https://course.acciojob.com/idle?question=d203d755-cbed-4c79-910b-d77dec37f33b

- MEDIUM
- Max Score: 40 Points

Minimum time to make Cakes

Given an array 'A' with 'N' positive integers, an integer 'M' and an integer 'K'.

Integer M denotes the number of cake to be made. The array denotes that the ith flavour will be available on A[i]th day.

To make a cake you need to select k consecutive flavours. Each flavour can only be used in 1 cake.

Your task is to calculate the minimum number of days in which the cakes can be made. If it is not possible to make the cake then print -1.

Input Formaat

The first line contains the number of test cases.

For each test case: The first line contains an integer 'N' denoting the number of elements, integer 'M' denoting number of cakes to be made, integer 'K' denoting a cake can be made using k consecutive flavours.

The second line contains N space separated integers denoting the elements of the array 'A'.

Output Format

For each test case print an integer in a new line, denoting the minimum time to build all the m cakes.

Example 1

Input:

```
1
5 3 1
1 10 3 10 2
```

Output:

```
3
```

Explanation:

We analyse for 3 days. A means flavour is available and N means not available.

We need 3 cakes each should contain 1 flavour.

After day 1: [A, N, N, N, N] // we can only make one cake.

After day 2: [A, N, N, N, A] // we can only make two cake.

After day 3: [A, N, A, N, A] // we can make 3 cake.

The answer is 3.

Example 2

Input:

```
1
5 1 2
1 10 3 10 2
```

Output:

```
10
```

Explanation:

We analyse for 10 days. A means flavour is available and N means not available.

We need 1 cakes each should contain 2 flavour.

After day 1: [A, N, N, N, N] // we can make no cake.

After day 2: [A, N, N, N, A] // we can make no cake.

After day 3: [A, N, A, N, A] // we can make no cake.

The array reamins same till day 9.

After day 3: [A, A, A, A, A] // we can make 1 cake.

The answer is 10.

Constraints

1 <= T <= 10

3 <= N <= 1000

3 <= M <= 10000

1 <= K <= N

0 <= A[i] <= 10000

Topic Tags

- **Binary Search**
- **Arrays**

My code

// n java

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- Binary Search
- Arrays