String Finding

Time limit: 1.0s **Memory limit:** 64M

You have a string (indexed from 0) with no more than 10^6 lowercase characters. Find the first occurrence of a string T ($1 \le |T| \le |S| \le 10^6$), or print T is not a substring of S.

Input Specification

The first line will have the string S.

The second line will have the string T.

Output Specification

Print the index of the first occurrence of the string T in S, or -1 if it is not a substring of S.

Sample Input

higuyshowsitgoinghiguys higuys

Sample Output

0