

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 area of a triangle with sides a , b and c is Heron's formula:

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

Input Format

The first line of each test file contains a single integer n . n lines follow with three space-separated integers, a_i , b_i and c_i .

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 space-separated integers, the 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.