

Name _____

Date _____

Advanced Algebra

Unit 6: Advanced Systems of Equations Assignment#8

Given the Matrix $\begin{bmatrix} a & b \\ c & d \end{bmatrix}$, use the formula $\frac{1}{ad-bc} \begin{bmatrix} d & -b \\ -c & a \end{bmatrix}$ to find the Inverse

Find the Inverse of the following:

1) $\begin{bmatrix} 3 & 2 \\ 1 & 5 \end{bmatrix}$

2) $\begin{bmatrix} 6 & -2 \\ 1 & 4 \end{bmatrix}$

3) $\begin{bmatrix} 1 & -1 \\ 2 & 1 \end{bmatrix}$

Translate the following into Matricies and solve using only Matricies

1) $\begin{cases} x + y = 5 \\ 2x + y = 8 \end{cases}$

2) $\begin{cases} x + y = 9 \\ x + 2y = 14 \end{cases}$

3) $\begin{cases} x + y = 2 \\ -x + y = 6 \end{cases}$