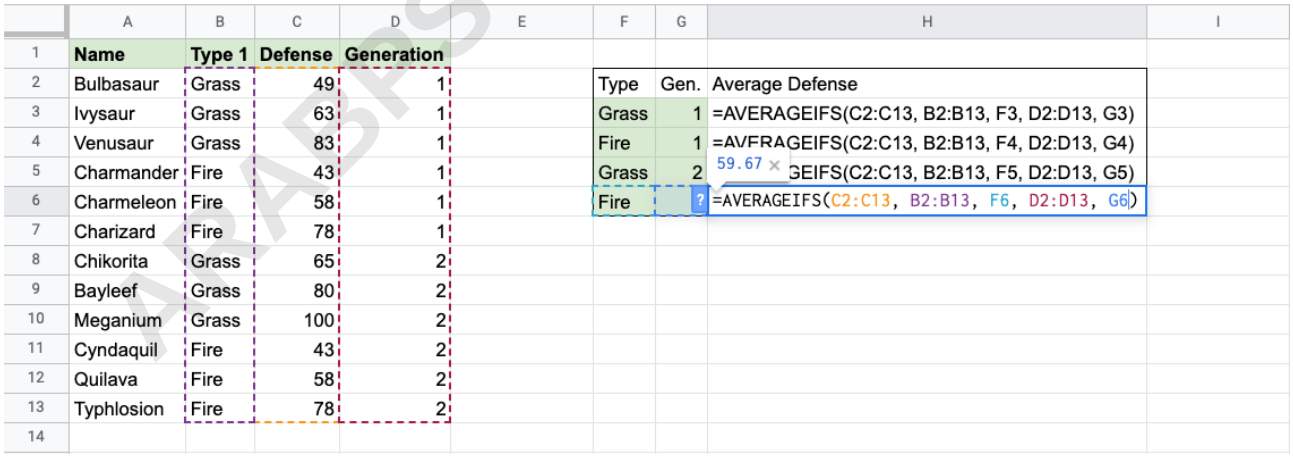
Specify the range for the average `C2:C13` (the Defense values)Type `,`Specify the range for the first condition`B2:B13` (the Type 1 values)Type `,`Specify the criteria (the cell `F3`, which has the value "Grass")Type `,`Specify the range for the second condition`D2:D13` (the Generation values)Type `,`Specify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



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:



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.