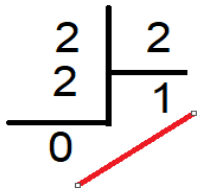
Python Bitwise Operators

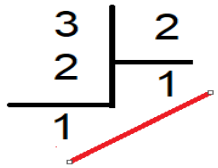
Bitwise operator works on bits and performs bit by bit operation.

Operator	Descriptions	Example
^ Binary XOR	❖ **It copies the bit if it is set in one operand but not both** www.tutorialspoint.com ❖ **Sets each bit to 1 if only one of two bits is 1** www.w3schools.com	**A=60 ➔ A=001111** **B=13 ➔ B=1011** **A^B=49 ➔ A^B=100011**

مثال:



➔ 2==10



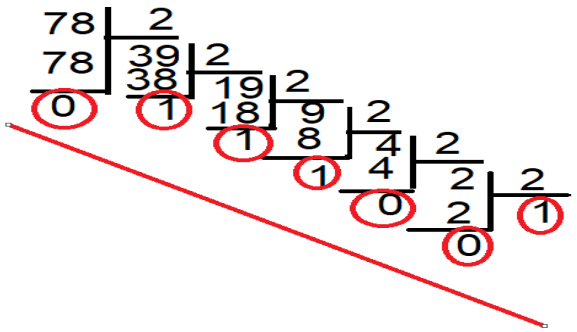
➔ 3==11

2^3==10^11 ➔ 01

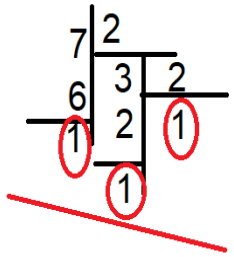
1*(2**0) =1 ➔ 1+0=1 اثبات

0*(2**1) =0

مثال:



➔ 78==0111001



➔ 7==111

78^7==1001110^111 ➔ 1001001

1*(2**0) = 1

0*(2**1) = 0

0*(2**2) = 0

1*(2**3) = 8

0*(2**4) = 0

0*(2**5) = 0

1*(2**6) = 64

➔1+8+64=73

مثال ها در پایتون:

```
A=60
B=13
C=A^B
print(f"A ^ B = {C}")
```

```
A ^ B = 49
```

```
A=2
B=3
C=A^B
print(f"A ^ B = {C}")
```

```
A ^ B = 1
```

```
A=78
B=7
C=A^B
print(f"A ^ B = {C}")
```

```
A ^ B = 73
```