

NAME \_\_\_\_\_

**Module 11** Transformation of Shapes  
**Lesson 1** Translations and Reflections

# Additional Practice

## 11.1

1. The point located at  $(-1, 7)$  is translated three units right and one unit down. What are the coordinates of the translated point?

**$(2, 6)$**

2. The point located at  $(8, 3)$  is reflected across the  $x$ -axis. What are the coordinates of the translated point?

**$(8, -3)$**

3. A triangle with vertices at  $(9, 2)$ ,  $(6, -4)$ , and  $(2, 0)$  is translated one unit left and two units down. What are the coordinates of the vertices of the translated triangle?

**$(8, 0)$ ,  $(5, -6)$ , and  $(1, -2)$**

4. A triangle with vertices at  $(-1, 8)$ ,  $(-1, -2)$ , and  $(6, -2)$  is reflected across the  $y$ -axis. What are the coordinates of the reflected triangle?

**$(1, 8)$ ,  $(1, -2)$ , and  $(-6, -2)$**

5. The coordinates of a translated point are  $(4, -3)$ . What was the motion rule if the coordinates of the original point were  $(-1, 1)$ ?

**$(x, y) \rightarrow (x + 5, y - 4)$**

6. A segment with endpoints at  $(-6, 5)$  and  $(2, 5)$  is first reflected across the  $y$ -axis and then is translated eight units down. What are the coordinates of the endpoints of the final image?

**$(6, -3)$  and  $(-2, -3)$**

7. The coordinates of  $A'$  are  $(-5, 3)$ . The coordinates of  $A$  are  $(-5, -3)$ . Describe two possible transformations that could have been performed on Point  $A$ .

- a reflection across the  $x$ -axis
- a translation six units up

8. Graph the image of the figure using  $(x, y) \rightarrow (x - 6, y - 8)$ .

