# DAY 25 WARM UP

## MATRIX MULTIPLICATION

1. Let $A = \begin{bmatrix} -7 & 2 \\ 5 & -6 \end{bmatrix}$ and $B = \begin{bmatrix} 8 & 4 \\ -9 & -1 \end{bmatrix}$. Find $A + 3B$.

If you can do this next problem, then you can definitely do today's lesson on Matrix Multiplication

2. Let matrix A= $\begin{bmatrix} 10 & 9 \\ 4 & 11 \\ 0 & 2 \end{bmatrix}$ and matrix B = $\begin{bmatrix} 2 & 5 & 3 \\ 6 & -2 & -5 \end{bmatrix}$

Find each value:

$A_{3x2}$ = _____ (that is, what number is in the third row, second column of matrix A?)

$B_{2x1}$= _____

$(A_{1x2})(B_{2x1})$ = _____

Now let's bring the noise.

$(A_{3x1})(B_{1x3}) + (A_{3x2})(B_{2x3})$ = _____

3. Find all the variables: $\begin{bmatrix} 4x+7 & \frac{5y}{3} & \sqrt{w} \\ a^2-9 & b+c & b-c \end{bmatrix} = \begin{bmatrix} 63 & 25 & 10 \\ 7 & 32 & 8 \end{bmatrix}$

Homework

Student Name: _____ Score:

## Multiplication of matrices

Find the product of the following matrices:

Let $A = \begin{bmatrix} 9 & 2 & -1 \\ 3 & 4 & 1 \\ 7 & 7 & -8 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 2 & 5 \\ -12 & 1 & 4 \\ 6 & 2 & 9 \end{bmatrix}$. Find $AB$.

Let $A = \begin{bmatrix} 1 & 6 & 5 \\ 4 & 2 & 1 \\ 8 & 2 & 5 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 1 & 2 \\ 8 & 4 & 1 \\ 3 & 3 & -2 \end{bmatrix}$. Find $AB$.

Let $A = \begin{bmatrix} 2 & 7 \\ -5 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 6 & 3 \\ 4 & -9 \end{bmatrix}$. Find $AB$.

Let $A = \begin{bmatrix} -1 & 3 & 5 \\ 8 & 2 & 3 \\ 6 & 4 & -2 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 4 & 5 \\ 6 & 2 & 1 \\ -8 & 5 & 2 \end{bmatrix}$. Find $AB$.