HOME   TOP   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   HELP   DASHA 🏆   CALENDAR

PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   HACKS   STANDINGS   CUSTOM INVOCATION

B. Shooting

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Recently Vasya decided to improve his pistol shooting skills. Today his coach offered him the following exercise. He placed n cans in a row on a table. Cans are numbered from left to right from 1 to n. Vasya has to knock down each can exactly once to finish the exercise. He is allowed to choose **the order** in which he will knock the cans down.

Vasya knows that the *durability* of the i-th can is a_i. It means that if Vasya has already knocked x cans down and is now about to start shooting the i-th one, he will need $(a_i \cdot x + 1)$ shots to knock it down. You can assume that if Vasya starts shooting the i-th can, he will be shooting it until he knocks it down.

Your task is to choose such an order of shooting so that the number of shots required to knock each of the n given cans down exactly once is minimum possible.

Input

The first line of the input contains one integer n $(2 \le n \le 1\,000)$ — the number of cans.
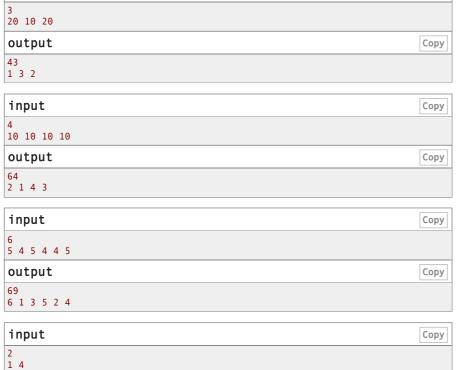
The second line of the input contains the sequence $a_1, a_2, \ldots, a_n$ $(1 \le a_i \le 1\,000)$, where a_i is the durability of the i-th can.

Output

In the first line print the minimum number of shots required to knock each of the n given cans down exactly once.

In the second line print the sequence consisting of n **distinct** integers from 1 to n — the order of indices of cans that minimizes the number of shots required. If there are several answers, you can print any of them.

Examples

input	Copy
3 20 10 20	

output	Copy
43 1 3 2	

input	Copy
4 10 10 10 10	

output	Copy
64 2 1 4 3	

input	Copy
6 5 4 5 4 4 5	

output	Copy
69 6 1 3 5 2 4	

input	Copy
2 1 4	

output

```
3
2 1
```

Note

In the first example Vasya can start shooting from the first can. He knocks it down with the first shot because he haven't knocked any other cans down before. After that he has to shoot the third can. To knock it down he shoots $20 \cdot 1 + 1 = 21$ times. After that only second can remains. To knock it down Vasya shoots $10 \cdot 2 + 1 = 21$ times. So the total number of shots is $1 + 21 + 21 = 43$.

In the second example the order of shooting does not matter because all cans have the same durability.

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