**+Lab Exercise – 1**

Q1: Write a Python program which accept the radius of a circle from the user and compute the area.

def CircleArea(r):

print(f"Area of Circle with radious {r} is {(22/7)\*r\*r}.")

radious= float(input("Enter radious: "))

CircleArea(radious)

Sample Output :   
r = 1.1  
Area = 3.8013271108436504

Q2: Temperature of a city in Fahrenheit degrees is input through the keyboard. Write a program to convert this temperature into Centigrade degrees.

def tempConversion(fahrenheit):

degrees=(fahrenheit-32)\*(5/9)

print(f"Temperature in Fahrenheit is {fahrenheit} which is equal to

{degrees} degrees")

Fahrenheit= float(input("Enter Temperature in Fahrenheit: "))

tempConversion(Fahrenheit)

Q3: Write a Python Program to make a simple calculator that can add, subtract, multiply and divide

def calculator(a,b):

print(f"Addition of given numbers is: {a+b}")

print(f"Subtraction of given numbers is: {a-b}")

print(f"Multiplication of given numbers is: {a\*b}")

print(f"Division of given numbers is: {a/b}")

number1= float(input("Enter number-1: "))

number2= float(input("Enter number-2: "))

calculator(number1,number2)

Q4: Write a Python Program to calculate the square root

def squareroot(num):

print(f"Square root of given number is: {num\*\*(0.5)}")

number= float(input("Enter number: "))

squareroot(number)

Q5: Write a Python Program to Solve the quadratic equation ax\*\*2 + bx + c = 0

# Coeffients a, b and c are provided by the user

[Hint: import complex math module - import cmath]

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

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

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

m=-b;

r1=(m+(b\*\*2-4\*a\*c)\*\*(0.5))/(2\*a)

r2=(m-(b\*\*2-4\*a\*c)\*\*(0.5))/(2\*a)

print("Roots of quadratic equation: ",r1,r2);

Q6: Write a Python Program to find the area of triangle

# Three sides of the triangle a, b and c are provided by the user

def triangleArea(a,b,c):

s=(a+b+c)/2; #semiperimeter

area=(s\*(s-a)\*(s-b)\*(s-c))\*\*(0.5)

print(f"Area of triangle is: {area}")

side1= float(input("Enter side-1: "))

side2= float(input("Enter side-2: "))

side3= float(input("Enter side-3: "))

triangleArea(side1,side2,side3)

Q7: If a five-digit number is input through the keyboard, write a program to calculate the sum of its digits without using any loop. (Hint: Use the modulus operator ‘%’)

def sumOfFiveDigitNumber(number):

sum=0

sum=sum+number%10; number=number//10

#first part takes the reminder and add to sum and second part reduces the number

sum=sum+number%10; number=number//10

sum=sum+number%10; number=number//10

sum=sum+number%10; number=number//10

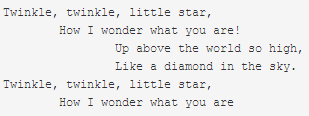
sum=sum+number%10; number=number//10

print("Sum of digits: ",sum);

num=int(input("Enter 5 digit number: "))

sumOfFiveDigitNumber(num)

Q8: Write a Python program to print the following string in a specific format



x='''Twinkle, twinkle, little star,

How I wonder what you are!

Up above the world so high,

Like a diamond in the sky.

Twinkle, twinkle, little star,

How I wonder what you are!'''

print(x)

Q9: Write a Python program to display your details like name, age, address in three different lines.

name=input("Enter name: ")

Age=input("Enter age: ")

Address=input("Enter address: ")

print(f"\nName is: {Name}\nAge is: {Age}\nAddress is: {Address}")