
Exercise 1 Find the determinant of A if

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

where k is a constant.

$$\det(A) = \dots\dots$$

For what value of k is A singular?

$$k = \dots\dots$$