

# ACM 2017: Haiku Formatting

A haiku is a three-line poem in which the first and third lines contain 5 syllables each, and the second line contains 7 syllables.

An example of a haiku is: Blue Ridge mountain road. Leaves, glowing in autumn sun, fall in Virginia.

Write a program to examine a line of English text and attempt to render it as a haiku. This will require counting the syllables in the words of the text, which should be done according to the following rules:

- A word consists of a non-empty, maximal string of zero or more alphabetic characters (upper and/or lower-case) followed by zero or more non-blank, non-alphabetic characters.
  1. Upper/lower case distinctions are ignored for the purpose of counting syllables, but must be retained in the final output.
  2. Non-alphabetic characters are ignored for the purpose of counting syllables, but must be retained in the final output.
- The characters 'A', 'E', 'I', 'O', 'U', and 'Y' are vowels. All other alphabetic characters are consonants. Exceptions to this rule:
  1. The character sequence "QU" is considered to be a single consonant.
  2. The letter 'Y' is considered to be a consonant if it is immediately followed by one of the other vowels.
- Every word has at least one syllable. For example, "Fly", "I", "!", and "Ssshhh!" are words of one syllable.
- Each (maximal) string of one or more consonants with at least one vowel to either side indicates a division into separate syllables. For example, "strong" has one syllable, "stronger" has 2, and "bookkeeper" has 3. "player" has two syllables (because the 'y', being followed by an 'e', is considered a consonant). Exceptions to this rule are:
  1. An 'E' appearing as the last alphabetic character in a word is silent and should be ignored unless the next-to-last alphabetic character is an 'L' and the character immediately before that is another consonant. For example, "cake", "ale" and "pale" have one syllable. "able" has two.
  2. An 'ES' sequence at the end of the alphabetic sequence in a word does not add a syllable unless immediately preceded by two or more consonants. For example, "ales" and "pales" have one syllable. "witches" and "verses" have two.

## Input Format

Input will consist of a single line of text consisting of a sequence of one or more words (as defined above) separated by single blanks.

## Constraints

The total line length will not exceed 200 characters.

## Output Format

If the words in the input line can be divided into a haiku, then print the haiku as three lines of output.

- Each line should be left-justified.
- A single space should separate each pair of words within a line.
- Upper/lower casing from the input should be preserved.
- Non-alphabetic characters terminating each word should be preserved.
- A word cannot be split across multiple lines.

If the words in the input cannot be divided into a haiku, print the line of input with no changes.

## Sample Input 0

Blue Ridge mountain road. Leaves, glowing in autumn sun, fall in Virginia.

#### Sample Output 0

Blue Ridge mountain road.  
Leaves, glowing in autumn sun,  
fall in Virginia.

#### Sample Input 1

Who would know if we had too few syllables?

#### Sample Output 1

Who would know if we had too few syllables?

#### Sample Input 2

International contest- motivation high Programmers have fun!.

#### Sample Output 2

International  
contest- motivation high  
Programmers have fun!.

#### Sample Input 3

Programming contest is stressing us all out. International pain.

#### Sample Output 3

Programming contest is stressing us all out. International pain.

#### Sample Input 4

One twoqu aques four five six sequen nine ten elevn. abques, Fifteen naught.

#### Sample Output 4

One twoqu aques four five  
six sequen nine ten elevn.  
abques, Fifteen naught.

#### Sample Input 5

One!! tw@ three\$\$\$ four--- five<> six;' seven:" nine/? ten elevn. Thirteen, Fifteen naught.

#### Sample Output 5

One!! tw@ three\$\$\$ four--- five<>  
six;' seven:" nine/? ten elevn.

Thirteen, Fifteen naught.