CS 1213-01 Program #1
Fall 2018

Due: September 12 at class time

Assignment

David works during the summer mowing grass for some of his neighbors. To solicit new business, he presents each potential customer with an itemized estimate for his services. He plans carefully so he can get $25.00 per hour on each job.

Each residential lot in David's town is approximately rectangular. He measures the length and width of the lot in feet. He gets the size of the house in square feet from the property records at the courthouse. Given these measurements, he computes the number of square feet of grass he must cut to complete the job. David estimates that he cuts 3.0 square feet of grass per second. He presents the potential customer with a printed estimate including these line items:

- The size of the lot in square feet. Notice that the size of the lot is not the same as the area of grass to be mowed because the house occupies part of the lot.
- The charge for mowing the lawn once. He will compute the charge such that he earns $25.00 per hour.
- The cost to mow the lawn for the entire growing season. Assume mowing the lawn once each week for 26 weeks at the regular price, but include a 5% discount for committing to the entire season.

Write a Python program that computes and prints David's itemized estimate for a given customer. Include a boxed comment at the beginning of the program to identify you, the course, and the project. Use this format for the boxed comment:

```
#------------------------------------------------------------
# Developer---Your Name
# Course------CS1213-01
# Project-----Project #1
# Due---------September 12, 2018
#
# This program computes an itemized estimate for lawn
# mowing services.
#------------------------------------------------------------
```

Input

The program inputs the length of the lawn (feet), the width of the lawn (feet), and the size of the house (square feet).

Output

The program computes and prints the size of the lot (square feet), the cost for one mowing (dollars), and the cost for an entire season (dollars).

Sample Run

This sample shows how the screen must look when your program runs. You must strictly follow this format, wording, spacing, and alignment, including the number of decimal places on the numbers. The characters in red are typed by the user. The other characters are output by the program. See Section 3.2 of the Lambert textbook for instruction on how to control the number of decimal places when you print the numbers.

```
Length of lot -- 180
Width of lot --- 75
Size of house -- 1200

Size of lot ------------- 13500 square feet
Cost for one mowing ----- $28.47
Cost for entire season -- $703.26
```

Instructions for Turning in Your Project

I will not grade your project and you will receive a score of 0 if you do not comply with these instructions. You must turn in all materials by class time on the due date for them to be counted on time. Your submission is not complete—and I will not grade it—until you have turned in all the required materials. Anything that is not turned in by class time will be marked at least one day late and will receive a grading penalty as specified in the syllabus.

Turn in these things:

- Upload your Python program to Canvas.
- Turn in a hardcopy of your Python program at class time on the due date. Your hardcopy must match the electronic copy that you upload to Canvas.
- Turn in a printed, completed copy of the project form along with your hardcopy on the due date. There is a blank project form in *Handouts* on Canvas.