Operator

Python operator is a symbol or keyword used to perform an operation on values or variables.

Arithmatic operator

Used for math operation.

```
In [1]:   x1=10
          x2=20
          print(x1+x2) #Addition
```

30

```
In [2]:   print(x2-x1) #Subtraction
```

10

```
In [4]:   print(x1*x2) # Multiplication
```

200

```
In [5]:   print(x1/x2) #Division (float)
```

0.5

```
In [6]:   print(x1//x2) #Floor division (int)
```

0

```
In [7]:   print(x1%x2) # Remainder
```

10

```
In [8]:   print(x1**x2) #Power
```

100000000000000000000

Assignment operator

Used to assign values.

```
In [1]:   x=4 # Assign value
```

```
In [4]:   x=x+2
          x
```

Out[4]:   10

In [5]:
```python
x+=2
x
```

Out[5]: 12

In [6]:
```python
x-=2
x
```

Out[6]: 10

In [7]:
```python
x*=2
x
```

Out[7]: 20

In [8]:
```python
x/=2
x
```

Out[8]: 10.0

In [9]:
```python
x//=2
x
```

Out[9]: 5.0

Relational operator

Used for comparing values.

In [10]:
```python
a=5
b=6
```

In [11]:
```python
a<b # Less than
```

Out[11]: True

In [12]:
```python
a>b # Greater than
```

Out[12]: False

In [13]:
```python
a==b # Equal to
```

Out[13]: False

In [14]:
```python
a!=b #Not equal to
```

Out[14]: True

In [15]:
```python
a<=b #Less than or equal to
```

Out[15]:   True

In [16]:   `a>=b #Greater than or equal to`

Out[16]:   False

Logical operator

Used for combining conditions.

In [20]:   ```
a=5
b=4
```

In [21]:    `a<8 and b<5 #And   (both condition true)`

Out[21]:    True

In [22]:    `a<8 and b<2`

Out[22]:    False

In [23]:    `a<8 or b<2 #or     (any one is true)`

Out[23]:    True

In [24]:    `a>8 or b<2`

Out[24]:    False

# Unary operator

In [28]:    `x=7`

In [29]:    `print(-x)`

    -7

In [30]:    `x=10`

In [31]:    `print(-x)`

    -10

# Bitwise operator

**Used for bit-level operations.**

# Compliment operator(~)

```
In [33]:  ~1100
```

Out[33]: -1101

```
In [34]:  ~1111
```

Out[34]: -1112

```
In [35]:  ~1101
```

Out[35]: -1102

And operator(&)

```
In [37]:  12 & 13
```

Out[37]: 12

```
In [39]:  1100 & 1101
```

Out[39]: 1100

Or operator(|)

```
In [40]:  12|13
```

Out[40]: 13

```
In [41]:  1100|1101
```

Out[41]: 1101

Left shift operator(<<)

```
In [42]:  10<<1
```

Out[42]: 20

```
In [43]:  20<<2
```

Out[43]: 80

Right shift operator(>>)

In [44]: `10>>1`

Out[44]: 5

In [46]: `20>>3`

Out[46]: 2

In [ ]: