Name_____

Date_____

Advanced Algebra

Unit 6: Advanced Systems "Undoing" a Matrix

Unit 6 Assignment #10

Matrix Multiplication and solving systems of equations with elimination

Learning Target: I can "undo" a matrix using matrix multiplication and then solving systems of equations using elimination. **Show the systems of 2 equations and 2 unknowns and the work to solve!**

1) $\begin{bmatrix}3 & 2\\ 1 & 5\end{bmatrix}*\begin{bmatrix}a & b\\ c & d\end{bmatrix}=\begin{bmatrix}7 & 18\\ 21 & 32\end{bmatrix}$

a=_____ b=_____

c=_____ d=_____

2) $\begin{bmatrix}2 & 6\\ 1 & 4\end{bmatrix}*\begin{bmatrix}a & b\\ c & d\end{bmatrix}=\begin{bmatrix}18 & 28\\ 12 & 18\end{bmatrix}$

a=_____ b=_____

c=_____ d=_____

3) $\begin{bmatrix}6 & 2\\ 1 & 3\end{bmatrix}*\begin{bmatrix}a & b\\ c & d\end{bmatrix}=\begin{bmatrix}-18 & 32\\ -11 & 10\end{bmatrix}$

a=_____ b=_____

c=_____ d=_____

4) $\begin{bmatrix}2 & 6\\ 4 & 1\end{bmatrix}*\begin{bmatrix}a & b\\ c & d\end{bmatrix}=\begin{bmatrix}22 & 16\\ 22 & 21\end{bmatrix}$

a=_____ b=_____

c=_____ d=_____