

Drill Quiz for Chapter 10 Section 4

1. Suppose A and B are $n \times n$ matrices. What does it mean for A and B to be inverses of each other?
2. Determine whether or not the given matrices are inverses of each other. Explain your answer.

a. $A = \begin{bmatrix} 2 & 3 \\ 1 & 1 \end{bmatrix}$ $B = \begin{bmatrix} -1 & 3 \\ 1 & -2 \end{bmatrix}$

b. $A = \begin{bmatrix} -1 & 0 & 3 \\ 0 & 0 & 2 \\ 4 & 1 & 4 \end{bmatrix}$ $B = \begin{bmatrix} 2 & 0 & 6 \\ -10 & 0 & 3 \\ 0 & 0 & 2 \end{bmatrix}$

3. On the back of the quiz, find the inverse of the matrix A . Write your answer here, and check that it is correct by multiplying it by the given matrix.

$$A = \begin{bmatrix} -1 & -1 & -1 \\ 4 & 5 & 0 \\ 0 & 1 & -3 \end{bmatrix} \quad A^{-1} =$$