TI-84 Plus OS update v. 2.55MP
New Feature Highlights – Stat Wizards!
http://education.ti.com/calculators/downloads/

- Please update Catalog Help App v 1.1 when using OS 2.53MP or higher. There is no functionality update to Catalog Help but version 1.1 is needed to run on 2.53MP or higher.
- Update TI-SmartView™ for the TI-84 Plus with 2.55MP -
  - Select File > Load File, All Calculator Files (*.8x*) and then select the 2.55MP OS (*.8xu file) on your computer.
  - **Tip!** Select File > Save Emulator State after upgrading to 2.55MP. If your computer ever crashes, TI-SmartView will revert to the previous calculator OS. Reload the TI-SmartView state file for 2.55MP!

NEW Stat Wizards for selected commands and functions! **[MODE]** **STAT WIZARDS ON OFF** option is on the second MODE screen. By default, STAT WIZARDS option is ON.	

Wizards are available for the following functions and commands:
  o All menu items in [STAT] CALC
    ▪ Statistics and Regression Equations
  o All menu items in [DISTR] DISTR
  o All menu items in [DISTR] DRAW
  o Only the seq(function in [LIST] OPS
 	
Wizards are not available if you select a function or command from [CATALOG]. From [CATALOG], the function or command will paste as in earlier versions of the OS.
 	
Note:
Please use Catalog Help App v. 1.1 for help with other functions and commands!
See Utility Apps for the TI-84 Plus/TI-83 Plus at
http://education.ti.com/calculators/downloads/
	
	[STAT] CALC
	
	[DISTR] DISTR
	
	[DISTR] DRAW
	
	[LIST] OPS – seq(ONLY

Example 1: STAT CALC menu: 2-Var Stats Calculation

Find the **2-Var Stats** for lists L1 and L2.
Note: Use
  o [2nd][QUIT] to start from the Home Screen.
  o [STAT] 4: ClearList L1, L2 if needed to clear L1 and L2.
  o [STAT] 5: SetUpEditor to restore editor default list names L1-L6.

- Enter data in L1 and L2.
    L1 = {1, 2, 3, 4, 5}
    L2 = {6, 7, 8, 9 , 10}
  Key presses:
    - [2nd] [QUIT]
    - [STAT] 1: Edit
    - Enter a number, press [ENTER] to fill a list.
    - Use the arrow keys to move between lists.

- [2nd] [QUIT] to the Home Screen. (not shown)
- [STAT] and then arrow right to CALC menu.
- Press 2: 2-Var Stats.
- Fill in the wizard!
    - L1 and L2 are the default settings. Change the list names as needed.
    - FreqList: is an optional argument. You will leave optional arguments blank in all wizards if not needed. FreqList accepts list names only. *(The number 1 is not a valid input. If left blank, the frequency of each data point is assumed to be 1.)*
- Select Calculate and press ENTER.

- The temporary results screen displays. Arrow down to see all the results.
- From the temporary results screen, press [CLEAR] to get to the Home Screen. The Home Screen will be blank.
- Arrow up into the Home Screen History to see the populated command!
- If needed, highlight the command, press Enter and the results will again display.

Note:
o The MathPrint mode Home Screen lines scroll.*
o The Classic mode Home Screen lines wrap. You can switch between MathPrint and Classic modes as needed.
o Use [2nd] right or left arrow to jump from the front to the back of the line!

* MathPrint input areas (Home Screen and Y=) accommodate variable size templates such as n/d, absolute value, summation, derivative, and integration. In order for the screen to size a template appropriately, the expressions stay on one line and scroll across the screen for readability. You can change the mode to Classic to see how the same lines wrap and how the templates then display as functions with syntax entries. (Note: Matrix calculations on the Home Screen are not saved in history during a MathPrint/Classic mode switch.) Remember that Classic mode is now enhanced with fraction math and scrolling home screen history. All functions and commands are available in both modes but display in either textbook format (MathPrint) or 1-line format (Classic).

[STAT] 1: Edit

[STAT] CALC menu

2: 2-Var Stats

Temporary Results screen

MathPrint mode

Classic mode

Example 2: STAT CALC menu: Linear Regression

Plot a scatter plot of the data points in L1, L2.
Find the line of best fit and graph. (LinReg feature)

- Enter L1 and L2. (Shown in screen.)
    - L1 = {1, 2, 3, 4, 5} and L2 = {6, 7, 8, 9 , 10}

Note: Use
- o [2nd][QUIT] to start from the Home Screen.
- o [STAT] 4: ClearList L1, L2 if needed to clear L1 and L2.
- o [STAT] 5: SetUpEditor to restore editor default list names L1-L6.

