G. H. Raisoni College Of Engineering And Management, Wagholi Pune

2021- 2022

Group A :-Assignment no :- 2

Department	CE [SUMMER 2022 (Online)]		
Term / Section	III/B	Date Of **submission**	07-10-2021
Subject Name /Code	Python for Data Science / UCSP204		
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Registration Number	2020AC0E1100107		

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Group A - Assignment No 2

Aim :→

(a) Write a program that prompts the user to input the radius of a circle and output the area (πr^2) and the circumference ($2\pi r$) of the circle

(b) Suppose a, b and c denote the lengths of the sides of a triangle Then the area of the triangle can be calculated using the formula:

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

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

Write a program that takes the input From user as length of sides of the triangle and print the area.

Theory :-

Math

Python also has a build-in module called math, which executes a list of mathematical functions.

math function / module provides functions to with both basic operations such as addition (+), substraction(-), multiplication(*) division(/) and adv. options operations like trignometric, logarithmic, exponential Functions. There is a power function also

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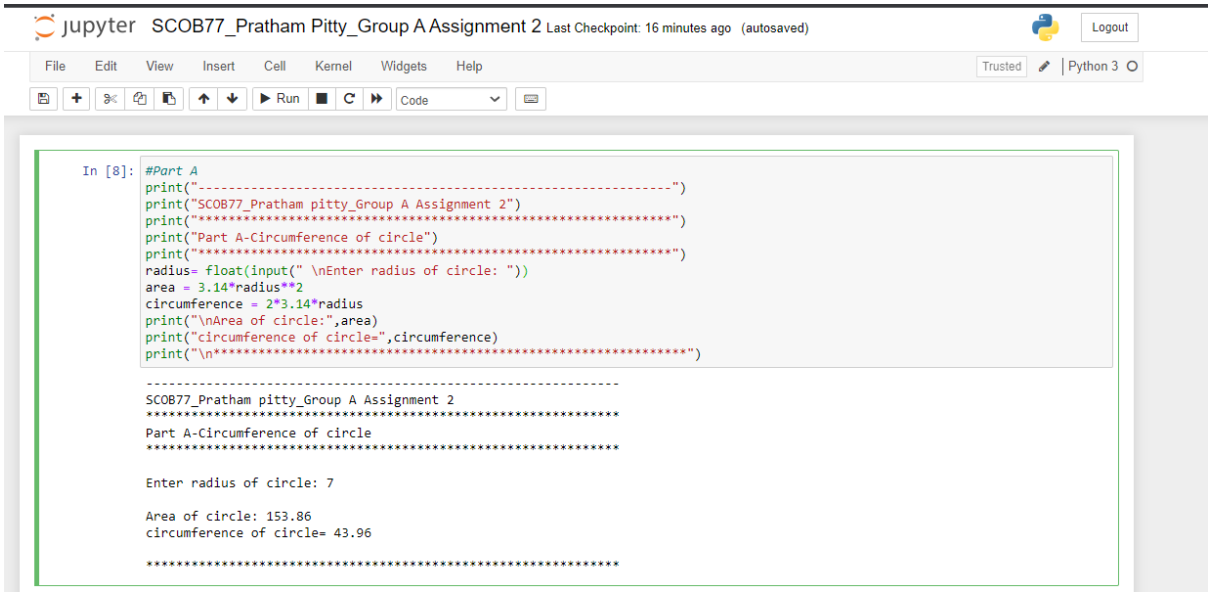
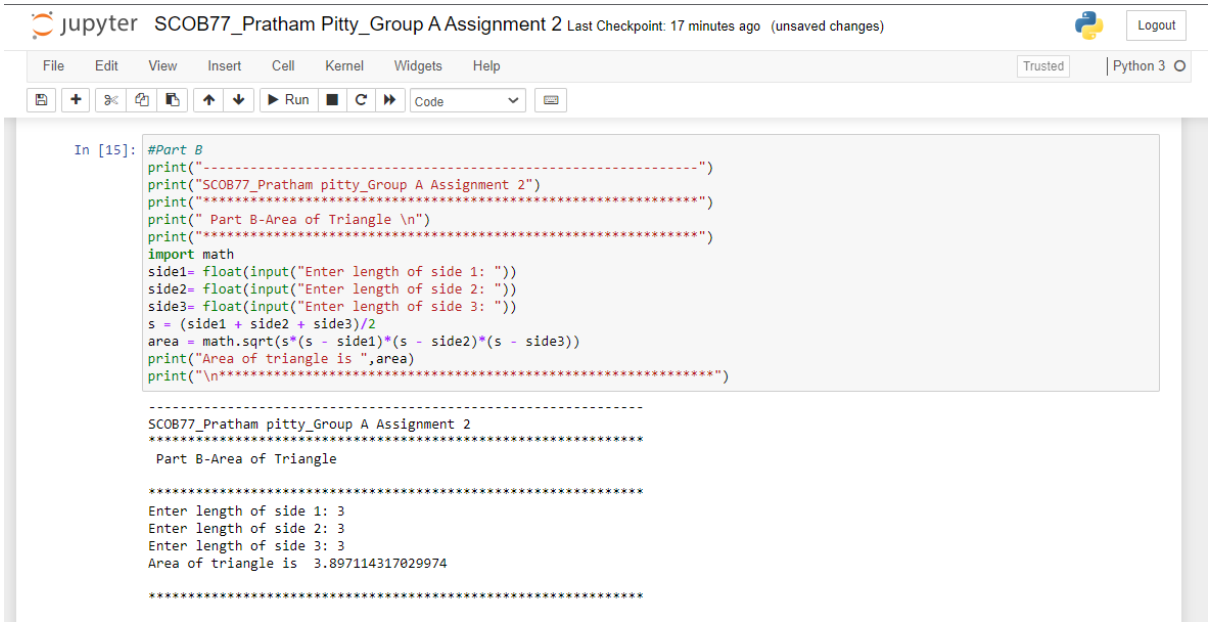
Program code

```
#Part A
print("------------------------------------------------------------")
print("SCOB77_Pratham pitty_Group A Assignment 2")
print("************************************************************")
print("Part A-Circumference of circle")
print("************************************************************")
radius= float(input(" \nEnter radius of circle: "))
area = 3.14*radius**2
circumference = 2*3.14*radius
print("\nArea of circle:",area)
print("circumference of circle=",circumference)
print("\n************************************************************")
```



```
#Part B
print("------------------------------------------------------------")
print("SCOB77_Pratham pitty_Group A Assignment 2")
print("************************************************************")
print(" Part B-Area of Triangle \n")
print("************************************************************")
import math
side1= float(input("Enter length of side 1: "))
side2= float(input("Enter length of side 2: "))
side3= float(input("Enter length of side 3: "))
s = (side1 + side2 + side3)/2
area = math.sqrt(s*(s - side1)*(s - side2)*(s - side3))
print("Area of triangle is ",area)
print("\n************************************************************")
```



Conclusion:

Hence conclude that using different operators calculate circumference of circle and area of triangle