

Experiment – 1

1.1.1 Area of Circle

- Algorithm

STEP 1 : Start

STEP 2 : Input radius

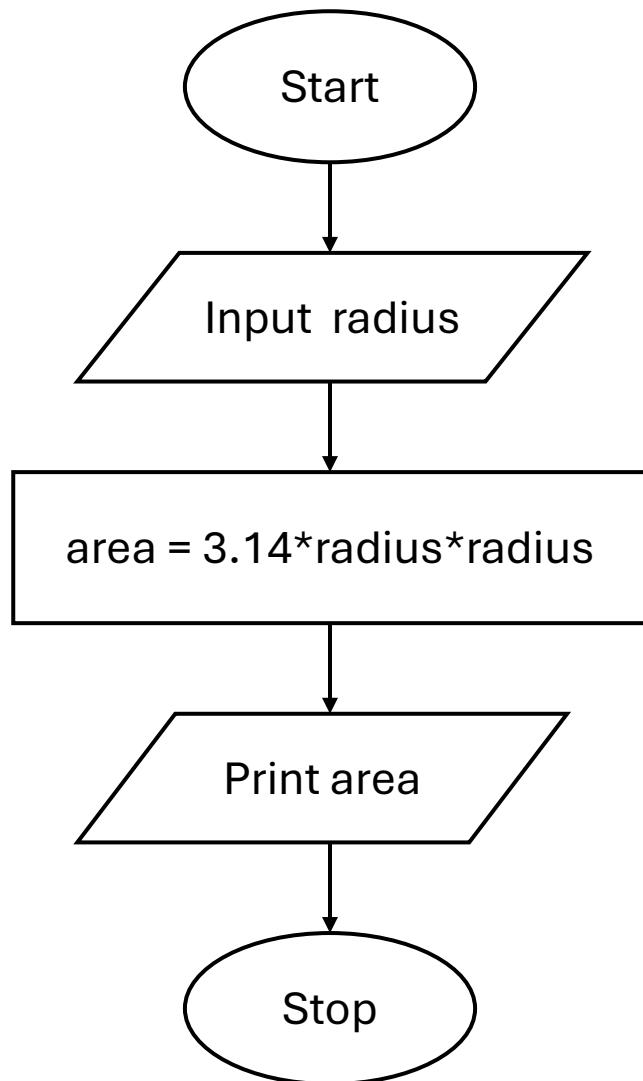
STEP 3 : Calculate

$$\text{area} = 3.14 * \text{radius} * \text{radius}$$

STEP 4 : Print area

STEP 5 : Stop

- Flowchart



• Code

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

• Execution

CODETANTRA 

1.1. Area of Circle  

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.

```
1 radius = float(input())
2 area = 3.14 * radius * radius
3 print(f'{area:.4f}')
```

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.

