

## L11 PROBLEM 2 (5/5 points)

1. Consider the following code:

```
class Clock(object):
    def __init__(self, time):
        self.time = time
    def print_time(self):
        time = '6:30'
        print self.time

clock = Clock('5:30')
clock.print_time()
```

What does the code print out? If you aren't sure, create a Python file and run it.

**Answer:** 5:30**EXPLANATION:**

`5:30` prints out because we printed out the attribute `self.time`, not the local variable `time`.

2. Consider the following code:

```
class Clock(object):
    def __init__(self, time):
        self.time = time
    def print_time(self, time):
        print time

clock = Clock('5:30')
clock.print_time('10:30')
```

What does the code print out? If you aren't sure, create a Python file and run it.

**Answer:** 10:30**EXPLANATION:**

What does this problem tell us about giving parameters the same name as object attributes?

In short, it is needlessly confusing. It is less confusing if you give parameters, local variables, and attributes different, distinct names to avoid the confusion that arises in this problem.

3. Consider the following code:


```
class Clock(object):
    def __init__(self, time):
        self.time = time
    def print_time(self):
        print self.time

boston_clock = Clock('5:30')
paris_clock = boston_clock
paris_clock.time = '10:30'
boston_clock.print_time()
```

What does the code print out? If you aren't sure, create a Python file and run it.

**Answer:** 10:30

Are `boston_clock` and `paris_clock` different objects?

- ☐ Yes
- ☒ No 

**EXPLANATION:**

`boston_clock` and `paris_clock` are two names for the same object. This is called [aliasing](http://www.greenteapress.com/thinkpython/html/thinkpython011.html#toc116) (<http://www.greenteapress.com/thinkpython/html/thinkpython011.html#toc116>).

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