

Experiment – 1

1.1.1 Area of Circle

- Algorithm

STEP 1 : Start

STEP 2 : Input radius

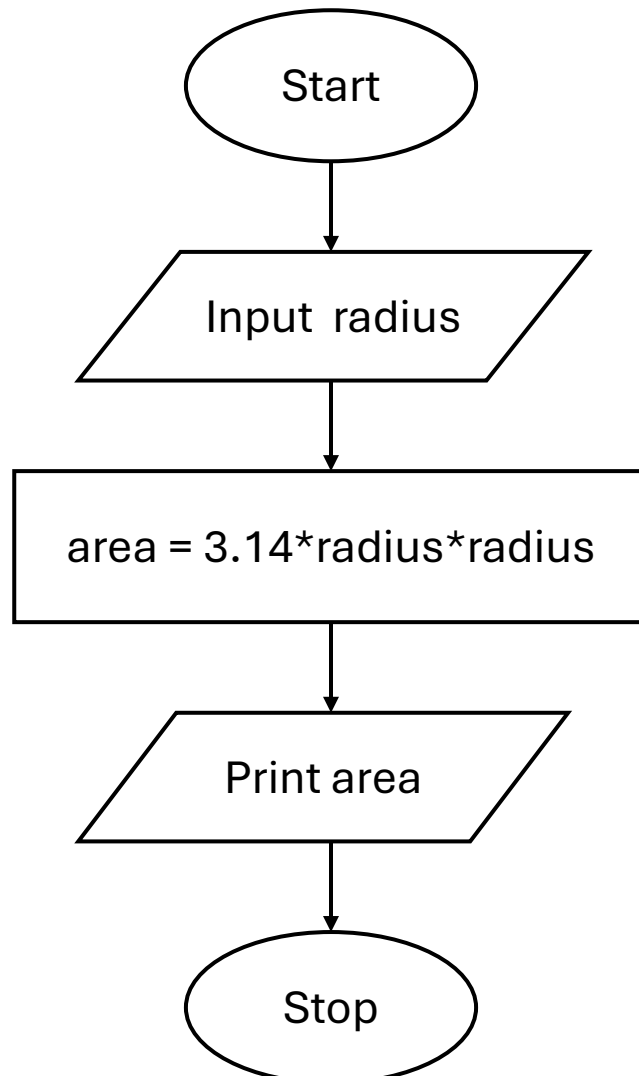
STEP 3 : Calculate

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

STEP 4 : Print area

STEP 5 : Stop

- Flowchart



- Code

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

- Execution

11.1: Area of Circle

1820

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.

Sample Test Cases

circlearea...

