Name _____ Date _____

Year Group _____

Can we find the inverse of the following matrices?

$A = \begin{bmatrix} 4 & 7 \\ 4 & 8 \end{bmatrix}$ $B = \begin{bmatrix} -4 & 2 \\ 6 & -3 \end{bmatrix}$ $C = \begin{bmatrix} 2 & 4 \\ 2 & 4 \end{bmatrix}$ $D = \begin{bmatrix} -4 & 4 \\ 6 & -3 \end{bmatrix}$

1. Does matrix A have an inverse? Answer = _____
2. Does matrix B have an inverse? Answer = _____
3. Does matrix C have an inverse? Answer = _____
4. Does matrix D have an inverse? Answer = _____

Using the matrix $E = \begin{bmatrix} 2 & 1 \\ 5 & 3 \end{bmatrix}$

5. What is the augmented matrix of E?

Answer = $\left[\begin{array}{cc|cc} _ & _ & _ & _ \\ _ & _ & _ & _ \end{array}\right]$

6. What is the inverse of matrix E?

Answer = $\begin{bmatrix} _ & _ \\ _ & _ \end{bmatrix}$

Using the matrix $F = \begin{bmatrix} -4 & 6 \\ -5 & 10 \end{bmatrix}$. If there is not any inverse, write none on the line. Write in fractions.

7. What is the inverse of matrix F?

Answer = $\begin{bmatrix} _ & _ \\ _ & _ \end{bmatrix}$ Answer = ___

Using the matrix $G = \begin{bmatrix} 1 & 3 \\ -4 & -12 \end{bmatrix}$. If there is not any inverse, write none on the line.

8. What is the inverse of matrix G?

Answer = $\begin{bmatrix} _ & _ \\ _ & _ \end{bmatrix}$ Answer = ___

LIVEWORKSHEETS