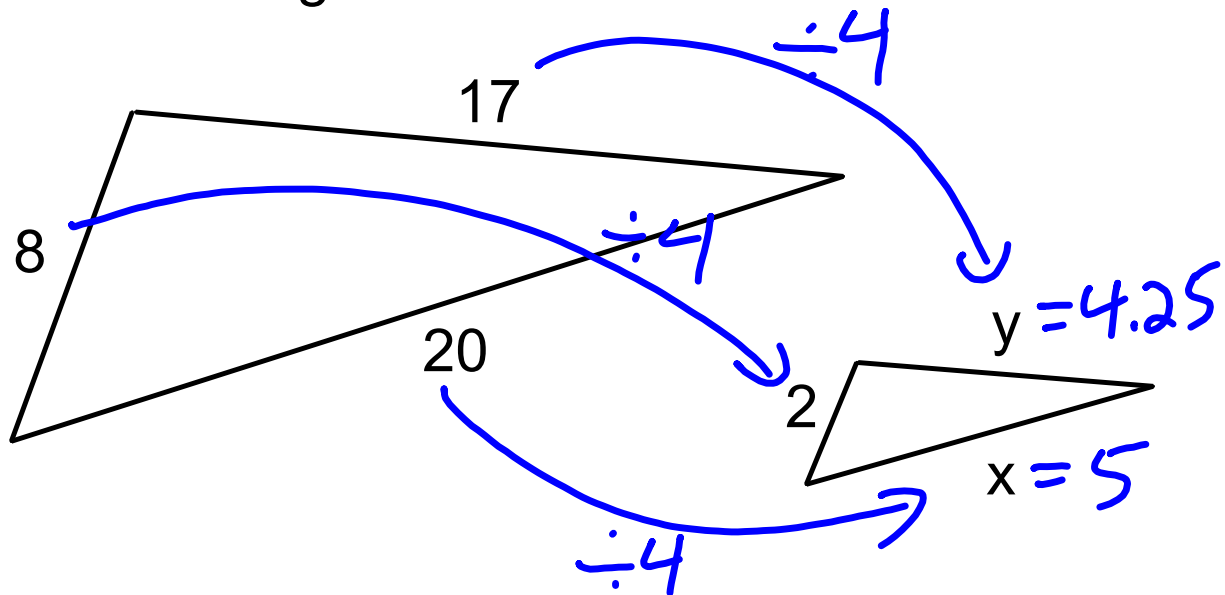


HW: Worksheet/11-20

**Warm up:**

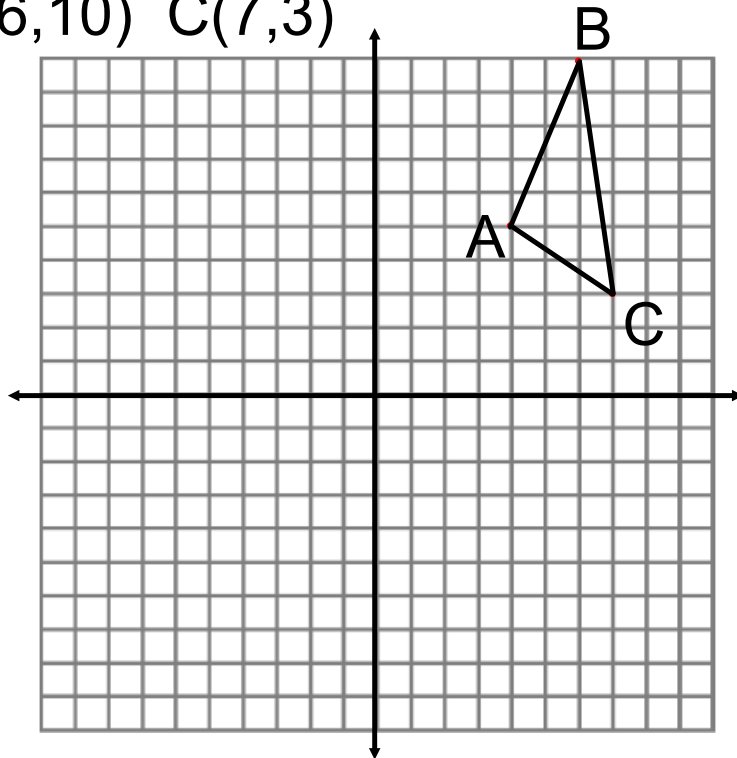
The following triangles are similar. Solve for the unknown lengths.



