

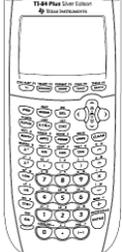
Math 212 – TI-84+ Calculator

Quick Reference Card



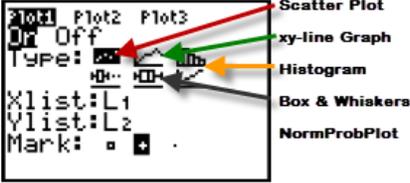
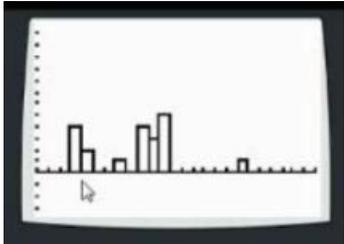
This Quick Reference Card was prepared by Jolene M. Morris (jmmorris@email.phoenix.edu).

This Quick Reference Card (QRC) contains information about the concepts presented in Math 212 that can be completed using the TI-84+ calculator. For more information about the calculator, watch the mini-movies on my website (www.JoleneMorris.com), visit the TI-84 website (education.ti.com/en/us/products/calculators/graphing-calculators/ti-84-plus/features/features-summary) and the Math Bits TI-84 website (mathbits.com/MathBits/TISection/Openpage.htm), and look for more videos on www.youtube.com.

Rent a TI-84+	Intro to the TI-84+	Identify & “Secure”																				
<ol style="list-style-type: none"> Go to www.graphstor.com Select your calculator (TI-84+) Accept initial charge of \$35 for 4 mos. Enter my promotion code of JMUP01 and click button to RECALCULATE Fill out rest of rental form Save the padded envelope Graphstor.com to print return postage Credit will be given if less than 4 mos. Questions? Read the FAQ on website 	<ol style="list-style-type: none"> [ON] to turn on; [2nd] [ON] to turn off Contrast: [2nd] [] and [2nd] [] [ENTER] key is like the equals key Basic functions: [] [] [] [] Note difference between [] and [] [CLEAR] on content line clears line [CLEAR] on blank line clears full screen Replace batteries one at a time Read both guidebooks on CD 	<ol style="list-style-type: none"> Write name or e-mail address on back of the calculator with an engraver. Record ID# of your calculator, which can be found: [2nd] [] for [MEM], and then [] <p>Be careful when reading the 8's and the B's. The 8's are blocky and the B's are more rounded on the right-hand side.</p>																				
TI-Connect™	Updating the OS	Calculator Basics																				
<ol style="list-style-type: none"> Go to www.education.ti.com In the “Know What You’re Looking For” drop-down list, select TI Connect Click the Downloads link Click the Download TI Connect Sign in or register to be a member Choose the appropriate language Follow the directions during download Make a note of where you saved it Install TI Connect 	<p>To check which OS is on your calculator: [2nd] [] for [MEM], and then []</p> <p>Upgrading the OS erases the RAM memory from the computer so archive all programs under [PRGM] before you begin: [2nd] [] for [MEM], and then []</p> <p>Hit [ENTER] to mark programs to archive.</p> <p>To upgrade the OS: Connect the calculator to the computer, open TI Connect™, choose TI Device Explorer, choose Tools, Choose TI OS Download.</p>	 <p>Study the TI-84 guidebook for more information: education.ti.com, under Downloads, and then under Guidebooks. Appendix A describes all keys and functions. My mini-movie explains the following: Keys, [MODE], Screen, Order of Operations [] [], Resetting a dead calculator, and cursors: [] [] [] [] []</p>																				
Recall Answer & Entries	Menus (Except Graphing)	Catalog																				
<p>On the screen, the characters on the left are called the ENTRY and those on the right are called the ANSWER.</p> <p>To recall the last answer at the first of an expression, simply type the operation symbol and the last ANS will be inserted.</p> <p>To recall the last answer within an expression, type [2nd] [] to insert it.</p> <p>To recall the last entry, type [2nd] [ENTER]. You can repeatedly go back through the entry stack by repeatedly typing [2nd] [ENTER].</p>	<table border="1"> <thead> <tr> <th>Menu Keys</th> <th>[2nd] Menu Keys</th> </tr> </thead> <tbody> <tr> <td>[STAT]</td> <td>[LINK] [2nd] [X.T.θ.n]</td> </tr> <tr> <td>[MATH]</td> <td>[LIST] [2nd] [STAT]</td> </tr> <tr> <td>[APPS]</td> <td>[TEST] [2nd] [MATH]</td> </tr> <tr> <td>[PRGM]</td> <td>[ANGLE] [2nd] [APPS]</td> </tr> <tr> <td>[VARS]</td> <td>[DRAW] [2nd] [PRGM]</td> </tr> <tr> <td></td> <td>[DISTR] [2nd] [VARS]</td> </tr> <tr> <td></td> <td>[MATRX] [2nd] [x⁻¹]</td> </tr> <tr> <td></td> <td>[MEM] [2nd] []</td> </tr> <tr> <td></td> <td>[CATALOG] [2nd] []</td> </tr> </tbody> </table> <p>Most menus have sub menus, which are on a carousel. Arrow on last items → more items off screen.</p>	Menu Keys	[2nd] Menu Keys	[STAT]	[LINK] [2nd] [X.T.θ.n]	[MATH]	[LIST] [2nd] [STAT]	[APPS]	[TEST] [2nd] [MATH]	[PRGM]	[ANGLE] [2nd] [APPS]	[VARS]	[DRAW] [2nd] [PRGM]		[DISTR] [2nd] [VARS]		[MATRX] [2nd] [x ⁻¹]		[MEM] [2nd] []		[CATALOG] [2nd] []	<p>The Catalog is a comprehensive list of every command and function used by the calculator: [2nd] []</p> <p>Automatically goes into [ALPHA] mode so you can “jump” to the letter of the command you want.</p> <p>Highlight the command or function, and then press [ENTER].</p> <p>All the symbols such as ≥ and ! are at the very end so you can arrow <u>up</u> to reach the end of the list.</p>
Menu Keys	[2nd] Menu Keys																					
[STAT]	[LINK] [2nd] [X.T.θ.n]																					
[MATH]	[LIST] [2nd] [STAT]																					
[APPS]	[TEST] [2nd] [MATH]																					
[PRGM]	[ANGLE] [2nd] [APPS]																					
[VARS]	[DRAW] [2nd] [PRGM]																					
	[DISTR] [2nd] [VARS]																					
	[MATRX] [2nd] [x ⁻¹]																					
	[MEM] [2nd] []																					
	[CATALOG] [2nd] []																					
Fractions	Lists	Equation Solver																				
<p>The calculator works internally as decimals. You can enter fractions using the [] key. If you want the answer displayed as a fraction, enter the math command ► Frac before pressing [ENTER]</p> <p>To convert a fraction to a decimal, use the math command ► Dec</p> <p>To convert a decimal to a fraction, use the math command ► Frac</p> <p>Place [] and [] around both the numerator and denominator when an expression is in either one.</p> <p>Some conversions from fraction to decimal are not accurate because of internal rounding.</p>	<p>The Stat List Editor can have up to 20 columns. Each column can handle up to 999 entries. To create/edit a list:</p> <ol style="list-style-type: none"> [STAT] [] Enter your data. Press [ENTER] after each entry. Use arrow keys to position the cursor. <p>To clear the contents of a data list: Use arrow key to highlight list name, then [CLEAR] [ENTER]</p> <p>To delete an entry in a data list: use arrow key to highlight entry, and then [DEL]</p> <p>Lists can be saved to your computer by using TI-Connect™.</p> 	<p>The TI-84 Equation Solver solves an equation for ONE variable and is capable of dealing only with real numbers.</p> <ol style="list-style-type: none"> Set [MODE] for real numbers [MATH] B:Solver Set the equation equal to zero Enter equation into the solver. For the variable, you must use [X.T.θ.n] Enter the bounds for the answer. Default bounds are [-10⁹⁹, 10⁹⁹]. Enter a guess for the solution. If guess isn't within bounds, you'll receive an error message: ERR: BAD GUESS Place cursor on X= and press [Solve], which is [ALPHA] [ENTER]. Note the marks indicating a calculated value and a check. 																				

Linear Regression	Graph an Inequality (1 variable, number line)	Graph an Inequality (2 variables, coordinate grid)
<p>Linear Regression is used to find</p> <ol style="list-style-type: none"> Line of best fit Slope An equation in slope-intercept form <p>To find slope & equation given two or more points:</p> <ol style="list-style-type: none"> Set MODE to float Put xy-points into L1 and L2: STAT 1 Go to the [Calc] submenu: STAT ↓ Choose 4:LinReg (ax+b) Enter data (XList = L1, YList = L2, FreqList = [blank], Store RegEQ: = [blank]) Highlight Calculate and then ENTER 	<ol style="list-style-type: none"> Press Y= and turn off all stat plots Type the inequality after the equal symbol. For the variable, you must use X.T.O.N. For the comparison symbol, use [TEST], which is 2nd [MATH] Press WINDOW and set default values (-10 to 10 with scale of 1) Press GRAPH, and then ENTER Graph will not indicate the type of endpoints; i.e., [or (and then) or) Enter compound inequalities with "and" from the logic submenu of [TEST], which is 2nd [MATH] ↓ 1, such as: $-15 \leq -2x + 3$ and $-2x + 3 < 7$ 	<ol style="list-style-type: none"> Solve the inequality for y Press Y= and turn off all stat plots Highlight the equal symbol and enter the appropriate comparison symbol from [TEST], which is 2nd [MATH] or using the function keys of [ALPHA] then the key Type the inequality. For the variable, you must use X.T.O.N Change the line type (in the left margin) to shade Press GRAPH, and then ENTER WINDOW and ShadeRes can be set 3 to 8 (the higher the number, the further the shade lines are apart)
Graphing Functions	Zeros	Programming QUAD
<ol style="list-style-type: none"> Be sure MODE is set to FUNCTION Set the equation equal to zero. Press Y= and turn off all stat plots Type the function. With exponential functions, put parentheses around products and rational numbers. For the variable, you must use X.T.O.N Press GRAPH and then ENTER. Can use [format], which is 2nd [ZOOM] Can use ZOOM and/or TRACE to investigate the graph. 	<p>Zeros are the points where the graph crosses the x-axis (where $y = 0$), the roots.</p> <ol style="list-style-type: none"> Graph the function Press 2nd [TRACE] 2 Arrow to the left and right bounds then press ENTER to mark them. Arrow to your guess and press ENTER Calculator will display the zero. Repeat this procedure with different bounds to find all zeros. 	<p>The following program will use the Quadratic Formula to solve quadratic equations (ENTER at end of each line):</p> <pre> PRGM ↓ ↓ 1 : Disp "AXIS SYM =" Name = QUAD : Disp B/(2A) : ClrHome : Disp "ROOTS =" : a + bi : (-B+√(D))/(1A) STO E : Disp "AX²+BX+C=0" : (-B-√(D))/(1A) STO F : Prompt A, B, C : Disp E : B²-4AC STO D : Disp F : Disp "DISCRIM =" : Disp F : D </pre>
Scatter Plots	Logarithms	Simple Interest
<ol style="list-style-type: none"> Enter the data as a list: STAT 1 Turn off any Stat Plots or functions in the Y= editor (un-highlight) Go to Stat Plots editor: 2nd Y= and enter the number of the plot, e.g. 1 Select scatter plot and press ENTER Select list with x-coordinates: 2nd 1 Select list with y-coordinates: 2nd 2 Choose a desired mark: ■ + * Plot: ZOOM 9 	<p>Logarithms are needed to solve equations when the variable is in the exponent. Logarithms are the inverse of exponents.</p> <p>LOG Takes a logarithm to the base 10</p> <p>LN Takes a logarithm to the base e</p> <p>10^x is the inverse of LOG</p> <p>e^x is the inverse of LN</p> <p>A logarithm function can also be graphed.</p> <p>Other base logarithms: [MATH] A:logBASE</p>	<p>Formula for simple interest is: $I = Prt$</p> <p>This formula can also be written as:</p> $P = \frac{I}{rt} \quad r = \frac{I}{pt} \quad t = \frac{I}{pr}$ <p>Remember to put parentheses around the denominator of the last three formulas.</p> <p>A program can be written to compute simple interest, but it will take longer to type in the program than it will to just enter the expressions on the home screen.</p>
