**C++ Chapter 3**

1. **Miles per Gallon**

Write a program that calculates a car’s gas mileage. The program should ask the user to enter the number of gallons of gas the car can hold, and the number of miles it can be driven on a full tank. It should then display the number of miles that may be driven per gallon of gas.

1. **Stadium Seating**

There are three seating categories at a stadium. For a softball game, Class A seats cost $15, Class B seats cost $12, and Class C seats cost $9. Write a program that asks how many tickets for each class of seats were sold, then displays the amount of income generated from ticket sales. Format your dollar amount in fixed-point notation, with two decimal places of precision, and be sure the decimal point is always displayed.

1. **Test Average**

Write a program that asks for five test scores. The program should calculate the average test score and display it. The number displayed should be formatted in fixed-point notation, with one decimal point of precision.

1. **Average Rainfall**

Write a program that calculates the average rainfall for three months. The program should ask the user to enter the name of each month, such as June or July, and the amount of rain (in inches) that fell each month. The program should display a message similar to the following:

The average rainfall for June, July, and August is 6.72 inches.

1. **Male and Female Percentages**

Write a program that asks the user for the number of males and the number of females registered in a class. The program should display the percentage of males and females in the class.

*Hint: Suppose there are 8 males and 12 females in a class. There are 20 students in the class. The percentage of males can be calculated as 8 ÷ 20 = 0.4, or 40 percent. The percentage of females can be calculated as 12 ÷ 20 = 0.6, or 60 percent.*