Google sheet sumif multiple criteria

You can use the ampersand to attach columns and criteria to encode a Sumif formula with several criteria. The criteria may be of a different column or two columns. Sumif supports several column criteria in Google Sheets. I used this thing in a previous post. The link I included in the last part of this guide. But this position was not specifically concerned with this subject. So I thought I should write this tutorial separately as it can be useful for beginners. To code a multi-criteria Sumif formula in Google Sheets, you must use ArrayFormula with Sumif. Another requirement is the use of the and that joins several criteria and corresponding columns. Why don't you use Sumifs instead? The reason why the sumif formula cannot extend. In other words, it returns a single cell outlet. Here you will find the benefits of using Sumif with several conditions in Google Sheets. But theirs is a shortfall in the use of several criteria to Sumif using the Ampersand. It will not work with comparison operators in Sumif. I mean a difference in date that the condition in the Sumif formula is not possible this way. Let me start with the Sumif syntax in Google Sheets: I know you're not new to Sumif. Here's another basic example for those who are inexperienced in using The Sumif feature in Google Sheets. Sample data: Formula: Sumif (A1:A, Plum, C1:C) This unique Criterion Formula Sumif summarizes Column C if the value of Column A is Prune. There is no problem in using multiple criteria in Google Sheets Sumif in a single column. For example, see how I use the Sumif formula to sum up the value of Plum and Apple. This sumif formula with multiple condition has already found its place on my previous detailed tutorial - How to sumif when multiple criteria in the same column in Google Sheets. When Sumif's criteria are in two different columns, you either need to use the Sumifs function or the Sumif combination formula. Here's this ArrayFormula - Sumif - Ampersand combination. Find out how I encode a multi-criteria Sumif formula in Google Sheets. The two criteria I used in this example formula come from Column A (Apple) and B (United States). Thus, column A1: A and B1: B is combined in the Sumif range. In other words, to use multiple criteria from two or more different columns in Sumif, you need to follow the two tips below. 1. Combine the criterion with the ampersand (E2-F2). 2. Combine the corresponding columns with the criteria in the same way (A1:A-B1:B). Sumif Multiple Criteria - Morethan One Criteria in Same Column - Extra Column You can read OR condition (criteria in the same column) - AND status (criterion in a different column) This is also possible using Sumif in Google Sheets! In addition, it has an advantage over Sumifs. It is therefore necessary for me to show you the Sumifs formula first. Sum Column C; 1. If Column A contains any of the Apple or Plum elements. 2. 2. Column B contains United States. Formula: 'ArrayFormula(sumifs (C2:C,B2:B,United States',regexmatch (A2:A,Apple Plum),TRUE)) This formula depends on the powerful Regexmatch in Google Sheets. If you don't use Regex, then you can nest Sumifs which is not an ideal solution. Want a formula explanation? Related: Regexmatch to Sumifs in Google Sheets. Now see the multiple criteria Sumif formula (OR, ET in Sumif) which is equivalent to the above Sumifs. The sumif formula with multiple criteria above would be slightly different if the conditions are not in the formula cells. In such cases, you need to know how to format the conditions. Find out how I presented the conditions of the E2: F3 range and used it in the formula. There is an obvious advantage to using Sumif on Sumifs in multiple conditions in the same or different columns. The advantage of using several Sumif Formula criteria in Google Sheets To understand the advantage of Sumif as above under multiple conditions, just remove the sum in the formula. You can see that it produces a table result. Unlike Sumifs, Sumif can produce a table result. Similar: Sumifs Array Formula Expanding Issue and Alternative Formulas. With this example, I finish this tutorial on the multiple criteria for using the Sumif formula in Google Sheets. Thank you for the stay. Google Sheets is similar to Excel and uses many of the same features. Assuming you want to summarize a range of values and have certain criteria to include or exclude, you can use SUMIFS. How to use SUMIFS in google sheets If you want to learn how to use SUMIFS