A. Penchick and Modern Monument
Zadanie z Codeforces / Div. 2 / A

Zadanie pochodzi z platformy Codeforces:
https://codeforces.com/contest/2031/problem/A

A. Penchick and Modern Monument

time limit per test: 1 second
memory limit per test: 256 megabytes

Amidst skyscrapers in the bustling metropolis of Metro Manila, the newest Noiph mall in the Philippines has just been completed! The construction manager, Penchick, ordered a state-of-the-art monument to be built with n pillars.

The heights of the monument's pillars can be represented as an array h of n positive integers, where h_i represents the height of the i-th pillar for all i between 1 and n.

Penchick wants the heights of the pillars to be in **non-decreasing** order, i.e. $h_i \leq h_{i+1}$ for all i between 1 and $n-1$. However, due to confusion, the monument was built such that the heights of the pillars are in **non-increasing** order instead, i.e. $h_i \geq h_{i+1}$ for all i between 1 and $n-1$.

Luckily, Penchick can modify the monument and do the following operation on the pillars as many times as necessary:

- Modify the height of a pillar to any positive integer. Formally, choose an index $1 \leq i \leq n$ and a positive integer x. Then, assign $h_i := x$.

Help Penchick determine the minimum number of operations needed to make the heights of the monument's pillars **non-decreasing**.

Input

Each test contains multiple test cases. The first line contains the number of test cases t ($1 \leq t \leq 1000$). The description of the test cases follows.

The first line of each test case contains a single integer n ($1 \leq n \leq 50$) — the number of pillars.

The second line of each test case contains n integers $h_1, h_2, \ldots, h_n$ ($1 \leq h_i \leq n$ and $h_i \geq h_{i+1}$) — the height of the pillars.

Please take note that the given array h is non-increasing.

Note that there are **no** constraints on the sum of n over all test cases.

Output

For each test case, output a single integer representing the minimum number of operations needed to make the heights of the pillars **non-decreasing**.

Example 1

Input

```
3
5
5 4 3 2 1
3
2 2 1
1
1
```

Output

```
4
1
0
```

Note

In the first test case, the initial heights of pillars are $h = [5, 4, 3, 2, 1]$.

- In the first operation, Penchick changes the height of pillar 1 to $h_1 := 2$.
- In the second operation, he changes the height of pillar 2 to $h_2 := 2$.
- In the third operation, he changes the height of pillar 4 to $h_4 := 4$.
- In the fourth operation, he changes the height of pillar 5 to $h_5 := 4$.

After the operation, the heights of the pillars are $h = [2, 2, 3, 4, 4]$, which is non-decreasing. It can be proven that it is not possible for Penchick to make the heights of the pillars non-decreasing in fewer than 4 operations.

In the second test case, Penchick can make the heights of the pillars non-decreasing by modifying the height of pillar 3 to $h_3 := 2$.

In the third test case, the heights of pillars are already non-decreasing, so no operations are required.