

D. Non-Secret Cypher

time limit per test: 3 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

Berland starts to seize the initiative on the war with Flatland. To drive the enemy from their native land, the berlanders need to know exactly how many more flatland soldiers are left in the enemy's reserve. Fortunately, the scouts captured an enemy in the morning, who had a secret encrypted message with the information the berlanders needed so much.

The captured enemy had an array of positive integers. Berland intelligence have long been aware of the flatland code: to convey the message, which contained a number m , the enemies use an array of integers a . The number of its subarrays, in which there are at least k equal numbers, equals m . The number k has long been known in the Berland army so General Touristov has once again asked Corporal Vasya to perform a simple task: to decipher the flatlanders' message.

Help Vasya, given an array of integers a and number k , find the number of subarrays of the array of numbers a , which has at least k equal numbers.

Subarray $a[i...j]$ ($1 \leq i \leq j \leq n$) of array $a = (a_1, a_2, ..., a_n)$ is an array, made from its consecutive elements, starting from the i -th one and ending with the j -th one: $a[i...j] = (a_i, a_{i+1}, ..., a_j)$.

Input

The first line contains two space-separated integers n, k ($1 \leq k \leq n \leq 4 \cdot 10^5$), showing how many numbers an array has and how many equal numbers the subarrays are required to have, correspondingly.

The second line contains n space-separated integers a_i ($1 \leq a_i \leq 10^9$) — elements of the array.

Output

Print the single number — the number of such subarrays of array a , that they have at least k equal integers.

Please do not use the `%lld` specifier to read or write 64-bit integers in C++. In is preferred to use the `cin, cout` streams or the `%I64d` specifier.

Examples

input	Copy
4 2 1 2 1 2	
output	Copy
3	

input	Copy
5 3 1 2 1 1 3	
output	Copy
2	

input	Copy
3 1 1 1 1	
output	Copy
6	

Note

In the first sample are three subarrays, containing at least two equal numbers: (1,2,1), (2,1,2) and (1,2,1,2).

In the second sample are two subarrays, containing three equal numbers: (1,2,1,1,3) and (1,2,1,1).

In the third sample any subarray contains at least one 1 number. Overall they are 6: (1), (1), (1), (1,1), (1,1) and (1,1,1).

→ Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

Codeforces Round #120 (Div. 2)

Finished

Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language:

Java 17 64bit

Choose file:

Choose File

 no file selected

Submit

→ Problem tags

two pointers

*1900

No tag edit access

→ Contest materials

- Announcement (ru)

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- Tutorial

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- Discussion (en)

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