



# 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., `~`, `not`).

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

Example

```
a = 10
```

```
b = 3
```

```
a / b
```

```
# output = 3.333
```





# 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

