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Java Operators

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Java Operators

Operators are used to perform operations on variables and values.

In the example below, we use the **+** **operator** to add together two values:

Example

```
int x = 100 + 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 sum1 = 100 + 50;           // 150 (100 + 50)
int sum2 = sum1 + 250;         // 400 (150 + 250)
int sum3 = sum2 + sum2;        // 800 (400 + 400)
```

[Try it Yourself »](#)

Java divides the operators into the following groups:

- Arithmetic operators
- Assignment operators
- Comparison operators
- Logical operators
- Bitwise operators

Arithmetic Operators

Arithmetic operators are used to perform common mathematical operations.

Operator	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 »

Java Assignment Operators

Assignment operators are used to assign values to variables.

In the example below, we use the **assignment** operator (`=`) to assign the value **10** to a variable called **x**:

Example

```
int x = 10;
```

Try it Yourself »

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

Example

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

Try it Yourself »

A list of all assignment operators:

Operator	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:

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

<	Less than	<code>x < y</code>	Try it »
>=	Greater than or equal to	<code>x >= y</code>	Try it »
<=	Less than or equal to	<code>x <= y</code>	Try it »

Java 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	<code>x < 5 && x < 10</code>	Try it »
	Logical or	Returns true if one of the statements is true	<code>x < 5 x < 4</code>	Try it »
!	Logical not	Reverse the result, returns false if the result is true	<code>!(x < 5 && x < 10)</code>	Try it »

Test Yourself With Exercises

Exercise:

Multiply **10** with **5** , and print the result.

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

[Submit Answer »](#)

Start the Exercise

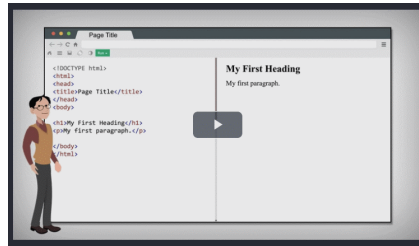
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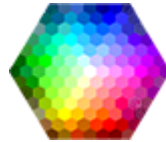
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