Please turn in answers to the following questions on Monday, in class.

1. What are the advantages of using Python interactively? What are the advantages of using Python to execute scripts?

2. Comment statements cannot be understood by Python. Why, then, is it useful to write comments?

Consider the following program, which calculates $x$ in the quadratic formula $(ax^2 + bx + c)$, for questions 3 & 4:

```python
a = float(input('Enter the x**2 coefficient: '))
b = float(input('Enter the x coefficient: '))
c = float(input('Enter the constant coefficient: '))
rootPart = b*b - 4*a*c
rootPart = rootPart ** 0.5
root1 = (-b + rootPart)/(2*a)
c = (-b - rootPart)/(2*a)
print(root1)
print(c)
```

3. In reading the program above, is it clearer to use a single variable for multiple purposes (i.e., how $c$ is used) or to have several variables each with a dedicated purpose? Explain with examples from the code.

4. Given a choice, would it be clearer to have variable names be short and easy to type, or longer and more descriptive? Explain using examples from the quadratic formula code above.
5. What commands are necessary to incorporate a new file, new.py, in the current git project on the server?

6. Write expressions that:

   (a) Compute the integer part of the quotient of integers a and b? (e.g. a=7, b=3, results in 2)

   (b) How about the fractional part of the quotient? (e.g. a=7, b=3, generates 1)

   (c) Exchange the values of i and j.

7. There are two boolean values, True and False. You can convert any type of value to a boolean with the bool initializer. For example:

   ```
   >>> bool(3)
   True
   >>> bool("Hello, world.")
   True
   ```

   Find some examples of values that convert to False. How are all these values similar?

8. You have twelve TAs in this course: Noah, Chris, Will, Jimmy, Jacob, Julia, Aidan, Grace, Nevyn, Nathan, Alex, & Linda. Get four of them to sign this space (slight extra credit if six or more sign):

   NOTE: TAs can only sign during their regularly-scheduled office hours, so visit the course website early and find a few times to ask for signatures!