**Operators:**

Operators are used to perform operations

**→Arthimetic Operator** (+,-,/,*,//,*\*\*,%)

**Ex:**

**i/p:**a=3

b=3

c=b+a

print(c)

**o/p:**

6

**i/p:**a=3

b=3

c=b-a

print(c)

o/p:

0

**i/p**:a=3

b=3

c=b/a

print(c)

**o/p:**

1.0

**i/p:**a=3

b=3

c=b%a

print(c)

**o/p:**

0

**i/p:**a=3

b=3

c=b\*a

print(c)

**o/p:**

9

**i/p:**a=3

b=3

c=b//a

print(c)

**o/p:**

1

**i/p:**a=3

b=3

c=b\*\*a

print(c)

**o/p:**

27

**→Assignment Operato**r (=,+=,-=,\*=,/=,%=,\*\*=,//=)

**i/p:**a=3

b=3

a+=b

print(a)

**o/p:**

6

**i/p:**a=3

b=3

a-=b

print(a)

**o/p:**

0

**i/p:**a=3

b=3

a/=b

print(a)

**o/p:**

1.0

**i/p:**a=3

b=3

a\*=b

print(a)

**o/p:**

9

**i/p:**a=3

b=3

a%=b

print(a)

**o/p:**

0

**i/p:**a=3

b=3

a//=b

print(a)

**o/p:**

1

**i/p:**a=3

b=3

a\*\*=b

print(a)

**o/p:**

27

**→Comparison Operator** (>,<,>=,<=)

**→Logical Operator** (and,or,not)

And: When Both the are true

Or:When one condition is true output will be executed

Not:true means false,false means true

**→Chaining Operator**

**i/p:**a=10

b=20

c=30

d=40

max=a<b<c<d

print(max)

**o/p:**

True

**i/p:**a=10

b=20

c=30

d=40

max=a<b<c>d

print(max)

**o/p:**

False

**→Membership Operator** (in) & (not in)

**i/p:**l=[1,2,3]

If 3 in l:

print(True)

else:

print(False)

**o/p:**True

**i/p:**l=[1,2,3]

If 5 not in l:

print(True)

else:

print(False)

**o/p:**True

**→Identity Operator** (is) & (is not)

#Checks the address of variable

#should not give in list

**i/p:**a=(10)

b=(10)

print(id(a),id(b))

print(a is b)

**o/p:**True

**i/p:**a=(10)

b=(10)

print(id(a),id(b))

print(a is not b)

**o/p:**False

**→Bitwise Operator** (&,|,^,<<,>>)

**##Right shift (>>)**

Deletes and Adds

**i/p:**a=0b10101 #0b**00**101

b=2

print(a>>b)

**o/p:**5

**##Left shift (<<)**

Not deletes but,adds

**i/p:**

a=0b10101 #0b10101**000**

b=3

print(a<<b)

**o/p:**168

**→Ternary Operator** (True\_Value if condition else False\_Value)

**i/p:**

a=10

b=20

res=a if a>b else b

print(res)

**o/p:**20

**i/p:**

n=20

res=’even’ if n%2==0 else ‘odd’

print(res)

**o/p:**

even