

PACE-Monmouth Computer Science

Objective:

1. Identify all **Inputs** and **Outputs** for the problem presented below
2. Identify any **constants** that might be required
3. Identify any **key formulas** required
4. Identify any “**placeholders**” needed to store temporary computations
5. Write a set of **pseudo-code** statements that will solve the problem

Problem Statement: Modify your quadratic formula program to continuously request inputs from the user and display a solution, until the user signals completion by entering zero for each of a, b, and c. Print “Good Bye ...” when the user is done.

Additional Requirement: use a **Boolean** variable to control your program loop.

Minimally, use the following **test cases** when you are done:

Test Case #1

a = 1, b = -6, c = -16
Solution Set: {8, -2}

Test Case #2

a = 1, b = -1, c = 0
Solution Set: {0, 1}

Test Case #3

a = 2, b = -1, c = -1
Solution Set: {1, -0.5}

Test Case #4

a = 1, b = 0, c = 0
Solution Set: {0}

Test Case #5

a = 0, b = 16, c = 5
Solution Set: undefined

Test Case #6

a = 1, b = 2, c = 2
Solution Set: imaginary

Test Case #7

a = 0, b = 0, c = 0
Display “Good Bye ...”