A. Case of the Zeros and Ones

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

Andrewid the Android is a galaxy-famous detective. In his free time he likes to think about strings containing zeros and ones.

Once he thought about a string of length n consisting of zeroes and ones. Consider the following operation: we choose any two *adjacent* positions in the string, and if one them contains 0, and the other contains 1, then we are allowed to remove these two digits from the string, obtaining a string of length $n - 2$ as a result.

Now Andreid thinks about what is the minimum length of the string that can remain after applying the described operation several times (possibly, zero)? Help him to calculate this number.

Input

First line of the input contains a single integer n ($1 \le n \le 2 \cdot 10^5$), the length of the string that Andreid has.

The second line contains the string of length n consisting only from zeros and ones.

Output

Output the minimum length of the string that may remain after applying the described operations several times.

Examples

input
4 1100
output
0

input
5 01010
output
1

input
8 11101111
output
6

Note

In the first sample test it is possible to change the string like the following: .

In the second sample test it is possible to change the string like the following: .

In the third sample test it is possible to change the string like the following: .

Codeforces Round #310 (Div. 2)
Finished

→ 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

→ Problem tags

greedy

No tag edit access

→ Contest materials

- Announcement
- Tutorial

Codeforces (c) Copyright 2010-2016 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Nov/30/2016 19:22:16 UTC+8 (c4).

Desktop version, switch to mobile version.