

# Problem 7: nasin kalama pi toki pona

## 6+2=8 Point(s)

Problem ID: `toki`

Rank: 2+3

**Code Golf Bounty: The top 2 teams to solve bonus test set 2 with the shortest code size (in bytes) will win a free copy of [Tokl Pona the Language of Good by Sonja Lang!](#)**

## Introduction

Created in 2001, [toki pona](#) is a [constructed language](#) whose main philosophy is minimalism: to simplify thoughts and communication. It was designed to be simple to speak, with only [14 phonemes!](#) (one for each letter) Despite this, toki pona has strict rules of how phonemes can be combined to form syllables and words. We can use the linguistic study of syllable structures, [phonotactics](#), to determine what words sound natural in toki pona!

Here is [an unofficial dictionary](#) with words you can use to test your program with!

## Problem Statement

Given a word **W** made from letters of the English alphabet, determine if it follows the rules of toki pona phonotactics.

In toki pona phonotactics, words are made of one or more valid syllables. All valid syllables follow a  $(C)V(n)$  structure: an optional consonant, followed by a mandatory vowel, followed by an optional  $n$ . Consonants and vowels are single letters from the toki pona alphabet.

The toki pona alphabet only has 14 letters and is a subset of the English alphabet. These are:

- The consonants `m, n, p, t, k, s, w, j, l` (`n` is a consonant, as well as an optional ending)
- The vowels `a, e, i, o, u`

Finally, words must not contain any of these contiguous illegal sequences (including between syllables):

- `wu, wo, ji, ti, nn, or nm`
- Adjacent vowels such as `aa, ei, uo, aoi, etc.`

## Input Format

The first line of the input contains an integer  $T$  denoting the number of test cases that follow. Each test case is described in a single line containing a string  $W$  denoting a word to check.

## Output Format

For each test case, output a single line containing `pona` if  $W$  follows the rules of toki pona phonotactics and `ike` otherwise.

(`pona` and `ike` are the toki pona words for "good" and "bad" respectively)

## Constraints

$$1 \leq T \leq 100$$

$W$  contains only lowercase letters from the English alphabet:

`abcdefghijklmnopqrstuvwxyz`

### Main Test Set

$$1 \leq |W| \leq 6$$

All valid words in this test set are guaranteed to have at most two syllables.

### Bonus Test Set

$$1 \leq |W| \leq 10^3$$

# Sample Test Cases

## Main Sample Input

[Download](#)

```
10
a
wan
uta
moku
pona
sinpin
java
jiti
aioli
kek
```

## Main Sample Output

[Download](#)

```
pona
pona
pona
pona
pona
pona
ike
ike
ike
ike
```

## Main Sample Explanations

For test case #2, `wan` has one valid syllable with a consonant (`w`), vowel (`a`), and `n`. This word means the number one.

For test case #4, `moku` has two valid syllables (`mo` and `ku`). This word means "food" or "to eat".

For test case #7, `java` has `v`, which is not a valid letter in the toki pona alphabet.

For test case #9, `aioli` has adjacent vowels `aio`, which is an illegal sequence. Although not in toki pona, this is what people who try to trick you into eating mayonnaise call mayonnaise.

## Bonus Sample Input

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```
5
alalalalalalalalalalalalalalalan
kepeken
kijetesantakalu
janmisali
wuwojiti
```

## Bonus Sample Output

[Download](#)

```
pona
pona
pona
ike
ike
```

## Bonus Sample Explanations

For test case #3, `kijetesantakalu` contains seven syllables: `ki`, `je`, `te`, `san`, `ta`, `ka`, and `lu`. This word means any animal from the Procyonidae or Musteloidea family (eg. raccoons).

For test case #5, `wuwojiti` contains four valid syllables that all are also illegal sequences: `wu`, `wo`, `ji`, and `ti`. The meaning of this word is to break toki pona phonotactics.