

## Problem F. Encryption Function

Input file: *standard input*  
Output file: *standard output*  
Time limit: 1 second  
Memory limit: 64 mebibytes

After her computer class Sophie invented her own encrypting function, which takes a number as an input. Given a number it treats it as a sequence of base-10 digits (with no leading zeroes), masks out every possible subset of positions in this sequence, interprets the new sequence as a base-10 number (possibly with leading zeroes) and adds all numbers obtained in such a way. So far Sophie failed to devise a decryption algorithm. Help her—write a program that decrypts the encrypted number.

### Input

Input consists of a single positive integer  $n$  ( $1 \leq n \leq 10^{18}$ ), this is the output of Sophie's encryption function.

### Output

In the first and only line of the output you should write a single positive integer  $m$ , for which the encrypted value is  $n$ , or NIE (Polish for 'no') if no such a number exists.

If there are several correct answers, you can output any of them.

### Example

standard input	standard output
177	123
42	NIE

### Note

In Sample 1, computing the value of the encryption function on 123 gives  $1+2+3+12+13+23+123 = 177$ .

In Sample 2, there is no sequence whose encrypted value is 42.