5.4.1

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Question

Using elementary transformations, find the inverse of the following matrix.

$$\begin{pmatrix} 2 & 3 \\ -4 & -6 \end{pmatrix}$$

Theoretical Solution

We compute the determinant:

$$\det\begin{pmatrix} 2 & 3 \\ -4 & -6 \end{pmatrix} = (2)(-6) - (3)(-4) = -12 + 12 = 0 \tag{1}$$

Since det $= 0$, the matrix is singular and has **no inverse**.

Python,C,Python+C codes

codes permalink