CS8, Spring 2017, UCSB
Hw4: Worth 50% of Lab04 score (50 total points)

Print this form, staple loose pages together, and write your answers on it.

Accepted: On paper, at *your* lab section on Tuesday, May 2.
Place on the front desk as you walk in, before getting seated.

Name (2 pts): _____

Umail (2 pts): _____@umail.ucsb.edu

Lab Time (2 pts) Circle one: 8am 9am 10am 11am

To answer the questions on this homework, it will be very helpful to have a computer system running Python 3.x available to you.

Read Chapter sections 3.1-3.2 of the textbook. Then answer these questions:

1. Prior to now, we have only seen numeric types (and turtles).
   a. (2 pts) What type in Python holds a word?

   b. (2 pts) What do we use to distinguish a word that is data from a word that is a variable name? (What symbols do we put around the word?)

   c. (2 pts) What type in Python (unlike most other languages) holds a single letter of a word?

   d. (2 pts) What is the field of computer science that develops ways to send electronic messages such that no one can read them?

2. Tell the results of the following Python expressions, given the following assignment statements (show the result exactly, including whether or not it has spaces in it).

```
>>> hello = "howdy"
>>> x = "partner"
>>> y = "JoeBob "
>>> z = "Hernandez"
```

   a. (2 pts) hello + x

   b. (2 pts) hello*2

   c. (2 pts) hello*2 + ' ' + y*2 + z

   d. (2 pts) y[0] + x[4] + z[-2]

   e. (2 pts) len(x)

2. (continued)

f. (2 pts) y[0:3] + z[3:6] + y[3:6]

g. (2 pts) ord('d')

h. (2 pts) chr(105)

3. Write a very small snippet of code (no loops) to do each of the following (Utilize the string methods to solve these problems):

a. (5 pts) Change all lowercase letters of a string named phrase to all uppercase letters.

b. (5 pts) Find the number of times the letter 's' occurs in a string named word.

c. (5 pts) A string named name stores a name as "Lastname Firstname" - find the index of the space between the lastname and the firstname.

d. (5 pts) Building on your answer from c, print out only the firstname, realizing that you need both the index of the space and the index of the last letter (which you find another way).

4. (Optional: 0 pts) Look at Session 3.5 on page 88. Write a for loop that prints out the contents of a string named saying 3 letters at a time. For example, if saying = "UCSB Gauchos Rule" then it would print out:

```
UCS
B G
auc
hos
 Ru
le
```

End of Hw4