ANSWER PRESENTATION TOOL

Algebra 2 - Student Edit 1 4 - Practice 5,13 ALL EVEN Show Sol

ODD

5. Step 1 Rewrite the system as a linear system in two variables.

$$\begin{aligned} 2x + y - z &= 9 \\ 5x + 7y + z &= 4 \\ \hline 7x + 8y &= 13 \end{aligned}$$

$$\begin{aligned} 4x + 2y - 2z &= 18 \\ -x + 6y + 2z &= -17 \\ \hline 3x + 8y &= 1 \end{aligned}$$

Step 2 Solve the new linear system for both of its variables.

$$\begin{aligned} 7x + 8y &= 13 \\ -3x - 8y &= -1 \\ \hline 4x &= 12 \\ x &= 3 \\ y &= -1 \end{aligned}$$

Step 3 Substitute $x = 3$ and $y = -1$ into an original equation and solve for z.

$$\begin{aligned} 2x + y - z &= 9 \\ 2(3) + (-1) - z &= 9 \\ 6 - 1 - z &= 9 \\ z &= -4 \end{aligned}$$

The solution is $(3, -1, -4)$.

13. The entire second equation should be multiplied by 4, not just the x-term.

$$\begin{array}{rr} 4x - y + 2z = & -18 \\ -4x + 8y + 4z = & 44 \\ \hline 7y + 6z = & 26 \end{array}$$