# HW Solutions

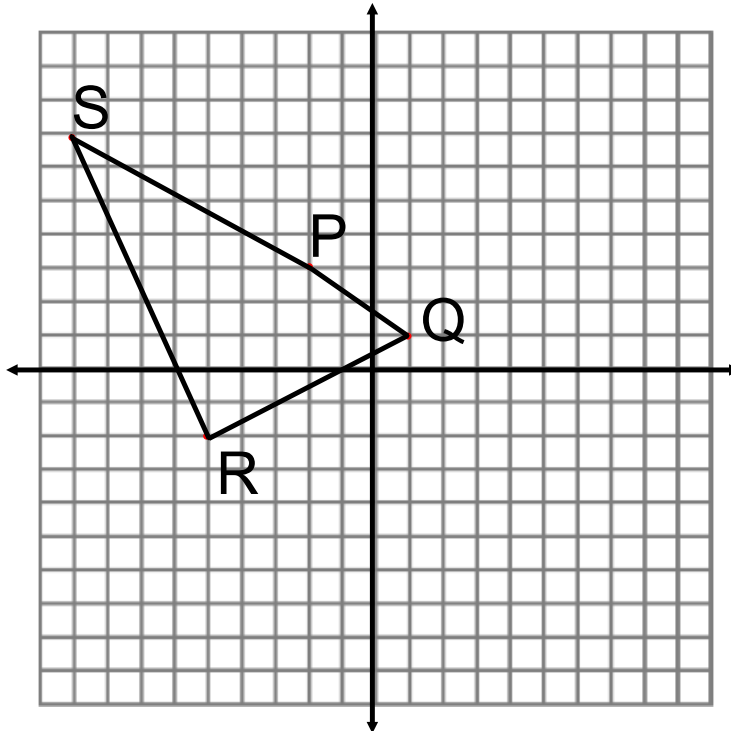
Graph the figure, then rotate it 90, 180, and 270 degrees about the origin. Graph and write the coordinates of each image.

A(4,5) B(6,10) C(7,3)



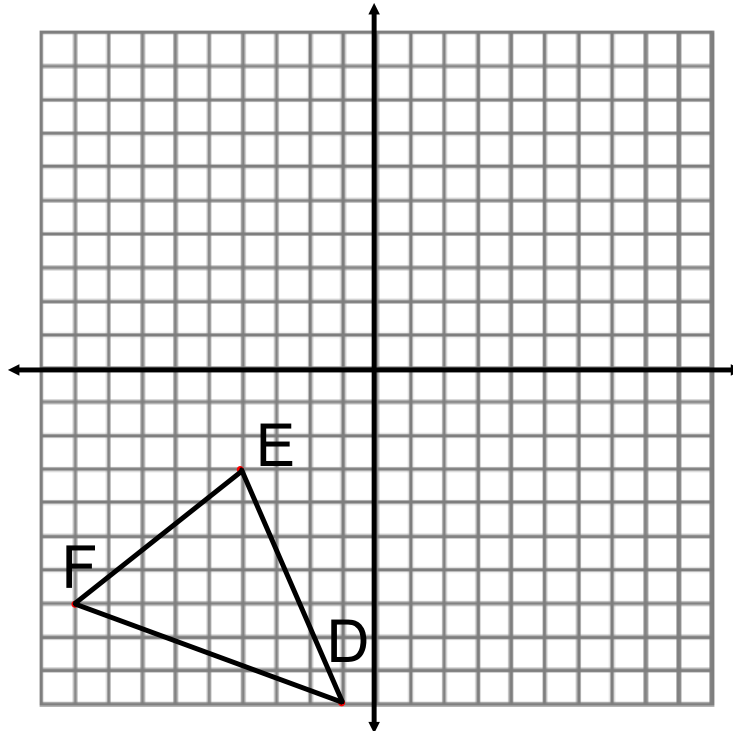
Graph the figure, then rotate it 90, 180, and 270 degrees about the origin. Graph and write the coordinates of each image.

