

4/9/25

operators:

* operators are used to perform certain tasks with operands.

* operators such as +, -, >, < .

e.g; $a=3 \rightarrow$ operand.

\hookrightarrow operator

Types of operators:

i) arithmetic operator

Addition $+$

Subtraction $-$

multiplication $*$

Division $/$

modulus $\%$

Floor Division // Exponent **

(ii) comparison / relational operators

Greater than >

Less than <

greater than or equal \geq

less than or equal \leq

Equal to =

not equal to !=

(iii) logical operators:

AND → if both condition are true
then result will be true.

OR → if any one condition true
then result will be true.

NOT → it is reverse the condition
true means false, false means true.

(iv) Assignment operators

= += -= *= /= /= /= **=

(v) bitwise operators

AND &

OR |

NOT ~

Left shift <<

Right shift >>

Power ^

(vi) identity operators

is , is not

(vii) membership operators

in , not in

e.g; ① take 2 input from user and perform all arithmetic operation and print all the outputs.

code:

```
a = float (input ("no1:"))
b = float (input ("no2:"))

c = a+b
d = a-b
e = a*b
f = a/b

print ("Add = ", c)
print ("Sub = ", d)
print ("mult = ", e)
print ("div = ", f)
```

no1: 5

no2 : 3

O/P Add = 8

Sub = 2

mul = 15

div = 1.66

Boolean

* result will be represented by
true (or) false

eg; $x = 15$
 $y = 40$
print ($x < y$)
o/p true

$x = 18$
 $y = 24$
print ($x == y$)
o/p false

table boolean view

a	b	and	or	xor	xnor
0	0	0	0	1	1
0	1	0	1	0	1
1	0	0	1	0	1
1	1	1	1	1	0

a not

0	1
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eg; for logic gates

$a = 7$, $b = 8$

using and

print ($a > 10$ and $b < 10$)
print ($a != 10$ and $b < 10$)

o/p false
True

wiring or

print ($a > 10$ or $b < 10$)
print ($a != 10$ or $b < 10$)

o/p true
true