



# TI-SmartView™ Emulator Software for MathPrint™ Calculators

TI-30X Pro MathPrint™ Calculator

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# Introduction to TI-SmartView™ Emulator Software for MathPrint™ Calculators

The TI-SmartView™ emulator software for MathPrint™ calculators allows you to display a TI scientific calculator for your entire classroom.

## Calculator Emulator Workspace

Allows you to:



- Choose Emulator
  - Choose an emulator to work with.
    - TI-30X Plus MathPrint™
    - TI-30X Pro MathPrint™
    - TI-30XS MultiView - TI-30XB MultiView™
    - TI-34 MultiView™



- Hide/Show Large Emulator Display
  - Display Full Emulator View with or without a Large Display Screen panel.



- Hide/Show Key Press History
  - Displays images of keys pressed so students can follow along with the keys pressed.



- Launch a separate Screen Capture Window
  - Capture and save emulator screens as computer files similar to TI Connect™ CE Screen Capture.

**See:** Using the Calculator Emulator Workspace to help enhance your classroom presentations.

## First Launch: Selecting Your Emulator Type

The first time TI-SmartView™ for MathPrint™ launches on your computer, a notification dialogue will display.

Available Emulators

Select a default emulator:

Available Emulators

- TI-30X Plus MathPrint
- TI-30X Pro MathPrint
- TI-30XS MultiView
- TI-34 MultiView

× Choose your emulator type using the pull down menu and select **OK**.

Your selected emulator will display for your first presentation.

OK

TI-SmartView™ for MathPrint™ will always re-launch with the last state of the software. Once in the software, you can change the default emulator.

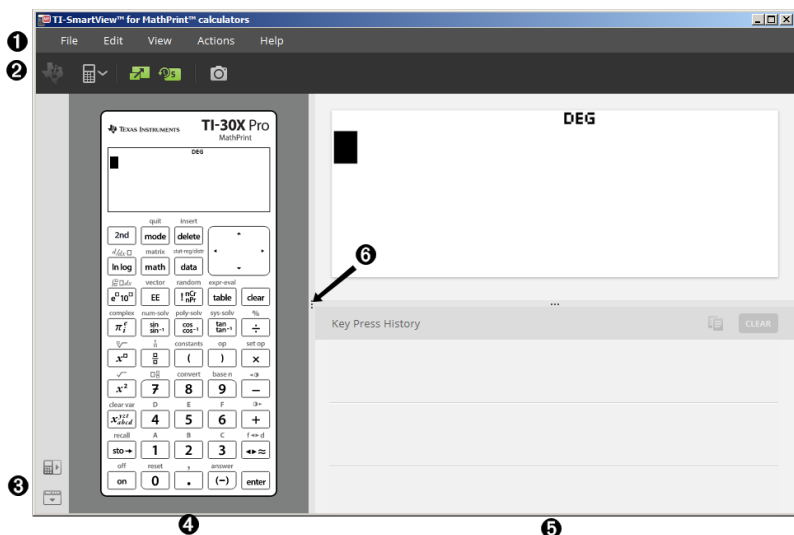
**See:** Choosing an Emulator Type.

The last emulator type in view will become the default and the last sizing of the window will display according to your last settings.

**See:** Changing the Size of the TI-SmartView™ Emulator Large Display Screen

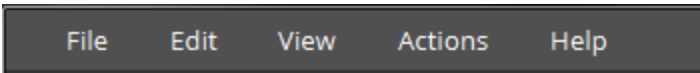
# Using the TI-SmartView™ Emulator Workspace for MathPrint™ Calculators

The TI-SmartView™ emulator workspace for MathPrint™ calculator contains tools you can use to input calculations.



## Parts of the TI-SmartView™ Emulator Workspace

1



File Edit View Actions Help

**Menu Bar** - Use these menus to perform all emulator functions, including:

- File - exit or quit
- Edit - include copy key as font
- View - change the displays
- Actions - such as screen capture
- Help - Help and links

**Note:** You can complete most of the actions in these menus by clicking icons in the tool bar.

2





**Toolbar**- Use these tool bar icons to:

- Select a different calculator model
- Toggle displays of Large Display Screen hide or show, and Key Press History on or off
- Capture current emulator screen

3

**Choose Emulator and Tool Bar Positions**

- **Emulator position Left/Right**  - to switch between left and right hand display of the scientific calculator screen. This is convenient when projecting on an Interactive White Board.

