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3rd Edition

# TI-84 Plus CE Graphing Calculator

for  
**dummies**<sup>®</sup>  
A Wiley Brand



Navigate menus and  
modes with ease

Learn to graph inequalities  
and piecewise functions

Access shortcut menus  
to save time

**Jeff McCalla**



# TI-84 Plus CE Graphing Calculator

3rd Edition

by Jeff McCalla

**for  
dummies**<sup>®</sup>  
A Wiley Brand

# **TI-84 Plus CE Graphing Calculator For Dummies<sup>®</sup>, 3rd Edition**

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# TI-84 Plus CE Graphing Calculator For Dummies®

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## Table of Contents

[Cover](#)

[Title Page](#)

[Copyright](#)

[Introduction](#)

[About This Book](#)

[Foolish Assumptions](#)

[Icons Used in This Book](#)

[Beyond the Book](#)

[Where to Go from Here](#)

[\*\*Part 1: Making Friends with the Calculator\*\*](#)

[\*\*Chapter 1: Starting with the Basics\*\*](#)

[Why Didn't I Think of That?](#)

[Charging the Battery](#)

[Turning the Calculator On and Off](#)

[Using the Keyboard](#)

[What Is the Home Screen?](#)

[The Busy Indicator](#)  
[Editing Entries](#)  
[Copying and Pasting](#)  
[Using Menus](#)  
[Setting the Mode](#)  
[Using the Catalog](#)

## **Chapter 2: Doing Basic Arithmetic**

[Entering and Evaluating Expressions](#)  
[Using Exponents and Roots](#)  
[Working in Scientific Notation](#)  
[Getting Familiar with Important Keys](#)  
[Following the Order of Operations](#)  
[Using the Previous Answer](#)  
[Storing Variables](#)  
[Combining Expressions](#)

## **Chapter 3: Dealing with Fractions**

[Setting the Mode](#)  
[Converting Fractions and Decimals](#)  
[Accessing Shortcut Menus](#)  
[Entering Fractions and Mixed Numbers](#)  
[Entering Complex Numbers in Fractions](#)  
[Entering Complex Fractions](#)

## **Chapter 4: Solving Equations**

[Using the Numeric Solver](#)  
[Assigning Values to Variables](#)  
[Finding Multiple Solutions](#)  
[Using the Solve Function](#)  
[Discovering the PlySmlt2 App](#)

## **Part 2: Taking Your Calculator Relationship to the Next Level**

### **Chapter 5: Working with Complex Numbers**

[Setting the Mode](#)

[Entering Complex Numbers](#)

[Interpreting Strange-looking Results](#)

[Using the CMPLX menu](#)

## **Chapter 6: Understanding the Math Menu and Submenus**

[Getting to Know the Math Menu and Submenus](#)

[Accessing Catalog Help from the Math Menu](#)

[The Math MATH Submenu](#)

[The Math NUM Submenu](#)

## **Chapter 7: The Angle and Test Menus**

[The Angle Menu](#)

[The Test Menu](#)

[Using Logic Commands](#)

[Using Conditions](#)

## **Chapter 8: Creating and Editing Matrices**

[Entering Matrices](#)

[Storing a Matrix](#)

[Matrix Arithmetic](#)

[Evaluating the Determinant and Other Matrix Operations](#)

[Solving a System of Equations](#)

## **Part 3: Graphing and Analyzing Functions**

### **Chapter 9: Graphing Functions**

[Entering Functions](#)

[Formatting Your Graph](#)

[Graphing Functions](#)

[Adjusting Your Color/Line Settings](#)

[Graphing Families of Functions](#)

[Graphing Piecewise Functions Using the Template](#)

[Graphing Trig Functions](#)

[Viewing the Function and Graph on the Same Screen](#)

### **Chapter 10: Exploring Functions**

[Tracing a Graph](#)



[Using Zoom Commands](#)

[Displaying Functions in a Table](#)

[Clearing a Table](#)

[Viewing the Table and the Graph on the Same Screen](#)

## **Chapter 11: Evaluating Functions**

[Finding the Value of a Function](#)

