

# How to Easily Add or Subtract Years from Dates in Google Sheets

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Manipulating dates is a core requirement for many data analysis tasks, and [Google Sheets](#) provides robust functionality to handle time-based calculations. While standard arithmetic operations can sometimes suffice, adding or subtracting whole years requires specialized functions to correctly handle complexities such as leap years and varying month lengths. This guide outlines the most precise and efficient method for adjusting dates by whole years using the powerful [EDATE](#) function.

Traditionally, one might consider using the [DATE function](#) combined with the YEAR function to perform these adjustments. This method requires reconstructing the date by taking the original year, adding or subtracting the desired number of years, and then retaining the original month and day. However, this approach is often cumbersome and prone to errors, especially when dealing with dates near the end of a month (like February 29th or 31st). The recommended solution leverages the EDATE function, which inherently manages the complexities of calendar math, ensuring accurate results when moving forward or backward in time by specified intervals.

The core concept relies on EDATE's ability to shift a date by a certain number of months. Since one year is equivalent to twelve months, we can easily convert the desired number of years into a month count by multiplying the year quantity by twelve. This allows for a clean, single-function [formula](#) that simplifies date manipulation significantly, making your spreadsheets more manageable and your data more reliable.

## The EDATE Function: Syntax and Structure

The [EDATE](#) function is designed specifically for calculating a date that is a specified number of months before or after a starting date. Understanding its structure is essential for accurately adding or subtracting years in your spreadsheet calculations. The syntax for the EDATE function is straightforward:

EDATE(start\_date, months)

**start\_date:** This is the initial date from which the calculation begins. This can be a date entered directly, or more commonly, a reference to a [cell](#) containing the date.

**months:** This is the number of months you want to move forward or backward. To move forward (add years), use a positive number. To move backward (subtract years), use a negative number.

Since the function operates on months, and we are aiming to adjust by years, the key conversion factor is 12. If you want to add Y years, the 'months' argument becomes \$Y times 12\$. If you wish to subtract Z years, the 'months' argument becomes \$-Z times 12\$. This conversion factor is what makes the [EDATE](#) function the most practical tool for year-based date shifts in [Google Sheets](#).

## Essential Formulas for Year Adjustment

Below are the two fundamental formulas necessary for rapidly adjusting dates within Google Sheets. These examples assume the starting date is located in cell A1, but this reference should be adjusted based on your data layout. Note the explicit use of **12** as the multiplier to convert years into the required month value for the EDATE function.

### Formula 1: Adding Years to a Date

To calculate a future date by adding a specific number of years, you must use a positive month value. In the example below, we are adding three years to the date stored in A1. The calculation  $12 * (3)$  yields 36 months, effectively shifting the date forward by three years.

**=EDATE(A1, 12\*(3))**

This powerful formula provides the exact date three years after the initial date in A1. To modify this calculation, simply replace the value **3** with the desired number of years you wish to add.

### Formula 2: Subtracting Years from a Date

To calculate a historical date by subtracting a specific number of years, you must use a negative month value. This is achieved by placing a minus sign before the month calculation. The following formula demonstrates how to subtract one year from the date in cell A1. The calculation  $-12 * (1)$  translates to a backward shift of 12 months, or one full year.

**=EDATE(A1, -12\*(1))**

This subtraction formula accurately retrieves the date one year prior to the date specified in A1. You have the flexibility to replace the value **1** with any number of years you need to deduct from the original date, ensuring precise backward calculation.

## Preparing Your Data for Date Calculations

To illustrate the practical application of the EDATE function, we will utilize a sample dataset within a Google Sheets environment. For the purposes of these examples, we assume that your original dates are listed sequentially in Column A, starting from A2. We will use Column C to display the resulting calculated dates, providing a clear comparison between the original date and the adjusted date.

It is important to ensure that the data in Column A is correctly formatted as a date. While Google Sheets often automatically recognizes date formats, confirming this formatting prevents calculation

errors. The dataset used in the following demonstrations appears as follows:

	A	B	C	D	
1	<b>Date</b>	<b>Sales</b>			
2	1/1/2020	12			
3	5/4/2020	15			
4	6/14/2020	7			
5	12/3/2020	8			
6	3/3/2021	8			
7	3/5/2021	4			
8	2/14/2022	9			
9	2/17/2022	14			
10	4/19/2022	17			
11	7/25/2022	20			
12					
13					
14					
15					
16					
17					
18					
19					
20					

This setup allows us to easily implement and test both the addition and subtraction formulas, demonstrating how the relative referencing of the formula updates as it is dragged down the column, processing each row's unique date entry.

### Example 1: Calculating Dates Three Years in the Future

In this first scenario, our objective is to determine the exact date three years after the starting dates listed in Column A. This is particularly useful for tracking expiration dates, future milestones, or renewal periods. We begin by inputting the appropriate formula into the first target cell of our result column, which is C2.