- **Tool Bar Top/Bottom**  - to toggle the tool bar between the top and the bottom of the screen. This is convenient when projecting on an Interactive White Board.

**Note:** You can change the visual layout and/or position of elements to optimize access especially when using an Interactive White Board.

4

**Emulator Panel** - Use this panel to display the full emulator or the emulator keypad only view.

5

**Large Display Screen Panel/Key Press History Panel** - Use this panel to display a large version of the calculator screen and/or to display key press history.

You have the following display options:

- Large Display Screen only
- Large Display Screen + Key Press History
- Key Press History only
- Hide Large Display Screen

6

**Resize Panels** - Click and drag the vertical bar at the side of a panel to resize it.

## ***Using the TI-SmartView™ Emulator Keyboard***


**The mouse takes the place of your finger pressing keys on the computer keyboard.**

Click the keys on the TI-SmartView™ for MathPrint™ emulator as you would press the keys on the scientific calculator.

**You can hold down an arrow key to scroll the cursor continuously.**

When you use an arrow key to move the cursor, you can hold down the key to scroll the cursor continuously, instead of having to press the key repeatedly. In the key press history, the icon for a repeating arrow key has a clock symbol attached to it.

**Pressing an arrow key multiple times in a row displays an arrow with a repeat counter.**

When you press an arrow key multiple times in a row, one arrow key is displayed in the key press history; this arrow key  has a number attached to it that shows the number of times the arrow key was pressed.

## ***Dragging and Dropping a Screen to Another Application***

You can drag and drop and paste any TI-SmartView™ emulator for MathPrint™ calculators screen into another application.

The TI-SmartView™ emulator for MathPrint™ calculators screens that you can drag and paste include the following:

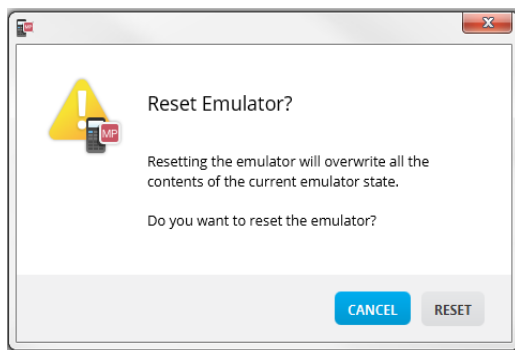
- The screen above the keyboard in the Emulator Panel
- Large Display Screen Panel
- Saved or unsaved screen captures in Screen Capture Workspace



## ***Resetting the Emulator***

To reset the emulator:

1. Click **Actions**.
2. Click **Reset Emulator**.
3. Click **Reset**.



Resetting the emulator:

- Overwrites the current emulator state
- Clears key press history



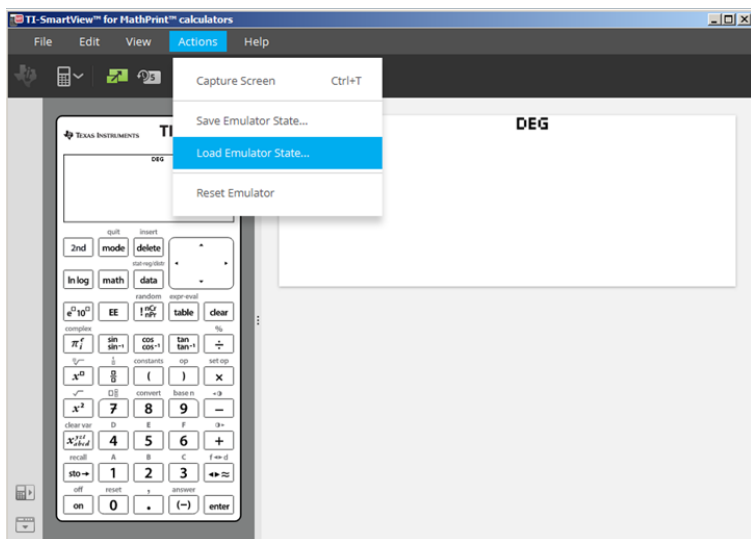
**Note:** The MathPrint™ emulator state files will have a pre-configured file name with the file extension, \*.s3l indicating the TI-30X Plus MathPrint™ calculator emulator state created by the TI-SmartView™ MathPrint™ emulator software. The extension for the TI-30X Pro MathPrint™ calculator emulator state is \*.s3r.

