

Formula Tab

Functions

Average Function

The AVERAGE function simply returns the arithmetic mean of all the cells in a given range:

=AVERAGE(number1, [number2], ...)

SUM function

The SUM function in excel adds the numerical values in a range of cells.

=SUM(number1, [number2], ...)

MIN Function

The MIN function is categorized under Excel Statistical functions. MIN will return the minimum value in a given list of arguments

=MIN(number1, [number2], ...)

MAX Function

The MAX function is categorized under Excel Statistical functions. MIN will return the maximum value in a given list of arguments

=MAX(number1, [number2], ...)

PRODUCT function

PRODUCT function returns the product of numbers provided as arguments. The PRODUCT function is helpful when multiplying many cells together. The formula

=PRODUCT(A1:A3)

Logical Functions

IF function

The IF function in Excel performs a logical comparison between two values. The result of the IF

function is either TRUE or FALSE. For example, we can test if the value in cell B2 is greater than the value in cell A2. If so, the result is TRUE, if not, the result is FALSE.

An IF function in Excel consists of 3 components:

A logical test, using an operator sign for logical comparison;

A value to return if the logical test results in TRUE;

A value to return if the logical test results in FALSE.

```
=IF(A1>B2; "TRUE"; "FALSE")
```

Nested IF Function

The IF function can be nested inside of itself to handle multiple conditions. In the example shown, a nested IF formula is used to assign a grade to a score. The formula in D5 contains 5 separate IF functions:

```
=IF(C5<64,"F",IF(C5<73,"D",IF(C5<85,"C",IF(C5<95,"B","A"))))
```

VLOOKUP Function

VLOOKUP stands for 'Vertical Lookup'. It is a function that makes Excel search for a certain value in a column (the so called 'table array'), in order to return a value from a different column in the same row. This article will teach you how to use the VLOOKUP function.

A VLOOKUP function exists of 4 components:

The value you want to look up;

The range in which you want to find the value and the return value;

The number of the column within your defined range, that contains the return value; 0 or FALSE for an exact match with the value your are looking for; 1 or TRUE for an approximate match.

```
=VLOOKUP([value], [range], [column number], [false or true])
```

HLOOKUP Function

HLOOKUP in Excel stands for 'Horizontal Lookup'. It is a function that makes Excel search for a certain value in a row (the so called 'table array'), in order to return a value from a different row in the same column.

A HLOOKUP function in Excel exists of 4 components:

The value you want to look up;

- a. The range in which you want to find the value and the return value;
- b. The number of the row within your defined range, that contains the return value; 0 or FALSE for an exact match with the value your are looking for; 1 or TRUE for an approximate match.

Syntax: HLOOKUP([value], [range], [row number], [false or true])

TEXT FUNCTIONS

LEFT Function

The LEFT function in Excel returns the specified number of characters (substring) from the start of a string.

=LEFT(text, [num_chars])

- Text: The text string that contains the characters to be extracted.
- Num_chars: The number of characters to be extracted from the string starting from the leftmost side.

The RIGHT function

The RIGHT function is a text string function that gives the number of characters from the right side of the string

=RIGHT(text, [num_chars])

- Text: The text string that contains the characters to be extracted.
- Num_chars: The number of characters to be extracted from the string starting from the rightmost side.

MID Function

MID function in Excel is designed to pull a substring from the middle of the original text string. Technically speaking, the MID function returns the specified number of characters starting at the position you specify.

=MID(text, start_num, num_chars)

- Text is the original text string.
- Start_num is the position of the first character that you want to extract.
- Num_chars is the number of characters to extract.

LEN Function

The function will return the length of a given text string.

=LEN(text)

The LEN function uses only one argument:

1. Text (required argument) – This is the text for which we wish to calculate the length.