

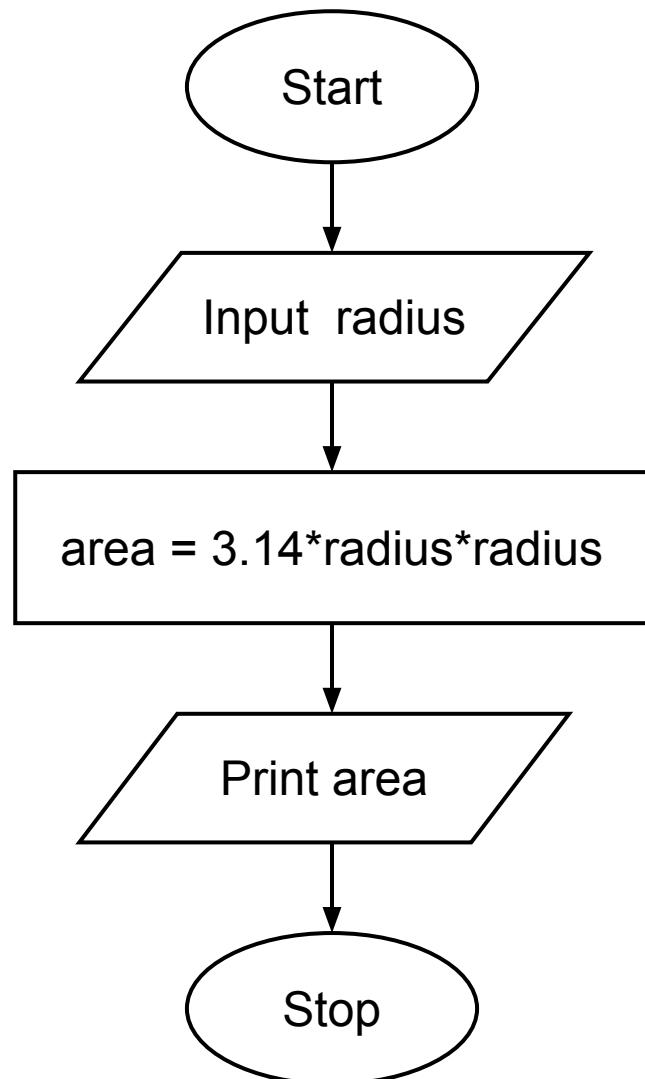
Experiment – 1.1.1

1 Area of Circle

- Algorithm

STEP 1 : Start
STEP 2 : Input radius
STEP 3 : Calculate
 area =
 $3.14 * \text{radius} * \text{radius}$
STEP 4 : Print area
STEP 5 : Stop

- Flowchart



- Code

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

The screenshot shows the CodeTantra IDE interface. On the left, there's a sidebar with navigation links like Home, Profile, and Logout. The main workspace has a title bar "1.1.1. Area of Circle" and a status bar showing "16:30". The code editor contains the following Python script:

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

The code is run in the "Test cases" tab, which displays the following results:

Average time	Maximum time
0.017 s 16.75 ms	0.049 s 49.00 ms

Test results:

- 2 out of 2 shown test case(s) passed
- 2 out of 2 hidden test case(s) passed

Test case 1 details:

Expected output	Actual output
3.14	35.4493
3.14	35.4493

Bottom navigation buttons include < PREV, RESET, SUBMIT, and NEXT >.

