TI-86

General notes:

The TI-86 follows normal algebraic order of operation. It doesn't give juxtaposition (putting things right next together) any higher priority.
Example: 1/2x is treated as (1/2)x rather than as 1/(2x).

The TI-86 uses function buttons F1, F2, F3, F4, and F5 found at the top. Additional function buttons are M1, M2, M3, M4, M5, accessed by hitting 2nd and then the appropriate F function button.

Watch the menu prompts on the bottom of the screen and choose the one which seems to fit the requirements. If you don't see one that looks right, hit the MORE button (just left of the left arrow).

If the menus on the bottom of the screen block your view, you can remove them, but not remove the graph, by hitting CLEAR.

Graphing:

To graph $y = x^3 - 8x^2 + 9x + 16$:

1. Push GRAPH
2. Use F1 to choose "y =" to enter your function.
3. If you are confident of your window, hit 2nd F5 to access M5 , "Graph".
   CAUTION: hitting F5 without the 2nd button will access "Select", which toggles the equation off and on, like centering the cursor over the equal sign and hitting ENTER on the TI-82/83. Students often will not get a graph when they think they should because they have de-selected their equations!
4. If you need to adjust the viewing rectangle, choose "WIND" (2nd F2).

To calculate zeros, max/min values, etc.:

1. With your graph displayed, hit MORE .
2. Choose MATH (F1)
3. Frequently used choices: ROOT, FMIN, FMAX, ISECT (intersection)
   (To access ISECT, you must first choose MORE.) The TI-86, like the TI-83, will ask for left and right bounds.
4. When you have calculated something, you will lose your menus. You can get them back by hitting GRAPH again.

Statistics:

A. Entering data:

1. STAT is found as a second function above the + key. Choose EDIT. You may create your own name for lists by arrowing across the top until you get a blank list, which will enable you to store data for more than one set of x and y values at a time. You will already be in ALPHA mode; just type in the name you want to use. use the default xStat and yStat names.
2. Enter your x and y values as needed. If there are values you wish to clear, clear as you do on an 83.

IMPORTANT: Before you can do any calculations, you must make sure that fStat list has correct frequencies for each data point (usually 1 for our purposes.) However, it must be the same length as your x and y lists, so you will have to clear it and enter 1's. Otherwise, you will get a Dimension Mismatch error when you try to do calculations.

B. Plotting Data:

1. Hit STAT and choosing PLOT, then choose the appropriate plot number from the menu at the bottom.
2. Arrow left to turn on, arrow down to choose type, then select the type from the menu at the bottom.
3. Arrow down to choose Xlist Name, then select the name from the menu at the bottom. Repeat for Ylist Name and Mark.
4. Hit GRAPH. Adjust viewing window or use ZOOM and choose ZDATA, then select GRAPH.

C. Calculating regression equations:

1. Go to STAT (2nd +), choose CALC..
2. Choose the statistics you wish. Push ENTER only once, then enter the names of your x and y lists by pushing LIST (2nd –) and selecting the lists from the menu at the bottom. Separate with a comma as you do with an 83.
3. If you wish to store the regression equation in a y= , add a comma after the y-list and use 2nd ALPHA. to type a lower case y then the number you wish it stored in.