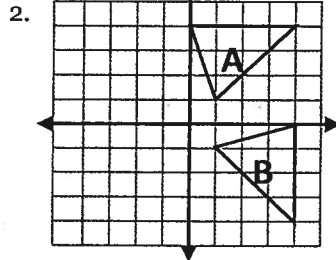
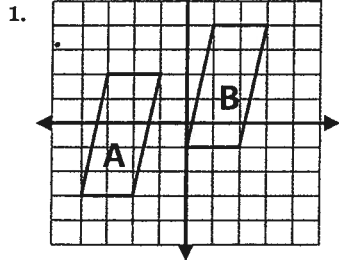


Unit 1 Quiz (14.1 - 14.4)

Given the shapes move from A to B, identify the type of transformation being demonstrated and write the specific transformation rule using notation.



1. Type: Translation<sup>①</sup>  
 Notation:  $T: (x, y) \rightarrow (x+4, y+2)$
2. Type: Rotation<sup>①</sup>  
 Notation:  $R_{0, -90^\circ}$

2

For each of the following transformations, describe how each point would move.

3.  $T: (x, y) \rightarrow (x - 1, y - 8)$  Every point... left 1, down 8.<sup>①</sup>
4.  $R_x$  Every point... perpendicular to the line<sup>①</sup>  
and equidistant from the line.<sup>①</sup>

3

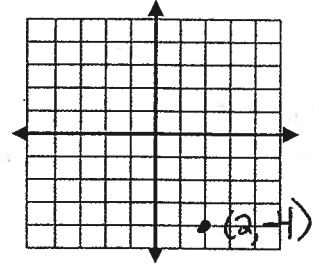
Use the translation  $T: (x, y) \rightarrow (x + 5, y + 2)$ .

5. Find the pre-image of (7, 1).  $(2, -1)$   $\rightarrow$   $(7, 1)$   
(-5, +2)
6. Find the image of (-6, 0).  $(-1, 2)$   
+5, +2

4

Perform the identified transformation for point (2, -4). You may use the graph to help you.

7. reflection across  $y = x$   $(-4, 2)$ <sup>①</sup>
8. y-axis reflection  $(-2, -4)$ <sup>①</sup>
9. half-turn  $(-2, 4)$ <sup>①</sup>
10.  $T: (x, y) \rightarrow (x - 5, y + 3)$   $(-3, -1)$ <sup>①</sup>
11. reflection across  $x = -1$   $(-4, -4)$ <sup>①</sup>
12.  $90^\circ$  rotation  $(4, 2)$ <sup>①</sup>



12

Using each given shape, graph each transformation.

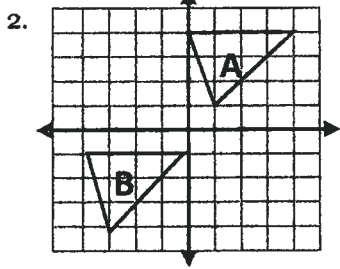
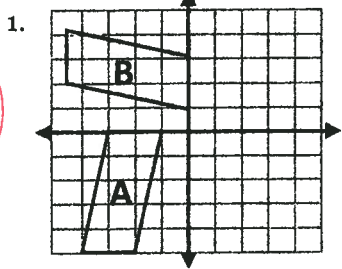
13.  $R_{0, -90}$
14.  $R_x$
15.  $T: (x, y) \rightarrow (x + 5, y + 3)$

9

Unit 1 Quiz (14.1 - 14.4) B

Given the shapes move from A to B, identify the type of transformation being demonstrated and write the specific transformation rule using notation.

2



1. Type: Rotation  
Notation:  $R_{90}$

2. Type: Translation  
Notation:  $T(x, y) \rightarrow (x-4, y-5)$

For each of the following transformations, describe how each point would move.

3

3.  $T(x, y) \rightarrow (x + 2, y - 3)$  Every point move 2 units to the right and 3 units down

4.  $R_y$  Every point, along with its image, form a line perpendicular to the y-axis, with both points being equidistant to the y-axis.

Use the translation  $T(x, y) \rightarrow (x + 3, y + 4)$ .

4

5. Find the pre-image of (8, 2). (5, -2)  
 $x+3=8 \quad y+4=2$   
 $x=5 \quad y=-2$

6. Find the image of (-4, 0). (-1, 4)  
 $(-4)+3=-1$   
 $0+4=4$

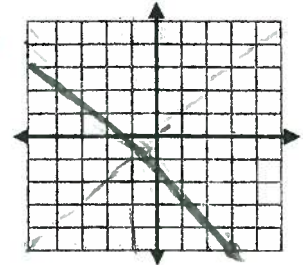
Perform the identified transformation for point (3, -5). You may use the graph to help you.

12

7.  $90^\circ$  rotation  
(5, 3)

8. reflection across  $x = -1$   
(-5, -5)

9. y-axis reflection  
(-3, -5)



10. reflection across  $y = x$   
(-5, 3)

11.  $T(x, y) \rightarrow (x - 4, y + 2)$   
(-1, -3)

12. half-turn  
(-3, 5)

Using each given shape, graph each transformation.

9