$P(-2,3)$   $Q(1,1)$   $R(-5,-2)$   $S(-9,7)$

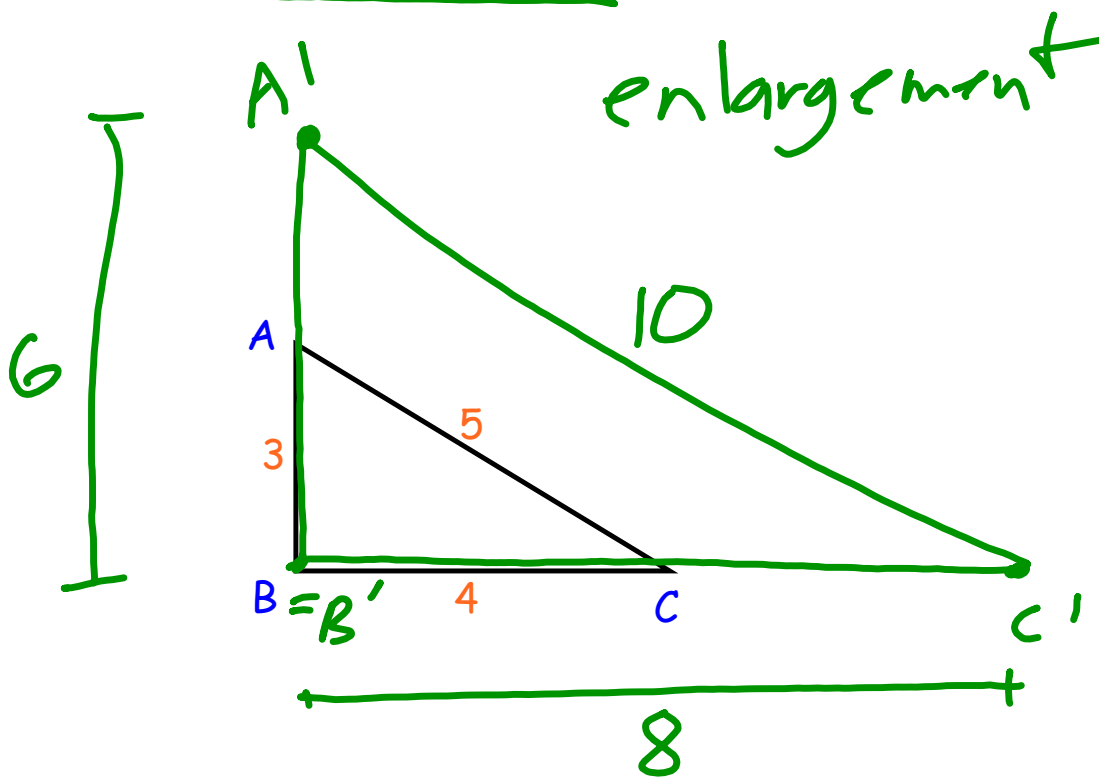


Graph the figure, then rotate it 90, 180, and 270 degrees about the origin. Graph and write the coordinates of each image.

