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Dertermine whether the matrix is in REF or RREF

1 b)

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

d)

$$\begin{bmatrix} 1 & 0 & 3 & 1 \\ 0 & 1 & 2 & 4 \end{bmatrix}$$

f)

$$\begin{bmatrix} 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{bmatrix}$$

g)

$$\begin{bmatrix} 1 & -7 & 5 & 5 \\ 0 & 1 & 3 & 2 \end{bmatrix}$$

Assume that the augmented magtrix is reduced to REF solve the system

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$$(a) \begin{bmatrix} 1 & -3 & 4 & 7 \\ 0 & 1 & 2 & 2 \\ 0 & 0 & 1 & 5 \end{bmatrix} \quad (b) \begin{bmatrix} 1 & 0 & 8 & -5 & 6 \\ 0 & 1 & 4 & -9 & 3 \\ 0 & 0 & 1 & 1 & 2 \end{bmatrix} \quad (c) \begin{bmatrix} 1 & 7 & -2 & 0 & -8 & -3 \\ 0 & 0 & 1 & 1 & 6 & 5 \\ 0 & 0 & 0 & 1 & 3 & 9 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix} \quad (d) \begin{bmatrix} 1 & -3 & 7 & 1 \\ 0 & 1 & 4 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Solve by Gaussian eliminition

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$$x_1 + \quad x_2 + 2x_3 = \quad 8$$

$$-x_1 - 2x_2 + 3x_3 = \quad 1$$

$$3x_1 - 7x_2 + 4x_3 = \quad 10$$

Guassian Jordan

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*Exercise*5

Solve by inspection

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$$2x_1 - 3x_2 + 4x_3 - x_4 = 0$$
$$7x_1 + x_2 - 8x_3 + 9x_4 = 0$$
$$2x_1 + 8x_2 + x_3 - x_4 = 0$$

Solve by any method.

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$$2x_1 + x_2 + 3x_3 = 0$$
$$x_1 + 2x_2 = 0$$
$$x_2 + x_3 = 0$$

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$$2x + 2y + 4z \quad = 0$$
$$w \quad -y - 3z \quad = 0$$
$$2w + 3x + y + z \quad = 0$$
$$-2w + x + 3y - 2z \quad = 0$$