

Learn to Calculate Monthly Averages in Google Sheets

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October 28, 2025

RECOMMENDED CITATION

Mohammed loot (2025). *Learn to Calculate Monthly Averages in Google Sheets*. PSYCHOLOGICAL STATISTICS. Retrieved from <https://statistics.arabpsychology.com/?p=4878>

Analyzing quantitative [data](#) organized by specific time intervals, particularly months, is an indispensable practice across virtually all professional domains, from finance to marketing. Whether your objective is to meticulously track historical sales performance, monitor fluctuating website traffic patterns, or assess critical project milestones, extracting monthly trends provides the fundamental insights necessary for informed strategic planning and reliable forecasting. This comprehensive guide is designed to walk you through a highly efficient and systematic methodology for calculating the [average](#) value of your data, automatically grouped and segmented by month, utilizing the robust features available directly within [Google Sheets](#).

Consider a practical scenario where you are managing a large series of daily transaction records. The raw data provides daily sales figures, but to identify seasonal peaks or troughs, you require the average daily sales figure for each distinct month. This type of conditional analysis is paramount for detecting performance fluctuations, understanding the impact of seasonality, and measuring overall business progress accurately. Attempting to aggregate this volume of data manually is not only immensely time-consuming but also significantly increases the likelihood of human error; however, by leveraging a combination of powerful built-in [Google Sheets](#) functions, this entire analytical process can be transformed into an automated and highly efficient workflow.

For demonstration purposes, we will work with a sample [dataset](#) containing daily sales records spanning several months. Our central goal is to effectively compute the average daily sales corresponding to every unique month represented within this data structure. The initial structure of this data, featuring columns for Date and Daily Sales, is presented below, serving as our reference point throughout the tutorial.

	A	B	C	D
1	Date	Sales		
2	1/1/2022	40		
3	1/19/2022	45		
4	1/24/2022	32		
5	2/2/2022	38		
6	2/13/2022	12		
7	3/14/2022	40		
8	3/15/2022	22		
9	3/17/2022	24		
10	3/20/2022	25		
11				
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The following detailed, step-by-step tutorial will guide you through all necessary actions, commencing with the preparation of the raw data and culminating in the final calculation of the monthly averages, ensuring you acquire the requisite skills to easily replicate this valuable technique for any of your personal or professional data analysis requirements.

Step 1: Structuring and Preparing the Raw Data

The successful execution of any sophisticated data analysis hinges entirely upon the integrity and organization of the initial data input. Before initiating any formula application or complex calculations, it is absolutely essential to confirm that your raw data has been accurately and consistently inputted into your [Google Sheets](#) spreadsheet. Proper preparation means organizing your data into a clean, intuitive tabular format, ensuring dedicated, distinct columns exist for both the chronological markers (dates) and their corresponding quantitative values (the metric you intend to average).

For the specific context of this tutorial, we rely on a straightforward sample [dataset](#). This set is composed of two primary columns: the 'Date' column, which provides the chronological anchor for each record, and the 'Daily Sales' column, which contains the numerical values we aim to analyze. Maintaining this clear structure, which mirrors the visual representation provided, is crucial as it establishes the foundation for the subsequent formula applications.

A well-organized data arrangement significantly streamlines the entire process, minimizing the complexity of formula construction and, more importantly, preempting potential errors that often arise from ambiguous or inconsistent data layouts. Once you have verified that your sales records are neatly arranged and complete, you are fully prepared to advance to the next critical stage: isolating the specific monthly component from the full date entry.

	A	B	C	D
1	Date	Sales		
2	1/1/2022	40		
3	1/19/2022	45		
4	1/24/2022	32		
5	2/2/2022	38		
6	2/13/2022	12		
7	3/14/2022	40		
8	3/15/2022	22		
9	3/17/2022	24		
10	3/20/2022	25		
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Step 2: Isolating the Month Number Using the MONTH Function

To facilitate the grouping of your daily records, the immediate next step requires the isolation of the numerical month from every date entry. This action effectively transforms the date (e.g., 01/15/2023) into a simple numerical identifier (e.g., 1), thereby creating a crucial grouping key that will be referenced during the averaging calculation. This new column acts as the conditional basis for our analysis.

[Google Sheets](#) provides an extremely efficient and specialized function designed precisely for this extraction: the [MONTH function](#). This function accepts a date serial number or a date reference as its sole argument and reliably returns the corresponding month as an integer, where 1 signifies January and 12 signifies December. The syntax is refreshingly straightforward, requiring only the date reference: `=MONTH(date)`.

In the context of our example spreadsheet, assuming your comprehensive date entries reside in [column A](#), you should input the formula into an empty adjacent [cell](#), such as **D2**, referencing the first date in [cell A2](#). Once entered, the calculated output will be the month number associated with that date. Following the initial entry, utilize the fill handle--the small square located at the bottom-right corner of [cell D2](#)--and drag it downwards. This action intelligently applies the relative formula across the entire range of your [dataset](#), populating [column D](#) completely with the corresponding month numbers for every record.

=MONTH(A2)

	A	B	C	D	E
1	Date	Sales		Month	
2	1/1/2022	40		1	
3	1/19/2022	45		1	
4	1/24/2022	32		1	
5	2/2/2022	38		2	
6	2/13/2022	12		2	
7	3/14/2022	40		3	
8	3/15/2022	22		3	
9	3/17/2022	24		3	
10	3/20/2022	25		3	
11					
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20					

Step 3: Generating a List of Unique Months for Summary

After successfully extracting the month number for every single date in your data, the subsequent step is to compile a distinct list of every unique month present. This consolidated list is vital because it establishes the precise scope of our analysis, ensuring that the final summary table only

contains calculations for the months that actually contain data entries, thereby eliminating redundancy.

