

Valuable Little Known Tips & Tricks for the TI-84 Family of graphing calculators and TI-SmartView for TI-84 Plus CE

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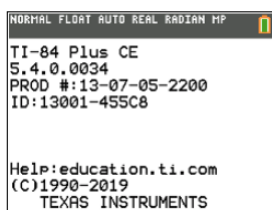
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What version do you have?

Calculator OS?

2nd + 1



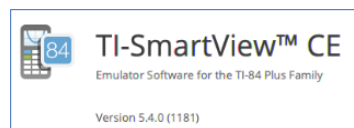
TI Connect?

Help>About TI Connect CE



TI Smartview?

Help>About TI-Smartview CE



The TI-84 Plus CE as an evaluator of complex expressions including quadratic formula

Calculator soft keys: [F1][F2][F3][F4]

[ALPHA][Y=]

[ALPHA][WINDOW]

[ALPHA][ZOOM]

[ALPHA][TRACE]

$2x^2 + 6x - 3 = 0$

NORMAL FLOAT AUTO REAL RADIAN MP

$6 + \sqrt{36 - 4 \cdot 2 \cdot -3}$

$2 \cdot 2$

3.436491673

$6 - \sqrt{36 - 4 \cdot 2 \cdot -3}$

$2 \cdot 2$

-0.4364916731

NORMAL FLOAT AUTO REAL RADIAN MP

Plot1 Plot2 Plot3

- Y1 = -4
- Y2 = X + 3
- Y3 = Y1 * Y2
- Y4 =
- Y5 =
- Y6 =
- Y7 =
- Y8 =
- Y9 =

The TI-84 Plus CE as a graph tracer and table simultaneously PLUS

[MODE]

NORMAL FLOAT AUTO REAL RADIAN MP

$Y_1 = (X+2)/(X-3)$

X=2 Y=-4

Y1(2)

-4

NORMAL FLOAT AUTO REAL RADIAN MP

X	Y1
0	-2/3
1	-3/2
2	-4
3	ERROR
4	6
5	7/2

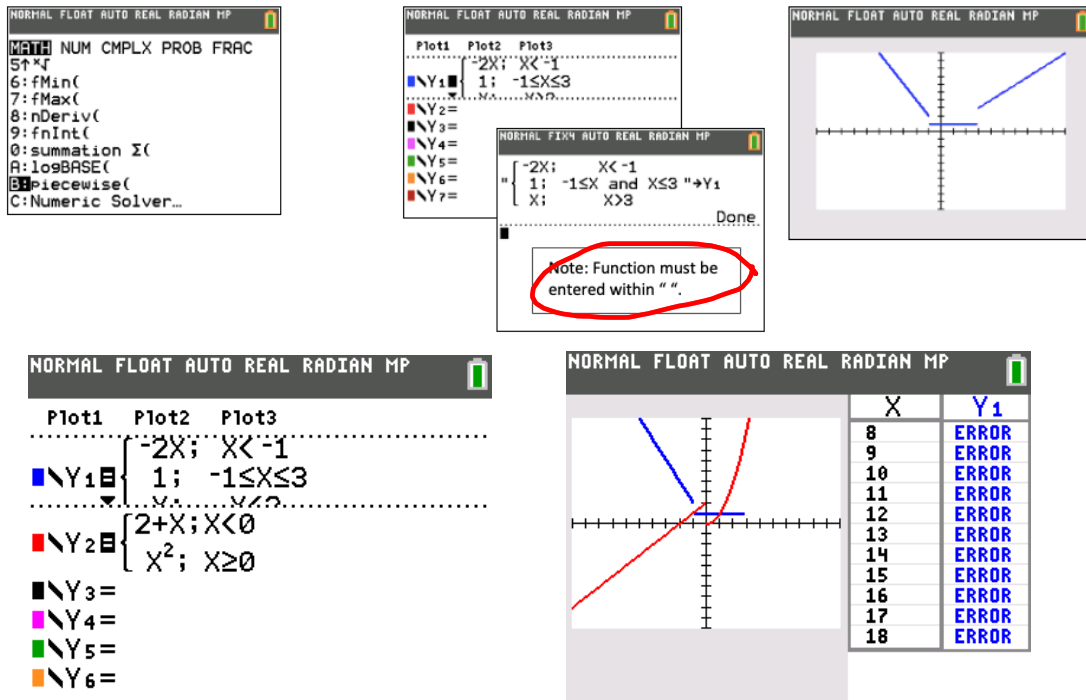
NORMAL FLOAT AUTO REAL RADIAN MP

PRESS + FOR ΔTb1

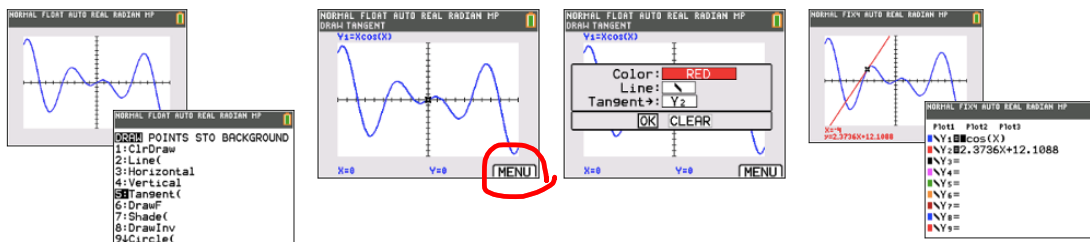
X	Y1
8	-2
9	-11/4
10	-4
11	-13/2
12	-14
13	ERROR
14	16

