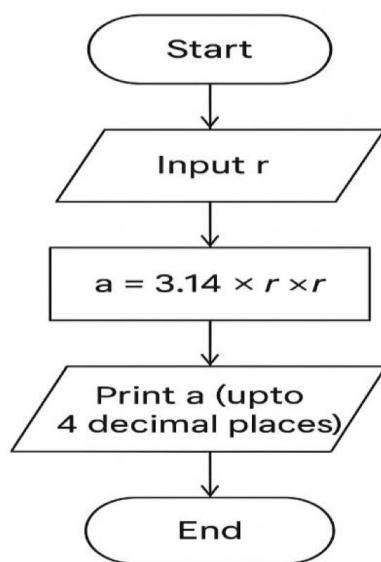


PROBLEM 1.1.1

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

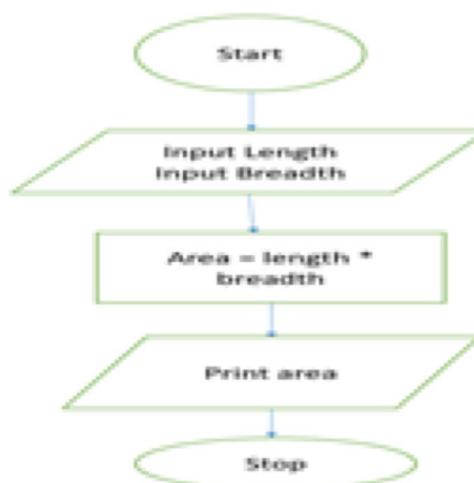
The screenshot shows the CodeTantra IDE interface. The title bar says "CODETANTRA" and "1.1.1. Area of Circle". The main area has a dark background with white text. It displays the problem statement: "Write a Python program that calculates the area of a circle when the radius is provided by the user. Use $\pi = 3.14$ and display the area." Below this are "Input Format" and "Output Format" sections. In the code editor, there is a file named "circlearea.py" with the following content:

```
1 #write your code here...
2 radius = float(input(""))
3 area=3.14*radius*radius
4 print(f"{area:.4f}")
```

On the right side, there is a terminal window showing the output of the program: "34 3625.8400 == YOUR PROGRAM HAS ENDED ==". There are also "Submit" and "Debugger" buttons at the top right.

PROBLEM 1.1.2

Flowchart



Algorithm

Start

Input: Read length and width.

Process: Calculate the area by multiplying length *width.

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

Stop

CDE TANTRA # Home

1.1.2. Area of Rectangle

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:

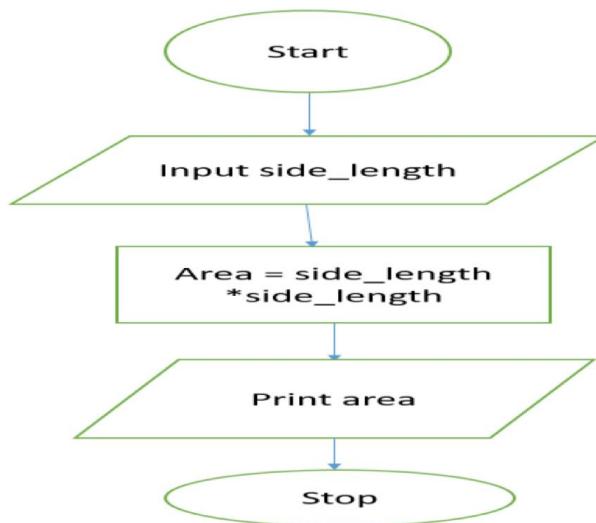
- Print the area of the rectangle as a float value formatted to 2 decimal places.

areaOfRe...
1 # Type Content here...
2 length=float(input(""))
3 width=float(input(""))
4
5 area=length*width
6 print(f'{area:.2f}')

44
44
1936.00
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

Screenshot of the CodeTantra IDE showing a Python program to calculate the area of a square. The code is as follows:

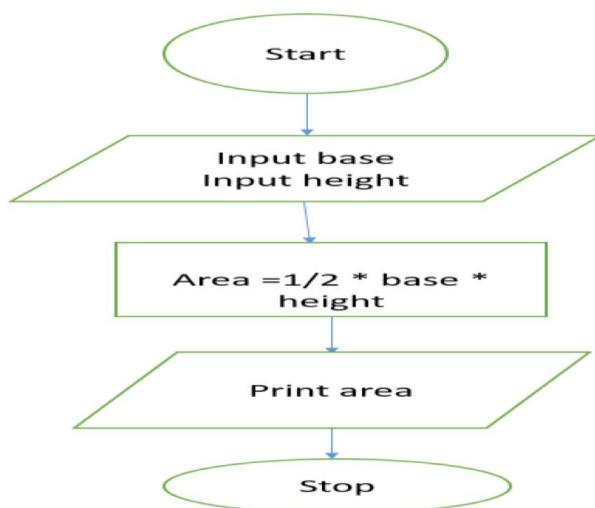
```
1 # Write your code here...
2 side_length=int(input(""))
3 area=side_length**2
4 print(f'{area:d}')
```

The output window shows the results of running the program with an input of 15:

```
35
1225
---- 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

CODE TANTRA # Home arjun.gahane.batch2025@sitnagpur.siu.edu.in Support Logout

1.1.4. Area of Triangle 00:15

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.

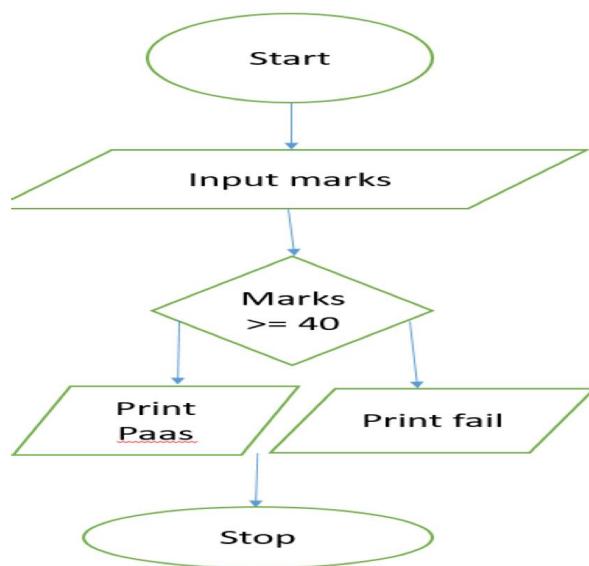
Editor: triangleA...

```
1 # Write your code here...
2 base=float(input())
3 height=float(input())
4
5 area= 0.5*base*height
6
7 print(f'{area:.2f}')
```

35
35
612.50
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 a Python code editor on the CodeTantra platform. The code is as follows:

```
# Type Content here...
marks=int(input(""))

if(marks>=40):
    print("Pass")
else:
    print("Fail")
```

The code is run with an input of 35, resulting in the output "Fail". The interface includes tabs for "Home", "Logout", "Support", and "Submit". It also shows sections for "Pass/Fail Criteria", "Input Format", and "Output Format".