

Quiz 2 MTH 329 Sp 2024 (25 Jan)

$$\begin{bmatrix} 0 & 1 & 3 \\ -1 & -3 & 3 \\ 1 & -3 & 0 \end{bmatrix} \begin{array}{l} r_1 \leftrightarrow r_3 \\ \sim \end{array} \begin{bmatrix} 1 & -3 & 0 \\ -1 & -3 & 3 \\ 0 & 1 & 3 \end{bmatrix}$$

$$r_2^* = r_2 + r_1 \quad \sim \begin{bmatrix} 1 & -3 & 0 \\ 0 & 0 & 3 \\ 0 & 1 & 3 \end{bmatrix}$$

$$r_2 \leftrightarrow r_3 \quad \sim \begin{bmatrix} 1 & -3 & 0 \\ 0 & 1 & 3 \\ 0 & 0 & 3 \end{bmatrix}$$

$$r_1^* = r_1 + 3r_2 \quad \sim \begin{bmatrix} 1 & 0 & 9 \\ 0 & 1 & 3 \\ 0 & 0 & 3 \end{bmatrix}$$

$$\begin{array}{l} r_1^* = r_1 - 3r_3 \\ r_2^* = r_2 - r_3 \end{array} \quad \sim \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 3 \end{bmatrix}$$

$$r_3^* = \frac{1}{3}r_3 \quad \sim \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$