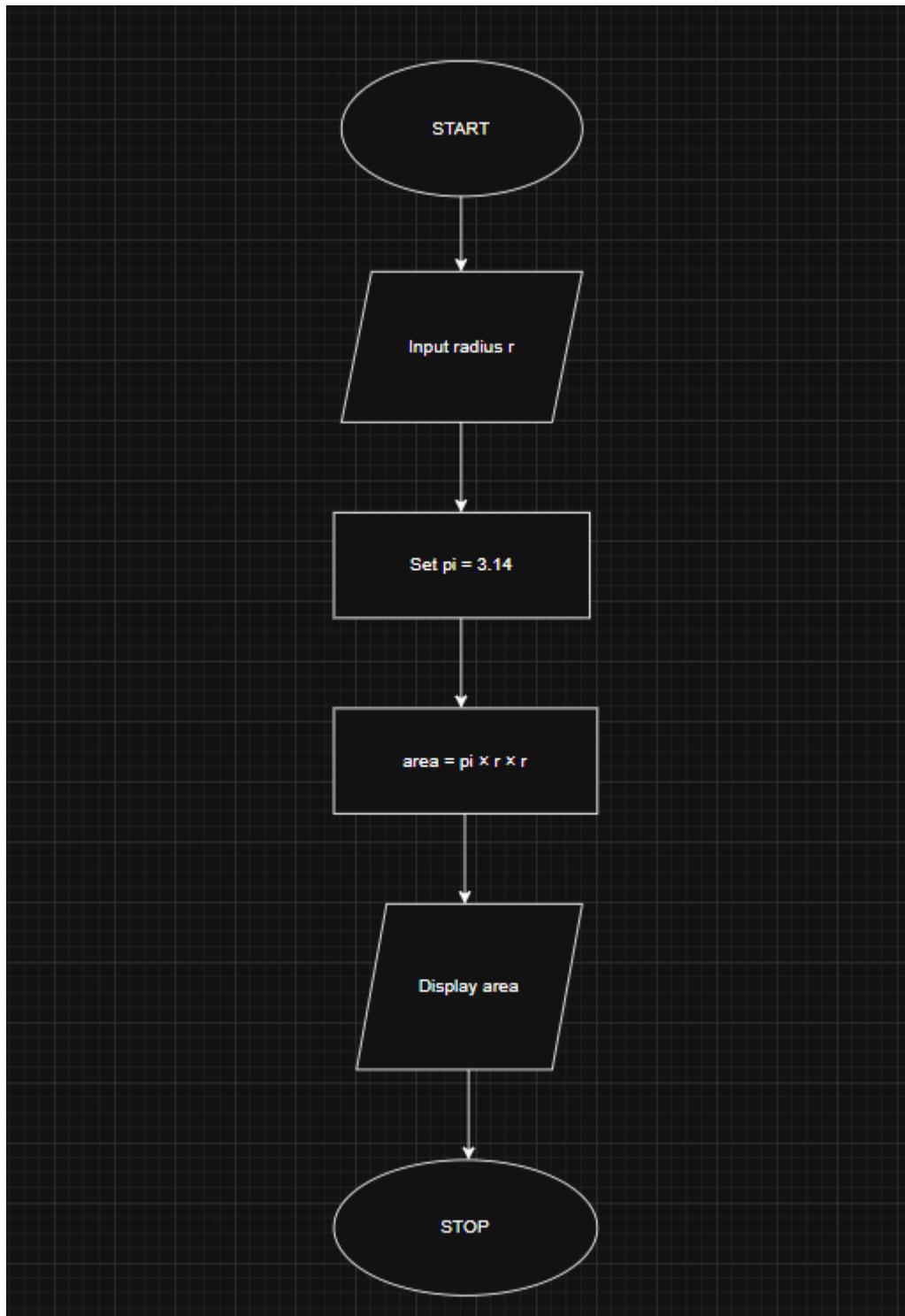


## Algorithm

### **Algorithm to Calculate Area of a Circle**

1. Start
2. Input the radius  $r$
3. Assign the value of pi as 3.14
4. Calculate the area using the formula:  
$$\text{Area} = \pi \times r \times r$$
5. Display the area of the circle up to 4 decimal places
6. Stop



The screenshot shows a Python code editor interface on the CodeTantra platform. The title bar indicates the user is 'chitransh.phalkey.batch2025@sitnagpur.sik.edu.in'. The main window displays a problem titled '1.1.1. Area of Circle' with the following 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.