[Composing Functions](#)

[Finding the Zeros of a Function](#)

[Finding Min and Max](#)

[Finding Points of Intersection](#)

[Finding the Slope of a Curve](#)

[Evaluating a Definite Integral](#)

[Graphing Derivatives to Find Critical Points](#)

[Solving Equations by Graphing](#)

[Drawing the Inverse of a Function](#)

[Drawing the Tangent of a Function](#)

## **Chapter 12: Graphing Inequalities**

[Graphing One-Variable Inequalities](#)

[Starting Inequality Graphing](#)

[Entering Functions and Inequalities](#)

[Exploring a Graph](#)

[Storing Data Points](#)

[Quitting Inequality Graphing](#)

## **Chapter 13: Graphing Parametric Equations**

[Changing the Mode](#)

[Selecting the Graph Style](#)

[Entering Parametric Equations](#)

[Setting the Window](#)

[Graphing Parametric Equations](#)

[Using Zoom to Change the Window](#)

[Using Trace to Evaluate a Parametric Equation](#)

[Viewing the Table of a Parametric Graph](#)

[Taking the Derivative of Parametric Equations](#)

## **Chapter 14: Graphing Polar Equations**

[Changing the Mode](#)

[Selecting the Graph Style](#)

[Entering Polar Equations](#)

[Setting the Window](#)

[Graphing Polar Equations](#)

[Using Zoom to Change the Window](#)

[Using Trace to Evaluate a Polar Equation](#)

[Viewing the Table of a Polar Graph](#)

[Taking the Derivative of Polar Equations](#)

## **Part 4: Working with Probability and Statistics**

### **Chapter 15: Probability**

[Evaluating Factorials](#)

[Permutations and Combinations](#)

[Using the Binomial Theorem](#)

[Generating Random Numbers](#)

### **Chapter 16: Dealing with Statistical Data**

[Entering Data](#)

[Deleting and Editing Data](#)

[Inserting Data Lists](#)

[Using Formulas to Enter Data](#)

[Copying and Recalling Data Lists](#)

[Sorting Data Lists](#)

### **Chapter 17: Analyzing Statistical Data**

[Plotting One-Variable Data](#)

[Plotting Two-Variable Data](#)

[Tracing Statistical Data Plots](#)

[Analyzing Statistical Data](#)

## **Part 5: Doing More with Your Calculator**

### **Chapter 18: Communicating with a PC Using TI Connect CE Software**

[Downloading TI Connect](#)

[Installing and Running TI Connect](#)

[Connecting Calculator and PC](#)

[Transferring Files](#)

[Using the Calculator Explorer Workspace to Transfer Files from Calculator to Computer](#)

[Upgrading the OS using a TI CE Bundle file](#)

## **Chapter 19: Communicating Between Calculators**

[Linking Calculators](#)

[Transferring Files](#)

[Using Resend to Multiply Your Efforts](#)

## **Chapter 20: Fun with Images**

[Inserting Photo Images as a Background of a Graph](#)

[Using TI Connect CE Software to Transfer Images](#)

[Using Quick Plot & Fit Equation](#)

## **Chapter 21: Managing Memory**

[Checking Available Memory](#)

[Deleting and Archiving to Preserve Memory](#)

[Resetting the Calculator](#)

[Grouping and Ungrouping Programs](#)

[Garbage Collecting](#)

## **Part 6: The Part of Tens**

### **Chapter 22: Ten Essential Skills**

[Copying and Pasting](#)

[Converting a Decimal to a Fraction](#)

[Changing the Mode](#)

[Accessing Hidden Menus](#)

[Entering Imaginary Numbers](#)

[Storing a variable](#)

[Graphing a Function](#)

[Finding the Intersection Point](#)

[Graphing a Scatter Plot](#)

[Performing a Linear Regression](#)

## **Chapter 23: Ten Common Errors**

[Using  \$\square\$  Instead of  \$\ominus\$  to Indicate That a Number Is Negative](#)

[Indicating the Order of Operations Incorrectly by Using Parentheses](#)

