Stand in a Row!

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

There are n students in a DSA class, who are standing in a row with each student having a unique ID from 1 to n, Its exam time and students are expected to stand in a row in ascending order of their ID's, The TA's are busy with their placement season and want your help in arranging the students in increasing order of their ID's, you can pick a student and move them to the front, now you have to calculate the minimum steps required to rearrange the students in ascending order of their ID's, such that you can only select a student to move if all the students ahead of them are in ascending order of their ID's

Input

First line contains n, the number of students. Second line contains n space separated integers showing the current ordering.

Example

standard input	standard output
5 1 2 4 3 5	4

Note

Example:
5
1 2 4 3 5
Min steps to make it 1 2 3 4 5 is 4

Step 0 : 1 2 4 3 5
Step 1 : 3 1 2 4 5
Step 2 : 1 3 2 4 5
Step 3: 2 1 3 4 5
Step 4: 1 2 3 4 5