**Count distinct elements in every window**

Submissions: [13987](https://practice.geeksforgeeks.org/problem_submissions.php?pid=700444)  Accuracy:

44.16%

   Difficulty: [Easy](https://practice.geeksforgeeks.org/Easy/1/0/)   Marks: 2

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Given an array **A[]** of size **N** and an integer **K**. Your task is to complete the function **countDistinct**() which prints the count of distinct numbers in all windows of size k in the array A[].

**Input:**  
The first line of input contains an integer T denoting the number of test cases. Then T test cases follow. Each test case contains two integers N and K. Then in the next line are N space separated values of the array A[].

**Output:**  
For each test case in a new line print the space separated values denoting counts of distinct numbers in all windows of size k in the array A[].

**Constraints:**  
1 <= T <= 100  
1 <= N, K <= 100  
1 <= A[] <= 100

**Example(To be used only for expected output):**  
**Input:**  
2  
7 4  
1 2 1 3 4 2 3  
3 2  
4 1 1

**Output:**  
3 4 4 3  
2 1

**Note:**The **Input/Ouput** format and **Example** given are used for system's internal purpose, and should be used by a user for **Expected Output** only. As it is a function problem, hence a user should not read any input from stdin/console. The task is to complete the function specified, and not to write the full code.

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/count-distinct-elements-in-every-window/1/?ref=self#ExpectOP) option \*\*

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<https://practice.geeksforgeeks.org/problems/count-distinct-elements-in-every-window/1/?ref=self>

#include <iostream>

#include <stdio.h>

#include <set>

using namespace std;

*/\*You are required to complete below method \*/*

void countDistinct(int A[], int k, int n)

{

    int count[101];

    for(int i =0; i<101; i++) {

        count[i] = 0;

    }

    for (int i = 0; i < k; i++)

    {

        count[A[i]]++;

    }

    int dist = 0;

    for (int i = 0; i < 101; i++)

    {

        if (count[i] > 0)

        {

            dist++;

        }

    }

    cout << dist << " ";

    for (int i = 0; i + k < n; i++)

    {

        if (count[A[i]] > 0)

        {

            count[A[i]]--;

            if (count[A[i]] == 0)

            {

                dist--;

            }

        }

        else if (count[A[i]] == 0)

        {

            count[A[i]] = 0;

        }

        count[A[i + k]]++;

        if(count[A[i+k]] == 1)

        {

            dist++;

        }

        cout << dist << " ";

    }

}

int main() {

   int arr[] = {1, 2, 1, 3, 4, 2, 3};

    countDistinct(arr, 4, 7);

    return 0;

}