

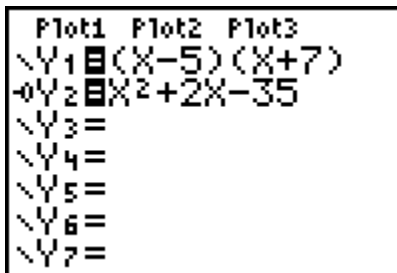
## Four Methods of Verification

When you have a question and an answer you may use one of the four methods below to verify your answers, in some cases.

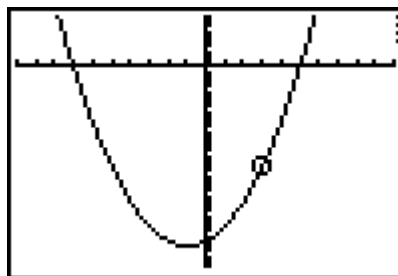
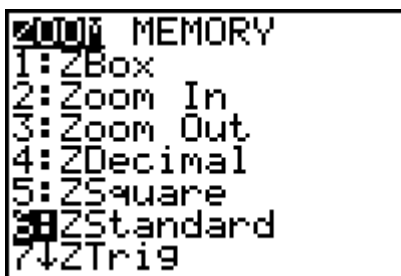
Using the following problem:  $(x - 5)(x + 7)$  when we FOIL it we get  $x^2 + 7x - 5x - 35$  which simplifies to  $x^2 + 2x - 35$ .

1. **o S** :

Place the question and the answer in your **o** using two different lines as shown below. Make the second graph Bubble Baby.

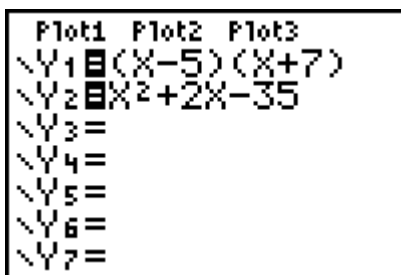


Set the graph window by pressing **q** to get a standard window. If you have the correct answer, you should see only one line, with the Bubble Baby tracing over the first graph. You may need to modify the window to see the graph, or enough of the graph for verification. Document this with the “frozen” Bubble Baby as shown below.



2. **o [TABLE]**:

Start as in the **o S** example, but rather than use the graph, we will look at the table. Set the table by pressing **y** [TBLSET] and set as shown below.



Then to see the table, press **y** [TABLE]. If the numbers in the two Y columns match for negative and positive values of X, you have the verification. Document by showing the window below.

X	Y <sub>1</sub>	Y <sub>2</sub>
-3	-32	-32
-2	-36	-36
-1	-39	-39
0	-40	-40
1	-39	-39
2	-36	-36
3	-32	-32
4	-27	-27
5	-20	-20

X=3

3. Home Screen Logic:

At the Home Screen with an “interesting” value for X, key in the question and set it equal to the answer in the logical expression as shown below. Get the = sign from the CATALOG or by pressing  $\square$  [MATH].

7.7777→X  
 (X-5)(X+7) 7.7777

LOGIC  
 =  
 ≠  
 <  
 >  
 <=  
 >=  
 <>

If you get a value of 1, this means the expression is TRUE for that value of X. Documentation comes from reporting the screen below.

7.7777→X  
 (X-5)(X+7)=X<sup>2</sup>+2X  
 -35  
 1

4. o Logic:

This is just like the Home Screen Logic, except we set it up on the o screen. Make it Bubble Baby with the p shown below.

Plot1 Plot2 Plot3  
 Y1=(X-5)(X+7)=X<sup>2</sup>+2X-35  
 Y2=  
 Y3=  
 Y4=  
 Y5=  
 Y6=

WINDOW  
 Xmin=-10  
 Xmax=10  
 Xscl=1  
 Ymin=-1  
 Ymax=2  
 Yscl=1  
 Xres=1

Verification comes when you have a line at y = 1. This can be documented with the “frozen” Bubble Baby as shown below.

