

Name: _____ Sort #: _____

Worksheet 6

Matrix Operations & Inverses

MATH 2250, Fall 2018

1. Let

$$A = \begin{bmatrix} 2 & -3 \\ -4 & 6 \end{bmatrix} \quad \text{and} \quad B = \begin{bmatrix} 8 & 4 \\ 5 & 5 \end{bmatrix} \quad \text{and} \quad C = \begin{bmatrix} 5 & -2 \\ 3 & 1 \end{bmatrix}$$

Verify that $AB = AC$ but $B \neq C$.

2. Find the inverse of $A = \begin{bmatrix} 1 & 2 \\ 4 & 7 \end{bmatrix}$ by hand. Verify the result by calculating AA^{-1} and $A^{-1}A$.

3. Find the inverse of $A = \begin{bmatrix} 1 & 0 & 2 \\ -3 & 1 & 4 \\ 2 & -3 & 4 \end{bmatrix}$ by hand. Verify the result with your calculator.