

How to extract last 3 words from cell in Excel?

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The ability to efficiently analyze and manipulate textual data is paramount in modern data management. Often, users working within Excel spreadsheets encounter the challenge of isolating specific components from longer text strings. A common requirement is to perform targeted data extraction, such as retrieving only the final few words of a lengthy description or title. Historically, this task required complex nested formulas involving functions like **RIGHT**, **LEN**, and **SUBSTITUTE**.

However, with recent updates to Microsoft 365, Excel has introduced powerful new tools specifically designed for String Manipulation. This tutorial focuses on the most straightforward and elegant method available today for solving this specific problem: how to extract the last three words from a cell quickly and accurately using the specialized **TEXTAFTER** function. We will guide you through the formula application, demonstrate a practical example, and deeply explore the logic behind this efficient new feature.

Introducing the Efficient TEXTAFTER Function

For users utilizing modern versions of Excel (specifically those with access to Microsoft 365 subscriptions), the task of isolating text based on a delimiter has been drastically simplified. The **TEXTAFTER** function allows users to specify a point in a text string--defined by a character or substring--and extract all text appearing immediately after that point. Crucially, this function supports reverse searching, making it ideal for targeting the end segment of a string.

To extract the last three words from a cell, we instruct the **TEXTAFTER** function to look backward from the end of the text until it locates the third-to-last space. Since words are typically separated by spaces, using the space character (" ") as the delimiter effectively isolates the desired components. The formula structure is remarkably concise and readable, providing a significant advantage over previous, cumbersome solutions.

You can use the following concise formula in Excel to extract the last 3 words from cell **A2**:

```
=TEXTAFTER(A2, " ", -3)
```

This particular formula extracts the last 3 words from cell **A2**. The key to its operation lies in the use of the negative instance number, which we will analyze in depth shortly. This simple structure replaces what previously might have required a complex arrangement of four different nested functions, streamlining String Manipulation tasks significantly.

Detailed Practical Example and Visualization

To illustrate the efficiency and practical application of the **TEXTAFTER** function, let us walk

through a typical scenario involving a column of phrases. Imagine you are working with a dataset where column A contains various product descriptions, sentences, or phrases of varying lengths. Our objective is to populate column B with only the final three words of the corresponding entry in column A.

Suppose we have the following column of phrases in Excel:

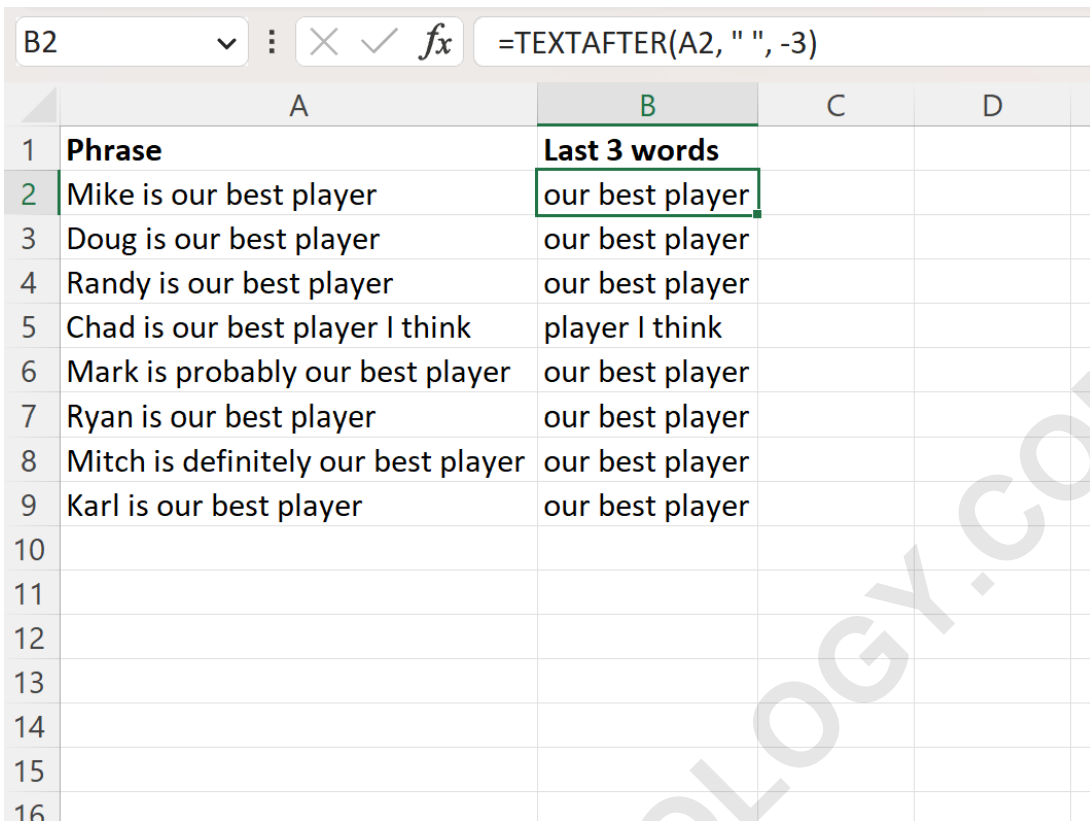
	A	B	C	D
1	Phrase			
2	Mike is our best player			
3	Doug is our best player			
4	Randy is our best player			
5	Chad is our best player I think			
6	Mark is probably our best player			
7	Ryan is our best player			
8	Mitch is definitely our best player			
9	Karl is our best player			
10				
11				
12				
13				
14				
15				
16				
17				

Our goal is to extract the last 3 words from each cell in column A, starting with the entry in cell A2. This process exemplifies how modern TEXTAFTER function significantly reduces the manual effort required for targeted data extraction across large datasets.

