

Lets program!!!! The 82, 83 and 84

You are going to need **the quadratic** equation so here is how to program it into your calculator. Your Prof may or may not let you use this on your test but even if they don't it is good to use on homework because it lets you do more problems.

Using the TI 82 and 83 go into program mode (press program PRGM key) then go to new name the program what you would like. I'd call it Aquad.

Note do not type using alpha keys. Read the directions and use the menus!

The finished program is going to look like this

```
: Lbl S
: Disp "AX2+BX+C=0"
: Prompt A
: Prompt B
: Input "Please put in C ", C
: (-B+√(B2-4AC))/(2A)⇒X
: (-B-√(B2-4AC))/(2A)⇒Y
: Disp "X IS",X
: Disp "OR X IS",Y
: Goto S
```

: Lbl S The Lbl is labeling a line. It gives us a place to return to if needed. In some programs you might only need to go back half way so you would put a label in the middle. You can use any letter I'm using S for Start.

This is done by pressing program button then under CTL going down to Lbl hit enter and then alpha S.

: Disp "AX²+BX+C=0" With the **Disp** function you can display anything as long as you but "on each side." This is done by pressing the program button and going under I/O for input/output and going to Disp then hitting enter. The quotation marks are under alpha on the + key, the = is **under test** (2nd function math).

: Prompt and :Prompt vs :Input

Prompt is used to ask you to put in a value for a variable. **This is done by pressing the program** button and going under I/O for input/output (you guessed it) go to Prompt. For more than one variable equations you'll need to put a prompt for each variable. After the prompt put in alpha then the letter then enter. With **:Input** you can get a bit fancier by adding words in " " then a ,

The equation(s)

```
: (-B+√(B2-4AC))/(2A) ⇒X
```

```
: (-B-√(B2-4AC))/(2A) ⇒Y
```

These are the equations. This is put in using the alpha keys to get the letters and the STO key for the ⇒ sign

```
: Disp "X=",X and the : Disp "OR X IS",Y
```

This line will have the value of X's displayed on the screen. Note that after the , you can put in the the variable and the variable is going to be displayed.

: Goto S

This line gets the program to go back to the Lbl S on the first line so and the program starts over so that another set of values can be put in.

Running the Program

To run the program exit then press PRGM.

AX²+BX+C=0

A?

should appear punch a number like 2 hit enter and

B?

should appear punch a number like 4 hit enter and

C?

should appear punch a number like -2 hit enter and the Print out is

X IS

4.14121.....E-1 (if in sci .414121... if not)

OR X IS

-2.414....