C++ Operators

Operators are used to perform operations on variables and values.

In the example below, we use the + **operator** to add together two values:

Example

int x = 100 + 50;

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper)

Although the + operator is often used to add together two values, like in the example above, it can also be used to add together a variable and a value, or a variable and another variable:

Example

int sum1 = 100 + 50;        // 150 (100 + 50)  
int sum2 = sum1 + 250;      // 400 (150 + 250)  
int sum3 = sum2 + sum2;     // 800 (400 + 400)

[Try it Yourself »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper2)

C++ divides the operators into the following groups:

* [Arithmetic operators](https://www.w3schools.com/cpp/cpp_operators.asp#arithmetic)
* [Assignment operators](https://www.w3schools.com/cpp/cpp_operators_assignment.asp)
* [Comparison operators](https://www.w3schools.com/cpp/cpp_operators_comparison.asp)
* [Logical operators](https://www.w3schools.com/cpp/cpp_operators_logical.asp)
* Bitwise operators

Arithmetic Operators

Arithmetic operators are used to perform common mathematical operations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Operator** | **Name** | **Description** | **Example** | **Try it** |
| + | Addition | Adds together two values | x + y | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_add) |
| - | Subtraction | Subtracts one value from another | x - y | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_sub) |
| \* | Multiplication | Multiplies two values | x \* y | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_mult) |
| / | Division | Divides one value by another | x / y | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_div) |
| % | Modulus | Returns the division remainder | x % y | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_mod) |
| ++ | Increment | Increases the value of a variable by 1 | ++x | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_inc) |
| -- | Decrement | Decreases the value of a variable by 1 | --x | [Try it »](https://www.w3schools.com/cpp/trycpp.asp?filename=demo_oper_dec) |