We have a string S of length N consisting of A, B, and C.
You can do the following operation on S zero or more times: Choose i ($1<=i<=S_{i-1}$), such that S_i != S_{i+1}. Replace S_i with the character (among A, B, and C) that is different from both S_i and S_{i+1}, and remove S_{i+1} from S.
Find the number of distinct strings that S can be after zero or more operations, and print the count *modulo* (10^9+7).

Input Format

Given standard input string as follows:

- N
- S

Constraints

- $1<=N<=10^6$
- S is a string of length N consisting of A, B, and C.

Output Format

Print the number of distinct strings that S can be after zero or more operations, *modulo*(10^9+7).

Sample Input 0

```
5
ABAAC
```

Sample Output 0

```
11
```

Explanation 0

For example, the following sequence of operations turns S into ACB:

- First, choose $i = 2$. We replace S_2 with C and remove S_3, turning S into $ACAC$.
- Then, choose $i = 3$. We replace S_3 with B and remove S_4, turning S into ACB.