



# COMPUTING FUNDAMENTALS USING PYTHON

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## Python Basics - Operators

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Computer Applications

- + Addition  $x + y$
- - Subtraction  $x - y$
- \* Multiplication  $x * y$
- / Division  $x / y$
- % Modulus  $x \% y$
- \*\* Exponentiation  $x ** y$
- // Floor division  $x // y$

=	x = 5	x = 5
-=	x -= 5	x = x - 5
/=	x /= 5	x = x / 5
//=	x //= 5	x = x // 5

+=	x += 5	x = x + 5
*=	x *= 5	x = x * 5
%=	x %= 5	x = x % 5
**=	x **= 5	x = x ** 5

- Comparison operators are used to **compare values**.
- It either **returns True or False** according to the condition.

- > **Greater than** - True if left operand is greater than the right
- < **Less than** - True if left operand is less than the right
- == **Equal to** - True if both operands are equal
- != **Not equal to** - True if operands are not equal
- >= **Greater than or equal to** - True if left operand is greater than or equal to the right
- <= **Less than or equal to** - True if left operand is less than or equal to the right

# COMPUTING FUNDAMENTALS USING Comparison Operators

Here are few example :→

Output is as shown below:

```
x > y is False
x < y is True
x == y is False
x != y is True
x >= y is False
x <= y is True
```

```
x = 10
y = 12

# Output: x > y is False
print('x > y is',x>y)

# Output: x < y is True
print('x < y is',x<y)

# Output: x == y is False
print('x == y is',x==y)

# Output: x != y is True
print('x != y is',x!=y)

# Output: x >= y is False
print('x >= y is',x>=y)

# Output: x <= y is True
print('x <= y is',x<=y)
```

Logical operators are used to **combine conditional statements**

Operator	Meaning	Example
and	Returns True if both the operands are true	x and y
or	Returns True if either of the operands is true	x or y
not	Return True if operand is false	not x

- Example:

```
x = True  
y = False  
  
print('x and y is',x and y)  
  
print('x or y is',x or y)  
  
print('not x is',not x)
```

### Output:

```
x and y is False  
x or y is True  
not x is False
```



**THANK YOU**

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