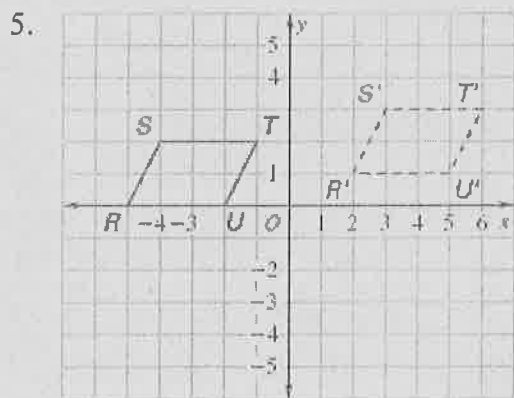
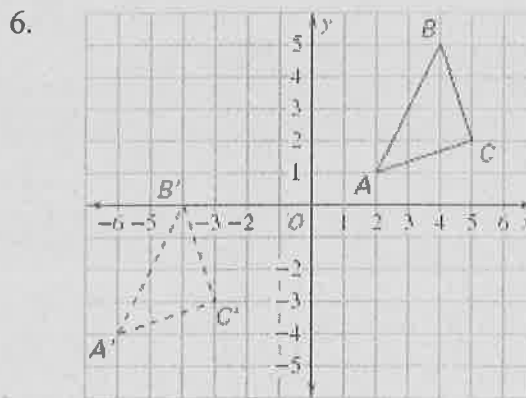


**LESSON 10.8a****Complete the statement.**

1. If a figure is shifted 3 units to the right, you add \_\_\_\_\_ to the \_\_\_\_\_-coordinate.
2. If a figure is shifted 2 units down, you add \_\_\_\_\_ to the \_\_\_\_\_-coordinate.

**Describe the translation using words.**

3.  $(x, y) \rightarrow (x - 5, y + 7)$
4.  $(x, y) \rightarrow (x + 4, y - 3)$

**Describe the transformation using coordinate notation.** $(x, y) \rightarrow (x \text{ _____}, y \text{ _____})$  $(x, y) \rightarrow (x \text{ _____}, y \text{ _____})$

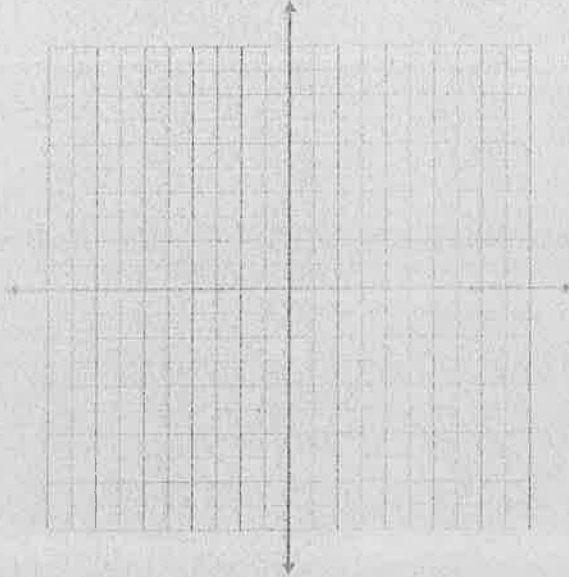
## 10.8a Transformations in the Coordinate Plane

Triangle  $LMN$  has vertices  $L(0, 2)$ ,  $M(4, 4)$ , and  $N(3, 1)$ .

- Draw the original image
- Draw the new image after its transformation
- Find the coordinates of the vertices of the image after the specified transformation.

7.  $(x, y) \rightarrow (x - 4, y + 1)$

(     ,     )  
(     ,     )  
(     ,     )



Quadrilateral  $WXYZ$  has vertices  $W(-3, 0)$ ,  $X(1, 3)$ ,  $Y(4, 1)$ , and  $Z(2, -4)$ .

- Draw the original image
- Draw the new image after its transformation
- Find the coordinates of the vertices of the image after the specified transformation.

8.  $(x, y) \rightarrow (x - 2, y + 3)$

(     ,     )  
(     ,     )  
(     ,     )  
(     ,     )

