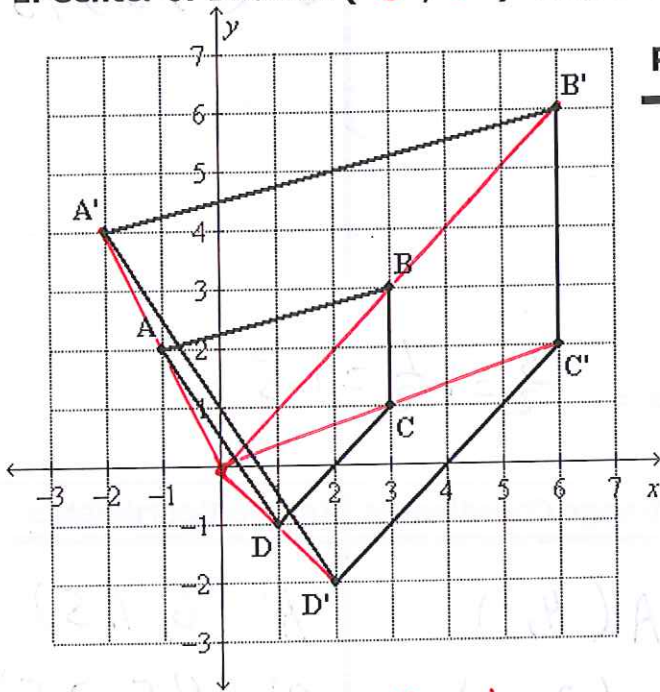


Scale Factor & Center of Dilation

For each problem determine the scale factor and the center of dilation. You will need to draw in the dilation lines to determine the center point. You will also need to write down the coordinates of the Pre-Image and the Image to help find the scale factor.

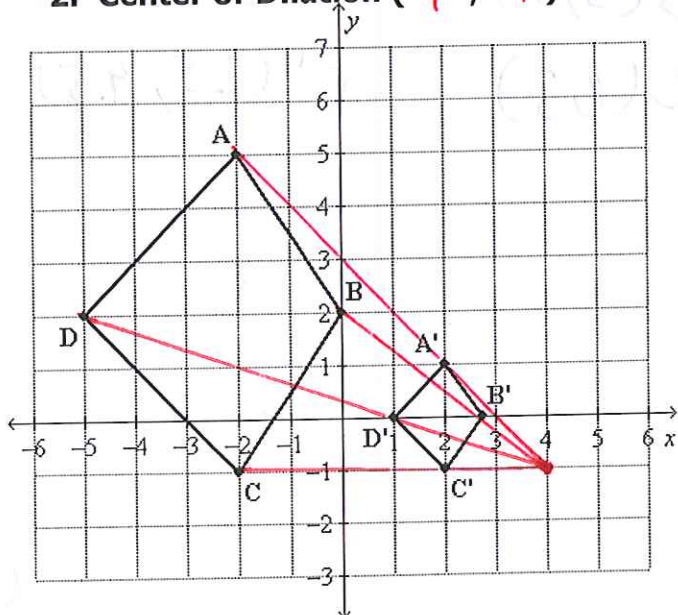
Rule for dilating a figure with the center at the origin and scale factor of "k".
 $(x,y) \longrightarrow (k \cdot x, k \cdot y)$

