Problem I. Pa?sWorD

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	32 megabytes

You need to log into a mysterious system, but you realize you've forgotten your password. The system does not support resetting password, so the only way to log in is to keep trying.

Fortunately, you still remember some information about the password:

Firstly, you are sure that the length of the password is n .

Then the information you remember can be described by a string s of length n.

let s_i represent the i-th character of s :

- if s_i is an uppercase letter or a digital character, then the i-th character of the password must be s_i;
- if s_i is an lowercase letter, then the i-th character of the password might be s_i or the uppercase form of s_i;
- if s_i is a question mark '?' , then the i-th character of the password might be any uppercase letters, lowercase letters, and digital characters.

It's guaranteed that the string s only contains uppercase letters, lowercase letters, digital characters, and question marks '?'.

In addition, the system also has several requirements for passwords:

- At least one uppercase letter appears in the password;
- At least one lowercase letter appears in the password;
- At least one digital character appears in the password;
- Any two adjacent characters in the password cannot be the same.

Now you want to know, how many possible passwords are there? A possible password should fits both your memory and the system's requirements, and it's guaranteed that there exists at least one possible password.

You know that this answer will be very large, so you just need to calculate the result modulo 998244353 .

Please note the unusual memory limit.

Input

The first line contains a single integer n ($3 \le n \le 10^5$) , representing the length of the password .

The second line contains a string s with length n. It's guaranteed that the string s only contains uppercase letters, lowercase letters, digital characters, and question marks '?'.

It's guaranteed that there exists at least one possible password.

Output

output a single line containing a single integer, representing the answer modulo 998244353.

Example

standard input	standard output
4 a?0B	86