VM7WC '15 #1 Silver - Jung Goon

Time limit: 2.0s **Memory limit:** 64M

~~Junghoon~~ ~~Jugoon~~ Jung Goon, in an attempt to impress Mr. White, has decided to perform a complex magic trick. He starts by laying L $(0 \leq L \leq 60)$ cards face down on a table in a straight line. Each card has a number such that the L cards form some permutation of the numbers $1, 2, \ldots, L$. However, since Jung Goon has a photographic memory, he knows the exact order of his cards. His trick involves making a series of swaps, where he switches the positions of two adjacent cards. Since he is a computer science student, he wishes to use as few swaps as possible to sort the line of cards into the order $1, 2, \ldots, L$. Help him compute the minimum number of swaps required to sort the cards.

Input Specification

The input contains on the first line the number of test cases N $(1 \leq N \leq 10)$. Each test case consists of two input lines. The first line of a test case contains an integer L, determining the number of cards. The second line of a test case contains a permutation of the numbers 1 through L, indicating the current order of the cards.

Output Specification

For each test case, print the minimum number of swaps needed to sort the cards.

Sample Input

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

Sample Output

```
1
6
1
```