
Exercise 1 Suppose A is a non-singular 3×3 matrix. Let $A^{-1} = \begin{bmatrix} | & | & | \\ \mathbf{d}_1 & \mathbf{d}_2 & \mathbf{d}_3 \\ | & | & | \end{bmatrix}$.

Suppose $A \begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix} = \begin{bmatrix} 5 \\ 6 \\ 7 \end{bmatrix}$

Express $\begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix}$ as a linear combination of the columns of A^{-1} .

$$\begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix} = \dots \mathbf{d}_1 + \dots \mathbf{d}_2 + \dots \mathbf{d}_3$$