

Experiment - 1

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1.1.1 Area of a circle

Algorithm

Step 1 Start

Step 2 Read the radius value from the user.

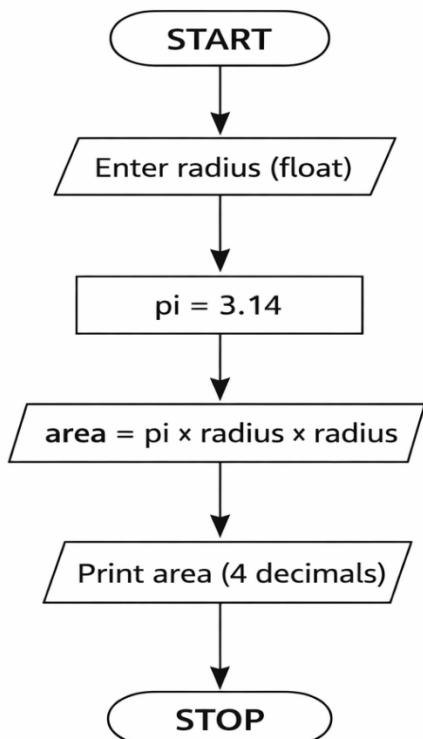
Step 3 Set the value of π (pi) as 3.14.

Step 4 Calculate area using formula . Area = $\pi \times \text{radius} \times \text{radius}$

Step 5 Display the area formatted to 4 decimal places.

Step 6 Stop

Flowchart



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Python code

```
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 Home". The user is logged in as "om.kashikar.batch2025@sitnagpur.siu.edu.in". The current project is "circlearea...".

Problem Statement: 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.

Input Format: A single line containing a floating-point number representing the radius.

Output Format: Print the computed area of the circle formatted to 4 decimal places.

Code Editor:

```
radius = float(input())
pi = 3.14
area = pi * radius * radius
print(f"{area:.4f}")
```

Performance Metrics:

Average time	Maximum time
0.005 s	0.009 s
5.60 ms	9.00 ms

Test Cases:

Test Case	Time	Expected Output	Actual Output
Test case 1	9 ms	3.14	3.14
Test case 2	6 ms	35.4493	35.4493

Buttons: Sample Test Cases, +, Terminal, Test cases, < Prev, Reset, Submit, Next >