**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.

The code in the editor is:

```
circlearea...
1 r=float(input())
2
3 a= 3.14 * r * r
4 print(f'{a:.4f}')
```

Below the code editor, there's a section for 'Sample Test Cases' with two entries:

**Test case 1**  
3.16  
31.4496

**Test case 2**  
2  
12.5664

At the bottom of the interface, there are buttons for 'Terminal', 'Test cases', and submission status: 'Submit' (yellow) and 'Next >'. The status bar at the bottom right shows the date '04-02-2026' and time '14:04'.

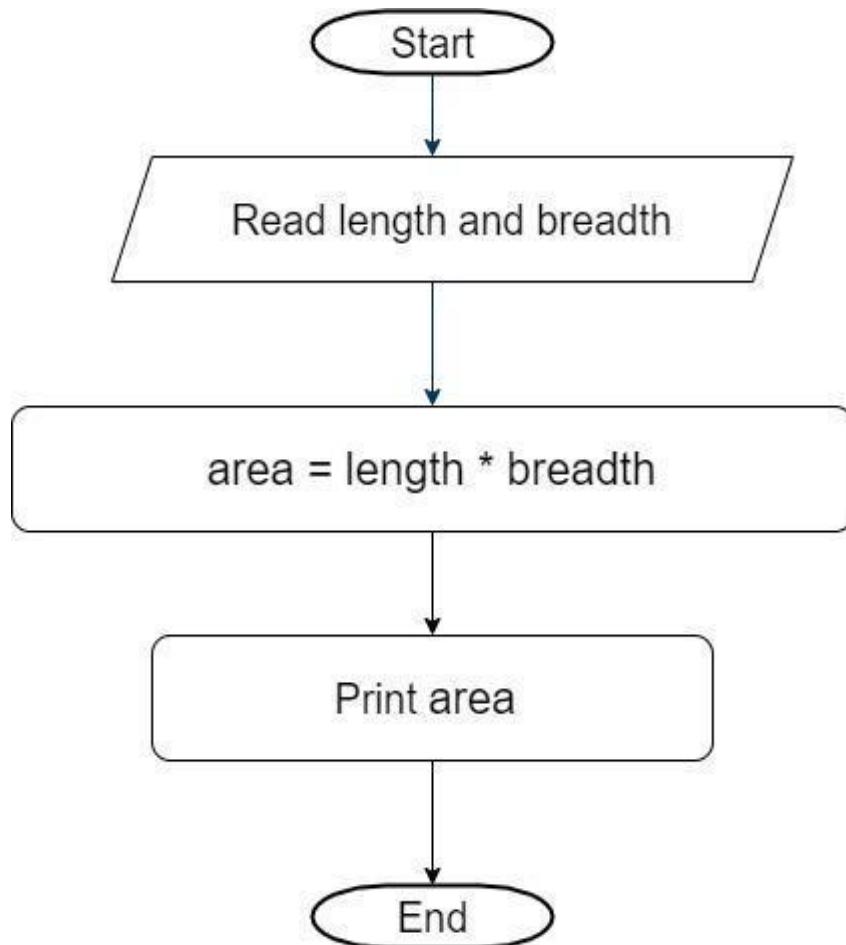
## 1.1.2. Area of Rectangle

### Algorithm

### Algorithm to Calculate Area of a Rectangle

1. **Start**
2. Read the value of **length** (as a floating-point number)
3. Read the value of **width** (as a floating-point number)
4. Calculate **area = length × width**
5. Display the **area** formatted to **2 decimal places**
6. **Stop**

## FLOWCHAR



The screenshot shows a programming interface on a website called CodeTantra. The title bar says 'C#DETTANTRA Home'. The main area displays a Python program:

```
length = float(input())
width = float(input())
area = length * width
print(f'{area:.2f}')
```

The code is in the 'Editor' tab. Below the editor, there are tabs for 'Terminal' and 'Test cases'. At the bottom, there's a navigation bar with links like 'Logout', 'Submit', and 'Next >'. The system status at the bottom right shows '28°C Sunny' and the date '04-02-2020'.

