

How to Easily SUMIF with OR Criteria in Google Sheets

Authored by
stats writer

November 30, 2025

RECOMMENDED CITATION

stats writer (2025). *How to Easily SUMIF with OR Criteria in Google Sheets*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=102322>

The ability to analyze data conditionally is paramount in modern spreadsheet applications. Specifically, calculating the sum of values that meet certain conditions is a fundamental requirement for reporting and data aggregation. While the standard SUMIF function in Google Sheets excels at summing based on a single criterion, business logic often demands the calculation of totals where multiple possible conditions might apply simultaneously. This need leads to scenarios where we must implement OR function logic within our summation formulas.

This tutorial delves into the expert techniques required to effectively use the equivalent of "SUMIF with OR" functionality in Google Sheets. Because the native SUMIF and SUMIFS functions are not inherently designed to handle the logical OR operator directly across multiple criteria ranges in the way a standard IF statement does, we must employ creative and powerful workarounds. The most robust method involves leveraging the additive property of the SUMIFS function, treating each potential criterion as a separate calculation and combining the results to generate the final, consolidated total.

Mastering this technique is essential for analysts, data scientists, and anyone who relies on Google Sheets for complex reporting. By carefully structuring separate SUMIFS clauses and combining them with the addition operator, we can successfully total values across a range if they meet any one of the specified criteria. This approach ensures accuracy, scalability, and maintainability in your advanced spreadsheet models.

The Need for Conditional Summation

In data analysis, simple aggregation often falls short. We frequently encounter situations where we need to total numerical data based on categorical constraints. For instance, a sales manager might need the total revenue generated by two specific regions, or an inventory specialist might need the total stock for items classified as either "Urgent" or "Low Priority." These requirements necessitate conditional summation, where the data is filtered before being summed. Both SUMIF and SUMIFS are designed to address this, but the introduction of multiple, mutually exclusive criteria--the OR function logic--adds a layer of complexity that requires specialized formula construction.

While the basic SUMIF function is straightforward, allowing a summation range, a criteria range, and a single criterion, it immediately hits limitations when two or more criteria must be evaluated simultaneously using the OR logic. If we were dealing with AND logic (where both criteria must be true), the dedicated SUMIFS function would be the natural choice. However, because SUMIFS operates under an inherent AND constraint (all specified criteria must be met), we cannot simply list multiple criteria within a single function to achieve the OR outcome.

Therefore, when aiming to calculate the total amount where cells meet criterion A OR function criterion B, we must revert to a technique that fundamentally separates the conditional sums. By

calculating the sum for criterion A independently, calculating the sum for criterion B independently, and then adding these two results together, we mathematically satisfy the OR logic requirement without double-counting, assuming the criteria are mutually exclusive (i.e., a single cell cannot simultaneously meet both "value1" and "value2" in the same criterion range).

Understanding the SUMIF Function and its Limitations

The SUMIF function is structured to handle basic conditional summation efficiently. Its syntax is typically defined as `SUMIF(range, criterion, sum_range)`. The `range` specifies the cells to be evaluated against the `criterion`, and the `sum_range` specifies the cells to be totaled if the corresponding cell in the `range` meets the criterion. This function is perfectly suited for straightforward filtering, such as summing sales for only the "East" region.

However, the limitation becomes apparent when attempting to incorporate multiple possibilities within the `criterion` argument. If we wanted to sum sales for "East" or "West," attempting to input both criteria directly into the single `criterion` slot of the SUMIF function will result in an error or an incorrect total, as it is designed only to process one condition at a time. Some users mistakenly try to use array structures or concatenation here, but these methods generally only apply to advanced techniques like array filtering, not the inherent structure of SUMIF.

Although the dedicated SUMIFS function exists--which allows for multiple criteria across multiple ranges (e.g., summing sales where Region is "East" AND Product is "Laptop")--even this more flexible function operates strictly on the logical AND principle. Consequently, both SUMIF and SUMIFS must be adapted when the requirement shifts to the logical OR operator, which means finding a value that satisfies Condition 1 or Condition 2 or Condition 3.