Effective Annual Rate	TVM Solver	
<p>[APPS] 1 C: ▶ Eff() ENTER</p> <p>After the parentheses, enter the interest rate as a percentage (do not change to a decimal), type a comma, type the number of compounding periods in a year, and then close the parenthesis and press ENTER</p> <p>APY and APR (Nominal rate) are the same. APY is usually used with deposit accounts.</p>	<p>The TVM Solver (Time-Value of Money) is used for loans, savings, mortgages, annuities, and investments with compounded interest.</p> <p>The TVM Solver is a finance application: [APPS] 1 1</p> <p>Fill out values you know, put cursor on value you want to find, and then press [ALPHA] ENTER to solve.</p> <p>For compounding continuously, use a very large number such as 1E9.</p> <p>A mark (■) will be in front of calculated amount.</p> <p>Note – and + amounts to indicate \$ leaving/coming to you.</p> <p>Re-use values from the TVM Solver in other calculations: [APPS] 1 and select: tvm_Pmt; tvm_I%; tvm_PV; tvm_N; tvm_FV</p> <div data-bbox="1247 1360 1474 1518" style="border: 1px solid black; padding: 5px;"> <pre> N=0.00 I%=0.00 PV=0.00 PMT=0.00 FV=0.00 P/Y=1.00 C/Y=1.00 PMT:■ BEGIN </pre> </div>	
Define & Edit Matrices	Copy a Matrix	Identity Matrix
<p>The matrix menu is above the [x⁻¹] key. There are three submenus:</p> <ul style="list-style-type: none"> NAMES: Select an existing matrix MATH: Matrix commands & functions EDIT: Define and edit matrices <p>To define a matrix:</p> <ol style="list-style-type: none"> Press 2nd [x⁻¹] ↓ ↓ Press 1-9,0 for matrix to create/edit Enter # ROWS ENTER; # COLS ENTER Enter each element and press ENTER Press 2nd [MODE] to exit editor. 	<ol style="list-style-type: none"> Press 2nd [x⁻¹] Press 1-9,0 for matrix to copy Press STO Press 2nd [x⁻¹] and key in the number of the matrix that will house the copy Press ENTER to complete the copy <p>Note that if you copy the contents of a matrix to another defined matrix, the contents of that other matrix will be erased and replaced with the contents of the matrix you are copying.</p>	<p>To use/display the identity matrix, there is no need to define a matrix first.</p> <ol style="list-style-type: none"> Press 2nd [x⁻¹] ↓ 5 Enter the dimensions of the desired identity matrix. <div data-bbox="1174 1770 1385 1917" style="border: 1px solid black; padding: 5px;"> <pre> identity<4> [1 0 0 0] [0 1 0 0] [0 0 1 0] [0 0 0 1] </pre> </div>

Delete a Matrix	Add & Subtract Matrices	Multiply Matrix by Scalar
<p>Deleting a matrix is done in the calculator's memory so be careful.</p> <ol style="list-style-type: none"> Press 2nd + 2 2 for [Memory] [MemMgt] and [Matrix] Use the down arrow key to place the arrowhead mark next to the matrix you want to delete Press DEL Press 2nd MODE to return to the Home Screen. 	<p>To add/subtract matrices, the matrices must have the same dimensions; otherwise ERR: DIM MISMATCH</p> <ol style="list-style-type: none"> Be sure matrices are defined Press 2nd MODE to return Home Press CLEAR to clear home screen Press 2nd [x⁻¹] and select first matrix Press + for add or - for subtract Press 2nd [x⁻¹] and select second matrix Press ENTER 	<ol style="list-style-type: none"> Be sure matrix is defined Press 2nd MODE to return Home Press CLEAR to clear home screen Enter the scalar number Press [x] [optional] Press 2nd [x⁻¹] and select matrix Press ENTER <p>There is no division of matrices so we must multiply by a fraction. (e.g. to divide by 2, multiply by 1/2).</p>
