

How to Find the First Sunday of Any Month in Excel

Authored by
stats writer

February 7, 2026

RECOMMENDED CITATION

stats writer (2026). *How to Find the First Sunday of Any Month in Excel*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=129617>

Excel: Find the First Sunday of Each Month

The ability to efficiently manage and calculate specific dates is a cornerstone of advanced data processing in Excel. A common requirement in scheduling, payroll management, or planning applications is determining the date of the first occurrence of a specific weekday within any given month. Specifically, finding the **first Sunday of each month** requires a sophisticated application of built-in date functions. This analytical challenge is solved using a powerful combination of date manipulation functions that rely on Excel's underlying date system.

The foundational formula designed for this purpose integrates components that first establish the beginning of the month and then calculate the necessary offset to reach the target weekday--Sunday. While various formulas exist, a generalized approach utilizes the DATE function combined with the WEEKDAY function. For instance, the expression `=DATE(year, month, 1)+7-WEEKDAY(DATE(year, month, 1))` precisely calculates the date of the first day of the specified month, determines its day number (where Sunday is conventionally 1), and then adjusts the date forward to the first Sunday.

Understanding the mechanism behind this calculation is crucial for mastering date arithmetic in Excel. By utilizing these functions, users can transform raw date data into actionable scheduling information, making this method an invaluable tool for comprehensive organizational and planning tasks across diverse datasets. The following sections will detail the specific formula used in practice and provide an exhaustive breakdown of its components.

Implementing the Core Formula in Excel

To find the first Sunday of a given month when provided with any date within that month, we employ a highly efficient and self-contained formula. This method avoids the need for external calculations and operates directly on the existing date data. The primary goal of this initial segment of the calculation is to normalize the input date to the first day of its respective month, thereby establishing a consistent starting point for the subsequent weekday determination.

The specific formula we will focus on is designed to reference a cell containing a source date. If cell **A2** contains the original date (e.g., 1/15/2023), the formula must first isolate the beginning of January 2023. This preparatory step is vital because the subsequent calculation of the offset to Sunday must start from a known reference point, which, for consistency, is always the first day of the month in question.

You can use the following concise and robust formula in Excel to find the first Sunday of the month corresponding to the date located in cell **A2**:

=A2-DAY(A2)+8-WEEKDAY(A2-DAY(A2))

This particular example returns the first Sunday of the month for the date in cell **A2**. The logic behind this expression ensures that regardless of the day of the month specified in A2, the calculation correctly identifies the subsequent Sunday that falls on or after the first day of that month.

Breaking Down the Date Calculation Mechanics

To fully appreciate the efficiency of the formula `=A2-DAY(A2)+8-WEEKDAY(A2-DAY(A2))`, we must examine its distinct components. The operation begins by establishing the date of the first day of the month using the structure `A2-DAY(A2)`. This subtracts the current day number from the full date, effectively moving the date back to the last day of the previous month. Since Excel dates are represented as Serial Numbers, subtracting the day number (e.g., 15) from the date value (e.g., 44940) results in the date equivalent of the previous month's last day.

The next crucial part of the operation involves adding the numerical constant +8 to this truncated date, and simultaneously performing the core offset calculation using the WEEKDAY function. The expression `A2-DAY(A2)` is, as established, the last day of the prior month. Adding +1 to this result would give us the first day of the current month. The general structure for finding the Nth day of the week (where N=1 for Sunday) after the start of the period involves adding a calculation based on the result of `WEEKDAY()`.

The combination of +8 and subtracting the `WEEKDAY` result is a common pattern in Excel date arithmetic used to find the first occurrence of a specific weekday in a given period. Specifically, `A2-DAY(A2)` gives the end of the previous month. By calculating `(A2-DAY(A2)) + 1`, we get the first day of the current month. The formula uses +8 instead of +1 to ensure that the date is pushed far enough into the month that when the `WEEKDAY` offset is applied, the result is guaranteed to be the first Sunday, even if the first day of the month is a Sunday itself.

Utilizing the WEEKDAY Function for Precise Offsetting

The WEEKDAY function is fundamental to this operation, as it converts a date into a number between 1 and 7, corresponding to the day of the week. By default, Excel uses return type 1, where Sunday is 1 and Saturday is 7. In our formula, `WEEKDAY(A2-DAY(A2))` calculates the weekday of the last day of the previous month. This result is then used to determine exactly how many days need to be added to reach the subsequent Sunday.

The complete subtraction operation, `8-WEEKDAY(A2-DAY(A2))`, determines the precise number of days needed to advance from the last day of the previous month to the first Sunday of the current month. If the last day of the previous month (P) was a Saturday (`WEEKDAY=7`), the total offset added is $8 - 7 = 1$, correctly landing us on the 1st day of the current month (which is Sunday). If

P was a Friday (WEEKDAY=6), the offset is $8 - 6 = 2$, landing us on the 2nd day (which is Sunday). This clever manipulation ensures that the date calculation is always accurate for the desired first Sunday.