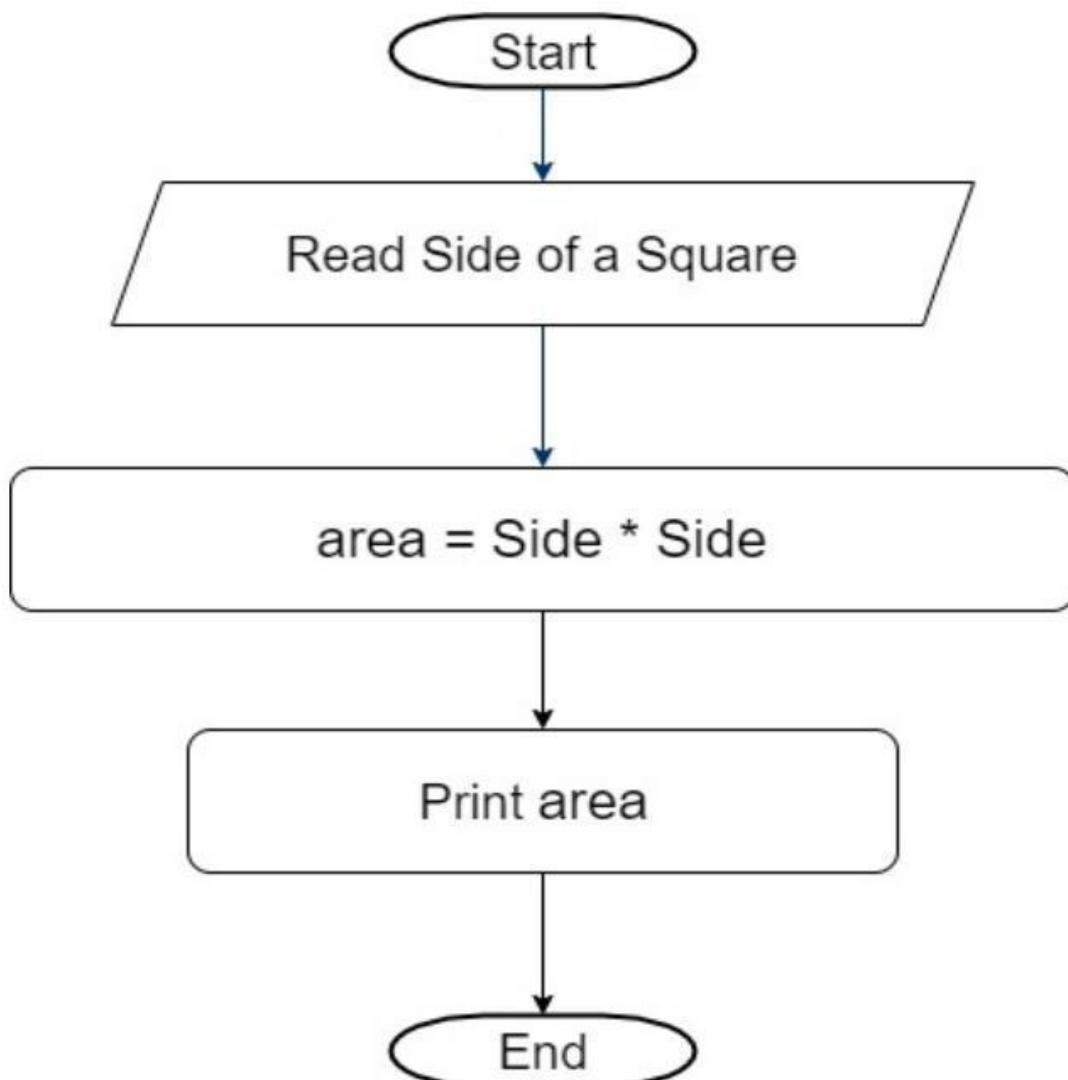
### 1.1.3. Calculate Area of the Square

#### ALGORITHM

#### Algorithm: Area of a Square

1. Start
- 2.
3. Read the value of **side** as an integer
- 4.
5. Calculate **area = side × side**
- 6.
7. Print the value of **area**
8. Stop

