

CMPS 150

Spring 2017

Programming Assignment #7

Date Assigned: Wednesday, March 22, 2017

Due Date: 11:55 PM, Tuesday, March 28, 2017

Objectives:

- arithmetic expressions, formatted output, selection & repetition statements, file input, functions

- 1) Include the following information as comments at the beginning of your source code. Name it **pa7.py**
BE SURE it lines up nicely as you see it below.

```
# Author:          Type-Your-Name
# CLID:           Type-Your-CLID
# Course/Section: CMPS 150 - Section X
# Assignment:     pa7
# Date Assigned:   Wednesday, March 22, 2017
# Date/Time Due:   Tuesday, March 28, 2017 -- 11:55 pm
#
# Description: Write a brief description here.
#
# Certification of Authenticity:
# I certify that this assignment is entirely my own work.
```

2) Program Description

Write a program to carryout one of the following tasks (each task must be done by a separate function):

- 1) Compute Slope of a Line
- 2) Determine Triangle Type
- 3) Determine Quadrant
- 4) Compute Roots of Quad Eq

First, display a “menu” to the user and ask which piece of information they would like to compute/determine. After their selection, ask for the appropriate input and compute the result(s).

Function Requirements:

You MUST have at least one function that is a value returning function and at least one function that is a void function.

Since there will be a total of four(4) functions (not counting main), you may write the remaining functions as either value returning or void.

3) Sample Run

- 1) Compute Slope of a Line
- 2) Determine Triangle Type
- 3) Determine Quadrant
- 4) Compute Roots of Quad Eq
- 5) Quit

```
Enter Selection: 1
Enter coordinate #1: 1,1
Enter coordinate #2: 2,2
```

Slope = 1.00

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.

- 1) Compute Slope of a Line
- 2) Determine Triangle Type
- 3) Determine Quadrant
- 4) Compute Roots of Quad Eq
- 5) Quit

Enter Selection (1 or 2): 2
Enter the sides of the triangle: 3,4,5

This is a scalene triangle!

- 1) Compute Slope of a Line
- 2) Determine Triangle Type
- 3) Determine Quadrant
- 4) Compute Roots of Quad Eq
- 5) Quit

Enter Selection: 3
Enter a coordinate: 14,-3

This point is in Quadrant IV!

- 1) Compute Slope of a Line
- 2) Determine Triangle Type
- 3) Determine Quadrant
- 4) Compute Roots of Quad Eq
- 5) Quit

Enter Selection: 4
Enter 3 coefficients: 1,0,-4

Roots are: 2, -2

- 1) Compute Slope of a Line
- 2) Determine Triangle Type
- 3) Determine Quadrant
- 4) Compute Roots of Quad Eq
- 5) Quit

Enter Selection: 5

Goodbye!

Remember, triangle types are:
Equilateral
Isosceles
Scalene

NOTE:
When running/grading Option #4,
coefficients that produce two roots are the only
entries that will be entered.
Also, if root contains decimals,
display two(2) decimal places.

4) Upload to Moodle

Get in a browser and login to Moodle.

Instead of going to the Lecture Section, go to YOUR specific submission section on the Moodle site.
Click on the link for Programming Assignment #7.

Select to "Upload a File"

Select to "Choose a File" and go about the process of browsing/finding "**pa7.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 #7" screen.

This time you should see your source code file listed on it.

5. 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**