Top SIX Hidden fx-83/85 Features

1) Mixed numbers

To TYPE a mixed number: ⎡SHIFT⎤ ⎡▤⎤ to get ($\blacksquare\frac{\square}{\square}$)

To CONVERT to a mixed number: ⎡SHIFT⎤ ⎡S⇔D⎤ to get ($a\frac{b}{c}\leftrightarrow\frac{d}{c}$)

2) Prime factors

Type in a number and press equals: ⎡5⎤ ⎡6⎤ ⎡=⎤

To find the prime factors: ⎡SHIFT⎤ ⎡°'''⎤ to get ⎡FACT⎤

3) Changing hours to minutes

Calculate a time in hours: ⎡7⎤ ⎡8⎤ ⎡÷⎤ ⎡2⎤ ⎡0⎤ ⎡=⎤

Convert to hours, minutes & seconds: ⎡°'''⎤

4) Find the magnitude and direction of a vector

Enter the vector in X, Y form ⎡SHIFT⎤ ⎡+⎤ ⎡(⎤ ⎡3⎤ ⎡SHIFT⎤ ⎡)⎤ ⎡4⎤ ⎡)⎤

The answer is given in polar form length 5, angle above x-axis 53°

You can do the reverse using Rec ⎡SHIFT⎤ ⎡−⎤

This gives the two components of the vector

5) Random numbers

Need a random integer between 10 and 20 inclusive?

⎡ALPHA⎤ ⎡·⎤ ⎡(⎤ ⎡1⎤ ⎡0⎤ ⎡SHIFT⎤ ⎡)⎤ ⎡2⎤ ⎡0⎤ ⎡)⎤

6) Recurring decimals

The calculator already gives rational answers as fractions or recurring decimals
But you can type in recurring decimals too!

e.g. for 1/6

$\boxed{0}\ \boxed{\cdot}\ \boxed{1}\ (\boxed{\dot{\blacksquare}})\ \boxed{6}\ \boxed{=}$

(To get ($\boxed{\dot{\blacksquare}}$) press $\boxed{\text{SHIFT}}\ \boxed{x^2}$)

Top FOUR New Features on the fx-83/85 GTX

1) Ratio Mode ⌷MENU⌷ ⌷4⌷

If you have a question in the form   4 : 5 = 30 : x
Choose option 2

Enter the numbers in order

Press ⌷=⌷ one more time   x = 75/2

Or if you have a question in the form   4 : 5 = x : 30
Choose option 1

2) Memories

There are 9 memories, just like on the GT+
But it is much easier to store, no need to press ⌷SHIFT⌷

And it's much easier to see what they are
Just press ⌷SHIFT⌷ ⌷STO⌷ to get RECALL
All nine memories are listed on one screen!

3) Statistics

The GTX is now even better than the silver 991ES
Go into Stats Mode ⌷MENU⌷ ⌷2⌷
Choose option 1 for 1-Variable

Students can enter a list of data values
If they want to enter frequencies, press ⌷SHIFT⌷ ⌷MENU⌷ ⌷▼⌷ ⌷1⌷ ⌷1⌷
If they don't need frequencies, the calculator will just put 1 each time in that column

To calculate mean, median, quartiles (and standard deviation)
Just press ⌷OPTN⌷ ⌷3⌷
All the summary statistics are listed on one screen … well, you need to press ⌷▼⌷ ⌷▼⌷
to see them all

The GTX can also do correlation and regression, just like its bigger sibling

4) Table Mode

This is a vastly underrated feature of the fx-83/85 range

If a student has a table of values to fill in, for example drawing a curved graph
Go into Table Mode ⌨MENU⌨ ⌨3⌨

Enter the function using the ⌨x⌨ button (⌨SHIFT⌨ ⌨)⌨) and powers etc
The new GTX has the option of a second function, or just leave it blank

Enter the table range (start and end values, step value)

And now it will even carry on the table!
Move the cursor to the bottom of the first column, in the first blank cell
Keep pressing ⌨=⌨ and it will continue to populate the table

Or you can jump to a completely new number
Just type it in the first column and press ⌨=⌨ to get the answer

Pressing ⌨+⌨ or ⌨−⌨ makes the x value increase or decrease by the step value from the new position

To get back to the function press ⌨AC⌨

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for helpful videos go to:

https://www.youtube.com/user/UKCasio/videos

or do a Youtube search for "calculator guide fx-83GTX