

Learn to Calculate Years and Months Between Dates in Excel

Authored by
Mohammed loot

November 10, 2025

RECOMMENDED CITATION

Mohammed loot (2025). *Learn to Calculate Years and Months Between Dates in Excel*. PSYCHOLOGICAL STATISTICS. Retrieved from <https://statistics.arabpsychology.com/?p=15624>

Mastering Date Calculations in Excel

Analyzing time intervals is a fundamental requirement across various professional domains, from finance and project management to human resources. While [Excel](#) offers many tools for working with time, accurately calculating the precise duration--expressed in whole years and remaining months--between two specific dates requires a sophisticated approach. Standard date subtraction often yields only a total number of days, necessitating further complex conversions. Fortunately, the undocumented but highly reliable **DATEDIF function** provides a clean, elegant solution for this common challenge. This guide will walk you through the essential formula and its practical application, ensuring you can precisely determine the span between any given start and end [date](#).

Understanding the Core Formula: The DATEDIF Function

To calculate the duration separating a start date and an end date, expressed in a combination of full years and residual months, we rely on the powerful, albeit often hidden, **DATEDIF function**. This function is specifically designed to handle chronological difference calculations, providing accurate results that account for leap years and varying month lengths. The formula structure required to display both the total number of full years and the remaining months involves concatenating two separate instances of the [DATEDIF function](#), each using a distinct unit argument.

The standard formula provided below is the most efficient method for achieving this dual calculation. It leverages concatenation operators (&) to merge the calculated years and months into a single, readable text string. This method is preferred over attempting to manipulate date serial numbers directly, as it abstracts the complexity inherent in date arithmetic.

=DATEDIF(A2, B2,"y")&" years "&DATEDIF(A2, B2,"ym")&" months"

Specifically, this comprehensive [formula](#) is structured to derive the time elapsed between the start date located in cell **A2** and the designated end date found in cell **B2**. The result is returned as a textual description, such as "16 years 11 months." This output format is highly useful for reporting and display purposes where clarity is paramount. For instance, if **A2** contains **January 4, 2005**, and **B2** contains **January 1, 2022**, the formula successfully calculates the precise span, returning the result **16 years 11 months**, demonstrating its accuracy in [Excel](#) date calculation scenarios.

Breakdown of the DATEDIF Arguments and Units

The efficiency of the [DATEDIF function](#) lies in its third argument, known as the unit code, which specifies the type of interval to be returned. To calculate years and months simultaneously, we must utilize two distinct unit codes within the overall concatenated formula. Understanding these

unit codes is crucial for precise control over the output of the date calculation.

The first part of the formula, `DATEDIF(A2, B2, "Y")`, is responsible for determining the total number of complete years that have elapsed between the two dates. The unit code "Y" instructs [Excel](#) to count only the full annual cycles. Any remaining months or days that do not constitute a full year are disregarded in this segment of the calculation. This ensures that the year component of the output is accurate and based solely on completed 365-day periods (or 366 in the case of a leap year).

Conversely, the second critical part of the formula, `DATEDIF(A2, B2, "ym")`, calculates the remaining months after the full years have been accounted for. The unit code "ym" is specifically designed to exclude years and return the difference in months. This is often referred to as the "modulus" or remainder calculation. It calculates how many additional months lie between the start and end dates, once the number of full years (derived by the "y" unit) has been subtracted from the total time span. This precise combination of arguments provides a robust and reliable method for presenting elapsed time in a human-readable format, combining both the major (years) and minor (months) chronological units effectively.

Step-by-Step Practical Example in Excel

To illustrate the effectiveness and ease of use of this [formula](#), consider a practical scenario where a spreadsheet contains a list of important project start dates and corresponding completion or observation end dates. Our objective is to populate a new column with the exact duration between these pairs of dates, using the years and months format we have defined.

Imagine we have the following dataset established in an [Excel](#) worksheet. Column A holds the Start Date, and Column B holds the End Date. We intend to use Column C to display the calculated difference. The initial setup might look similar to the illustration below, showing various date pairings:

	A	B	C	D	E
1	Start Date	End Date			
2	1/4/2005	1/1/2022			
3	3/15/2007	3/15/2022			
4	4/14/2008	4/18/2022			
5	4/19/2008	4/19/2022			
6	6/20/2013	5/20/2022			
7	7/10/2015	6/10/2022			
8	7/11/2016	6/15/2022			
9	8/14/2016	7/29/2022			
10	8/15/2017	10/30/2022			
11	9/12/2018	12/23/2022			
12					
13					
14					
15					
16					

The goal is to calculate the number of full years and the remaining partial months that separate the start date in A2 from the end date in B2, and then apply this calculation down the entire dataset. We initiate the process by typing the following complete formula directly into cell **C2** (assuming the result is needed in column C):

=DATEDIF(A2, B2, "y")&" years "&DATEDIF(A2, B2, "ym")&" months"

Once the formula is entered into C2, we execute the calculation. The crucial next step is to efficiently apply this logic to the entire range of data. Utilizing [Excel](#)'s powerful autofill feature, we simply click and drag the fill handle (the small square at the bottom-right corner of cell C2) down the column. This automatically adjusts the cell references (A2 and B2 become A3 and B3, A4 and B4, and so on) for each subsequent row, ensuring the calculation is performed accurately for every date pair in the list. This streamlined process quickly populates the entire column with the desired results.

