

Readability

Implement a program that computes the approximate grade level needed to comprehend some text, per the below.

```
$ python readability.py
Text: Congratulations! Today is your day. You're off to Great Places! You're off and away!
Grade 3
```

Specification

Write, in a file called `readability.py` in `~/pset6/readability/`, a program that first asks the user to type in some text, and then outputs the grade level for the text, according to the Coleman-Liau formula, exactly as you did in **Problem Set 2**, except that your program this time should be written in Python.

Recall that the Coleman-Liau index is computed as $0.0588 * L - 0.296 * S - 15.8$, where `L` is the average number of letters per 100 words in the text, and `S` is the average number of sentences per 100 words in the text.

Use `get_string` from the CS50 Library to get the user's input, and `print` to output your answer.

Your program should count the number of letters, words, and sentences in the text. You may assume that a letter is any lowercase character from `a` to `z` or any uppercase character from `A` to `Z`, any sequence of characters separated by spaces should count as a word, and that any occurrence of a period, exclamation point, or question mark indicates the end of a sentence.

Your program should print as output `"Grade X"` where `X` is the grade level computed by the Coleman-Liau formula, rounded to the nearest integer.

If the resulting index number is 16 or higher (equivalent to or greater than a senior undergraduate reading level), your program should output `"Grade 16+"` instead of giving the exact index number. If the index number is less than 1, your program should output `"Before Grade 1"`.

Usage

Your program should behave per the example below.

```
$ python readability.py
Text: Congratulations! Today is your day. You're off to Great Places! You're off and away!
Grade 3
```