

Solve each equation.

$$7) [5 \ -2] + C = [0 \ -8]$$

$$- [5 \ -2] - [5 \ -2]$$

$$C = [-5 \ -6]$$

$$8) 5C = \begin{bmatrix} 30 \\ 0 \\ -35 \end{bmatrix}$$

Divide by 5:

$$C = \begin{bmatrix} 6 \\ 0 \\ -7 \end{bmatrix}$$

$$9) [4 \ 11] + 5B = [-31 \ -4]$$

$$- [4 \ 11] - [4 \ 11]$$

$$5B = [-35 \ -15]$$

Divide by 5:

$$B = [-7 \ -3]$$

$$10) 2X + [-4 \ 6 \ 3] = [18 \ 24 \ 11]$$

$$- [-4 \ 6 \ 3] - [-4 \ 6 \ 3]$$

$$2X = [22 \ 18 \ 8]$$

Divide both sides by 2:

$$X = [11 \ 9 \ 4]$$

$$11) \begin{matrix} A \\ \begin{bmatrix} -2 & 1 \\ -1 & 1 \end{bmatrix} \end{matrix} X = \begin{matrix} B \\ \begin{bmatrix} -8 & 7 \\ -9 & -1 \end{bmatrix} \end{matrix}$$

$$A^{-1} \cdot A X = A^{-1} \cdot B$$

$$X = A^{-1} \cdot B$$

$$X = \begin{bmatrix} -1 & -8 \\ -10 & -9 \end{bmatrix}$$

$$12) \begin{matrix} B \\ \begin{bmatrix} -8 & 10 \\ -1 & 0 \end{bmatrix} \end{matrix} A = \begin{matrix} C \\ \begin{bmatrix} 34 \\ -7 \end{bmatrix} \end{matrix}$$

$$B^{-1} \cdot B A = B^{-1} \cdot C$$

$$A = B^{-1} \cdot C$$

$$A = \begin{bmatrix} 7 \\ 9 \end{bmatrix}$$