Lesson 3.7 • Substitution and Elimination

Name _____ Period _____ Date _____

1. Solve each equation for the specified variable.

a. $r - s = 20$, for s

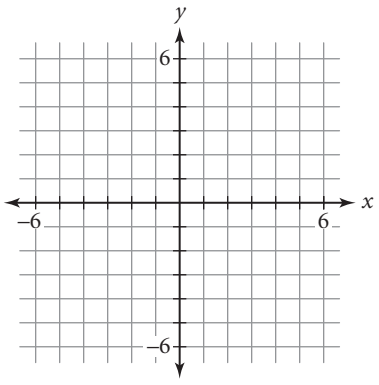
b. $5x - 8y = -10$, for x

c. $0.2m - 0.5n = 1$, for n

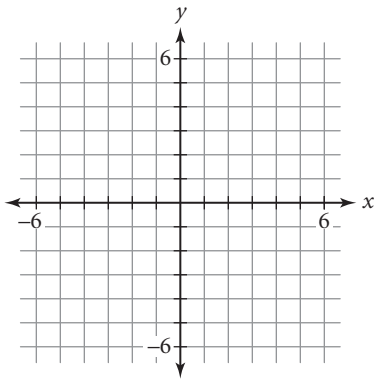
d. $250x + 400y = -50$, for y

2. Graph each system and find an approximate solution. Then choose a method and find the exact solution. List each solution as an ordered pair.

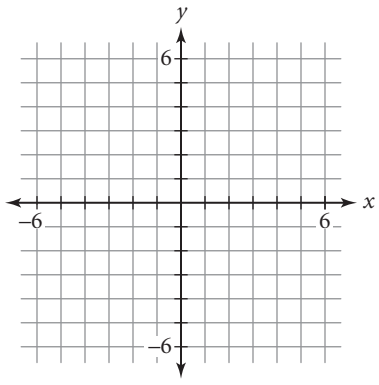
a. $\begin{cases} x + y = 1 \\ 2x - 2y = 1 \end{cases}$



b. $\begin{cases} 3x - 2y = 6 \\ -2x + 3y = 0 \end{cases}$



c. $\begin{cases} 5x + 4y = 16 \\ 4x - 3y = 12 \end{cases}$



3. Solve each system of equations.

a. $\begin{cases} 3x - 4y = 8 \\ y = x - 1 \end{cases}$

b. $\begin{cases} 5x - 8y = 8 \\ -10x + 4y = -7 \end{cases}$

c. $\begin{cases} 0.5x + 1.5y = 5 \\ x + y = -10 \end{cases}$

4. Classify each system as consistent or inconsistent. If a system is consistent, classify it as dependent or independent.

a. $\begin{cases} -3x + 2y = 8 \\ y = 4 - x \end{cases}$

b. $\begin{cases} 6m + 3n = 15 \\ n = -2m + 5 \end{cases}$

c. $\begin{cases} k = 2j + 9 \\ 4j - 2k = 3 \end{cases}$