

# Experiment - 1

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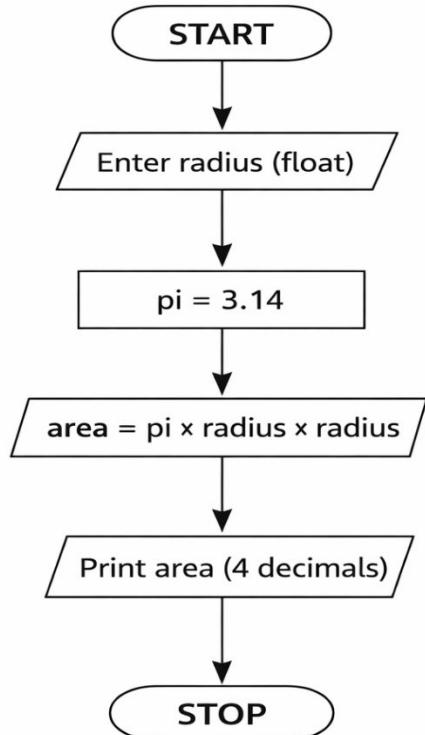
## 1.1.1 Area of a circle

### Algorithm

1. Start
2. Read the radius value from the user.
3. Set the value of π (pi) as 3.14.
4. Calculate area using formula . Area = pi x radius x radius
5. Display the area formatted to 4 decimal places.
6. Stop

### Flowchart

# Experiment - 1



## Phyton code

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

## Execution

# Experiment - 1

The screenshot shows the CodeTantra IDE interface. On the left, there's a sidebar with '1.1.1. Area of Circle' and instructions: '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.' Below this are 'Input Format' and 'Output Format' sections. The main workspace contains a code editor with the following Python script:

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

The code editor has tabs for 'circlearea...' and 'circlearea...'. At the top right, there are buttons for 'Submit' and 'Logout'. Below the code editor, performance metrics are displayed: Average time 0.007 s, Maximum time 0.013 s, and Test results showing 2 out of 2 shown test case(s) passed and 2 out of 2 hidden test case(s) passed. The test cases section shows two entries: 'Test case 1' with expected output 3.14 and actual output 3.14, and 'Test case 2' with expected output 35.4493 and actual output 35.4493. At the bottom, there are buttons for 'Terminal', 'Test cases', and navigation links like '< Prev', 'Reset', 'Submit', 'Next >'.