It is important to note the reliance on Excel's default Serial Number system, which calculates dates based on the number of days elapsed since January 1, 1900. When we perform arithmetic operations like addition and subtraction on dates, we are manipulating these serial numbers. This allows for simple, reliable addition and subtraction of specific day counts, which forms the basis of all advanced date calculations within Excel.

Step-by-Step Example: Finding the First Sunday

The following example shows how to use this powerful date formula in practice across a column of varied dates. We begin by setting up a dataset containing a list of reference dates in Column A, which represent different months and years for which we wish to find the corresponding first Sunday.

Suppose we have the following list of dates in Excel, starting in cell A2:

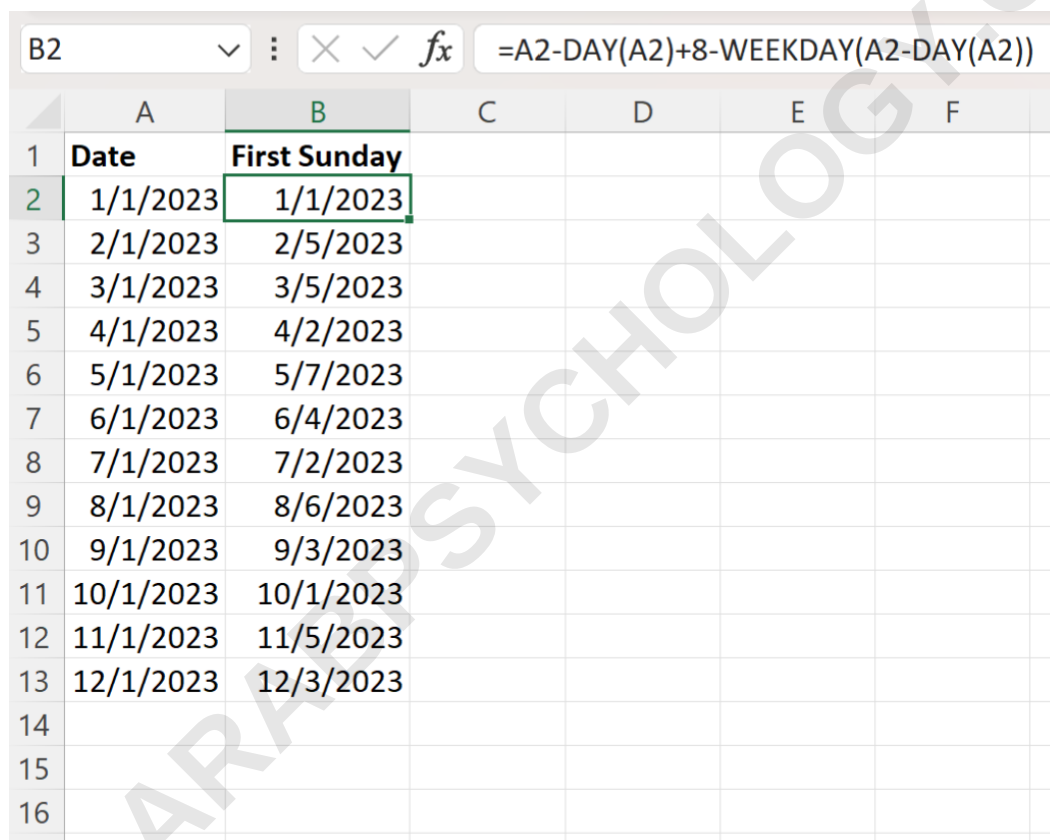
	A	B	C	D	E	F
1	Date					
2	1/1/2023					
3	2/1/2023					
4	3/1/2023					
5	4/1/2023					
6	5/1/2023					
7	6/1/2023					
8	7/1/2023					
9	8/1/2023					
10	9/1/2023					
11	10/1/2023					
12	11/1/2023					
13	12/1/2023					
14						
15						
16						
17						
18						

Our objective is to populate Column B with the date of the first Sunday for each corresponding date

in Column A. We can begin by typing the derived formula into cell **B2** to calculate the first Sunday of the month for the date contained in **A2**. The formula ensures that the calculation is dynamic and references the specific date provided in the source cell:

=A2-DAY(A2)+8-WEEKDAY(A2-DAY(A2))

Once the formula is correctly entered in **B2**, we can utilize Excel's drag-and-fill functionality to apply this calculation across the entire dataset. We simply click and drag the fill handle (the small square at the bottom-right corner of cell B2) down through the remaining cells in column B. This action automatically adjusts the cell references (A2 becomes A3, A4, and so on) ensuring that the first Sunday is calculated for every date listed in column A.



