

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

E. Sereja and Suffixes

time limit per test: 1 second
memory limit per test: 256 megabytes

Sereja has an array a , consisting of n integers a_1, a_2, \dots, a_n . The boy cannot sit and do nothing, he decided to study an array. Sereja took a piece of paper and wrote out m integers l_1, l_2, \dots, l_m ($1 \leq l_i \leq n$). For each number l_i he wants to know how many distinct numbers are staying on the positions $l_i, l_i + 1, \dots, n$. Formally, he want to find the number of distinct numbers among $a_{l_i}, a_{l_i + 1}, \dots, a_n$.

Sereja wrote out the necessary array elements but the array was so large and the boy was so pressed for time. Help him, find the answer for the described question for each l_i .

Input

The first line contains two integers n and m ($1 \leq n, m \leq 10^5$). The second line contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^5$) — the array elements.

Next m lines contain integers l_1, l_2, \dots, l_m . The i -th line contains integer l_i ($1 \leq l_i \leq n$).

Output

Print m lines — on the i -th line print the answer to the number l_i .

Examples

input

10 10
1 2 3 4 1 2 3 4 100000 99999
1
2
3
4
5
6
7
8
9
10

Copy

output

6
6
6
6
6
5
4
3
2
1

Copy

ICPC Assiut University Training - Juniors Phase 1 Sheets-2022

Public

Participant

→ Group Contests

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 (Binary search , Two pointers)
- Juniors Phase 1 Practice #3 (STL 2)
- Juniors Phase 1 Practice #2 (STL 1)
- Juniors Phase 1 Practice #1 (Prefix sum , Frequency Array)

Juniors Phase 1 Practice #1 (Prefix sum , Frequency Array)

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

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
228003492	Oct/13/2023 12:15	Accepted