

Quiz for Lessons 6-1 Through 6-4

6-1 Solving Systems by Graphing

Tell whether the ordered pair is a solution of the given system.

1. $(-2, 1); \begin{cases} y = -2x - 3 \\ y = x + 3 \end{cases}$

2. $(9, 2); \begin{cases} x - 4y = 1 \\ 2x - 3y = 3 \end{cases}$

3. $(3, -1); \begin{cases} y = -\frac{1}{3}x \\ y + 2x = 5 \end{cases}$

Solve each system by graphing.

4. $\begin{cases} y = x + 5 \\ y = \frac{1}{2}x + 4 \end{cases}$

5. $\begin{cases} y = -x - 2 \\ 2x - y = 2 \end{cases}$

6. $\begin{cases} \frac{2}{3}x + y = -3 \\ 4x + y = 7 \end{cases}$

7. **Banking** Christiana and Marlena opened their first savings accounts on the same day. Christiana opened her account with \$50 and plans to deposit \$10 every month. Marlena opened her account with \$30 and plans to deposit \$15 every month. After how many months will their two accounts have the same amount of money? What will that amount be?

6-2 Solving Systems by Substitution

Solve each system by substitution.

8. $\begin{cases} y = -x + 5 \\ 2x + y = 11 \end{cases}$

9. $\begin{cases} 4x - 3y = -1 \\ 3x - y = -2 \end{cases}$

10. $\begin{cases} y = -x \\ y = -2x - 5 \end{cases}$

6-3 Solving Systems by Elimination

Solve each system by elimination.

11. $\begin{cases} x + 3y = 15 \\ 2x - 3y = -6 \end{cases}$

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

13. $\begin{cases} -2x + 5y = -1 \\ 3x + 2y = 11 \end{cases}$

14. It takes Akira 10 minutes to make a black and white drawing and 25 minutes for a color drawing. On Saturday he made a total of 9 drawings in 2 hours. Write and solve a system of equations to determine how many drawings of each type Akira made.

6-4 Solving Special Systems

Solve each system of linear equations.

15. $\begin{cases} y = -2x - 6 \\ 2x + y = 5 \end{cases}$

16. $\begin{cases} x + y = 2 \\ 2x + 2y = -6 \end{cases}$

17. $\begin{cases} y = -2x + 4 \\ 2x + y = 4 \end{cases}$

Classify each system. Give the number of solutions.

18. $\begin{cases} 3x = -6y + 3 \\ 2y = -x + 1 \end{cases}$

19. $\begin{cases} y = -4x + 2 \\ 4x + y = -2 \end{cases}$

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