HW1—First Python Program—Quadratic Equation
10 points

Assignment: Write a Quadratic Equation solver, as explained below.

Due: Wednesday 9/11, 5PM

Turn in: Submit your finished program (the .py file) to Blackboard Vista.

Write a Python program to find the solutions to the quadratic equation: $ax^2 + bx + c = 0$.

As I'm sure you remember, the solutions can be calculated from the equation

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Prompt the user for a, b, and c, allowing them to type in numbers that contain decimal points.

You may assume that there are two solutions. That is: assume that `a` is not zero, and that the discriminate (the part under the radical) is ≥ 0. We'll learn how to handle these later.

Test your program several times, with different sets of data of your choosing. When your test cases work, try this: `a=2, b=-1.2, c=-6.3`. The answers should be *approximately* `-1.5` and `2.1`

Hints: There is no $\pm$ operator in Python, because a variable (like x) cannot hold more than one value. Therefore, you'll have to compute the above equation twice: once where the square root is added to –b, and another where the square root is subtracted from –b.

I/O recommendation: When I run my program, it looks like this:

```
Quadratic Equations Solver
Enter A: 1
Enter B: 0
Enter C: -9
The solutions are 3.0 and -3.0
```

You should always have a prompt for input, explaining what is desired. And output should likewise be labeled, don't simply print the two values of x.