

# CMPS 150

Spring 2020

## Programming Assignment #2

Date Assigned: Tuesday, February 3, 2020

Due Date: 11:55 PM, Saturday, February 8, 2020

### Objectives:

- using the Python IDLE environment, input/processing/output method, formatted output

1) Include the following information as comments at the beginning of your source code. Name it **pa2.py**  
BE SURE it lines up nicely as you see it below.

```
# Author:          Type-Your-Name
# ULID:           Type-Your-ULID
# Course/Section:  CMPS 150 - Lecture Section # ____
# Assignment:      pa2
# Date Assigned:   Tuesday, February 3, 2020
# Date/Time Due:   Saturday, February 8, 2020 -- 11:55 pm
#
# Description:     Determine the amount of paint to paint a room.
#
# Certification of Authenticity:
# I certify that this assignment is entirely my own work.

# Ask for the length of the room.

# Ask for the width of the room.

# Ask for the height (ceiling height) of the room.

# Ask for the number of windows in the room.

# Ask for the number of doorways in the room.

# Compute the total square footage to paint (4 walls minus doors and windows).
# Compute the gallons of paint needed to paint the room.
# Compute the gallons of paint that must be purchased to paint the room.
# Compute the cost to paint the room.

# Print output/results similar to the sample output.
```

### NOTES:

1. The room being painted is rectangular.
2. The paint being used covers 315 square feet per gallon.
3. Every window is 3 x 3.
4. Every door is 2.5 x 7.
5. The paint being used costs \$27.99 per gallon.
6. The math function to always round up is ceiling (and you must import math).
7. The number of decimal places shown on sample output is what is required, i.e.,  
Total Area, Doorway Area & Square Footage to Paint: one(1) decimal  
Paint Needed & Cost of Paint: two(2) decimals

## 2) Sample Run

Enter the length of the room: 15.7  
Enter the width of the room: 22.4  
Enter the height of the ceilings: 9

Enter the number of windows: 4  
Enter the number of doorways: 2

Input by the user is indicated by text that is bold, underlined & italicized.  
NOTE: It will not be bold, underlined, and italicized when YOU run your program.

-----  
FANCY EARL'S PAINT SERVICE  
-----

Total Area: 685.8  
Window Area: 36  
Doorway Area: 35.0  
Square Footage to Paint: 614.8  
  
Paint Needed: 1.95 gallons  
Gallons of Paint to Buy: 2  
  
Cost of Paint: 55.98

## 3) Upload to Moodle

Get in a browser and login to Moodle.  
Go to your Lecture Section on the Moodle site.  
Click on the submission link for Programming Assignment #2.  
Select to “Add a Submission” then “Upload a File”  
Select to “Choose a File” and go about the process of browsing/finding “**pa2.py**” on the computer.  
Select to “Upload this File”  
**When returned to the Upload screen, MAKE SURE to click on the “Save Changes” button.**  
You will be returned to the “Programming Assignment #2” screen.  
This time you should see your source code file listed on it.

## 4. Logout of Moodle

***You can turn in programs  
up to 24 hours late for a maximum of 75% credit  
or up to 48 hours late for a maximum of 50% credit***