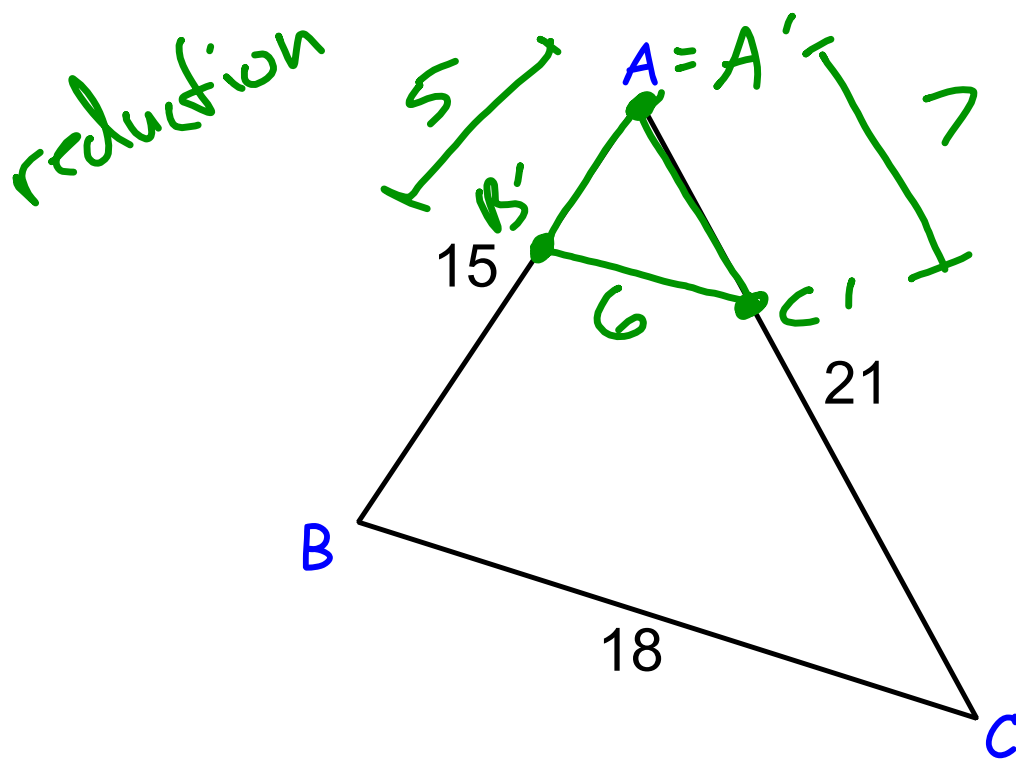
$D(-1,-10)$   $E(-4,-3)$   $F(-9,-7)$



Dilation with scale factor 2 and center B



Dilation with scale factor  $\frac{1}{3}$  and center A

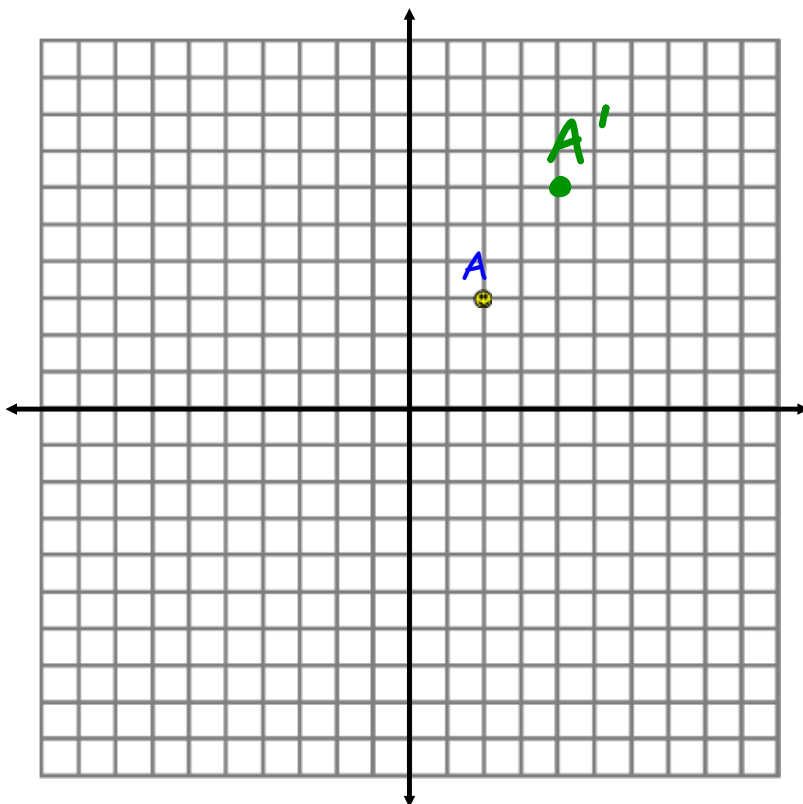


Dilations in the coordinate plane have the center at the origin.

