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**Bureautic**

**Excel® – Some new functions**

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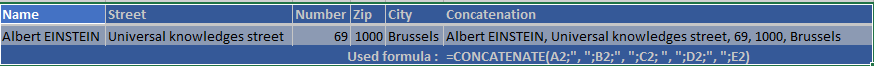
# Some new calculation functions

1. Source: Office® Blog

6 new Excel functions that simplify your formula editing experience

## TEXTJOIN

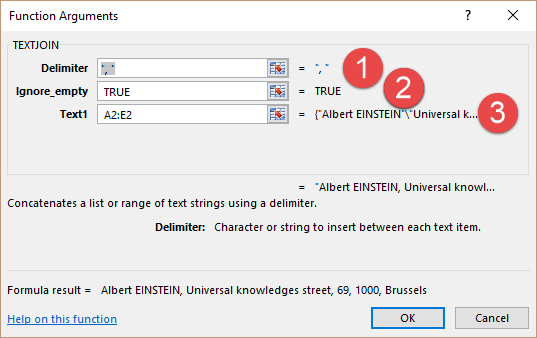
The old-fashioned way:



The new way to join text strings using TEXTJOIN:



Where:



* 1. The string of character(s) you want to use as delimiter. In this case a period followed by a space (, )
  2. Do you want to ignore empty cells? Then the answer is TRUE
  3. The range of cells you want to chain.

## CONCAT

This function replaces the CONCATENATE function. However, the CONCATENATE function will stay available for compatibility with earlier versions of Excel.

Important This function is available if:

You are an Office 365 subscriber and have the latest version of Office installed on your PC.

## IFS

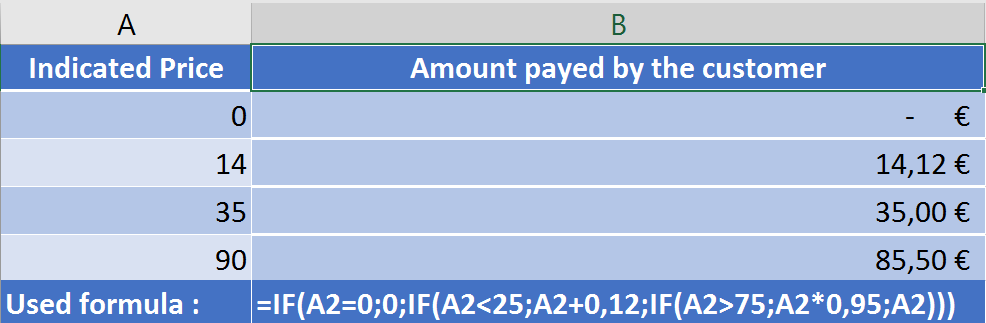
The new IFS and SWITCH functions give you an alternative to using a series of nested IF functions, like “IF(IF(IF()))”, when you have more than one condition that you want to test to find a corresponding result. The IF function is one of the most commonly used functions in Excel, and using IF inside IF (nested IF functions) has been a common practice in Excel, but it can be challenging or confusing at times.

## Let’s take an example

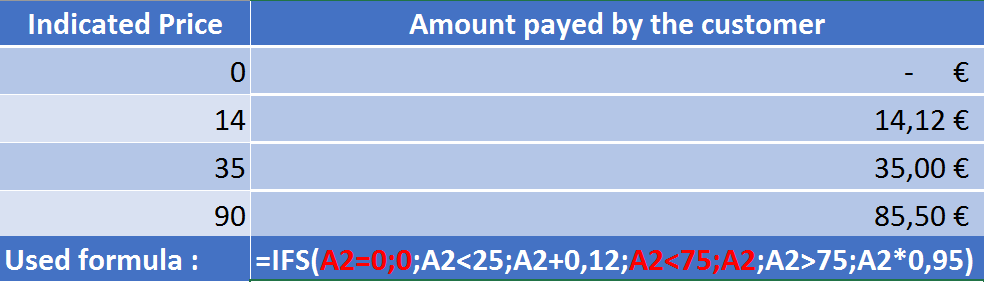
Somebody comes in my shop and buy something

If the price:

1. is less than 25,00 €, the customer will pay 0,12 € for using the electronic payment system
2. is between 25,00 € and 75,00 € the customer will pay the full price
3. is greater then 75,00 € he will receive a 5,00% discount



The advantage of using the new IFS functions is that you can specify a series of conditions in a single function. Each condition is followed by the result that will be used if the condition is true—making it very straightforward to create and read the formula afterward.