[Improperly Entering the Argument for Menu Functions](#)  
[Accidentally Deleting a List](#)

[Entering an Angle in Degrees in Radian Mode](#)

[Graphing Trigonometric Functions in Degree Mode](#)

[Graphing Functions When Stat Plots Are Active](#)

[Inadequately Setting the Display Contrast](#)

[Setting the Window Inappropriately for Graphing](#)

[Accidentally Deactivating a Function](#)

## **Chapter 24: Ten Common Error Messages**

[ARGUMENT](#)

[BAD GUESS](#)

[DIMENSION MISMATCH](#)

[DIVIDE BY ZERO](#)

[INVALID](#)

[INVALID DIMENSION](#)

[NO SIGN CHANGE](#)

[SINGULAR MATRIX](#)

[SYNTAX](#)

[WINDOW RANGE](#)

## **Part 7: Appendices**

### **Appendix A: Creating Calculator Programs**

[Creating and Saving a Program on the Calculator](#)

[Editing a Program on the Calculator](#)

[Executing a Calculator Program](#)

[Deleting a Program from the Calculator](#)

## **Appendix B: Controlling Program Input and Output**

[Using Input Commands](#)

[Using Output Commands](#)

[Using a Program to Display a Graph](#)

[Changing the Color and Graph Style of a Function](#)

[Changing the Color of Text on a Graph](#)

[Housekeeping Issues](#)

## **Appendix C: Controlling Program Flow**

[Entering Control Commands in a Program](#)

[Using Decision Commands](#)

[Using Looping Commands](#)

[Using Branching Commands](#)

[Stopping a Program](#)

[Pausing a Program](#)

[Executing an External Program as a Subroutine](#)

## **Appendix D: Introducing Python Programming**

[Getting to Know the Workspaces](#)

[Managing a Python Program in your Calculator](#)

## **Appendix E: Mastering the Basics of Python Programming**

[Using Input Commands in a Python Program](#)

**Index**

**About the Authors**

**Supplemental Images**

**Connect with Dummies**

**End User License Agreement**

# **List of Tables**

## Chapter 17

[TABLE 17-1 One- and Two-Variable Data Analysis](#)

[TABLE 17-2 Types of Regression Models](#)

# List of Illustrations

## Chapter 1

[FIGURE 1-1: Improvements to the TI-84 Plus.](#)

[FIGURE 1-2: Battery status icon battery levels.](#)

[FIGURE 1-3: Battery level warning screen.](#)

[FIGURE 1-4: Information screen.](#)

[FIGURE 1-5: Copying and pasting.](#)

[FIGURE 1-6: Submenus of the Math menu.](#)

[FIGURE 1-7: Mode, MathPrint, and Classic screens.](#)

[FIGURE 1-8: Normal, scientific, and engineering notations.](#)

[FIGURE 1-9: Linear regression wizard and setting the clock.](#)

[FIGURE 1-10: Steps for using the Catalog.](#)

## Chapter 2

[FIGURE 2-1: Evaluating arithmetic expressions.](#)

[FIGURE 2-2: Scientific calculator keys.](#)

[FIGURE 2-3: Entering calculations.](#)

[FIGURE 2-4: Powers and roots.](#)

[FIGURE 2-5: Scientific notation.](#)

[FIGURE 2-6: Examples of arithmetic expressions.](#)

[FIGURE 2-7: Order of operations.](#)

[FIGURE 2-8: Using the previous answer.](#)

[FIGURE 2-9: Storing steps.](#)

[FIGURE 2-10: Combining expressions.](#)

## Chapter 3

[FIGURE 3-1: Modes of the calculated answer.](#)

[FIGURE 3-2: Converting fractions and decimals.](#)

[FIGURE 3-3: Accessing the FRAC menu.](#)

[FIGURE 3-4: Fraction templates and conversions tools.](#)

[FIGURE 3-5: Entering complex numbers in fractions.](#)

[FIGURE 3-6: Entering complex fractions.](#)

## **Chapter 4**

[FIGURE 4-1: The Numeric Solver.](#)

