

**EECS 183 Winter 2017 Lab 7**  
**Free Response Practice**

Consider the following two class definitions when completing answers for the two questions on the following page.

```
class Coordinates {
public:
    Coordinates();
    void setLatitude(double newLat);
    double getLatitude();
    void setLongitude(double newLong);
    double getLongitude();

private:
    double latitude;
    double longitude;
};

class Location {
public:
    Location();
    Location(string inName, Coordinates inCoordinates);
    void write(ostream &outs);

private:
    string name;
    Coordinates geolocation;
};
```

**See questions on the following page.**

1) The default location in the map has the name "Ann Arbor", latitude 42.3, and longitude -83.7. In the box below, write the full definition of the default constructor for the `Location` class that sets its data members to the values above, as it would appear in `Location.cpp`. Assume that all necessary header files have been included in `Location.cpp`, and that the `Coordinates` class has been implemented correctly.

2) Now write the definition for the `write()` member function of the `Location` class as it would appear in `Location.cpp`. It should write the name, latitude, and longitude, separated by spaces. No newline should be written. For example, for the default location, "Ann Arbor 42.3 -83.7" would be written to the output stream (without the quotes).