♦ Solve the following system of linear equations:

(1) $\begin{cases} x + 2y - 3z = 6 \\ 2x - y + 4z = 2 \\ 4x + 3y - 2z = 14 \end{cases}$

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

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

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

(5) $\begin{cases} x + 3y \quad + t = 0 \\ x + 4y + 2z \quad = 0 \\ -2y - 2z - t = 0 \\ 2x - 4y + z + t = 0 \\ x - 2y - z + t = 0 \end{cases}$