Multiply Two Matrices	Inverse of a Matrix	Matrix Row Interchange
<p>To multiply two matrices, the number of columns in the first matrix must be equal to the number of rows in the second matrix.</p> <ol style="list-style-type: none"> Be sure the matrices are defined Press 2nd MODE to return Home Press CLEAR to clear home screen Press 2nd [x⁻¹] and select first matrix Press [x] for multiply [optional] Press 2nd [x⁻¹]; select second matrix Press ENTER 	<p>To find the inverse of a matrix, the matrix must be square or ERR: INVALID DIM. The matrix must also be nonsingular (non-zero determinant) or ERR: SINGULAR MAT</p> <ol style="list-style-type: none"> Be sure matrix is defined Press 2nd MODE to return Home Press CLEAR to clear home screen Press 2nd [x⁻¹] and select matrix Press [x⁻¹] Press ENTER 	<ol style="list-style-type: none"> Be sure matrix is defined Press 2nd MODE to return Home Press CLEAR to clear home screen Press 2nd [x⁻¹] [>] ALPHA C Press 2nd [x⁻¹] and select matrix, and then press [↓], number of first row to interchange, [↓], number of second row to interchange, [↓], and ENTER <p>Thus, to interchange rows 1 and 2 in Matrix A, it would look like this:</p> <pre>rowSwap([A] , 1 , 2)</pre>
Matrix Row Add/Multiply	Solve Systems (using Augmented Matrices)	Solve Systems (using Inverse Matrices)
<p>There are three row operation functions:</p> <ol style="list-style-type: none"> Add one row to another: row+(matrix,rowA,rowB) Multiply a row by a scalar: *row(value,matrix,row) Multiply a row by a scalar, and then add it to another row: *row+(value,matrix,rowA,rowB) <p>All matrix row operations are found in the matrix math menu: 2nd [x⁻¹] [>]</p>	<ol style="list-style-type: none"> Define the augmented matrix Press 2nd MODE to return Home Press CLEAR to clear home screen Press 2nd [x⁻¹] [>] ALPHA B for [err] Press 2nd [x⁻¹] and select the matrix Press [↓] to close the function Press ENTER <p>If the last row is all zeros, we have a dependent system with infinitely many solutions. If the last row is all zeros except for a nonzero number at the end, we have an inconsistent system with no solution.</p>	<ol style="list-style-type: none"> Define the square matrix [A] and the single-column matrix [B] with the values on the other side of the = sign Press 2nd MODE to return Home Press CLEAR to clear home screen Press 2nd [x⁻¹] and select matrix [A] Press [x⁻¹] to indicate the inverse of that square matrix Press [x] for multiply [optional] Press [x⁻¹] and select matrix [B] Press ENTER
Fund. Counting Principle	Factorials	Permutations/Combinations
