# More Python

This assignment asks you to write two programs in Python. As before, you can do this assignment either in the computer lab or on your own computer, if you have one.

## Program #1: Guess a Number

This program should generate a random number between 1 and 100 inclusive. It then asks the player to guess the number. If it is not correct, the program says whether the user's number is greater than or less than the actual number, and asks the player to guess again. When the player guesses the number, the program says so and prints out the number of guesses needed.

Here are some suggestions for writing the program.

1. When you write this, use an "if-elif-else" statement to determine whether the number is too big or too little.
2. Do this for one guess. Get that right, then put what you have done in a while loop. You will probably have to modify your statement to cause the loop to end; you can do this by moving the test for equality into the condition of the loop, and just drop out of the loop if the guess and the number are equal.
3. You will need three variables: one to hold the number, one to hold the guess, and one to keep track of how many guesses the user has made.
4. If the user enters a number larger than 100 or less than 1, remind the user that the number is between 1 and 100 (see the second game below). And yes, that counts as a guess!

The name of your file should be "guess.py". Be sure your name, the program name, and the date are in comments at the top of the file!

**Sample Run**

In what follows, what I typed is black; what the computer typed is blue (just like in the IDLE GUI).

Example 1:

```
Guess a number between 1 and 100: 36
Your guess is too low.
Guess a number between 1 and 100: 75
Your guess is too high.
Guess a number between 1 and 100: 49
Your guess is too high.
Guess a number between 1 and 100: 42
Your guess is too high.
Guess a number between 1 and 100: 38
Your guess is too high.
Guess a number between 1 and 100: 37
That's right! You got it in 6 guesses.
```

Example 2:

```
Guess a number between 1 and 100: 320
The number is between 1 and 100.
Guess a number between 1 and 100: 40
Your guess is too high.
Guess a number between 1 and 100: 20
Your guess is too high.
Guess a number between 1 and 100: 5
Your guess is too low.
Guess a number between 1 and 100: 14
Your guess is too high.
Guess a number between 1 and 100: 9
Your guess is too high.
```

```
Guess a number between 1 and 100: 7
Your guess is too low.
Guess a number between 1 and 100: 8
That's right! You got it in 8 guesses.
```

## Program #2: Counting "e"s

The letter 'e' is the most common letter in the English language. This program asks you to count the number of words a user enters, how many of those words contain 'e's, and how many 'e's are in the entered text.

Here are some hints that will help you:

1. When you read in a line of test using "input()", it stores the line as a string.
2. Use the method "split()" to break up the line into a list of words, the divisions occurring at the blanks.
3. Use the "for" loop to access each word in that list one at a time.
4. Handle printing the case of 1 word, or 1 word with an 'e', or 1 'e', separately so you get the English right and don't say, "1 words".

The name of your file should be "es.py". Be sure your name, the program name, and the date are in comments at the top of the file!

**Sample Run**

In what follows, what I typed is black; what the computer typed is blue (just like in the IDLE GUI).
Example 1:

```
Type your line here: when in the course of human events
You typed 7 words and 4 words contained a total of 5 'e's.
```

Example 2:

```
Type your line here: how now Brown governor
You typed 4 words and 1 word contained a total of 1 'e'.
```

## What to Turn In

Please turn in both programs to SmartSite. Then you are done. Please remember to use the Start button to log out from the lab computers!