Programming the Quadratic Formula into your TI-83/TI-84

1. Press the **PRGM** button
2. You'll see three menu headings (**EXEC**, **EDIT** and **NEW**)
3. Select **NEW** and press **ENTER** to select **1:Create New**
4. Type "QUAD" by pressing the appropriate keys and press **ENTER**
5. Press the **PRGM** button
6. Now you'll see three menu headings (**CTL**, **I/O** and **EXEC**)
7. From the **I/O** menu select **2:Prompt**
8. Type "A, B, C" and press **ENTER** (Note you will have to press the **ALPHA** key before each letter and the comma key is located above the **7** key. Also, don't type the quote marks or any spaces ever.)
9. Type "B^2-4AC→D" and press **ENTER**. The arrow key is the 'store' function. You will need to press the **STO→** key to the left of the **1** key.
10. Type "(-B-√(D))/(2A)→E" and press **ENTER**. Note: it is very important to use the negative key before the B and the subtraction key after the B.
11. Type "(-B+√(D))/(2A)→F" and press **ENTER**.
12. Press the **PRGM** key and from the **I/O** menu select **3:Disp**
13. Type "E, F" and press **ENTER** (remember to type the comma).
14. Press the **QUIT** key and test the program with a simple quadratic equation.

Test The Program

Use the program to solve the following quadratic equation: $x^2 + 5x + 6 = 0$
The values of A, B and C that you will enter into your program are 1, 5 and 6. The roots of the equation are -2, and -3. If you calculator gives you an error message or gives you other roots check to see if you've entered the program as outlined above.

15. Press the **PRGM** button
16. Select QUAD and press **ENTER**
17. prgmQUAD will appear on your screen. Press **ENTER** again.
18. At the "A=?" prompt type 1 and press **ENTER**
19. At the "B=?" prompt type 5 and press **ENTER**
20. At the "C=?" prompt type 6 and press **ENTER**

Are the roots correct? To run the program again to solve a different quadratic equation you only need to press **ENTER** again.