in google sheets, you need to define both the sum range from which are summarized values and criteria ranges with criteria using the formula: 'SUMIFS(sum_range, criteria_range1, criterion1, [criteria_range2, ...], [criterion2, etc.]). The range is defined as the cellular range where you want to summarize the values in google sheets and the range of criteria is the range we want to filter for certain values, while the criterion is the value we want to get out of the range of criteria. If you are familiar with this feature in Excel, it will be easy for you to use it in Google Sheets. Some interesting and very useful examples will be covered in this tutorial with the main focus on the SUMIFS function; this is the difference between SUMIF, different modes of use. After this tutorial, you will be able to summarize the values based on several range criteria or various logical conditions - which is the very good basis for solving more creative Google Sheets problems. SUMIFS FUNCTION for criteria SUMIFS with conditions: Higher/lower/equal/not equal to sumIFS with SUMIFS function with SUMIFS or criteria SUMIFS function for multiple criteria As mentioned above, the main difference between the SUMIF and SUMIFS functions is the ability to define several criteria based on which the sum is calculated. In this area, we are how the function works with ET logical operator when we need all the criteria to meet. A formula using SUMIFS The SUMIFS formula is similar to: 'SUMIFS(sum_range, criteria_range1, criterion1, [criteria_range2, ...], [criterion2, etc.]) Note that we can add as many criteria ranges as we need. Let's look at the example and explain the parameters of the functions: 'SUMIFS(D3:D9,B3,B9,James,'C3:C9,New York' Explanation of the formula Sum_range is a range of cells that we want to summarize - in our example that would be the A3:A9 range (Net Income column). Criteria_range1 is a range that we want to filter for certain values, in our example B3:B9 (column Name). Criterion1 is the value we want to take away from Criteria_range1, in our example James. Similarly, Criteria_range2 (Column C3:C9 - State) and Criterion2 (New York) are defined. In other words, we want to summarize all the net revenues that have James value in the Name and New York column in the State column. The previous example is to transmit the value of certain parameters to the function (such as James or New York). However, if we want our function to be more dynamic, we can transmit cells that address criterion values, instead of values. In this case, our function would look like: SUMIFS (D3:D9,B3,B9,G2,C3,C9,G3) Do it like this, we can change the values of criteria 1 and 2 in the G2 and G3 cells, and our function will be modified accordingly. SUMIFS with conditions: Higher/lower/equal/not equal to while working with the SUMIFS function, it is often necessary to use criteria on value fields or dates. With these types of data, we generally do not want to filter a single value, but a certain range of values like: higher, lower, between, equal or not equal to. In the following example, we'll see how to include value comparison in the SUMIFS function. Let's say we want to keep all the criteria of the previous example (Name is Mike and State is New York), but also want to summarize only net incomes that have a value greater than $1000: SUMIFS (D3:D12,B3,B12,G2,C3,G3,D3:D12,-1000) As you can see, we used the existing function and criteria for the name and status values and added the third range of D3:D12 criteria (net income column). This time for the test, we put 1000, which means we only want to summarize values above $1,000. Therefore, only the green colored rows were included in the sum, while the red line was not, due to the value of $900. Again, we can do this dynamically too: 'SUMIFS(D3:D12,B3:B12,G2,C3:C12,D3,D3:D12,'G4) In this case, the test to operate by putting the logical operation in quotation marks and by designating it with an ampersand: G4. The same logic is used for the following conditions, just with a different operator: less than 'lt', higher or equal to 'I', less or equal to 'lt;'. An additional explanation in this topic is needed to summarize the values with criteria containing empty or non-virgin cells. Let's start by looking at the example where we for a criterion to be always met (non-virgin cells): SUMIFS (D3:D12,B3:B12,G2,C3:C12, in this case, we want the Name column to have James value and for the State column, the only condition is not to be empty. As