#1 Graphing a Function

1.) Press the Y= button.
2.) Delete any unneeded functions by scrolling down to highlight them and pressing CLEAR.
3.) Type the function you would like to graph next to Y1=.
4.) If you are graphing more than one function type the other function(s) into Y2=, Y3=…
5.) Make sure that Plot1, Plot2, and Plot3 are not highlighted at the top of your screen. If they are highlighted, scroll up and press enter to un-highlight them.
6.) Now press WINDOW and set your window to the appropriate scale. (Never change the deltaX.)
7.) Now press GRAPH.

#1A Using the Trace Key

Once you have graphed your function(s), you can use the TRACE button to travel up and down the function.
1.) Press TRACE.
2.) A turtle should appear on the function. If it does not appear, press the up and down arrow keys until it comes into the viewing area.
3.) At the bottom of the screen you should see the x and y value for the point that the turtle is at.
4.) If the x and y values are decimals, you can simply type in the value of x that you are looking for. For example, type in 5, then press ENTER. You will then see the Y value displayed at the bottom of your screen.

#1B Viewing the Table of your Graph

Once you have graphed a function, you can view a Table of its values.
1.) Press 2nd GRAPH.
2.) A table should appear showing you seven X values and their corresponding Y values.
3.) If nothing appears in the table, you need to change your table settings. You can do this by pushing 2nd WINDOW, and making sure that the Indpnt and Depend are set to AUTO. Once you highlight AUTO, you can go back to the table.
4.) To view other X values you can use the up and down arrow keys to scroll and find the value you are looking for.
5.) If you would like to see decimal values in your table, you can go back to 2nd WINDOW and set the deltaTbl to whatever value you choose. For example, you can set it at 0.5 to see half values in your chart.
#2 How to Create a List

1.) Display the list editor by pushing the LIST button.
2.) Choose a list to enter you data.
3.) If the list already contains data: Scroll up using the arrow key until you have highlighted the name of the list, then press CLEAR and then ENTER
4.) Now enter the data into the list by typing in the number, fraction or expression and pressing ENTER after each entry.

#2A Creating a List that is a Function of Another List
(ex. L2 = L1 + 4)

1.) Display the list editor by pushing the LIST button.
2.) Choose a list to enter you data.
3.) Highlight the name of the list. (i.e. L1, L2, …)
4.) Type in the function, e.g. L1 + 4. You can retrieve L1, L2, L3,… by pushing 2^nd List and pressing enter next to the list you need.
5.) Press Enter.

#2B Creating a Coordinate Graph from Lists

1.) Create your lists using directions from #2 above.
2.) Press 2^nd Y=.
3.) Press ENTER on 1: PLOT1
4.) Highlight ON.
5.) For the Type of graph, highlight the first or second mini graph (points connected or not connected), whichever is needed.
6.) For your Xlist, you need to put in the name of the list of your independent variable. To do this, press 2^nd LIST, and press enter on the number next to the name of your independent variable.
7.) For your Ylist, repeat the step 6, this time choosing you dependent variable. (**Your Xlist and Ylist must have the same number of elements.**) 
8.) Choose whichever mark you like by highlighting it.
9.) Press WINDOW, and set an appropriate window for your data. (Never change the deltaX)
10.) Before you graph, make sure that you clear out your Y= of any other functions.
11.) Press the GRAPH button.
12.) If you would like 2 or more coordinate graphs on the same set of axis, repeat steps 1 and 2, and then press enter on 2:PLOT2 and/or 3: PLOT3. Then repeat steps 4 – 11.
#2C Creating A Pie Chart from Lists

1.) Create your lists using directions from #2 above.
2.) Press \textit{2nd Y}=.
3.) Press \textit{ENTER} on 1: PLOT1
4.) Highlight ON.
5.) For the \textit{Type} of graph, highlight the mini pie graph.
6.) For the \textit{CategList}; you need to enter in the name of the list that contains the categories in your pie graph. To do this, press \textit{2nd LIST}, and press enter on the number next to the name of your category list.
7.) For the \textit{Data List}; you need to enter in the name of the list that contains the amounts of each item in your category list. To do this, so the same as #6, but this time choose the name of the list that contains your data.
8.) Choose whether you would like the graph expressed in number or percent.
9.) You should not have to set a window, the calculator will do this automatically.
10.) Before you graph, make sure that you clear out your \textit{Y=} of any other functions.
11.) Press the \textit{GRAPH} button.

#2D Creating A Box and Whisker Plot from Lists

1.) Create your lists using directions from #2 above.
2.) Press \textit{2nd Y}=.
3.) Press \textit{ENTER} on 1: PLOT1
4.) Highlight ON.
5.) For the \textit{Type} of graph, highlight the first mini Box and Whisker graph.
6.) For \textit{Xlist} go to \textit{2nd List} and then select the name of the list that contains your data.
7.) Leave the frequency at 1.
8.) Press \textit{GRAPH}.
9.) If you would like to graph 2 box and whisker plots, repeat steps 1 and 2, and then press enter on 2:PLOT2 and/or 3:PLOT3. Then repeat steps 4 – 8.

#2E Creating A Histogram from Lists.

