

Topic 4.4
Matrices and Determinants
Homework

Name: _____

Date: _____

Find the determinant, if one exists.

1. $\begin{bmatrix} 3 & 5 \\ 7 & 9 \end{bmatrix}$

2. $\begin{bmatrix} 4 \\ 7 \\ 12 \end{bmatrix}$

3. $\begin{bmatrix} -1 & -3 \\ 4 & 7 \\ -6 & 2 \end{bmatrix}$

4. $[5 \ 8 \ -4]$

Evaluate each determinant by the expansion by minors method.

5. $\begin{bmatrix} 4 & 3 & 5 \\ 8 & 1 & 7 \\ 6 & 2 & 4 \end{bmatrix}$

6. $\begin{bmatrix} 3 & 7 & 0 \\ 4 & 0 & 1 \\ 0 & 5 & 2 \end{bmatrix}$

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

Evaluate each determinant using diagonals.

8. $\begin{bmatrix} 3 & 2 & 6 \\ 1 & 0 & 4 \\ 5 & 4 & 7 \end{bmatrix}$

9. $\begin{bmatrix} 4 & 0 & 3 \\ 1 & 2 & 5 \\ 6 & 2 & 4 \end{bmatrix}$

10. $\begin{bmatrix} -1 & 1 & -1 \\ 1 & -1 & 1 \\ -1 & 1 & -1 \end{bmatrix}$