

B. Make Product Equal One

time limit per test: 1 second
 memory limit per test: 256 megabytes
 input: standard input
 output: standard output

You are given n numbers a_1, a_2, \dots, a_n . With a cost of one coin you can perform the following operation:

Choose one of these numbers and add or subtract 1 from it.

In particular, we can apply this operation to the same number several times.

We want to make the product of all these numbers equal to 1, in other words, we want $a_1 \cdot a_2 \cdot \dots \cdot a_n = 1$.

For example, for $n = 3$ and numbers $[1, -3, 0]$ we can make product equal to 1 in 3 coins: add 1 to second element, add 1 to second element again, subtract 1 from third element, so that array becomes $[1, -1, -1]$. And $1 \cdot (-1) \cdot (-1) = 1$.

What is the minimum cost we will have to pay to do that?

Input

The first line contains a single integer n ($1 \leq n \leq 10^5$) — the number of numbers.

The second line contains n integers a_1, a_2, \dots, a_n ($-10^9 \leq a_i \leq 10^9$) — the numbers.

Output

Output a single number — the minimal number of coins you need to pay to make the product equal to 1.

Examples

input	Copy
2 -1 1	
output	Copy
2	

input	Copy
4 0 0 0 0	
output	Copy
4	

input	Copy
5 -5 -3 5 3 0	
output	Copy
13	

Note

In the first example, you can change 1 to -1 or -1 to 1 in 2 coins.

In the second example, you have to apply at least 4 operations for the product not to be 0.

In the third example, you can change -5 to -1 in 4 coins, -3 to -1 in 2 coins, 5 to 1 in 4 coins, 3 to 1 in 2 coins, 0 to 1 in 1 coin.

Codeforces Round #580 (Div. 2).

Finished

Practice



→ Virtual participation

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[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.

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