1.) Create your lists using directions from #2 above.
2.) Press \textit{2nd Y}=.
3.) Press \textit{ENTER} on 1: PLOT1
4.) Highlight ON.
5.) For the \textit{Type} of graph, highlight the mini histogram.
6.) For \textit{CategList1} go to \textit{2nd List} and then select the name of the list that contains your categories.
7.) For \textit{DataList1} go to \textit{2nd List} and then select the name of the list that contains your data,
#3 Finding the Mean, Median, Mode or Sum of a List

1.) Press 2nd LIST.
2.) Press the right arrow key until you have highlighted MATH.
3.) Select the statistic you are trying to calculate.
4.) Press 2nd LIST and choose the list that contains the data you would like to find the mean, median or mode of.
5.) Close the parenthesis by pushing )
6.) Press ENTER.

#3A Finding the Max and Min of a List of Data

1.) Press 2nd LIST.
2.) Press the right arrow key until you have highlighted MATH.
3.) Select max or min, whichever you are trying to calculate.
4.) Press 2nd LIST and choose the list that contains the data you would like to find the max or min of.
5.) Close the parenthesis.
6.) Press ENTER

#3B Finding the Range of a List

1.) Find the max and min using the directions in #3A
2.) Subtract the min from the max.
#4 Calculating a Permutation (nPr)

1.) Enter the value of n.
2.) Press MATH.
3.) Press the right arrow key until you have highlighted PRB.
4.) Choose 3:nPr
5.) Enter in the value of r.
6.) Press ENTER.

#4A Calculating a Combination (nCr)

1.) Enter the value of n.
2.) Press MATH.
3.) Press the right arrow key until you have highlighted PRB.
4.) Choose 4:nCr
5.) Enter in the value of r.
6.) Press ENTER.

#4B Finding the Factorial of a Number

1.) Enter the number you are finding the factorial of.
2.) Press MATH.
3.) Press the right arrow key until you have highlighted PRB.
4.) Choose 5:!
5.) Press ENTER

#5 Transferring Applications

1.) Attach the two calculators with the transfer link.
2.) Press the APPS
3.) Select 1:Link
4.) The sender should scroll down until they find A:Apps… and then press ENTER.
5.) Press ENTER next to the applications that you would like to send.
6.) Press the right arrow key so that TRANSMIT is highlighted and press ENTER.
7.) The calculator receiving the applications should follow directions #2 and 3 and then press the right arrow so that RECEIVE is highlighted and then press ENTER.
#6 Using the Number line Application

1.) Press the **APPS** key.
2.) Select **NUMLINE**.
3.) You can choose to use either a fraction line or a number line.
4.) Press the window key to set your window, max and min, Dec or Frac. Start value and step value.
5.) Press **GRAPH** to return to your number line.
6.) You can add integers simply by punching them into your calculator and pressing enter. Vectors will appear to show the addition.
7.) On the fraction line, you can set your start and step to see patterns when adding fractions. Use your green arrow keys to see the values at each mark.
8.) To clear your number line press **CLEAR**, and select yes.
9.) To quit the number line application press **2nd** **QUIT** and then select QUIT from the menu.

#7 Using the Probability Simulator Application

1.) Press the **APPS** key.
2.) Select **Prob Sim**
3.) Choose from Toss Coins, Roll Dice, Pick Marbles, Spin Spinner, Draw Cards, or Random Numbers.
4.) At the bottom of the screen, you see commands such as **ESC**, **ROLL**, **SET**...etc. To use these commands, press the green key below them. For example, if you want to ROLL, press the green **WINDOW** key below the word ROLL.
5.) The **SET** command can change variables such as the number of die or coins you toss, the number of marbles you draw or the number of sections on your spinner. It can also change the number of sides on your die or whether you get a frequency or probability graph.
6.) Once you have tossed, rolled, spun, etc, you may have the choice to toss, roll, spin, etc 1, 10 or 50 more times. To this, simply press the green key below the number of times you would like to roll, toss, spin, etc again.
7.) Once you are finished spinning, rolling, tossing, etc, you can view your data in a number of ways. You can use your left and right arrow keys to see the frequency or probability of each coin, side, marble, etc. If the command keys only give you options to roll, spin, toss, etc, more, press the **ESC** command to get more commands.
8.) The **TABL** command allows you to switch between viewing a table of your data or a graph.
#8 Converting Fractions to Decimals

1.) Enter the numerator.
2.) Press the b/c key.
3.) Enter the denominator.
4.) Press the F<- -> D key.
5.) Press ENTER.

#8A Converting Decimals to Fractions

1.) Enter the fraction.
2.) Press the F<- -> D key.
3.) Press ENTER.

#9 Possible Error Messages

The following are a list of common error messages and their meanings. If you come across a different error message, you can find the meaning of the message on the TI website.

**DOMAIN:**
1.) You specified an argument to a function or instruction outside the valid range, such as using a negative frequency in box plots. This error is not returned during graphing because the TI-73 allows for undefined values on a graph.
2.) In a Pictograph, an element in Data List is too large so that the maximum scale (99999) can’t make all icons fit in one screen.

**DIM MISMATCH**
10.) You attempted to perform an operation that references more than one list, but the lists do not have the same dimension (number of elements).

**INVALID DIM**
1.) You specified dimensions for an argument that are not appropriate for the operation. (Your window is wrong.)
2.) You specified a list dimension as something other than an integer between 1 and 999.

**SYNTAX**
1.) The command contains a syntax error. Look for misplaced functions, arguments, parentheses, or commas.
WINDOW RANGE
1.) A problem exists with the WINDOW variables.
   You defined $X_{\text{max}}$ less than or equal to $X_{\text{min}}$ or $Y_{\text{max}}$ less than or equal to the $Y_{\text{min}}$.
   · WINDOW variables are too small or too large to graph correctly.
2.) You may have attempted to zoom in or zoom out to a point that exceeds the TI-73’s numerical range.