Scale factor 2

$$A(2, 3)$$

$$A'(4, 6)$$





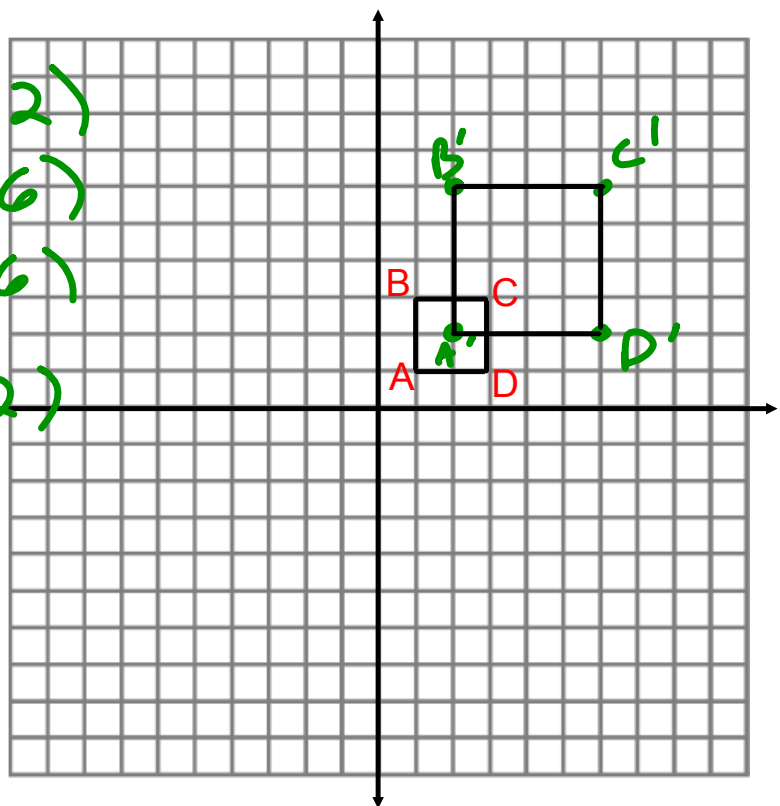
Scale Factor 2

$A(1, 1)$   $A'(2, 2)$

$B(1, 3)$   $B'(2, 6)$

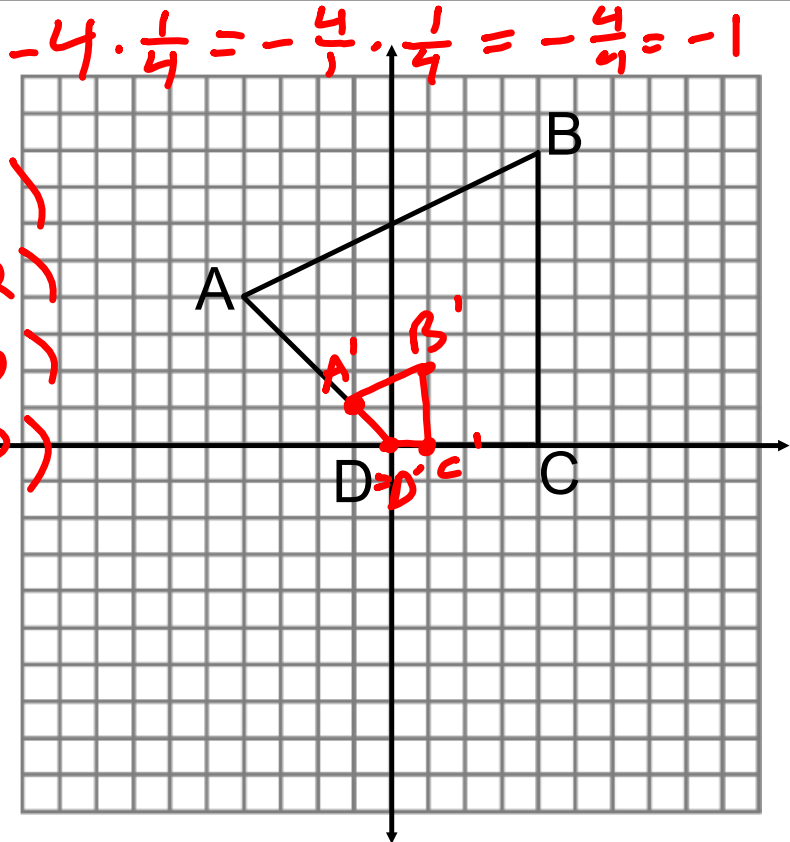
$C(3, 3)$   $C'(6, 6)$

$D(3, 1)$   $D'(6, 2)$



Dilate with scale  
factor  $\frac{1}{4}$

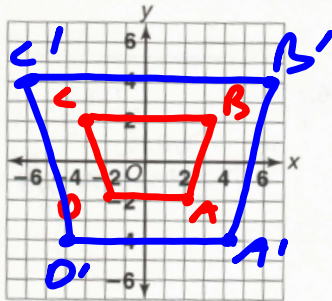
$A(-4, 4)$   $A'(-1, 1)$   
 $B(4, 8)$   $B'(1, 2)$   
 $C(4, 0)$   $C'(1, 0)$   
 $D(0, 0)$   $D'(0, 0)$



