Homework #1   **Due: 9/30**

1. [50 points]

   Write a Python module `igpay.py` that contains a function `igpay()` that will return the translation of its (string) argument, assumed to be a word, into Pig Latin.

   The rules of Pig Latin are:

   (a) If a word begins with a consonant, move all of the characters up to but not including the first vowel to the end of the word and add `"ay"` (e. g., `igpay("bad")` returns `"adbay"`. `igpay("groovy")` returns `"oovygray"`).

   (b) If a word begins with a vowel, append `"way"` (e.g.: `igpay("add")` returns `"addway"`. `igpay("office")` returns `"officeway"`.)

   (c) Vowels are `"a"`, `"e"`, `"i"`, `"o"` and `"u"`. All other letters are consonants. `"y"` and `"w"` count as consonants in this case (e.g.: `igpay("yes")` returns `"esyay"`).

   (d) If there are no vowels in the word, return the word unchanged (ex: `igpay("why")` returns `"why"`). For this part of the assignment only, you may assume that the words will all be in lower case.

   Include a self-test program in the module that will test and print the results of all of the above rules when it is invoked via

   ```
   python3 igpay.py
   ```

2. [50 points] Using the Python module `igpay` that you just wrote, create a Python script *atinlay* that will translate every word in a text file into Pig Latin and print the result on standard output. It should observe the following constraints:

   (a) The command syntax should be

   ```
   atinlay {file_name}
   ```

   `sys.argv[]` will give you the command line arguments.

   (b) Enhance `igpay` to do the right thing with upper case, so that `igpay("The")` returns `"Ethay"`, not `"eThay"`.

   (c) Words can be delimited by white space (tabs, newlines, and spaces) or by punctuation, so that if the file is this line:

   ```
   The parrot is deceased.
   ```

   atinlay should produce:

```
Ethay arrotpay isway eceasedday.
```

not

```
Ethay arrotpay isway eceasedd.ay
```

(d) The file is of arbitrary size and may have any number of lines.