

Balanced Lineup

Vijay Sethupathi is a balanced actor who acts in Art films(A) as well as Commercial films(C). He likes to keep his movie lineup balanced. A lineup L is said to be balanced if it is one of these

1. L is empty.
2. $L = A\langle\text{balanced lineup}\rangle C$
3. L is a concatenation of two or more balanced lineups.

You are given the lineup of Sethupathi's next n movies. Suggest the minimum number of changes (A->C or C->A) to make his lineup balanced.

Input:

n - the number of movies in the lineup.

A string of length n containing characters A/C

Output

The minimum number of changes necessary to make the lineup balanced. -1 in case it is not possible to balance the string.

Constraints:

$1 \leq n \leq 100000$

S[i] is 'A' or 'C'

Sample Input #1

4

ACCC

Sample Output #1

1

make the 2nd C->A or first C->A