

C# operation	Arithmetic operator	Algebraic expression	C# expression
Addition	+	$f + 7$	$f + 7$
Subtraction	-	$p - c$	$p - c$
Multiplication	*	$bm$ $\frac{x}{y}$	$b * m$
Division	/	$x / y$	$x / y$
Modulus	%	$r \text{ mod } s$	$r \% s$

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- Order
  - Parenthesis are done first
  - Division, multiplication and modulus are done second
    - Left to right
  - Addition and subtraction are done last
    - Left to right

Algebra:  $z = pr \% q + w / x - y$

C#:  $z = p * r \% q + w / x - y;$

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Operator(s)	Operation	Order of evaluation (precedence)
( )	Parentheses	Evaluated first. If the parentheses are nested, the expression in the innermost pair is evaluated first. If there are several pairs of parentheses “on the same level” (i.e., not nested), they are evaluated left to right.
*, / or %	Multiplication Division Modulus	Evaluated second. If there are several such operators, they are evaluated left to right.
+ or -	Addition Subtraction	Evaluated last. If there are several such operators, they are evaluated left to right.

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## 1.8 Increment and Decrement Operators

- **Increment operator**
  - Used to add one to the variable
  - `x++`
  - Same as `x = x + 1`
- **Decrement operator**
  - Used to subtract 1 from the variable
  - `y--`
- **Pre-increment vs. post-increment**
  - `x++` or `x--`
    - Will perform an action and then add to or subtract one from the value
  - `++x` or `--x`
    - Will add to or subtract one from the value and then perform an action

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