Submit

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

Average time 0.005 s Maximum time 0.008 s

6.50 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 8 ms

Expected output 3.36

Actual output 3.36

35.4493 35.4493

Test case 2 6 ms

Terminal

Test cases

Debug

Submit

Reset

Submit

Next

Experiment – 1

1.1.2 Area of Rectangle

- Algorithm

STEP 1 : Start

STEP 2 : Input length, breath

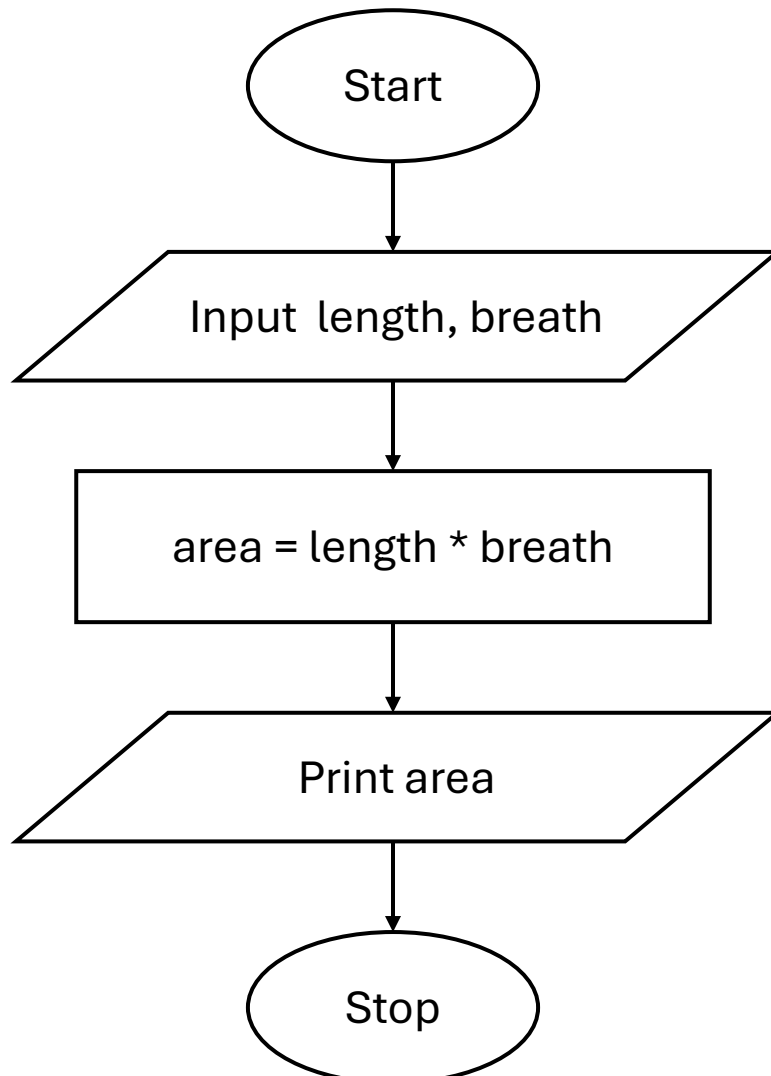
STEP 3 : Calculate

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

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

03:53

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

Formula:
Area of Rectangle = Length \times 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...

Submit

1
2
3
4

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

Average time
0.009 s
Maximum time
0.012 s
5 out of 5 shown test case(s) passed
5 out of 5 hidden test case(s) passed

Test case 1 11 ms
Expected output
10.5
5.2
54.60
Actual output
10.5
5.2
54.60

Test case 2 12 ms

Terminal Test cases Debug

Experiment – 1

1.1.3 Calculate Area of the Square

- Algorithm

STEP 1 : Start

STEP 2 : Input side_length

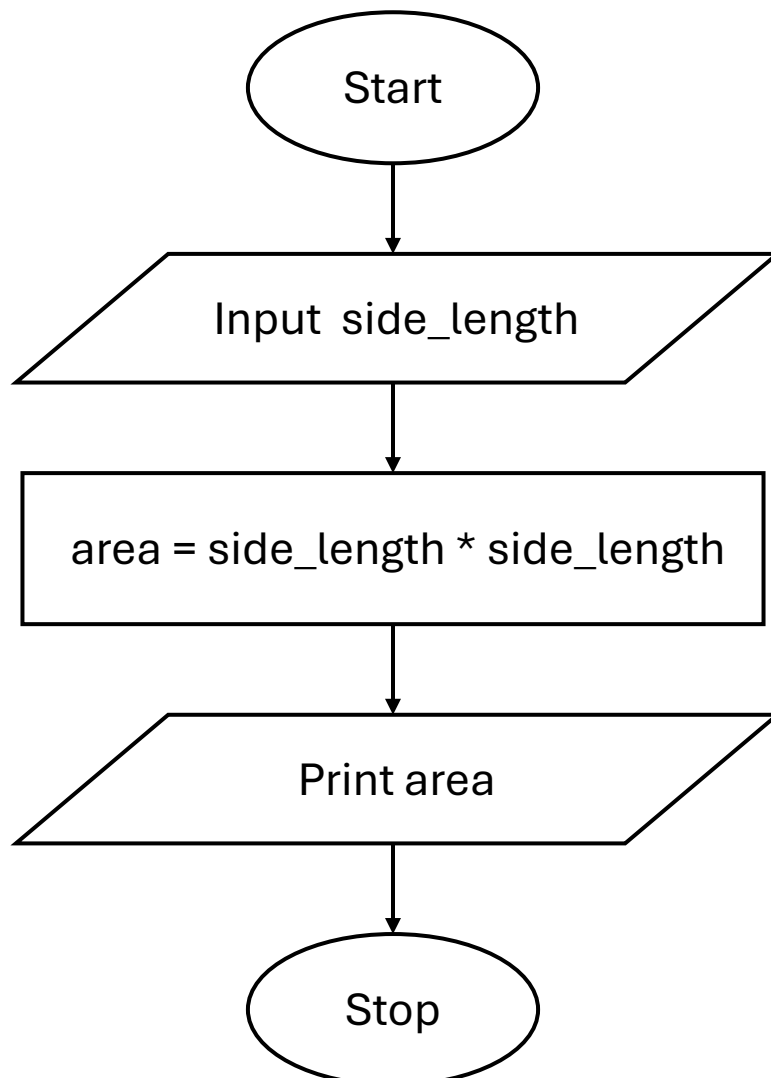
STEP 3 : Calculate

$\text{area} = \text{side_length} * \text{side_length}$

STEP 4 : Print area

STEP 5 : Stop

- Flowchart



1.1.3. Calculate Area of the Square

02:10   

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.


