

04 Hr **45** Min
03 Sec**Guidelines**

Coding Area

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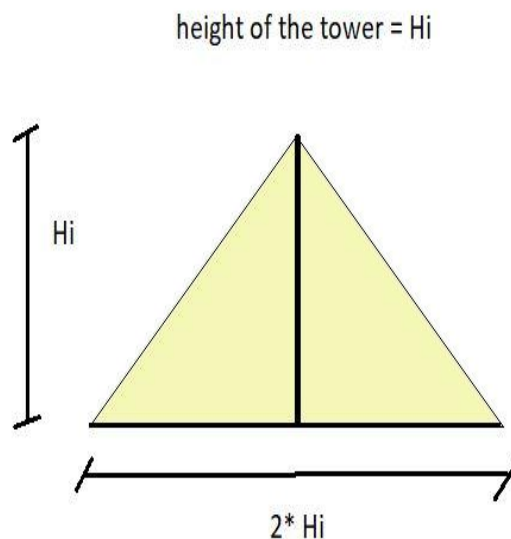
Coding Area

A B C **D** E F G H**ONLINE EDITOR (D)**

Tower of Lights

+ Problem Description

There are N number of Light towers (L1...LN) with height (Hi). Amount of area lighted by a tower of height Hi is shown in the image.



Total Area for this case is H_i^2 . These towers are placed on a long road. You need to find the total amount of area has light.

+ Constraints

$$1 \leq T \leq 100$$

$$1 \leq N \leq 1000$$

$$0 \leq P \leq 1000$$

$$1 \leq H \leq 1000$$

+ Input Format

The first line contains one Integer T, the number of test cases.

For each test case,

The first line contains one Integer N, the number of light towers. In next N lines, each line contains two integers P and H, where P represents the

position and H represents the height.

+ Output

T double values in T lines represent the area for each test case.

+ Test Case

+ Explanation

Example 1

Input 1

1

10 2

Output

4.0

Example 2

Input 2

3 4 8 6 2 12 3

2

5 4

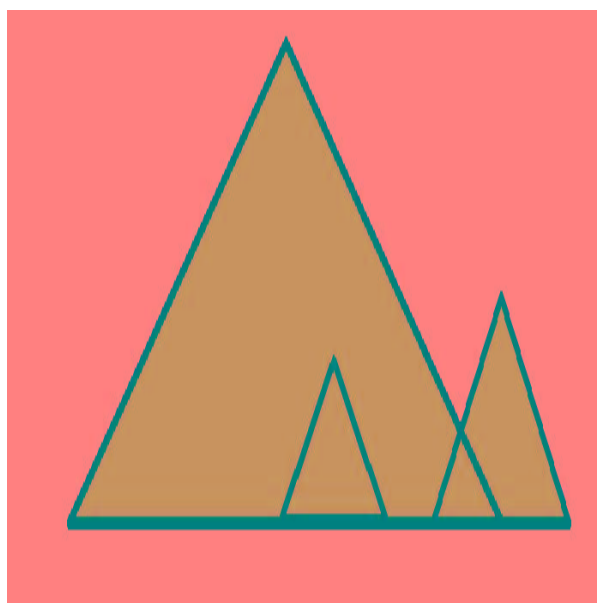
7 4

Output

70.75

23.0

Explanation picture for Example #2 and Example #1



Upload Solution [Question : D]

☐ I, **sammeta giri** confirm that the answer submitted is my own.

☐ Took help from online sources (attributions)

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