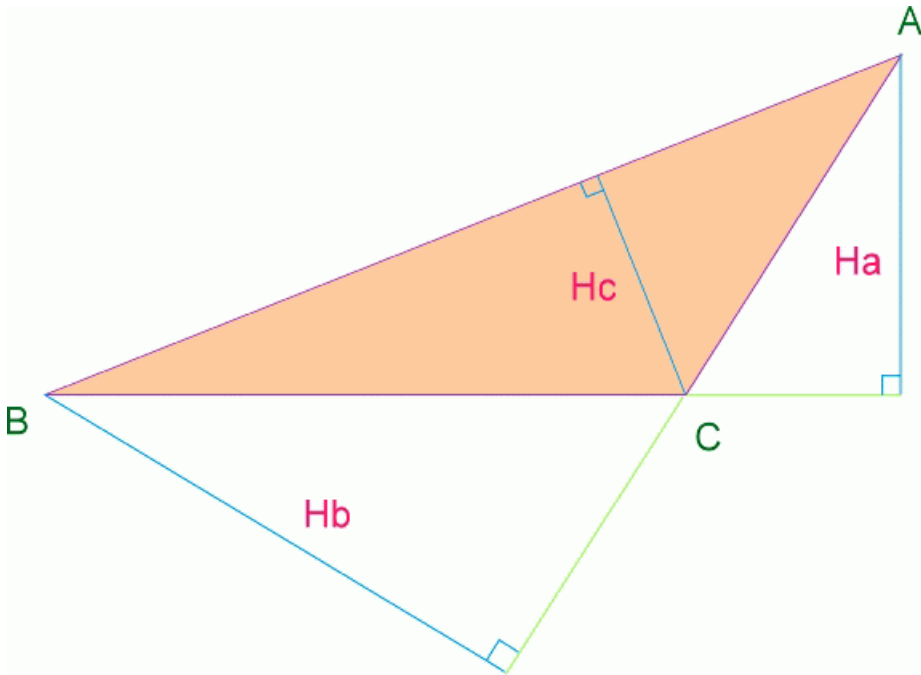


10522 Height to Area

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!