












## How to Use Rounding Functions Tutorial

Functions -> Programming -> Numeric  -> Absolute Value , Round Toward +Infinity , Round Toward -Infinity , Round to Nearest 

Start by opening the Functions palette and selecting the Programming palette. Under Programming select Numeric  where you will find the four commonly used functions Absolute Value , Round Toward +Infinity  (Ceiling Function), Round Toward -Infinity  (Floor Function), and Round to Nearest .

Each of these functions takes in a single numeric input and outputs a numeric value. The three rounding functions all round the input to integer values while the absolute value function simply inverts the parity if the input is a negative value.

The Absolute Value function  is used to convert the input value to a positive parity of the same value. If the input is already positive, the Absolute Value function just passes the input value to the output. If the input value is negative, the Absolute Value function changes the parity from negative to positive and outputs the same value except with a positive parity.

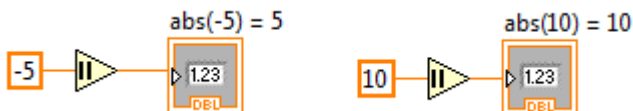




Figure 1

The Round Toward +Infinity  function is the equivalent of the ceiling function in mathematics and will round to the least integer greater than the input value.

The Round Toward -Infinity  function is the equivalent of the floor function in mathematics and will truncate the digits past the decimal and return the largest integer less than the input value.

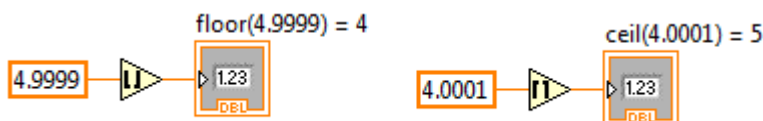



Figure 2

The Round to Nearest  function rounds the input value to the nearest integer. If the value is exactly halfway between two integers, by default the convention is to round up towards the larger integer as shown in Figure 3.

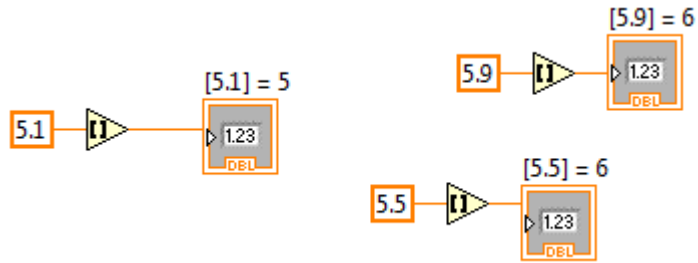


Figure 3