**Numeric Functions**

# Definition and Usage

The ABS() function returns the absolute (positive) value of a number.

# Syntax

ABS(*number*)

Return the absolute value of a number:

SELECT ABS(-243.5);

# Definition and Usage

The AVG() function returns the average value of an expression.

**Note:** NULL values are ignored.

# Syntax

AVG(*expression*)

## Example

Return the average value for the "Price" column in the "Products" table:

SELECT AVG(Price) AS AveragePrice FROM Products;

# Definition and Usage

The CEIL() function returns the smallest integer value that is bigger than or equal to a number.

## Example

Return the smallest integer value that is greater than or equal to 25.75:

SELECT CEIL(25.75);

The CEILING() function returns the smallest integer value that is bigger than or equal to a number.

## Example

Return the smallest integer value that is greater than or equal to 25.75:

SELECT CEILING(25.75);

# Definition and Usage

The COUNT() function returns the number of records returned by a select query.

**Note:** NULL values are not counted.

# Syntax

COUNT(*expression*)

## Example

Return the number of products in the "Products" table:

SELECT COUNT(ProductID) AS NumberOfProducts FROM Products;

# Definition and Usage

The DIV function is used for integer division (x is divided by y). An integer value is returned.

# Syntax

*x* DIV *y*

## Example

Integer division (10/5):

SELECT 10 DIV 5;

The FLOOR() function returns the largest integer value that is smaller than or equal to a number.

Return the largest integer value that is less than or equal to 25.75:

SELECT FLOOR(25.75);

# Definition and Usage

The GREATEST() function returns the greatest value of the list of arguments.

## Example

Return the greatest value of the list of arguments:

SELECT GREATEST(3, 12, 34, 8, 25);

# Definition and Usage

The LEAST() function returns the smallest value of the list of arguments.

## Example

Return the smallest value of the list of arguments:

SELECT LEAST(3, 12, 34, 8, 25);

# Definition and Usage

The MAX() function returns the maximum value in a set of values.

## Example

Find the price of the most expensive product in the "Products" table:

SELECT MAX(Price) AS LargestPrice FROM Products;

The MIN() function returns the minimum value in a set of values.

SELECT MIN(Price) AS SmallestPrice FROM Products;

# Definition and Usage

The MOD() function returns the remainder of a number divided by another number.

# Syntax

MOD(*x*, *y*)

## Example

Return the remainder of 18/4:

SELECT MOD(18, 4);

# Definition and Usage

The PI() function returns the value of PI.

## Example

Return the value of PI:

SELECT PI();

# Definition and Usage

The POW() function returns the value of a number raised to the power of another number.

## Example

Return 4 raised to the second power:

SELECT POW(4, 2);

The POWER() function returns the value of a number raised to the power of another number.

**Note:** This function is equal to the POW() function.

## Example

Return 4 raised to the second power:

SELECT POWER(4, 2);

# Definition and Usage

The RAND() function returns a random number between 0 (inclusive) and 1 (exclusive).

# Syntax

RAND(*seed*)

## Example

Return a random decimal number (no seed value - so it returns a completely random number >= 0 and <1):

SELECT RAND();

# Definition and Usage

The ROUND() function rounds a number to a specified number of decimal places.

## Example

Round the number to 2 decimal places:

SELECT ROUND(135.375, 2);

The SQRT() function returns the square root of a number.

# Syntax

SQRT(*number*)

## Example

Return the square root of a number:

SELECT SQRT(64);

# Definition and Usage

The SUM() function calculates the sum of a set of values.

**Note:** NULL values are ignored.

# Syntax

SUM(*expression*)

## Example

Return the sum of the "Quantity" field in the "OrderDetails" table:

SELECT SUM(Quantity) AS TotalItemsOrdered FROM OrderDetails;

# Definition and Usage

The TRUNCATE() function truncates a number to the specified number of decimal places.

Return a number truncated to 2 decimal places:

SELECT TRUNCATE(135.375, 2);