# **Making and Using Tables**

#### College Algebra

#### Introduction

Using a table of values for a function is a good way to see overall trends while seeing exact values. With a calculator, you can generate a table of values quickly.

# Steps for Making Tables on Texas Instruments Calculators

To make a table of values with a TI graphing calculator, do the following:

- 1. Rewrite the formula so that the independent variable is x and the dependent variable is y.
- 2. Press the Y = button on the calculator and type the formula for  $Y_1$ .
- 3. Press 2ND and WINDOW to get to the TBLSET menu.
- 4. Set the initial value for TblStart and the skip in the independent variable as  $\Delta$ Tbl.
- 5. Press 2ND and GRAPH to see the table.

### Example 1

For the first, example, we will make a table of values for the function  $B = \frac{6t-1}{5t+2}$  for t = 3, 5, 7, ...

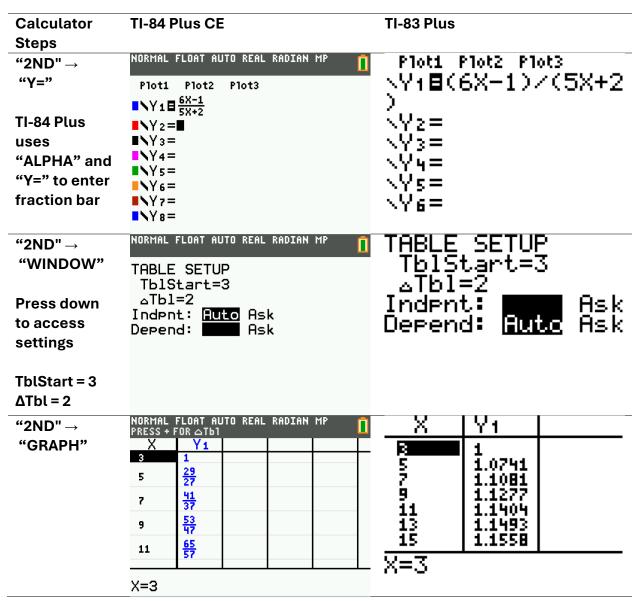
#### Solution

The first step is to rewrite the formula using x and y:

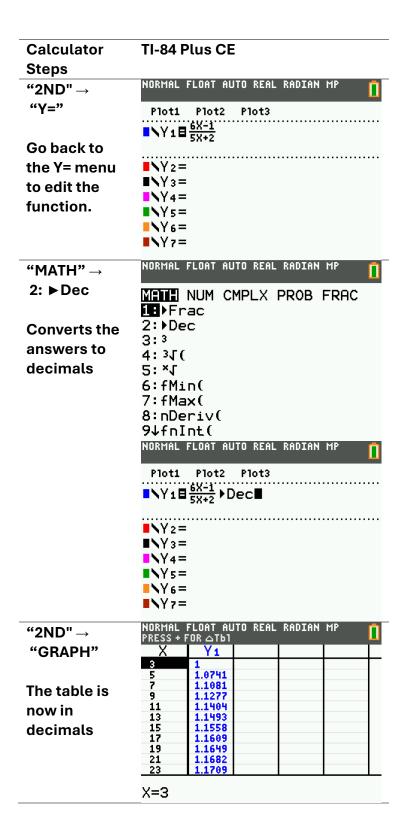
$$y = \frac{6x - 1}{5x + 2}$$

Notice that the values for the independent variable start at 3 and increase by 2. We will have to make that adjustment in the table settings.

The calculator steps are below. Please follow along with your calculator.



The TI-84 Plus family outputs fractions whenever you use the fraction bar. We want decimals for this course. One option is to type the function just like with the TI-83 Plus. The other is to use a calculator function to convert to decimals. The steps are below.

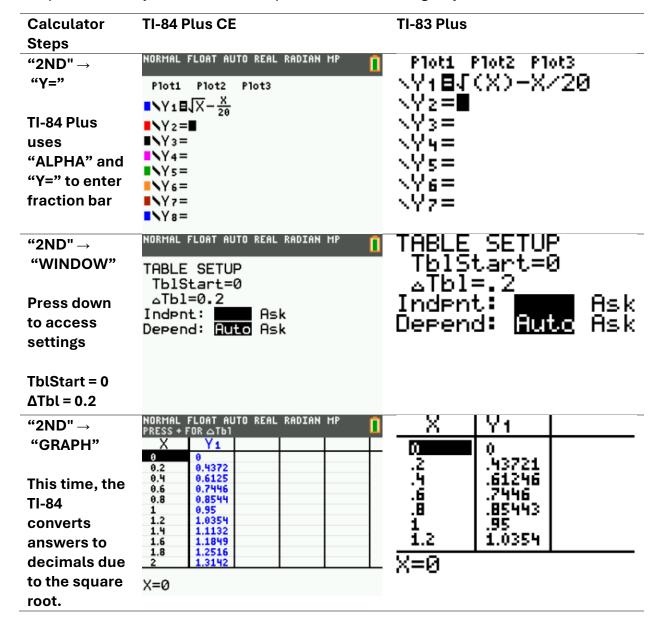


## Example 2

For our second example, we will create a table of values for  $y = \sqrt{x} - \frac{x}{20}$  for  $x = 0, 0.2, 0.4, \dots$ 

#### Solution

The process is very similar to the last problem. Follow along on your calculator.



### **Next Up**

Now that we know how to make tables of values, we'll talk about limiting values.