**10-1B Lesson Master**

**REPRESENTATIONS**

**Objective I**

1. Refer to the graph at the right.
   a. What system is represented?
      
   b. What is the solution?
      
   c. Verify your answer to part b.
      
2. Refer to the graph at the right.
   a. What system is represented?
      
   b. What is the solution?
      
   c. Verify your answer to part b.
      
In 3–5, a system is given. Solve the system by graphing.

3. \[
\begin{align*}
  y - 3x & = -4 \\
  y & = 2x - 1
\end{align*}
\]

4. \[
\begin{align*}
  3x + 6y & = 0 \\
  y & = 4x + 9
\end{align*}
\]

5. \[
\begin{align*}
  2x - 6y & = -5 \\
  y & = 4x - 1
\end{align*}
\]
In 6–8, a system is given. Solve the system by graphing.

6. \( \begin{align*} y &= 4x + 14 \\ y &= 2x + 10 \end{align*} \)

7. \( \begin{align*} y &= -x + 7 \\ y &= \frac{1}{2}x + 1 \end{align*} \)

8. \( \begin{align*} 3x - 4y &= 3 \\ 4y &= x - 9 \end{align*} \)

In 9 and 10, a situation is described. a. Translate the information into two equations. b. Use a calculator table to find a good window to display the graph. What window did you use? c. Use the graph from Part b to answer the question.

9. A coin jar contains only nickels and quarters. There are exactly 38 coins in the jar, and the total value of the coins is $2.50.

   a. Let \( x \) = the number of nickels in the jar.
   
   Let \( y \) = the number of quarters in the jar.

   b. __________________________

   c. How many of each kind of coin is in the jar? __________________________

10. A tomato plant 6 centimeters tall is growing at a rate of 4 centimeters per day. Another tomato plant 10 centimeters tall is growing at a rate of 2 centimeters per day.

   a. Let \( x \) = the number of days the plant has been growing.
   
   Let \( y \) = the height of the plant after \( x \) days.

   b. __________________________

   c. After how many days will the plants be the same height? How tall will they be?