

# Operators in Python



**Pankaj Chouhan**  
[www.codeswithpankaj.com](http://www.codeswithpankaj.com)

# Types of Operators in Python

Python has several types of operators.

1. **Arithmetic Operators**
2. **Comparison Operators**
3. **Assignment Operators**
4. **Logical Operators**
5. **Bitwise Operators**
6. **Membership Operators**
7. **Identity Operators**

# 1. Arithmetic Operators

These operators are used for mathematical calculations.

Operator	Meaning	Example
+	Addition	$5 + 3 = 8$
-	Subtraction	$5 - 3 = 2$
*	Multiplication	$5 * 3 = 15$
/	Division	$5 / 2 = 2.5$
%	Modulus (remainder)	$5 \% 2 = 1$
**	Power	$2 ** 3 = 8$
//	Floor Division	$5 // 2 = 2$

## 2. Comparison Operators

These operators compare two values and return True or False.

Operator	Meaning
<code>==</code>	Equal
<code>!=</code>	Not equal
<code>&gt;</code>	Greater than
<code>&lt;</code>	Less than
<code>&gt;=</code>	Greater than equal
<code>&lt;=</code>	Less than equal

# 3. Assignment Operators

These operators are used to assign values to variables.

Operator	Example
<b>=</b>	<b>x = 5</b>
<b>+=</b>	<b>x += 3</b>
<b>-=</b>	<b>x -= 3</b>
<b>*=</b>	<b>x *= 3</b>
<b>/=</b>	<b>x /= 3</b>
<b>%=</b>	<b>x %= 3</b>
<b>**=</b>	<b>x **= 2</b>
<b>//=</b>	<b>x //= 2</b>

## 4. Logical Operators

These operators are used to combine conditions.

Operator	Meaning
<b>and</b>	<b>Both conditions must be True</b>
<b>or</b>	<b>At least one condition True</b>
<b>not</b>	<b>Reverse the result</b>

## 5. Membership Operators

These operators check whether a value exists in a sequence.

Operator	Meaning
<b>in</b>	<b>Value exists</b>
<b>not in</b>	<b>Value does not exist</b>

## 6. Identity Operators

These operators check whether two variables refer to the same object in memory.

Operator	Meaning
<b>is</b>	<b>Same object</b>
<b>is not</b>	<b>Different object</b>