Sample Test Cases

+

AreaSqua...

 Submit

```
1 side = float(input())
2 area = side * side
3 print(f'{area:.0f}')
```

 Debugger

Average time

0.006 s

Maximum time

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

5

25

25

Test case 2 5 ms

v

 Terminal Test cases Debug  

• Code

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

• Execution

Experiment – 1

1.1.4 Area of Triangle

- Algorithm

STEP 1 : Start

STEP 2 : Input base, height

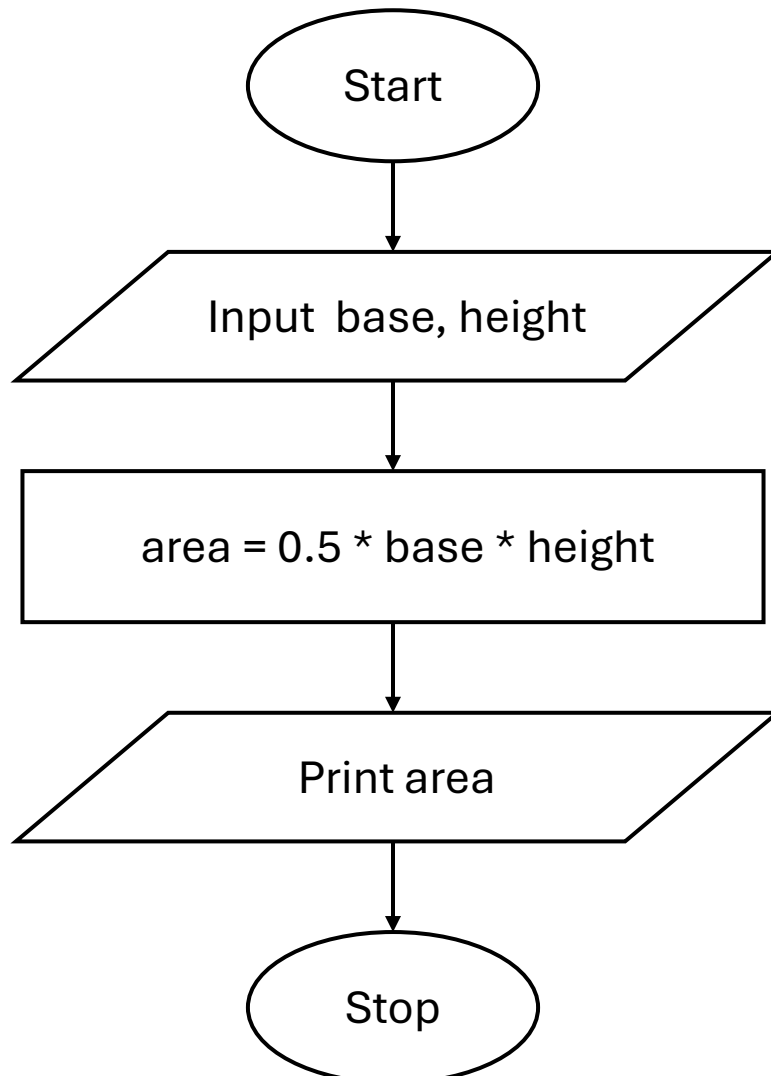
STEP 3 : Calculate

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

STEP 4 : Print area

STEP 5 : Stop

- Flowchart



1.1.4. Area of Triangle

01:49 A ↻ ↺ -

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...



