

CHAPTER 4 Quiz
4 Lessons 4-4 Through 4-6

Select the best answer.

1. Find the determinant of $\begin{bmatrix} -6 & -6 \\ 5 & 4 \end{bmatrix}$.

- A** -54 **C** 6
B -6

2. Find the determinant of $\begin{bmatrix} 1 & -1 & 1 \\ -1 & 1 & -1 \\ 1 & -1 & 1 \end{bmatrix}$.

- F** -1 **H** 1
G 0

3. What are the solutions of the system

$$\begin{cases} a_1x + b_1y = c_1 \\ a_2x + b_2y = c_2 \end{cases} ?$$

A $x = \frac{\begin{vmatrix} a_1 & c_1 \\ a_2 & c_2 \end{vmatrix}}{\begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}}, y = \frac{\begin{vmatrix} c_1 & b_1 \\ c_2 & b_2 \end{vmatrix}}{\begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}}$

B $x = \frac{\begin{vmatrix} c_1 & b_1 \\ c_2 & b_2 \end{vmatrix}}{\begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}}, y = \frac{\begin{vmatrix} a_1 & c_1 \\ a_2 & c_2 \end{vmatrix}}{\begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}}$

C $x = \frac{\begin{vmatrix} c_1 & b_1 \\ c_2 & b_2 \end{vmatrix}}{\begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}}, y = -\frac{\begin{vmatrix} a_1 & c_1 \\ a_2 & c_2 \end{vmatrix}}{\begin{vmatrix} a_1 & b_1 \\ a_2 & b_2 \end{vmatrix}}$

4. Which matrix has an inverse?

F $\begin{bmatrix} -2 & -1 \\ -1 & -0.5 \end{bmatrix}$ **H** $\begin{bmatrix} -2 & 1 \\ -1 & 0.5 \end{bmatrix}$

G $\begin{bmatrix} -2 & -1 \\ -1 & 0.5 \end{bmatrix}$

5. Which matrix is the inverse of $\begin{bmatrix} -2 & -3 \\ 2 & 4 \end{bmatrix}$?

A $-\frac{1}{2}\begin{bmatrix} 4 & -3 \\ 2 & -2 \end{bmatrix}$ **C** $\begin{bmatrix} -2 & -1.5 \\ -1 & 1 \end{bmatrix}$

B $-\frac{1}{2}\begin{bmatrix} 4 & 2 \\ -3 & -2 \end{bmatrix}$

6. What is the augmented matrix for the

system $\begin{cases} 2y - 3x = 5 \\ -x - 8 = 3y \end{cases} ?$

F $\begin{bmatrix} -3 & 2 & 5 \\ -1 & -8 & 3 \end{bmatrix}$ **H** $\begin{bmatrix} 2 & -3 & 5 \\ 1 & 3 & -8 \end{bmatrix}$

G $\begin{bmatrix} -3 & 2 & 5 \\ 1 & 3 & -8 \end{bmatrix}$

7. What is $\begin{bmatrix} 9 & 3 & -18 \\ 1 & 2 & 8 \end{bmatrix}$ in reduced row-echelon form?

A $\begin{bmatrix} 0 & 0 & -4 \\ 0 & 0 & 6 \end{bmatrix}$ **C** $\begin{bmatrix} 9 & 0 & -36 \\ 0 & 1 & 6 \end{bmatrix}$

B $\begin{bmatrix} 1 & 0 & -4 \\ 0 & 1 & 6 \end{bmatrix}$

8. The chart below shows the first, second, and third place finishes of three competitors during a week-long track and field event. How many points are awarded for a first, second, and third place finish?

	First	Second	Third	Total
Adams	8	3	4	72
Bonito	6	6	5	75
Chang	5	7	6	76

F 6 for first, 4 for second, 3 for third

G 6 for first, 5 for second, 2 for third

H 7 for first, 3 for second, 2 for third

CHAPTER 4

Section Quiz Lessons 4-4 Through 4-6

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|------|------|
| 1. C | 5. C |
| 2. G | 6. G |
| 3. B | 7. B |
| 4. G | 8. F |