X=14

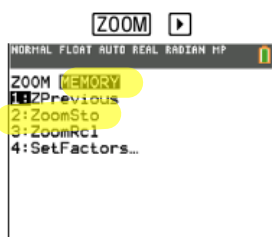
Graphing Piecewise Defined Functions



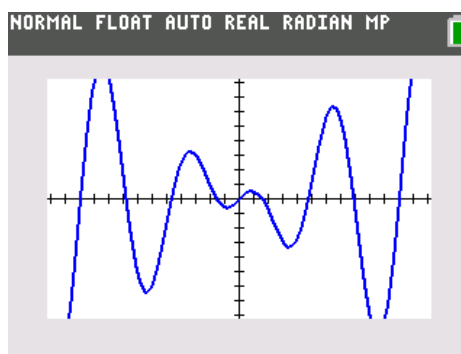
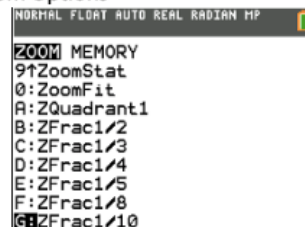
Interactive Draw Tangent



The TI-84 Plus CE storing window settings and MORE



Built-in Zoom Options



Double
The
decimal
window

The TI-84 Plus CE investigating transformation graphing with lists

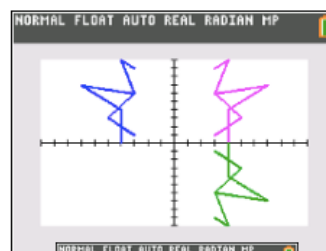
L1	L2	L3	L4	L5	→
3	9	-3	-9		
4	10	-4	-10		
3	6	-3	-6		
7	7	-7	-7		
4	4	-4	-4		
4	0	-4	-2		
3	1	-3	-1		
5	3	-5	-3		
3	6	-3	-6		

L5(1)=

$L_3 = -L_1$ versus $L_4 = -L_2$

L1	L2	L3	L4	↵	L5	↵
3	9	-3	-9			
4	10	-4	-10			
3	6	-3	-6			
7	7	-7	-7			
4	4	-4	-4			
4	0	-4	-2			
3	1	-3	-1			
5	3	-5	-3			
3	6	-3	-6			

L4 = -L2



L1	L2	L3	L4	↵	L5	↵
3	9	-3	-9			
4	10	-4	-10			
3	6	-3	-6			
7	7	-7	-7			
4	4	-4	-4			
4	0	-4	-2			
3	1	-3	-1			
5	3	-5	-3			
3	6	-3	-6			

L4(1) = -9

Transformation Graphing APP – updated

Need

Transform a function to a parent function.

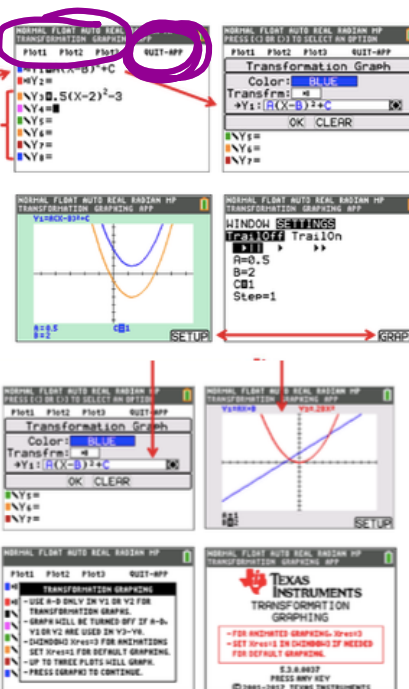
Update

- Two transform functions! (new)
- Graphs in Y3-Y0 allowed! (new)

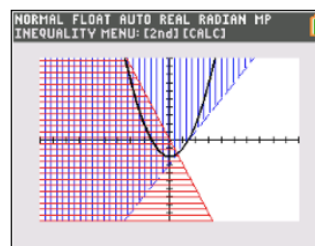
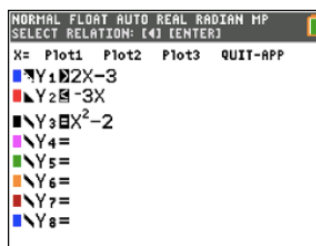
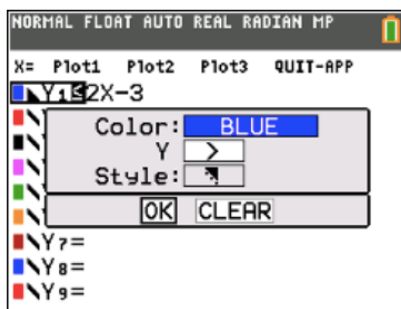
- SETUP now moves from GRAPH to SETTINGS for easy setup.

