Advanced Algebra

Unit 6: Advanced Systems of Equations

Assignment #4- 3 variables and 3 unknowns.

Using Elimination 3 times, find the solutions to the following three equations and three unknowns.

1) $\begin{cases} x+y+z=6 \\ 2x+4y+z=5 \\ 2x+3y+z=6 \end{cases}$

2) $\begin{cases} x+4y+11z=7 \\ x+6y+17z=9 \\ x+4y+8z=4 \end{cases}$

3) $\begin{cases} 2x+3y+z=22 \\ -3x+y+z=4 \\ x+y+z=12 \end{cases}$

4) $\begin{cases} 2x+2y+z=14 \\ -3x+y-z=-11 \\ 5x+4y+z=27 \end{cases}$

5) $\begin{cases} 2x + y + z = -5 \\ 3x - 2y + 4z = -40 \\ 6x + 4y - 2z = 20 \end{cases}$

6) $\begin{cases} 2x + 3y - 2z = 44 \\ 4x + y - z = 34 \\ x + y + 2z = 22 \end{cases}$