

NIELIT Gorakhpur

Course Name: O Level (1st Sem)

Subject: ITTNB

Topic: Functions [continued]

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Libreoffice [Calc]

Category of function:-

Mathematical functions:- The Mathematical functions include trigonometric, hyperbolic, logarithmic and summation functions. For example INT, ABS, **ROUND, ROUNDDOWN, ROUNDUP**, EVEN, ODD,

INT():- Rounds a number down to the nearest integer. Syntax

INT(Number)

Returns Number rounded down to the nearest integer.

Negative numbers round down to the integer below.

Example =INT(5.7) returns 5.

=INT(-1.3) returns -2.

ABS():- Returns the absolute value of a number. Syntax: ABS(number)
number is the number whose absolute value is to be calculated. The absolute value of a number is its value without the +/- sign.

Example:

ABS(-56) returns 56.

ABS(12.3) returns 12.3.

ABS(0) returns 0.

ROUND():- Rounds a number to a certain precision. Syntax: ROUND(number; places) returns number rounded to places decimal places. If places is omitted or zero, the function rounds to the nearest integer. If places is negative, the function rounds to the nearest 10, 100, 1000, etc.

This function rounds to the nearest number. Example:

ROUND(2.348; 2) returns 2.35

ROUND(2.348; 0) returns 2

ROUND(2.5) returns 3

ROUND(987.65; -2) returns 1000

ROUNDDOWN():- Rounds a number down, toward zero, to a certain precision. Syntax:

ROUNDDOWN(number; places) returns number rounded down (towards zero) to places decimal places. If places is omitted or zero, the function rounds down to an integer. If places is negative, the function rounds down to the next 10, 100, 1000, etc.

Example:

ROUND

DOWN(1.234; 2) returns 1.23

ROUND

DOWN(45.67; 0) returns 45

ROUND

DOWN(-45.67) returns -45

ROUND

DOWN(987.65; -2) returns 900

ROUNDUP():-Rounds a number up, away from zero, to a certain precision Syntax:

ROUNDUP(number; places) returns number rounded up (away from zero) to places decimal places. If places is omitted or zero, the function rounds up to an integer. If places is negative, the function rounds up to the next 10, 100, 1000, etc.

Example:

ROUNDUP(1.1111; 2) returns 1.12

ROUNDUP(1.2345; 1) returns 1.3

ROUNDUP(45.67; 0) returns 46

ROUNDUP(-45.67) returns -46

ROUNDUP(987.65; -2) returns 1000

EVEN():-Rounds a number up, away from zero, to the next even integer. EVEN(number) returns number rounded to the next even integer up, away from zero.

Example:

EVEN(2.3) returns 4.

EVEN(2) returns 2.

EVEN(0) returns 0.

EVEN(-0.5) returns -2.

ODD():-Rounds a number up, away from zero, to the next odd integer.

Syntax: ODD(number) returns number rounded to the next odd integer up, away from zero.

Example: ODD(1.2) returns 3.

ODD(1) returns 1.

ODD(0) returns 0.

ODD(-3.1) returns -5.

CEILING():-Returns a number rounded up to a multiple of another number. Syntax:

CEILING(number; mult; mode)

number is the number that is to be rounded up to a multiple of mult.

If mode is zero or omitted, CEILING rounds up to the multiple above (greater than or equal to) number.

If mode is non-zero, CEILING rounds up away from zero. This is only relevant with negative numbers. Use mode=1 for compability if you have negative numbers and wish to export to MS Excel. In MS Excel this function only takes two arguments.

Example:

CEILING(4; 3) returns 6, because $2 \times 3 = 6$ is the next multiple of 3 above 4.

CEILING(6; 3) returns 6.

CEILING(-11; -2) returns -10, rounding to the multiple above.

CEILING(-11; -2; 1) returns -12, because with mode=1 the function rounds away from zero.

FLOOR():-Returns a number rounded down to a multiple of another number. Syntax:FLOOR(number; mult; mode)

number is the number that is to be rounded down to a multiple of mult.

If mode is zero or omitted, FLOOR rounds down to the multiple below (more negative than or equal to) number. If mode is non-zero, FLOOR rounds down towards zero. This difference is only relevant with negative numbers.

Use mode=1 for compability if you have negative numbers and wish to export to MS Excel. In MS Excel this function only takes two arguments.

Example:

FLOOR(8; 3) returns 6, because $2 \times 3 = 6$ is the first multiple of 3 below 8.

FLOOR(6; 3) returns 6.

FLOOR(-11; -2) returns -12, rounding to the multiple below.

FLOOR(-11; -2; 0) returns -12.

FLOOR(-11; -2; 1) returns -10, because with mode=1 the function rounds towards zero.