[FIGURE 4-2: Steps for solving an equation in the Numeric Solver.](#)

[FIGURE 4-3: Assigning values to variables.](#)

[FIGURE 4-4: Making strategic guesses to find multiple solutions.](#)

[FIGURE 4-5: Defining the bound variable.](#)

[FIGURE 4-6: Using the Numeric Solver on the TI-84 Plus.](#)

[FIGURE 4-7: Using the Solve function.](#)

[FIGURE 4-8: Using the Polynomial Root Finder.](#)

[FIGURE 4-9: Using the Polynomial Root Finder on the TI-84 Plus.](#)

[FIGURE 4-10: Using the Simultaneous Equation Solver.](#)

[FIGURE 4-11: Using the Simultaneous Equation Solver on the TI-84 Plus.](#)

## **Chapter 5**

[FIGURE 5-1: Setting the mode.](#)

[FIGURE 5-2: Entering complex numbers.](#)

[FIGURE 5-3: Interpreting strange-looking results.](#)

[FIGURE 5-4: CMPLX menu functions.](#)

[FIGURE 5-5: More CMPLX menu functions.](#)

## **Chapter 6**

[FIGURE 6-1: MATH submenu and NUM submenu.](#)

[FIGURE 6-2: Accessing Catalog Help from the Math menu.](#)

[FIGURE 6-3: Converting fractions and decimals.](#)

[FIGURE 6-4: Cubes, roots, and function maximums and minimums.](#)

[FIGURE 6-5: Numerical differentiation and integration and other templates.](#)

[FIGURE 6-6: The Math NUM functions.](#)

[FIGURE 6-7: Additional Math NUM functions.](#)

## **Chapter 7**

[FIGURE 7-1: Converting between degrees and radians.](#)

[FIGURE 7-2: Converting from radian to degrees and from degrees to DMS.](#)

[FIGURE 7-3: Entering DMS and overriding the mode.](#)

[FIGURE 7-4: Converting rectangular and polar coordinates.](#)

[FIGURE 7-5: Comparing numbers.](#)

[FIGURE 7-6: Equivalent expressions.](#)

[FIGURE 7-7: Logic commands.](#)

[FIGURE 7-8: Using conditions.](#)

## **Chapter 8**

[FIGURE 8-1: Entering a matrix.](#)

[FIGURE 8-2: Storing a matrix.](#)

[FIGURE 8-3: Matrix arithmetic.](#)

[FIGURE 8-4: The powers and inverses of matrices.](#)

[FIGURE 8-5: The determinant of a matrix and other matrix operations.](#)

[FIGURE 8-6: MATRX MATH menu operations.](#)

[FIGURE 8-7: The coefficient and constant matrices.](#)

[FIGURE 8-8: The  \$A^{-1} \* B\$  method.](#)

[FIGURE 8-9: Augmenting two matrices and storing the result.](#)

[FIGURE 8-10: Finding the reduced row-echelon form.](#)

## **Chapter 9**

[FIGURE 9-1: Setting the mode and entering functions.](#)

[FIGURE 9-2: Referencing another function in the Y= editor.](#)

[FIGURE 9-3: Grid options in the Format menu.](#)

[FIGURE 9-4: Format menu options.](#)

[FIGURE 9-5: Border color and background in the Format menu.](#)

[FIGURE 9-6: Detect Asymptotes in the Format menu.](#)

[FIGURE 9-7: Turning Stat Plot off and on.](#)

[FIGURE 9-8: Select \(turn on\) and deselect \(turn off\) a function.](#)

[FIGURE 9-9: Graphing window.](#)

[FIGURE 9-10: Stopping or pausing your graph.](#)

[FIGURE 9-11: Color and graph line style.](#)



[FIGURE 9-12: Shading above and below curve styles.](#)

[FIGURE 9-13: Path and animated styles.](#)

[FIGURE 9-14: Families of functions.](#)

[FIGURE 9-15: Starting the Transformation app.](#)

[FIGURE 9-16: Using the Transformations app.](#)