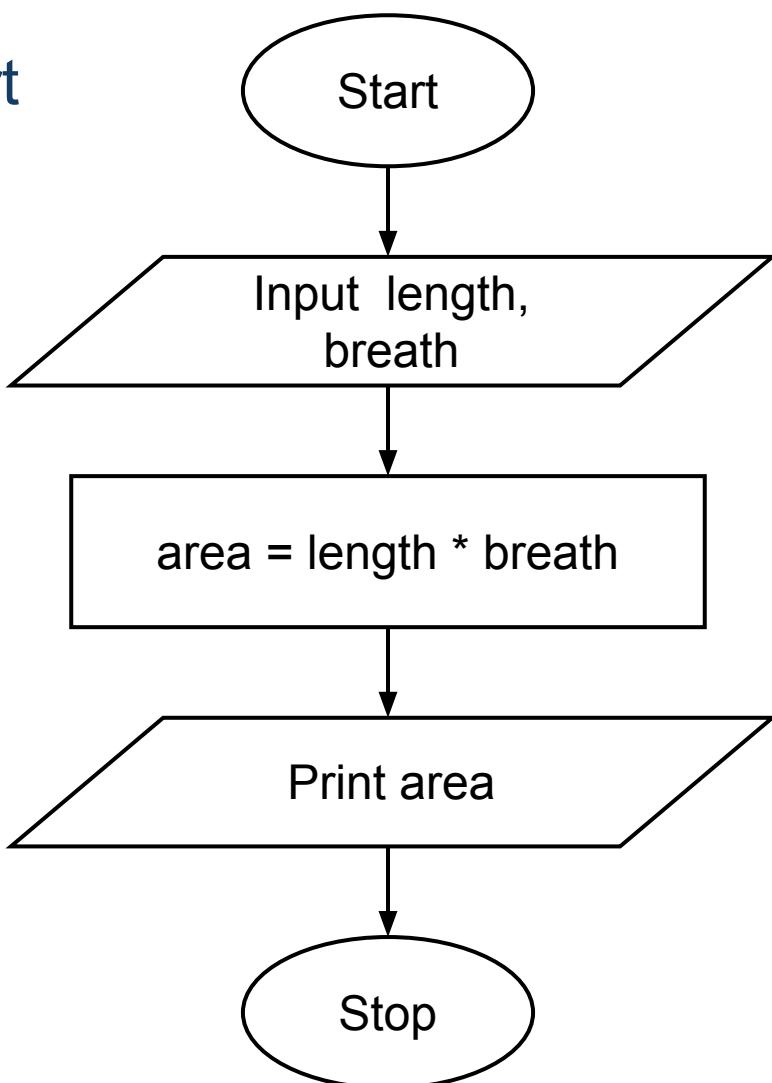
Experiment – 1.1.2

Area of Rectangle

- Algorithm

STEP 1 : Start
STEP 2 : Input length,
breath
STEP 3 : Calculate
 area =
 length*breadth
STEP 4 : Print area
STEP 5 : Stop

- Flowchart



• Code

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

The screenshot shows the CodeTantra IDE interface. On the left, there's a sidebar with navigation links like Home, Recent, and Help. The main workspace has a title bar "1.1.2. Area of Rectangle" and a status bar showing "04:31". The code editor contains the provided Python script. To the right, a terminal window shows the output of the program, which is "54.60". Below the terminal, a summary indicates "5 out of 5 shown test case(s) passed" and "5 out of 5 hidden test case(s) passed". At the bottom, there are buttons for PREV, RESET, SUBMIT, and NEXT.

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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.

Sample Test Cases

areaOfRe...

