

$$A \begin{bmatrix} 2 & 7 \\ -3 & 4 \end{bmatrix}$$

$$B \begin{bmatrix} -1 & 0 \\ 5 & 7 \\ -8 & 4 \end{bmatrix}$$

$$C \begin{bmatrix} 4 & 11 & -3 \\ 1 & 5 & -6 \end{bmatrix}$$

$$D \begin{bmatrix} 8 & -9 \\ -2 & 7 \end{bmatrix}$$

1. Find BD

2. Find  $3A - 4D$

3. Find CA

4. Are these two matrices inverses?

$$\begin{bmatrix} -6 & 4 \\ 5 & -3 \end{bmatrix} \quad \begin{bmatrix} 1.5 & 2 \\ 2.5 & 3 \end{bmatrix}$$

Find the inverse of each matrix.

$$5 \quad B \begin{bmatrix} -2 & -3 \\ 8 & 14 \end{bmatrix}$$

$$C \begin{bmatrix} 6 & 3 \\ -5 & 9 \\ 10 & 1 \end{bmatrix}$$

$$D \begin{bmatrix} 3 & 6 \\ 4 & 8 \end{bmatrix}$$

ANSWERS

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$$C \begin{bmatrix} 4 & 11 & -3 \\ 1 & 5 & -6 \end{bmatrix}$$

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1. Find BD

2. Find  $3A - 4D$

3. Find CA

$$\begin{bmatrix} -8 & 9 \\ 26 & 4 \\ -72 & 100 \end{bmatrix}$$

$$\begin{bmatrix} -26 & 57 \\ -1 & -16 \end{bmatrix}$$

CAN'T BE MULTIPLIED

4. Are these two matrices inverses?

$$\begin{bmatrix} -6 & 4 \\ 5 & -3 \end{bmatrix} \quad \begin{bmatrix} 1.5 & 2 \\ 2.5 & 3 \end{bmatrix}$$

$A \qquad B$

YES, BOTH  $A \cdot B$  &  $B \cdot A$  EQUAL THE IDENTITY MATRIX

Find the inverse of each matrix.

$$5 \quad B \begin{bmatrix} -2 & -3 \\ 8 & 14 \end{bmatrix}$$

$$C \begin{bmatrix} 6 & 3 \\ -5 & 9 \\ 10 & 1 \end{bmatrix}$$

$$D \begin{bmatrix} 3 & 6 \\ 4 & 8 \end{bmatrix}$$

$$B^{-1} \begin{bmatrix} -3.5 & -0.75 \\ 2 & 0.5 \end{bmatrix}$$

$C^{-1}$  does not exist, it is not a square matrix

$D^{-1}$  does not exist