

$$M = \begin{pmatrix} 1 & 2 & 0 & -2 & 0 & 3 \\ 0 & 0 & 1 & 4 & 0 & -1 \\ 0 & 0 & 0 & 0 & 1 & 2 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{pmatrix} \rightarrow \begin{pmatrix} 2 & -2 & 3 \\ 0 & 4 & -1 \\ 0 & 0 & 2 \end{pmatrix} = L$$