











How to Use Basic Math Operations Tutorial

Functions -> Programming -> Numeric  -> Add , Subtract , Multiply , Divide 

To start, bring up the Functions palette and select the Programming palette.

Select the sub-palette labeled Numeric . In this palette you should see the Add , Subtract , Multiply , and Divide  functions.

Select which ever function you need and place it in your block diagram.

For example, say we want to add 2 and 3 as shown in Figure 1. To do this, we select the add block in the palette and place it in our block diagram. We then connect the two constants “2” and “3” to the inputs of the function.

Now that the constants are connected to the add function, the output of add function should be outputting 5 ($2 + 3 = 5$).

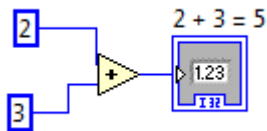


Figure 1

Note that these functions only take two input data values each.

If you want to implement the operation “ $x - y$ ”, for instance, we would have to connect x to the top input of the subtract function and y to the bottom input of the subtract function.

Also note that if you wire two different numeric representations to the inputs of one of the functions, one of the inputs will be converted so that it is the same as the other input so that the representations match.

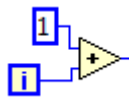


Figure 2

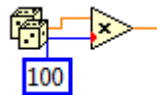


Figure 3

Notice how when we connect the same numeric representations in Figure 2, the add function accepts the inputs and performs the calculation.

In Figure 3, the input data types do not match. Notice the small orange triangle for the I32 data type input. This indicates a coercion to the double data type representation meaning that the data type for that input has been changed to a double to match with the first input.

For the add, subtract, multiply, and divide functions, the numeric representations of the inputs will be coerced appropriately.

Finally you will notice that when connecting inputs to outputs, the wire tool will blink if you are about to establish a connection between inputs and/or outputs. If you incorrectly wire an input to an input or output to an output, the LabView compiler will indicate an error after you wire the terminals.