

EXPERIMENT - 1

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1.1.4 AREA OF TRIANGLE

ALGORITHM

Step 1] Start

Step 2] Read the base of the triangle.

Step 3] Read the height of the triangle.

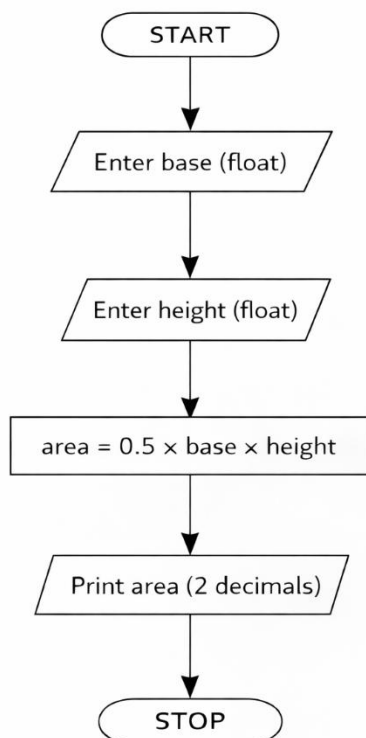
Step 4] Calculate the area using the formula

Step 5] $\text{area} = 0.5 \times \text{base} \times \text{height}$

Step 6] Display the area formatted to 2 decimal places.

Step 7] Stop

Flowchart



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Python Code

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

EXCECUTION

The screenshot displays the CODETANTRA web-based IDE interface. On the left, a problem titled "1.1.4. Area of Triangle" is shown, including a description, formula ($\text{Area of Triangle} = 0.5 \times \text{base} \times \text{height}$), input/output formats, and sample test cases. The main editor on the right contains the Python code for calculating the area. Below the code editor, the execution results are displayed, showing that 2 out of 2 test cases passed. The test cases table shows expected and actual outputs for two different inputs.

Problem Statement: 1.1.4. Area of Triangle

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

Execution Results:

- Average time: 0.004 s (4.25 ms)
- Maximum time: 0.005 s (5.00 ms)
- 2 out of 2 shown test case(s) passed
- 2 out of 2 hidden test case(s) passed

| Test Case | Expected output | Actual output |
|-------------|-----------------|---------------|
| Test case 1 | 6.54 | 6.54 |
| | 1.23 | 1.23 |
| | 4.02 | 4.02 |
| Test case 2 | | |

Terminal | Test cases

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