**ASSIGNMENT 7 SOLUTION**



first\_num = 10

second\_num = 5

addition = first\_num + second\_num

subtraction = first\_num - second\_num

multiplication = first\_num \* second\_num

division = first\_num / second\_num

print(addition)

print(subtraction)

print(multiplication)

print(division)

2. ‘/’ used for float division and ‘//’ used for int division.

print(5/2) --> 2.5

print(5 // 2) --> 2

1. ‘\*\*’ used for exponentiation and ‘^’ used as a XOR operator.

print(3\*\*2) --> 9

print(3^2) --> 1

2. AND operator
3. OR operator
4. NOT operator

## Left Shift(<<)

It is a binary operator that takes two numbers, left shifts the bits of the first operand, and the second operand decides the number of places to shift. **Syntax: a << b**

**Example:** Let’s take **a=5**; which is **101** in Binary Form. Now, if “*a is left-shifted by 2*” i.e **a=a<<2** then **a** will become **a=a\*(2^2)**. Thus, **a=5\*(2^2)=20** which can be written as **10100.**

## Right Shift(>>)

It is a binary operator that takes two numbers, right shifts the bits of the first operand, and the second operand decides the number of places to shift.

**Syntax:**

a >> b;

**Example:** let’s take **a=5**; which is **101** in Binary Form. Now, if “a is right-shifted by 2” **i.e a=a>>2** then **a** will become **a=a/(2^2)**. Thus, **a=a/(2^2)=1** which can be written as **01**.



arr\_int = [1,2,3,4,5,6,7,8,9,10,11,12,13,14,15]

print(len(arr\_int))

if 10 in arr\_int:

print("10 is present")

else:

print("10 is not present")