PRACTICE Quiz 9.3-9.4 Matrix Determinates, Inverses and Equations

Period

Evaluate the determinant of each matrix.

$$1) \begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$$

$$2) \begin{bmatrix} -45 & -24 \\ -22 & -16 \end{bmatrix}$$

Find the inverse of each matrix. Give answers as fractions for credit.

$$3) \begin{bmatrix} -2 & -3 \\ -3 & -5 \end{bmatrix}$$

$$4)\begin{bmatrix} 4 & -7 \\ 7 & -8 \end{bmatrix}$$

Solve each equation.

$$5) Y + \begin{bmatrix} 1 & 5 \\ 5 & 6 \end{bmatrix} = \begin{bmatrix} -3 & 12 \\ 3 & 8 \end{bmatrix}$$

$$6) \begin{bmatrix} -10 & 7 \end{bmatrix} - 3B = \begin{bmatrix} 20 & 25 \end{bmatrix}$$

$$7) \begin{bmatrix} -4 & 5 \\ -4 & 6 \end{bmatrix} C = \begin{bmatrix} 21 & 12 \\ 26 & 16 \end{bmatrix}$$

8)
$$\begin{bmatrix} -8 & 7 \\ 2 & 6 \end{bmatrix} + \begin{bmatrix} -3 & -4 \\ -3 & -5 \end{bmatrix} X = \begin{bmatrix} 7 & 3 \\ 17 & 1 \end{bmatrix}$$

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Period

Evaluate the determinant of each matrix.

$$1)\begin{bmatrix}2 & 5\\1 & 3\end{bmatrix}$$

$$2) \begin{bmatrix} -45 & -24 \\ -22 & -16 \end{bmatrix}$$

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Find the inverse of each matrix. Give answers as fractions for credit.

$$\begin{bmatrix}
-2 & -3 \\
-3 & -5
\end{bmatrix}$$

$$\begin{bmatrix} -5 & 3 \\ 3 & -2 \end{bmatrix}$$

$$4) \begin{bmatrix} 4 & -7 \\ 7 & -8 \end{bmatrix}$$

$$\begin{bmatrix} -\frac{8}{17} & \frac{7}{17} \\ -\frac{7}{17} & \frac{4}{17} \end{bmatrix}$$

Solve each equation.

$$5) Y + \begin{bmatrix} 1 & 5 \\ 5 & 6 \end{bmatrix} = \begin{bmatrix} -3 & 12 \\ 3 & 8 \end{bmatrix}$$

$$\begin{bmatrix} -4 & 7 \\ -2 & 2 \end{bmatrix}$$

$$6) \begin{bmatrix} -10 & 7 \end{bmatrix} - 3B = \begin{bmatrix} 20 & 25 \end{bmatrix}$$

$$\begin{bmatrix} -10 & -6 \end{bmatrix}$$

$$7) \begin{bmatrix} -4 & 5 \\ -4 & 6 \end{bmatrix} C = \begin{bmatrix} 21 & 12 \\ 26 & 16 \end{bmatrix}$$

$$\begin{bmatrix} 1 & 2 \\ 5 & 4 \end{bmatrix}$$

$$8) \begin{bmatrix} -8 & 7 \\ 2 & 6 \end{bmatrix} + \begin{bmatrix} -3 & -4 \\ -3 & -5 \end{bmatrix} X = \begin{bmatrix} 7 & 3 \\ 17 & 1 \end{bmatrix}$$

$$\begin{bmatrix} -5 & 0 \\ 0 & 1 \end{bmatrix}$$