

Name \_\_\_\_\_

Date \_\_\_\_\_

**Null, Identity, and Inverse Matrices - Matching Worksheet**

Write the letter of the answer that matches the problem.

\_\_\_\_\_ 1. Write a null matrix of order  
 $2 \times 2$

a. 
$$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

\_\_\_\_\_ 2. Write a null matrix of order  
 $3 \times 5$

b. 
$$\Delta = -38 \neq 0$$

(an inverse exists)

\_\_\_\_\_ 3. Check whether an inverse exists for the following matrix

$$\begin{bmatrix} 3 & 8 \\ 5 & -7 \end{bmatrix}$$

c. 
$$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

\_\_\_\_\_ 4. Check whether an inverse exists for the following matrix

$$\begin{bmatrix} 9 & 4 \\ 5 & -2 \end{bmatrix}$$

d. 
$$\begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$$

\_\_\_\_\_ 5. Write an identity matrix of order 4.

e. 
$$\Delta = -61 \neq 0$$

(an inverse exists)