[FIGURE 9-17: Using preset functions in the Transformation app.](#)

[FIGURE 9-18: Quitting the Transformation app.](#)

[FIGURE 9-19: Entering piecewise functions.](#)

[FIGURE 9-20: Graphing piecewise functions.](#)

[FIGURE 9-21: Graphing trig functions.](#)

[FIGURE 9-22: Horizontal mode.](#)

## **Chapter 10**

[FIGURE 10-1: Using Trace.](#)

[FIGURE 10-2: Moving the Trace cursor to a specific x-value.](#)

[FIGURE 10-3: Zoom commands with preset windows.](#)

[FIGURE 10-4: Zoom commands that help you find the appropriate window.](#)

[FIGURE 10-5: Zoom commands that help you readjust the graphing window.](#)

[FIGURE 10-6: Zoom commands that help you zoom in or out.](#)

[FIGURE 10-7: Storing and recalling your favorite graphing window.](#)

[FIGURE 10-8: Automatically generating a table.](#)

[FIGURE 10-9: A user-generated table.](#)

[FIGURE 10-10: Editing a function in a table.](#)

[FIGURE 10-11: Clearing a table.](#)

[FIGURE 10-12: A Graph-Table split screen.](#)

[FIGURE 10-13: Moving the cursor between the table and graph.](#)

## **Chapter 11**

[FIGURE 11-1: Using a graph to find a specific x-value of a function.](#)

[FIGURE 11-2: Using your calculator to find a specific x-value of a function.](#)

[FIGURE 11-3: Graphing composed functions.](#)

[FIGURE 11-4: Function composition at a specific x-value.](#)

[FIGURE 11-5: Steps in finding the zero of a function.](#)

[FIGURE 11-6: Steps in finding the maximum value of a function.](#)

[FIGURE 11-7: Steps in finding a point of intersection.](#)

[FIGURE 11-8: Steps in finding the slope at a specified value of  \$x\$ .](#)

[FIGURE 11-9: Steps in evaluating a definite integral.](#)

[FIGURE 11-10: Graphing the derivative to find the critical points.](#)

[FIGURE 11-11: Solving equations by graphing.](#)

[FIGURE 11-12: Draw the inverse of a function.](#)

[FIGURE 11-13: Graphing and storing tangent functions.](#)

## **Chapter 12**

[FIGURE 12-1: Graphing a one-variable inequality.](#)

[FIGURE 12-2: Graphing compound inequalities.](#)

[FIGURE 12-3: Starting the Inequality app.](#)

[FIGURE 12-4: The Y= editor when Inequality Graphing is running.](#)

[FIGURE 12-5: Defining inequalities in the Y= editor and changing colors.](#)

[FIGURE 12-6: Defining inequalities in the X= editor.](#)

[FIGURE 12-7: Graphing the intersection or union.](#)

[FIGURE 12-8: Finding points of intersection.](#)

[FIGURE 12-9: Storing points.](#)

[FIGURE 12-10: Viewing lists INEQX and INEQY.](#)

[FIGURE 12-11: Quitting the Inequality app.](#)

## **Chapter 13**

[FIGURE 13-1: Changing the mode to Parametric.](#)

[FIGURE 13-2: Selecting the Graph Style.](#)

[FIGURE 13-3: Entering parametric equations.](#)

[FIGURE 13-4: Setting the window.](#)

[FIGURE 13-5: Graphing parametric equations.](#)

[FIGURE 13-6: Using Zoom.](#)

[FIGURE 13-7: Using Trace to evaluate a parametric equation.](#)

[FIGURE 13-8: Viewing the table of a parametric graph.](#)

[FIGURE 13-9: Finding the derivative of parametric equations.](#)

## **Chapter 14**

[FIGURE 14-1: Polar coordinates.](#)

[FIGURE 14-2: Changing the mode to Polar.](#)

[FIGURE 14-3: Selecting the Graph Style.](#)

[FIGURE 14-4: Entering polar equations.](#)

[FIGURE 14-5: Setting the window.](#)

[FIGURE 14-6: Graphing polar equations.](#)

