

8.REV.1 ~ Lessons 8.2 & 8.3

Past due on _____ Period _____

Find the sum, difference, and/or scalar product.

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

2) $-3 \left(\begin{bmatrix} -2 \\ -2 \\ 0 \end{bmatrix} - \begin{bmatrix} -5 \\ -2 \\ -3 \end{bmatrix} \right)$

3) $5 \begin{bmatrix} -5 & 6 \\ -2 & 6 \end{bmatrix} + \begin{bmatrix} -5 & 2 \\ 4 & -2 \end{bmatrix}$

4) $-2 \left(\begin{bmatrix} -2 & -6 \\ 0 & -2 \end{bmatrix} - \begin{bmatrix} -4 & 4 \\ 3 & -3 \end{bmatrix} \right)$

5) $\begin{bmatrix} -6 \\ -2 \\ 4 \end{bmatrix} - 2 \begin{bmatrix} -3 \\ 0 \\ -5 \end{bmatrix}$

6) $-3 \left(\begin{bmatrix} -2 & -6 & 4 \\ 2 & -3 & -4 \\ 6 & -6 & -5 \end{bmatrix} - \begin{bmatrix} 4 & 0 & 1 \\ -3 & 6 & 0 \\ 3 & 6 & 1 \end{bmatrix} \right)$

Find the product of the matrices, if possible.

7) $\begin{bmatrix} -3 & 2 \\ -5 & -1 \end{bmatrix} \cdot \begin{bmatrix} 2 & 6 \\ 3 & 3 \end{bmatrix}$

8) $\begin{bmatrix} 2 & 6 & 2 \\ -4 & 3 & -2 \end{bmatrix} \cdot \begin{bmatrix} -6 & -1 \\ 3 & -4 \\ 1 & 1 \end{bmatrix}$

9) $\begin{bmatrix} -3 & 0 \\ -1 & 5 \end{bmatrix} \cdot \begin{bmatrix} -6 & -5 & 6 \\ 5 & 0 & -4 \end{bmatrix}$

10) $\begin{bmatrix} 2 & -1 \\ 4 & -6 \end{bmatrix} \cdot \begin{bmatrix} 4 & -6 & 1 & 0 \\ 4 & 0 & 5 & -6 \end{bmatrix}$

Find the values of D , D_x , and D_y . Use Cramer's Rule to solve each system of equations.

$$\begin{aligned} 11) \quad & 4x - 6y = 26 \\ & -2x - 5y = -5 \end{aligned}$$

$$\begin{aligned} 12) \quad & -2x + 2y = -8 \\ & -5x + y = -3 \end{aligned}$$

$$\begin{aligned} 13) \quad & -4x - 2y = -19 \\ & 4x - 6y = -1 \end{aligned}$$

$$\begin{aligned} 14) \quad & -2x - 6y = 16 \\ & 5x + y = -5 \end{aligned}$$

$$\begin{aligned} 15) \quad & 3x - 4y = 6 \\ & 8x + 6y = -16 \end{aligned}$$

$$\begin{aligned} 16) \quad & x + y = 7 \\ & 9x - 11y = -33 \end{aligned}$$