



HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API HELP CALENDAR PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS HACKS ROOM STANDINGS CUSTOM INVOCATION

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 $a_1 \cdot a_2$ $\dots \cdot a_n = 1.$

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?

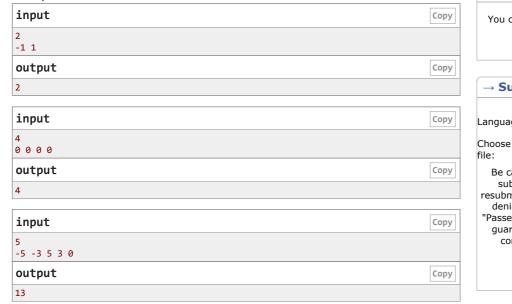
The first line contains a single integer n ($1 \le n \le 10^5$) — the number of numbers.

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

Output

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

Examples



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 4coins, 3 to 1 in 2 coins, 0 to 1 in 1 coin.

Codeforces Round #580 (Div. 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

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

implementation *900

No tag edit access

→ Contest materials

Announcement #1 (en)

<u>Codeforces</u> (c) Copyright 2010-2019 Mike Mirzayanov The only programming contests Web 2.0 platform Server time: Aug/19/2019 10:22:48^{UTC+8} (h2).

Desktop version, switch to mobile version.

<u>Privacy Policy</u>

Supported by



