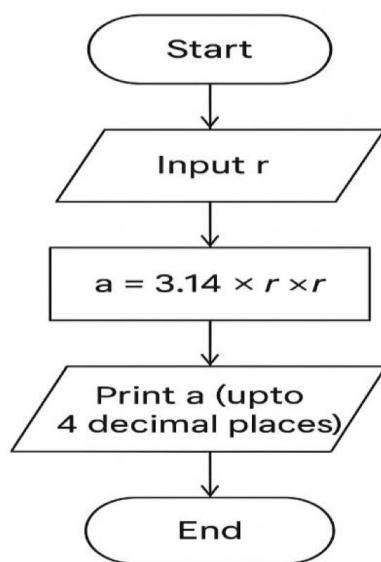


PROBLEM 1.1.1

Flowchart



Algorithm

Start

Input: Read the radius (r).

Process: Calculate the area by multiplying $3.14 * r * r$.

Output: Print the result (formatted to 4 decimal places).

Stop

The screenshot shows a CodeTantra interface with the following details:

- Title:** 1.1.1. Area of Circle
- User:** simrat.arora.batch2025@sitnagpur.siu.edu.in
- Time:** 05:09
- Code Editor:** Explorer / circlearea...
- Code:**

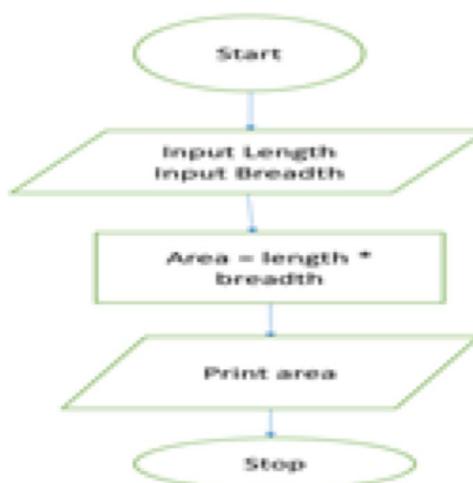
```
1 r=float(input())
2 a = 3.14 * r * r
3 print(f"{a:.4f}")
4
```
- Output:**

```
34
3629.8400
==== YOUR PROGRAM HAS ENDED ===
```
- Buttons:** Submit, Debugger

The code calculates the area of a circle given its radius input. The output shows the calculated area as 3629.8400, formatted to four decimal places.

PROBLEM 1.1.2

Flowchart



Start

Input: Read length and width.

Process: Calculate the area by multiplying length *width.

Output: Print the result (formatted to 2 decimal places).

Stop

Algorithm

CODE TANTRA Home simrat.arora.batch2025@sitnagpur.siu.edu.in Support Logout

1.1.2. Area of Rectangle 01:37 A C -

Write a Python program to calculate the area of a rectangle given its length and width.

Formula:
Area of Rectangle = Length × Width

Input Format:

- First line contains a float value representing the length of the rectangle
- Second line contains a float value representing the width of the rectangle

Output Format:

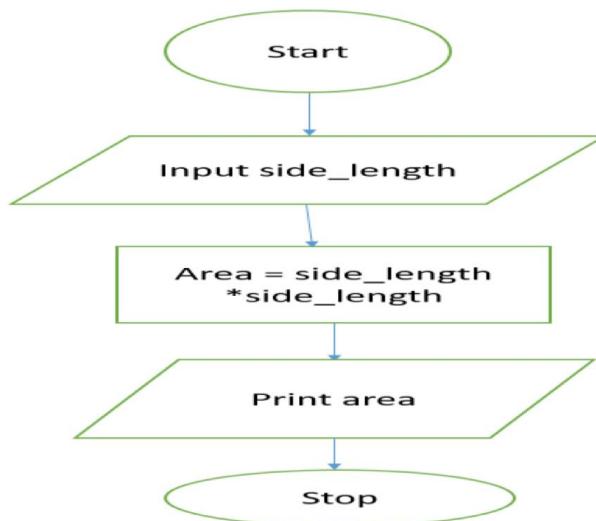
- Print the area of the rectangle as a float value formatted to 2 decimal places.

areaOfRe...
length=float(input())
width=float(input())
area = length * width
print("area:.2f")

34
34
1156.00
==== YOUR PROGRAM HAS ENDED ====

PROBLEM 1.1.3

Flowchart



Algorithm

Start

Input: Read the value for `side_length` from the user.

Process: Convert the input value to an integer.

Calculation: Calculate the area using the formula: $\text{Area} = \text{side_length}^2$

Output: Print the calculated area.

