CS 8 – Introduction to Computer Science
HOMEWORK 3
Print this form and write your answers on it.

SCORE: (out of 40)

Submit this homework (hardcopy) to class. DUE DATE is 04/27/17.

Name: _____

Umail: _____@umail.ucsb.edu

Lab Time Circle one: 3 PM   4 PM   5 PM   6 PM

Based on Chapters 2 and 3 material. If you need more space to write your answers, feel free to use an extra blank page and attach it to this homework.

To answer some of the questions on this homework, it will be very helpful to have a computer system running Python version 3.x (e.g., 3.4.3) available to you. To find such as system, you can either:

- Log on to one of the computers in the CSIL computer lab, and access Python 3 there - see posted Lab00 for instructions.
- Download Python 3 to your PC or Mac, and access Python 3 there.

1. (15 pts) Write a function to compute the volume of a sphere with a radius of r. Use r as the parameter to the function. Use π from the math module (math.pi).

2. (5 pts) Assume you have two character variables, s = 's' and p = 'p'. Using concatenation and repetition, write an expression that produces the string "mississippi".

3. (5 pts) Consider the string, `Sentence = "How now brown cow?"`.
    a. (2 pts) What Python expression will tell you how long `Sentence` is?

    b. (3 pts) Using the `.replace` method, how would you change `Sentence` to become `"How now pink cow?"`?

4. (15 pts) Write a function (call it `find_o`) that takes any string, `s`, and prints out all the indices where the character 'o' appears. Use the string, `s`, as the parameter to the function. For example, if you called the function like this: `find_o("How now brown cow")`, you would get the following printed out: `1 5 10 15`
    (which correspond to the indices of the string where the letter 'o' is).