Grade Sorting III

Time: 1 sec / Memory: 256 MB

Problem Statement

NCYU organized an entrance examination with five subjects:

> "Chinese",
> "English",
> "Mathematics",
> "Science", and
> "Social Studies".

The score of each subject is an integer between 0 and 100.
To select outstanding candidates, for any two students, the following rules are applied to determine the relative rank of them.
為了要選出優秀的同學, NYCU 對所有同學進行排序，以下的規則被使用來決定 "任兩位同學" 之間的先後次序。

1. **Total Score Priority:**
   The student with the higher total score across all five subjects has a higher priority for admission.
   總分較高的那個人可以排在另一個人前面.

2. **Exceptional Performance Priority:**
   If rule 1 does not provide an ordering for them, then compare the number of passing subjects. The one with more passing subjects will be ranked higher. The passing score is 60 or above points.
   若上述規則一無法決定兩者的先後次序，則以及格科目數量比較，及格科目數量較多的排在前面。及格分數為 60 分以上。

3. **Subject-wise Priority**
   If the above conditions are insufficient to determine the ranking between the two students, then compare their scores sequentially in the following order: Chinese, English, Mathematics, Science, and Social Studies. The

student with the higher score in the first differing subject is given priority for admission.
若上述的規則仍無法決定兩位同學的先後次序，那麼依照以下的順序,，比較兩位同學各個科目的成績"國文"、"英文"、"數學"、"科學"、"社會科學"。先在某科目勝出的同學可以排在前面。

This year, a total of n students are participating in the entrance examination. You are provided with each student's scores in all five subjects. Write a program to determine the priority ranking of each student based on the above rules.

Input

n
$\text{Chinese}_1\ \text{English}_1\ \text{Mathematics}_1\ \text{Science}_1\ \text{SocialStudies}_1$
$\text{Chinese}_2\ \text{English}_2\ \text{Mathematics}_2\ \text{Science}_2\ \text{SocialStudies}_2$
$\ldots$
$\text{Chinese}_n\ \text{English}_n\ \text{Mathematics}_n\ \text{Science}_n\ \text{SocialStudies}_n$

Output

Print the scores of the students in the order determined by the above ranking rules. Each student's scores should be printed in a separate line.

Constraints

$1 \leq n \leq 10^5$
$0 \leq \text{Chinese}_i, \text{English}_i, \text{Mathematics}_i, \text{Science}_i, \text{SocialStudies}_i \leq 100$

It is guaranteed that for any two students, there is at least one subject in which their scores differ.

Example

Input1:

```
4
100 19 81 71 38
81 50 59 70 50
81 50 59 71 49
80 50 60 71 49
```

Output1:

```
80 50 60 71 49
81 50 59 71 49
81 50 59 70 50
100 19 81 71 38
```