- c) Click **Save**.

### Loading a MathPrint™ Emulator State

Because MathPrint™ emulator state files are specific to each calculator model, you can only load an emulator state file for the active calculator model.

1. Click **Actions > Load Emulator State**.



2. In the dialogue box:
  - a) Navigate to the folder that contains the emulator state file.

**Note:** Only the MathPrint™ emulator state files for the active calculator model will be displayed.

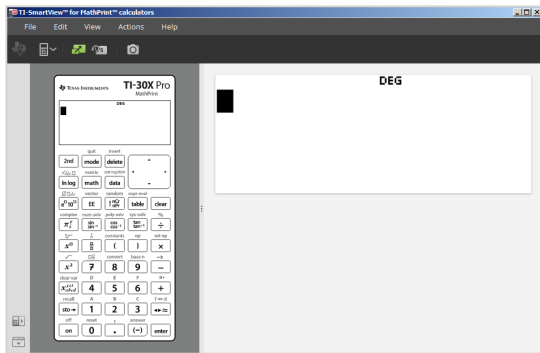
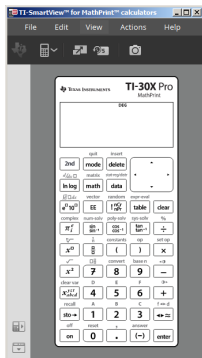
- b) Click the MathPrint™ emulator state name to highlight it.
  - c) Click **Open**.

## Choosing a Display Option

You can customize your display to show or hide optional panels and change the type of information displayed in each one. By default, the TI-SmartView™ emulator software for MathPrint™ calculators displays the calculator emulator workspace in Large Display Screen.

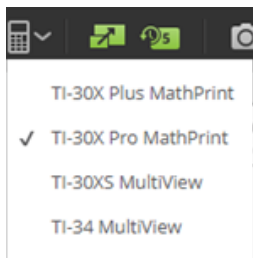
### Displaying the Calculator Screen

1. Click  to **Hide Large Display Screen panel.**
2. Click  again to **Show Large Display Screen panel.**



### Choosing an Emulator Type

Click the down arrow on  to choose an emulator type.



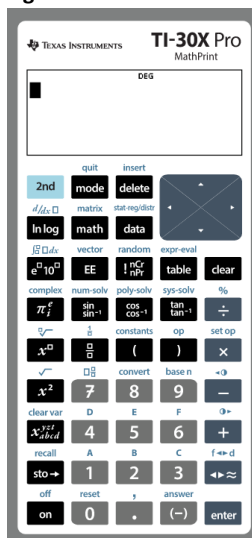
Each emulator type displays its relevant calculator model.

## Changing the Calculator Faceplate

To change the faceplate:

1. Click **View**.
2. Hover over **Calculator Faceplate**.
3. Click on a calculator faceplate name.

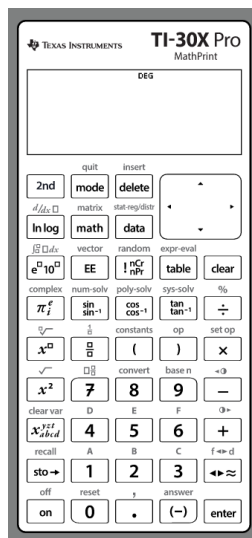
### Light



### Dark




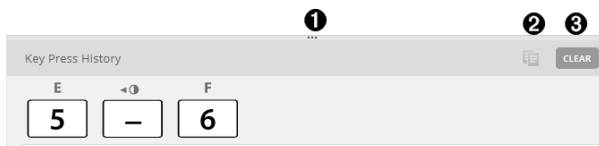
### Outline



## Showing or Hiding the Key Press History

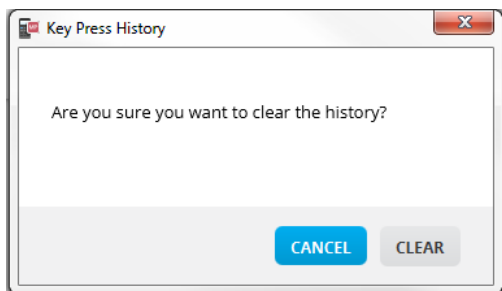


Click  to show or hide key press history.  
Click **CLEAR** in the panel next to Key Press History to clear the history.







