Name : _____ Score : _____

Teacher : _____ Date : _____

Matrix Equations with Inverses

Solve for the given variable. Inverses are required.

1) $\begin{bmatrix} -3 & 1 \\ -5 & -6 \end{bmatrix} Q = \begin{bmatrix} 6 & 3 \\ 4 & -2 \end{bmatrix}$

2) $\begin{bmatrix} -6 & 7 \\ -3 & 3 \end{bmatrix} Z = \begin{bmatrix} 6 \\ -4 \end{bmatrix}$

3) $\begin{bmatrix} 2 & -6 \\ -1 & 5 \end{bmatrix} X = \begin{bmatrix} -7 & -2 \\ 4 & 1 \end{bmatrix}$

4) $\begin{bmatrix} 1 & -6 \\ 3 & -4 \end{bmatrix} C = \begin{bmatrix} -1 \\ -7 \end{bmatrix}$

5) $\begin{bmatrix} -3 & 5 \\ -5 & -7 \end{bmatrix} N = \begin{bmatrix} -1 & 2 \\ 3 & -6 \end{bmatrix}$

6) $\begin{bmatrix} 6 & -7 \\ -2 & -1 \end{bmatrix} K = \begin{bmatrix} -3 \\ 1 \end{bmatrix}$

Name : _____ Score : _____

Teacher : _____ Date : _____

Matrix Equations with Inverses

Solve for the given variable. Inverses are required.

1) $\begin{bmatrix} -3 & 1 \\ -5 & -6 \end{bmatrix} Q = \begin{bmatrix} 6 & 3 \\ 4 & -2 \end{bmatrix}$

$\begin{bmatrix} \frac{-40}{23} & \frac{-16}{23} \\ \frac{18}{23} & \frac{21}{23} \end{bmatrix}$

2) $\begin{bmatrix} -6 & 7 \\ -3 & 3 \end{bmatrix} Z = \begin{bmatrix} 6 \\ -4 \end{bmatrix}$

$\begin{bmatrix} \frac{46}{3} \\ 14 \end{bmatrix}$

3) $\begin{bmatrix} 2 & -6 \\ -1 & 5 \end{bmatrix} X = \begin{bmatrix} -7 & -2 \\ 4 & 1 \end{bmatrix}$

$\begin{bmatrix} \frac{-11}{4} & -1 \\ \frac{1}{4} & 0 \end{bmatrix}$

4) $\begin{bmatrix} 1 & -6 \\ 3 & -4 \end{bmatrix} C = \begin{bmatrix} -1 \\ -7 \end{bmatrix}$

$\begin{bmatrix} \frac{-19}{7} \\ \frac{-2}{7} \end{bmatrix}$

5) $\begin{bmatrix} -3 & 5 \\ -5 & -7 \end{bmatrix} N = \begin{bmatrix} -1 & 2 \\ 3 & -6 \end{bmatrix}$

$\begin{bmatrix} \frac{-4}{23} & \frac{8}{23} \\ \frac{-7}{23} & \frac{14}{23} \end{bmatrix}$

6) $\begin{bmatrix} 6 & -7 \\ -2 & -1 \end{bmatrix} K = \begin{bmatrix} -3 \\ 1 \end{bmatrix}$

$\begin{bmatrix} \frac{-1}{2} \\ 0 \end{bmatrix}$