We begin by typing the following formula into cell **B2**:

=TEXTAFTER(A2, " ", -3)

Once the formula is entered into B2, it immediately returns the desired substring. The final step involves applying this logic to the rest of the column. Leveraging Excel's autofill capabilities, we can click and drag this formula down to each remaining cell in column B:



	A	B	C	D
1	Phrase	Last 3 words		
2	Mike is our best player	our best player		
3	Doug is our best player	our best player		
4	Randy is our best player	our best player		
5	Chad is our best player I think	player I think		
6	Mark is probably our best player	our best player		
7	Ryan is our best player	our best player		
8	Mitch is definitely our best player	our best player		
9	Karl is our best player	our best player		
10				
11				
12				
13				
14				
15				
16				

As demonstrated in the resulting table, Column B now contains precisely the last 3 words extracted from each corresponding cell in column A. This method ensures high accuracy and consistency, regardless of the overall length of the original text string in column A.

Exploring the Flexibility of the Formula

An important operational characteristic of this formula is its inherent flexibility. While this guide specifically addresses the extraction of the last 3 words, the formula is easily adaptable to extract any number of trailing words. The numerical value **-3** within the function dictates how many delimiters (spaces) Excel counts backward from the end of the text string.

Note: You can replace the value **3** in the formula with any positive integer value (*n*) you'd like to instead extract the last *n* words. For instance, using **-5** would extract the last five words, while using **-1** would retrieve only the very last word of the string. This adaptability makes the **TEXTAFTER** function a versatile tool for various text processing needs within your spreadsheets.

Understanding the TEXTAFTER Syntax and Arguments

A deeper comprehension of the **TEXTAFTER** function's structure is necessary to fully exploit its capabilities for advanced String Manipulation. The function follows a well-defined syntax, requiring

specific arguments to operate correctly. The official syntax structure is as follows:

TEXTAFTER(text, delimiter, , , ,)

While the function accepts up to six arguments, we typically only need the first three for this specific task:

TEXTAFTER(text, delimiter, , ...)

where:

text: This is the required argument specifying the source text string or cell reference containing the text to be searched (e.g., **A2**).

delimiter: This required argument defines the character or substring after which the text should be extracted. Since we are dealing with words, we use a space (" ").

instance_num (optional): This argument determines which instance of the delimiter should be used as the cutting point. The default value is 1, counting from the start. A negative number here instructs the function to count from the end of the string.

Exploring the Power of Negative Instance Numbers

The core innovation that makes the **TEXTAFTER function** so powerful for extracting text from the end of a string is the support for negative values within the `instance_num` argument. When a positive number is supplied, TEXTAFTER function begins searching from the left (the start of the text). For example, an `instance_num` of 2 would extract all text after the second occurrence of the space delimiter.

However, when we supply a negative value, such as **-3**, the function reverses its counting direction. It starts searching from the right side (the end of the text string). The value **-3** specifies that we are interested in the text that appears after the *third to last space* encountered in the string. If a string has 10 words, there are 9 spaces. Counting back three spaces leaves the final three words of the string remaining.

This simple mechanism bypasses the need for complex calculations involving total string length (using **LEN**) and identifying the position of the required space (using a combination of **FIND** and **SUBSTITUTE**), which were hallmarks of legacy methods. By using **-3**, we are instructing the formula to logically segment the string at the precise boundary that isolates the last three words.

Alternative Methods for Legacy Excel Versions

It is important to acknowledge that the **TEXTAFTER function** is not available in all versions of Excel, particularly those predating the Microsoft 365 continuous update model. For users operating

on older perpetual license versions (like Excel 2019, 2016, or earlier), achieving the same result requires constructing a significantly more complex formula utilizing established string functions. Understanding this alternative is crucial for ensuring compatibility across different working environments.

The standard legacy approach involves three core steps: first, replacing all spaces with a unique, long string of characters to make the final spaces identifiable; second, calculating the position of the start of the three words; and third, using the **RIGHT** function to extract the required number of characters. A typical legacy formula to extract the last three words from cell A2 might look something like this:

```
=RIGHT(A2, LEN(A2) - FIND("^^^^", SUBSTITUTE(A2, " ", "^", LEN(A2) - LEN(SUBSTITUTE(A2, " ", "")) + 1 - 3)))
```

This comparison starkly highlights the immense benefit provided by the introduction of the **TEXTAFTER** function. The legacy method is prone to error, difficult to debug, and nearly impossible to read quickly. If you have access to Microsoft 365, utilizing the modern function is unequivocally the recommended best practice for clarity and maintainability. If you are constrained by an older version, extreme care must be taken when implementing the nested **RIGHT/LEN/SUBSTITUTE** approach for accurate data extraction.

Conclusion and Final Recommendations

Extracting specific components from text strings, such as the last few words, is a fundamental task in data cleaning and analysis within spreadsheet applications. The introduction of the **TEXTAFTER** function has revolutionized how this is performed in modern Excel. By providing a clean, single-function solution utilizing negative instance numbers, users can achieve highly specific String Manipulation results with minimal complexity.

We strongly recommend verifying that your Excel environment supports the **TEXTAFTER** function. If it does, adopting the formula `=TEXTAFTER(A2, " ", -3)` is the clearest, fastest, and most robust method for isolating the last three words of any text cell. This efficiency allows data professionals to spend less time troubleshooting complex formulas and more time analyzing the extracted information.

Note: You can find the complete official documentation for the TEXTAFTER function on the Microsoft Support website, where further details on optional arguments and error handling are provided.