7.8 Technology Activity

GRAPHING CALCULATOR

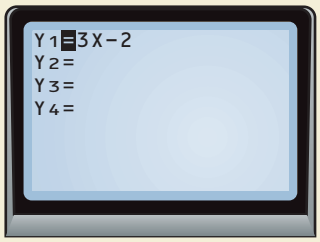
Graphing Functions

GOAL Graph functions using a graphing calculator.

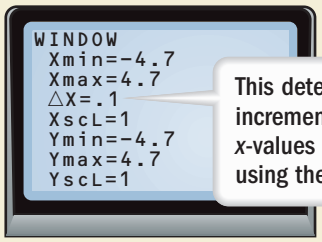
Example **Graph $y = 3x - 2$ and find ordered pairs using the *trace* feature on your graphing calculator.**

Solution

1 Select Y= to enter the function $y = 3x - 2$ into the graphing calculator.

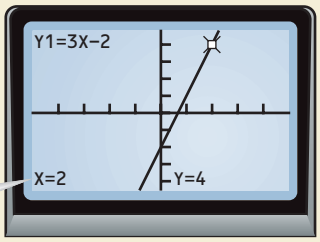


2 Select WINDOW and set up the window for the graph of $y = 3x - 2$ as shown.



This determines the increment between *x*-values that you see using the trace feature.

3 Select GRAPH to view the graph of the function. Then select TRACE to see the coordinates of points on the graph. Use the left and right arrows to move the cursor along the graph.



Notice that X = 2 and Y = 4 correspond to the ordered pair (2, 4).

Your turn now **Use a graphing calculator to graph the function and find the unknown value in the given ordered pairs.**

1. $y = 2x$, (? , 1.6) and (2.1, ?)

2. $y = -x$, (−4.3, ?) and (? , 0)

3. $y = -3x + 1$, (? , −2) and (−2, ?)

4. $y = 5x - \frac{1}{2}$, (4.5, ?) and (? , 1.5)

5. $y = -3x - 1$, (? , 0.8) and (0.2, ?)

6. $y = 2x + 2.3$, (0, ?) and (? , 5.5)

7. **Critical Thinking** Use a graphing calculator to graph $y = 2x + 5$ and $y = -x + 2$ in the same coordinate plane. Tell where they intersect. Check your answer by substituting the values into each equation.