Success

Your final exam results have been published. You have done your best, but your teacher has informed that as usual, you have not stood first in your class (it's okay, you must have been too busy learning algorithms). Yet optimism never leaves you, and you wonder what your best possible rank can be.

Your class rank is defined as one added to the number of students who scored higher than you. In other words, if x students scored higher than you, your rank will be $x + 1$. For example, suppose the list of scores is $[68, 68, 70, 70, 98, 50]$, and your score is 68. Since 3 people scored higher than you, your rank is $3 + 1 = 4$.

To figure out your rank, you hacked into your school's server and found a list of everyone's scores. Unfortunately, the file does not have any names, so you are unable to figure out your exact score from the list. However, you know that you do not have the highest score from your teacher's words. Given the list of scores, find out the minimum rank you can have.

Input

Read the input from the standard input in the following format:

- line 1: n
- line 2: $a[1]$ $a[2]$ $\ldots$ $a[n]$

Here, n is the number of students in your class, and a is a list of n integers denoting the scores of the students in the class, which you obtained by hacking into the system.

Output

Write the output to the standard output in the following format:

- line 1: The minimum rank you can have.

Constraints

- $2 \leq n \leq 200\,000$
- $1 \leq a[i] \leq 100$ (for all $1 \leq i \leq n$)
- There exists $i \neq j$ such that $a[i] \neq a[j]$. In other words, not all integers in the list are same.

Subtasks

1. (13 points) $a[i] \leq 2$
2. (6 points) $a[i] \leq 3$
3. (34 points) $n \leq 1000$
4. (10 points) $a[i] \leq a[i+1]$ (for all $1 \leq i \leq n-1$)
5. (7 points) Only one student got the highest score.
6. (30 points) No further constraints.

Examples

Example 1

```
4
100 100 100 99
```

The correct output is:

```
4
```

There are 4 students in the class. All students in the class got a 100 score, except one who got 99. Since you know you have not got the highest score, you must be the poor soul who got 99. Thus all other 3 students scored more than you, so you rank is 4.

Example 2

```
3
90 75 85
```

The correct output is:

```
2
```

The highest score is 90. Since you do not have the highest score, your score must be 75 or 85. If your score is 75, your rank would be 3. But if your score is 85, your rank would be 2. Thus the minimum rank you can have is 2.

Example 3

```
6
3 1 4 5 5 5
```

The correct output is:

```
4
```

success (3 of 3)