HW#1

1. Example Code:

   for word in range(0, 100):
   print (word)

   a. Change the example code to count down in increments of 1
   b. Change the example to count up in increments of 0.5

2. Change the loop statement below to an *inline* for loop statement:

   the_sentence = 'the student went above and beyond the call of duty on the homework'
   my_ar = list()

   for word in the_sentence.split():
   my_ar.append(word)

3. Change the below code to NOT include the word orange:

   the_sentence = 'the orange cat jumped over the dog, but the orange cat landed on another orange cat'
   my_ar = [word for word in the_sentence.split()]

4. Create a program that removes all special characters from the sentence:

   the_sentence = 'woah!!! @student really #impressed me, & so did you!!!'

5. Write a program that creates a sentence, each word separated by only one space, out of the following array and replace any special characters with no space, except the '!' characters

   the_ar = ['woah!!!','the','@student',' really^','# impressed','me,','and&','so','did','??you!!!']

6. Create a program that iterates 1 through 10 and returns *'the number: <number> is even*' if the number is even and *'the number: <number> is odd*' if the number is odd.

7. Create a program that counts the length of each word in an arbitrary sentence (variable called *the_sentence*) and stores each word count pair in a pandas dataframe where one column is the word and one column is the word length (number of characters).

8. Create a program that replaces any word of a sentence (variable called *the_sentence*) with an arbitrary word

9. Cleanse the following sentence by removing all special characters except when the hyphen (-) joins to two words and exclamation (!) points

   *the_sentence = 'The impact*of data-driven$^%&marketing approaches!!'*

10. Write a python program that accepts an arbitrary sentence and returns a dictionary that has each unique 'character' as a key and the value which is the count of the number of times that character appears in that sentence. Note: NOT word counts