- 1 Click here and drag to re-size the Key Press History panel.
- 2 Click here after selecting keys to copy font as graphics.
- 3 Click here to clear the Key Press History.

When you press clear, you will see this information box:



## Copying the Key Press History to Another Application

You can copy all or only a selected portion of the key press history to another

application such as a word processor. You can copy the key graphics  as they are shown in the key press history panel, or you can copy the key presses as font text characters   .

**Note:** When you copy keys as font text characters, those characters use the **TI-30X Pro Key** font. Only primary key fonts paste. Second key fonts do not paste from the copy as font feature in TI-SmartView™. You can manually insert second features using the installed font. This font is installed on your computer automatically when you install the TI-SmartView™ for MathPrint™ calculators software. The font has all TI-30X Plus key fonts as a subset of TI-30X Pro key fonts.

### Copying Keys as Graphics or Font Characters

1. Select the key(s) you want to copy.

To select keys in the Key Press History panel, use one of the following methods:

Key	Method
– <b>A single key:</b>	Click on a key.
– <b>Multiple keys:</b>	Click on a key. Press and hold <b>Ctrl</b> on your computer keyboard. Click other keys to select multiple keys.
– <b>Multiple keys in a sequence:</b>	Click on a key. Press and hold <b>Shift</b> on your computer keyboard. Press another key. <b>Note:</b> This allows you to select those two keys plus all of the keys in between them.
– <b>All keys:</b>	Click on a key. Right click. Click <b>Select All</b> .

---

**Note:** This is what a key looks like before and after you select it.

**Before:**






**After:**



- 
2. Select keys
  3. Click **Edit>Copy** (to copy keys as graphics)

or

Click **Edit>Copy As Font** (to copy keys as the primary font character)   .

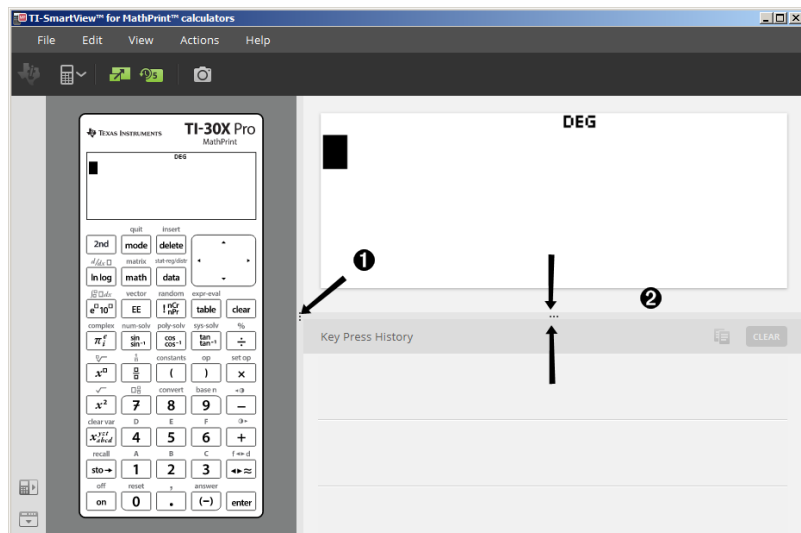
4. Switch to another application.
5. Paste the keys at the appropriate location.

**Note:**

- You can also drag the selected keys as graphics to the other application.
- You can re-size the key graphics after you paste them into a new application.
- In some applications, the characters pasted as a font may be shown in the font that is in effect at that location, so they may not look anything like scientific calculator keys. If necessary, apply the **TI-30X Pro Key** font to the characters. See the help file for the destination application you are using for details on how to apply a font to the characters.

## Changing the Size of the TI-SmartView™ Emulator Large Display Screen

On the Large Display Screen panel, click and drag the edge of a panel to change the size.



**Note:** All of these are left/right actions except the Key Press History which is pull up or down to size.

### Emulator and Tool bar positions



**Emulator position Left/Right** - to switch between left and right hand display of the scientific calculator screen. This is convenient when projecting on an Interactive White Board.



**Tool Bar Top/Bottom** - to toggle the tool bar between the top and the bottom of the screen. This is convenient when projecting on an Interactive White Board.



