

## 3.2

# Numeric Functions

### ROUND

- The ROUND function has two parameters. The first is a number, usually a DECIMAL or a FLOAT. The second defines the number of decimals to which the number will be rounded.
- If no length is provided, the number is rounded to a whole number.

Table 5. ROUND function

Function	Type	Example	Result
ROUND(number[, length])	Number	ROUND(13.37, 1)	13.4

*Example:*

```
USE world;  
SELECT name, LifeExpectancy, ROUND(LifeExpectancy)  
FROM world.country;
```

*Results:*

```

1 • SELECT name, LifeExpectancy, ROUND(LifeExpectancy)
2   FROM world.country;

```

	name	LifeExpectancy	ROUND(LifeExpectancy)
▶	Aruba	78.4	78
	Afghanistan	45.9	46
	Angola	38.3	38
	Anguilla	76.1	76
	Albania	71.6	72
	Andorra	83.5	84
	Netherlands Antilles	74.7	75
	United Arab Emirates	74.1	74

## FLOOR, CEILING, TRUNCATE

- FLOOR() will return the next lowest whole number no matter what the decimal point.
- CEILING() will return the next highest whole number no matter what the decimal point.
- TRUNCATE() will return the number truncated to the precision specified.

Table 6. FLOOR, CEILING, TRUNCATE functions

Function	Type	Example	Result
FLOOR(number)	number	FLOOR(7.7)	7
CEILING(number)	number	CEILING(6.2)	7
TRUNCATE(NUMBER, length)	number	TRUNCATE(7.9)	7

*Example:*

```

USE bike;
SELECT list_price, FLOOR(list_price), CEILING(list_price),
       TRUNCATE(list_price, 0)
FROM product;

```

*Results:*

The screenshot shows a SQL IDE interface. At the top, there is a toolbar with various icons and a dropdown menu set to "Limit to 1000 rows". Below the toolbar, a list of four SQL statements is displayed:

- 1 • USE bike;
- 2 • SELECT list\_price, FLOOR(list\_price), CEILING(list\_price),
- 3 TRUNCATE(list\_price, 0)
- 4 FROM product;

Below the code editor, there is a "Result Grid" section. It includes a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" checkbox. The result grid itself is a table with the following data:

	list_price	FLOOR(list_price)	CEILING(list_price)	TRUNCATE(list_price, 0)
▶	379.99	379	380	379
	749.99	749	750	749
	999.99	999	1000	999
	2899.99	2899	2900	2899
	1320.99	1320	1321	1320



Miles, M. (n.d.). *Learning MySQL*. EdTech Books.  
[https://edtechbooks.org/learning\\_mysql](https://edtechbooks.org/learning_mysql)