OPERATORS:

#arithmetic operation

num1 =input('Enter a first no ')

num2 =input('Enter second no ')

mod= num1 % num2

mul= num1 \* num2

add= num1 + num2

suc= num1 - num2

div = num1 / num2

exp = num1 \*\* num2

print(' mod of two no is ',mod)

print(' multiply of two no is ',mul)

print(' addition of two no is ',add)

print(' substraction of two no is ',suc)

print(' divition of two no is ',div)

print(' exponential of two no is ',exp)

#relational operator

print(num1>num2)

print(num1<num2)

print(num1!=num2)

print(num1>=num2)

print(num1<=num2)

print(num1==num2)

#logicl operator

x=True

y=False

print('x and y is',x and y)

print('x or y is',x or y)

print('not x is',not x)

#bitwise operator

print('Bitwise and of x and y is',x&y)

print('Bitwise or of x and y is',x|y)

print('Bitwise not of x is',~x)

print('Bitwise xor of x and y is',x^y)

print('Bitwise 2 right shift of x is',x>>y)

print('Bitwise 2 left shift of x is',x<<y)

#assignment operator

x=5

print('the x value is ',x)

x+=5

print('additional assignment of x', x)

x-=5

print('Subtraction assignment of x', x)

x\*=5

print('multiplicational assignment of x',x)

x/=5

print('divitional assignment of x ',x)

x%=5

print('modules assignment of x ',x)

x=5

x//=5

print('floor divitional assignment of x',x)

x=5

x\*\*=5

print('exponential assignment of x',x)

#identity operators

x=5

y=5

print(x is not y)

print(x is y)

#membership operator

x='Hello world'

print('H' in x)

print('2' in x)

print('2' not in x)

**STRING MANIPULATION:**

word= "Hello World"

print word

#Accessing

word= "Hello World"

letter = word[0]

print letter

#length

print len(word)

#finding char count

print word.count('l')

#finding char

print word.find("H")

#finding index

print word.index("World")

#Replacing

word = "Hello world"

print word.replace("Hello", "Goodbye")

#upperCase

print word.upper()

#Reversing

string = "Hello world"

print ' '.join(reversed(string))

#join

print ":".join(word)

**QUADRATIC EQUATION**

from math import sqrt

print("Quadratic function:a\*x^2+b\*x+c")

a=float(input("a:"))

b=float(input("b:"))

c=float(input("c:"))

r=b\*\*2-4\*a\*c

if r>0:

num\_roots=2

x1=(((-b)+sqrt(r))/(2\*a))

x2=(((-b)+sqrt(r))/(2\*a))

print("There are two roots:%f and %f"%(x1,x2))

elif r==0:

num\_roots=1

x=(-b)/2\*a

print("There is one root:",x)

else:

num\_roots=0

print("No roots,discriminat<0")

exit()