Problem H. Frog

It's a sunshiny beautiful day. Danny the Frog Hunter, invited you to play a new game. The game board consists of n cells in a straight line, numbered from 1 to n. Each cell contains a number a_i such that $1 \le a_i \le n$ and $a_i \ne a_j$ for each $i \ne j$.

A Frog is placed in one of the cells. They take alternating turns moving the Frog around the board, with Danny moving first. The current player can move from cell i to cell j only if the following two conditions are satisfied:

- the number in the new cell j must be strictly larger than the number in the old cell i ($a_j > a_i$)
- the distance that the Frog travels during this turn must be a multiple of the number in the old cell ($|a_i - a_j| \mod a_i = 0$)

Whoever is unable to make a move, loses. both players play optimally. It can be shown that there always is a winning strategy for one of the players.

Determine the starting positions that lead you to win the game if you play optimally.

Input

The first line contains a single integer n ($1 \le n \le 10^5$) — the number of numbers.

The second line contains n integers $a_1, a_2, \ldots, a_n$ ($1 \le a_i \le n$) such that $a_i \ne a_j$ for each $i \ne j$.

Output

In the first line print x - the number of starting positions that lead you to win the game.

In the second line print x integers ascending - the starting positions that lead you to win the game.

Examples

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

Explanations

In the first sample, if Danny puts the Frog on the number (**not position**):

1: You can move the Frog to any number and win by picking the 6 after.

2: You should move the Frog to 3. Danny moves it to 4. You move it to the 5 and there is no choice for Danny now. Note that in this case, all moves were forcible.

4: You move it to the 5 and there is no choice for Danny now.