Problem N. Best Solution Unknown

Input file:	*standard input*
Output file:	*standard output*
Time limit:	3 seconds
Memory limit:	512 mebibytes

You are the responsible holder of a competition called *Best Solution Unknown* (BSU). The rules of this competition are simple but rather quirky.

First, all the n participants stand in a row. Then, $n-1$ matches are held. In each match, jury chooses two *adjacent* players. The chosen players are given an NP-hard problem, and they try their best to come up with a good solution. The one who provides a better solution wins a round, the other one leaves the competition. After that, players shift to form a valid row again, so the player adjacent to the player that has left the competition becomes adjacent to the winner of the round. As you can see, after all the $n-1$ matches, only one player remains, and this player is declared a winner of the competition.

You know the competitors well, so you know the *strength* of each player before the competition. The strength of the i-th player, counting from the left of the row, is a_i. You also know that a player with greater strength wins the match. If the players have equal strength, both have a chance to win. You have noticed that victories motivate the players, so the strength of the winner of a match increases by one.

However, you do not know who plays in each match and who wins a match in case of equal strengths. So, you are wondering who can become the winner of the competition. You thought it was a good problem for the participants of BSU, but, unfortunately, it is not NP-hard, so you have to solve it yourself.

Input

The first line contains an integer n, denoting the number of participants of BSU ($1 \le n \le 10^6$).

The second line contains n integers a_i, where a_i is the initial strength of the i-th participant ($1 \le a_i \le 10^9$).

Output

The first line should contain an integer k, the number of participants that can possibly win the competition ($1 \le k \le n$).

The second line should contain k integers b_i in strictly increasing order, the indices of these participants ($1 \le b_1 < b_2 < \ldots < b_k \le n$).

Examples

standard input	standard output
3 3 2 2	3 1 2 3
3 1 2 1	1 2
5 1 2 3 5 5	3 3 4 5
1 10	1 1