2. Look at the following class definitions:

```python
class Plant:
    def __init__(self, plant_type):
        self.__plant_type = plant_type
    def message(self):
        print("I'm a plant.")
class Tree(Plant):
    def __init__(self):
        Plant.__init__(self, 'tree')
    def message(self):
        print("I'm a tree.")
```

Given these class definitions, what will the following statements display?

```python
p = Plant('sapling')
t = Tree()
p.message()
t.message()
```

3. Look at the following class definition:

```python
class Beverage:
    def __init__(self, bev_name):
        self.__bev_name = bev_name
```

Write the code for a class named Cola that is a subclass of the Beverage class. The Cola class's __init__ method should call the Beverage class's __init__ method, passing 'cola' as an argument.

Programming Exercises

1. Employee and ProductionWorker Classes

Write an Employee class that keeps data attributes for the following pieces of information:

- Employee name
- Employee number

Next, write a class named ProductionWorker that is a subclass of the Employee class. The ProductionWorker class should keep data attributes for the following information:

- Shift number (an integer, such as 1, 2, or 3)
- Hourly pay rate

The workday is divided into two shifts: day and night. The shift attribute will hold an integer value representing the shift that the employee works. The day shift is shift 1 and the night shift is shift 2. Write the appropriate accessor and mutator methods for each class.

Once you have written the classes, write a program that creates an object of the ProductionWorker class and prompts the user to enter data for each of the object's data attributes. Store the data in the object, then use the object's accessor methods to retrieve it and display it on the screen.

2. `ShiftSupervisor` **Class**

In a particular factory, a shift supervisor is a salaried employee who supervises a shift. In addition to a salary, the shift supervisor earns a yearly bonus when his or her shift meets production goals. Write a `ShiftSupervisor` class that is a subclass of the `Employee` class you created in Programming Exercise 1. The `ShiftSupervisor` class should keep a data attribute for the annual salary, and a data attribute for the annual production bonus that a shift supervisor has earned. Demonstrate the class by writing a program that uses a `ShiftSupervisor` object.

3. `Person` **and** `Customer` **Classes**

Write a class named `Person` with data attributes for a person's name, address, and telephone number. Next, write a class named `Customer` that is a subclass of the `Person` class. The `Customer` class should have a data attribute for a customer number, and a Boolean data attribute indicating whether the customer wishes to be on a mailing list. Demonstrate an instance of the `Customer` class in a simple program.