

# 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