Example 1. Solve the following system by using the Gauss-Jordan elimination method. Conclude that the system of equations is inconsistent, i.e., it has no solutions.

\[
\begin{align*}
    x + 2y - 3z &= 2 \\
    6x + 3y - 9z &= 6 \\
    7x + 14y - 21z &= 13
\end{align*}
\]
Example 2. Solve the following system by using the Gauss-Jordan elimination method. Conclude that there are infinitely many solutions for this system.

\[
\begin{align*}
4y + z &= 2 \\
2x + 6y - 2z &= 3 \\
4x + 8y - 5z &= 4
\end{align*}
\]