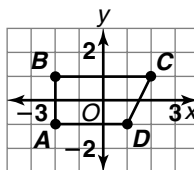


# Reteaching 5-6

## Similarity Transformations

Draw the image of quadrilateral  $ABCD$  for the *dilation* with *scale factor* 2. Then graph the image.



*Example:*

- ① Write the coordinates of each point.
- ② Multiply the  $x$ - and  $y$ -coordinates of each point by the scale factor, 2.
- ③ Graph the image  $A'B'C'D'$ .

$$\begin{array}{lcl}
 A(-2, -1) & \longrightarrow & A'(-4, -2) \\
 B(-2, 1) & \longrightarrow & B'(-4, 2) \\
 C(2, 1) & \longrightarrow & C'(4, 2) \\
 D(1, -1) & \longrightarrow & D'(2, -2)
 \end{array}$$

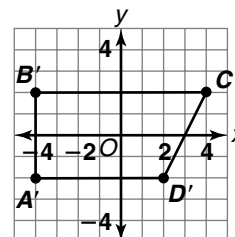
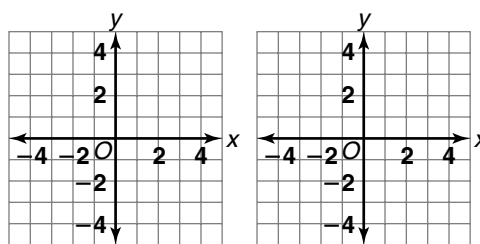
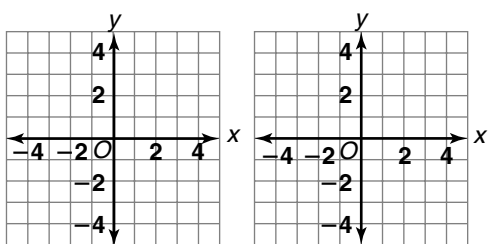


Image  $A'B'C'D'$  is an *enlargement* of  $ABCD$  because the scale factor is greater than 1. If the scale factor had been less than 1, then the dilation of  $ABCD$  would be a *reduction*.

**Graph quadrilateral  $ABCD$  and its image  $A'B'C'D'$  after a dilation with the given scale factor. Classify each dilation as an enlargement or a reduction.**

1.  $A(-1, 1), B(1, 1), C(0, -1), D(-1, -1)$ ; scale factor 2
2.  $A(-2, -2), B(-2, 2), C(2, 2), D(2, 0)$ ; scale factor  $\frac{1}{2}$



3.  $A(-2, -2), B(-2, 2), C(2, 2), D(2, -2)$ ; scale factor  $\frac{1}{2}$
4.  $A(-2, 2), B(2, 0), C(2, -2), D(-2, -2)$ ; scale factor 2

