

Worksheet 1.4B

Solve each system by elimination.

$$\begin{aligned} 1) \quad & 6a + b - c = 21 \\ & -a + 5b - 5c = 12 \\ & -6a + 3b - 3c = -9 \end{aligned}$$

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$$\begin{aligned} 2) \quad & -4x - 6y + 3z = 0 \\ & -3x + 4y - 3z = 21 \\ & -2x + 5y + 4z = -10 \end{aligned}$$

 $(-3, 0, -4)$

$$\begin{aligned} 3) \quad & -4x - 6y - z = 8 \\ & 4x - 4y - 3z = -28 \\ & 5x + y - z = -23 \end{aligned}$$

 $(-5, 2, 0)$

$$\begin{aligned} 4) \quad & 2x + y + 3z = -7 \\ & 2x - 4y - 4z = 12 \\ & -4x - 2y - 3z = 8 \end{aligned}$$

 $(0, -1, -2)$

$$\begin{aligned} 5) \quad & 2r - 4s + 3t = -1 \\ & -2r - 5s + t = -20 \\ & -5r - 5s - 6t = -17 \end{aligned}$$

 $(6, 1, -3)$

$$\begin{aligned} 6) \quad & -3x - 2y - 6z = 0 \\ & 5x - y - 5z = -17 \\ & 2y - 6z = -18 \end{aligned}$$

 $(-2, -3, 2)$

$$\begin{aligned} 7) \quad & -3x - 2y - 2z = -12 \\ & -3x + 3y - 2z = -6 \\ & 6x - 3y + 4z = -9 \end{aligned}$$

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$$\begin{aligned} 8) \quad & 3r + 6s + 3t = 6 \\ & 2r + 5s + 2t = 3 \\ & -3r + s + 6t = -13 \end{aligned}$$

 $(4, -1, 0)$

$$\begin{aligned} 9) \quad & 4a + 5b + 4c = -23 \\ & -5a - 3b - 6c = 18 \\ & -5a - 5b - 3c = 27 \end{aligned}$$

 $(-3, -3, 1)$

$$\begin{aligned} 10) \quad & -2a + 4b - 5c = -18 \\ & 6a + 5b + c = 9 \\ & 2a + 5b + 4c = 7 \end{aligned}$$

 $(2, -1, 2)$

$$\begin{aligned} 11) \quad & -a - 4b - c = 9 \\ & -4a + 5b + c = 11 \\ & -2a + 2b + 6c = -22 \end{aligned}$$

 $(-4, 0, -5)$

$$\begin{aligned} 12) \quad & 3x + 2y + 4z = -10 \\ & 5x + 6y - z = 22 \\ & -2x - 6y + 3z = -30 \end{aligned}$$

 $(0, 3, -4)$

$$\begin{aligned} 13) \quad & -3r - 2s + t = 16 \\ & 3r + 5s - 5t = -23 \\ & -r + 6s - 4t = 8 \end{aligned}$$

 $(-6, 3, 4)$

$$\begin{aligned} 14) \quad & -4r + 3s + 5t = 23 \\ & 3r + 4s = -11 \\ & -r - 3s - 3t = -8 \end{aligned}$$

 $(-1, -2, 5)$

$$\begin{aligned} 15) \quad & 3a + 2b - c = 5 \\ & 4a - 3b + c = 24 \\ & a - b - 3c = -10 \end{aligned}$$

 $(4, -1, 5)$

$$\begin{aligned} 16) \quad & -2x - 4y + 5z = 19 \\ & 3x - y + 2z = 9 \\ & -4x - 2y - 2z = 2 \end{aligned}$$

 $(1, -4, 1)$