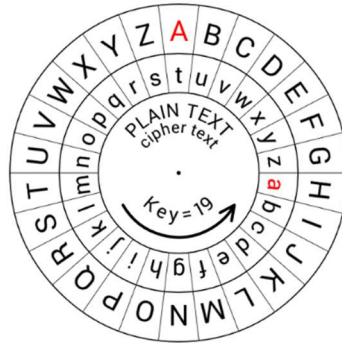


# G. Veni, vidi, vici

Time Limit: 3 seconds

## Problem description



The Caesar cipher is a monoalphabetic substitution cipher, where each letter is replaced by another letter located a little further in the alphabet (therefore shifted but always the same for given cipher message). The shift distance is chosen by a number called the offset, which can be right (A to B) or left (B to A).

### Example 1:

plain-text = "FPT"

offset or encryption key = 3

so we have cipher-text =  $\text{Rotation}(\text{plain-text}, 3) = \text{"ISW"}$

### Example 2:

plain-text = "GenZ need to know blockchain."

offset or encryption key = 3

so we have cipher-text =  $\text{Rotation}(\text{plain-text}, 3) = \text{"JhqC qhhg wr nqrz eorfnfdlq."}$

A group of pirates used Caesar encryption to transform a plain text to cipher text. Unfortunately, they forgot the encryption key and the the content of encrypted text has a few characters that incorrect in communicate over the network. Assume that the error rate is less than 10%. It means that there are up to ten characters of every 100 characters which is corrupted.

Given the plain-text and cipher-text, please help them to recover the loss encryption key to decrypt these others cipher-text and fix incorrect characters which are corrupted in communication over the network.

**Input:**

Line 1: plain-text

Line 2: cipher-text which has some corrupted characters

**Output:**

Line 1: encryption key

Line 2: cipher-text which are fixed incorrect characters. In case there is no corrupted characters, display “No error”.

**Example 1**

Input	Output
FPT is the largest ICT company in the private sector in Vietnam with more than 37,180 employees. SCG vf gur ynetrfg VPG pbzenal va gur cevingr frpgbe va Ivrganz jvgu zber guna 37,180 rzcylrrf.	13 No error

**Example 2**

Input	Output
GenZ need to know blockchain. JhqA qhhg wr nqrz eorfnfkdq.	3 JhqC qhhg wr nqrz eorfnfkdq.