

Matrix used for 1st Case

$$A = \begin{bmatrix} 1 & 3 & -1 & 7 \\ -2 & 4 & -8 & 4 \\ 1 & 2 & 0 & 6 \\ 4 & 1 & 1 & 2 \end{bmatrix}$$

$$\text{Result} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Matrix used for 2nd Case

$$A = \begin{bmatrix} 1 & 0 & 0 \\ 2 & 1 & 0 \\ 1 & 0 & 0 \end{bmatrix}$$

$$\text{Result} = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$



Case-3

$$\text{Matrix} = \begin{bmatrix} 1 & 0 & 1 \\ 0 & 0 & 0 \\ 0 & 1 & -2 \\ 0 & 0 & 0 \end{bmatrix}$$

$$\text{Result} = \begin{bmatrix} 1 & 0 & 1 \\ 0 & 1 & -2 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

Case-4

$$\text{Matrix} = \begin{bmatrix} 1 & 3 & -1 & 8 \\ -2 & 4 & -8 & 4 \\ 1 & 2 & 0 & 6 \end{bmatrix}$$

$$\text{Result} = \begin{bmatrix} 1 & 0 & 2 & 2 \\ 0 & 1 & -1 & 2 \\ 0 & 0 & 0 & 0 \end{bmatrix}$$