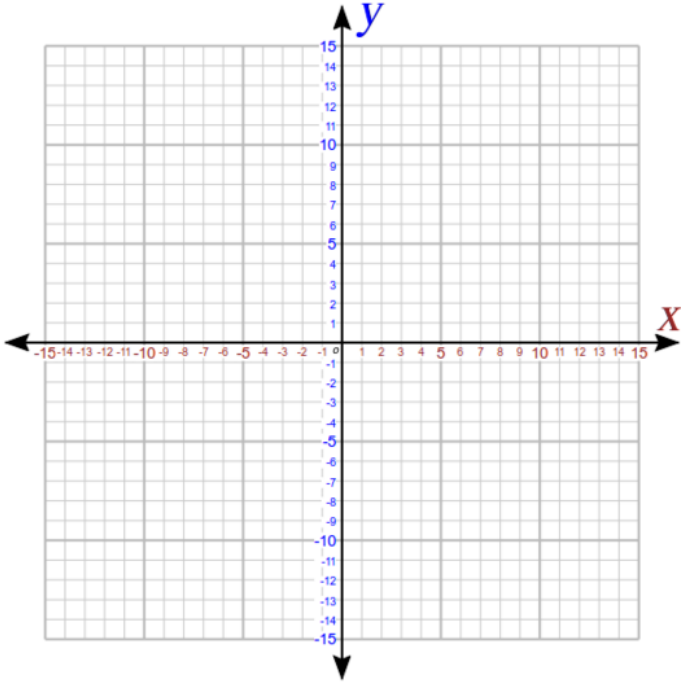


The vertices of a figure are given. Find the coordinates of the figure after the transformations given.

- 1.) Rotate  $90^\circ$  clockwise about the origin. Then dilate with respect to the origin using a scale factor of 3.

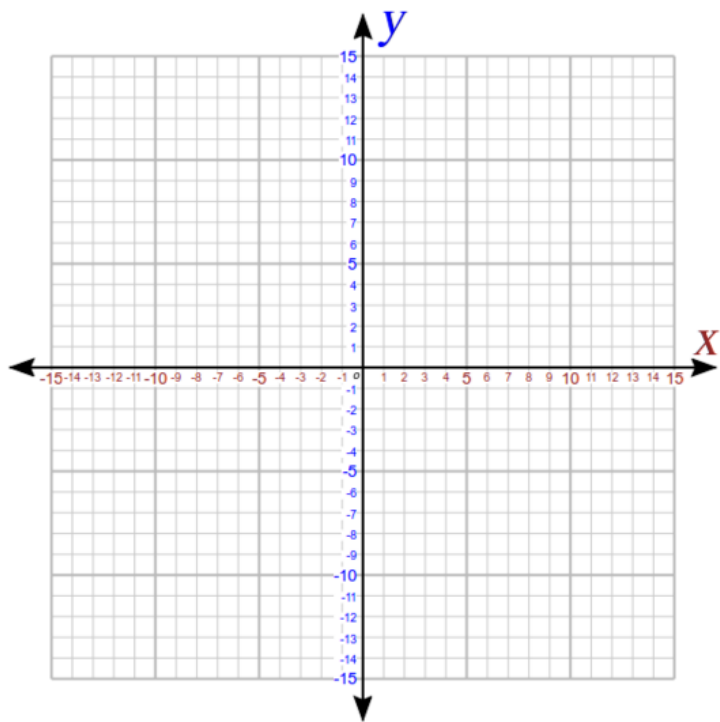
J (1,1), K(3, 4), L(5,1)



J' (     ), K'(     ), L' (     )  
 J'' (     ), K''(     ), L'' (     )

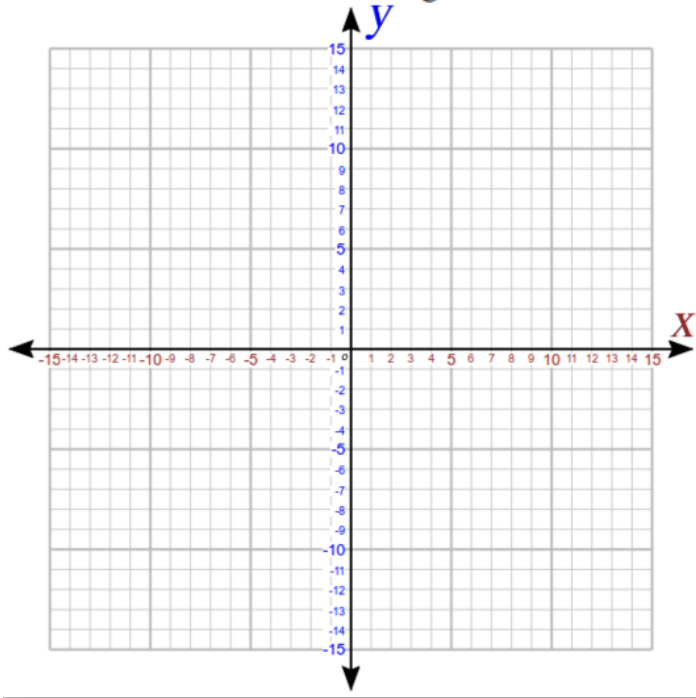
- 2.) Dilate with respect of the origin using a scale factor of 2. Then dilate with respect to the origin using a scale factor of 0.5.

P(-2,2), Q(4,2), R(2, -6), S(-4,-6)



P'(     ), Q'(     ), R'(     ), S'(     )  
 P''(     ), Q''(     ), R''(     ), S''(     )  
 )

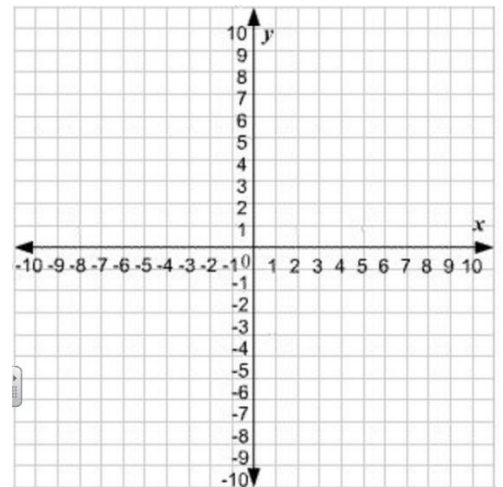
- 3.) The vertices of a figure are  $P(1, 2)$ ,  $Q(3, 4)$ , and  $R(-1, 6)$ . Dilate with respect to the origin using a scale factor of 2 and then translate 4 units right and 3 units down. Find the coordinates of the figure after the transformations given.



$P'( \quad ), Q'( \quad ), R'( \quad )$   
 $P''( \quad ), Q''( \quad ), R''( \quad )$

- 4.) The vertices of a trapezoid are  $A(-4, 0)$ ,  $B(-2, 4)$ ,  $C(2, 4)$ , and  $D(6, 0)$ . Dilate the trapezoid with respect to the origin using a scale factor of 0.5. Then translate it 2 units right and 3 units down. What are the coordinates of the image?

$A'( \quad ), B'( \quad ), C'( \quad ), D'( \quad )$   
 $A''( \quad ), B''( \quad ), C''( \quad ), D''( \quad )$



The red figure is similar to the blue figure. Describe a sequence of transformations in which the blue figure is the image of the red figure.

