12580 Yell Classico

The *Old Yellers*, the contestants of the old days of IIUC are going to have a football match with the current contestants. As the *yellers* are going to be the host of the match, it will be called 'Yell Classico'. As the yellers are always busy in yelling, oops, I mean programming, they have appointed you as the manager of their team. Now, as a manager of the *Yeller* team, you have to select 11 players for the match from N players.

All the N players will stand in a line just before the match. Your task will be to select 11 players from them in such a way that, the player standing in front is as tall as possible. If there are more than one such team formations, do it in a way where the 2nd player is as tall as possible. If still there is a tie, choose the formation having tallest player in the 3rd position and so on. (Which means, until you can break the tie or reach the 11th position, keep looking in the next position).

Note that,

- 1. You don't have enough time to change the order in which players are standing.
- 2. If you have the even after reaching the 11th position, select from any of the tied formations.

Players are quite same in their playing abilities, you don't need to bother about that.

Input

First line of input will contain the number of test cases, $T \leq 100$.

For each test case, there are two lines.

The first line contain N (number of players, $1 \le N \le 2000$).

The second one is a line of N integers separated by spaces. The ith integer of this line will specify the height of the ith player. (Heights will not be greater than 10^9).

Output

For each test case output 'Case X: ', (X is the case number, starting from 1). Then print the heights of the 11 selected players separated by spaces. If it's not possible to select exactly 11 players, then send the spectators home by printing 'go home!' (Without quotations). See the sample output for exact formatting.

Output Explanation

In the last test case, there are 12 ways you can choose the team.

From them, you can not select the 1st team-formation because it has a player with height 2 in front, but other formations have a taller player of height 6 in front.

Now, there is a tie, because, all the other formations have a player of same height (6) in front. So, now you will have to look for the formation which has the tallest player in next (2nd) position. For this case, it is the second one (having a player of height 3) and there is no tie for this position. So, the team-formation you will select is 6 3 8 7 2 5 3 4 3 5 10.

Sample Input

4 15 2 10 8 5 1 5 9 9 3 5 6 6 2 2 8 11 2 6 3 8 7 2 5 3 4 3 3 4 2 7 9 6 12 6 2 3 8 7 2 5 3 4 3 3 10

Sample Output

Case 1: 10 8 9 9 3 5 6 6 2 2 8 Case 2: 2 6 3 8 7 2 5 3 4 3 3 Case 3: go home! Case 4: 6 3 8 7 2 5 3 4 3 3 10