

Experiment - 1

1.1.1 Area of a circle

Algorithm

Step 1 :- Start

Step 2 :- Read the radius value from the user.

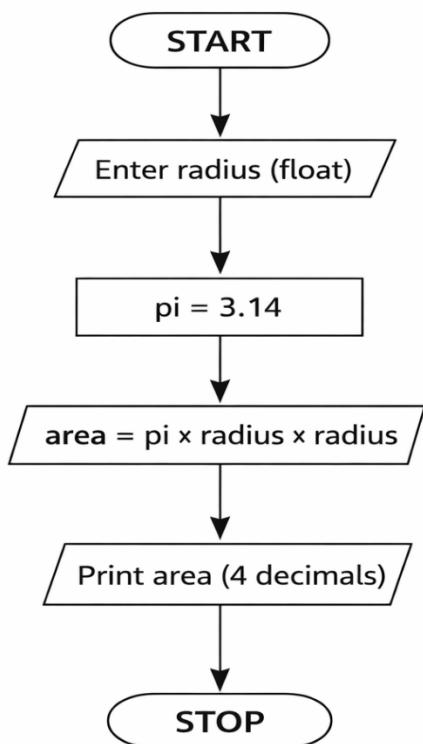
Step 3:- Set the value of π (pi) as 3.14.

Step 4 :- Calculate area using formula . Area = pi x radius x radius

Step 5 :- Display the area formatted to 4 decimal places.

Step 6 :- Stop

Flowchart



Phyton code

Experiment - 1

radius = float(input())

pi = 3.14

area = pi * radius * radius

print(f'{area:.4f}')

Execution

The screenshot shows the CodeTantra IDE interface. The title bar says "CODETANTRA" and "Home". The user is logged in as "harsh.ghaoghare.batch2025@sitnagpur.siu.edu.in". The main area displays a code editor with the following Python script:

```
1 radius = float(input())
2 area = 3.14 * radius * radius
3 print(f'{area:.4f}')
```

The code is part of a task titled "1.1.1. Area of Circle". The instructions say: "Write a Python program that calculates the area of a circle when the radius is provided by the user. Use $\pi = 3.14$ and display the area." The "Input Format" specifies a single line containing a floating-point number representing the radius. The "Output Format" specifies printing the computed area of the circle formatted to 4 decimal places.

On the right, the "Test cases" section shows two test cases passed:

Test case	Expected output	Actual output
Test case 1	3.14	3.14
Test case 2	12.5600	12.5600

The test results show "2 out of 2 shown test case(s) passed" and "2 out of 2 hidden test case(s) passed". The average time for the first test case is 0.006 s and for the second is 0.008 s. The maximum time is 8.00 ms.