

## B. Assignments (round 2)

Input: standard input (from the keyboard)

Output: standard output (to the screen)

Time limit: 1 second

Memory limit: 256 Mb

### Problem

From the first informatics lessons you, certainly, remember such a problem – to swap the values of the variables  $a$  and  $b$ . As it is known, the sequence of assignments « $a:=b; b:=a$ » is not a correct solution, because then both variables would take the value of  $b$ . A sequence « $c:=a; a:=b; b:=c$ », where  $c$  is an auxiliary variable, will be one of the right solutions. In the given problem a slightly more general question is regarded: what minimal quantity of assignments is needed to move the values of the variables  $a_1, a_2, \dots, a_n$  in a given way? It is allowed to use only the assignments of kind « $x:=y$ », where each of the variables  $x, y$  is some variable  $a_i$  ( $1 \leq i \leq n$ ) or some auxiliary variable. If an auxiliary variable is on the place of  $y$ , then the value of one of the variables  $a_1, a_2, \dots, a_n$  must be previously assigned to this variable.

### Input

There is a natural number  $n$  – the quantity of variables ( $n \leq 10$ ), in the first line of the input. In the second line the numbers  $i(1), i(2), \dots, i(n)$ , splitted by spaces, are written. Numbers have integer values from 1 to  $n$ . Some of them can coincide. For each integer  $j$  from 1 to  $n$  the number  $i(j)$  means, that the variable  $a_j$  has to get the initial value of the variable  $a_{i(j)}$ .

### Output

Output the least quantity of assignments, with which the given moving of values can be performed.

### Examples

Input	Output
2 2 1	3
4 1 4 4 3	3