

Matlab Group Assignment #1 (Part A)

Section #: _____

Names:

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1. Write the system of equations below in matrix form, then solve using matrix division in Matlab:

$$\begin{aligned}x - y + 3z - 2w &= 10 \\-2x + 4y - 3z + w &= 5 \\3x - y + 10z - 4w &= 29 \\4x - 3y + 8z - 2w &= 6\end{aligned}$$

2. Repeat for the following system of equations. In the space below, explain Matlab's warning and what is actually happening (if you are not sure, try using the **solve** command as well).

$$\begin{aligned}3x + 6y - 9z &= 15 \\2x + 4y - 6z &= 10 \\-2x - 3y + 4z &= -6\end{aligned}$$

3. Repeat for the following system of equations. In the space below, explain Matlab's warning and what is actually happening.

$$\begin{aligned}2x - 4y + z &= -4 \\4x - 8y + 7z &= 2 \\-2x + 4y - 3z &= 5\end{aligned}$$