Problem D
Mosquito killer

Time limit: **3 seconds**

Memory limit: **1024 megabytes**

Problem Description

On a breezy and sunny night, as Pei-Hen climbed into bed ready to sleep, he heard the sound of a mosquito flapping its wings, which kept him from falling asleep. However, Pei-Hen had previously read an article by a scientist named Tsung-Lin, who had studied mosquitoes for many years. The article explained that the annoyance of mosquitoes is related to their flying speed, weight, and the decibel level of their wing flapping. To get a good night's sleep, Pei-Hen needed to deal with the mosquitoes that had a higher decibel level of wing flapping first. If the decibel levels were the same, he would then handle the mosquitoes with the faster flying speed. If the flying speeds were the same, he would prioritize the lighter mosquitoes. Please write a program to help poor Pei-Hen to killer mosquitoes!

Input Format

Your program is to read from standard input. Each test case has $N + 1$ lines. The first line is an integer number N, which indicates the number of mosquitoes. Following N lines, each line has four numbers, *no*, *weight*, *speed* and *decibel*. *no* indicates the serial number of mosquitoe, *weight* indicates the weight of mosquitoe, *speed* indicates the flying speed mosquitoe and *decibel* indicates the decibel level of wing flapping. The file end with the input is $N = 0$.

Output Format

Your program is to write to standard output. For each test case, output the order in which to kill the mosquitoes. If it is impossible to determine (when weight, flying speed, and wing flapping decibel levels are all the same), then kill them according to their original order.

Technical Specification

- $0 \leq N \leq 100$

- $0 \leq no \leq 10,000$

- $0 \leq weight \leq 10$

- $0 \leq speed \leq 1,000$

- $0 \leq decibel \leq 100$

Sample Input 1

```
3
```

Sample Output 1

```
2 3 1
```

```
1 3.1 5.4 40
2 4.1 7.5 80
3 2.5 4 50
5
1 1.1 5.4 40
2 1.1 5.7 40
3 1.1 6.1 75
4 1.2 6.1 75
5 1.2 6.1 75
0
```

```
3 4 5 2 1
```