DIRECTIONS ON USING CALCULATOR TO FIND VALUES OF QUADRATICS

I. *FINDING VERTEX*

1. Type equation into y =
2. Press Graph
3. Press 2nd Trace
4. Type 3 OR 4
    a. This depends on whether the vertex is a **minimum** or **maximum** value so you must know what these words mean!
5. The screen will say LEFT BOUND? Use your arrows to move the cursor to the LEFT side of the vertex – THIS REQUIRES YOU TO KNOW YOUR LEFT VERSUS YOUR RIGHT!
6. Type ENTER
7. The screen will say RIGHT BOUND? Now use your arrows to move the cursor to the RIGHT side of the vertex.
8. The screen will say GUESS? Hit ENTER.
9. The x and y values given are the (x,y) coordinates of the vertex.

II. *FINDING AXIS OF SYMMETRY*

1. Follow the steps above to calculate the vertex.
2. The x= value given for the vertex is the SAME as axis of symmetry. This is your answer.

III. *FINDING ZEROS, ROOTS, SOLUTIONS, OR X-INTERCEPTS*

(all the same)

1. THE EQUATION MUST EQUAL ZERO IN ORDER TO FIND THESE VALUES CORRECTLY! If it does not equal zero, you need to add or subtract the number from both sides to make it equal zero.
2. Type the equation into your y_1 =
3. Type 0 (zero) into your y_2 =
4. Press Graph
5. Press TRACE
6. Use your arrows to move the cursor to one of the x-intercepts. The cursor does not need to be directly on this point, just close to it.
7. Press 2nd Trace
8. Type 5
9. Hit ENTER three times
10. The x = value is your first x-intercept.
11. Repeat steps 5-9 to find your second x-intercept.
12. REMEMBER: IF THE GRAPH DOES NOT GO THROUGH THE X-AXIS THERE ARE NO SOLUTIONS!