Operators

Arithmetic Operators

Used for **math operations**.

```
a = 10
b = 3

print(a + b)   # Addition → 13
print(a - b)   # Subtraction → 7
print(a * b)   # Multiplication → 30
print(a / b)   # Division (float) → 3.333...
print(a // b)  # Floor Division → 3
print(a % b)   # Modulus (remainder) → 1
print(a ** b)  # Exponent (power) → 10^3 = 1000
```

Comparison Operators

Used to **compare values**. Always return True or False.

```
x = 5
y = 10

print(x == y)  # Equal? → False
print(x != y)  # Not Equal? → True
print(x > y)   # Greater than? → False
print(x < y)   # Less than? → True
print(x >= 5)  # Greater or equal? → True
print(y <= 10) # Less or equal? → True
```

Logical Operators

Used to combine **conditions**.

a = True

b = False

print(a and b) # AND → False

print(a or b) # OR → True

print(not a) # NOT → False

Example with numbers:

age = 20

print(age > 18 and age < 30) # True

Assignment Operators

Used to **assign values** (with shortcuts).

x = 5 # normal assignment

x += 3 # same as x = x + 3 → 8

x -= 2 # same as x = x - 2 → 6

x *= 4 # same as x = x * 4 → 24

x /= 3 # same as x = x / 3 → 8.0

x //= 2 # same as x = x // 2 → 4

x %= 3 # same as x = x % 3 → 1

x **= 2 # same as x = x ** 2 → 1