

Solving Systems of Equations in Three Variables #3

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Solve the following systems of equations.

1.  $4x + 2y - 6z = -38$   
 $5x - 4y + z = -18$   
 $x + 3y + 7z = 38$

2.  $2p - 5q + r = 1$   
 $3q + 2r = 5$   
 $r = -2$

3.  $3x = -12$   
 $2x - y + 3z = -1$   
 $3x + 4 - z = -7$

4.  $4x + y = -7$   
 $x - 2z = 4$   
 $3y + 2z = 8$

5.  $-2y - 6z = 4$   
 $y + 4z = -5$   
 $x + 2y + 7z = -1$

6.  $x - 3y = 0$   
 $2x + 3y + 3z = 18$   
 $x + 2y - 4z = 10$

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$$\begin{aligned} 7. \quad & x + 3y = 2 \\ & x - 5y + z = 1 \\ & 2x + 3y + z = -2 \end{aligned}$$

$$\begin{aligned} 8. \quad & 3x - 2y + 2z = 0 \\ & 2x + y - z = 0 \\ & 2x - y + 3z = 0 \end{aligned}$$

$$\begin{aligned} 9. \quad & 6x + 2y - 3z = -17 \\ & 7x - 5y + z = 72 \\ & 2x + 8y + 3z = -21 \end{aligned}$$

$$\begin{aligned} 10. \quad & 4x + y + z = 5 \\ & 3x + 3y - 2z = 22 \\ & x - 2y - z = 3 \end{aligned}$$