

Operator

A short version

Operators

Typical examples:

+ - / %

Operators

What do you think

$3 + 4$

means in most programming languages (all?)?

Operators

Yes, hardly surprising

$$3 + 4$$

means 3 added by 4. Which gives the result 7.

Operators

It would be stupid of the folks creating a programming language to have different meanings from the one we're used to.

But, sometimes it's not obvious.

Operators

How about

=

we usually think about the mathematical equality when seeing this sign. Or when stating that something has (as in already has) a value.

Operators =

We usually think about the mathematical equality when seeing this sign. Or when stating that something has (as in already has) a value.

In programming this sign mostly means “assignment”.

Operator

```
int nrStudents = 13;
```

```
nrStudents = nrStudents + 1;
```

nrstudents now has the value 14.

This is a very common thing ... so common there's a short version.

Operator

```
int nrStudents = 13;  
nrStudents++;
```

++ is an operator

Operator

variable++

variable--

there's also

++variable

--variable

Operator

$3 + 4$ adds 3 and 4

$3 - 4$ extracts 4 from 3

$3 * 4$ multiplies 3 and 4

$17 / 4$ divides 17 by 4,
only integer kept so in this case 4

Operator

- $3 + 4$ adds 3 and 4, so 7
- $3 - 4$ extracts 4 from 3, so -1
- $3 * 4$ multiplies 3 and 4, so 12
- $17 / 4$ divides 17 by 4,
only integer kept so in this case 4
- $17 \% 4$ what's left after dividing 17 by 4,
in this case 1

Operator

$3.0 + 4.0$ adds 3.0 and 4.0, so 7.0

$3.0 - 4.0$ extracts 4.0 from 3.0, so -1.0

$3.0 * 4.0$ multiplies 3.0 and 4.0, so 12.0

$17.0 / 4.0$ divides 17.0 by 4.0, so 4.25