Adding and Subtracting Matrices

Name _____

Date _____ Period _____

To add or subtract matrices, add or subtract their corresponding entries.

$$\begin{bmatrix} 4 & 2 \\ -3 & 1 \end{bmatrix} + \begin{bmatrix} 1 & 4 \\ 3 & -7 \end{bmatrix} = \begin{bmatrix} & \\ & \end{bmatrix}$$

Notice: You can only add matrices with the same dimensions

To add or subtract matrices, add or subtract their corresponding entries.

$$\begin{bmatrix} 4 & 2 \\ -3 & 1 \end{bmatrix} - \begin{bmatrix} 1 & 4 \\ 3 & -7 \end{bmatrix} = \begin{bmatrix} & \\ & \end{bmatrix}$$

Notice: You can only subtract matrices with the same dimensions

$$A = \begin{bmatrix} 4 & 2 \\ -3 & 1 \end{bmatrix} \qquad B = \begin{bmatrix} 2 & 4 & -5 \\ 0 & 6 & -2 \end{bmatrix} \qquad C = \begin{bmatrix} 5 & -2 \\ 0 & 8 \end{bmatrix} \qquad D = \begin{bmatrix} 1 & 0 & 8 \\ -1 & 7 & 9 \end{bmatrix}$$

Evaluate the following

$A + C$ $B + D$

$$A = \begin{bmatrix} 4 & 2 \\ -3 & 1 \end{bmatrix} \qquad B = \begin{bmatrix} 2 & 4 & -5 \\ 0 & 6 & -2 \end{bmatrix} \qquad C = \begin{bmatrix} 5 & -2 \\ 0 & 8 \end{bmatrix} \qquad D = \begin{bmatrix} 1 & 0 & 8 \\ -1 & 7 & 9 \end{bmatrix}$$

Evaluate the following

$C - A$ $B - A$

$$A = \begin{bmatrix} 4 & 2 \\ -3 & 1 \end{bmatrix} \qquad B = \begin{bmatrix} 2 & 4 & -5 \\ 0 & 6 & -2 \end{bmatrix} \qquad C = \begin{bmatrix} 5 & -2 \\ 0 & 8 \end{bmatrix} \qquad D = \begin{bmatrix} 1 & 0 & 8 \\ -1 & 7 & 9 \end{bmatrix}$$

Evaluate the following

$2C + 3A$ $\qquad$ $4B - 2D$

$$A = \begin{bmatrix} 4 & 2 \\ -3 & 1 \end{bmatrix} \qquad B = \begin{bmatrix} 2 & 4 & -5 \\ 0 & 6 & -2 \end{bmatrix} \qquad C = \begin{bmatrix} 5 & -2 \\ 0 & 8 \end{bmatrix} \qquad D = \begin{bmatrix} 1 & 0 & 8 \\ -1 & 7 & 9 \end{bmatrix}$$

Evaluate the following

$-A + C$ $\qquad$ $-4B - C$

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You can only add or subtract matrices with the same dimensions