

Math Sheet

Name _____ Score _____ / 12 Teacher _____ Date _____

Matrix Determinants 3×3

Find each determinant. Use the given variable value when provided. Show your work.

1. $\det(A)$

$$A = \begin{bmatrix} 5 & 5 & -6 \\ -5 & -5 & 5 \\ 5 & 0 & -4 \end{bmatrix}$$

2. $\det(A)$

$$A = \begin{bmatrix} -6 & 3 & 6 \\ -3 & 5 & -5 \\ -3 & -5 & -2 \end{bmatrix}$$

3. $\det(A)$

$$A = \begin{bmatrix} 0 & 2 & 1 \\ -2 & 6 & 1 \\ 1 & 2 & -6 \end{bmatrix}$$

4. $\det(A)$

$$A = \begin{bmatrix} -3 & 3 & 3 \\ -6 & 6 & 0 \\ -2 & 4 & -1 \end{bmatrix}$$

5. $\det(A)$

$$A = \begin{bmatrix} -4 & 3 & 2 \\ 6 & -1 & -2 \\ -3 & 1 & -4 \end{bmatrix}$$

6. $\det(A)$

$$A = \begin{bmatrix} 0 & 4 & 0 \\ 6 & -5 & 3 \\ -2 & 2 & -4 \end{bmatrix}$$

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7. D

$$D = \begin{vmatrix} 4 & -5 & 0 \\ -1 & -2 & 2 \\ -4 & 5 & 0 \end{vmatrix}$$

8. D

$$D = \begin{vmatrix} 1 & -4 & 3 \\ 0 & 2 & -6 \\ 2 & 6 & -5 \end{vmatrix}$$

9. D

$$D = \begin{vmatrix} 2 & 4 & -2 \\ 0 & 3 & 2 \\ 4 & -1 & 3 \end{vmatrix}$$

10. D

$$D = \begin{vmatrix} -5 & -4 & 1 \\ -5 & 3 & -5 \\ -1 & 6 & -1 \end{vmatrix}$$

11. D

$$D = \begin{vmatrix} -2 & -1 & 6 \\ -5 & -4 & 1 \\ -3 & 2 & -3 \end{vmatrix}$$

12. D

$$D = \begin{vmatrix} -1 & 2 & -3 \\ 0 & -5 & -5 \\ 2 & 0 & -6 \end{vmatrix}$$
