

Problem D. Sequence sorting

Input file: **stdin**
Output file: **stdout**
Time limit: 1 second
Memory limit: 512 megabytes

Given n sequences s_1, s_2, \dots, s_n , sort them in lexicographic order.

Input

The first line contains an integer n ($1 \leq n \leq 1000000$).

Each of the following n lines contains an integer k_i which denotes the length of s_i , followed by k_i integers $s_{i,1}, s_{i,2}, \dots, s_{i,k_i}$ which denotes the sequence s_i ($1 \leq s_{i,1} \leq s_{i,2} \leq \dots \leq s_{i,k_i} \leq 5000000$).

($k_i \geq 1, k_1 + k_2 + \dots + k_n \leq 5000000$)

Since the input is extremely large, it is recommended to use the following code snippet to read a 32-bit integer.

```
#include <cctype>

int get_int() {
    char ch = getchar();
    while (!isdigit(ch)) ch = getchar();
    int ret = 0;
    while (isdigit(ch)) {
        ret = ret * 10 + ch - '0';
        ch = getchar();
    }
    return ret;
}
```

Output

n integers p_1, p_2, \dots, p_n , where p_i denotes the index of the i -th smallest sequence.

If two or more sequences are the same, sort them according to their indices.

Sample input and output

stdin	stdout
4	1
2 1 3	4
1 12	3
3 1 3 4	2
2 1 3	