# Bulgarian OI '09 P2 - Boxen

**Time limit:** 0.6s **Memory limit:** 32M

### 2009 Bulgarian Olympiad in Informatics

The programmer Pesho is a very thrifty person. The money which he earns from website design he stores in $N$ money boxen $(1 \leq N \leq 100\,000)$, labeled by the integers from $1$ to $N$. The intention of Pesho is to buy a new super-computer. In order to avoid the temptation to spend the money on rubbish, before the necessary sum is collected, he dropped all keys of the money-boxen in a random way inside the boxen themselves.

Fortunately, Pesho marked on a sheet of paper where the key for each money-box is stored. Now, the necessary money is finally collected and Pesho has to open all the money-boxen to take the money.

Unfortunately, no keys are available: Pesho must break the boxen! Pesho doesn't like breaking things, so he'd like to break as few boxen as possible. He realized that when a broken money-box contains a key of another money-box then the second money-box could be simply unlocked.

Write a program to determine the minimal number of money-boxen that have to be broken in order to collect all the stored money.

## Input Specification

The program has to solve two test cases for each run. Each test case starts with a line containing the number $N$ of money-boxen. Then $N$ lines follow with one integer from $1$ to $N$ - on the $i^{\text{th}}$ line is the box in which the key for the $i^{\text{th}}$ box is stored.

## Output Specification

Output the minimal number of boxen that must be broken. Separate the numbers with a space.

## Sample Input

```
4
2
1
2
4
3
3
3
3
```

## Sample Output

```
2 1
```

## Explanation

In the first test case, the 4th box must be broken, because it contains its own key. Then, you can simply break the 1st box - it contains the key for box 2, which contains the key for box 3.

In the second case, you can just break box 3 to enter everything.