

# Matrices

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find whether inverse does exist for the given matrices:**

1) 
$$\begin{bmatrix} 12 & 4 \\ 6 & 2 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

2) 
$$\begin{bmatrix} -3 & -5 \\ 7 & 13 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

3) 
$$\begin{bmatrix} 10 & -6 \\ 1 & 4 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

4) 
$$\begin{bmatrix} 15 & 10 \\ 9 & 6 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

5) 
$$\begin{bmatrix} 6 & 4 \\ 4 & 2 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

6) 
$$\begin{bmatrix} 11 & -3 \\ 6 & 3 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

7) 
$$\begin{bmatrix} 8 & 4 \\ 12 & 6 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

8) 
$$\begin{bmatrix} 5 & -2 \\ -10 & 4 \end{bmatrix}$$

$\Delta =$  \_\_\_\_\_

Conclusion: \_\_\_\_\_

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Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Find whether inverse does exist for the given matrices:**

1) 
$$\begin{bmatrix} 12 & 4 \\ 6 & 2 \end{bmatrix}$$

$\Delta = 0$  \_\_\_\_\_

Conclusion: Inverse Does Not Exist

2) 
$$\begin{bmatrix} -3 & -5 \\ 7 & 13 \end{bmatrix}$$

$\Delta = -4 \neq 0$  \_\_\_\_\_

Conclusion: Inverse Exist

3) 
$$\begin{bmatrix} 10 & -6 \\ 1 & 4 \end{bmatrix}$$

$\Delta = 46 \neq 0$  \_\_\_\_\_

Conclusion: Inverse Exist

4) 
$$\begin{bmatrix} 15 & 10 \\ 9 & 6 \end{bmatrix}$$

$\Delta = 0$  \_\_\_\_\_

Conclusion: Inverse Does Not Exist

5) 
$$\begin{bmatrix} 6 & 4 \\ 4 & 2 \end{bmatrix}$$

$\Delta = -4 \neq 0$  \_\_\_\_\_

Conclusion: Inverse Exist

6) 
$$\begin{bmatrix} 11 & -3 \\ 6 & 3 \end{bmatrix}$$

$\Delta = 51 \neq 0$  \_\_\_\_\_

Conclusion: Inverse Exist

7) 
$$\begin{bmatrix} 8 & 4 \\ 12 & 6 \end{bmatrix}$$

$\Delta = 0$  \_\_\_\_\_

Conclusion: Inverse Does Not Exist

8) 
$$\begin{bmatrix} 5 & -2 \\ -10 & 4 \end{bmatrix}$$

$\Delta = 0$  \_\_\_\_\_

Conclusion: Inverse Does Not Exist