Programming Assignment #2

Sell Your Book Online!

CS 1428.003 and 004, Fall 2014
Instructor: Jill Seaman

Due: in class Monday, 9/15/2014 (upload electronic copy by 10:00am)

Problem:

You just sold a used textbook on amabay.com and you want to know how much your profit will be. Write a C++ program that will calculate the profit.

Input: The user should be prompted to input the selling price of the book and how much it weighs, in pounds.

Processing: amabay gives the seller a shipping reimbursement of $3.99 when a book is sold. amabay takes a commission of 15% of the selling price of the book. The payment is processed by a site called feeBuddy.com, which takes 2.9% of the selling price of the book AND the shipping reimbursement together. The shipping cost is $2.21 plus 48 cents per pound (so a 2 pound book costs $3.17 to ship). If the weight is entered with a fractional part, it must be rounded up to the next full pound (so a 2.2 pound book is charged the rate for 3 pounds). The revenue is the selling price of the book and the shipping reimbursement. The expenses include the two commissions and the shipping cost. Your profit is the revenue minus the expenses.

Output: The program should print the amount of the amabay commission, the amount of the feeBuddy commission, the shipping cost, and the profit for the book. All output should be clearly labeled and easy to read. I will put sample output on the website soon.

Additional Requirements:

* Your program **must compile** and run, otherwise you will receive a score of 0. (You should test it yourself before submitting it).

* Use the function ceil(x) to round a number up to the next integer (it's in <cmath>).

* Dollar amounts should have a dollar sign and be formatted to show two decimal places.

* Don't worry if your final profit is "off by .01". This is due to a rounding error.

Style:

See the Style Guidelines document on the class website (cs.txstate.edu/~js236/cs1428).
In particular:

- Include the Header comments, like last time, including your name!

- Use meaningful variable names and follow the naming conventions in the guidelines.

- Each variable must be declared on a separate line with a descriptive comment.

- Use named constants for numeric literals (follow the naming conventions in the guidelines).

Logistics:

Name your file **assign2_xxxxx.cpp** where xxxxx is your TX State NetID (your
txstate.edu email id). The file name should look something like this: assign2_js236.cpp

There are two steps to the turn-in process:

1. Submit an electronic copy using the Assignments tool on the TRACS website for
   this class (tracs.txstate.edu). Submit the .cpp file, (NOT a .cbp file!).

2. Submit a printout of the source file at the beginning of class on the day the
   assignment is due. Please print your name on the front page, and staple if there
   is more than one page.

See the assignment turn-in policy on the course website (cs.txstate.edu/~js236/cs1428)
for more details.