

Sorting points

[Wersja polska](#)

[English version](#)

Write a program which will sort points and write it in descending order.

Input

The first line of the standard input contains one integer **t** ($t < 1000$) which is the number of points to sort.

In each of the next **t** lines there are numbers **x**, **y** and **z** ($x, y, z < 1001$) which are x, y and z coordinates of i-th point in spherical coordinate system.

Output

For each test, print list of sorted in descending order points.

Example

Input

```
6
3 2 2
2 1 3
2 3 1
1 3 2
3 1 2
1 3 1
```

Output:

```
1 3 1
1 3 2
2 1 3
2 3 1
3 1 2
3 2 2
```