

# 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.

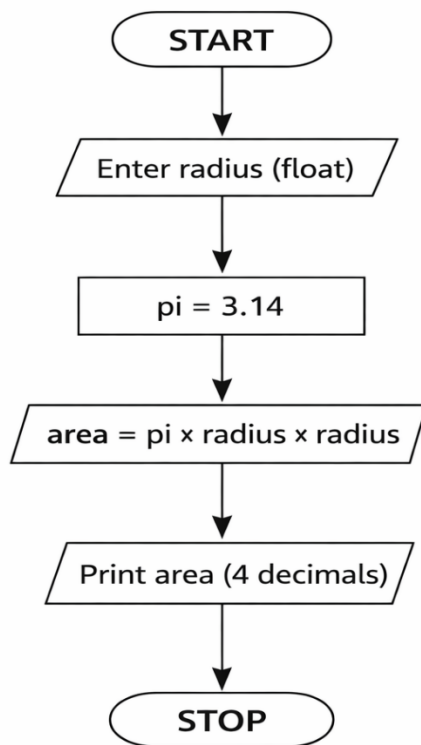
Step 3 Set the value of  $\pi$  (pi) as 3.14.

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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## Phyton code

```
radius = float(input())
```

```
pi = 3.14
```

```
area = pi * radius * radius
```

```
print(f"{area:.4f}")
```

## Execution

The screenshot displays the CODETANTRA online IDE interface. On the left, the problem statement for "1.1.1. Area of Circle" is shown, requiring a Python program to calculate the area of a circle given a radius. The input and output formats are specified. The main editor shows the Python code for calculating the area. The right sidebar displays the execution results, including a table of test cases and their outcomes.

**Problem Statement:** 1.1.1. Area of Circle

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.

**Sample Test Cases**

**Code:**

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

**Execution Results:**

Test Case	Expected output	Actual output	Status
Test case 1	3.36	3.36	Passed
Test case 2	35.4493	35.4493	Passed

**Summary:** 2 out of 2 shown test case(s) passed. 2 out of 2 hidden test case(s) passed.