Problem - Magical String and Spell:

In a magical library, there is a special book with a string of length 2N written on it. Legend says this string, T, is created by a secret spell cast on another string, S, of length N. The spell works by taking the first i characters of S, adding the reversed version of S, and then adding the last N−i characters of S.

Given a string T, your task is to find a string S and i on which if we apply the spell it will generate the string T.

Constraints:
- $1 <= N <= 10^6$
- T consists of lowercase English alphabets
- The length of string T is even

Input:
- The first line of the input takes an integer N i.e. the length of the string S
- The second line takes a String T

Output:
Output two lines: The first line is the string S and the second line is the integer i
If no such string exists output a single line -1

Sample - 1:
Input:
12
subrtarbusat
Output:
subrat
4
Explanation:
Here i = 4 and S = subrat
So the string T will be subr + reverse of(subrat) + at = subrtarbusat
Which is the given string T