Submit

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

Debugger

Average time

0.006 s

6.25 ms

Maximum time

0.007 s

7.00 ms

2 out of 2 shown test case(s) passed

2 out of 2 hidden test case(s) passed

Test case 1 7 ms

Expected output

6.54

1.23

4.02

Actual output

6.54

1.23

4.02

Debug



Test case 2 7 ms

Terminal

Test cases

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

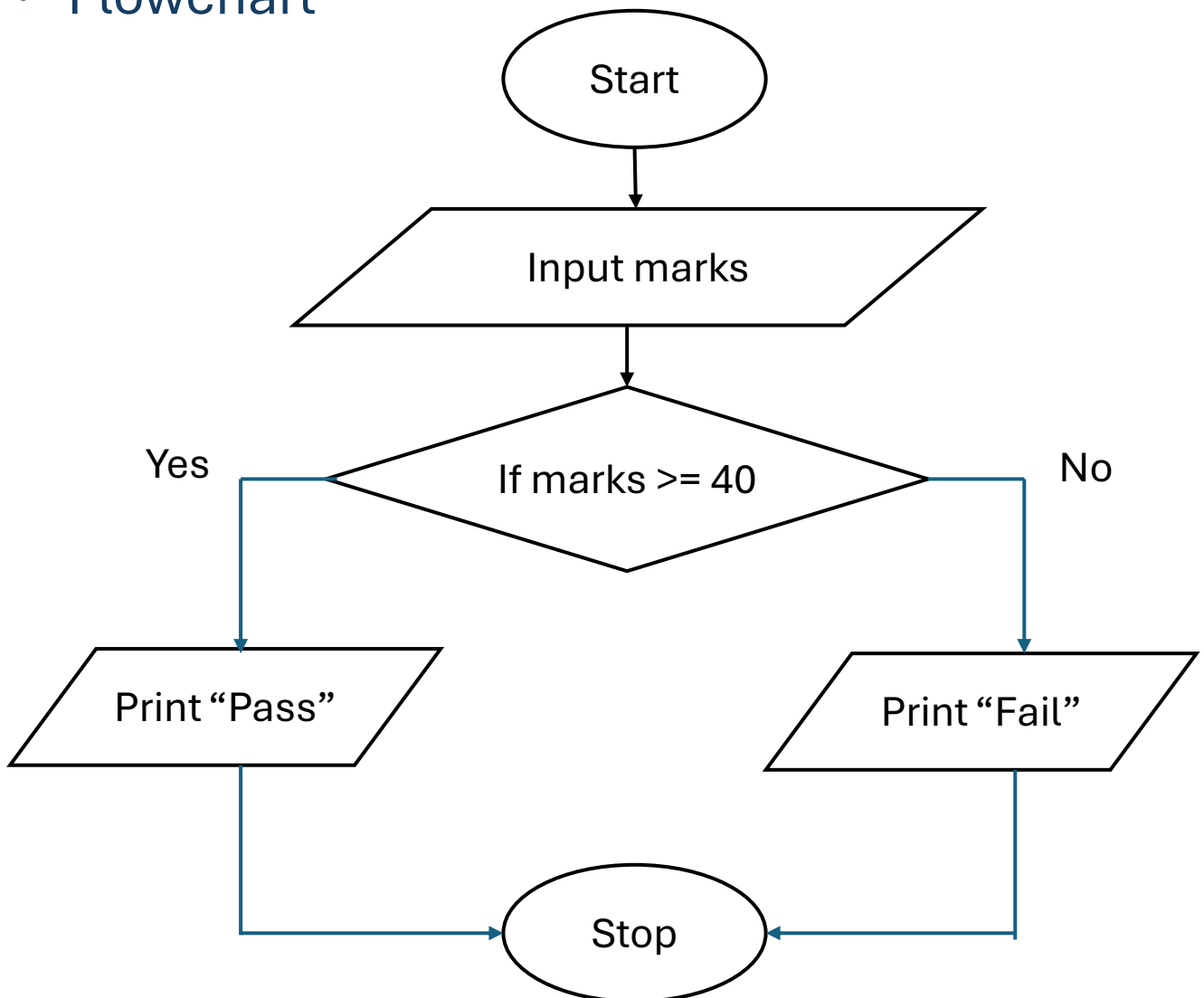
 Print "Pass"

 Else

 Print "Fail"

STEP 4 : Stop

- Flowchart



1.1.5. Student Pass or Fail Status

08:09 A C D E F -

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

```
1 marks = int(input())
2 if marks >= 40:
3     print("Pass")
4 else:
5     print("Fail")
6
7
```

Submit

Debugger

Average time 0.004 s
Maximum time 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 6 ms

Expected output

45

Actual output

45

Pass

Pass

Debug

Test cases

Test case 2 3 ms

Test case 3 4 ms

Terminal

Test cases

• Code

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

• Execution