

$$A = \begin{vmatrix} 1 & 0 & 1 & 2 \\ 1 & 3 & 0 & 0 \\ 1 & -3 & 2 & 4 \\ 2 & 3 & 1 & 2 \end{vmatrix} = \begin{vmatrix} 1 & 0 & 1 \\ 1 & 3 & 0 \\ 1 & -3 & 2 \end{vmatrix} = 0$$