- Set up STAT PLOT
    - [2nd] STAT PLOT; 1: Plot 1
        - Select ON, scatter plot icon, and L1 and L2 for lists as shown on screen.
    - To plot, press [ZOOM] 9:ZoomStat (plot not shown)

- [2nd] [QUIT] to Home Screen (not shown)

- Press [STAT] and arrow right to CALC menu
- Press 4: LinReg(ax+b)

- Fill in the wizard!
    - FreqList: is optional. FreqList accepts list names only.
      (The number 1 is not a valid input. If left blank, the frequency of each data point is assumed to be 1.)
    - Include Store RegEQ: Y1
        - Find Y1 using the shortcut menu
            - [ALPHA] F4 [ENTER]
- Select Calculate and press [ENTER].

- The temporary results screen displays.
    - *Note: STAT DIAGNOSITCS is set to OFF (second screen in [MODE].)*

- Press [GRAPH] to see the plot and regression equation.
- Notice that the RegEQ (regression equation) pastes to [Y=].

[STAT] 1:Edit

[2nd] STAT PLOT; 1: Plot 1

[STAT] CALC; 4:
LinReg(ax+b)

LinReg(ax+b)
Xlist:L₁
Ylist:L₂
FreqList:
Store RegEQ:Y₁
Calculate

LinReg
y=ax+b
a=1
b=5

Plot1 Plot2 Plot3
\Y₁◼1X+5
\Y₂=
\Y₃=
\Y₄=
\Y₅=
\Y₆=
\Y₇=
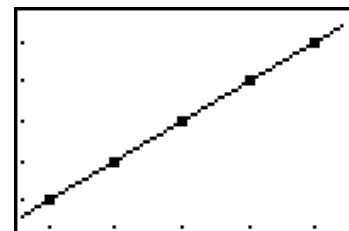
Note: On the Home Screen, the LinReg L1,L2,Y1 command is now pasted into history. Arrow up to reuse commands!

```
LinReg(ax+b) L1▸
              Done
```

```
LinReg(ax+b) L1,
L2,Y1
              Done
```
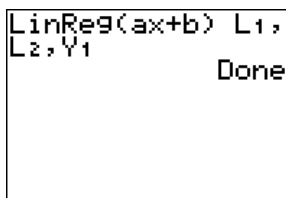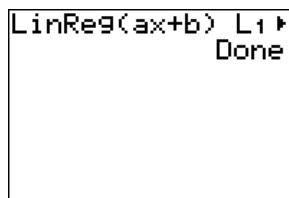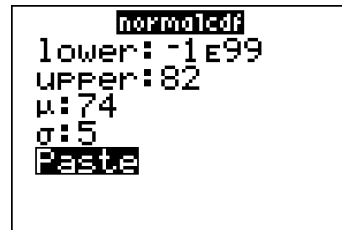
Home Screen Shown in MathPrint and Classic Modes
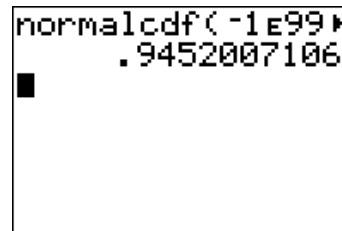
Example 3: DISTR DISTR menu: Normalcdf(

A certain set of exam scores as a mean of 74 with a standard deviation of 5. What is the proportion of scores less than 82?

Use Normalcdf(-1E99, 82, 74, 5) to find the result.
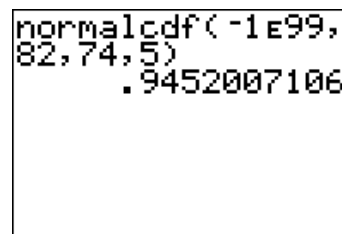(Use [2nd] [QUIT] to start from the Home Screen.)

- Press [2nd] [DISTR].
- Select 1: normalcdf(.
- Fill in the wizard.
- Select Paste and press [ENTER].
- The populated command pastes.
- Press [ENTER] to see the result.

```
normalcdf
lower: -1ᴇ99
upper:82
μ:74
σ:5
Paste
```

[2nd] [DISTR]
1:normalcdf(

```
normalcdf(-1ᴇ99▸
       .9452007106
■
```

MathPrint mode

```
normalcdf(-1ᴇ99,
82,74,5)
       .9452007106
```

Classic mode

Example 4: DISTR DRAW menu: ShadeNorm(

Note: For all commands in the DISTR DRAW menu, you will enter the appropriate **WINDOW** settings before using a DRAW command as on all previous OS versions.

A certain set of exam scores as a mean of 74 with a standard deviation of 5. What is the proportion of scores less than 82?

(Use [2nd] [QUIT] to start from the Home Screen.)

