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3630-2023
BSSE-3B
LADE

ASSIGNMENT NO 1

Question no1

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

$$\begin{pmatrix} 1 & -1 & 3 \\ 0 & -2 & -5 \\ 0 & 3 & 2 \end{pmatrix} \quad (-2\,R1 + R2)$$

$$\begin{pmatrix} 1 & -1 & 3 \\ 0 & 1 & -3 \\ 0 & 3 & 2 \end{pmatrix} \quad (R3 + R2)$$

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & -3 \\ 0 & 3 & 2 \end{pmatrix} \quad (R2 + R1)$$

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & -3 \\ 0 & 0 & 11 \end{pmatrix}$$ **(-3 R2 + R3)**

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & -3 \\ 0 & 0 & 1 \end{pmatrix}$$ **(1/11R3)**

$$\begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$ **(3R3 + R2)**

Question no 2

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

$$\begin{pmatrix} 2 & 1 & -4 & 3 \\ 0 & 1 & 3 & -2 \\ 2 & 3 & 2 & -1 \end{pmatrix} \quad (R1 \sim R2)$$

$$\begin{pmatrix} 2 & 1 & -4 & 3 \\ 0 & 1 & 3 & -2 \\ 0 & 2 & 6 & -4 \end{pmatrix} \quad (R1 - R3)$$

$$\begin{pmatrix} 1 & 1/2 & -2 & 3/2 \\ 0 & 1 & 3 & -2 \\ 0 & 2 & 6 & -4 \end{pmatrix} \quad (1/2\ R1\ )$$

$$\begin{pmatrix} 1 & 1/2 & -2 & 3/2 \\ 0 & 1 & 3 & -2 \\ 0 & 0 & 0 & 0 \end{pmatrix} \quad (2\ R2 - R3\ )$$

$$\begin{pmatrix} 1 & 0 & -7/2 & 5/2 \\ 0 & 1 & 3 & -2 \\ 0 & 0 & 0 & 0 \end{pmatrix}$$ **(-1/2 R2 – R1)**