

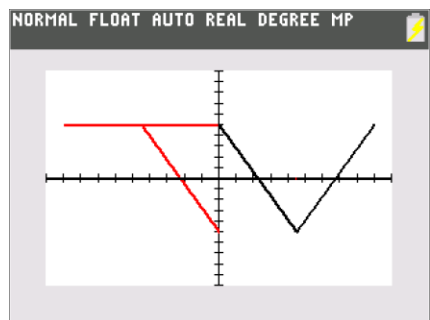
Tips for Mastering Your TI-84 Calculator

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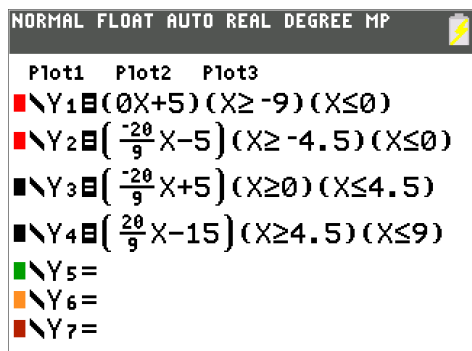


Between higher-level math classes and the PARCC testing of the past two years, more students are using the Texas Instruments TI-84 Plus graphing calculator for their math class work. The four main models of the device are the original TI-84 Plus, the enhanced black-and-white Silver Edition, the color C Silver Edition, and the color, slim-chassis CE. This calculator is like a computer from the 1980s-1990s. It runs a proprietary OS in a reasonably portable form factor, and it is able to run small apps like games or utilities. People have found uses for these devices ranging from periodic tables to the Gameboy of the 21st century. (Literally, there are Pokemon emulators some kids have found. **Pokemon!**) However, most kids don't know some of the hidden secrets and features for the calculators. Once you learn the secrets of the device, however, it can be a powerful little device (and fun, in a tech geek kind of way).

Find Your Calculator

Calculators like the TI-84 Plus family run for at least \$100, if not more. That is why it is a great idea to shop around for deals. Many times, shopping around can help a person find a calculator under the \$100 mark. Also, unless you absolutely need a feature or two on one of the newer models, some of the older TI-84 Plus models, such as the Silver Edition or the C Silver Edition, can possibly be found for a sub-\$100 price tag, while still getting all the performance needed to get through math class. Once you do get your calculator, however, be sure to keep your instructions and any cables, as these may be needed down the line for loading on new apps or, for newer models, charging the device.

Calculate Like a Boss



Luckily, most of the features of the TI-84 family of calculators are fairly self-explanatory, especially for those already familiar with the TI-30XIIS scientific calculator (in plain terms, the late-model, typically red or blue, OGT calculators). Need to graph a function? Just press the "Y=" button on the top row of keys, punch in your function or functions to graph, and press the "GRAPH" button. One secret some may not know is how to change the colors of the lines being graphed, or how to make them dotted, dashed, and so on. To do that, just arrow over to the colored box by the graph you want to change, and press

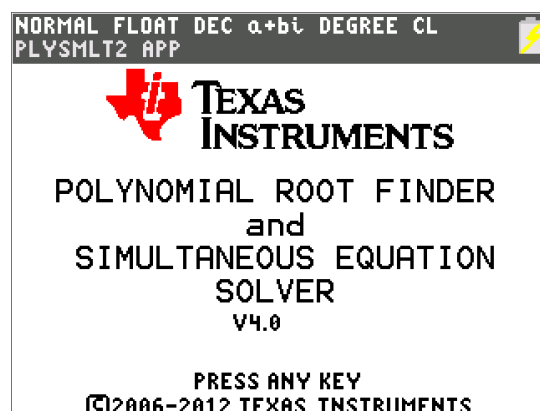
"ENTER" to open the line settings dialog. Also, hitting the "2nd" button and then "TRACE" brings up a ton of different tools, such as a way to find a maximum or minimum point on a graph or a way to find real zeros on a graphed function. Don't try to use the graph to find imaginary solutions, though. You have to give Poly a cracker for that one. That statement will be explained later. It is good to know that

intervals on which to graph a function can be set by using parentheses and functions found under "2nd" > "MATH" known as test functions. (See the picture on the previous page.)

