Student Name: _____ Score:

Inverse matrix

ES2

Check whether inverse exists for the following matrices:

$\begin{bmatrix} 3 & -6 \\ 7 & -2 \end{bmatrix}$

$\Delta =$ ☐

Conclusion: _____

$\begin{bmatrix} 5 & 8 \\ 3 & 2 \end{bmatrix}$

$\Delta =$ ☐

Conclusion: _____

$\begin{bmatrix} 12 & 4 \\ 9 & 3 \end{bmatrix}$

$\Delta =$ ☐

Conclusion: _____

$\begin{bmatrix} -8 & 4 \\ 4 & 3 \end{bmatrix}$

$\Delta =$ ☐

Conclusion: _____

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

$\Delta =$ ☐

Conclusion: _____

$\begin{bmatrix} 0 & 0 \\ -2 & 8 \end{bmatrix}$

$\Delta =$ ☐

Conclusion: _____

Student Name: _____ Score:

Answer Key

Inverse matrix

ES2

$\begin{bmatrix} 3 & -6 \\ 7 & -2 \end{bmatrix}$

$\Delta = 36 \neq 0$

Conclusion: Inverse exists

$\begin{bmatrix} 5 & 8 \\ 3 & 2 \end{bmatrix}$

$\Delta = -14 \neq 0$

Conclusion: Inverse exists

$\begin{bmatrix} 12 & 4 \\ 9 & 3 \end{bmatrix}$

$\Delta = 0$

Conclusion: Invers exists

$\begin{bmatrix} -8 & 4 \\ 4 & 3 \end{bmatrix}$

$\Delta = -40 \neq 0$

Conclusion: Invers does not exist

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

$\Delta = 6 \neq 0$

Conclusion: Inverse exists

$\begin{bmatrix} -2 & 8 \end{bmatrix}$

$\Delta = 0$

Conclusion: Inverse does not exist