MORE TIPS AND TRICKS FOR THE TI-84 PLUS FAMILY T3IC International *Virtual* Conference, by Webinar -- March 14, 2020

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- 1. Calculator should be fully charged or with fresh batteries on exam day. (FnInt will devour battery power gluttonously.)
- 2. To speed up graphing, press MODE > Simultaneous graphing -
- 3. <u>84CE Only</u>: To speed up graphing, Press 2nd ZOOM [Format] and select Off for Detect Asymptotes.
- 4. Use the shortcut menus ALPHA f1 through f4.
- 5. <u>84CE Only</u>: ALPHA X gives the fraction template $\frac{11}{100}$.
- 6. Common error: If a graph of a trig function is behaving spooky, make sure your mode is correct.
- 7. Use the table settings or the context to get the window settings Xmin, Xmax, Ymin Ymax.
- 8. Any contents of Y1 through Y0 can be copied elsewhere by pressing 2nd RCL Y1.
- 9. On Home Screen press the up arrow to select previous entries. Then press ENTER to copy them to the command line for editing. On an entry line, 2nd ▷ goes to the end and 2nd ⊲ goes to the front. On TRACE, 2nd ▷ or 2nd ⊲ moves left or right every 5 steps.
- 10. To graph every other 8 pixels i.e., especially if graphing FnInt, press WINDOW and make Xres = 8.You can do this with any function for that matter.



I SPEED Xres-IGC PolarGC Ordon CoordOff GridDot

BorderColor: 1 Background: Image1

1FTRTC

GridLin

The graph will have low resolution but it does not affect the 2nd CALC answers (Zero, Intersect, etc.) Alert to teachers: The TI-Smartview Emulator runs at a much faster speed than the calculator.

- 11. Don't ever keep anything stored in X. It is refreshed every time you press GRAPH and will be lost. Use X STO ALPHA A X→A 6.203564377
- 12. When using 2nd CALC (Zero, Intersect, Max, Min) you need only care that *x* value shows in the window. No need to fuss about Ymin or Ymax.
- 13. When using 2nd CALC Intersect you can type in the Guess. Similarly for Zero, Max, Min, Jf(x)dx, you can type in Left Bound, Right Bound, etc. Usually just press ENTER for the Guess.
- 14. The last entry can be copied anywhere (in particular, the Y= menu) by pressing 2nd ENTER.
- 15. Press ON to abort any process.Pressing ENTER will pause it and ENTER again will resume it.
- 16. When using a table to evaluate FnInt, press 2nd WINDOW [TBLSET]. It is helpful to deselect the FnInt function in Y= first, then delete any values of x in the table, then select the FnInt function. The larger x, the longer the FnInt will take to evaluate.
- 17. Do all calculator models in a classroom have the latest operating system? Press 2nd[MEM] (above ⊕ key), then select 1:About to see your OS version. The latest OS releases are: <u>TI-84 Plus CE</u>: 5.4.0 <u>TI-84 Plus</u>: 2.55MP For more tips see our handout *How to Update Your TI-84 Plus CE Classroom Solution*. To update your TI-84 Plus to 2.55MP, contact 1-800-TI-CARES or John or Stuart for help.





TI-84Plus Silver Edition 2.55MP PROD #: 0A-3-02-37

http://users.pfw.edu/lamaster/technology/ These handouts can be downloaded at: NORMAL FLOAT AUTO REAL RADIAN MP Ploti Plot2 Plot3 ERROR: INVALID DIMENSION 18. Common error: When you press GRAPH Quit NY18X²∎ if you see INVALID DIM, deselect a Plot. NY 2= Check 1<dim(list)<999. ■NY3= NY4= To set PlotsOff: 2nd STAT PLOT; PlotsOff Y5= Check 1<dim(matrix)<99. Y6= inverse of square Check ¥7= matrix only. ORMAL FLOAT AUTO REAL RADIAN M 19. Common Error: Negation and Subtraction NORMAL FLOAT AUTO REAL RADIAN MI Y1=X-3 9-5 symbols do not look alike or act alike! The -45 9-5 negation symbol is shorter and higher than the subtraction symbol. X=1 20. Composition of functions vs multiplication of NORMAL FLOAT AUTO REAL DEGREE MP functions. Y1(X) means f(x). If you want Y1 NORMAL FLOAT AUTO REAL DEGREE MP times (x-2), then type $Y1^*(x-2)$ Plot1 Plot2 Plot3 ∎NY18X NY28Y1(X-2) ■****¥3= X=1 V=-1 NORMAL FLOAT AUTO REAL RADIAN MA NORMAL FLOAT AUTO REAL RADIAN MP MATHPRINT CLASSIC Normal Sci Eng Float 0123456789 21. Trace with GRAPH-TABLE split screen 0.7 enabled (in MODE menu) to connect -2.5 -2.45 -2.3 -2.35 -2.3 -2.25 DEGREE RADIAN DEGREE TUNCTION PARAMETRIC POLAR S THICK DOT-THICK THIN DOT-THIN SEQUENTIAL SIMUL Xeal a-bi re~(6) Tull Horizontal Graph-Table Fraction type: Mizg Un/d Anshers: Guto Dec 1.1 1.2 1.3 1.4 1.5 1.6 SEQ numbers, visuals, and expressions (an "algebra big idea") all at once. FULL (=0.7 Y=12.65 MAL FLOAT AUTO REAL RADIAN M IORMAL FLOAT AUTO REAL RADIAN MP 22. ZoomIn, ZoomOut, and ZoomDecimal are too limiting! Create your own "friendly windows" (where you can choose "nice" values for tracestep and see important parts of your function. This requires understanding how a function is plotted Y=25 across the screen and that there are 132 Y1=(X-7)² in Y1=(X-7)² in tracestep increments between Xmin and ZoomDecimal Window [-3.2,10,1] by [-4.1,60,10] Xmax. [Xmin,Xmax,Xscl] by [Ymin,Ymax,Yscl] $TraceStep = \frac{Xmax - Xmin}{132}$ 23. In Polar MODE, turn circles into polygons NORMAL FLOAT AUTO REAL DEGREE MA RMAL FLOAT AUTO REAL DEGREE M by manipulating θ -step (in the WINDOW) Plot1 Plot2 Plot3 Nr1∎4 menu). Select Polar Graphing and Degrees \\[C 2 = in the MODE menu. Select Polar NORMAL FLOAT AUTO REAL DEGREE MI coordinates in the FORMAT menu. WINDOW ⊖min=0 0max=360 0step=60 Xmin=-6.6 R=4 8=68