
Exercise 1 Express $\begin{bmatrix} -1 \\ 4 \\ 5 \end{bmatrix}$ as a linear combination of $\begin{bmatrix} 2 \\ 1 \\ -3 \end{bmatrix}$, $\begin{bmatrix} -1 \\ 1 \\ 4 \end{bmatrix}$ and $\begin{bmatrix} 1 \\ 1 \\ -2 \end{bmatrix}$.

If this is not possible, enter DNE in each answer cell.

$$\begin{bmatrix} -1 \\ 4 \\ 5 \end{bmatrix} = \dots \dots \begin{bmatrix} 2 \\ 1 \\ -3 \end{bmatrix} + \dots \dots \begin{bmatrix} -1 \\ 1 \\ 4 \end{bmatrix} + \dots \dots \begin{bmatrix} 1 \\ 1 \\ -2 \end{bmatrix}$$