

# QUIZ

# TRANSFORMATION

*Mathematics - Mr Arnold*

Use the concept of Translation, Reflection, Rotation and Dilatation to solve the following questions.

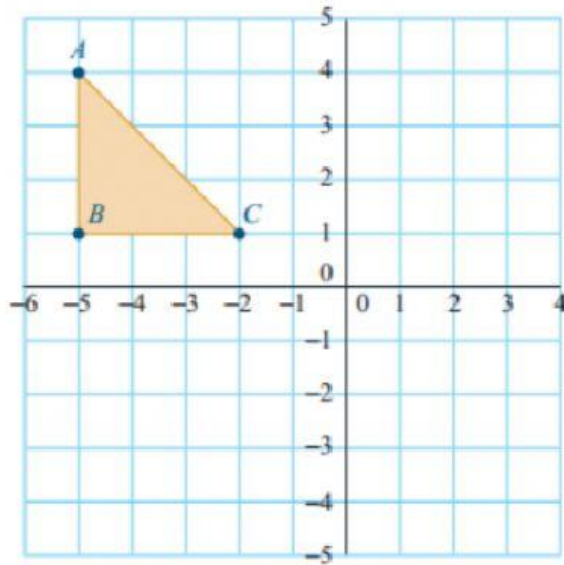
**A. MULTIPLE CHOICE**

- 1 When we move an object by change the size and the position, we use the concept of ....  
A. Translation  
B. Reflection  
C. Rotation  
D. Dilatation
- 2 Point A(3, 5) is moved 3 units to the right and 6 units down, the coordinate of A' is ....  
A. (6, 11)  
B. (6, -1)  
C. (0, 11)  
D. (0, -1)
- 3 Point P(-2, 6) translated by  $T(-2, 5)$  then retranslated by  $T(5, -3)$ . The coordinate of P after the second translation is...  
A.  $P''(-5, -4)$   
B.  $P''(5, 4)$   
C.  $P''(1, 8)$   
D.  $P''(-1, 8)$

4 Look at the following picture.

If the triangle reflected by line:  $y = x$ , the coordinate of point A is....

- A. (5, -4)
- B. (4, 5)
- C. (-5, 4)
- D. (4, -5)



5 Point P(-4, 3) is reflected by x-axes, then translated by  $T(3, 5)$ , the final image of point P is ....

- A.  $P''(-1, 2)$
- B.  $P''(1, -2)$
- C.  $P''(1, 2)$
- D.  $P''(-1, -2)$

6 Point P(-3, -2) reflected by line:  $y = x$  then rotated by 180 degree, The final image of point P is....

- A.  $P''(2, -3)$
- B.  $P''(2, 3)$
- C.  $P''(3, 2)$
- D.  $P''(-3, -2)$



- 7 Point  $M'''(-5, -6)$  is the result of reflection by line:  $y = -x$  from point  $M''$ . Point  $M''$  is the result of Translation by  $T(3, -1)$  from point  $M'$ . If point  $M'$  is the dilatation by  $D[O, 3]$  from point  $M$ , the coordinate of point  $M$  is....
- A.  $M(3, 1)$
  - B.  $M(2, 3)$
  - C.  $M(3, 2)$
  - D.  $M(1, 2)$

- 8 The image of point  $A(x, y)$  after dilatated by  $D[O, 3]$  is  $P'(6, -9)$ . The coordinate of point  $P$  is....
- A.  $P(-2, 3)$
  - B.  $P(-2, -3)$
  - C.  $P(2, -3)$
  - D.  $P(2, 3)$

- 9 Point  $A(1, 7)$  first reflected by  $y$ -axes , then dilatated by  $D[O, 2]$ . The coordinate of  $A$  after the second transformation is...
- A.  $A''(2, 14)$
  - B.  $A''(-2, 14)$
  - C.  $A''(2, -14)$
  - D.  $A''(-2, -14)$

- 10 Point  $B(3, y)$  translated by  $T(x, 4)$ . The result of the translation is  $B'(5, -1)$ . The value of  $xy = \dots$
- A. 10
  - B. -10
  - C. 20
  - D. -20