Longest Increasing Subsequence

Problem ID: longincsubseq
CPU Time limit: 2 seconds
Memory limit: 1024 MB
Difficulty: 5.6

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Source: KTH CSC Popup 2006

Input

The input consists of several test cases. Each test case begins with a positive integer $n \leq 100\,000$, indicating the length of a sequence. Then follows a sequence of n integers, that fit into 32-bit integer variables.

Output

For each test case, output a line containing the length of a longest increasing subsequence, followed by a line containing the indices of the elements in one such sequence (the first element has index 0, the second index 1, and so on). The indices should be given in ascending order.

Sample Input 1

```
10
1 2 3 4 5 6 7 8 9 10
10
1 1 1 1 1 1 1 1 1 1
10
5 19 5 81 50 28 29 1 83 23
```

Sample Output 1

```
10
0 1 2 3 4 5 6 7 8 9
1
7
5
0 1 5 6 8
```