 Q1: Write a program for arithmatic operators.

Ans:

a = int(input("Enter 1st Number: "))

b = int(input("Enter 2nd Number: "))

c = a + b

print("Add:", c)

print("Sub:", a - b)

print("Multiplication:", a \* b)

print("Division:",a/b)

print("Mod:",a%b)

Output:

Enter 1st Number: 10

Enter 2nd Number: 20

Add: 30

Sub: -10

Multiplication: 200

Division: 0.5

Mod: 10

Q2: Write a program for assignment operators.

Ans:

x = int(input("Enter an initial value for x: "))

print("\nInitial value of x:", x)

x += 5

print("After x += 5, x =", x)

x -= 3

print("After x -= 3, x =", x)

x \*= 2

print("After x \*= 2, x =", x)

x /= 4

print("After x /= 4, x =", x)

x //= 2

print("After x //= 2, x =", x)

x %= 3

print("After x %= 3, x =", x)

x \*\*= 2

print("After x \*\*= 2, x =", x)

Q3: Write a program for Bitwise operators.

Ans:

a = int(input("Enter the first number: "))

b = int(input("Enter the second number: "))

bitwise\_and = a & b

print(f"{a} & {b}3 = {bitwise\_and} (Bitwise AND)")

bitwise\_or = a | b

print(f"{a} | {b} = {bitwise\_or} (Bitwise OR)")

bitwise\_xor = a ^ b

print(f"{a} ^ {b} = {bitwise\_xor} (Bitwise XOR)")

bitwise\_not\_a = ~a

bitwise\_not\_b = ~b

print(f"~{a} = {bitwise\_not\_a} (Bitwise NOT of {a})")

print(f"~{b} = {bitwise\_not\_b} (Bitwise NOT of {b})")

bitwise\_left\_shift\_a = a << 2

bitwise\_left\_shift\_b = b << 2

print(f"{a} << 2 = {bitwise\_left\_shift\_a} (Left shift of {a} by 2)")

print(f"{b} << 2 = {bitwise\_left\_shift\_b} (Left shift of {b} by 2)")

bitwise\_right\_shift\_a = a >> 2

bitwise\_right\_shift\_b = b >> 2

print(f"{a} >> 2 = {bitwise\_right\_shift\_a} (Right shift of {a} by 2)")

print(f"{b} >> 2 = {bitwise\_right\_shift\_b} (Right shift of {b} by 2)")

Output:

Enter the first number: 10

Enter the second number: 5

10 & 53 = 0 (Bitwise AND)

10 | 5 = 15 (Bitwise OR)

10 ^ 5 = 15 (Bitwise XOR)

~10 = -11 (Bitwise NOT of 10)

~5 = -6 (Bitwise NOT of 5)

10 << 2 = 40 (Left shift of 10 by 2)

5 << 2 = 20 (Left shift of 5 by 2)

10 >> 2 = 2 (Right shift of 10 by 2)

5 >> 2 = 1 (Right shift of 5 by 2)

Q4: Write a program to calculate greatest of three numbers.

Ans:

a = int(input("Enter 1st number: "))

b = int(input("Enter 2nd number: "))

c = int(input("Enter 3rd number: "))

if a > b and a > c:

print("a is the greatest number")

elif b > c:

print("b is the greatest number")

else:

print("c is the greatest number")