

UNIT 37 *Further Transformations***CSEC Multiple Choice Questions**

For each of these questions, choose the option that is TRUE. (All questions from past *CXC* papers.)

1. The point $P(2, -3)$ is rotated about the origin through an angle of 90° in an anti-clockwise direction. What are the coordinates of the image P ?

(A) $(3, 2)$

(B) $(2, 3)$

(C) $(-3, 2)$

(D) $(3, -2)$
2. When rotated through 90° about the origin in a clockwise direction, the image of the point $(3, 1)$ is

(A) $(-1, 3)$

(B) $(3, -1)$

(C) $(1, -3)$

(D) $(-3, 1)$
3. The point $P(2, -3)$ is translated by a vector $\begin{pmatrix} -3 \\ 4 \end{pmatrix}$. The coordinates of the image of P are

(A) $(-1, 1)$

(B) $(1, 1)$

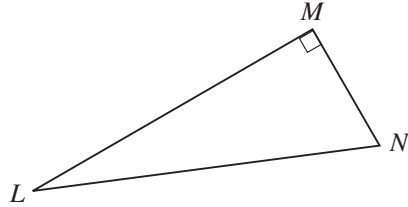
(C) $(5, 7)$

(D) $(6, -6)$

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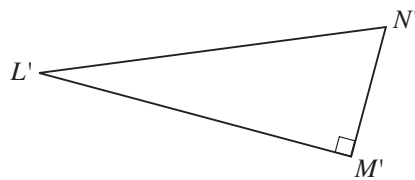
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4.

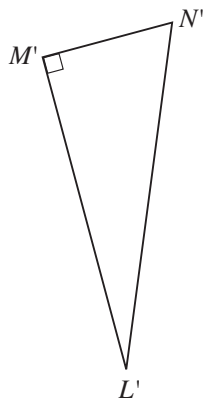


$\triangle LMN$, above, is rotated anti-clockwise about L through 90° . Which of the following is its likely image?

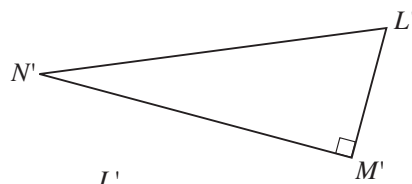
(A)



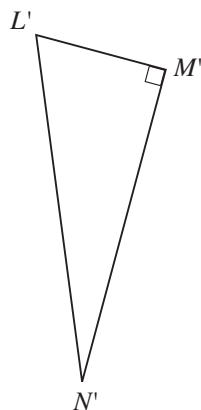
(B)



(C)



(D)



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5. The point Q (4, -5) has been translated from P (2, -3).

What is the translation as a vector?

(A) $\begin{pmatrix} -2 \\ 2 \end{pmatrix}$

(B) $\begin{pmatrix} 2 \\ 2 \end{pmatrix}$

(C) $\begin{pmatrix} -2 \\ -2 \end{pmatrix}$

(D) $\begin{pmatrix} 2 \\ -2 \end{pmatrix}$

6. The point Q (3, -1) has been translated from P by the vector $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$.

What are the coordinates of the point P?

(A) (1, -2)

(B) (1, 2)

(C) (-1, 2)

(D) (-1, -4)

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CSEC Multiple Choice Questions *ANSWERS*

1. A
2. C
3. A
4. B
5. D
6. C