

## Solving Systems of Three Equations

Name \_\_\_\_\_ Period \_\_\_\_\_

Solve the following system of equations. Write your answer as an ordered triple.

1.  $4x + 4y + z = 24$   
 $2x - 4y + z = 0$   
 $5x - 4y - 5z = 12$

2.  $x - 6y + 4z = -12$   
 $x + y - 4z = 12$   
 $2x + 2y + 5z = -15$

3.  $x - y - 2z = -6$   
 $3x + 2y = -25$   
 $-4x + y - z = 12$

4.  $6x - y + 3z = -9$   
 $5x + 5y - 5z = 20$   
 $3x - y + 4z = -5$

5. Which of the following is the solution for this system?

$$\begin{aligned}x + y + z &= 3 \\ 2x + y + z &= 5 \\ x + 2y - z &= 4\end{aligned}$$

- a. (2, 0, 1)      b. (1, -3, 4)      c. (2, 1, 0)

6. Which of the following is the solution for this system?

$$\begin{aligned}-3x - y - 3z &= -8 \\ -5x + 3y + 6z &= -4 \\ -6x - 4y - z &= -20\end{aligned}$$

- a. (2, 2, 0)      b. (0, 2, 2)      c. (1, 2, 6)