## ***Always in Front***

Select this option in the View Menu to keep the TI-SmartView™ emulator for MathPrint™ calculators windows in front of any other computer software window open. Similar to having the calculator sitting on your desk on top of your papers! Position the window on your computer desktop where it is best to remain "Always in Front."

To turn off "Always in Front," deselect the menu item in the View menu. There is no tool bar icon for this feature and no indicator other than the menu check mark when active.

### **Notes:**

The TI-SmartView™ emulator for MathPrint™ calculators workspace window and Screen Capture windows will both be "Always in Front" and toggle in front depending on their position.

"Always in Front." is not recommended when in full screen since all other windows will be behind the full screen of TI-SmartView™ emulator for MathPrint™ calculators.

## Using Screen Capture

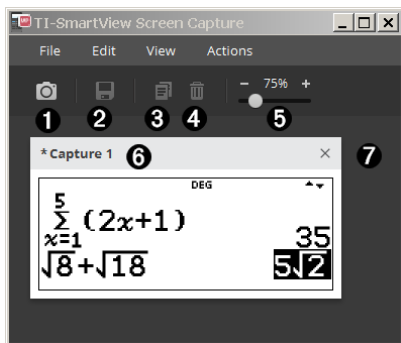
You can capture the current scientific calculator screens using the TI-SmartView™ emulator for MathPrint™ calculators screen capture tool.

To use screen capture:



- ▶ Click  on the tool bar.

This window appears:



## Parts of the Screen Capture Workspace

1	Capture	<p>Click here to take an emulator screen capture.</p> <p><b>Actions &gt; Capture Screen</b></p> <p><b>Note:</b> A border is automatically added to each image when you capture it, but you can remove the border by clicking <b>View &gt; Hide Screen Capture Borders</b>. (If you have multiple images, this removes the border from every image.)</p> <p>With screen capture you can:</p> <ul style="list-style-type: none"><li>• capture up to 44 screens at a time, (to capture additional images, delete images from the Screen Capture window)</li><li>• automatically store screen captures in memory until you close the main TI-SmartView™ for MathPrint™ calculators window.</li></ul> <p>Closing Screen Capture gives a prompt to save your screen captures. You can start a new Screen Capture session during a TI-SmartView™ for MathPrint™ calculators session.</p>
2	Save	<p>Click here to save selected screen captures.</p> <p><b>File &gt; Save As</b></p>
3	Copy	<p>Click here to copy selected screen captures to the clipboard.</p> <p><b>Edit &gt; Copy</b></p>
4	Delete	<p>Click here to delete selected screen captures.</p> <p><b>Edit &gt; Delete</b></p>
5	Resize	<p>Slide the dot along the bar to adjust the current screen capture preview size.</p> <p><b>View &gt; Scale Screen Captures</b></p> <p><b>Note:</b> Screens save at the percentage in view.</p>
6	Rename	<p>Rename a screen capture by highlighting the title and typing in a new name.</p>
7	View	<p>View screen captures here.</p>

## Dragging and Dropping a Screen to Another Application

You can drag and drop and paste any TI-SmartView™ emulator for MathPrint™ calculators screen into another application.

The TI-SmartView™ emulator for MathPrint™ calculators screens that you can drag and paste include the following:

- The screen above the keyboard in the Emulator Panel
- Large Display Screen Panel
- Saved or unsaved screen captures in Screen Capture Workspace

## Computer Keyboard Mapping

You can use your computer keyboard to press a key instead of pressing that key on the TI-SmartView™ Emulator keyboard image.

### *Using the Computer Keyboard*

To press an emulator key using your computer keyboard, use the table below to find the computer keyboard key associated with the emulator key.

- TI-30X Pro MathPrint™ or TI-30X Plus MathPrint™ keyboard shortcuts
  - TI-30XS-30XB MultiView™ keyboard shortcuts
  - TI-34 MultiView™ keyboard shortcuts
-

## TI-30X Pro MathPrint™ or TI-30X Plus MathPrint™

**Example:** To display the mode screen in the emulator, press [W] on the computer keyboard as shown in the table below.



TI-30X Pro MathPrint™ keyboard shortcuts:

TI-30X Plus MathPrint™ keyboard shortcuts:

