Small Triangles, Large Triangles

You are given n triangles, specifically, their sides a_i, b_i and c_i. Print them in the same style but sorted by their areas from the smallest one to the largest one. It is guaranteed that all the areas are different.

The best way to calculate a volume of the triangle with sides a, b and c is Heron's formula:

$S = \sqrt{p \times (p-a) \times (p-b) \times (p-c)}$ where $p = \frac{a+b+c}{2}$.

Input Format

First line of each test file contains a single integer n. n lines follow with a_i, b_i and c_i on each separated by single spaces.

Constraints

- $1 \leq n \leq 100$
- $1 \leq a_i, b_i, c_i \leq 70$
- $a_i + b_i > c_i, a_i + c_i > b_i$ and $b_i + c_i > a_i$

Output Format

Print exactly n lines. On each line print 3 integers separated by single spaces, which are a_i, b_i and c_i of the corresponding triangle.

Sample Input 0

```
3
7 24 25
5 12 13
3 4 5
```

Sample Output 0

```
3 4 5
5 12 13
7 24 25
```

Explanation 0

The square of the first triangle is 84. The square of the second triangle is 30. The square of the third triangle is 6. So the sorted order is the reverse one.