Technique 1: Implementing OR Logic Using Formula Addition

The most reliable and widely used method for achieving OR function logic with summation in Google Sheets is to utilize the additive property of summation. This involves breaking the complex OR condition down into a series of simple, mutually exclusive AND (or single-criterion) summations, and then aggregating those results. Since we are dealing with a single criterion range evaluated against multiple possible values, the SUMIFS function is highly effective here, even though SUMIF could also be used.

Consider a scenario where you want to sum values in Range B if the corresponding entry in Range A is equal to "value1" or "value2". Since a cell in Range A cannot be both "value1" and "value2" simultaneously, summing the results of `SUMIFS(Range B, Range A, "value1")` and `SUMIFS(Range B, Range A, "value2")` will yield the correct total for the OR condition without any risk of double counting the data. This technique is clean, transparent, and easy to audit, making it the preferred method for most users.

The basic syntax for summing across multiple criteria (value1 OR value2) within the same criterion range is demonstrated below. This approach ensures that we capture all rows meeting either condition, effectively simulating the behavior of a logical OR operator within the spreadsheet environment:

=SUMIFS(B2:B11, A2:A11, "value1") + SUMIFS(B2:B11, A2:A11, "value2")

This particular formula takes the sum of values in the range **B2:B11** (the sum range) where the corresponding value in the range **A2:A11** (the criterion range) is equal to either "value1" or "value2." This method is highly scalable; if you needed to add a third criterion, you would simply append a third SUMIFS function linked by a plus sign.

Step-by-Step Practical Example

To illustrate the practical application of the additive SUMIFS method, let us consider a dataset tracking basketball team scores. Our goal is to calculate the total points scored by two specific teams, demonstrating how to apply the OR logic based on the team name.

Suppose we have the following sample data established in Google Sheets. Column A contains the Team name, and Column B contains the Points scored in a game:

	A	B	C	D
1	Team	Points		
2	Mavs	23		
3	Spurs	28		
4	Rockets	18		
5	Mavs	13		
6	Mavs	19		
7	Nets	11		
8	Suns	10		
9	Spurs	14		
10	Jazz	22		
11	Rockets	34		
12				
13				
14				
15				
16				
17				
18				

