Problem
Best Contest Director
Time limit: 3 seconds

You might know that Little Cyan Fish creates a lot of contests every year. You know, Universal Cup contests, ICPC contests, Informatics Olympiads, and so on and so on… I have heard that Little Cyan Fish has been really tired these days, so I would like to help him.

Specifically, I have created n problem-setting groups, labeled from 1 to n. The i-th group initially has k_i members, whose strengths are the integers $a_{i,1}, a_{i,2}, \ldots, a_{i,k_i}$. The **influence** of a group is the **sum** of the strengths of its members. An empty group has an influence of 0.

But Little Cyan Fish does not trust the members I have selected for him (which is sad). As the director, he wants to kick out as many of them as possible. However, he wants to be fair: whenever he kicks out a member, that member must have the smallest strength in their group. Formally, in one operation, Little Cyan Fish chooses a nonempty group and dismisses one of its members with the smallest strength. If several members tie, he may choose any of them.

You know, the members will be very sad to hear that someone has been fired, or… maybe they will even rise up in arms! Little Cyan Fish really does not want any problem-setting group to become dominant in the process. Therefore, **after each operation**, the influence of every group must be **no more than** the sum of the influences of all the other groups. That is, for every group i,

$$s_i \le \sum_{j \ne i} s_j,$$

where s_i denotes the current influence of group i. The initial groups do not necessarily satisfy this condition.

Find the maximum number of members that can be dismissed, and construct an optimal sequence of operations.

Input

There are multiple test cases. The first line contains a single integer T ($1 \le T$), indicating the number of test cases.

For each test case, the first line contains a single integer n ($1 \le n \le 5 \times 10^5$), the number of groups. Each of the next n lines describes one group: the i-th of these lines begins with an integer k_i ($1 \le k_i \le 5 \times 10^5$), followed by k_i integers $a_{i,1}, a_{i,2}, \ldots, a_{i,k_i}$ ($1 \le a_{i,j} \le 10^9$), the strengths of the members of the i-th group.

It is guaranteed that the sum of n over all test cases does not exceed 5×10^5, and the sum of k_i over all test cases does not exceed 5×10^5.

Output

For each test case, output two lines. The first line contains a single integer m, the maximum number of members that can be dismissed. The second line contains m integers $b_1, b_2, \ldots, b_m$ ($1 \le b_i \le n$), where b_i is the label of the group chosen in the i-th operation. If $m = 0$, the second line should be empty.

If there are multiple optimal sequences of operations, you may output any of them.

Sample Input 1

```
3
4
1 1
2 2 4
2 3 4
1 8
1
1 7
2
2 1 1
2 1 1
```

Sample Output 1

```
4
3 2 4 1
1
1
0
```