Latin
Input File: LatinIn.txt

Knowing that Thomas Jefferson wrote notes to his boyhood friends in Pig Latin, Nora has decided to translate one of his other documents, the Declaration of Independence, into that language. Since it is a long document she has asked you to automate the translation process, which as two rules:

1. For words that begin with a vowel, add the three letters "way" to the end of the word (e.g., the word: one translates to: oneway).
2. For words that do *not* begin with a vowel move the first letter of the word to the end of the word, make it a lower case letter, and then add the two letters: "ay" to the end of the modified word (e.g., the word: human translates to: umanhay)

When using either rule, the case (upper or lower) of the first letter of the translated version of the word will always be the same as that used in the English version of the word. Thus, the word: Events translates to: Eventsway and the word: Course translates to: Oursecay.

Your task is to write a program that accepts the text of an English language document and translates it, line-by-line, into the Pig Latin version of the document.

Inputs
The first line of input contains the number of lines in the document, n. This will be followed by n lines of input, which are the text of the document.

Outputs
There will be n lines of output that are the line-by-line translation of the input document, as shown below (note the use of capitalization).

Sample Inputs
4
When in the Course
of human Events
it becomes necessary
for one people

Sample Outputs
Henway inway hetay Oursecay
ofway umanhay Eventsway
itway ecomesbay ecessarynay
orfay oneway eoplepay