#### Flowchart



The screenshot shows a Python code editor interface. At the top, there's a header with the logo 'CODETANTRA' and a 'Home' link. To the right, there are links for 'chitransh.phalkey.batch2025@stnagpur.siu.edu.in', 'Support', and 'Logout'. Below the header, the title '1.1.3. Calculate Area of the Square' is displayed. The main content area contains a brief description: 'Write a Python program that prompts the user to enter the `side_length` of a square and computes the area of the square.' It also includes sections for 'Formula:' (Area = `side_length`<sup>2</sup>) and 'Input Format:' (The input is a positive integer value that represents the `side_length` of the square). The 'Output Format:' section states that the output is a positive integer value that represents the area of the square. On the right side of the editor, there's a code editor window titled 'AreaSqua...' containing the following Python code:

```
1 # Read the side length of the square as an integer
2 side = int(input())
3
4
5 area = side * side
6
7
8 print(area)
9
10
```

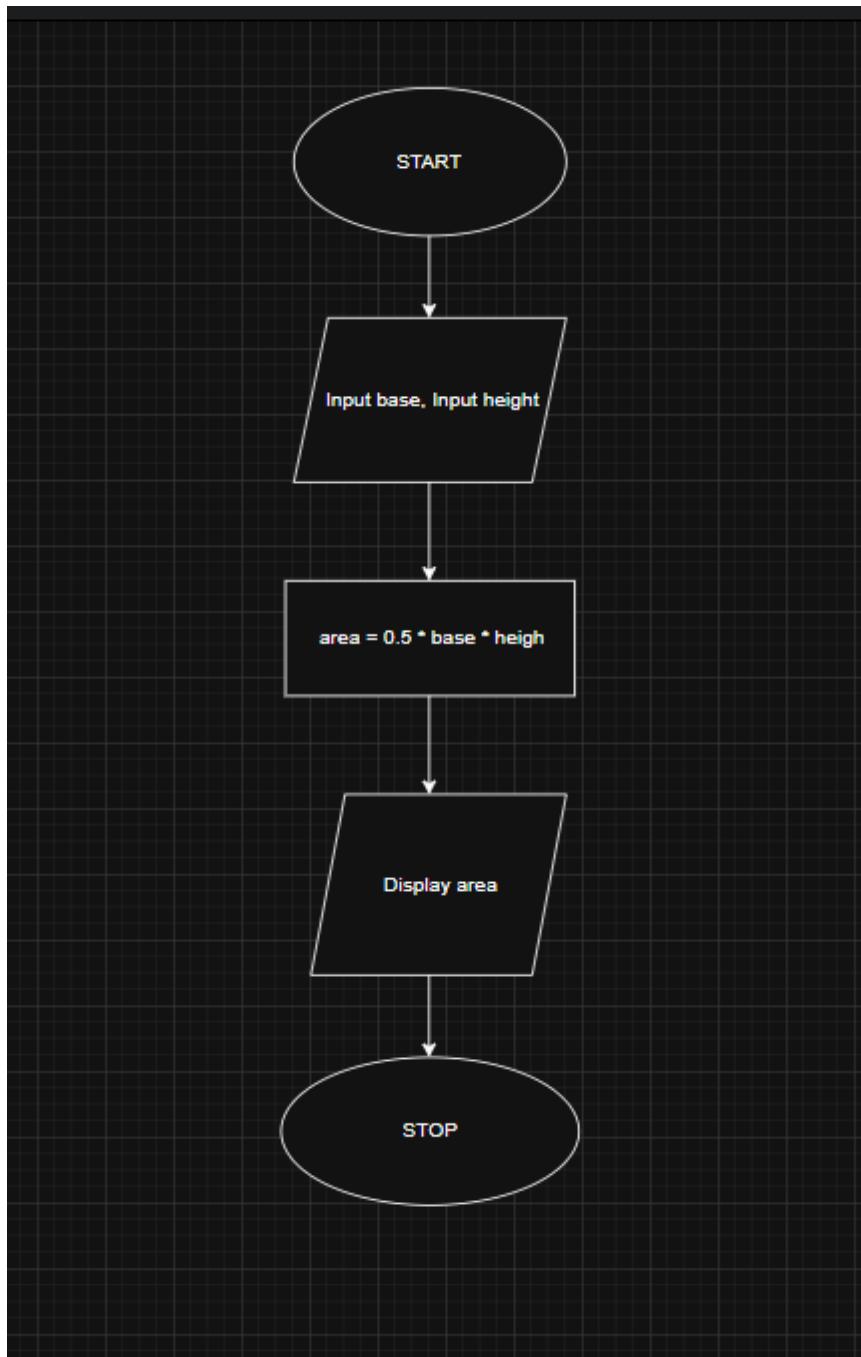
#### 1.1.4. Area of Triangle

### ALGORITHM

#### Algorithm: Area of a Triangle

1. **Start**
- 2.
3. Read the value of **base** as a floating-point number
- 4.
