



Princeton Computer Science Contest – Fall 2024

## Problem 2: Late Meal (6 points) [Codeforces]

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When you order from the grill in late meal, you receive a receipt with an order number. Orders are made and marked with the last three digits of the order number. We'll call these last three digits the *order code*. For example, if your order number is 24755478, then the order code is 478. To the dismay of many, the sequence that orders are completed and served are close to being in ascending order according to the order code, but not exactly. You'll have order code 109 and watch 121, 120, 110, 115, and 119 be served before yours! Ugh! :(

A customer will be *upset* if their order number follows any order with a larger code. The USG senate has asked you to help them track this persistent issue at late meal. Help them by writing a program that, given a sequence of order codes in the order they are completed, reports the number of upset customers.

### Input

The first line contains a single integer  $n$ , the number of order codes to consider. The second line contains  $n$  space-separated integer order codes  $c_i$  for  $1 \leq i \leq N$ .

### Output

The output should consist of one integer: the number of upset customers, that is, the number of order codes  $c_i$  such that there exists  $c_j$  with  $j < i$  but  $c_i < c_j$ .

### Constraints

It is guaranteed that  $2 \leq N \leq 900$ , that  $100 \leq c_i \leq 999$  for every  $1 \leq i \leq N$ , and that the  $c_i$  are distinct.

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## Example

Input:

```
6
203 201 304 306 305 401
```

Output:

```
2
```

Explanation: The second and fifth customers are upset. The second is upset to see 203 served before theirs and the fifth is upset to see 306 served before theirs.

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