Adding and Subtracting Matrices

Version 1

Name: _____ Date: ____ Score: ____

Direction: Simplify by adding and subtracting the following matrices. Write undefined if the operation cannot be performed. Show all your work in the space provided.

1)
$$\begin{bmatrix} 1 & -3 & 0 \\ -5 & 1 & 8 \\ 7 & 0 & 4 \end{bmatrix} + \begin{bmatrix} 6 & -1 & 3 \\ -3 & 5 & -9 \\ 2 & -7 & -5 \end{bmatrix} =$$

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

3)
$$\begin{bmatrix} -1 & 5 \\ -5 & 1 \end{bmatrix} + \begin{bmatrix} 6 & -1 & 0 \\ 2 & 3 & -8 \end{bmatrix} =$$

$$4) \quad 3 \begin{bmatrix} -2 & 1 \\ 7 & 0 \\ -6 & 8 \\ 4 & -1 \end{bmatrix} - 2 \begin{bmatrix} 1 & -3 \\ 4 & 6 \\ -1 & 7 \\ 1 & -2 \end{bmatrix} =$$

Direction: Simplify by adding and subtracting the following matrices. Write undefined if the operation cannot be performed. Show all your work in the space provided.

1)
$$\begin{bmatrix} 1 & -3 & 0 \\ -5 & 1 & 8 \\ 7 & 0 & 4 \end{bmatrix} + \begin{bmatrix} 6 & -1 & 3 \\ -3 & 5 & -9 \\ 2 & -7 & -5 \end{bmatrix} = \begin{bmatrix} 7 & -4 & 3 \\ -8 & 6 & -1 \\ 9 & -7 & -1 \end{bmatrix}$$

2)
$$\begin{bmatrix} 1 & -3 & 0 \\ -5 & 1 & 8 \\ 7 & 0 & 4 \end{bmatrix} - \begin{bmatrix} 6 & -1 & 3 \\ -3 & 5 & -9 \\ 2 & -7 & -5 \end{bmatrix} = \begin{bmatrix} -5 & -2 & -3 \\ -2 & -4 & 17 \\ 5 & 7 & 9 \end{bmatrix}$$

3)
$$\begin{bmatrix} -1 & 5 \\ -5 & 1 \end{bmatrix} + \begin{bmatrix} 6 & -1 & 0 \\ 2 & 3 & -8 \end{bmatrix}$$
, undefined

$$4) \qquad 3 \begin{bmatrix} -2 & 1 \\ 7 & 0 \\ -6 & 8 \\ 4 & -1 \end{bmatrix} - 2 \begin{bmatrix} 1 & -3 \\ 4 & 6 \\ -1 & 7 \\ 1 & -2 \end{bmatrix} = \begin{bmatrix} -8 & 9 \\ 13 & -12 \\ -16 & 10 \\ 10 & 1 \end{bmatrix}$$