$\frac{\square}{\square}$ [Q]	mode [W]	delete [Delete]	$\leftarrow$ [ ← ]	$\uparrow$ [ ↑ ]
ln log [R]	math [T]	data [Y]	$\downarrow$ [ ↓ ]	$\rightarrow$ [ → ]
$e^{\square} 10^{\square}$ [U]	EE [I]	$\frac{\square}{\square}$ [P]	table [A]	clear [Backspace]
$\frac{\pi}{\square}$ [D]	$\frac{\square}{\square}$ [F]	$\frac{\square}{\square}$ [G]	$\frac{\square}{\square}$ [H]	$\div$ [ / ]
$x^{\square}$ [J]	$\frac{\square}{\square}$ [K]	( [ ( ]	) [ ) ]	$\times$ [ * ]
$x^{\square}$ [L]	7 [ 7 ]	8 [ 8 ]	9 [ 9 ]	- [ - ]
$x^{\square}$ [Z]	4 [ 4 ]	5 [ 5 ]	6 [ 6 ]	+ [ + ]
sto $\rightarrow$ [X]	1 [ 1 ]	2 [ 2 ]	3 [ 3 ]	$\leftrightarrow$ [ c ]
on [V]	0 [ 0 ]	. [ . ]	(-) [ B ]	enter [Enter]

**\*Note:**

On the MAC computer keyboard,

- Press [Delete] for **delete**.
- Press [Backspace] for **clear**.

<b>2nd</b> [ Q ]	<b>mode</b> [ W ]	<b>delete</b> [Delete] *	[ ← ] ⤴	[ ↑ ] ⤴
<b>In log</b> [ R ]	<b>math</b> [ T ]	<b>data</b> [ Y ]	[ ↓ ] ⤵	[ → ] ⤵
<b>e<sup>n</sup> 10<sup>n</sup></b> [ U ]	<b>EE</b> [ I ]	<b>1<sup>n</sup> 10<sup>n</sup></b> [ P ]	<b>table</b> [ A ]	<b>clear</b> [Backspace] *

## TI-30XS/30XB MultiView™

**Example:** To display the mode screen in the emulator, press [W] on the computer keyboard as shown in the table below.

quit

mode

TI-30XS MultiView™ keyboard shortcuts:

<b>2nd</b> [ Q ]	<b>mode</b> [ W ]	<b>delete</b> [Delete] or [Ctrl]+ [Delete]	⬅ [ ← ] or [Ctrl]+[ ← ]	⬆ [ ↑ ] or [Ctrl]+[ ↑ ]
<b>log</b> [ R ]	<b>prb</b> [ T ]	<b>data</b> [ Y ]	⬇ [ ↓ ] or [Ctrl]+[ ↓ ]	➡ [ → ] or [Ctrl]+[ → ]
<b>ln</b> [ U ]	$\frac{\pi}{a}$ [ I ]	<b>x10#</b> [ P ]	<b>table</b> [ A ]	<b>clear</b> [Backspace] or [Ctrl]+ [Backspace]  Mac®: [Clear]
$\pi$ [ D ]	<b>sin</b> [ F ]	<b>cos</b> [ G ]	<b>tan</b> [ H ]	$\div$ [ / ]
$\wedge$ [ J ]	$x^{-1}$ [ K ]	( [Shift]+[ ( ]	) [Shift]+[ ) ]	$\times$ [Shift]+[ * ]
$x^{-2}$ [ L ]	<b>7</b> [ 7 ]	<b>8</b> [ 8 ]	<b>9</b> [ 9 ]	$-$ [ - ]
$x^{y/z}$ [ Z ]	<b>4</b> [ 4 ]	<b>5</b> [ 5 ]	<b>6</b> [ 6 ]	$+$ [Shift]+[ + ]
<b>sto</b> ➡ [ X ]	<b>1</b> [ 1 ]	<b>2</b> [ 2 ]	<b>3</b> [ 3 ]	⬅➡ [ C ]
<b>on</b> [ V ]	<b>0</b> [ 0 ]	$\cdot$ [ . ]	<b>(-)</b> [ B ]	<b>enter</b> [Enter] or [Ctrl]+[Enter]

**\*Note:**

On the MAC computer keyboard,

- Press [Delete] for **delete**.
- Press [Backspace] for **clear**.