Sample Test Cases 

	Average time	Maximum time
1	0.005 s	0.008 s
2	5.50 ms	8.00 ms

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

Test case 1 8ms  
Expected output
3.36
35.4493

Actual output
3.36
35.4493

Test case 2 6ms  

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Experiment – 1

1.1.2 Area of Rectangle

- Algorithm

STEP 1 : Start

STEP 2 : Input length, breath

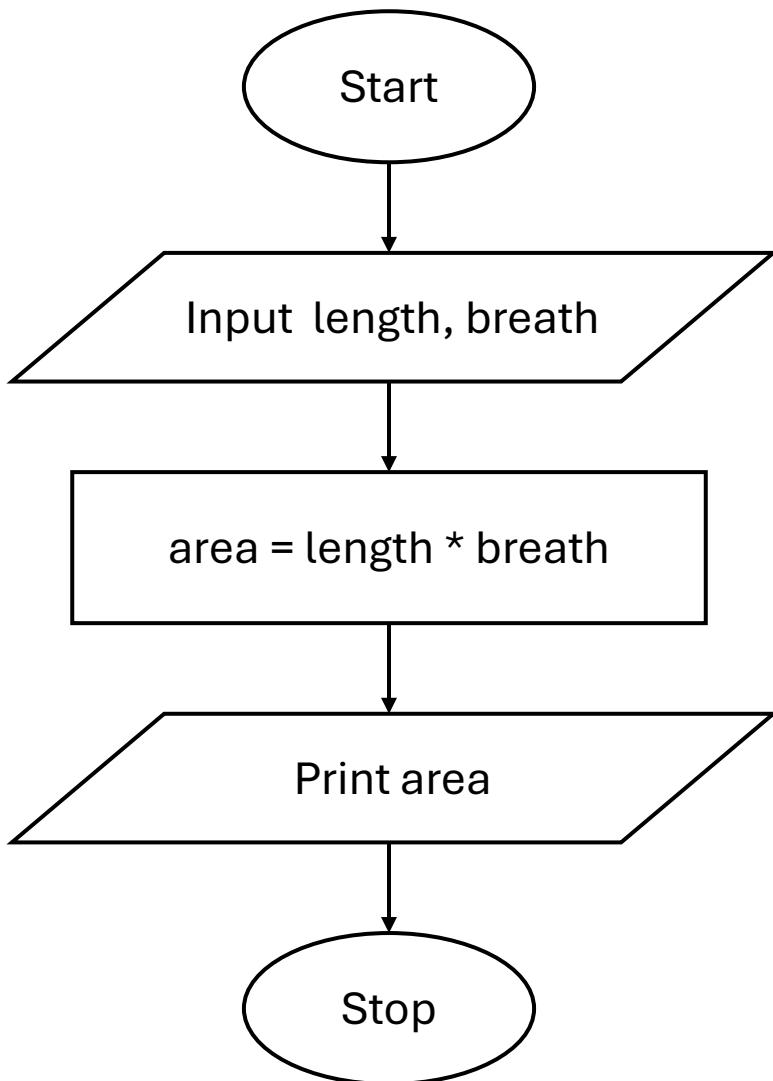
STEP 3 : Calculate

$$\text{area} = \text{length} * \text{breath}$$

STEP 4 : Print area

STEP 5 : Stop

- Flowchart



• Code

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

• Execution

1.1.2. Area of Rectangle

03:58 AA ⌛ ⚡ -

areaORRe...

Submit

Debugger

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.

Average time Maximum time

0.009 s	0.012 s
9.50 ms	12.00 ms

5 out of 5 shown test case(s) passed

5 out of 5 hidden test case(s) passed

Test case 1 11ms

Expected output

Actual output

Debug

Test case 2 12ms

Terminal

test cases

Sample Test Cases

< Prev Reset Submit Next >

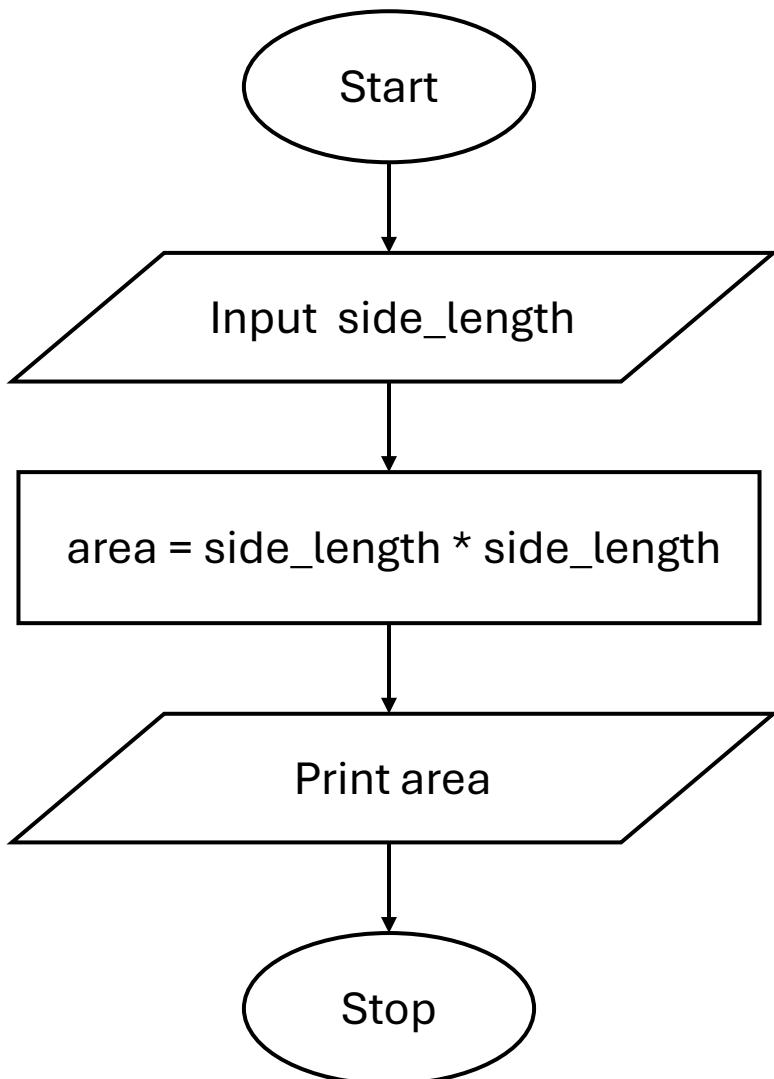
Experiment – 1

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

• Execution

1.1.3. Calculate Area of the Square      

Write a Python program that prompts the user to enter the `side_length` of a square and computes the area of the square.

