

C/Order of Operations

When mathematical calculations are performed in a program, each operation takes place according to a pre-specified order. This *order of operations* ensures that the code is run the same way every time. This is no different from arithmetic or algebra, but programming has other operators that are less familiar.

In the following table, the operators on the top are run before those on the bottom—therefore, an operation inside parentheses will run first and an assignment will run last:

Name	Symbol	Examples
Parentheses	()	a * (b + c)
Postfix, Unary	++ -- !	a++ --b !c
Multiplicative	* / %	a * b
Additive	+ -	a + b
Relational	> < <= >=	if (a > b)
Equality	== !=	if (a == b)
Logical AND	&&	if (mousePressed && (a > b))
Logical OR		if (mousePressed (a > b))
Assignment	= += -= *= /= %=	a = 44