abc

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Little A became very interested in the Atcoder Beginner Contest one day, so he decided to create a problem that only involves abc.

Given a string S of length N that contains only the characters `a`, `b`, and `c`.

Define the value of a string S, denoted as $\text{val}(S)$, to be the count of the most frequently occurring character in S minus the count of the least frequently occurring character in S. Note that the count of the least frequently occurring character in S is not 0, meaning that the least frequently occurring character must appear in S.

For example, the value of `aaa` is 0, the value of `aab` is 1, and the value of `abccc` is 2.

He wants to know:

$$\sum_{i=1}^{N}\sum_{j=i}^{N}\text{val}(S[i,j])$$

where the substring $S[i,j]$ represents the string formed by the i-th character to the j-th character of the string S.

Little A now wants to participate in the Atcoder Beginner Contest, so he asks you to help him answer this question.

Input

The first line contains an integer N ($1 \le N \le 2 \times 10^5$), representing the length of the string.

The second line contains a string S of length N, guaranteed to contain only the characters `a`, `b`, and `c`.

Output

Output a single integer, representing the answer.

Example

standard input	standard output
5 baaca	8

Note

The value of $S[1,3]$ is 1, the value of $S[1,4]$ is 1, the value of $S[1,5]$ is 2, the value of $S[2,4]$ is 1, the value of $S[2,5]$ is 2, and the value of $S[3,5]$ is 1, so the total value is 8.