[FIGURE 14-7: Using Zoom.](#)

[FIGURE 14-8: Using Trace to evaluate a polar equation.](#)

[FIGURE 14-9: Viewing the table of a polar graph.](#)

[FIGURE 14-10: Finding the derivative of polar equations.](#)

## **Chapter 15**

[FIGURE 15-1: Evaluating factorials.](#)

[FIGURE 15-2: Permutations and combinations.](#)

[FIGURE 15-3: Using the Binomial theorem.](#)

[FIGURE 15-4: Generating random integers.](#)

[FIGURE 15-5: Generating random integers with no repeats.](#)

[FIGURE 15-6: Generating random numbers \(between 0 and 1\).](#)

[FIGURE 15-7: Days between dates and seeding your calculator.](#)

## **Chapter 16**

[FIGURE 16-1: The Stat List editor.](#)

[FIGURE 16-2: Clearing lists.](#)

[FIGURE 16-3: Deleting lists.](#)

[FIGURE 16-4: Steps for inserting a data list.](#)

[FIGURE 16-5: Steps for using a formula to enter data.](#)

[FIGURE 16-6: Steps for copying data from one list to another.](#)

[FIGURE 16-7: Recalling data lists.](#)

[FIGURE 16-8: Sorting data.](#)

[FIGURE 16-9: Sorting data lists while keeping rows intact.](#)

## **Chapter 17**

[FIGURE 17-1: One-variable statistical plots.](#)

[FIGURE 17-2: Constructing a histogram.](#)

[FIGURE 17-3: Constructing a histogram.](#)

[FIGURE 17-4: Steps for defining the class size in a histogram.](#)

[FIGURE 17-5: A box plot with a histogram and with a modified box plot.](#)

[FIGURE 17-6: Two-variable statistical plots.](#)

[FIGURE 17-7: Tracing statistical data plots.](#)

[FIGURE 17-8: Steps for one-variable data analysis.](#)

[FIGURE 17-9: Steps for two-variable data analysis.](#)

[FIGURE 17-10: Performing regression.](#)

[FIGURE 17-11: Graphing a regression model.](#)

[FIGURE 17-12: Graphing a residual plot.](#)

[FIGURE 17-13: Using Manual-Fit.](#)

[FIGURE 17-14: Using statistics commands on the Home screen.](#)

## **Chapter 18**

[FIGURE 18-1: TI Connect CE software.](#)

[FIGURE 18-2: The Calculator List panel.](#)

[FIGURE 18-3: Transferring files from your calculator to a computer.](#)

[FIGURE 18-4: Transferring files from a computer to your calculator.](#)

[FIGURE 18-5: Download TI CE bundle.](#)

[FIGURE 18-6: Send the TI CE bundle.](#)

## **Chapter 19**

[FIGURE 19-1: Selecting files for transmission between calculators.](#)

[FIGURE 19-2: Selecting and receiving calculator screens.](#)

[FIGURE 19-3: Dealing with duplicate file names.](#)

[FIGURE 19-4: Using RESEND.](#)

## **Chapter 20**

[FIGURE 20-1: Inserting images.](#)

[FIGURE 20-2: Using TI Connect CE software to transfer images.](#)

[FIGURE 20-3: Using Quick Plot & Fit Equation.](#)

[FIGURE 20-4: Storing the regression equations and data.](#)

## **Chapter 21**

[FIGURE 21-1: Checking available RAM and archive memory.](#)

[FIGURE 21-2: Archiving, unarchiving, and deleting programs.](#)

[FIGURE 21-3: Resetting your calculator.](#)

[FIGURE 21-4: Creating a group.](#)

[FIGURE 21-5: Creating a group and then ungrouping.](#)

[FIGURE 21-6: Garbage collecting.](#)

## **Chapter 23**

[FIGURE 23-1: Accessing the built-in Catalog Help feature.](#)

[FIGURE 23-2: Restoring a list using the SetUpEditor Command.](#)

[FIGURE 23-3: Turning off stat plots.](#)

[FIGURE 23-4: Activating a deactivated function.](#)

