Using the TI-30XS to create function tables and to play the Function Game
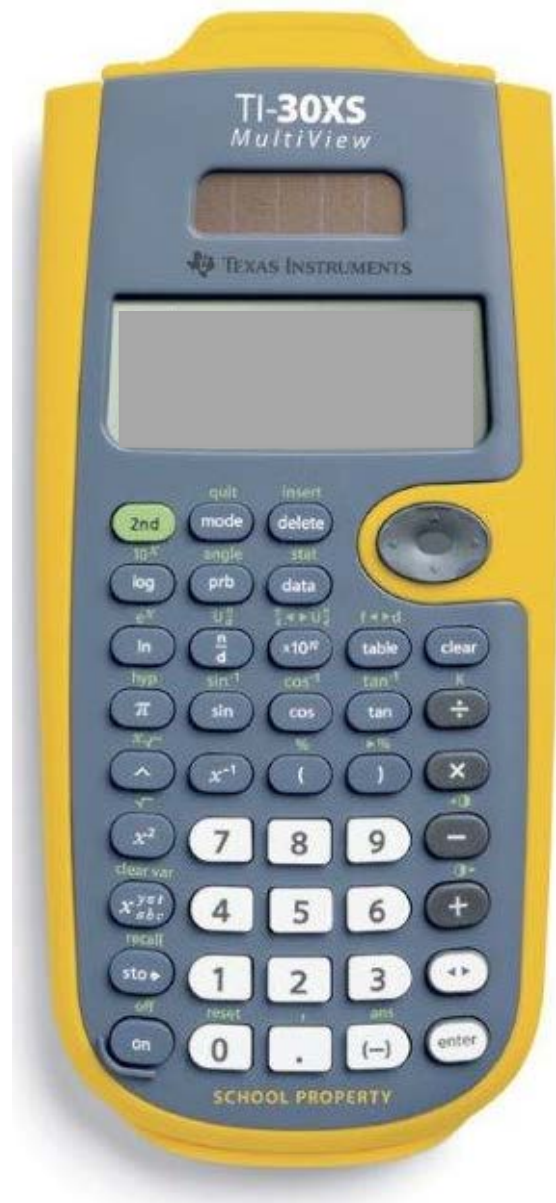
TO CREATE A FUNCTION (IN/OUT) TABLE FOR A FUNCTION RULE

For example, follow these steps to enter the function rule
$y = 2x+1$.

1. Press **table**

2. Press **2**, **x^{yzt}_{abc}**, **+**, **1**,

3. Press **enter**

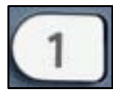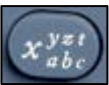4. You will see a menu with three options:

   i. **Start** This tells the calculator what input to start with. It is set to start with an input of zero.

   ii. **Step** This tells the calculator how much you want each input to go up by. It is set at one, which means the inputs will be consecutive and go up by 1.

   iii. **Auto** or **Ask-x** – Auto tells the calculator you want it to automatically fill out the inputs and outputs using your directions from Start and Step.

5. Choose **Auto** and press **enter** twice.

6. You should see an input and output table for the function you entered.

TO ENTER A FUNCTION RULE AND PLAY THE FUNCTION GAME USING THE CALCULATOR

Let's imagine Stanley and Stella are going to be playing the function game using a TI-30XS.

Stella would begin by entering a function rule into the calculator. As an example, she would follow these steps to enter the function rule In + 6.

1. Press [table]

2. Press [x^{yzt}_{abc}] , [+] , [6]

3. On the options menu, she would choose Ask-x. Choosing Ask-x tells the calculator you want to enter the inputs in manually, one at a time.

4. Then Stella would press [enter].

5. At this point, Stella should see a blank in-out function table.

6. Next, Stella would give the calculator to her partner, Stanley.

7. Stanley can enter an input into the function by pressing any number and then [enter]. The calculator will use the function entered in steps 1-3 and display the output.

8. Stanley can continue entering inputs until he thinks he knows Stella's function rule and can successfully predict the output for any input.

9. Stanley would then confirm with his partner Stella that he has correctly figured out her function rule and they can switch roles.