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

Average time: 0.009 s Maximum time: 0.015 s
8.70 ms 15.00 ms

5 out of 5 shown test case(s) passed
5 out of 5 hidden test case(s) passed

Test case 1 (15 ms)
Expected output: 54.60
Actual output: 54.60

Terminal Test cases

< PREV RESET SUBMIT NEXT >

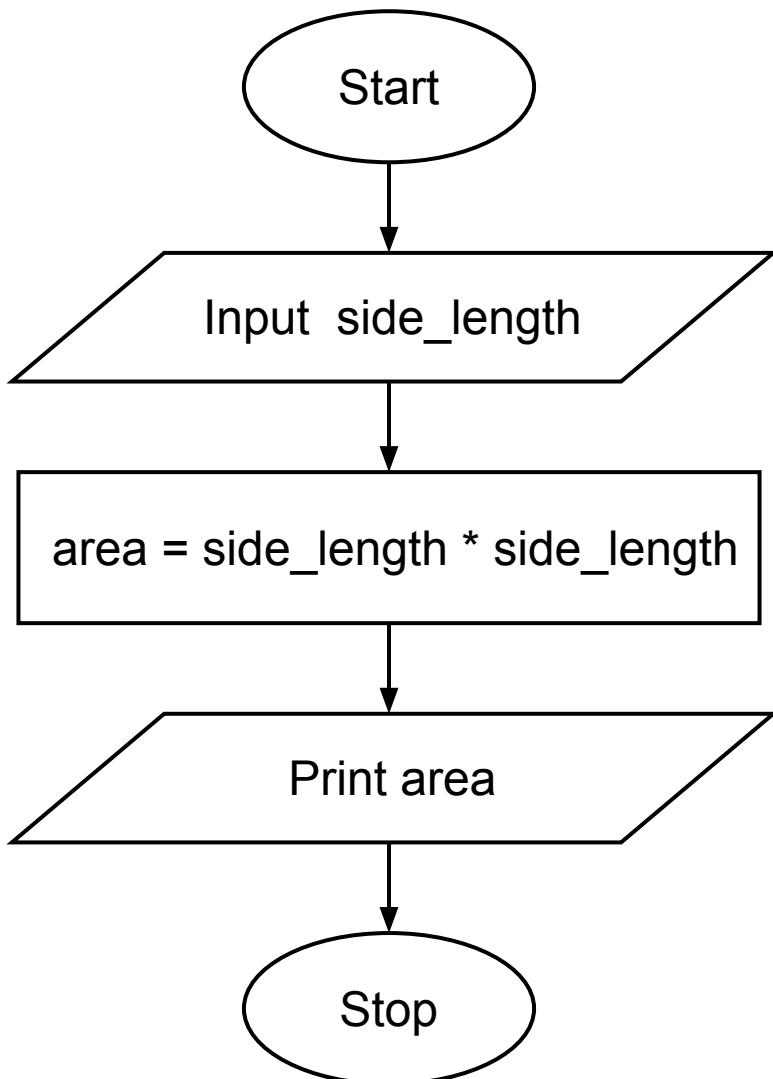
Experiment – 1.1.3

Calculate Area of the Square

- Algorithm

STEP 1 : Start
STEP 2 : Input side_length
STEP 3 : Calculate
 $\text{area} = \text{side_length} * \text{side_length}$
STEP 4 : Print area
STEP 5 : Stop

- Flowchart



- Code

```
side_length=int(input())
area=side_length*side_length
print(area)
```

The screenshot shows a Python code submission on the CodeTantra platform for a challenge titled "1.1.3. Calculate Area of the Square".

Code:

```
#-Write-your-code-here...
1 side_length = int(input())
2 area = side_length * side_length
3 print(area)
4
5
6
7
8
9
```

Output:

Average time: 0.006 s Maximum time: 0.010 s
5.76 ms 10.00 ms

2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed

Test case 1: 10 ms

Expected output:
25

Actual output:
25

Sample Test Cases

Experiment – 1.1.4

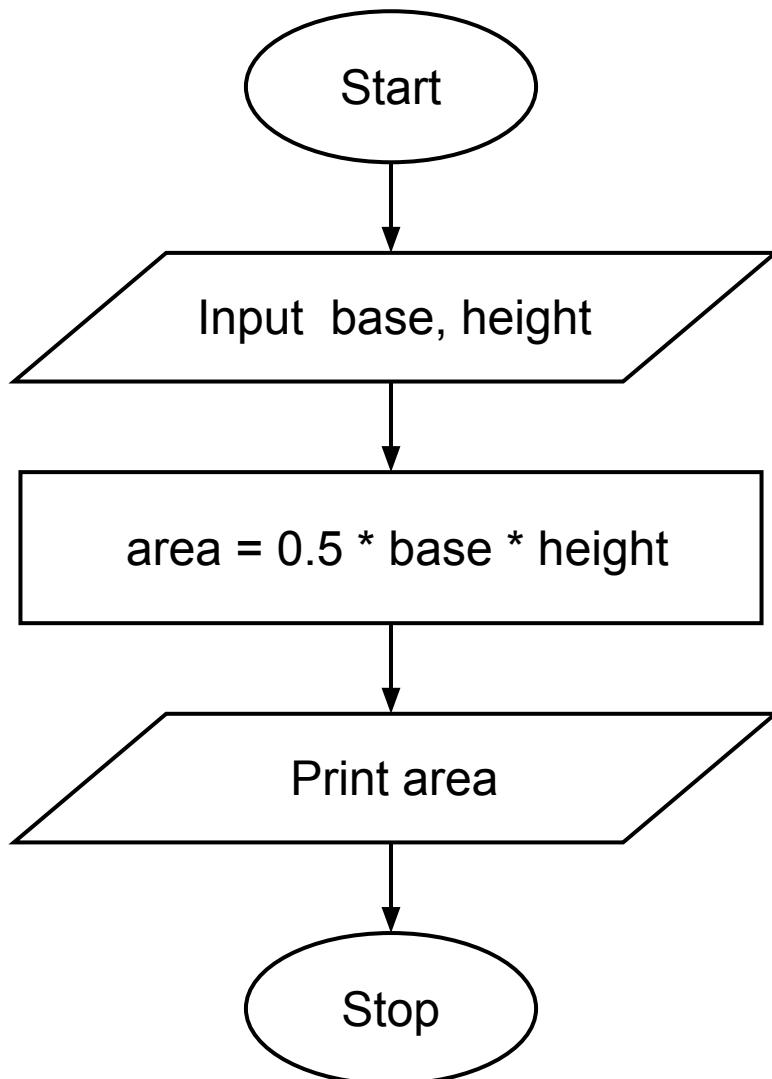
Area of Triangle

- Algorithm

STEP 1 : Start
STEP 2 : Input base, height
STEP 3 : Calculate
$$\text{area} = 0.5 * \text{base} * \text{height}$$

STEP 4 : Print area
STEP 5 : Stop

- Flowchart



- Code

```
base=float(input())
height=float(input())
area=0.5*base*height
print(f"{area:.2f}")
```

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1.1.4. Area of Triangle 04:20

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.

Sample Test Cases +

triangleA...

