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Handshaking Event

Time Limit	1 second
Memory Limit	128 MB

In the ACM country, there is a famous idol group namely ACM48. Normally, ACM48 has an event for their fans to meet and greet with the group, which the spotlight is handshaking. The persons who want to attend the event have to acquire a special ticket. Each special ticket has its own ID, but unfortunately, the staff made mistakes resulting in some tickets may contain the same ID. Since this event has a lot of attendees, there has to be an ordering for the fans to handshake the idol group. The ordering divides the attendees into two lines, one for odd IDs, and another for even IDs. These two lines are also sorted in ascending order.

The staffs of ACM48 know that they are not careful enough, so they want you to help writing a program to solve this problem.

INPUT

The first line contains an integer **T** (**1 ≤ T ≤ 10**) representing the number of tasks.

The first line of each task contains an integer **N** (**1 ≤ N ≤ 1,000**) representing the number of attendees.

The second line of each task contains **N** integers. Each integer represents an ID M_i (**1 ≤** M_i **≤ 1,000**)

OUTPUT

The output contains two lines for each task.

The first line contains the IDs of the odd line, sorted in ascending order.

The second line contains the IDs of the even line, sorted in ascending order.

EXAMPLE

Sample Input	Sample Output
3 5 9 9 2 1 18 1 2 1 3	1 9 9 2 18 2 3