Let

$$A = \begin{bmatrix} -17 & -24 \\ 12 & 19 \end{bmatrix}.$$

Find a matrix S, a diagonal matrix D and S^{-1} such that $A = SDS^{-1}$.

$$S = \begin{bmatrix} \square & \square \\ \square & \square \end{bmatrix}, \quad D = \begin{bmatrix} \square & \square \\ \square & \square \end{bmatrix}, \quad S^{-1} = \begin{bmatrix} \square & \square \\ \square & \square \end{bmatrix}.$$

Let

$$A = \begin{bmatrix} -17 & -24 \\ 12 & 19 \end{bmatrix}.$$

Find a matrix S, a diagonal matrix D and S^{-1} such that $A = SDS^{-1}$.

$$S = \begin{bmatrix} -1 & -2 \\ 1 & 1 \end{bmatrix}, \quad D = \begin{bmatrix} 7 & 0 \\ 0 & -5 \end{bmatrix}, \quad S^{-1} = \begin{bmatrix} 1 & 2 \\ -1 & -1 \end{bmatrix}.$$