Formula:

- $\text{Area} = \text{side_length}^2$

Input Format:

- The input is a positive integer value that represents the `side_length` of the square.

Output Format:

- The output is a positive integer value that represents the area of the square.

Code Editor

```
02:10 A C D E -  
AreaSqua...  
1 side = float(input())  
2 area = side * side  
3 print("The area is: " + str(area))  
4  
5  
6  
7  
8
```

Test Cases

Average time	Maximum time	Test Cases
0.006 s	0.008 s	2 out of 2 shown test case(s) passed
6.50 ms	8.00 ms	2 out of 2 hidden test case(s) passed

Test Case 1  8 ms
Expected output: 5
Actual output: 25

Test Case 2  5 ms
Actual output: 25

Terminal  **Test Cases** 

Prev  **Reset**  **Submit** 

Experiment – 1

1.1.4 Area of Triangle

- Algorithm

STEP 1 : Start

STEP 2 : Input base, height

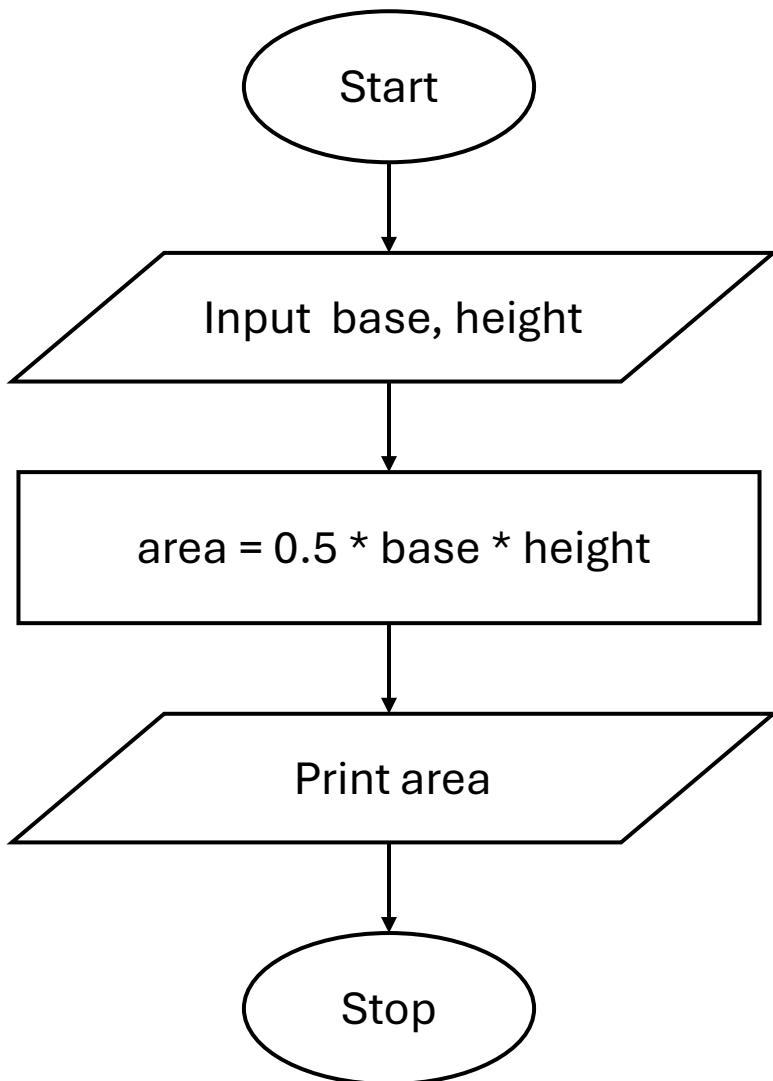
STEP 3 : Calculate

$$\text{area} = 0.5 * \text{base} * \text{height}$$

STEP 4 : Print area

STEP 5 : Stop

- Flowchart



- Code

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

- Execution

1.1.4. Area of Triangle

01:49 ⌂ ⌚ ⌚ ⌚ -

triangleA...

Submit

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...

