

Given an array of integers, find the number of the segments of the array without repeating integers in the segment. For example, number of the segments of the array without repeating letters for $\{1,2,1\}$ is 5. In 0 based indexing, these segments are (0,1), (1,2), (0), (1), (2).

Input

Input starts with T (≤ 20), the number of test cases to follow.

For each test case, in the first line one integer N ($1 \leq N \leq 100000$) is given. N is the number of integers in the array. In the next line N integers separated by space is given. i -th integer will be $arr[i]$ ($0 \leq arr[i] \leq 1000000000$).

Output

For each case, print the number of the segments of the array without repeating integers in the segment.

Sample Input

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

Sample Output

```
5
12
```