Identity Matrix under Multiplication (p. 72): 

Examples:

Inverse of a Second-Order ( ) Matrix (p. 73):

Important Note: 

Example: Find the multiplicative inverse of the matrix \[
\begin{pmatrix}
3 & -1 \\
4 & 2 \\
\end{pmatrix}
\]
Determinants and Multiplicative Inverses of Matrices
Section 2-3b
You can solve systems of equations by using matrix equations.

Example: Solve the system of equations by using matrix equations.

\[
\begin{align*}
4x + 8y &= 7 \\
2x - 3y &= 0
\end{align*}
\]

1. Write the system as a matrix equation.

2. Find the inverse of the coefficient matrix.

3. Multiply both sides of the matrix equation by the inverse and solve.