Kerry Ojakian's CSI 31 Class
Class Assignment #7

General Instructions:

- You may work in a group of at most 3 students.
- Classwork must be put in a your dropbox folder; if there are multiple parts, create a single folder for the class assignment. Make sure you give clear names to your files and folders. Make sure that you indicate all the people in your group.
- When you are done, *email me* to tell me who's folder the class work is in; also, tell me who is in your group. Without this email, you may not get credit for the assignment!

The Assignment

1. Consider the following class X:

```
class X:

    def __init__(self, a, b):
        self.set(a, b)

    def set(self, a, b):
        self.a = a
        self.b = b

    def get(self):
        return self.a, self.b
```

   - Write a function named F1 that takes an object of type X as input and doubles the values of both of its instance variables. The object should be changed after the function call.
   - Add a *copy* method to the class X which returns a copy of the object. Then write a function named F2 that takes an object of type X as input and returns a new object of type X such that the values of the new object have been doubled (to write F2 use the copy method, and be efficient: use F1).

2. What does the following code print?

```
class Cls:

    def __init__(self, S):
        self.S = S

    def change(self, n):
        self.S = n

    def get(self):
        return self.S


def F(a, C, L):
    a = (-3) * a
    L[0] = 100
    C.change('new')
    N = Cls('new')
    return N

a = 2
X = Cls('good')
Y = [2, 3, 4, 5]
R = F(a, X, Y)

print("Return:", R.get())
print("a:", a)
print("X:", X.get())
print("Y:", Y)
print("Equal:", X == R)
```