Advanced Placement Computer Science
Unit 6 – Data Types, Variables, and Arithmetic

Each unit, you will have an assignment that includes some reading, some questions from the reading, called Review Exercises, and between one and three programming exercises.

Calendar of Meeting Places for September

2	3	4	5	6 Lab Using Turtle, Vic Class Begin Unit 6 – Lesson 6.1	7	8
9	10 Class Lesson 6.2 and **Weekly Quiz #2**	11 Lab Triangle Calculator	12	13 Lab Triangle Calculator, Pie Chart	14	15
16	17 Lab Pie Chart/ Challenge **Weekly Quiz #3**	18 Lab Pie Chart / Challenge	19	20 Class **Test:** **Units 1, 2, 3, 6** Class – Begin Unit 7	21	22

Assignment Type	Description
Reading	Java Methods – Chapter 6
Homework Exercises	None Programming None

Program #1 – Triangle calculator

Using graphics that are available in any Java program, create a program that will allow the user to:

- click on three (3) points with the mouse **(done for you)**
- draw the triangle formed from those three points **(done for you)**
- find and display the perimeter and area of the triangle **(You need to do in the `Triangle` class)**

(hint: Heron's Formula will compute the area of a triangle given that you have the lengths of the sides)

Note: There are 4 Java files that you will need to **add** to an **Empty Project** named **TriangleCalculator**: `TriangleCalculator.java`, `Triangle.java`, `TriangleCalculatorFrame.java` and `TriangleCalculatorPanel.java`.

Note: The only programming you will be doing is in **`Triangle.java`**

Program #2 – Lab: Pie Chart

The complete description of this program is on pages 143 – 144 of Java Methods. We will set up your folder in class with the files that you need. You are to implement the missing program code in `PollDisplayPanel.java`, described in the text on page 144.

Challenge (*if you are shooting for an A in this class*)

Complete the Fraction Calculator program. There are 2 Java files that you will need to add to an Empty Project: `Fraction.java` and `FractionCalculator.java`. You will find these on my website.

Please read the descriptions, preconditions, and postconditions for each method and write the appropriate java code so that your fraction calculator functions properly.

Note: The user interface is already complete for you in `FractionCalculator.java`.

Note: The only programming you will be doing is in **`Fraction.java`**

I will check the functionality of your programming exercises as you complete them in the lab.