Number Functions

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Tableau Desktop Reference Guide

Number functions perform mathematical functions on numbers and return the result as another number. Number functions are useful when a simple math function was not already performed in the underlying data.

When you join or blend data sources, you can have some records with no value (null) in the shared field. You cannot do math with null values, but you can use the ZN function to replace null values with zero (0), which will then allow you to perform any required math functions.

Examples

These are some examples of common number functions:

Function Syntax	Purpose	Example
ABS(number)	Returns the absolute value of a number.	**ABS**(**[Profit Variance]**) returns 10 if the [**Profit Variance]** value is 10 or –10.
ROUND(number, **[decimals]**) **CEILING** and **FLOOR** are similar	Rounds the number to the number of decimal points specified or to the next whole number if none are specified.	**ROUND**(**[Test Score]**) returns 92 if the **[Test Score]** is between 91.5 and 92.4
MIN(expression) or **MIN** (expr1, expr2) **MAX** is similar	Returns the minimum of a single expression across all records, or the minimum of the two expressions for each record.	**MIN**(**[Quantity]**) returns 42 if that is the smallest value for **[Quantity]**.
ZN(expression)	Returns the expression if it is not null, otherwise it returns zero.	**ZN**(**[Return Quantity]**) is 2 if the value of **[Return Quantity]** is equal to 2, and 0 if **[Return Quantity]** is null.

Many other common mathematical functions are available and include:

Function	Purpose
DIV, **SIGN**, **SQRT**, **SQUARE**	Basic math functions
ACOS, **ASIN**, **ATAN**, **ATAN2**, **COS**, **COT**, **SIN**, **TAN**	Trigonometric functions
DEGREES, **RADIANS**	Angular conversion
HEXBINX, **HEXBINY**	Mapping
EXP, **LN**, **LOG**, **POWER**	Power and logarithmic functions
PI	Math constant