



# ARITHMETIC OPERATORS

## PYTHON BASICS

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# TOPIC OUTLINE

Addition

Subtraction

Multiplication

Division

Modulo

Increment

Decrement



# ARITHMETIC OPERATORS



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Arithmetic operators are used to perform basic mathematical operations on numeric values.

These operators are fundamental to performing calculations and manipulating data in programs.

Unary Operators operates with a single operand (e.g., ++, --).

Binary Operators operates with two operands (e.g., +, -, \*, %).



# ADDITION

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Example:

`a = 5`

`b = 3`

`a + b`

`# output = 8`

The addition (+) operator **adds** two operands.



# SUBTRACTION

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Example:

`a = 10`

`b = 4`

`a - b`

`# output = 6`

The subtraction (-) operator subtracts the second operand from the first.



# MULTIPLICATION

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The multiplication (\*) operator multiplies two operands.

Example:

`a = 7`

`b = 6`

`a * b`

`# output = 42`



# DIVISION

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Example:

`a = 10`

`b = 3`

`a / b`

`# output = 3.333`

The division `//` operator **divides** the first operand by the second.





# FLOOR DIVISION

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For positive numbers, floor division (//) behaves like normal division but discards the fractional part.

For negative numbers, floor division rounds toward negative infinity.

Example:

```
a = 10
```

```
b = 3
```

```
a // b
```

```
# output = 3
```

```
a = 10
```

```
b = -3
```

```
a // b
```

```
# output = -4
```



# MODULO

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The modulo (%) operator returns the **remainder** of the division of the first operand by the second.

Example:

`a = 10`

`b = 3`

`a % b`

`# output = 1`



# INCREMENT

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Example:

**x = 5**

**x+=1**

**# x = 6**

The increment (+=) operator increases the value of a variable by a specified amount.



# DECREMENT

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Example:

**x = 5**

**x-=1**

**# x = 4**

The decrement (-=) operator decreases the value of a variable by a specified amount.



# LABORATORY

