Almost Prefix Concatenation

Input file:	`standard input`
Output file:	`standard output`
Time limit:	3 seconds
Memory limit:	512 megabytes

A string $A = a_1 a_2 \cdots a_n$ of length n is a concatenation of n characters $a_1, a_2, \ldots, a_n$, and its length is denoted by $|A|$. Similarly, the concatenation of two strings $A = a_1 a_2 \cdots a_n$ and $B = b_1 b_2 \cdots b_m$ is $a_1 a_2 \cdots a_n b_1 b_2 \cdots b_m$, denoted by $A + B$.

The edit distance between two strings $A = a_1 a_2 \cdots a_n$ and $B = b_1 b_2 \cdots b_n$ of the same length n is the number of indices i such that $a_i \neq b_i$.

We call the string A formed by the first k characters of another string B ($k \leq |B|$) as the k-th prefix of B, and a string P as an almost prefix of another string Q if $|P| \leq |Q|$ and the edit distance between P and the $|P|$-th prefix of Q is at most 1.

Given two strings S and T consisting of lowercase English letters, you are asked to find all ways to split S into many parts such that each part is a non-empty almost prefix of string T, and then report the sum of the squared number of parts of all ways in modulo 998244353. More formally, let $S = P_1 + P_2 + \ldots + P_n$ be a possible way, you are asked to calculate

$$\left(\sum_{\substack{S = P_1 + P_2 + \ldots + P_n \\ \forall_{i=1,2,\ldots,n} P_i \text{ is an almost prefix of } T}} n^2 \right) \bmod 998\,244\,353.$$

Input

The first line of the input contains a string S ($1 \leq |S| \leq 1\,000\,000$), consisting of only lowercase English letters.

The next line contains a string T ($1 \leq |T| \leq 1\,000\,000$), consisting of only lowercase English letters.

Output

Print a single line containing a single integer: the sum of the squared number of parts of all ways in modulo $998\,244\,353$.

Examples

standard input	standard output
`ababaab` `aba`	`473`
`ac` `ccpc`	`5`

Note

In the first sample case ($S =$ `ababaab`, $T =$ `aba`), there are 19 ways to split:

- 1 way of 3 parts, which is `ab` + `aba` + `ab`;
- 6 ways of 4 parts, such as `a` + `b` + `aba` + `ab`;
- 7 ways of 5 parts, such as `a` + `b` + `ab` + `a` + `ab`;
- 4 ways of 6 parts, such as `a` + `b` + `a` + `b` + `a` + `ab`;
- 1 way of 7 parts, which is `a` + `b` + `a` + `b` + `a` + `a` + `b`.

Therefore, the result for the first sample case is $(3^2 + 6 \times 4^2 + 7 \times 5^2 + 4 \times 6^2 + 7^2) \bmod 998244353 = 473$.