

# Independent Practice

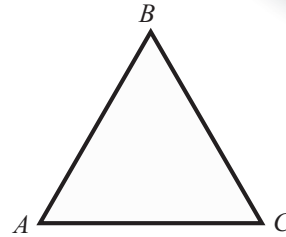
## 11.3

NAME \_\_\_\_\_

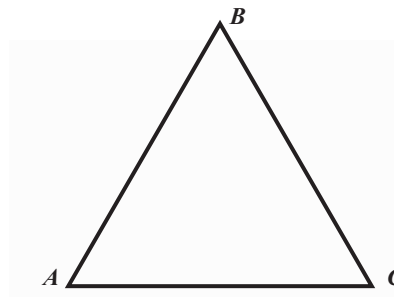
Module 11 Transformations of Shapes  
Lesson 3 Dilations

Construct a dilation with the given center and scale factor.

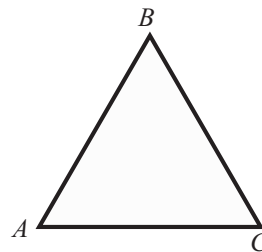
1. Center:  $B$ ; scale factor: 2



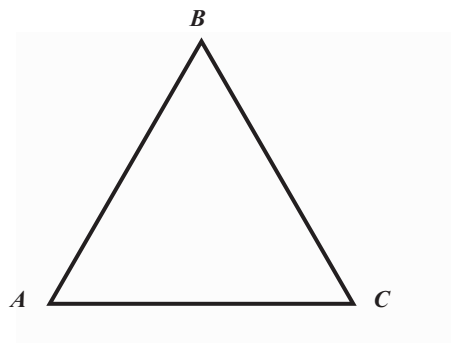
2. Center:  $B$ ; scale factor: 0.25



3. Center:  $A$ ; scale factor: 1.5

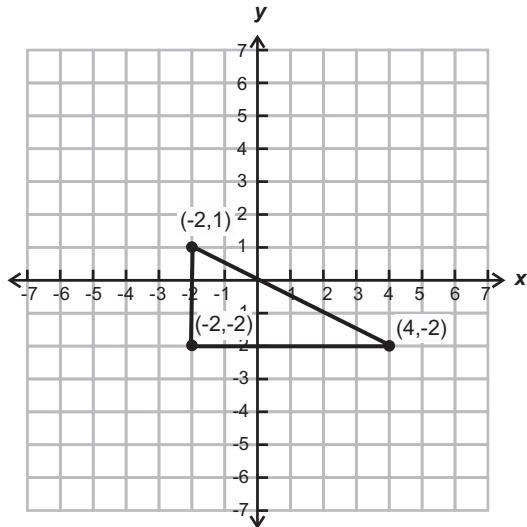


4. Center:  $C$ ; scale factor: 0.75

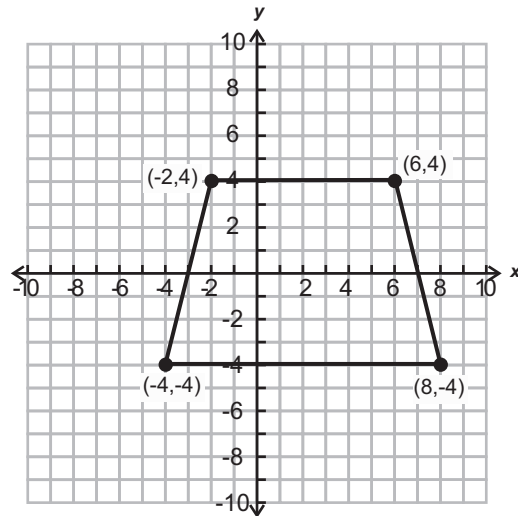


Draw the dilation with the given scale factor. The center of dilation is (0, 0).

5. Scale factor: 1.5

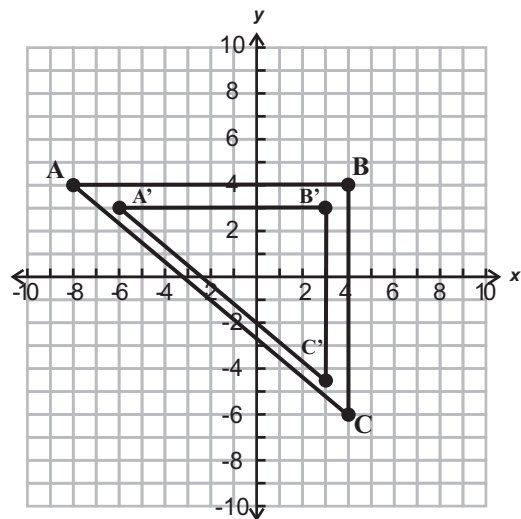


6. Scale factor:  $\frac{1}{4}$

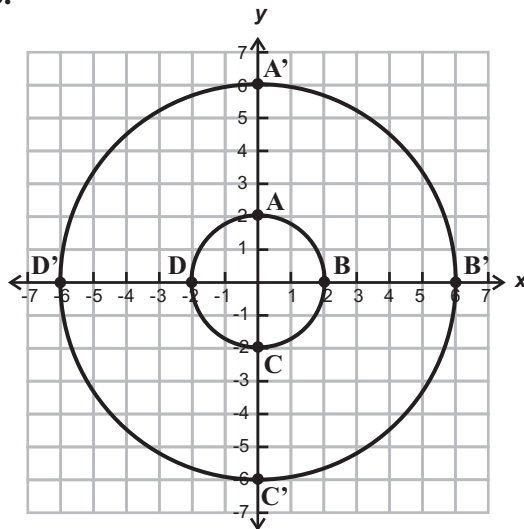


Find the scale factor used in the dilation.