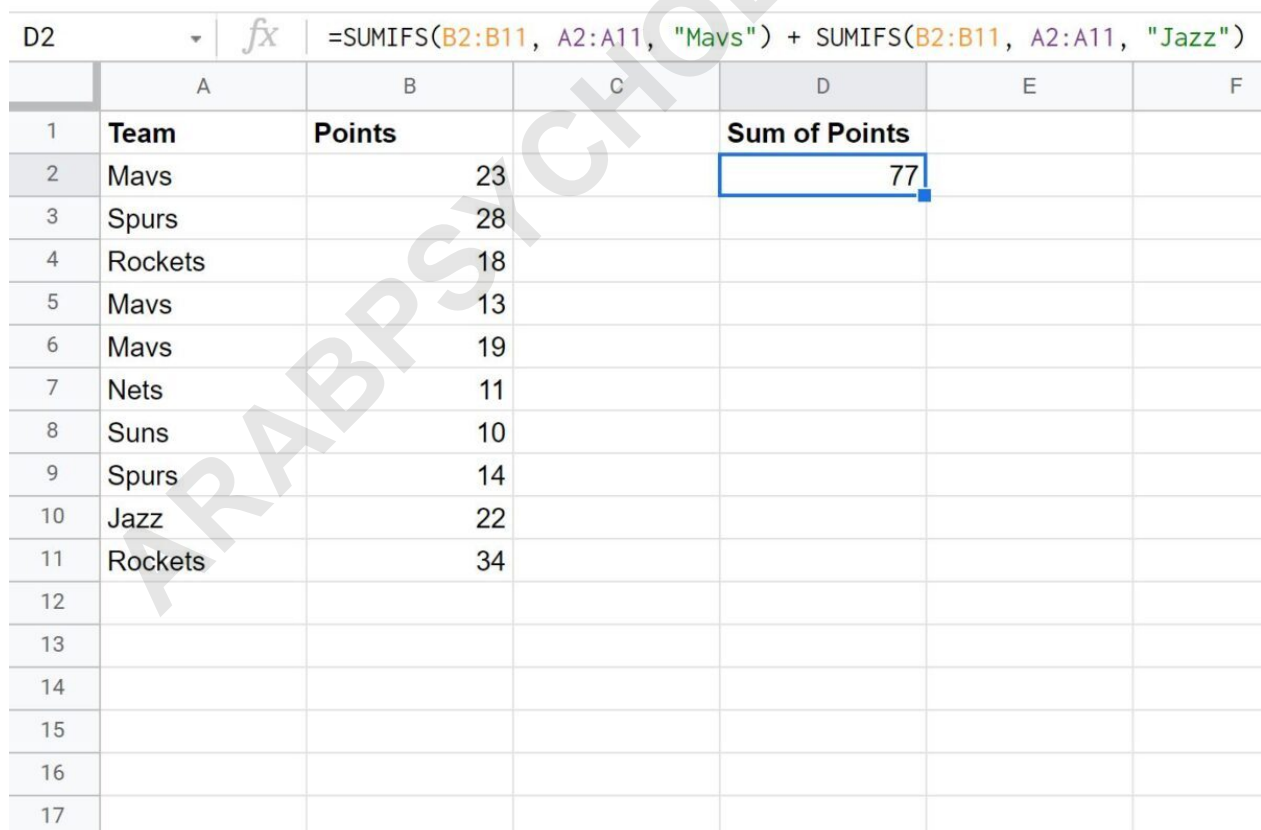
We want to find the total points scored by the teams "Mavs" OR function "Jazz". Instead of trying to construct a complex single formula, we will execute two distinct summations and combine them. The first SUMIFS instance will handle the "Mavs" criteria, and the second will handle the "Jazz" criteria. We must ensure the sum range and the criterion range remain consistent across both functions.

We can use the following formula, entered into any cell, to calculate the combined total of points for "Mavs" or "Jazz":

=SUMIFS(B2:B11, A2:A11, "Mavs") + SUMIFS(B2:B11, A2:A11, "Jazz")

This formula first calculates the sum of points for all rows where the team in A2:A11 is "Mavs" (which should be 23 + 13 = 36). It then calculates the sum of points for all rows where the team is "Jazz" (which should be 19 + 22 = 41). Finally, it adds these two results together (36 + 41).

The following screenshot demonstrates the application of this formula within the spreadsheet, showing the resulting total:



	A	B	C	D	E	F
1	Team	Points		Sum of Points		
2	Mavs	23		77		
3	Spurs	28				
4	Rockets	18				
5	Mavs	13				
6	Mavs	19				
7	Nets	11				
8	Suns	10				
9	Spurs	14				
10	Jazz	22				
11	Rockets	34				
12						
13						
14						
15						
16						
17						

As confirmed by the output, the sum of values in the **Points** column where the corresponding value in the **Team** column is "Mavs" or "Jazz" is **77**. This successful execution validates the additive

SUMIFS approach for multi-criteria OR logic.

Verification and Manual Audit

A crucial step in complex spreadsheet calculations is verification. Since the OR logic is constructed manually through addition, it is simple to manually audit the result to ensure correctness and build confidence in the formula. We can visually inspect the data table to isolate the rows that meet either the "Mavs" or "Jazz" criteria and sum the corresponding point values.

The rows corresponding to "Mavs" have points 23 and 13. The rows corresponding to "Jazz" have points 19 and 22. Summing these specific values confirms the calculated total:

	A	B	C	D	E
1	Team	Points		Sum of Points	
2	Mavs	23		77	
3	Spurs	28			
4	Rockets	18			
5	Mavs	13			
6	Mavs	19			
7	Nets	11			
8	Suns	10			
9	Spurs	14			
10	Jazz	22			
11	Rockets	34			
12					
13					
14					
15					
16					
17					

Sum of Points: $23 + 13 + 19 + 22 = 77$. The manual calculation matches the formula output precisely. This confirms that the method of summing individual SUMIFS (or SUMIF) results is the correct and reliable way to implement OR logic for conditional summation based on a single column of criteria.

