

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

F. Alternating Array

time limit per test: 0.5 seconds
memory limit per test: 64 megabytes
input: standard input
output: standard output

An array of integers is alternating if each value starting from the second one has different sign than the one before it. For example, [1, -3, 2] and [3] are alternating arrays, while [1,-3, -2] and [1, 2] are not.

Given an array of N integers, in one move, you are allowed to choose an integer and multiply it by -1. Find the minimum number of moves required to convert the given array into an alternating array.

Input

The first line of input contains a single integer N ($1 \leq N \leq 10^5$), the length of the array.

The second line contains N space-separated integers, each between - 50 and 50, the values in the array.

The given array doesn't contain zeros.

Output

Print the minimum number of moves on a single line.

Examples

input	Copy
3 3 4 2	
output	Copy
1	

input	Copy
5 1 -2 3 -4 5	
output	Copy
0	

ICPC Assiut Advanced Newcomers 2023

Private

Participant

→ Group Contests

- ICPC Assiut Advanced Newcomers 2023 Contest 5
- ICPC Assiut Advanced Newcomers 2023 Contest 4
- ICPC Assiut Advanced Newcomers 2023 Contest 3
- ICPC Assiut Advanced Newcomers Practice #1
- ICPC Assiut Advanced Newcomers 2023 Contest 2
- ICPC Assiut Advanced Newcomers 2023 Onsite Contest 2
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- ICPC Assiut Advanced Newcomers 2023 Onsite Contest 1

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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 11.2.0 (64 bit, w

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
214941325	Jul/21/2023 20:28	Accepted
214940795	Jul/21/2023 20:24	Accepted
214758659	Jul/21/2023 17:33	Wrong answer on test 5