Purpose:

1. Practice writing C++ free functions.
2. Practice your problem solving skills.

Problem 1: Driving Home

Write a C++ function “compute” to compute the distance in miles on a auto trip given the time in hours and minutes and the average speed in miles per hour.

Your main program must input the time and speed, call your “compute” function and print the results to one decimal point.

How far can Jeff Gordon drive in 2 hours and 27 minutes if he averages 212.88 mph?

Problem 2: Visiting an English Pub

You walk into an English Pub and order a pint of Beer. You are surprised by the size of the pint!! You learn that a British pint has 20 ounces while an American pint has only 16 ounces. After some research, you discover that a British ounce is slightly smaller and is only 96.1142 percent of an American ounce.

You are to write a C++ function that converts British pints to American pints.

Your main program must input the amount of British pints, call your conversion function and print out the results in American pints as well as American ounces.

In the “Hitch Hiker’s Guide to the Galaxy” by Doug Adams, Arthur Dent had to drink three British pints. How many American ounces is that?

Handin

The solution to both problems must obey the CSCI 203 Style Guide, including good written pre and post conditions for the functions.

For each problem, hand in a listing of your working C++ program and a test run which answers the question given.