VJEŠALA

For some letter α we say that it is active if it appears at least once in the secret sentence and we still haven't pressed the OK key while the letter α was on screen. The total number of times we press OK is equal to the number of active letters when the game starts i.e. for each active letter we need to press OK exactly once, when the letter is displayed.

It is easy to prove that the optimal solution will always be once of the following:

- Use just the keys RIGHT and OK while there are active letters.
- Use just the keys LEFT and OK while there are active letters.
- Use just the keys RIGHT and OK until some letter, then only keys LEFT and OK while there are active letters.
- Use just the keys LEFT and OK until some letter, then only keys RIGHT and OK while there are active letters.

Try all combinations and pick the one with the fewest number of keys pressed.

KLJUČ

To solve the problem we need to guess the (try every possible) position of the known part of the message. From there it is possible to invert the encryption process and obtain a cyclically repeated segment of the key that was used to encrypt the message.

Then we guess the (try every possible) length of the key and verify that it matches the cyclically repeated segment we obtained. If there is no such key length, then the guessed position of the known part is wrong and we need to try another one.

This procedure is repeated until we have found the entire key and we can decrypt the message.

BIPALIN

First generate all palindromes of length $\frac{N}{2}$. Because the first half of a palindrome's digits uniquely defines the palindrome, the number of palindromes is $10^{\left\lceil \frac{N}{4} \right\rceil}$. Let howmany[x] be the number of palindromes that give the remainder x when divided by M.

Observe that a bipalin composed of two palindromes L and D can be written as $L \cdot 10^{\frac{N}{2}} + D$. From this we can calculate, for each palindrome L, the remainder that part D should have when divided by M, to make the entire bipalin divisible by M. This number is $-L \cdot 10^{\frac{N}{2}} \bmod M$ so we add $\text{howmany}[-L \cdot 10^{\frac{N}{2}} \bmod M]$ to the result.