**Multiplying Matrices**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour\_\_\_\_\_\_\_\_\_

**Examples:**

1. 

2. How many times did you add that matrix to itself? \_\_\_\_\_\_

3. Rewrite problem #1 as a *multiplication problem.*

4. Write the matrix $\frac{9}{10}$[S] and find the answer, where [S] = $\left[\begin{matrix}10&2&3\\1&4&9\end{matrix}\right]$

5.

6.

7. $\frac{1}{4}\left[\begin{matrix}4&16&8\\24&4&12\end{matrix}\right]+\frac{1}{3}\left[\begin{matrix}12&3&9\\9&6&15\end{matrix}\right]$

Multiply:

8.



10.

![3[2 \quad 3 \quad 4]\begin{bmatrix} 5\\ -6\\ 7 \end{bmatrix}]()

12.

![[3 \quad 6 \quad 7]\begin{bmatrix} x\\ y\\ z \end{bmatrix}]()

Solve for :

14.

![2[7 \quad x \quad 3]\begin{bmatrix} x\\ x\\ 5 \end{bmatrix}=[6]]()

9.

$3\left[\left.\begin{array}{c}1 2 3\\4 5 6\end{array}\right]\right.$

11.

$4 \left[\left.2 2 2 2\right]\right. \left[\left.\begin{array}{c}2\\4\\-1\end{array}\right]\right.$

13.

$\left[\left.3 -1 2 6\right]\right. \left[\left.\begin{array}{c}a\\b\\c\\d\end{array}\right]\right.$

15.

 $x\left[\left.2 3 4\right]\right. \left[\left.\begin{array}{c}x\\y\\z\end{array}\right]\right.$