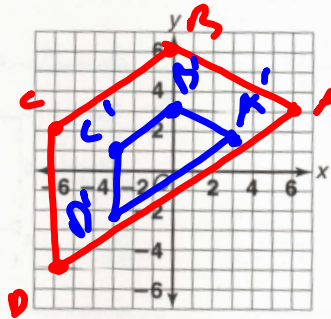
Graph the coordinates of the quadrilateral  $ABCD$ . Find the coordinates of its image  $A'B'C'D'$  after a dilation with the given scale factor.

$(3, 1.5)$

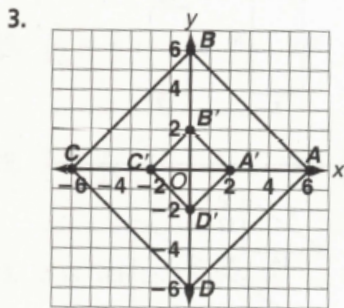
1.  $A(2, -2), B(3, 2), C(-3, 2), D(-2, -2)$ ;  
scale factor 2



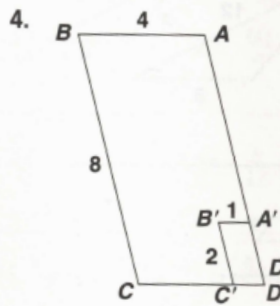
2.  $A(6, 3), B(0, 6), C(-6, 2), D(-6, -5)$ ;  
scale factor  $\frac{1}{2}$



