

Bitwise Operators:

& | ~ >> <<

8 4 2 1

 2^3 2^2 2^1 2^0 1 bit \rightarrow 0,12 bit \rightarrow 0,1,2,33 bit \rightarrow 0,1,2,3,4,5,6,74 bit \rightarrow 0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15 2^0 0 \rightarrow 01 \rightarrow 1 2^1 2^0 0 0 \rightarrow 00 1 \rightarrow 11 0 \rightarrow 21 1 \rightarrow 3

12 = 1 1 0 0

5 = 0 1 0 1

& = 0 1 0 0 = 4

| = 1 1 0 1 = 13

12&5

o/p: 4

12|5

o/p: 13

13 >> 2

1 1 0 1 =13

1 0 1

0 1 =3

13 << 2

1 1 0 1

1 1 0 1 0

1 1 0 1 0 0 = 52

Nested if statement:

Using an if statement inside another if statement is called a nested if.

syntax: if(condition1): # outer if

if(condition2): # inner if

statements of inner if

else:

statements of inner else

else:

statements of inner else

ex: n=int(input())

if(n>=0):

if(n>0):

print("positive")

else:

print("zero")

else:

print("negative")

o/p: 3

positive