Alternative Technique: Using ARRAYFORMULA with FILTER

While the additive SUMIFS technique is reliable, for advanced users or scenarios involving a large number of OR criteria, it can become unwieldy due to the length of the formula. An alternative,

more dynamic method involves combining the `SUM`, `FILTER`, and `ARRAYFORMULA` functions, which allows for a cleaner definition of multiple criteria.

This advanced method uses `FILTER` to select the rows that match the OR condition, and then `SUM` to aggregate the resulting values. The OR condition within the `FILTER` must be constructed using the addition operator (+) or the logical `OR` function applied to the boolean output of the criteria checks. For example, to check for "Mavs" or "Jazz", you would structure the formula to return an array of TRUE/FALSE values for each condition and use the addition operator to combine them before filtering the array.

The general structure for using `FILTER` to achieve OR logic looks like this: `=SUM(FILTER(Sum_Range, (Criterion_Range = "Value1") + (Criterion_Range = "Value2")))`. This approach is more complex to read initially but offers greater flexibility, especially when dealing with dynamically generated criteria or extensive lists of options. However, for simple two- or three-criterion checks, the additive `SUMIFS` remains the more conventional and easier-to-debug choice in [Google Sheets](#).

Best Practices and Performance Considerations

When implementing complex conditional formulas in large [Google Sheets spreadsheets](#), performance is a critical factor. The chosen method for implementing the [OR function](#) logic can influence calculation speed, particularly if the dataset contains thousands of rows.

Use `SUMIFS` over `SUMIF`: While `SUMIF` can technically be used additively, `SUMIFS` is generally considered the more modern and slightly more efficient function, especially as it maintains the consistency needed if you later introduce additional AND conditions. It is best practice to use `SUMIFS` even when only one criterion is applied per instance.

Limit Criteria Instances: While the additive approach scales linearly (adding one `SUMIFS` for each OR criterion), having a single formula with dozens of added functions can slow down sheet recalculation. If you have more than 5 or 6 OR conditions, consider restructuring your data or using the array-based approach (`FILTER/QUERY`) which might handle array calculations more efficiently.

Define Ranges Precisely: Avoid using open-ended ranges like A:A or B:B if your data only occupies a subset (e.g., A1:A500). Using smaller, defined ranges minimizes the number of cells the formula must evaluate, leading to faster processing times in the [Google Sheets](#) environment.

Conclusion and Further Resources

Implementing [OR function](#) logic in conditional summation functions like `SUMIF` or `SUMIFS` in

Google Sheets is a common necessity for comprehensive data analysis. Since these functions natively adhere to AND logic across multiple criteria, the additive technique--combining multiple instances of SUMIFS, each addressing one criterion--is the most reliable and simplest solution for most users.

By breaking down complex requirements into simpler, manageable components, we ensure that our spreadsheets remain accurate, understandable, and verifiable. This method allows users to quickly calculate totals based on any number of specific conditions, providing powerful filtering capabilities critical for business intelligence and reporting tasks.

Note: You can find the complete documentation for the SUMIFS function in Google Sheets documentation.

Further Reading and Advanced Topics

Beyond the basic techniques covered here, users may explore the powerful QUERY function in Google Sheets. The QUERY function uses SQL-like syntax, which natively supports both AND and OR function operators in its WHERE clause, offering a single, elegant solution for even the most complex conditional summation tasks. For very large datasets or highly complex criteria combinations, QUERY often outperforms chained SUMIFS functions, though it requires familiarity with SQL syntax.

Understanding the interplay between logical operators and aggregation functions is key to mastering data analysis in any spreadsheet application. The additive SUMIFS method serves as a strong foundation, bridging the gap between simple conditional logic and the complex, multi-criteria reporting needs of the modern data analyst.

The following tutorials explain how to perform other common **SUMIF()** operations in Google Sheets: