

Chapter 2 - operators and Expressions

Operators are used to perform operations on variables and values.

$$\begin{array}{ccccccc} 7 & + & 11 & = & 18 \\ \swarrow & \downarrow & \searrow & & \downarrow \\ \text{operand} & \text{operator} & \text{operand} & & \text{Result} \end{array}$$

Types of operators

- Arithmetic operators → +, -, *, /, %, ++, --
- Assignment operators → =, +=
- Comparison operators → ==, >=, <=
- Logical operators → &&, ||, !
- Bitwise operators → &, | (operates bitwise)

Arithmetic operators cannot work with booleans
% operator can work on floats & doubles

Precedence of operators

The operators are applied and evaluated based on precedence. For example (+, -) has less precedence compared to (*, /). Hence * & / are evaluated first.

In case we like to change this order, we use parenthesis

Associativity

Associativity tells the direction of execution of operators. It can either be Left to Right or Right to left

* / → L to R

+ - → L to R

++, = → R to L