

Write a Java Program to solve each one of the problem. Please name your project as **mentioned in the question**. Submit to @homeworkbot

### Rotating letters

Problem Description (Name **your project as RotatingLetters.Java**)

An artist wants to construct a sign whose letters will rotate freely in the breeze. In order to do this, she must only use letters that are not changed by rotation of 180 degrees: I, O, S, H, Z, X, and N. Write a program that reads a word and determines whether the word can be used on the sign.

#### Input Specification

The input will consist of one word, all in uppercase letters, with no spaces. The maximum length of the word will be 30 letters, and the word will have at least one letter in it.

#### Output Specification

Output YES if the input word can be used on the sign; otherwise, output NO.

Sample Input 1

SHINS

Output for Sample Input 1

YES

Sample Input 2

NOISE

Output for Sample Input 2

NO

Rövarspråket (Name your project as Encryption.Java)

### Problem Description

In Sweden, there is a simple child's game similar to Pig Latin called Rövarspråket (Robbers Language).

In the CCC version of Rövarspråket, every consonant is replaced by three letters, in the following order:

- the consonant itself;

- the vowel closest to the consonant in the alphabet (e.g., if the consonant is d, then the closest vowel is e), with the rule that if the consonant falls exactly between two vowels, then the vowel closer to the start of the alphabet will be chosen (e.g., if the consonant is c, then the closest vowel is a);
- the next consonant in the alphabet following the original consonant (e.g., if the consonant is d, then the next consonant is f) except if the original consonant is z, in which case the next consonant is z as well.

Vowels in the word remain the same. (Vowels are a, e, i, o, u and all other letters are consonants.)

Write a program that translates a word from English into Rövarspråket.

#### Input Specification

The input consists of one word entirely composed of lower-case letters. There will be at least one letter and no more than 30 letters in this word.

#### Output Specification

Output the word as it would be translated into Rövarspråket on one line.

Sample Input 1

Java S16 C10 HW – More Practice with Strings

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joy

Output for Sample Input 1

jikoyuz

Sample Input 2

ham

Output for Sample Input 2

hijamon