

# Smallest Natural Number

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## Description

For a given group of natural numbers, please find the smallest natural number that **doesn't** appear in it.

For example, for the group  $[10, 1, 4, 11, 5, 9, 2, 4, 6, 1, 0]$ , the smallest natural number that doesn't appear is 3.

## Input

The first line contains a positive integer  $n$  denoting the number of numbers in the given group.

The second line contains  $n$  integers, separated by spaces, representing all the numbers the group contains.

## Output

Print one single integer indicating the the smallest natural number that doesn't appear in the group.

## Sample Input/Output

Input 1

```
11
10 1 4 11 5 9 2 4 6 0 1
```

Output 1

```
3
```

Input 2

```
2
1 2
```

Output 2

```
0
```

## Constraint

$1 \leq n \leq 10^6$ , and all integers in the input file are in  $[0, 10^9]$ .