Name: _____

Applying Matrices to Linear Systems

Exercise 1: Find the additive inverse of the following matrix.

1) $\begin{pmatrix} 2 & 3 \\ -6 & 5 \end{pmatrix}$

2) $\begin{pmatrix} 1 & -9 \\ 2 & 4 \end{pmatrix}$

3) $\begin{pmatrix} 4 & -7 \\ 3 & 5 \end{pmatrix}$

4) $\begin{pmatrix} -4 & 8 \\ 9 & 1 \end{pmatrix}$

5) $\begin{pmatrix} 2 & 3 \\ -6 & 5 \end{pmatrix}$

6) $\begin{pmatrix} 1 & 7 \\ 2 & 6 \end{pmatrix}$

Exercise 2: Find the inverse matrices to verify the following results:

1) $\begin{bmatrix} \frac{-1}{6} & \frac{1}{5} \\ \frac{1}{3} & \frac{-1}{7} \end{bmatrix}^{-1} = \frac{1}{9}\begin{bmatrix} 30 & 42 \\ 70 & 35 \end{bmatrix}$

2) $\begin{bmatrix} 12 & 5 \\ 7 & -2 \end{bmatrix}^{-1} = \frac{1}{59}\begin{bmatrix} 2 & 5 \\ 7 & -12 \end{bmatrix}$

1)