Dasha·

HOME   TOP   CONTESTS   GYM   PROBLEMSET   GROUPS   RATING   API   HELP   KOTLIN HEROES 🏆   DASHA 🏆   CALENDAR

PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   HACKS   ROOM   STANDINGS   CUSTOM INVOCATION

G1. Into Blocks (easy version)

time limit per test: 5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

This is an easier version of the next problem. In this version, $q = 0$.

A sequence of integers is called *nice* if its elements are arranged in blocks like in $[3, 3, 3, 4, 1, 1]$. Formally, if two elements are equal, everything in between must also be equal.

Let's define *difficulty* of a sequence as a minimum possible number of elements to change to get a nice sequence. However, if you change at least one element of value x to value y, you must also change all other elements of value x into y as well. For example, for $[3, 3, 1, 3, 2, 1, 2]$ it isn't allowed to change first 1 to 3 and second 1 to 2. You need to leave 1's untouched or change them to the same value.

You are given a sequence of integers $a_1, a_2, \ldots, a_n$ and q updates.

Each update is of form "$i\ x$" — change a_i to x. Updates are not independent (the change stays for the future).

Print the difficulty of the initial sequence and of the sequence after every update.

Input

The first line contains integers n and q $(1 \le n \le 200\,000, q = 0)$, the length of the sequence and the number of the updates.

The second line contains n integers $a_1, a_2, \ldots, a_n$ $(1 \le a_i \le 200\,000)$, the initial sequence.

Each of the following q lines contains integers i_t and x_t $(1 \le i_t \le n, 1 \le x_t \le 200\,000)$, the position and the new value for this position.

Output

Print $q + 1$ integers, the answer for the initial sequence and the answer after every update.

Examples

input	Copy
5 0 3 7 3 7 3	

output	Copy
2	

input	Copy
10 0 1 2 1 2 3 1 1 1 50 1	

output	Copy
4	

input	Copy
6 0 6 6 3 3 4 4	

output	Copy
0	

input	Copy

→ **Submit?**

Language: GNU G++11 5.1.0 ▼

Choose file: 选择文件 未选择任何文件

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

Submit

→ **Last submissions**

Submission	Time	Verdict
60564800	Sep/14/2019 18:00	**Pretests passed**

→ **Score table**

	Score
Problem A	315
Problem B	315
Problem C	786
Problem D	944
Problem E1	629
Problem E2	944
Problem F	1572
Problem G1	944
Problem G2	1415
Problem H	2516
Successful hack	100
Unsuccessful hack	-50
Unsuccessful submission	-50
Resubmission	-50

* If you solve problem on 01:56 from the first attempt

```
7 0
3 3 1 3 2 1 2
```

output   Copy

```
4
```

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