TI 83/84: Using the TABLE on your calculator -- WAY useful!
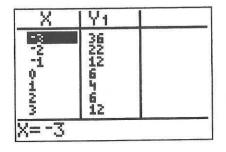
- Enter an equation on your Y= screen.

```
Plot1 Plot2 Plot3
\Y1■2(X-1)²+4
\Y2=
\Y3=
\Y4=
\Y5=
\Y6=
\Y7=
```

- Press 2nd, then TBLSET.   (above the WINDOW key on the top row)

- Set up the table start value and the table jump values, highlight Auto on both the independent and the dependent variables:

TableStart: what x value do you want to start with?

TableJump: how big a step do you want from each x value to the next?

```
TABLE SETUP
►TblStart=-3
▼△Tbl=1
Indpnt: Auto Ask
Depend: Auto Ask
```

Independent (explanatory) variable: do you want the x-values filled in automatically, or do you want to type them in yourself?

Dependent (response) variable: Always leave this on "automatic."

- Press, 2nd, then TABLE.   (above the GRAPH key on the top row)

```
  X  │  Y1  │
 -3  │  36  │
 -2  │  22  │
 -1  │  12  │
  0  │   6  │
  1  │   4  │
  2  │   6  │
  3  │  12  │
X=-3
```

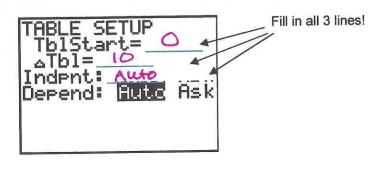Cool!   There's the whole t-table.

- Use your up and down arrow keys to look at smaller and larger x values.

- Use the numbers from the table to make your hand-drawn exact graph.

- If you want to type in your own x-values, set the independent variable to Ask instead of Auto.

Practice: Entering Tables in your Calculator

Set up the following tables in your calculator (think about the *TableStart* and the *TableJump* for each one), then fill in the y values for $y = 2(x-1)^2 + 4$ (the equation from the previous page) below.
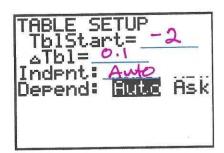
(1)

X	Y₁
0	6
10	166
20	726
30	1686
40	3046
50	4806
60	6966

Fill in how you needed to set up your calculator:

```
TABLE SETUP
 TblStart=  0
 ΔTbl= 10
Indpnt: Auto
Depend: Auto  Ask
```

Fill in all 3 lines!

(2)

X	Y₁
-2	22
-1.9	20.82
-1.8	19.68
-1.7	18.58
-1.6	17.52
-1.5	16.5
-1.4	15.52

Fill in how you needed to set up your calculator (all 3 lines):

```
TABLE SETUP
 TblStart= -2
 ΔTbl= 0.1
Indpnt: Auto
Depend: Auto  Ask
```

(3)

X	Y_1
4	22
7	76
10	166
13	292
16	454
19	652
22	886

Fill in how you needed to set up your calculator (all 3 lines):

```
TABLE SETUP
 TblStart= 4
 △Tbl= 3
Indpnt: Auto
Depend: Auto  Ask
```

(4)

X	Y_1
1.01	4.0002
23	972
4	22
3.14	13.159
49	4612
-6	102
5	36

```
TABLE SETUP
 TblStart=4
 △Tbl=3
Indpnt: Auto  Ask
Depend: Auto  Ask
```

(The important part on this one is to have it **ASK** for the independent variable – then just type the numbers into the x column. The table start and the table jump <u>don't matter</u>.)