

## Basic Quadratic Equation Program for TI-83/84

### To write the program:

Select: [PRGM] key, select New, type “QUAD” using letter keys, press [ENTER] (this opens the new program)

Select: [PRGM], I/O, Prompt, press [ENTER], type: [ALPHA]A[,] [ALPHA]B[,] [ALPHA]C, press [ENTER] (there should be a comma between each letter.)

Write the following equations using Alpha/Numeric keys

$$: (-B + [\text{sqrt}](B^2 - 4AC)) / (2A) [\text{STO}] X, \text{ press } [\text{ENTER}]$$

$$: (-B - [\text{sqrt}](B^2 - 4AC)) / (2A) [\text{STO}] Y, \text{ press } [\text{ENTER}]$$

Select: [PRGM], I/O, Disp, type: “ROOTS EQUAL” (with quotes) [,][ALPHA]X [,][ALPHA]Y, press [ENTER]

Press [2<sup>nd</sup>] [MODE] to QUIT program and save.

### Final Program should look like this: (select edit

:Prompt A, B, C

$$: \frac{(-b + \sqrt{(b^2 - 4ac)})}{(2a)} \rightarrow X$$

$$: \frac{(-b - \sqrt{(b^2 - 4ac)})}{(2a)} \rightarrow Y$$

:Disp “ROOTS EQUAL”,X, Y

### To use the program:

Press [PRGM] key, select QUAD, press [ENTER] twice to start program

Program will then ask for A=?, B=?, and C=?

Enter value for A, B, and C pressing [ENTER] after each value

Program will then display the two roots if they are real.

**Note:** If you make an error in the program, you can go back in the Edit Mode and make changes. If there is a syntax error, select GoTo to see the error and correct it. Save changes by QUITting the program.