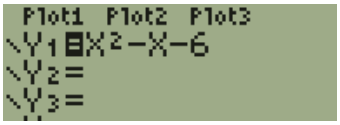
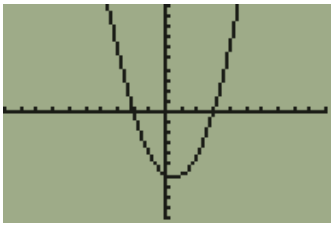
How

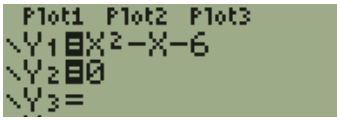
1. [Y=] Enter the equation into y_1. Be sure you use standard form.



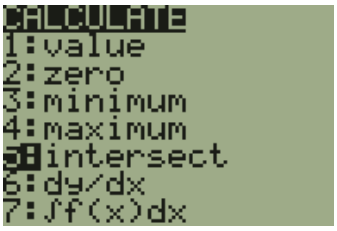
2. [GRAPH] Notice the graph crosses the x axis at two points. These are your two real solutions.



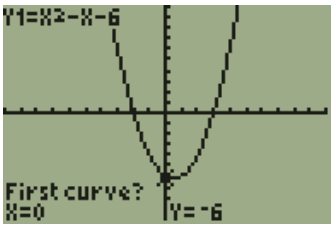
3. [Y=] enter 0 in y_2



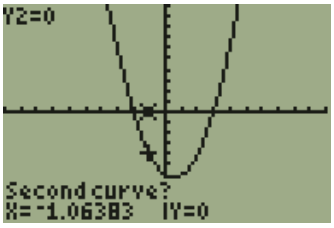
4. [2nd] [TRACE][5:intersect]



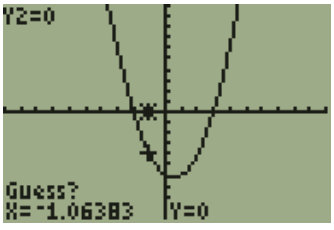
5. Since you only have two equations the cursor will already be positioned on y_1. Press [ENTER]



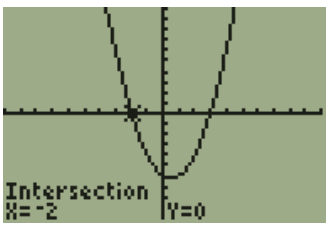
6. The cursor will jump to y_2. Press [ENTER] again.



7. Move the cursor near the intersection point. Press [ENTER]



8. The x value displayed is your first solution. *Note: other names for the solution are Root and Zero.*



Repeat steps 4 through 8 for the second solution.

Practice

Solve the following equations using the graphing calculator. Round your answers to two decimal places.

1. $10x^2 = 4 - 3x$

2. $3x^2 + 2x = 2$

3. $4x^2 - x = 6$

4. $4x^2 + 3x = 6 - 2x$

5. $x^2 + 4 = 6x$

6. $5 - x = \frac{1}{2}x^2$

7. A woman drops a front door key to her husband from their apartment window several stories above the ground. The function $h = -16t^2 + 64$ gives the height h of the key in feet, t seconds after she releases it.

a. How long does it take the key to reach the ground?

b. What are the reasonable domain and range for the function h?