<p>The Fundamental Principle of Counting is also known as the multiplication rule for counting.</p> <p>There is no special key combination to use the Fundamental Principle of Counting – merely multiply the various possibilities.</p> <p>For example, if I have 4 pairs of shoes, 6 pants, and 9 shirts, there are $4 \times 6 \times 9$ different outfits I can put together.</p>	<ol style="list-style-type: none"> On the Home screen, type the number Press MATH [>] 4 to select the factorial sign from the probability sub-menu Press ENTER 	<p>Permutation: A selection of objects in which order (position) is important</p> <p>Combination: A selection of objects in which order (position) is not important</p> <ol style="list-style-type: none"> On the Home screen, type the number of total items from which to select (<i>n</i>) MATH [>] 2 for Permutations or MATH [>] 3 for Combinations Enter the number of items to select (<i>r</i>) Press ENTER
Probability	Expected Value	Mean, Median, & Mode
<p>For simple probabilities, write the ratio (fraction) and simplify it.</p> <p>For complex probabilities, use Permutations and Combinations to count <i>n</i>(E) and <i>n</i>(S) to form the ratio.</p> $P(E) = \frac{n(E)}{n(S)}$ <p>Be sure to use parentheses liberally (around each combination or permutation, and around each numerator and denominator.</p>	<p>Expected value, denoted by <i>E</i>(X) or μ, is a mean found from a probability distribution table.</p> <ol style="list-style-type: none"> Press STAT [↓] to enter the probability distribution table into a list Clear any previous values in L1 and L2 Type the <i>x</i>-values into L1 Type the <i>P</i>(<i>x</i>)-values into L2 Press STAT [>] 1 for one-variable stats For the LIST, enter L1 For the FREQLIST, enter L2 Highlight "Calculate" and press ENTER The \bar{x} value is the Expected Value 	<p>The TI-84 will find mean and median but not mode. To find mode, sort the list: STAT [↓] L1 [↓] ENTER; eyeball it for modes</p> <ol style="list-style-type: none"> Press STAT [↓] 1 Enter non-grouped data into L1 -or- Enter the midpoint of grouped data into L1 and the frequency into L2 Press STAT [>] 1 for one-variable stats For the LIST, enter L1 For the FREQLIST, enter L2 Highlight "Calculate" and press ENTER <p>The \bar{x} value is the mean. Arrow down to see the median on page two of the screen</p>

Histogram	Pie Chart	Bar Graph
<ol style="list-style-type: none"> 1. Press [STAT] [1], enter the data into the L1 list, and then [2nd] [MODE] to return home. 2. Turn off any plots or functions in [Y=] 3. Press [2nd] [Y=] [1] to access [Stat Plot] set up stat plot 1 as your histogram. 4. Highlight ON to plot the data 5. Use arrow keys to select histogram (see yellow arrow in graphic below) 6. For Xlist, enter L1 and press [ENTER] 7. Enter the frequency of your data (1 if you didn't group or class data) 8. Press [ZOOM] [9] 9. Press [WINDOW] to modify the size of the class (Xscl), also known as "bin size". Note that Xscl must be greater than or equal to $(X_{max}-X_{min})/47$ 10. If necessary, adjust the settings in the [WINDOW] editor 11. If desired, use [TRACE] to explore the histogram. <p>Note: A value that occurs on the edge of a bar is counted in the bar to the right.</p> 	<p>The TI-84+ does not have the ability to draw a pie chart; however, you can download an app called Cellsheet™ to make one. The TI-84+SE comes preloaded with a pie chart app. To make a pie chart using Cellsheet:</p> <ol style="list-style-type: none"> 1. Press [APPS] 2. From the list, select Cellsheet 3. Press any key to bypass the introduction screen but note the keystrokes for entering and navigating within the spreadsheet 4. Press any key to display a new sheet 5. Press [GRAPH] to select Cellsheet Menu 6. Press [1]:File and then [3]:New 7. Name the new spreadsheet and press [ENTER] twice 8. Put data in the spreadsheet. Text must start with a quote mark ([ALPHA] [+]) 9. Press [GRAPH] to select Cellsheet Menu 10. Enter data range for the labels at the Categories prompt and press [ENTER] 11. Enter series range at the Series prompt and press [ENTER] 12. Select "Percent" (highlight and [ENTER]) 13. Enter a title for the spreadsheet at the Title prompt 14. Move the cursor to the Draw prompt and press [ENTER] 15. If desired, use [TRACE] to explore the pie chart <p>To determine the θ angle size from a percent, multiply the percent by 360 and divide by 100.