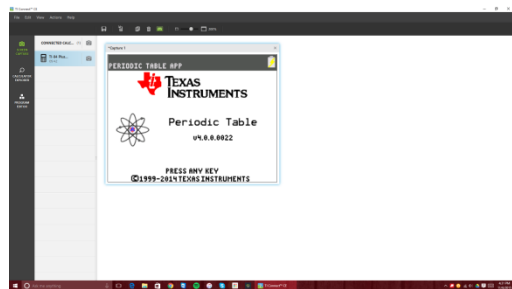
Some basic functions are hidden, however. If you press the "ALPHA" button, followed by one of the top five keys on the calculator, you can find "hidden" features, such as absolute value bars, the fraction to decimal converter, or complex operations such as probability functions for combinations or permutations. Of course, if you still cannot find a feature, you can always go to the catalog. Go "2nd" > "0" and a **long** list of every feature on the calculator will come up. If you need to work fast, this may not be a feasible route to go, but if you are in a pinch and you just cannot find a function, this is your best last chance.

Learn Your Apps

The TI-84 calculators ship with a slew of default apps, from an Excel clone to an app for solving polynomial equations, an app commonly called "Poly" for its name in the apps list on the calculator (PlySmlt2). Each app can be beneficial to use, like a periodic table, and, at the same time, make the TI-84 graphing calculator a fun gadget to mess around with when it isn't being used to graph parabolas or as a savior on those days where basic math is almost impossible. The screens on the calculators, too, may remind those '90s babies of their old Gameboy Advanced or Gameboy Color, which can add to the fun, old-school experience. The calculator ships with a select number of utility apps, with more that can be downloaded.



Apps can be downloaded from the web from both TI's own website and other sites, one of the more popular ones being www.ticalc.org, which is home to a slew of different calculator apps, from number system conversion tools to games of Mario or Flappy Bird. Be advised, as usual, that not all websites can be trusted nor should you just download any random file from a website you do not know. Also, remember that, just like a phone or iPod, there is a limited amount of storage on your calculator for apps. Also, the more apps you load on, the slower your calculator may become. Adding a few is not a major issue, but adding a large amount is bound to noticeably affect performance of necessary functions of a calculator.



The trick is loading apps onto a calculator. You need a special computer program to download software to a calculator directly from a computer. Over a year ago, there was one option for connecting your calculator to your computer to upload files known as TI Connect. The program felt like it was something kids could run on Windows 95 to update their calculators. If you have almost any calculator made by TI, you can still use this software for managing your device from your computer. With the

release of the TI-84 Plus CE, though, a modernized management program known as TI Connect CE accompanied the release of the modernized device. The new program has a modern design which makes managing items easier. We recommend using this program for app management. To upload a

new app to your calculator, simply. While the recommended program for file management on a TI calculator is the newer of the two, anyone using a calculator not a part of the TI-84 Plus family of devices will have to go back to the older TI Connect software, unfortunately. The process in the older program, if you need to use it, is similar.

Geek Out With Your TI-84

Possibly the most fun thing to do is customize your calculator. It is easy to find covers, such as ones in funky colors or this galaxy-inspired one, for older TI-84 Plus models on Amazon. In addition, the faceplates on these can be changed to ones of different colors, and carrying cases are sold for the device as well. Unfortunately, the CE is so new that not many cases are out yet for its slim form factor. Hopefully, TI will update other models in its line to have the new, thinner design over time, which will encourage accessory makers to create new covers and accessories for the new calculator line. Still, these devices are very interesting gadgets which, as long as someone knows their tricks, can be very helpful in completing assignments as well as killing time on a day with nothing to do.