## 1-6 Additional Practice

## Linear Systems

Solve the following system of equations.

1. $\left\{\begin{array}{l}y=7-x \\ x+3 y=7\end{array}\right.$
2. $\left\{\begin{array}{l}4 x+3 y=-16 \\ -x+y=4\end{array}\right.$
3. $\left\{\begin{array}{l}2 x-4 y=-4 \\ 3 x-y=4\end{array}\right.$

Solve the following system of equations.
4. $\left\{\begin{array}{l}2 x+3 y-z=9 \\ -2 x-y+2 z=2 \\ x+y-2 z=3\end{array}\right.$
5. $\left\{\begin{array}{l}4 x-2 y-z=5 \\ x+4 y-z=-1 \\ 2 x-2 y-2 z=-2\end{array}\right.$
6. $\left\{\begin{array}{l}-3 x+2 y+5 z=-10 \\ -x-2 y+3 z=6 \\ 2 x-y-z=8\end{array}\right.$

Write the matrix for the system of equations.
7. $\left\{\begin{array}{r}3 x+y=-4 \\ -2 x+4 y=7\end{array}\right.$
8. $\left\{\begin{array}{c}4 x-y+2 z=10 \\ 5 x+2 y-3 z=0 \\ x-3 y+z=6\end{array}\right.$
9. $\left\{\begin{array}{l}3 x-2 y+z=6 \\ 4 x-6 z=6 \\ -3 x-4 z=-10\end{array}\right.$
10. Last year, a baseball team paid $\$ 20$ per bat and $\$ 12$ per glove, spending a total of $\$ 552$. They bought 34 pieces of equipment. What are a system of equations and an augmented matrix that can represent this situation?
11. Write the system of equations for the matrix. $\left[\begin{array}{rrr|r}2 & 5 & 0 & 13 \\ -3 & 1 & 2 & 6 \\ 4 & 0 & -3 & 5\end{array}\right]$

