

The Land of Mines - Hackerearth

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As our mighty hero Sin is in pursuit of the wicked wizard, what he faces ahead is the land of mines .

In order to cross the land of mines Sin needs to disarm all the mines in his path. Individual mine contained an array of integers and a separate individual integer k written on it and a space above which "key" is written.

In order to diffuse a mine Sin needs to find key. The key to diffuse the bomb resides in the array written on individual mines.

To diffuse a mine Sin needs to find the count of all the sub arrays which contains k or more than k similar elements.

Since Sin is weak at calculations help Sin calculate the key in order to diffuse individual mine.

Constraints

$1 \leq t \leq 1000$

$1 \leq n \leq 10^5$

$1 \leq a_i \leq 10^9$

$1 \leq k \leq 10^5$

Input

First line contains integer t denoting number of testcases , Next t testcases contains :

First line contains integer n (size of array) and k

Second line contains array of integers.

Output

for every testcase , output no. of subarrays.

SAMPLE INPUT

```
2
7 1
2 4 2 4 3 1 2
4 2
4 3 4 3
```

SAMPLE OUTPUT

```
28
3
```

Explanation

For test case 2 : the sub arrays are: {4,3,4},{4,3,4,3},{3,4,3}

The Code:

```
#include <stdio.h>
#define LEN 100000
int main() {
    int caseCount, N, k, left, right, prevLeft, index, leftIndex;
    long long int currCount, leftCombi, rightCombi, result;
```

```

int arr[LEN], counts[LEN];

scanf("%d", &caseCount);
while(caseCount > 0) {
    scanf("%d %d", &N, &k);
    if(k == 1) {
        result = N * (N+1) / 2;
        printf("%lld\n", result);
        for(left=0; left<N; left++) {
            scanf("%d", &arr[left]); // Just exhausting the inputs. What a
waste of time.
        }
        caseCount--;
        continue;
    }
    for(left=0; left<LEN; left++) {
        counts[left] = 0;
    }
    prevLeft = -1; currCount = right = left = result = 0;
    for(right=0; right<N; right++) {
        scanf("%d", &arr[right]);

        index = arr[right];
        counts[index] += 1;

        if(counts[index] >= k) {

            for(left; left<right; left++) {
                leftIndex = arr[left];
                if(arr[left] != arr[right]) {
                    counts[leftIndex] -= 1;
                } else if(counts[index] > k){
                    counts[index] -= 1;
                } else {
                    break;
                }
            }

            leftCombi = (left-prevLeft);
            rightCombi = (N-right);
            result += leftCombi * rightCombi;
            prevLeft = left;
        }
    }
    printf("%lld\n", result);
    caseCount--;
}
}

```

The Stats:

Score
30.0

Time (sec)

1.31631

Memory (KiB)

976

Language

C