**CSIS110**

**Spring 2018**

**Additional Python Practice Problems**

Here are some additional Python practice problems; solutions will be made available on Blackboard (we'll let you know via email). As always, feel free to see me during office hours if you have any questions.

1. Write a function to swap the blue and red values of every pixel in an image.
2. Python text, exercise 6.34
3. Write a function to create a new image the same size as a given image. The new image should be a copy of the original, except its bottom half should be all green.
4. Python text, exercise 8.12
5. Python text, exercise 8.18
6. Write a function to take a sound and produce a new sound that is a copy of the original sound, except that every other sample value should be 0 (e.g., if the original sound has sample values 54, -76, 13, 99 then the new sound should have sample values 0, -76, 0, 99).
7. Write a function to convert Fahrenheit temperatures into Celsius. The function should have one parameter and should return (not print) the equivalent Celsius temperature. The formula to convert F to C is: C = (F-32)\*5/9.
8. Write a function that displays in the command area (but does not return) the letter grade corresponding to a number grade (90 and up = A, etc.; no + or – grades).
9. Write a function that takes a sound parameter and creates and returns a new sound with double the parameter’s sample rate and contains the parameter’s samples repeated once. If the original sound has the values 0, 1, -2 and 3, then the return value has the samples 0, 0, 1, 1, -2, -2, 3, and 3.