The calculation requires us to reference A2, which contains our start date, and then specify the month increment. Since we are adding three years, we use the multiplier  $12*3$ , resulting in a positive shift of 36 months. The formula entered into C2 is as follows:

**=EDATE(A2, 12\*(3))**

Once the formula is correctly entered into **C2**, we do not need to manually type it again for every row. We utilize the powerful feature of filling down: clicking and dragging the small square handle (the fill handle) at the bottom-right corner of **cell C2** down to the corresponding final row of our dataset. This action automatically adjusts the cell reference (**A2** becomes **A3**, **A4**, and so on) while keeping the fixed month increment constant.

The result of applying this formula across the dataset is clearly visible in the image below. Column **C** now accurately reflects each date in Column **A** with exactly three years added, correctly handling any potential leap year differences implicitly through the **EDATE** function's logic. Notice how the months and days remain identical, only the year is advanced.

	A	B	C	D
1	<b>Date</b>	<b>Sales</b>	<b>Date + 3 Years</b>	
2	1/1/2020	12	1/1/2023	
3	5/4/2020	15	5/4/2023	
4	6/14/2020	7	6/14/2023	
5	12/3/2020	8	12/3/2023	
6	3/3/2021	8	3/3/2024	
7	3/5/2021	4	3/5/2024	
8	2/14/2022	9	2/14/2025	
9	2/17/2022	14	2/17/2025	
10	4/19/2022	17	4/19/2025	
11	7/25/2022	20	7/25/2025	
12				
13				
14				
15				
16				
17				
18				
19				

For customization, if you need to calculate a period other than three years--perhaps five years or ten years--you only need to modify the multiplier within the parentheses. For instance, to add five years, the term would become **12\*(5)**. This flexibility allows for dynamic calculation across various timeframes without altering the fundamental structure of the **EDATE** function.

## Example 2: Calculating Dates One Year in the Past

The process for calculating dates in the past is nearly identical to adding years, with one critical distinction: the 'months' argument must be negative. In this example, we aim to determine the date exactly one year prior to the starting dates in Column A. This is often required for historical analysis, age verification, or tracking annual events that occurred previously.

We place the following formula into cell C2, referencing the starting date in A2. Since we are subtracting one year, we use the value `-12*(1)`, which results in a negative shift of 12 months:

**=EDATE(A2, -12\*(1))**

After entering the formula into C2, we again use the fill handle feature to propagate this calculation down the entire length of the dataset in Column C. This ensures that the calculation is applied universally, subtracting exactly one year from every corresponding date in Column A. The consistent use of relative referencing (A2 changing to A3, A4, etc.) streamlines the data processing.

The visualization below confirms that Column C successfully displays the date exactly one year preceding the corresponding date in Column A. This technique offers a reliable method for retrospective date calculation, ensuring accuracy across all calendar variations, including transitions over leap years.

	A	B	C	D
C2			=EDATE(A2, -12*(1))	
1	<b>Date</b>	<b>Sales</b>	<b>Date - 1 Year</b>	
2	1/1/2020	12	1/1/2019	
3	5/4/2020	15	5/4/2019	
4	6/14/2020	7	6/14/2019	
5	12/3/2020	8	12/3/2019	
6	3/3/2021	8	3/3/2020	
7	3/5/2021	4	3/5/2020	
8	2/14/2022	9	2/14/2021	
9	2/17/2022	14	2/17/2021	
10	4/19/2022	17	4/19/2021	
11	7/25/2022	20	7/25/2021	
12				
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Similar to the addition formula, if you wish to subtract a different number of years--say, five years--you simply adjust the value within the calculation, making it  $-12*(5)$ . The negative sign is crucial as it dictates the direction of the time shift, ensuring that the resulting date is always earlier than the start date.

## Handling Date Formatting and Error Messages

Occasionally, when applying the EDATE function, the resulting cell may display a large number instead of a recognizable date. This is because Google Sheets stores dates as sequential serial numbers, and while the calculation is correct, the cell formatting may default to 'Number' instead of 'Date'.

To fix this, simply select the result column (Column C in our examples), navigate to the Format menu, select 'Number', and choose 'Date' (or 'Custom date and time' for specific display needs). Applying the correct formatting converts the serial number output into a user-friendly date format, completing the calculation successfully.

Another common issue involves source data errors. If the start date in Column A is blank or contains non-date text, the EDATE function will return an error, often #VALUE!. Always verify that your input data is valid. Using data validation or conditional formatting can help identify and correct invalid date entries before running complex calculations.

## Conclusion: The Efficiency of EDATE for Annual Shifts

While various complex workarounds exist, utilizing the EDATE function in conjunction with the 12-month multiplier provides the most robust, cleanest, and most accurate method for adding or subtracting whole years in Google Sheets. This technique simplifies calendar mathematics, eliminating the need to manually account for changing years, months, and potential leap year occurrences.

By mastering the simple syntax of `=EDATE(Start_Date, Y * 12)` for addition and `=EDATE(Start_Date, -Z * 12)` for subtraction, you gain precise control over date calculations. This proficiency is vital for anyone managing project timelines, financial forecasts, or historical data within the Google Sheets environment, ensuring that your time-based data remains reliable and easy to audit.