

Use Gauss-Jordan Elimination (Augmented Matrix) to solve the following systems of equations

$\begin{cases} x + y = 5 \\ -2x - y + 2z = -10 \\ 3x + 6y + 7z = 14 \end{cases}$	$(3, 2, -1)$
$\begin{cases} x + 2y - z = 3 \\ 3x + 7y - 5z = 14 \\ -2x - y - 3z = 8 \end{cases}$	$(-4, 3, -1)$
$\begin{cases} x - y - z = 1 \\ 5x - 4y + z = 8 \\ -6x + 8y + 18z = 0 \end{cases}$	$(4 - 5a, 3 - 6a, a), a \in \mathfrak{R}$
$\begin{cases} x - 3y = -7 \\ -3x + 10y + z = 23 \\ 4x - 10y + 2z = -24 \end{cases}$	$(-3a - 1, 2 - a, a), a \in \mathfrak{R}$
$\begin{cases} -x - 2y + 3z = -2 \\ 2x - 5y + z = -7 \\ 5x + 4y - 7z = 6 \end{cases}$	$(1, 2, 1)$
$\begin{cases} -y - 5z = 5 \\ -x + 3y - 7z = 6 \\ 4x - 5y + z = 3 \end{cases}$	$(1, 0, -1)$
$\begin{cases} x + 10y - 2z = 2 \\ 5x - 3y + 4z = 0 \\ 2x + y = 6 \end{cases}$	$\left(\frac{98}{27}, -\frac{34}{27}, -\frac{148}{27} \right)$