Note: Transformation Graphing App v 5.3 will only run on CE OS 5.3 or higher. App must match OS version!

- Two transform functions! (new)
 - Use the new spinner to populate standard functions!
 - Use only A,B,C, and D for transformations (existing)
- Graphs in Y3-Y0 allowed! (new)
 - Do not reference Y1 or Y2.
 - Do not use A-D in Y3-Y0. Reserved.
- Launches with Xres=3 vs Xres=1.
 - If Y3-Y0 are not smooth, consider changing Xres = 1 in [window] (default for OS).
 - If Xres=1, any Transformation animations will be slow.
- Run App only when transformation is needed.



Inequality Graphing APP

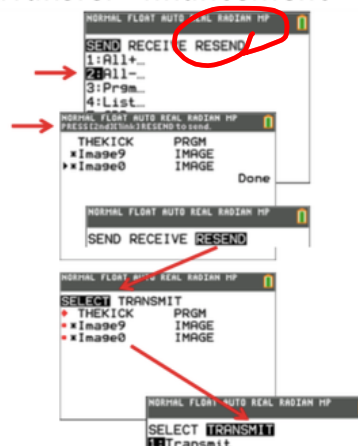


Classroom Management – Unit-Unit RESEND File Transfer Enhancement

Problem: “I want my students to experience STEM in Sports “The Kick!” but I have to transfer to each calculator twice! First the program and then the two Image Vars. Help!

Solution: Retain a list of different calculator file types* to “resend.”

- Transfer first set of files
 - Select the mixed file types from All-
 - Transmit (send) the files to a connected calculator in Receive state (Waiting...)
 - The RESEND screen populates with this set of files.
- “RESEND” - Resend a set of files unit to unit [2nd] [link] (above [X,T,θ,n])
 - After “Done” confirmation screen,
 - [2nd][link] RESEND seen on Context Help line
 - Set up Receiving calculator to “Waiting...”
 - Select TRANSMIT from the RESEND screen to resend.
 - Files can be deselected if needed.



The TI-84 Plus CE Classroom Solution – Version 5.4

Quick Glance at the updates for TI-84 Plus CE OS v5.4

Graphing

- Piecewise Function Graphing
- Sequence Editor – minor update

Support Curriculum

- Interactive Draw: Tangent → YVar
- Quick Plot – skip regression; store points

Classroom Management – CE File transfer

- RESEND set of mixed calculator files

TI-Basic Programming Support (STEM)

- TI-Basic Program editing menu
- Programs run from RAM or Arc memory
- Ignore end of line extra spaces

Ease of Use

- n/d key – 84 keypad shortcut
[ALPHA] [X,T,θ,n]

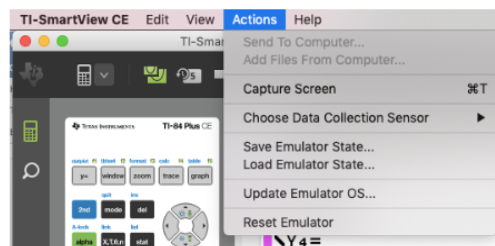
Apps

- Transformation Graphing
- Polynomial Root Finder & System of Equation Solver
- Hub App (command updates for TI-Innovator system)
- Periodic Table
- TI TestGuard CE
- SmartPad CE

Quick Glance at the updates for TI-SmartView CE 5.4

CE Feature Only

- Create, save, and load a customized CE emulator state for each class period
- Provides a “clean” starting point for each class (functions, lists, programs, etc)



Quick Glance at the updates for TI Connect CE 5.4

"TI CE Bundle" for ONE file CE update

- OS, Apps, and Image Vars all in one update

Program Editor Updates

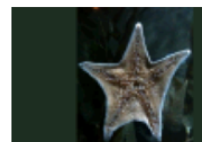
- Updated for all OS commands
- All Hub App TI-Innovator commands

Help Menu updates

- Online Help link
- TI-Basic Getting Started Guide link
- TI-Innovator Getting Started Guide link

TI-84 Plus CE Bundle Contents

- Calculator OS 5.4
- CE Apps: Cabri Jr, Cell Sheet, Conics, EasyData, Hub for TI-Innovator (menu in [prgm]), **Inequality Graphing**, Periodic Table, Polynomial & System of Equations Solver, Probability Simulations, Science Tools, SmartPad CE, Transformation Graphing, Languages
- Image Vars: Bridge, Slide, Flower, Drinking Fountain, Star Fish



$$\sqrt[3]{3x+9} + 10 = 15$$

NORMAL FLOAT AUTO KEYS Radian MP
ENTER EQUATION E1=E2

EQUATION SOLVER

E1: $\sqrt[3]{3x+9}+10$

E2: 15

OK