1 Section 3.4

1.1 3.4.1

Find $2A + 3B$

$$A = \begin{bmatrix} 5 & 5 \\ 4 & 3 \end{bmatrix} \quad B = \begin{bmatrix} -6 & 8 \\ 1 & -1 \end{bmatrix}$$

$$2A + 3B = \begin{bmatrix} -8 & 34 \\ 11 & 3 \end{bmatrix}$$

$$\boxed{2A + 3B = \begin{bmatrix} -8 & 34 \\ 11 & 3 \end{bmatrix}}$$

1.2 3.4.2

Two matrices A and B and two numbers c and d are given. Compute the matrix $cA + dB$.

$$A = \begin{bmatrix} 2 & 0 & -2 \\ -1 & 6 & 6 \end{bmatrix}, B = \begin{bmatrix} -2 & 2 & 3 \\ 5 & 2 & 5 \end{bmatrix}, c = 6, d = -4$$

$$cA + dB = \begin{bmatrix} 12 & 0 & -12 \\ -6 & 36 & 36 \end{bmatrix} + \begin{bmatrix} 8 & -8 & -12 \\ -20 & -8 & -20 \end{bmatrix}$$

$$cA + dB = \begin{bmatrix} 20 & -8 & -24 \\ -26 & 28 & 16 \end{bmatrix}$$

$$\boxed{cA + dB = \begin{bmatrix} 20 & -8 & -24 \\ -26 & 28 & 16 \end{bmatrix}}$$