G. Three Occurrences

time limit per test: 5 seconds

memory limit per test: 512 megabytes

You are given an array a consisting of n integers. We denote the subarray $a[l . . r]$ as the array $[a_l, a_{l+1}, \ldots, a_r]$ ($1 \le l \le r \le n$).

A subarray is considered *good* if every integer that occurs in this subarray occurs there **exactly thrice**. For example, the array $[1, 2, 2, 2, 1, 1, 2, 2, 2]$ has three good subarrays:

- $a[1..6] = [1, 2, 2, 2, 1, 1]$;
- $a[2..4] = [2, 2, 2]$;
- $a[7..9] = [2, 2, 2]$.

Calculate the number of good subarrays of the given array a.

Input

The first line contains one integer n ($1 \le n \le 5 \cdot 10^5$).

The second line contains n integers a_1, a_2, ..., a_n ($1 \le a_i \le n$).

Output

Print one integer — the number of good subarrays of the array a.

Examples

input	Copy
9	
1 2 2 2 1 1 2 2 2	

output	Copy
3	

input	Copy
10	
1 2 3 4 1 2 3 1 2 3	

output	Copy
0	

input	Copy
12	
1 2 3 4 3 4 2 1 3 4 2 1	

output	Copy
1	

→ Submit?

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

Choose file: [Choose File] No file chosen

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→ Last submissions

Submission	Time	Verdict
282684350	Sep/23/2024 22:22	Accepted
282681634	Sep/23/2024 21:57	Accepted
282681523	Sep/23/2024 21:56	Wrong answer on test 33
282681372	Sep/23/2024 21:55	Wrong answer on test 33
282681276	Sep/23/2024 21:54	Accepted
282680953	Sep/23/2024 21:51	Wrong answer on test 33
282680838	Sep/23/2024 21:50	Compilation error
282680381	Sep/23/2024 21:47	Wrong answer on test 33
282680223	Sep/23/2024 21:45	Runtime error on test 6

→ Problem tags

| data structures | divide and conquer |
| hashing | two pointers | *2500 |

No tag edit access

→ Contest materials

- Announcement ✕
- Tutorial #1 ✕
- Tutorial #2 (en) ✕