7.



8.



NAME \_\_\_\_\_

**Module 11 Transformations of Shapes**  
**Lesson 3 Dilations**

**Journal**

1. How is a dilation like a translation? How is it different?
2. How can you determine if an image created by a dilation will be an enlargement or reduction by just looking at the scale factor?
3. What must be true about the scale factor of a dilation if the original figure and image figure are congruent? Explain.

**Cumulative Review**

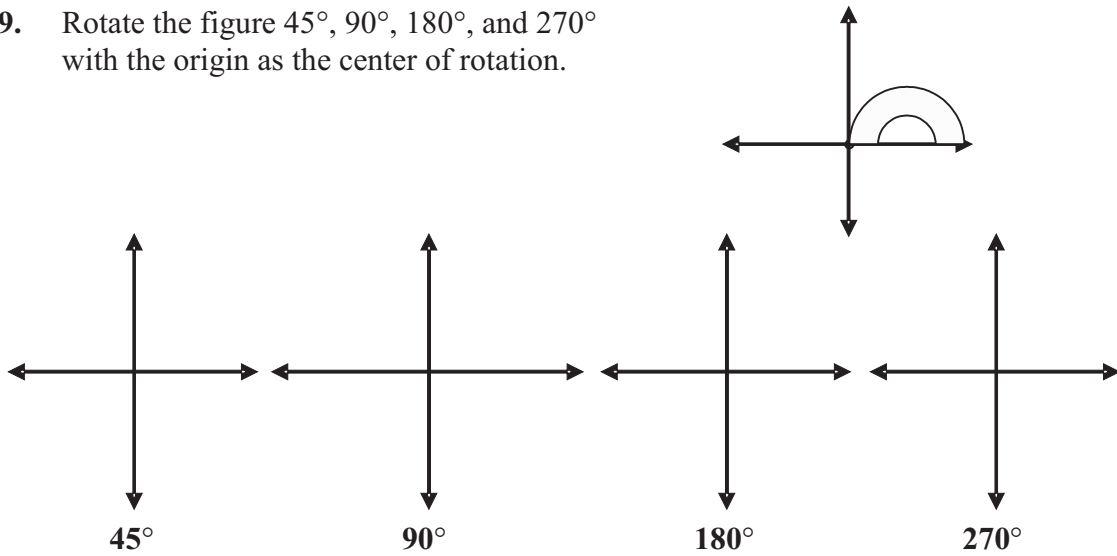
**Find the coordinates of the image of each ordered pair under a translation with a motion rule of  $(x, y) \rightarrow (x + 8, y - 1)$ .**

1. (6, -4)      2. (-3, -3)      3. (-5, 9)      4. (0, -2)

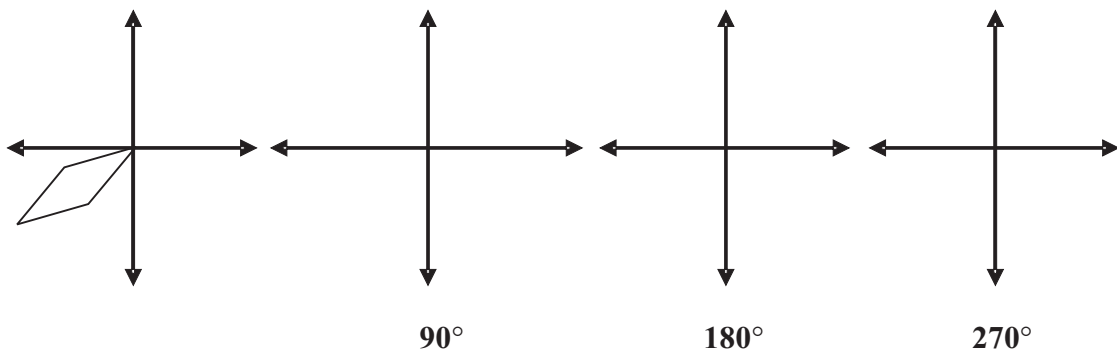
**Find the coordinates of the image of each ordered pair under a reflection across the  $y$ -axis.**

5. (1, -3)      6. (8, 7)      7. (-5, 4)      8. (-8, -3)

9. Rotate the figure  $45^\circ$ ,  $90^\circ$ ,  $180^\circ$ , and  $270^\circ$  with the origin as the center of rotation.



10. Rotate the figure  $90^\circ$ ,  $180^\circ$ , and  $270^\circ$  with the origin as the center of rotation.



# Additional Work Area