Minimum Penalty

? Ask Doubt

Time-Limit: 1 sec Score: 0/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100 Relevant For: AZ-201 AZ-202

Description

Given an array of *N* integers and an integer *D*. Consider all subarray with length *D*, the penalty of the subarray is the number of distinct elements present in the subarray. Find a subarray of length *D* with minimum penalty. Print the minimum penalty.

Input Format

The first line contains *T*, the number of test cases *(1<=T<=10000)*.

The first line contains two space-separated integers *N, D* where *1<=N<=10^6, 1<=D<=N.*

Next line contains *N* space-separated integers (0<=Ai<=1e6).

The Sum of *N* across all test cases ≤ 5*10^6.

Output Format

For each test case print the minimum penalty in a newline.

Sample Input 1

Copy

```
5
6 3
0 1 1 2 2 2
5 3
1 0 1 2 3
5 5
1 1 2 3 4
5 1
1 2 3 4 5
7 3
1 2 1 2 3 4 2
```

Sample Output 1

Copy

```
1
2
4
1
2
```

C++14[GCC]

Submit

```
1
```