ALGEBRA II
Chapter 3 section 6
Multiply Matrices
pg. 195

FOCUS:
How do you find each element in the product of two matrices?

WARM – UP:

$$A = \begin{bmatrix} 2 & -1 \\ 5 & 3 \end{bmatrix} \qquad B = \begin{bmatrix} -4 & 6 \\ 0 & 9 \end{bmatrix} \qquad C = \begin{bmatrix} 1 & -8 \\ 3 & 5 \\ -6 & 0 \end{bmatrix}$$

1. Find A + B_____ 2. Find -3C_____

NOTES:

State whether the product AB is defined. If so, give the dimensions of AB.

A: 3 x 5 B: 5 x 2 _____ A: 3 x 4 B: 3 x 2 _____

Find AB.

$A = \begin{bmatrix} 2 & -3 \\ 1 & 5 \end{bmatrix}$ $B = \begin{bmatrix} 1 & -4 \\ 3 & -2 \end{bmatrix}$ $A = \begin{bmatrix} -3 & 3 \\ 1 & -2 \end{bmatrix}$ $B = \begin{bmatrix} 1 & 5 \\ -3 & -2 \end{bmatrix}$

Using the given matrices, evaluate the expression.

$$A = \begin{bmatrix} 3 & -2 \\ 0 & 4 \\ -1 & 5 \end{bmatrix} \qquad B = \begin{bmatrix} 2 & -3 \\ 1 & 0 \end{bmatrix} \qquad C = \begin{bmatrix} 2 & 1 \\ -4 & -2 \end{bmatrix}$$

A(B - C)

AB - AC

The following matrix represents the inventory of a chain of entertainment stores.

$$\begin{bmatrix} 2800 & 550 & 200 & 150 \\ 2600 & 800 & 150 & 120 \\ 1850 & 650 & 190 & 100 \end{bmatrix}$$

If CDs cost \$15, DVDs cost \$20, VHSs cost \$18, and Games cost \$30, the cost of each item is represented by the matrix.

$$\begin{bmatrix} 15 \\ 20 \\ 18 \\ 30 \end{bmatrix}$$

Find the total value of the inventory for each store.

Let's see if you comprehended what we worked on in class…

Try _____ for homework