Running python script and various expression

Aim: To Run python script and various expressions in an intereactive interpreter.

a. Create a python program to enter two numbers and then performs and displays the results of the following operations: addition, subtraction, multiplicat and division.

Algorithm:

1. Start

2. Get the two number and store it in variable x and y

3. For Addition do: x+y and print it.

4. For Subtraction do: x-y and print it.

5. For multiplication do: x*y and print it.

6. For division do: x/y and print it.

7. Stop

Program:

```
x = int(input("Enter the first number:"))
y = int(input("Enter the second number:"))
add = x+y
sub = x-y
mul = x*y
div = x/y
print("Addition:",add)
print("subtraction:",sub)
print("multiplication:",multiply)
```

Enter the first number : 5
Enter the second number : 6
Addition: 11
Subtraction : -1
Multiplication: 30
Division : 0.83333

print("Division:", div)

Result:

Thus The Python program for the various arithmetic operations is successfully completed

output:
—

Enter the first number: 5

Enter the second number: 7

Enter the third number: 7

```
5>6 is false
7<6 is True
7==5 is False
7!=6 is True
57=6 is False
6<=5 is False
```

b. Create a python program to enter two numbers and then performs and displays the result of the following relational : > , < , == , != , =; 7= K=

Algorithm:

1. Start
2. Get the input from the user and store it in a,b,c.
3. Perform the relational operations.
4. Print the results.
5. Stop.

Program:

```
# initializing value of a,b,c
a = int(input("Enter the first number:"))
b = int(input("Enter the second number:"))
c = int(input("Enter the third number:"))

print(a, ">", b, "is", a>b)
print(a, "<", b, "is", a<b)
print(c, "==", a, "is", c==a)
print(c, "!=", b, "is", c!=b)
print(a, ">=", b, "is", a>=b)
print(b, "<=", a, "is", b<=a)
```

Result: Thus the python program for to. perform and dresults verified for the >, !<,==,!=;7=, <= is successfully completed.

output:

Side a = 8 cm.

Side b = 6.cm

Side c = 4 cm.

The area of the triangle is 11.62 square cm

TASK 1:C

Lavanya wants to calculate the area of a scalenne triangle with side of the length 8cm 6cm and 4cm.

Aim:-

To write a python program to find the area of a triangle when the lengths of all three sides are giving using Herus formula.

Algorithm:

1. Start

2. Accept or assign the length of three sides a,b and c

3. Calculate the semi perimeter.

$$S = \frac{a+b+c}{2}$$

4. Use Heron's formula to calculate the area

$$Area = \sqrt{S(S-a)(S-b)(S-c)}$$

5. Display area of the triangle

6. End

Program:

import match.

Step Assign side lengths

a = 8
b = 6
c = 4

S = (a+b+c)/2
area = math.sqrt (S^a (S-a) * (S-b) * (S-c))
print ("The area of the triangle v:" round (area,2) " square cm")

Result:

Thus the python program to find area of a triangle when the length of all three sides of successfully verified.