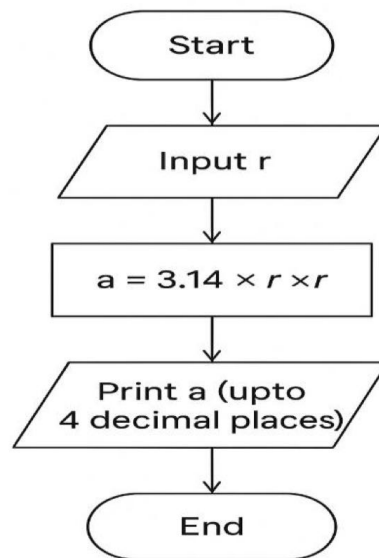


PROBLEM 1.1.1

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 web-based code editor interface. The title bar reads 'CODETANTRA' with a home icon and the user's email 'simrat.arora.batch2025@sitnagpur.siu.edu.in'. The main editor area is titled '1.1.1. Area of Circle' and contains the following text:

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.

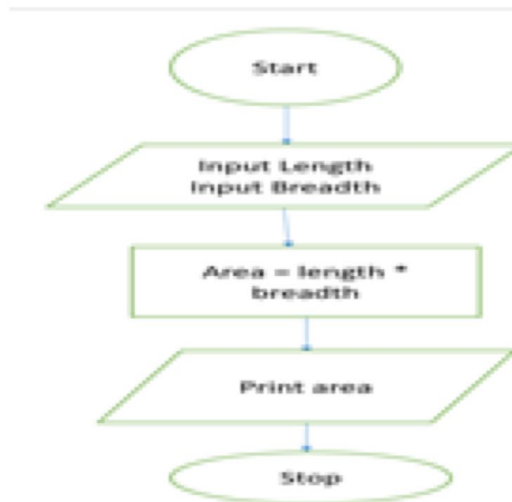
The code editor shows the following Python code:

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

The output window shows the result: 3629.8400. Below the output, it says '=== YOUR PROGRAM HAS ENDED ==='.

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

The screenshot shows the CODETANTRA web application interface. The main content area displays the problem statement for '1.1.2. Area of Rectangle', which asks to write a Python program to calculate the area of a rectangle given its length and width. It includes the formula $\text{Area of Rectangle} = \text{Length} \times \text{Width}$ and specifies the input and output formats. The input format requires two lines of float values for length and width. The output format requires the area to be printed as a float value formatted to 2 decimal places.

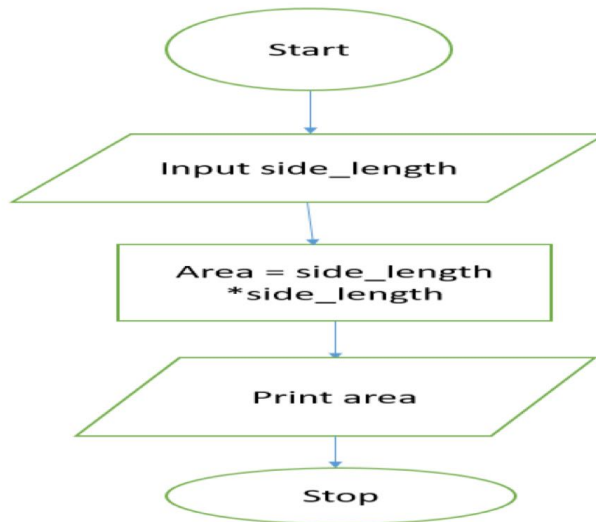
The right sidebar shows the 'areaOfRe...' file explorer with the following Python code:

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

The output window at the bottom shows the execution results: 34, 34, and 1156.00, followed by the message '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

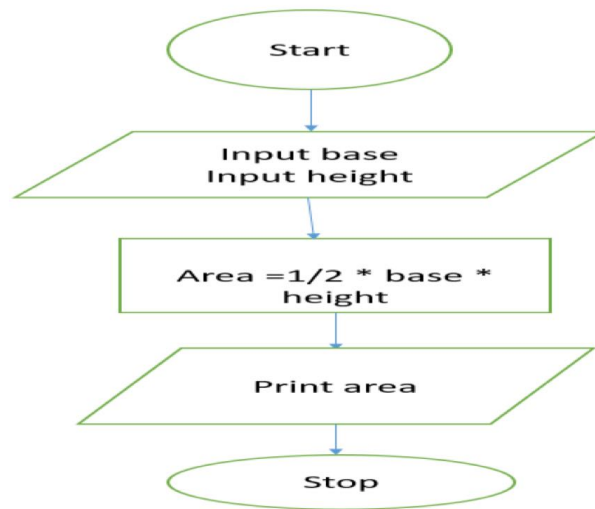
The screenshot shows a web-based code editor interface. On the left, the problem description for '1.1.3. Calculate Area of the Square' is displayed, including the formula $\text{Area} = \text{side_length}^2$ and input/output format instructions. The main editor area shows the following Python code:

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

The code is executed, and the output shows the number '34' and '1156'. A status bar at the bottom indicates '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 $\text{Area} = 0.5 \times \text{base} \times \text{height}$

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

Stop

The screenshot shows a code editor interface for a problem titled "1.1.4. Area of Triangle". The problem description asks for a Python program that prompts the user for the base and height of a triangle and calculates its area. The formula provided is $\text{Area of Triangle} = 0.5 \times \text{base} \times \text{height}$.

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.

The code editor shows the following Python code:

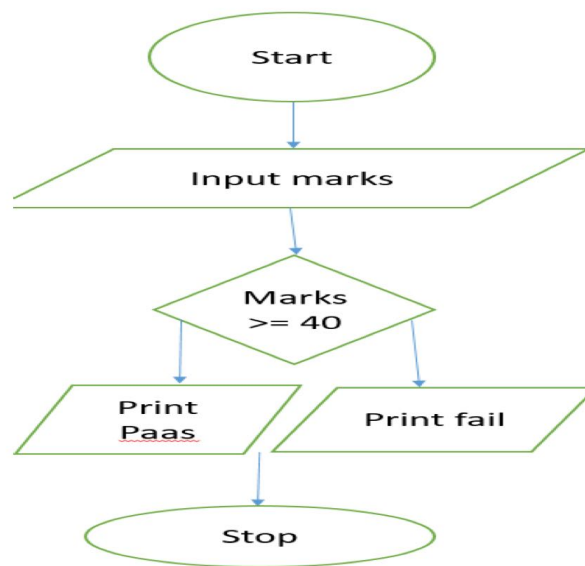
```
1 base=float(input())
2 height=float(input())
3 area_of_triangle=0.5*base*height
4 print(f"area_of_triangle:.2f")
```

The output of the program is displayed as:

```
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

1.1.5. Student Pass or Fail Status 02:57

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 ≥ 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.

passOrFa... Submit

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

44
Pass
=== YOUR PROGRAM HAS ENDED ===