5. Read the value of **height** as a floating-point number
- 6.
7. Calculate **area** = **0.5 × base × height**
8. Print the value of **area** formatted to **2 decimal places**
9. **Stop**

### Flowchart



```

1 base = float(input())
2 height = float(input())
3 area = 0.5 * base * height
4 print(f'{area:.2f}')

```

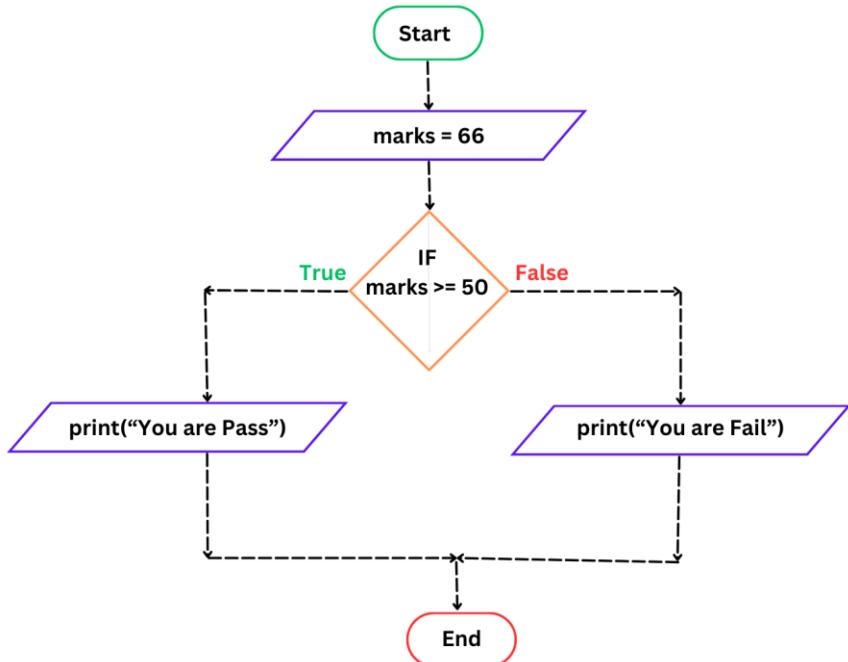
### 1.1.5. Student Pass or Fail Status

#### ALGORITHM

#### ❖ Algorithm to Check Pass or Fail

1. Start
2. Input **marks** as an integer
3. If **marks ≥ 0** then
  - Print "Pass"
  - Else
  - Print "Fail"
4. Stop

#### FLOWCHART:



**CODETANTRA** • Home

1.1.5. Student Pass or Fail Status

Write a Python program to determine whether a student passed the exam or not based on their marks.

**Pass/Fail Criteria:**

- A student passes if marks  $\geq 40$
- A student fails if marks  $< 40$

**Input Format:**

- Single line contains an integer representing the marks obtained by the student.

**Output Format:**

- Print "Pass" if the student passed the exam.
- Print "Fail" if the student failed the exam.

Sample Test Cases

passOrFa...  
1 marks = int(input())  
2 v if marks >=40:  
3 v print("Pass")  
4 v else:  
5 v print("Fail")

Terminal Test cases

Air Satisfactory Friday

Search

Result Submit

ENG IN 14:33 04-02-2026