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

Average time: 0.007 s Maximum time: 0.009 s
7.50 ms 9.00 ms 2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed

Test case 1 0 ms
Expected output:
6.54
1.23
4.02
Actual output:
6.54
1.23

DEBUG TEST CASES Terminal Test cases < PREV RESET SUBMIT NEXT >

Experiment – 1.1.5

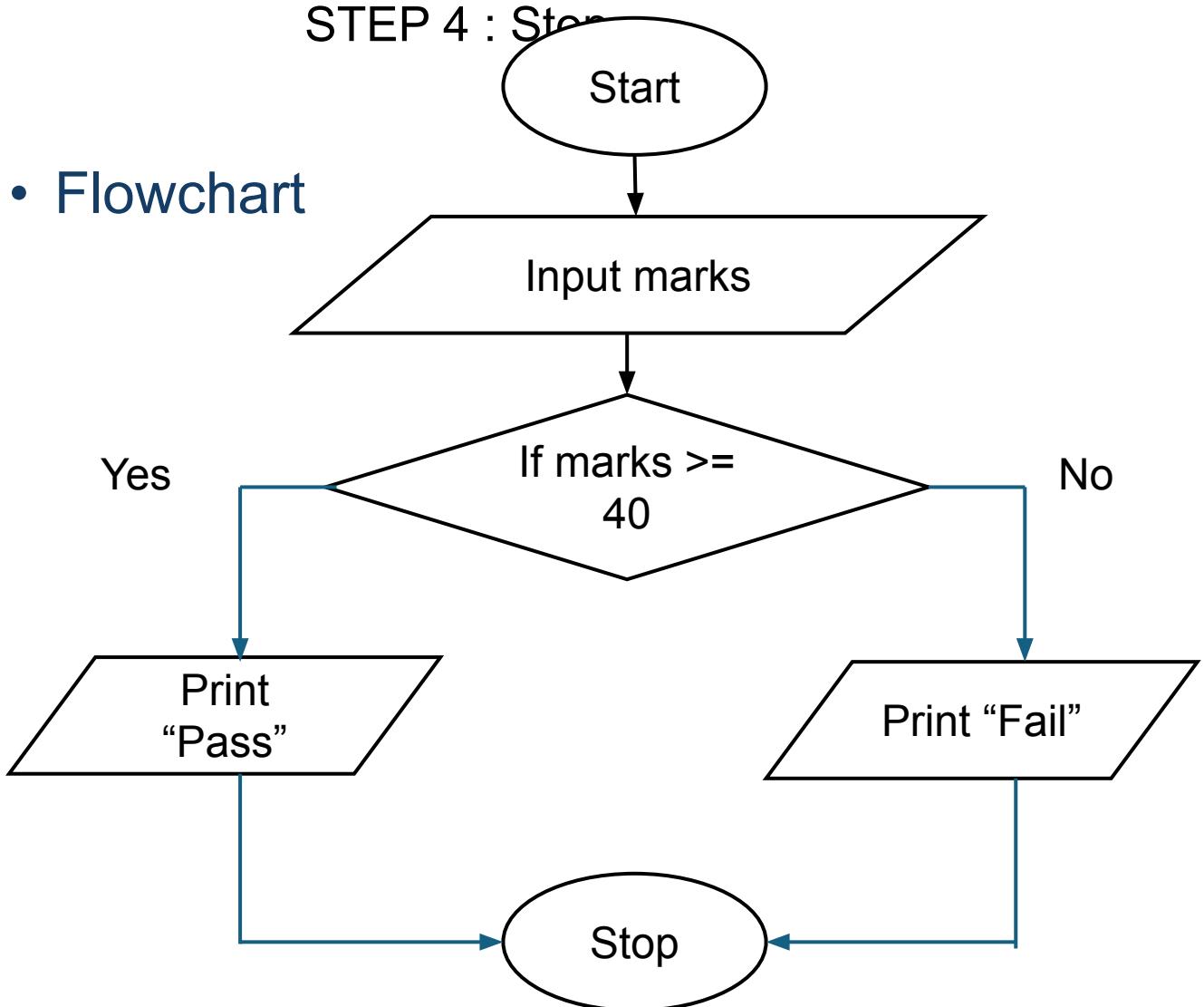
Student Pass or Fail status

- Algorithm

STEP 1 : Start
STEP 2 : Input marks
STEP 3 : Check condition
If marks \geq 40
Print "Pass"
Else
Print "Fail"

STEP 4 : Stop

- Flowchart



- Code

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

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1.1.5. Student Pass or Fail Status 06:13 A A * ⚙️ 🔍

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.

Sample Test Cases +

Explorer passOrFa...

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

Average time 0.003 s Maximum time 5.00 ms 3 out of 3 shown test case(s) passed
3.43 ms 4 out of 4 hidden test case(s) passed

Test case 1 5 ms DEBUG

Expected output 45 Actual output 45
Pass Pass

Test case 2 4 ms

Test case 3 4 ms

Terminal Test cases PREV RESET SUBMIT NEXT