Stop

The screenshot shows the CodeTantra IDE interface. At the top, it says "CODETANTRA" and "Home". On the right, there are "Logout" and "Submit" buttons. The main area has a title "1.1.3. Calculate Area of the Square". Below the title, it says "Write a Python program that prompts the user to enter the `side_length` of a square and computes the area of the square." Under "Formula:", it lists " $\text{Area} = \text{side_length}^2$ ". The "Input Format:" section says "The input is a positive integer value that represents the `side_length` of the square." The "Output Format:" section says "The output is a positive integer value that represents the area of the square." In the code editor, there is a file named "AreaSqua..." with the following content:

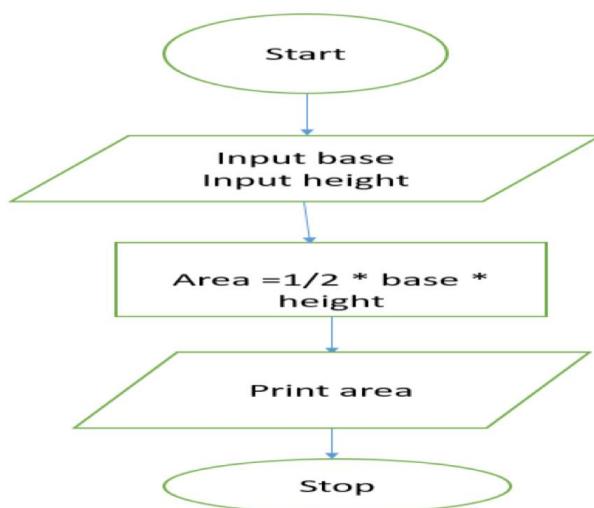
```
1 side_length=int(input())
2 area=side_length * side_length
3 print(area)
```

The code is run in the terminal, showing the output:

```
34
1156
--- YOUR PROGRAM HAS ENDED ---
```

PROBLEM 1.1.4

Flowchart



Algorithm

Start

Input 1: Read the first value from the user and store it as base.

Input 2: Read the second value from the user and store it as height.

Calculation: Calculate the area using the formula = Area = 0.5 \times base \times height

Output: Print the calculated area, formatted to exactly two decimal places.

Stop

CODETANTRA [Home](#)

simrat.arora.batch2025@sitnagpur.siu.edu.in Support Logout

1.1.4. Area of Triangle 02:48 A C D -

Write a Python program that prompts the user to enter the triangle's base and height and computes the triangle's area.

Formula: $\text{Area of Triangle} = 0.5 \times \text{base} \times \text{height}$.

Input Format:

- The first line of input is the float value that represents the base of the triangle.
- The second line of input is the float value that represents the height of the triangle.

Output Format:

- The output is the floating point value that represents the area of a triangle, formatted to two decimals.

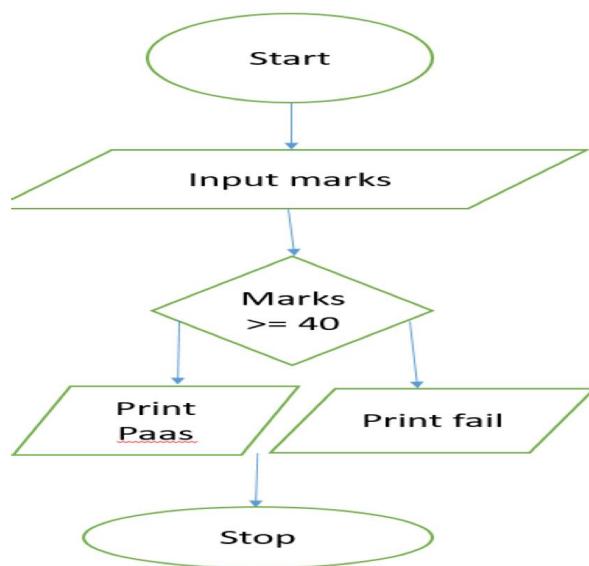
Explorer triangleA...

```
1 base=float(input())
2 height=float(input())
3 area_of_triangle=0.5*base*height
4 print(f"{{area_of_triangle:.2f}}")
```

34
34
578.00
==== YOUR PROGRAM HAS ENDED ====

PROBLEM 1.1.5

Flowchart



Algorithm

Start

Input: Read the marks from the user.

Process: Convert the input to an integer.

Decision: Check if marks is greater than or equal to 40.

If Yes: Print "Pass".

If No: Print "Fail".

Stop

The screenshot shows the CodeTantra IDE interface. The title bar says "CODETANTRA # Home". The top right has a user info "simrat.arora.batch2025@sitnagpur.siu.edu.in" and a "Logout" button. The main area has a dark theme with white text. A sidebar on the left lists "1.1.5. Student Pass or Fail Status", "Pass/Fail Criteria:", "Input Format:", and "Output Format:". The "Pass/Fail Criteria:" section contains two bullet points: "A student passes if marks ≥ 40" and "A student fails if marks < 40". The "Input Format:" section says "Single line contains an integer representing the marks obtained by the student.". The "Output Format:" section says "Print "Pass" if the student passed the exam. Print "Fail" if the student failed the exam.". The central workspace shows a Python code editor with the following code:

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

Below the code editor is a terminal window showing the output of the program. It has three command-line prompts at the top, followed by the word "Pass", and then the message "==== YOUR PROGRAM HAS ENDED ===".