

Name: \_\_\_\_\_

Score: \_\_\_\_\_

**Directions:** Please answer in the space provided. No calculators. Please put all phones, etc., away.

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1. Suppose  $A$ ,  $B$  and  $X$  are invertible matrices, and  $AX^{-1} = B$ . Express  $X$  in terms of  $A$  and  $B$ .

2. Find the inverse of the matrix  $A = \begin{bmatrix} 0 & 1 & 0 \\ 1 & 1 & 1 \\ 0 & 0 & 2 \end{bmatrix}$ , if it exists, or verify that it does not exist.