Analyzing the Calculated Results

Upon applying the autofill feature, Column C is immediately populated, providing a clear and comprehensive overview of the duration between all listed start and end dates. This visualization

confirms that the [DATEDIF function](#) correctly interprets the time span, returning the number of full years and the remaining months for each respective row. The result set demonstrates the effectiveness of concatenating the results of the "y" and "ym" units.

The resulting table, shown below, clearly indicates the successful execution of the date calculation. For instance, examining the first row, we see the output "16 years 11 months," confirming the span between the two dates. This output is far more informative and user-friendly than a simple numerical difference or a decimal representation of years, which would require manual interpretation.

C2 : =DATEDIF(A2, B2,"y")&" years "&DATEDIF(A2, B2,"ym")&" months "							
	A	B	C	D	E	F	G
1	Start Date	End Date	Years & Months Between Dates				
2	1/4/2005	1/1/2022	16 years 11 months				
3	3/15/2007	3/15/2022	15 years 0 months				
4	4/14/2008	4/18/2022	14 years 0 months				
5	4/19/2008	4/19/2022	14 years 0 months				
6	6/20/2013	5/20/2022	8 years 11 months				
7	7/10/2015	6/10/2022	6 years 11 months				
8	7/11/2016	6/15/2022	5 years 11 months				
9	8/14/2016	7/29/2022	5 years 11 months				
10	8/15/2017	10/30/2022	5 years 2 months				
11	9/12/2018	12/23/2022	4 years 3 months				
12							
13							
14							
15							

It is important to recognize that while the [formula](#) provides a clean text string output, this output is not a numerical value and cannot be directly used in subsequent mathematical operations. If you require the result to be used in further calculations (e.g., multiplying the total years by a rate), you would need to calculate the years and months separately in different cells or modify the formula to return a decimal year value, but for presentation purposes, the current concatenated string is ideal.

Customizing the Output Format

A significant advantage of using the concatenation operator (&) in this formula is the flexibility it affords in formatting the final output. While the default output uses a simple space separator, users frequently prefer standardized punctuation, such as a comma, to improve readability and adherence to stylistic guidelines. Customizing the output only requires a minor adjustment to the text strings embedded within the formula.

If you wish to introduce a comma between the calculated years and the months, you simply modify the text string used in the concatenation immediately following the calculation of years. Specifically, you replace " years " with " years, ". This small change significantly enhances the visual presentation of the result without altering the underlying date calculation logic:

=DATEDIF(A2, B2,"y")&" years, "&DATEDIF(A2, B2,"ym")&" months"

Executing this modified formula across the dataset yields an updated result set where the output is punctuated according to the specified format. This level of control is essential when generating reports or integrating Excel data into other documents where strict formatting standards must be met. The resulting table demonstrates the improved readability achieved by this simple format modification:

	A	B	C	D	E	F	G
1	Start Date	End Date	Years & Months Between Dates				
2	1/4/2005	1/1/2022	16 years, 11 months				
3	3/15/2007	3/15/2022	15 years, 0 months				
4	4/14/2008	4/18/2022	14 years, 0 months				
5	4/19/2008	4/19/2022	14 years, 0 months				
6	6/20/2013	5/20/2022	8 years, 11 months				
7	7/10/2015	6/10/2022	6 years, 11 months				
8	7/11/2016	6/15/2022	5 years, 11 months				
9	8/14/2016	7/29/2022	5 years, 11 months				
10	8/15/2017	10/30/2022	5 years, 2 months				
11	9/12/2018	12/23/2022	4 years, 3 months				
12							
13							
14							
15							

As illustrated, the output in Column C now clearly displays the duration with a comma separator, making the distinction between the years and months clearer for the reader. This adaptability confirms the versatility of combining the powerful, hidden [DATEDIF function](#) with standard text concatenation techniques available in [Excel](#) for superior date handling.

Conclusion and Additional Resources

Calculating the precise duration between two dates, expressed in full years and remaining months, is a common requirement in data analysis. By mastering the structure of the concatenated **DATEDIF formula** using the "y" and "ym" unit codes, users can bypass the complexities of

traditional date arithmetic. This technique ensures accuracy and provides a highly readable output suitable for professional reports and dashboards. Remember that the key to success lies in correctly specifying the start date, the end date, and the appropriate unit code for each part of the calculation.

Note: The [DATEDIF function](#) is not officially documented in all versions of Excel's function library, yet it remains fully operational and is the standard method used by experts for this specific type of date difference calculation. For comprehensive details regarding all available unit codes and technical specifications, we highly recommend consulting the official Microsoft documentation.

Additional Resources for Excel Mastery

For those looking to expand their proficiency in handling dates, times, and other complex data tasks within [Excel](#), the following resources and tutorials provide further explanations on related common tasks:

Tutorial on calculating working days between two dates.

Guide to using the **NETWORKDAYS** function effectively.

Explanation of date formatting rules and custom number formats.

Exploring these advanced topics will solidify your understanding of date handling capabilities within the spreadsheet environment.