you can see, we get the sum of all the net income for James from all the states. For the state criterion, we put the1st which means that we want non-virgin cells. On the other hand, let's look at the example where we want one of our criteria to be the empty cell: 'SUMIFS(D3:D12,B3:B12,G2,C3,C3,C12,') Again, we want column Name to have James value, but for the column State we want to take only empty values. This time we get the sum of all the net income for James of the state who does not have cells filled. For the state criterion, we put O which means that we only want blank cells. SUMIFS FUNCTION with or criteria If we use the SUMIFS function, each criterion in the formula must be met in order to correctly calculate the result of the formula. If even a single criterion is not met, the result of the formula will be null and void, since this function follows and logical. The question is how to summarize the data according to multiple criteria, where either condition has been met. Let's take the example below where we want to show Mike Net's total revenue in Florida or California. This can be done easily by summarizing two SUMIFS functions, in which the conditions of the first part would be Mike and Florida, and in the second SUMIFS function conditions would be Mike and California. SUMIFS (D3:D9,B3:B9,G2,C3,C9,G4) SUMIFS (D3:D9,B3,B9,G2,C3:C9,G5) The logic is simple. First, we calculate the net income that meets the first part of the condition (Mike, Florida), then just add net income calculated separately that meets the second part of the condition (Mike, California). Instead of writing conditions as text under quotations, it is always a better solution to link conditions to cells in order to make the reports more dynamic and adapted to change. Instead of using SUMIFS, a more elegant solution is the combination of functions: SUMPRODUCT, ISNUMBER and MATCH. Take a look at the example below, where the desired production is net james revenue in New York or California. Since formula syntax may seem difficult, we will explain it step by step: SUMPRODUCT (--(B3:B9-G2),--ISNUMBER (MATCH (C3:C9,G4:G5,0)),D3:D9) SUMPRODUCT works by multiplying the tables in the formula above. The first table is defined with the James condition, and each time the condition is met, the result of the formula is REAL, and when not, the result is wrong. Symbol — in front of the first painting translates the boolean TRUE/FALSE values into 1/0. Table 1 after running the formula will look like $0.0,0,0,1,0, applying number 1, when the state is satisfied, and 0, when the state is not satisfied in the defined range (column name). In the second table must be checked whether the state of New York or California has been filled in the column state. The table must be 1, whenever New York or California is within a defined range. Defined. can be done using the MATCH formula, with the syntax: 'MATCH' (search value, range,0) Formula MATCH searches for value in a defined range (line/column), and therefore, gives the position of the search value in the defined range (line/column). Since we are dealing with tables, the research value in our example is State Column (C3:C9), and the range are cells from New York and California (G4:G5). Zero in the formula syntax is used as we want exact match. MATCH (C3:C9,G4:G5.0) After this table step will look like: '#N/A,#N/A,1,1,2,#N/A,2', showing error when the state is not found in the G4:G5 range, showing 1 if the State Now York is found, and value 2 if California is in the G4:G5 range. Values 1 and 2, are the positions of search values in the defined range G4:G5 After this step, the ISNUMBER formula translates the values of the table into Boolean TRUE/FALSE, attributing TRUE if the value of the table is the number: 'FALSE, FALSE, REAL, FALSE, REAL'. Symbol - then translates the Boolean values into 1/0 making the table2 as: '0.0,1,1,0,1'. Now we have a clear table, where the number 1 is assigned whenever the condition of New York or California is fulfilled. The latest Table 3 is net sales, D3:D9 cell range: '1000,3000,2500,4000,2300,1800,1200' At the end, the function multiplies the three tables: '0.0,0,0,1,0'0,1,1,0,1,1 3000,2500,4000,2300,1800,1200-4800 Still need help with Excel formatting or have other questions about Excel? Connect with a live Excel expert here for about 1 in 1 help. Your first session is always free. Are you still looking for help with conditional formatting? Check out our full set of conditional fitness tutorials here. Here.