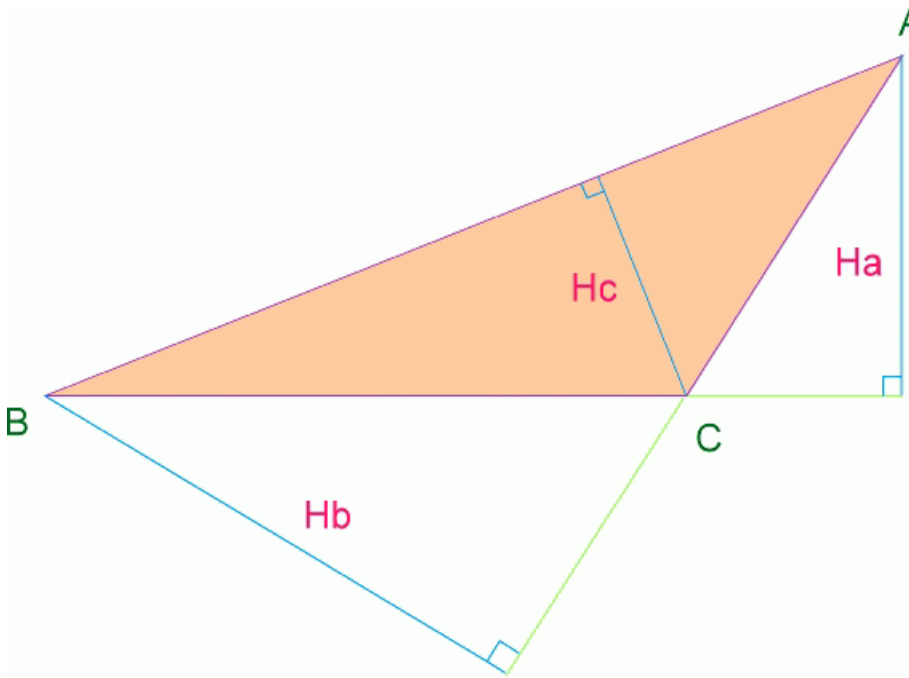
It's an easy geometry problem. For any triangle ABC we know that the height from A to the line BC (or it's extension) is $H_a$, from B to the line AC (or it's extension) is $H_b$ and from C to the line AB (or it's extension) is $H_c$. Now you are given these three values and you have to figure out the area of the $\triangle$ABC




## Input

At first the input will be an integer $n$. Which denotes the number of invalid inputs after which the input will terminate. Then there will be three real numbers $H_a$, $H_b$ and $H_c$ per line.

## Output

For each input block there should be one output line. For valid inputs the line contains the area of the $\triangle$ABC up to 3 decimal places after the decimal point and for invalid inputs there will be a line '`These are invalid inputs!`'. After $n$ invalid input sets the program will terminate.

## Sample Input

```
1
31.573 22.352 63.448
46.300 50.868 86.683
22.005 24.725 22.914
5.710 25.635 32.805
```

## Sample Output

```
1517.456
2219.941
311.804
These are invalid inputs!
```