

What steps do I need to follow in Excel to create a LET function?

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To create a LET function in Excel, follow these steps:

1. Open your Excel spreadsheet and select the cell where you want the LET function to be placed.
2. In the formula bar, type "=LET(" to begin the function.
3. Next, enter the name of the variable you want to use, followed by a comma. For example, "x," "y," or "z."
4. Then, enter the value or formula for that variable, followed by a comma. For example, "=A1+1" or "5."
5. Repeat this process for each variable you want to include in the function, separating each with a comma.
6. Once all variables and values have been entered, type the formula or expression that you want the function to calculate, followed by a closing parenthesis. For example, "=LET(x,5,y,10,x+y)".
7. Press the enter key to finalize the function. The result will be displayed in the selected cell.
8. To make changes to the function, simply click on the cell containing the function and edit the formula in the formula bar.
9. You can also use the LET function in other formulas by referencing the cell containing the function. For example, "=SUM(A1, LET(x,5,y,10,x+y))".

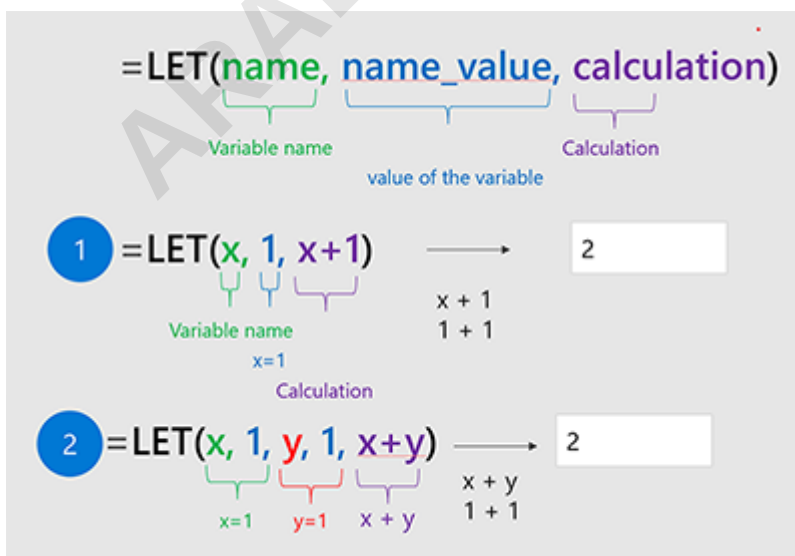
By following these steps, you can easily create and use a LET function in Excel to simplify complex calculations and make your spreadsheet more efficient.



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The LET function assigns names to calculation results. This allows storing intermediate calculations, values, or defining names inside a formula. These names only apply within the scope of the LET function. Similar to variables in programming, LET is accomplished through Excel's native formula syntax.

To use the LET function in Excel, you define pairs of names and associated values, and a calculation that uses them all. You must define at least one name/value pair (a variable), and LET supports up to 126.



Benefits

Improved Performance If you write the same expression multiple times in a formula, Excel calculated that result multiple times. LET allows you to call the expression by name and for Excel to calculate it once.

Easy Reading and Composition No more having to remember what a specific range/cell reference referred to, what your calculation was doing or copy/pasting the same expression. With the ability to declare and name variables, you can give meaningful context to yourself and consumers of your formula.

=LET(name1, name_value1, calculation_or_name2,)

Argument	Description
name1 Required	The first name to assign. Must start with a letter. Cannot be the output of a formula or conflict with range syntax.
name_value1 Required	The value that is assigned to name1.
calculation_or_name2 Required	One of the following: A calculation that uses all names within the LET function. This must be the last argument in the LET function. A second name to assign to a second name_value. If a name is specified, name_value2 and calculation_or_name3 become required.
name_value2 Optional	The value that is assigned to calculation_or_name2.
calculation_or_name3 Optional	One of the following: A calculation that uses all names within the LET function. The last argument in the LET function must be a calculation. A third name to assign to a third name_value. If a name is specified, name_value3 and calculation_or_name4 become required.

Notes:

The last argument **must** be a calculation which returns a result.

Names of variables align with valid names that can be used in the name manager. E.g. "a" is valid but "c" is not because it conflicts with R1C1 style references.

Examples

Example 1

Consider the simple expression "SUM(x, 1)" where x is a named variable that can be assigned a

value (in this case, x is assigned the value 5).

=LET(x, 5, SUM(x, 1))

When this formula is input into a cell, it will return the value 6.

Example 2

Suppose you have some raw sales data, and you'd like to filter that data to show one person, and add a dash to any blank cells.

Unfiltered Data				Filtered Data			
Rep	Region	Product	Profit	Rep	Region	Product	Profit
Amy	East	Apple	\$ 1.33	Fred	South	Banana	\$ 1.91
Fred	South	Banana	\$ 0.09	Fred	North	-	\$ 0.34
Amy	West	Mango	\$ 1.85	Fred	West	Banana	\$ 0.66
Fred	North		\$ 0.82	Fred	North	Mango	\$ 1.10
Fred	West	Banana	\$ 1.25				
Amy	East	Apple	\$ 0.72				
Fred	North	Mango	\$ 0.54				

While the above can be done without a LET, using LET improves readability of the formula and computes twice as fast as without LET.

Sample data

Copy the following table to cell A1 of a blank worksheet if you'd like to walk through this example yourself.

Rep	Region	Product	Profit
Amy	East	Apple	\$1.33
Fred	South	Banana	\$0.09
Amy	West	Mango	\$1.85
Fred	North		\$0.82
Fred	West	Banana	\$1.25
Amy	East	Apple	\$0.72
Fred	North	Mango	\$0.54

Original Formula

```
=IF(ISBLANK(FILTER(A2:D8,A2:A8="Fred")), "-", FILTER(A2:D8,A2:A8="Fred"))
```

Formula using LET

```
=LET(filterCriteria,"Fred", filteredRange, FILTER(A2:D8,A2:A8=filterCriteria),  
IF(ISBLANK(filteredRange), "-", filteredRange))
```

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