

# Experiment - 1

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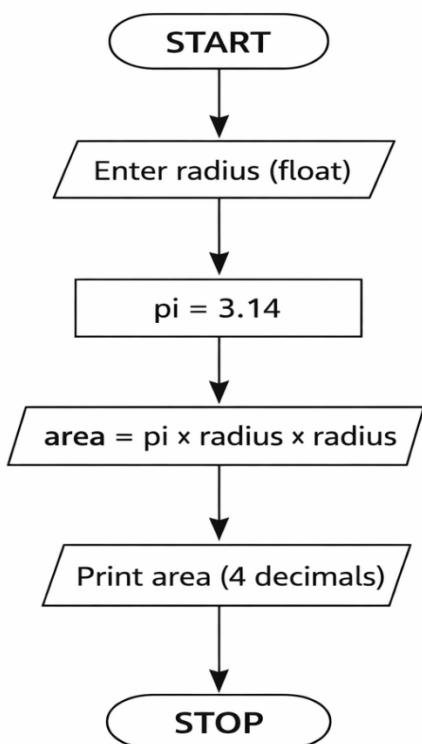
PRN : 25070521170

## 1.1.1 Area of a circle

### Algorithm

1. Start
2. Read the radius value from the user.
3. Set the value of  $\pi$  (pi) as 3.14.
4. Calculate area using formula . Area =  $\pi \times \text{radius} \times \text{radius}$
5. Display the area formatted to 4 decimal places.
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" and "Home". The user is logged in as "om.kashikar.batch2025@sitnagpur.siu.edu.in". The main workspace shows a code editor with the following Python script:

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

The code editor has tabs for "circlearea..." and "Submit". Below the code editor, there's a performance metrics section showing "Average time: 0.005 s" and "Maximum time: 0.009 s". It also displays two green checkmarks indicating "2 out of 2 shown test case(s) passed" and "2 out of 2 hidden test case(s) passed".

Under the metrics, there are two test cases listed:

- Test case 1**: Expected output: 3.14, Actual output: 3.14, duration: 9 ms.
- Test case 2**: Expected output: 35.4493, Actual output: 35.4493, duration: 6 ms.

At the bottom of the interface, there are buttons for "Terminal", "Test cases", "Prev", "Reset", "Submit", and "Next".