10-1A Lesson Master

REPRESENTATIONS Objective 1

1. Refer to the graph at the right.
   a. What system is represented?
   b. What is the solution to the system?
   c. Verify your answer to Part b.

In 2–4, a system is given. Solve the system by graphing.

2. \[
\begin{align*}
  y &= 3x + 2 \\
  y &= -x + 6
\end{align*}
\]

3. \[
\begin{align*}
  x + y &= 5 \\
  y &= -2x + 7
\end{align*}
\]

4. \[
\begin{align*}
  y &= \frac{1}{3}x + 4 \\
  y &= -2x - 10
\end{align*}
\]

5. Joyce opened a small store where she sells the bracelets she makes. Her fixed expenses each month are $1,200. In addition, the supplies for each bracelet cost $5.00. Joyce sells her bracelets for $12.50 each.
   a. Write the cost and revenue equations as a system.
   b. Use a calculator table to find a good window to display the graph. What window did you use?
   c. Find the break-even point. Explain what this point means.