Assignment 1: Problem 4

CCG Training

Amon has just joined the CCG to become a Ghoul Investigator. He was assigned to First class investigator Mado. As ghoul hunting is dangerous business, Mado wants to make sure Amon is strong enough to fight ghouls on his own. He takes Amon to the CCG's main ghoul detention center, **Cochlea**.

Cochlea is a prison, consisting of n underground floors, numbered 1 to n. There are n types of ghouls in the prison, and each ghoul type has a particular strength rating.

In the i-th floor, Mado can place i ghouls such that no two of them are of the same type. Once he places the ghouls, the ghouls then team up within the floor, and the strongest one (one with highest strength) becomes the leader. The leader then uses his strategy to try to defeat Amon.

Because Amon is still just a junior investigator, Mado does not want his training to be too monotonous. So he wants to ensure that no two floors have leader ghouls of the same type.

As Mado is busy searching for the Rabbit (Touka), he asks you to assign ghouls for Amon's training.

Input

The first line contains an integer n ($1 \leq n \leq 10^3$).
The second line contains n space separated, distinct integers, the i-th integer S_i denotes the strength of the i-th ghoul type ($1 \leq S_i \leq 10^9$).

Output

Print n lines as follows:
The i-th line has the list of ghoul types in the i-th floor, in ascending order.

Sample Input

```
3
100 400 1000
```

Sample Output

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

Explanation

In the first floor, there is only one ghoul, of strength 100. So he is the leader.
In the second floor, there are two ghouls, of strengths 100 and 400. So the leader has strength 400.
In the first floor, the leader has strength 1000.
The leader strengths are {100, 400, 1000} which are distinct.

Limits

Time: 2 seconds

Memory: 256 MB