	A	B	C	D	E	F
1	Date	First Sunday				
2	1/1/2023	1/1/2023				
3	2/1/2023	2/5/2023				
4	3/1/2023	3/5/2023				
5	4/1/2023	4/2/2023				
6	5/1/2023	5/7/2023				
7	6/1/2023	6/4/2023				
8	7/1/2023	7/2/2023				
9	8/1/2023	8/6/2023				
10	9/1/2023	9/3/2023				
11	10/1/2023	10/1/2023				
12	11/1/2023	11/5/2023				
13	12/1/2023	12/3/2023				
14						
15						
16						

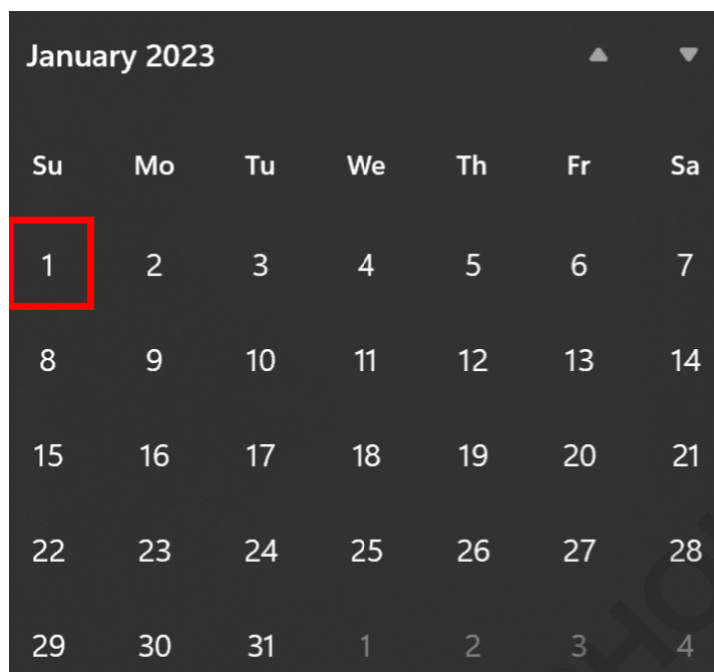
Upon completion of the drag-and-fill operation, Column B now contains the accurate date of the first Sunday of each month corresponding to the input dates in column A. This demonstrates the scalability and efficiency of using a single, robust formula for batch date processing.

Verification of Calculated Results

To ensure the accuracy of our calculation, we must verify the results against a standard calendar reference. Consider the first date in our list: **1/1/2023**. This date falls within the month of January

2023. Our formula yields 1/1/2023 as the first Sunday.

By referring to a calendar for January 2023, we can confirm this result. The first day of the month, January 1st, 2023, was indeed a Sunday. This confirms the formula's effectiveness in identifying the first Sunday, even when it coincides with the first day of the month itself.



A calendar for January 2023. The days of the week are listed at the top: Su, Mo, Tu, We, Th, Fr, Sa. The dates are arranged in a grid. The 1st of January is highlighted with a red box, indicating it is the first Sunday of the month.

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

Similarly, let us examine the next entry: **2/1/2023**, representing the month of February 2023. The formula calculates the first Sunday of February 2023 as **2/5/2023**. This result means that the calculation correctly identified the five-day offset from the beginning of the month (February 1st was a Wednesday).

Consulting the calendar for February 2023 confirms that the first Sunday of that month occurred on February 5th. These verifications validate the mathematical precision of the formula across different starting days of the week, demonstrating that the logic successfully compensates for varying monthly alignments.

February 2023						
Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	1	2	3	4

We can confidently confirm that each date in column B accurately represents the first Sunday of the month for each corresponding date in column A, fulfilling the primary objective of this exercise in Excel date manipulation.

Alternative Method: Using DATE and EOMONTH Functions

While the previous formula is concise, an alternative, arguably more readable method exists, particularly useful when the year and month are supplied in separate cells rather than derived from a single date reference. This approach relies heavily on the DATE function to construct the first day of the month explicitly.

This alternative generalized formula is: `=DATE(YearCell, MonthCell, 1) + 7 - WEEKDAY(DATE(YearCell, MonthCell, 1))`. Here, `DATE(YearCell, MonthCell, 1)` generates the date Serial Number for the first day of the desired month. The subsequent subtraction of the `WEEKDAY` value and addition of 7 ensures the date is advanced to the first Sunday. The `WEEKDAY` value (1 to 7) is subtracted from 7 (to find the offset) and then added to the start date.

A more advanced variation involves using the `EOMONTH` function in conjunction with `WORKDAY.INTL` or similar functions for calculating the Nth weekday, but for finding the first Sunday, the combination of `DATE` and `WEEKDAY` remains the most direct and universally compatible solution across all versions of Excel. Mastery of these core functions is essential for building complex date calculations efficiently.

Summary of Key Concepts and Further Exploration

Successfully deriving the first Sunday of any month hinges on three primary technical concepts within Excel: the use of Serial Number arithmetic, the ability to isolate the first day of the month (using `DATE` or `A2-DAY(A2)+1`), and the precision offered by the WEEKDAY function to determine the required offset.

The methods discussed provide reliable mechanisms for finding not just the first Sunday, but can be adapted to find the first occurrence of any weekday, simply by modifying the offset constant (the `+8` component or the return type argument of the `WEEKDAY` function). For instance, finding the first Monday would require a slight adjustment to the required offset to align with a `WEEKDAY` result of 2 (for Monday).

For those interested in extending their date calculation expertise, the following resources and tutorials explain how to perform other common and complex operations in Excel:

Tutorial on calculating working days between dates.

Guide to using the `EOMONTH` and `EDATE` functions.

Advanced techniques for filtering dates dynamically.