

CHAPTER 4 Quiz
4 Lessons 4-1 Through 4-3

Select the best answer.

1. The table shows the number of books two students read each month. Which matrix displays the data in the table?

Number of Books Read per Month				
Student	Jan.	Feb.	Mar.	Apr.
Fred	5	1	3	6
Terrie	3	8	2	8

- A** $\begin{bmatrix} 5 & 1 & 3 & 6 \\ 3 & 8 & 2 & 8 \end{bmatrix}$ **C** $\begin{bmatrix} 8 & 9 & 5 & 14 \\ 3 & 8 & 2 & 8 \end{bmatrix}$
B $\begin{bmatrix} 5 & 1 & 3 & 6 \\ 8 & 9 & 5 & 14 \end{bmatrix}$
2. If $A = \begin{bmatrix} 1 & -3 & -2 \\ 6 & 3 & 4 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & -4 & -3 \\ -9 & 5 & 2 \end{bmatrix}$, evaluate $A + 2B$.
- F** $\begin{bmatrix} 2 & -7 & -5 \\ -3 & 8 & 6 \end{bmatrix}$ **H** $\begin{bmatrix} 3 & -11 & -8 \\ -12 & 13 & 8 \end{bmatrix}$
G $\begin{bmatrix} 3 & -10 & -7 \\ 3 & 11 & 10 \end{bmatrix}$
3. If $C = \begin{bmatrix} -2 & 3 \\ 5 & -1 \\ 4 & 7 \end{bmatrix}$ and $D = \begin{bmatrix} 2 & -2 \\ -3 & 4 \\ 5 & -1 \end{bmatrix}$, evaluate $C - 3D$.
- A** $\begin{bmatrix} -8 & 9 \\ 14 & -13 \\ -11 & 10 \end{bmatrix}$ **C** $\begin{bmatrix} -4 & 5 \\ 8 & -5 \\ -1 & 8 \end{bmatrix}$
B $\begin{bmatrix} -6 & 7 \\ 11 & -9 \\ -6 & 9 \end{bmatrix}$
4. For $S_{2 \times 3}$ and $T_{4 \times 3}$, what are the dimensions of ST ?
- F** 3×3 **H** ST does not exist.
G 3×4

5. If $P = \begin{bmatrix} 2 & -1 & 3 \\ -1 & 3 & 0 \end{bmatrix}$ and $Q = \begin{bmatrix} -2 & 2 \\ -1 & -1 \\ 0 & 3 \end{bmatrix}$, evaluate PQ .

- A** $\begin{bmatrix} -4 & 6 \\ 0 & 0 \end{bmatrix}$ **C** $\begin{bmatrix} -6 & 8 & -6 \\ -1 & -2 & -3 \\ -3 & 9 & 0 \end{bmatrix}$
B $\begin{bmatrix} -3 & 14 \\ -1 & 5 \end{bmatrix}$

6. If $A = \begin{bmatrix} 3 & -2 \\ -1 & 2 \end{bmatrix}$, evaluate A^2 .

- F** $\begin{bmatrix} 9 & 4 \\ 1 & 4 \end{bmatrix}$ **H** $\begin{bmatrix} 11 & 5 \\ -3 & 4 \end{bmatrix}$
G $\begin{bmatrix} 11 & -10 \\ -5 & 6 \end{bmatrix}$

7. If $\triangle ABC$ is defined by the matrix

$P = \begin{bmatrix} -3 & 5 & 0 \\ 2 & -1 & 4 \end{bmatrix}$, what are the coordinates of $\triangle ABC$ after it has been reflected using the reflection matrix $\begin{bmatrix} 0 & -1 \\ -1 & 0 \end{bmatrix}$?

- A** $\begin{bmatrix} -3 & 5 & 0 \\ -2 & 1 & -4 \end{bmatrix}$ **C** $\begin{bmatrix} 2 & -1 & 4 \\ -3 & 5 & 0 \end{bmatrix}$
B $\begin{bmatrix} -2 & 1 & -4 \\ 3 & -5 & 0 \end{bmatrix}$

8. $\triangle ABC$ has vertices $A(5, 1)$, $B(1, -4)$, and $C(-2, 5)$. What are the coordinates of the image of $\triangle ABC$ after it has been rotated using the rotation matrix $\begin{bmatrix} 0 & 1 \\ -1 & 0 \end{bmatrix}$?

- F** $A'(-1, -5)$, $B'(4, -1)$, $C'(-5, 2)$
G $A'(-1, 5)$, $B'(4, 1)$, $C'(-5, -2)$
H $A'(1, -5)$, $B'(-4, -1)$, $C'(5, 2)$

CHAPTER 4

Section Quiz Lessons 4-1 Through 4-3

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|------|------|
| 1. A | 5. B |
| 2. H | 6. G |
| 3. A | 7. B |
| 4. H | 8. H |