1. Center of Dilation (0 , 0) Scale Factor = 2



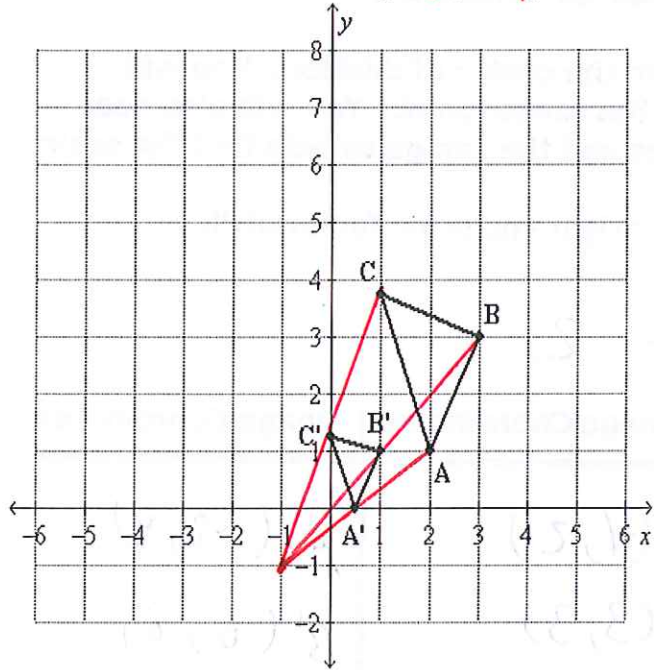
Pre-Image Coordinates	Image Coordinates
$A(-1, 2)$	$A'(-2, 4)$
$B(3, 3)$	$B'(6, 6)$
$C(3, 1)$	$C'(6, 2)$
$D(1, -1)$	$D'(2, -2)$

2. Center of Dilation (4 , -1) Scale Factor = $\frac{1}{3}$



Pre-Image Coordinates	Image Coordinates
$A(-2, 5)$	$A'(2, 1)$
$B(0, 2)$	$B'(2.75, 0)$
$C(-2, -1)$	$C'(1, -1)$
$D(-5, 2)$	$D'(1, 0)$

3. Center of Dilation ($-1, -1$) Scale Factor = $\frac{1}{2} = .5$



Pre-Image Coordinates	Image Coordinates
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$A(2, 1)$

$A'(.5, 0)$

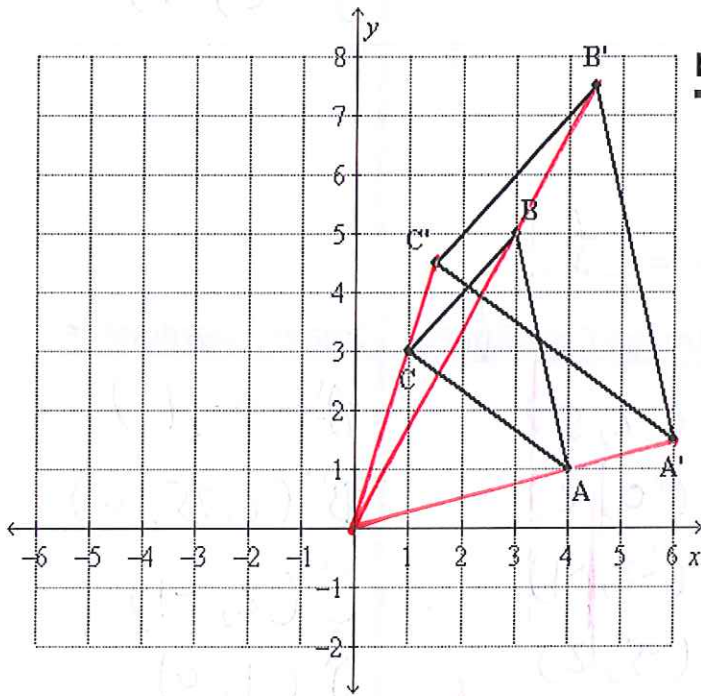
$B(3, 3)$

$B'(1, 1)$

$C(1, 3.75)$

$C'(0, 1.375)$

4. Center of Dilation ($0, 0$) Scale Factor = $\frac{3}{2} = 1\frac{1}{2} = 1.5$



Pre-Image Coordinates	Image Coordinates
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$A(4, 1)$

$A'(6, 1.5)$

$B(3, 5)$

$B'(4.5, 7.5)$

$C(1, 3)$

$C'(1.5, 4.5)$