## **Appendix A**

[FIGURE A-1: The steps for creating a program.](#)

[FIGURE A-2: Executing a program.](#)

## **Appendix B**

[FIGURE B-1: The Program I/O menu.](#)

[FIGURE B-2: Using the Input command.](#)

[FIGURE B-3: Using the Prompt command.](#)

[FIGURE B-4: Limiting text items to 26 characters.](#)

[FIGURE B-5: Using the Disp command.](#)

[FIGURE B-6: Using the Output command.](#)

[FIGURE B-7: Using the ZStandard command to display a graph.](#)

[FIGURE B-8: Changing the color and graph style of a graph.](#)

[FIGURE B-9: Changing the color of text and the result.](#)

[FIGURE B-10: The consequence of not clearing the Home screen.](#)

[FIGURE B-11: Using the CLRHOME program to clear the Home screen.](#)

## **Appendix C**

[FIGURE C-1: The Program Control menu.](#)

[FIGURE C-2: Using the If command.](#)

[FIGURE C-3: Using the If ... Then ... End command.](#)

[FIGURE C-4: Using the If ... Then ... Else ... End command.](#)

[FIGURE C-5: Using the While ... End and Repeat ... End commands.](#)

[FIGURE C-6: Using the For ... End command.](#)

[FIGURE C-7: Using the Goto command to execute a subroutine.](#)

[FIGURE C-8: Using the Goto command to terminate a program.](#)

[FIGURE C-9: A terminating menu-driven program.](#)

[FIGURE C-10: A menu-driven program that returns the user to the menu.](#)

[FIGURE C-11: A paused program.](#)

[FIGURE C-12: Using the Return command in a called program.](#)

## **Appendix D**

[FIGURE D-1: The three workspaces.](#)

[FIGURE D-2: The PRINT program.](#)

[FIGURE D-3: The Shell workspace.](#)

[FIGURE D-4: Managing a Python program.](#)

## **Appendix E**

[FIGURE E-1: The On-screen Text Selector.](#)

[FIGURE E-2: Inputting a string.](#)

[FIGURE E-3: Mathematical operations on a string.](#)

[FIGURE E-4: Using the integer data type.](#)

[FIGURE E-5: Using the float data type.](#)

[FIGURE E-6: Using If statements.](#)

[FIGURE E-7: Conditional commands.](#)

[FIGURE E-8: The Tools menu.](#)

# Introduction

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Do you know how to use the TI-84 Plus or TI-84 Plus CE family of calculators to do each of the following?

- » Access hidden shortcut menus
- » Graph functions, inequalities, or transformations of functions
- » Copy and paste expressions
- » Insert an image as the background of a graph (TI-84 Plus CE only)
- » Write calculator programs (including Python for the TI-84 Plus CE)
- » Transfer files between two or more calculators
- » Create stat plots and analyze statistical data
- » Graph scatter plots, parametric equations, polar equations, and even piecewise functions




If not, then this is the book for you. Contained within these pages are straightforward, easy-to-follow directions that show you how to do everything listed here — and much, much more.







## ***About This Book***





The TI-84 Plus CE calculator is capable of doing a lot of things, and this book shows you how to utilize its full potential.

It covers more than just the basics of using the calculator, paying special attention to warn you of the problems that you could encounter if you know only the basics of using the calculator.



This is a reference book. It's process-driven, not application-driven. You won't be given a problem to solve and then be told how to use the calculator to solve that particular problem. Instead, you're given the steps needed to get the calculator to perform a particular task, such as constructing a histogram or graphing a scatter plot.

When I refer to "your calculator," I am referring to any calculator from the TI-84 Plus and TI-84 Plus CE family of calculators because the keystrokes on these calculators are almost the same. When I want you to press a key on the calculator, I use an icon for that key. For example, if I want you to press the ENTER key, I say press . If I want you to press a series of keys, such as the Stat key and then the right-arrow key, I say (for example) press  . All keys on the calculator are pressed one at a time — there is no such thing as holding down one key while you press another key.

