

### Pre-Cal CW 7.4-7.6 Matrices

Find each of the following, if possible. Box final answers.

$$\text{Given: } A = \begin{bmatrix} 5 & -4 & 1 \\ -7 & 3 & 9 \\ -2 & 0 & 11 \end{bmatrix}; \quad B = \begin{bmatrix} -2 & 4 & -3 \\ -6 & -1 & 10 \\ -5 & 9 & 13 \end{bmatrix}$$

1.  $3A =$

2.  $A+B =$

3.  $3B - 2A =$

4.  $2X+B=A$ , what is X equal to?

$$\text{Given: } A = \begin{bmatrix} 3 & -2 & 4 & -1 \\ -6 & 3 & 5 & 8 \end{bmatrix}; \quad B = \begin{bmatrix} -2 & 4 \\ -3 & 9 \end{bmatrix}$$

Find each of the following, if possible.

5.  $AB$

6.  $BA$

7. The determinant of matrix B

8.  $B^{-1}$

9. Are the following inverses of one another? Show work to justify your answer.

$$A = \begin{bmatrix} -5 & 3 \\ -3 & 2 \end{bmatrix}$$

$$B = \begin{bmatrix} -2 & 3 \\ -3 & 5 \end{bmatrix}$$