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

Test case 1 7ms

2 out of 2 shown test case(s) passed

2 out of 2 hidden test case(s) passed

Test case 2 7ms

Terminal

Test Cases

Prev Reset Submit Next

Logout

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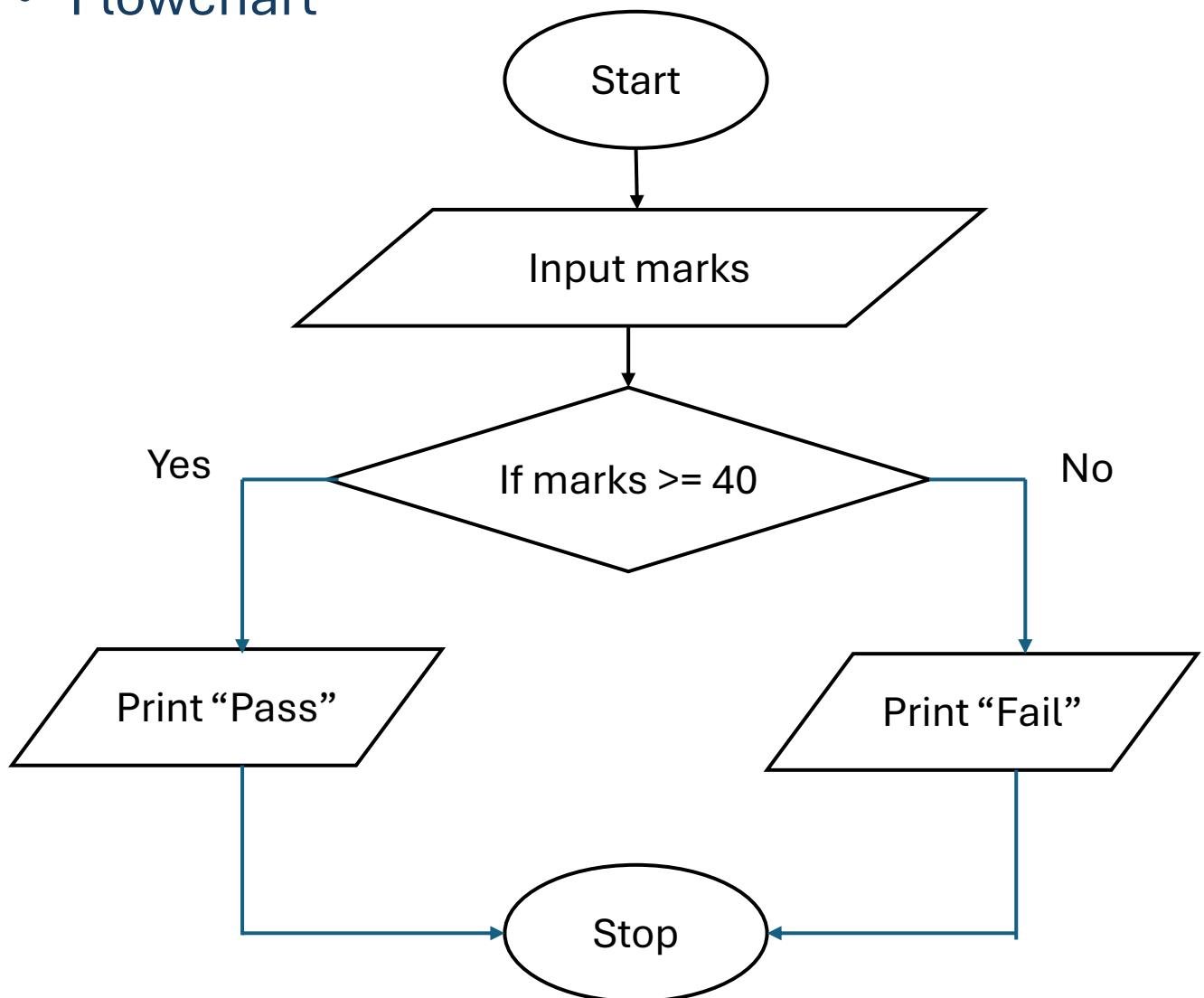
Experiment – 1

1.1.5 Student Pass or Fail status

- Algorithm

```
STEP 1 : Start  
STEP 2 : Input marks  
STEP 3 : Check condition  
          If marks ≥ 40  
                  Print "Pass"  
          Else  
                  Print "Fail"  
STEP 4 : Stop
```

- Flowchart



- Code

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

- Execution

1.1.5. Student Pass or Fail Status

08:09 A C D E -

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.

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

Average time	Maximum time
0.004 s	0.006 s
4.43 ms	6.00 ms

✓ 3 out of 3 shown test case(s) passed
✓ 4 out of 4 hidden test case(s) passed

✓ Test case 1 6ms

Actual output

Debug ▾ ⌂ ^

Expected output

45

Pass

+

✓ Test case 2 3ms

Actual output

Debug ▾ ⌂ ^

✓ Test case 3 4ms

Actual output

Debug ▾ ⌂ ^

Sample Test Cases

✓ Terminal

Test cases