Operators

Next ❯

perators

e used to perform operations on variables and values.

ple below, we use the `+` **operator** to add together two values:

```
10 + 50;
```

Try it Yourself »

Although the `+` operator is often used to add together two values, like in the example above, it can also be used to add together a variable and a value, or a variable and another variable:

Example

```
  int sum2 = sum1 + 250;      // 400 (150 + 250)
  int sum3 = sum2 + sum2;     // 800 (400 + 400)
```


elf »

the operators into the following groups:

tic operators
ıent operators
ison operators
operators
operators

etic Operators

erators are used to perform common mathematical operations.

Name	Description	Example	Try it
Addition	Adds together two values	x + y	Try it »
Subtraction	Subtracts one value from another	x - y	Try it »
* Multiplication	Multiplies two values	x * y	Try it »
/ Division	Divides one value by another	x / y	Try it »
% Modulus	Returns the division remainder	x % y	Try it »
++ Increment	Increases the value of a variable by 1	++x	Try it »
-- Decrement	Decreases the value of a variable by 1	--x	Try it »

ssignment Operators

operators are used to assign values to variables.

ple below, we use the **assignment** operator (=) to assign the value **10** to a d **x**:

);

Try it Yourself »

The **addition assignment** operator (+=) adds a value to a variable:

Example

```
int x = 10;
x += 5;
```

ssignment operators:

Example	Same As	Try it
x = 5	x = 5	Try it »
x += 3	x = x + 3	Try it »
x -= 3	x = x - 3	Try it »
x *= 3	x = x * 3	Try it »
x /= 3	x = x / 3	Try it »
x %= 3	x = x % 3	Try it »
x &= 3	x = x & 3	Try it »
x |= 3	x = x | 3	Try it »
x ^= 3	x = x ^ 3	Try it »
x >>= 3	x = x >> 3	Try it »
x <<= 3	x = x << 3	Try it »

Java Comparison Operators

Comparison operators are used to compare two values. This is important in programming, because it helps us to find answers and make decisions.

The return value of a comparison is either `true` or `false`. These values are known as Boolean values, and you will learn more about them in the Booleans and If..Else chapter.

In the following example, we use the **greater than** operator (`>`) to find out if 5 is greater than 3:

```
:.println(x > y); // returns true, because 5 is higher than 3
```

elf »

	Name	Example	Try it
	Equal to	x == y	Try it »
	Not equal	x != y	Try it »
	Greater than	x > y	Try it »
	Less than	x < y	Try it »
	Greater than or equal to	x >= y	Try it »
	Less than or equal to	x <= y	Try it »

gical Operators

You can also test for `true` or `false` values with logical operators.

Logical operators are used to determine the logic between variables or values:

Operator	Name	Description	Example	Try it
&&	Logical and	Returns true if both statements are true	x < 5 && x < 10	Try it »
||	Logical or	Returns true if one of the statements is true	x < 5 || x < 4	Try it »
!	Logical not	Reverse the result, returns	!(x < 5 &&	

urself With Exercises

se:

with 5 , and print the result.

```
out.println(10    5);
```

nswer »

xercise

Next ❯