</p>	<ol style="list-style-type: none"> 1. Press [STAT] [1] 2. Enter the horizontal values into L1 3. Enter the vertical data values into L2 4. Enter [2nd] [MODE] to return to Home screen 5. Press [2nd] [Y=] [1] 6. Highlight ON to plot the data 7. Use arrow keys to select histogram 8. For Xlist, enter L1 and press [ENTER] 9. For Freq, enter L2 and press [ENTER] 10. Change [WINDOW] to appropriate maximum and minimum values 11. Press [GRAPH] 12. Press [ENTER] (to clear menu tabs at the bottom of the screen) <p>If you want spaces between the bars, press [WINDOW] and change the Xscl to 0.5</p> 
Broken-Line Graph	Box Plot	Standard Deviation
<ol style="list-style-type: none"> 1. Press [STAT] [1] 2. Enter the x-values into L1 3. Enter the y-values into L2 4. Press [2nd] [MODE] to return Home 5. Clear any previous graphs and stat plots from [Y=] 6. Press [2nd] [Y=] [1] 7. Highlight ON to plot the data 8. Use arrow keys to select xy-line graph 9. For Xlist, enter L1 and press [ENTER] 10. For Freq, enter L2 and press [ENTER] 11. Choose a desired mark: \square $+$ \cdot 12. Change [WINDOW] to appropriate maximum and minimum values 13. Press [GRAPH] 14. Press [ENTER] (to clear menu tabs at the bottom of the screen) 	<p>The box plot is also called a box with whiskers plot. There are two types of box plots on the TI-84: one regular one (middle of row two) and a modified one for outliers (first box plot on row two)</p> <ol style="list-style-type: none"> 1. Press [STAT] [1] 2. Enter the x-values into L1 3. Press [2nd] [MODE] to return Home 4. Clear any previous graphs and stat plots from [Y=] 5. Press [2nd] [Y=] [1] 6. Highlight ON to plot the data 7. Use arrow keys to select box plot 8. For Xlist, enter L1 and press [ENTER] 9. For Freq, enter [1] and press [ENTER] 10. If you chose a modified box plot, choose a desired mark for the outliers: \square $+$ \cdot 11. Press [ZOOM] [9] <p>Press [ENTER] (to clear menu tabs at the bottom of the screen)</p>	<p>Ungrouped Data:</p> <ol style="list-style-type: none"> 1. Press [STAT] [1] 2. Enter the data values into L1 3. Press [2nd] [MODE] to return Home 4. Press [STAT] [>] [1] for 1-Var Stats 5. For List, enter L1 and press [ENTER] 6. For FreqList, leave blank 7. Highlight "Calculate" and press [ENTER] <hr/> <p>Grouped Data:</p> <ol style="list-style-type: none"> 1. Press [STAT] [1] 2. Enter the midpoint values into L1 The TI-84 can calculate midpoints so enter: [1] min [+] max [1] [=] [2] 3. Enter the frequencies into L2 4. Press [2nd] [MODE] to return Home 5. Press [STAT] [>] [1] for 1-Var Stats 6. For List, enter L1 and press [ENTER] 7. For FreqList, enter L2 and press [ENTER] 8. Highlight "Calculate" and press [ENTER] <hr/> <p>Sx is Sample Standard Deviation σx is Population Standard Deviation</p>

YELLOW headers are for Math 212 Week 1; **GREEN** headers are for Math 212 Week 2; **PINK** headers are for Math 212 Week 3; **BLUE** headers are for Math 212 Week 4; and **PURPLE** headers are for Math 212 Week 5