Mock CCC '18 Contest 5 J4/S2 - Reverse Sort

Time limit: 1.0s   **Memory limit:** 1G

Given a permutation of the first N positive integers and the ability to swap any two adjacent integers, compute the minimum number of swaps needed to sort the list in decreasing order.

Constraints

$1 \leq N \leq 10^3$

v_i form a permutation of the first N positive integers.

Input Specification

The first line of the input consists of a single integer, N.

The next line contains N space-separated integers, the permutation of the first N integers.

Output Specification

Output, on a single line, the minimum number of swaps needed.

Sample Input

```
3
2 1 3
```

Sample Output

```
2
```