It's tricky enough to get familiar with the location of the keys on the calculator, and even more of a challenge to remember the location of the secondary functions, such as the blue functions that appear above the key. So when I want you to access one of those functions, I give you the actual keystrokes. For example, if I want you to access the Angle menu, I tell you to press  . This is a simpler method than that of the manual that came with your calculator — which would say press   and then make you hunt for the location of the secondary function ANGLE. The same principle holds for using key combinations to enter specific characters; for example, I tell you to press   to enter a space.

When I want you to use the arrow keys, but not in any specific order, I say press the     keys or use the



arrow keys. If I want you to use only the up- and down-arrow keys, I say press .

All of the screenshots in this book were taken using the TI-84 Plus CE calculator. Of course, you will only be able to see color screenshots in the color insert pages.

## ***Foolish Assumptions***

My nonfoolish assumption is that you know (in effect) nothing about using the calculator, or you wouldn't be reading this book. My foolish assumptions are as follows:

- » You own, or have access to, a calculator from the TI-84 Plus or TI-84 Plus CE family of calculators.
- » If you want to transfer files between your calculator and your computer, I assume that you have a computer and know the basics of how to operate it.

## ***Icons Used in This Book***

This book uses four icons to help you along the way. Here's what they are and what they mean:



**TIP** The text following this icon tells you about shortcuts and other ways of enhancing your use of the calculator.



**TI-84+  
TIP** The icon alerts you to keystroke and functionality differences between the TI-84 Plus and the newer TI-84 Plus CE calculators.



**REMEMBER** The text following this icon tells you something you should remember because if you don't, it may cause you problems later. Usually the Remember icon highlights a reminder to enter the appropriate type of number so you can avoid an error message.



**WARNING** There is no such thing as crashing the calculator. But this icon warns you of those *few* times when you can do something wrong on the calculator and be totally baffled because the calculator is giving you confusing feedback — either no error message or a cryptic error message that doesn't really tell you the true location of the problem.



**TECHNICAL STUFF** This is the stuff you don't need to read unless you're really curious.

## ***Beyond the Book***

In addition to what you're reading right now, this product also comes with a free access-anywhere Cheat Sheet that lists some important TI-84 Plus keystrokes and explains the basics of graphing, among other things. To get this Cheat Sheet, simply go to <https://www.dummies.com/> and enter **TI-84 Plus CE Graphing Calculator For Dummies Cheat Sheet** in the Search box.

# ***Where to Go from Here***

This book is designed so you do not have to read it from cover to cover. You don't even have to start reading at the beginning of a chapter. When you want to know how to get the calculator to do something, just start reading at the beginning of the appropriate section. The Index and Table of Contents should help you find whatever you're looking for.

## Part 1

# Making Friends with the Calculator

## IN THIS PART ...

Get up and running with your TI-84 Plus CE.

Figure out how to access the fraction tools using the shortcut menu.

Find out how to evaluate expressions and store variables.

See how to use Numeric Solver to solve equations.

Discover how you can use the PlySmlt2 app to find the roots of a polynomial and solve a system of equations.

# Chapter 1

## Starting with the Basics

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### IN THIS CHAPTER

- » **Turning the calculator on and off**
  - » **Using the keyboard**
  - » **Utilizing the menus**
  - » **Setting the mode of the calculator**
  - » **Using the Catalog**
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The most popular calculator in the world just got a makeover! In this book, you find out how to take advantage of the improvements that have been made to the TI-84 Plus, as well as all of the built-in functionality that has not changed. The best way to use your calculator to the fullest is to read this book and start playing with the device.

The TI-84 Plus CE graphing calculator is loaded with many useful features. With it, you can solve equations of all types. You can graph and investigate functions, parametric equations, polar equations, and sequences. You can use it to analyze statistical data and to manipulate matrices.

What if you own the TI-84 Plus and not the TI-84 Plus CE? No worries! The vast majority of the steps will be exactly the same for both calculators. You'll see a difference in the appearance of the graph screen — the TI-84 Plus CE has a higher resolution color screen. If you own the TI-84 Plus, ignore any steps referencing color