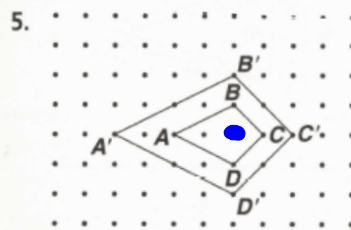
Quadrilateral  $A'B'C'D'$  is a dilation of quadrilateral  $ABCD$ . Find the scale factor. Classify each dilation as an enlargement or a reduction.



reduction  
 $\frac{1}{3}$

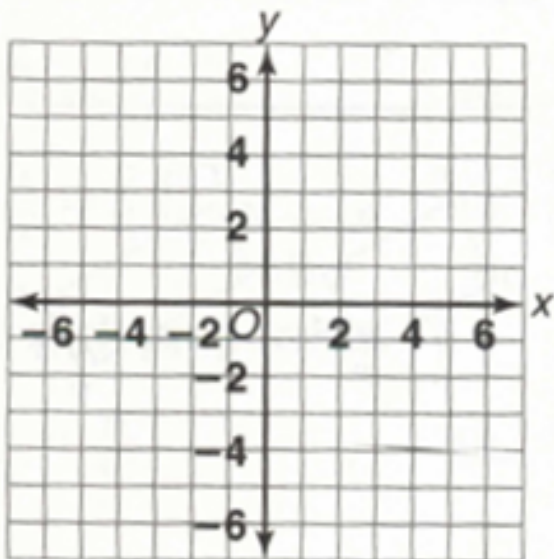


reduction  
 $\frac{1}{4}$

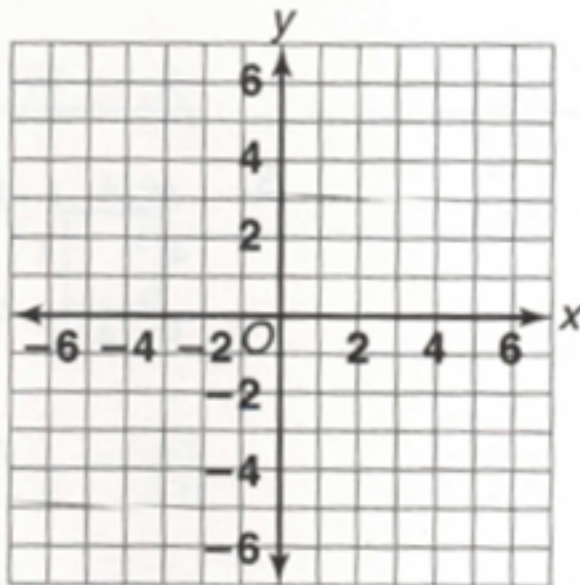


