

Contest Duration: 2025-11-22(Sat) 23:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251122T2100&p1=248>) - 2025-11-23(Sun) 00:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251122T2240&p1=248>) (local time) (100 minutes)

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F - 1122 Subsequence 2

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Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 500 points

Problem Statement

You are given a string S consisting of digits.

A string T is called a **1122-string** if it satisfies all of the following conditions. (The definition is the same as in Problem C.)

- T is a non-empty string consisting of digits.
- $|T|$ is even, where $|T|$ denotes the length of string T .
- All characters from the 1-st through the $\frac{|T|}{2}$ -th character of T are the same digit.
- All characters from the $(\frac{|T|}{2} + 1)$ -th through the $|T|$ -th character of T are the same digit.
- Adding 1 to the digit of the 1-st character of T gives the digit of the $|T|$ -th character.

For example, 1122, 01, and 444555 are 1122-strings, but 1222 and 90 are not 1122-strings.

Find the number, modulo 998244353, of **(not necessarily contiguous) subsequences** of S that are 1122-strings.

Two subsequences are counted separately if they are extracted from different positions, even if they are identical as strings.

Constraints

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- S is a string consisting of digits with length between 1 and 10^6 , inclusive.

Input

The input is given from Standard Input in the following format:

S

Output

Output the number, modulo 998244353, of subsequences of S that are 1122-strings.

Sample Input 1

Copy

1122

Copy

Sample Output 1

Copy

5

Copy

The following five subsequences satisfy the condition.

- 12 extracted from the 1-st and 3-rd characters of S
- 12 extracted from the 1-st and 4-th characters of S
- 12 extracted from the 2-nd and 3-rd characters of S
- 12 extracted from the 2-nd and 4-th characters of S
- 1122 extracted from the 1-st through 4-th characters of S

Thus, output 5.

Note that two subsequences are counted separately if they are extracted from different positions, even if they are identical as strings.

Sample Input 2

Copy

2025

Copy

Sample Output 2

Copy

0

Copy

There may be no subsequence that is a 1122-string.

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Sample Input 3

[Copy](#)

0777468889971

[Copy](#)

Sample Output 3

[Copy](#)

30

[Copy](#)

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