

A. Ilya and a Colorful Walk

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Ilya lives in a beautiful city of Chordalsk.

There are n houses on the street Ilya lives, they are numerated(数) from 1 to n from left to right; the distance between every two neighboring houses is equal to 1 unit. The neighboring houses are 1 and 2, 2 and 3, ..., $n - 1$ and n . The houses n and 1 are not neighboring.

The houses are colored in colors c_1, c_2, \dots, c_n so that the i -th house is colored in the color c_i . Everyone knows that Chordalsk is not boring, so there are at least two houses colored in different colors.

Ilya wants to select two houses i and j so that $1 \leq i < j \leq n$, and they have different colors: $c_i \neq c_j$. He will then walk from the house i to the house j the distance of $(j - i)$ units.

Ilya loves long walks, so he wants to choose the houses so that the distance between them is the maximum possible.

Help Ilya, find this maximum possible distance.

Input

The first line contains a single integer n ($3 \leq n \leq 300\,000$) — the number of cities on the street.

The second line contains n integers c_1, c_2, \dots, c_n ($1 \leq c_i \leq n$) — the colors of the houses.

It is guaranteed that there is at least one pair of indices i and j so that $1 \leq i < j \leq n$ and $c_i \neq c_j$.

Output

Print a single integer — the maximum possible distance Ilya can walk.

Examples

input	Copy
5 1 2 3 2 3	
output	Copy
4	
input	Copy
3 1 2 1	
output	Copy
1	
input	Copy
7 1 1 3 1 1 1 1	
output	Copy
4	

Note

In the first example the optimal way is to walk from the first house to the last one, where Ilya can walk the distance of $5 - 1 = 4$ units.

Codeforces Global Round 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 ACM-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

→ Practice

You are registered for practice. You can solve problems unofficially. Results can be found in the contest status and in the bottom of standings.

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ 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

→ Problem tags

greedy implementation *1100
No tag edit access

→ Contest materials

- Announcement #1 (en) ×
- Announcement #2 (ru) ×
- Tutorial #1 (en) ×
- Tutorial #2 (ru) ×

In the second example the optimal way is to either walk from the first house to the second or from the second to the third. Both these ways have the distance of 1 unit.

In the third example the optimal way is to walk from the third house to the last one, where Ilya can walk the distance of $7 - 3 = 4$ units.

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