## SWITCH

The SWITCH function also handles multiple conditions. What makes it different is that rather than specifying a series of conditional statements, you specify an expression and a series of values and results. The values are compared to the expression, and when the first exact match is found, the corresponding result is applied to the cell. You can also specify a “default” result that will be returned if none of the values are an exact match for the expression. The advantage of the SWITCH function is that you can avoid repeating the expression over and over, which sometimes happens in nested IF formulas.

In the example below, the first part of the formula extracts the size code (i.e. XS, M and G) from the middle of the item in column B. It’s rather long, so it’s nice that SWITCH only needs it to be written once and it can be compared to a list of values.

The example below can be explained as:

Extract the size code from the item in column B. If it equals “XS”, the result is “Extra Small.” Otherwise, if it equals “S”, the result is “Small” and so on. If there’s no match, the result is “Not Specified.”

The same result could be calculated using nested IF functions, but it would be significantly longer, as shown below.

|  |  |
| --- | --- |
| **Item** | **Size Code** |
| 1023115-XL-Red | XL |
| 10045-S-Blue | S |
| 10045-M-Green | M |
| 10045-G-Red | G |
| 115-2X-Blue | 2X |
| 3225-XS-Blue | XS |
| **Used formula** | **=MID(A8;SEARCH("-";A8)+1;SEARCH("-";A8;SEARCH("-";A8)+1)-SEARCH("-";A8)-1)** |
|  |  |
| **Size Code** | **Size description** |
| XL | Extra Large |
| S | Small |
| M | Medium |
| G | Large |
| 2X | Double XL |
| XS | Extra Small |
|  |  |
| **Item** | **Size Code** |
| 1023115-XL-Red | Extra Large |
| 10045-S-Blue | Small |
| 10045-M-Green | Medium |
| 10045-G-Red | Large |
| 115-2X-Blue | Double XL |
| 3225-XS-Blue | Extra small |
| 456-5B-Blue | Not specified |
| **Used formula** | **=SWITCH(MID(A25;SEARCH("-";A25)+1;SEARCH("-";A25;SEARCH("-";A25)+1)-SEARCH("-";A25)-1); "XS";"Extra small";"S";"Small";"M";"Medium";"G";"Large";"XL";"Extra Large";"2X";"Double XL";"Not specified")** |
|  |  |
| **Item** | **Size Code using the "IF" function** |
| 1023115-XL-Red | Extra large |
| 10045-S-Blue | Small |
| 10045-M-Green | Medium |
| 10045-G-Red | Large |
| 115-2X-Blue | Double XL |
| 3225-XS-Blue | Extra small |
| 456-5B-Blue | Not specified |
| **Used formula** | **=IF(MID(A35;SEARCH("-";A35)+1;SEARCH("-";A35;SEARCH("-";A35)+1)-SEARCH("-";A35)-1)="XS";"Extra small"; IF(MID(A35;SEARCH("-";A35)+1;SEARCH("-";A35;SEARCH("-";A35)+1)-SEARCH("-";A35)-1)="S";"Small"; IF(MID(A35;SEARCH("-";A35)+1;SEARCH("-";A35;SEARCH("-";A35)+1)-SEARCH("-";A35)-1)="M";"Medium"; IF(MID(A35;SEARCH("-";A35)+1;SEARCH("-";A35;SEARCH("-";A35)+1)-SEARCH("-";A35)-1)="G";"Large"; IF(MID(A35;SEARCH("-";A35)+1;SEARCH("-";A35;SEARCH("-";A35)+1)-SEARCH("-";A35)-1)="XL";"Extra large"; IF(MID(A35;SEARCH("-";A35)+1;SEARCH("-";A35;SEARCH("-";A35)+1)-SEARCH("-";A35)-1)="2X";"Double XL";"Not specified"))))))** |

## MAXIFS and MINIFS

If you’re familiar with COUNTIFS, SUMIFS and AVERAGEIFS, then MAXIFS and MINIFS don’t need much explanation. The classic MAX and MIN functions calculate the maximum or minimum value in a range, but what if you need to apply conditions to filter your data? This is precisely what MAXIFS and MINIFS allow. You can specify one or more conditions that filter the data before calculating the max or min. The conditions can be applied to adjacent ranges or the range that contains the values.