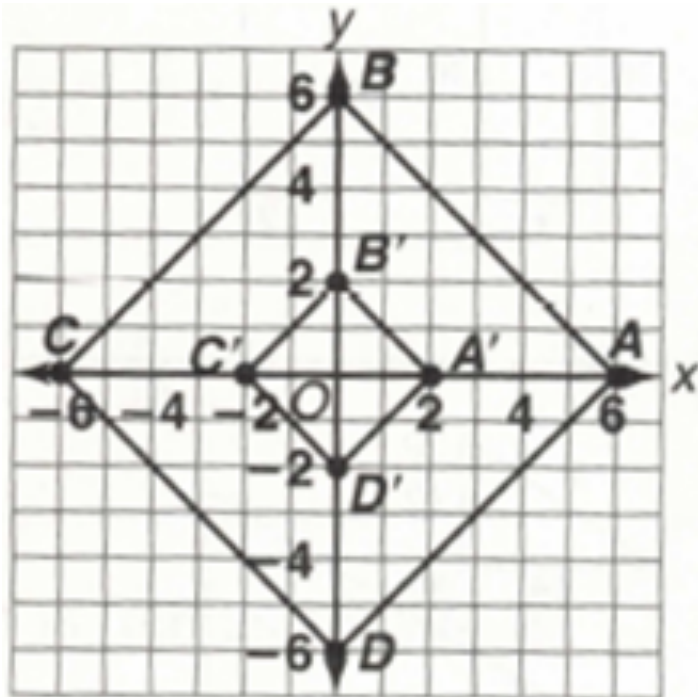
enlargement  
2

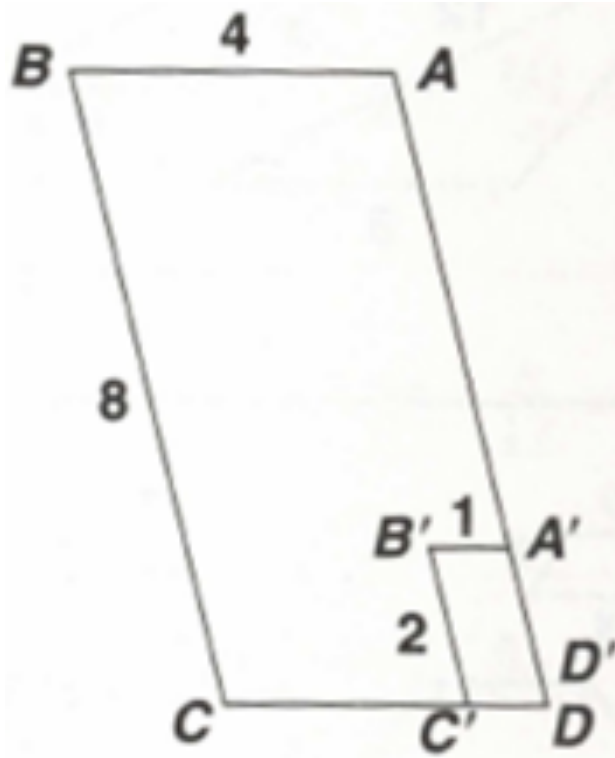
$A(2, -2), B(3, 2), C(-3, 2), D(-2, -2)$ ;  
scale factor 2

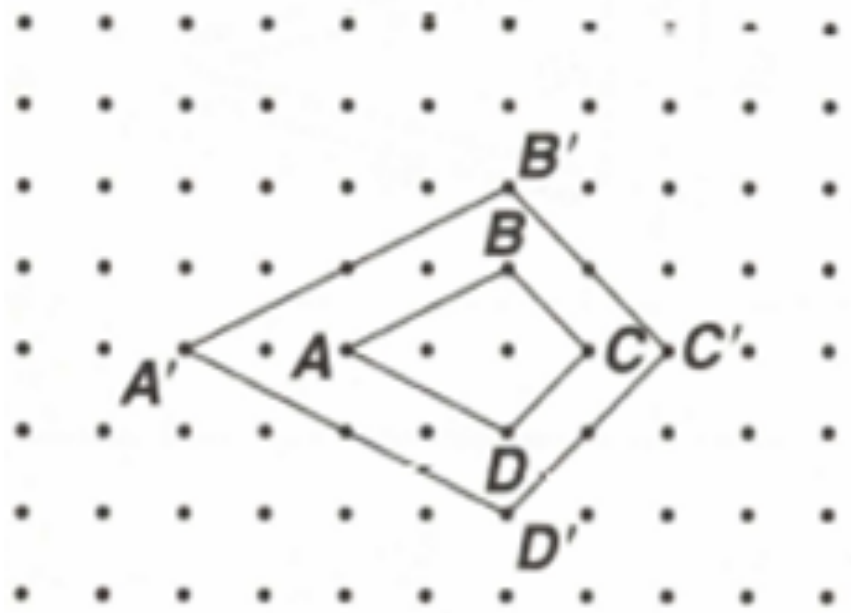


$A(6, 3), B(0, 6), C(-6, 2), D(-6, -5)$ ;  
scale factor  $\frac{1}{2}$











February 10, 2022

