

K-Distinct Subarrays

time limit per test: 1 second (2 seconds for Python)

memory limit per test: 500 megabytes

input: standard input

output: standard output

points: 100 · problem code: ksubarraydistinct

Given an array a of n integers, count how many non-empty contiguous subarrays contain at least k distinct values.

Input

The first line contains two integers n and k .

The second line contains n integers $a_1, a_2, \dots, a_n$.

Output

Print a single integer: the number of non-empty contiguous subarrays that contain at least k distinct values.

Constraints

- $1 \leq k \leq n \leq 2 \cdot 10^5$
- $-10^9 \leq a_i \leq 10^9$

Example 1

Input

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

Output

```
5
```

Explanation

The subarrays with at least 3 distinct values are:

- $[1, 2, 1, 3]$
- $[1, 2, 1, 3, 2]$
- $[2, 1, 3]$
- $[2, 1, 3, 2]$
- $[1, 3, 2]$