**WEEK 13 – Review Questions and**

**Programming Challenges Handout**

**Chapter: 7**

**Review Questions:**

**Find the Errors**

**A)** class Circle

{

private:

double centerX;

double centerY;

double radius;

public:

double setCenter(double, double);

void setRadius(double);

}

**B)** #include <iostream>

using namespace std;

class Moon

{

private:

double earthWeight;

double moonWeight;

public:

double lunar(double ew){ earthWeight = ew; return moonWeight = earthWeight / 6; };

double getMoonWeight(){ return moonWeight; };

};

int main()

{

double earth;

cout << "What is your weight? ";

cin >> earth;

//Moon lunar(earth);

Moon earthly;

cout << "On the moon you would weigh "

<< earthly.lunar(earth) << endl;

return 0;

}

**Programming Challenges:**

1. **Movie Data**

Write a program that uses a Class named MovieData to store the following information about a movie:

Title

Director

Year Released

Running time (in minutes)

Include a constructor that allows all four of these member data values to be specified at the time a MovieData variable is created. The program should create two MovieData variables and pass each one in turn to a function that displays the information about the movie in a clearly formatted manner. Pass the MovieData variables to the display function by value.

1. **Movie Profit**

**Modify** the MovieData program completed above, to include two more

members that hold the movie’s production costs and first-year revenues.

The **constructor should be modified** so that all six member values can be specified when a MovieData variable is created.

**Modify the function that displays the movie data** to display the title, director, release year, running time, and first year’s profit or loss.

**Also, improve the program by having the MovieData variables passed to the display function as constant references.**