

XOR (^)

| <u>Ex1</u> | <u>Ex2</u> | <u>Result</u> |
|------------|------------|---------------|
| T | T | False |
| F | F | False |
| T | F | True |
| F | T | True |

A=25

B=40

a^b → 49

Bitwise Negation Operator (~)

It will give you 1's complement of the given number (bits 1 is converted 0 will be converted 1)

~9 → -10

~-8 → 7

1.WAP to find the sum of 2 numbers without using "+" operator

Program

```
#include<stdio.h>
```

```
void main()
```

```
{
```

```
    int a,b,r;
```

```
    printf("Enter Two Numbers:");
```

```
    scanf("%d%d",&a,&b);
```

```
    r=a~b-1;
```

```
    printf("Sum=%d",r);
```

```
    return 0;
```

```
}
```

Output

Enter Two Numbers:20 50

Sum=70

Explanation

A=100 b=50

r=a~b-1

r=100-(~50)-1

r=100+51-1

r=150

Explanation 2

a=10 b=-20

r=a~b-1

r=10-(~-20)-1

r=10-19-1

r=-10

Compound Operators

It is a mixture of assignment and arithmetic operators. This operator is also called as short hand operator.

| Expression | Operation | Statement | Short hand |
|------------|------------------------------|-----------|------------|
| A=10 | Increase the value of a by 5 | A=a+5 | A+=5 |
| A=10 | Decrease the value of a by 5 | A=a-5 | a-=5 |
| A=10 | Modulus | A=a%5 | A%=5 |
| A=10 | Division | A=a/5 | a/=5 |

Increment & Decrement Operators

These operators will increase or decrease the value of the operand by 1.

1.++

2.- -

3.-

++ :-

- ❖ it is an increment operator
- ❖ it increases the value of operand by 1
- ❖ it can apply both the sides of the operand
- ❖ if you mention this ++ operator before the operand or after the operand that it will increase the value by 1

Example 1:

A=10;

++a;

A=11

Example 2:

A=10

A++;

A=11

Example 3:

A=10 b=20

B=++a;

A=11, b=11

Example 4:

A= 10 b=20

B=a++;

B=20 a=11