TI-Nspire™ Software Script

Using function tables (Tutorial C4)

http://www.atomiclearning.com/k12/en/movie/28239/play_window?type=Tutorial&sid=1674

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You can evaluate graphed functions in a table using the Function
Table feature. First, let's graph a couple of functions. I'll

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insert the Graphs & Geometry application into a new page by clicking
Insert, and then choosing Graphs & Geometry. For my first function,

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in the entry line at the bottom of the work area, I'll type "x"
and then press Enter to graph the function "f1(x)=x." Notice the

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entry line changes to allow me to graph a second function, so
I'll graph the expression "x^2+6," by typing "x," then "Shift-

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6," followed by "2," then the right arrow key to move out of the
exponent, followed by "+6", and then I'll press Enter to plot

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the function. Now I'll create a Function Table based on these
functions by clicking the View button on the Application Tool

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bar, and choosing Add Function Table. This will bring up a split screen
view, with my original application on the left, and my

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Function Table on the right. By default, the expressions are evaluated
when x starts at 0, and moves in single integer steps up and down.

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I can move up and down in the list by pressing the up and down
arrows on the keyboard. I can see that each of my functions are

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in their respective columns, so the first column shows values
for the expression "f1(x)=x," and the second column shows values

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for the expression "f2(x)=x^2+6." I'll move back to the Graphs &
Geometry application by clicking on it, and then I'll move my

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pointer to the line created by the first function. When the line
is flashing, I'll click and drag to move the line around the graph.

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Notice that as the function changes, the values in the Function
Table change as well. I can also redefine the function in the

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table. I'll double-click in the cell of the function table that
currently says "x^2+6," and I'll change the "+" to a "-" so that

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the equation is "X^2-6." Now, I'll press Enter, and the graph
and data change immediately. If I want to change the preferences

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for the Function Table, I can click the Function Table button
on the Application Tool bar and choose "Edit Function Table Settings."

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Here, I can choose the starting value for the table as well as
the steps between each number, so if I want the first value to

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be 5, and then the steps to go up or down by three, I can type
"5" in the Table Start field, and then "3" in the Table Step field,

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and then click OK. Notice my first value is now 5, the second
is 8, and so on. I'll open the preferences again by clicking

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Function Table and choosing "Edit Function Table Settings," again,
and this time I'm going to do something different. I want the

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table to wait for me to enter a value for the independent variable
x" before evaluating it. To do this, I'll just click the drop-

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down menu for Independent, and then select the Ask option. Then
I'll click OK. Now, I can type a value for x and press Enter,

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and the Function table will evaluate it.

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