



HOME CONTESTS GYM PROBLEMSET GROUPS RATING API CANADA CUP 🖫 SECTIONS

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

B. Permutation

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

"Hey, it's homework time" — thought Polycarpus and of course he started with his favourite subject, IT. Polycarpus managed to solve all tasks but for the last one in 20 minutes. However, as he failed to solve the last task after some considerable time, the boy asked you to help him.

The sequence of n integers is called a permutation if it contains all integers from 1 to n exactly once.

You are given an arbitrary sequence $a_1, a_2, ..., a_n$ containing n integers. Each integer is not less than 1 and not greater than 5000. Determine what minimum number of elements Polycarpus needs to change to get a permutation (he should not delete or add numbers). In a single change he can modify any single sequence element (i. e. replace it with another integer).

Input

The first line of the input data contains an integer n ($1 \le n \le 5000$) which represents how many numbers are in the sequence. The second line contains a sequence of integers a_i ($1 \le a_i \le 5000$, $1 \le i \le n$).

Output

Print the only number — the minimum number of changes needed to get the permutation.

Examples

Lxampics		
input		
3 312		
312		
output		
0		
input		
2 22		
22		
output		
1		

input	
5 53331	
output	
2	

Note

The first sample contains the permutation, which is why no replacements are required.

In the second sample it is enough to replace the first element with the number 1 and that will make the sequence the needed permutation.

In the third sample we can replace the second element with number 4 and the fourth element with number 2.

→ **Attention**

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round #98 (Div. 2)

Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ **Problem tags**(greedy) No tag edit access

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→ Contest materials

- Announcement
- Tutorial

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