<b>2nd</b> [ Q ]	<b>mode</b> [ W ]	<b>delete</b> [Delete] *	[ ← ] ⤴	[ ↑ ] ⤴
<b>In log</b> [ R ]	<b>math</b> [ T ]	<b>data</b> [ Y ]	[ ↓ ] ⤵	[ → ] ⤵
<b>e<sup>□</sup> 10<sup>□</sup></b> [ U ]	<b>EE</b> [ I ]	<b>1<sup>□</sup> 10<sup>□</sup></b> [ P ]	<b>table</b> [ A ]	<b>clear</b> [Backspace] *



## TI-34 MultiView™

**Example:** To display the mode screen in the emulator, press [W] on the computer keyboard as shown in the table below.

quit



TI-34 MultiView™ keyboard shortcuts:

$\boxed{2\text{nd}}$ [ Q ]	$\boxed{\text{mode}}$ [ W ]	$\boxed{\text{delete}}$ [Delete] or [Ctrl]+ [Delete]	$\boxed{\leftarrow}$ [ ← ] or [Ctrl]+[ ← ]	$\boxed{\uparrow}$ [ ↑ ] or [Ctrl]+[ ↑ ]
$\boxed{U^{\frac{1}{2}}}$ [ R ]	$\boxed{\frac{1}{x}}$ [ T ]	$\boxed{\%}$ [ Y ]	$\boxed{\downarrow}$ [ ↓ ] or [Ctrl]+[ ↓ ]	$\boxed{\rightarrow}$ [ → ] or [Ctrl]+[ → ]
$\boxed{\text{►simp}}$ [ U ]	$\boxed{\text{math}}$ [ I ]	$\boxed{\text{prb}}$ [ P ]	$\boxed{\text{data}}$ [ A ]	$\boxed{\text{clear}}$ [Backspace] or [Ctrl]+ [Backspace]  Mac@: [Clear]
$\boxed{\pi}$ [ D ]	$\boxed{\times 10^x}$ [ F ]	$\boxed{\text{op1}}$ [ G ]	$\boxed{\text{op2}}$ [ H ]	$\boxed{\div}$ [ / ]
$\boxed{x^2}$ [ J ]	$\boxed{\sqrt{\quad}}$ [ K ]	$\boxed{()}$ [Shift]+[ ( ]	$\boxed{)}]$ [Shift]+[ ) ]	$\boxed{\times}$ [Shift]+[ * ]
$\boxed{\wedge}$ [ L ]	$\boxed{7}$ [ 7 ]	$\boxed{8}$ [ 8 ]	$\boxed{9}$ [ 9 ]	$\boxed{-}$ [ - ]
$\boxed{x^{abc}}$ [ Z ]	$\boxed{4}$ [ 4 ]	$\boxed{5}$ [ 5 ]	$\boxed{6}$ [ 6 ]	$\boxed{+}$ [ + ]
$\boxed{\text{sto} \blacktriangleright}$ [ X ]	$\boxed{1}$ [ 1 ]	$\boxed{2}$ [ 2 ]	$\boxed{3}$ [ 3 ]	$\boxed{\leftarrow \blacktriangleright}$ [ C ]
$\boxed{\text{on}}$ [ V ]	$\boxed{0}$ [ 0 ]	$\boxed{\cdot}$ [ . ]	$\boxed{(-)}$ [ B ]	$\boxed{\text{enter}}$ [Enter] or [Ctrl]+[Enter]

**\*Note:**

On the MAC computer keyboard,

- Press [Delete] for **delete**.
- Press [Backspace] for **clear**.

<b>2nd</b> [ Q ]	<b>mode</b> [ W ]	<b>delete</b> [Delete] *	[ ← ] ⤵	[ ↑ ] ⤴
<b>In log</b> [ R ]	<b>math</b> [ T ]	<b>data</b> [ Y ]	[ ↓ ] ⤵	[ → ] ⤴
<b>e<sup>□</sup> 10<sup>□</sup></b> [ U ]	<b>EE</b> [ I ]	<b>f<sup>□</sup> n<sup>□</sup> n<sup>□</sup></b> [ P ]	<b>table</b> [ A ]	<b>clear</b> [Backspace] *

# General Information

## ***Online Help***

[education.ti.com/eguide](http://education.ti.com/eguide)

Select your country for more product information.

## ***Contact TI Support***

[education.ti.com/ti-cares](http://education.ti.com/ti-cares)

Select your country for technical and other support resources.

## ***Service and Warranty***

[education.ti.com/warranty](http://education.ti.com/warranty)

Select your country for information about the length and terms of the warranty or about product service.

Limited Warranty. This warranty does not affect your statutory rights.