

B. Unlock the laptop

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Mohamed was preparing a contest for trainees on his laptop, he had prepared some problems and he will prepare the rest of the problems tomorrow, but when he came to complete the rest problems of the contest, he found his laptop had been closed and he forgot his code, but he remembered that he put a question to be able to open it again but he forgot Answer the question too.

Therefore, **Mohamed** depends on you to give him the answer to this question so that he can complete the problems of the contest.

The question is as follows:

You are given an integer number N and array A of N Characters (consisting of digits ,uppercase and lowercase English letters),in order to unlock the laptop, you must answer by the number of subarrays **with size at least 3** that you can reorder it to become palindrome.

please help **Mohamed** to unlock his laptop so he can complete the contest.

Note:

1- A sub-array of array is an array composed from a contiguous block of the original array's elements.

In other words A sub-array $A[i - j]$, where $(1 \leq i \leq j \leq N)$, is a sequence of integers $A_i, A_{i+1}, ..., A_j$.

2- An array is called palindrome if it reads the same backward and forward, for example, arrays $\{ 1,3,1 \}$ and $\{ 1,a,Z,a,1 \}$ are palindromes, while arrays $\{ 1,12 \}$ and $\{ 4,a,B,4 \}$ are not.

Input

Only two lines.

The first line contains an integer number N $(1 \leq N \leq 500)$ number of Characters.

The second line contains an array A of N Characters (consisting of digits ,uppercase and lowercase English letters)

Output

The number of subarrays **with size at least 3** that you can reorder it to become palindrome.

Examples

input	Copy
5 1AA2a	
output	Copy
2	

input	Copy
12 A9AAaBa55Hm	
output	Copy
11	

Note

In the first test

there is 15 subarrays

- 1-» 1
- 2-» 1A
- 3-» 1AA
- 4-» 1AA2
- 5-» 1AA2a
- 6-» A
- 7-» AA
- 8-» AA2
- 9-» AA2a
- 10-» A
- 11-» A2
- 12-» A2a
- 13-» 2
- 14-» 2a
- 15-» a

we can only reorder these subarrays to become palindrome (1AA, AA2) so the answer is 2.

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

ICPC Assiut Advanced Newcomers 2023 Contest 1

ICPC Assiut Advanced Newcomers 2023 Onsite Contest 1

ICPC Assiut Advanced Newcomers 2023 Contest 4

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

Submission	Time	Verdict
227459041	Oct/10/2023 00:31	Accepted
227454770	Oct/09/2023 23:27	Accepted
227454720	Oct/09/2023 23:26	Wrong answer on test 12
227454629	Oct/09/2023 23:25	Wrong answer on test 1
227454567	Oct/09/2023 23:24	Compilation error
227453616	Oct/09/2023 23:12	Accepted
227452022	Oct/09/2023 22:54	Accepted
227448408	Oct/09/2023 22:16	Accepted