Fortunately, [Google Sheets](#) provides an extremely powerful and elegant solution for this requirement: the [UNIQUE function](#). This function is designed specifically to analyze a designated [range](#) of cells and return a streamlined array containing only the non-duplicated values found within that selection. Utilizing the `UNIQUE` function is the fastest and most reliable method for creating a clean summary key.

To initiate this process, enter the following array formula into a new, appropriate empty [cell](#), such as **F2**. This formula must reference the entire [range](#) containing the month numbers we derived in Step 2--in our specific case, the [range D2:D10](#). Because the output of the `UNIQUE` function is an expanding array, [Google Sheets](#) will automatically populate the subsequent rows below F2 with the sorted, distinct month numbers.

=UNIQUE(D2:D10)

Upon execution, the system will populate [column](#) F with a definitive, concise listing of all unique month numbers (e.g., 1, 2, 3), which now serves as the anchor column for our conditional average calculations in the next stage of the analysis.

F2 <i>fx</i> =UNIQUE(D2:D10)						
	A	B	C	D	E	F
1	Date	Sales		Month		Unique Months
2	1/1/2022	40		1		1
3	1/19/2022	45		1		2
4	1/24/2022	32		1		3
5	2/2/2022	38		2		
6	2/13/2022	12		2		
7	3/14/2022	40		3		
8	3/15/2022	22		3		
9	3/17/2022	24		3		
10	3/20/2022	25		3		
11						
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Step 4: Applying the AVERAGEIF Function for Conditional Analysis

With the definitive list of unique months successfully compiled, we are now ready to execute the central analytical task: calculating the [average](#) daily sales figure corresponding to each of these months. This crucial step necessitates the use of a function that can selectively evaluate records based on a specified condition and then compute the mean of only the corresponding numerical values.

The definitive tool for this type of conditional summarization in [Google Sheets](#) is the [AVERAGEIF function](#). This powerful function is designed to calculate the arithmetic [average](#) of values within one [range](#), contingent upon whether the corresponding entries in a separate evaluation [range](#) satisfy a given [criterion](#). The function requires three mandatory parameters: the [range](#) containing the criteria values (month numbers), the specific [criterion](#) (the unique month number being analyzed), and the [average_range](#) (the daily sales figures).

To perform the calculation, input the following formula into [cell G2](#), which is adjacent to the first unique month in [column F](#). Notice the strategic use of absolute references (\$) for the data ranges ([\\$D\\$2:\\$D\\$10](#) and [\\$B\\$2:\\$B\\$10](#)) to ensure they remain fixed when the formula is copied, while the criterion reference ([F2](#)) remains relative so it dynamically checks against the next unique month number as the formula is dragged down.

=AVERAGEIF(\$D\$2:\$D\$10, F2, \$B\$2:\$B\$10)

Once the formula is correctly entered in [cell G2](#), complete the process by dragging the fill handle down to align with the last unique month listed in [column F](#). This singular action automatically populates the entire summary table, instantaneously calculating the weighted average daily sales for every respective month, thereby providing a comprehensive and accurate measure of monthly performance.

	A	B	C	D	E	F	G
G2							
	<i>fx</i>	=AVERAGEIF(\$D\$2:\$D\$10, F2, \$B\$2:\$B\$10)					
1	Date	Sales		Month		Unique Months	Avg. Sales
2	1/1/2022	40		1		1	39
3	1/19/2022	45		1		2	25
4	1/24/2022	32		1		3	27.75
5	2/2/2022	38		2			
6	2/13/2022	12		2			
7	3/14/2022	40		3			
8	3/15/2022	22		3			
9	3/17/2022	24		3			
10	3/20/2022	25		3			
11							
12							
13							
14							

Interpreting and Leveraging Monthly Performance Insights

The successful completion of the preceding steps yields a highly valuable, segmented summary of your daily sales performance, meticulously organized by month. This clean, concise view of the data is incredibly powerful for accelerating the analytical process and informing critical decision-making, as it allows analysts to swiftly pinpoint significant performance trends, identify seasonal peaks, and highlight periods requiring immediate operational adjustments or closer scrutiny.

By reviewing the summarized results generated from our example [dataset](#) using the conditional power of the [AVERAGEIF function](#), we can immediately extract specific, actionable insights regarding the monthly [average](#) daily sales:

The average daily sales value recorded in Month 1 (January) was consistently strong at **39** units. The average daily sales value observed in Month 2 (February) showed a dip, standing at **25** units. The average daily sales value for Month 3 (March) maintained moderate performance, calculated at **27.75** units.

These calculated averages offer a precise performance snapshot for each period, facilitating crucial month-over-month comparisons and providing empirical data necessary for effective strategic forecasting and planning. Crucially, this robust analytical method is fully adaptable and can be employed for calculating the monthly average of any numerical metric you track, whether it involves costs, visitors, or inventory levels.

Expanding Your Analytical Capabilities in Google Sheets

While the calculation of monthly averages provides a foundational level of temporal analysis, it

represents merely one aspect of the vast analytical potential offered by [Google Sheets](#). Mastering the fundamental techniques demonstrated here--particularly the manipulation of dates and the use of conditional functions--is the gateway to performing far more sophisticated data analysis, complex reporting, and deriving deeper, more nuanced insights from large or intricate [datasets](#).

To continue enhancing your proficiency and explore the full breadth of available functionalities, we highly recommend pursuing additional tutorials and comprehensive online resources dedicated to advanced spreadsheet techniques. These resources can equip you with the knowledge needed to tackle various common and highly advanced data management tasks, significantly expanding your overall expertise in data processing and financial modeling within the Google ecosystem.