Set up the appropriate WINDOW as shown.

Here, use ShadeNorm(-1E99, 82, 74, 5) to see the result shaded on the normal curve.

- Press [2nd] [DISTR] right arrow to the DRAW menu. (not shown)
- Select 1: ShadeNorm(. (not shown)
- Fill in the wizard.
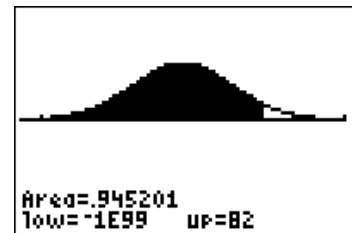- Select Draw and press [ENTER] to see the area.

The command pastes to the Home Screen history for repeat use if needed.

```
WINDOW
 Xmin=58
 Xmax=90
 Xscl=5
 Ymin=-.15
 Ymax=.15
 Yscl=1
↓Xres=1
```
[WINDOW]

```
  ShadeNorm
lower:-1E99
upper:82
μ:74
σ:5
Draw
```
[2nd] [DISTR] DRAW
1: ShadeNorm(

```
Area=.945201
low=-1E99    up=82
```

```
ShadeNorm(-1E99▶
           Done
```
MathPrint mode

```
ShadeNorm(-1E99,
82,74,5)
           Done
```
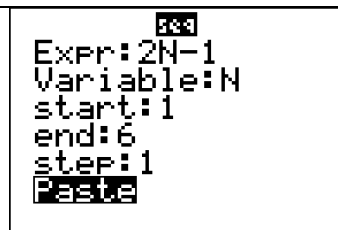Classic mode

Example 5: LIST OPS menu: seq((sequence command)

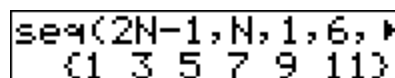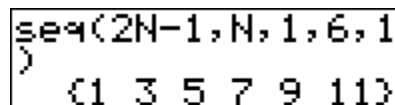|	

Generate the first 6 odd numbers using the expression 2n+1 and the sequence command.
 	
seq(2N-1, N, 1, 6, 1)
 	
Note: The "step" (increment) is an underlined optional argument and can be left blank.
 	
• Press [2nd] [LIST] right arrow to the OPS menu. (not shown)
• Select 5: seq(. (not shown)
• Fill in the wizard.
• Select Paste and press [ENTER].
• Optional: Press [STO] [2nd] L1 to store the sequence to list L1. (not shown)
• Press [ENTER] to see the result.
	``
	Expr:2N-1
	Variable:N
	start:1
	end:6
	step:1
	Paste
	``
	[2nd] [LIST] OPS
	5: seq(
	
	``
	seq(2N-1,N,1,6,▶
	  {1 3 5 7 9 11}
	``
	MathPrint mode
	
	``
	seq(2N-1,N,1,6,1
	)
	  {1 3 5 7 9 11}
	``
	Classic mode

General Comments on Wizards:

o   Notice that wizards either "Calculate," "Paste," or "Draw." These actions are in keeping with the characteristics of the commands or functions in earlier OS versions. The wizard is only an intermediate step to help you fill in the arguments (syntax) resulting in the same actions as seen on earlier OS versions.

o   If an argument in a wizard is required, you will have to fill in the argument with a legal value. You will not be able to arrow away from a blank required argument.

o   Optional arguments are now displayed in wizards. Either leave the input area blank or learn more about how to use the optional arguments in the guidebook.
   o   education.ti.com/guides

o   In the regression wizards, (STAT CALC menu), the frequency list (FreqList:) is an optional argument. FreqList accepts only list names. (The number 1 is not a legal entry as compared to Freq: in the STAT PLOT setup screens.)

o   SinReg needs a value for Period for the calculation depending on the data set. Period is an optional argument. If left blank, the algorithm will calculate a period from the data which may or may not meet your needs. You may need to plot your data and estimate a

"good" value for Period from your data to input as the Period argument. See guidebook for details.

- o education.ti.com/guides

- o As in all setup screens on the TI-84 Plus, if a list is allowed as an entry, the cursor changes to an ALPHA cursor for your convenience. If needed, press [ALPHA] to change the cursor back to the normal cursor. Remember that if the ALPHA cursor is on, and if you press [Y=], [WINDOW], [FORMAT] or [CALC], you access [F1] – [F4] which will open the shortcut menus [FRAC], [FUNC], [MTRX], or [VARS].

- o Please use Catalog Help App v. 1.1 for help with other functions and commands! See Utility Apps for the TI-84 Plus/TI-83 Plus at http://education.ti.com/calculators/downloads/

- o If you are using the TI-Nspire™ TI-84 Plus mode keypad, the OS version number is 2.56MP.