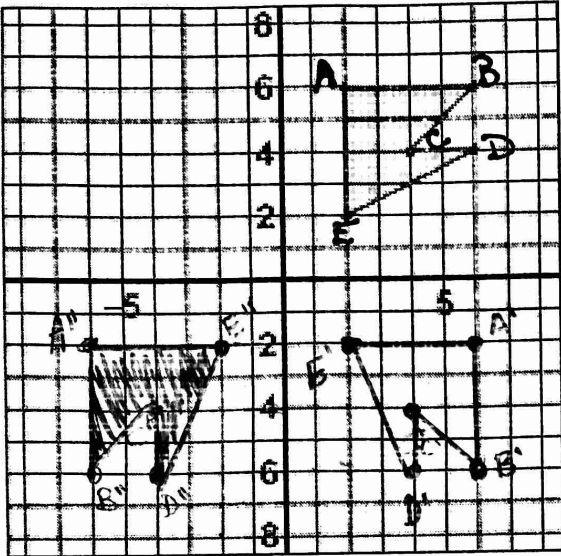


Composition of Transformations Homework

Name: WJ

- Perform the series of transformations described to create the final image.
- Graph each figure. Be sure to shade ONLY the final image.
- State if the image is congruent or similar to pre-image.

1. Rotate 90° clockwise and reflect across y-axis



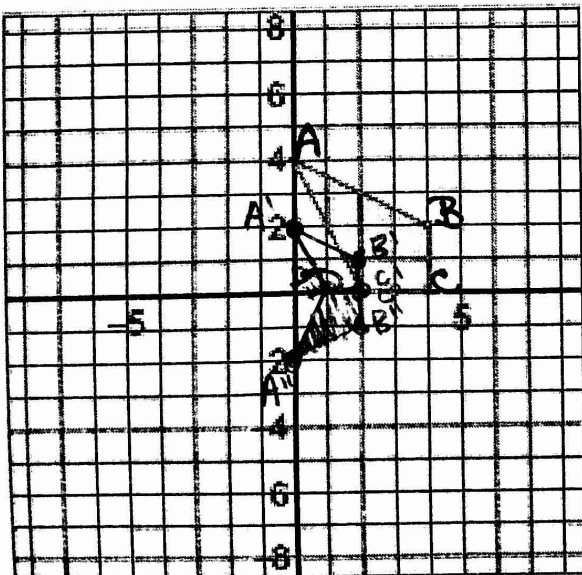
Pre-Image
 A(2,6)
 B(6,6)
 C(4,4)
 D(6,4)
 E(2,2)

$(y, -x)$
 Image 1
 A'(6,-2)
 B'(6,-6)
 C'(4,-4)
 D'(4,-6)
 E'(2,-2)

$(-x, y)$
 Image 2
 A''(-6,-2)
 B''(-6,-6)
 C''(-4,-4)
 D''(-4,-6)
 E''(-2,-2)

The image is CONGRUENT or SIMILAR to the pre-image.

2. Dilate by $c = \frac{1}{2}$ and reflect across x-axis



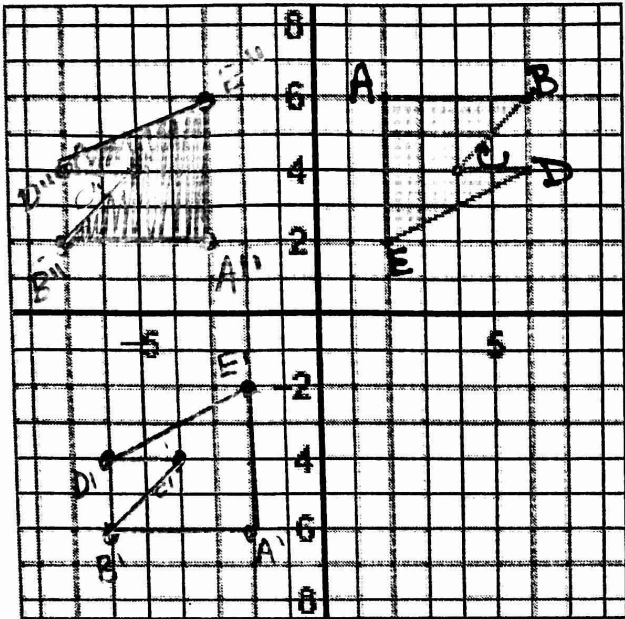
Pre-Image
 A(0,4)
 B(4,2)
 C(4,0)
 D(2,0)

$(\frac{1}{2}x, \frac{1}{2}y)$
 Image 1
 A'(0,2)
 B'(2,1)
 C'(2,0)
 D'(1,0)

$(x, -y)$
 Image 2
 A''(0,-2)
 B''(2,-1)
 C''(2,0)
 D''(1,0)

The image is CONGRUENT or SIMILAR to the pre-image.

Rotate 180° and translate $(x, y) \rightarrow (x - 1, y + 8)$



Pre-Image

A(2,6)
 B(6,6)
 C(4,4)
 D(6,4)
 E(2,2)

Image 1
 $(-x, -y)$

A'(-2,-6)
 B'(-6,-6)
 C'(-4,-4)
 D'(-6,-4)
 E'(-2,-2)

Image 2
 (left + 1, up 8)

A''(-3,2)
 B''(-7,2)
 C''(-5,4)
 D''(-7,4)
 E''(-3,6)

The image is CONGRUENT or SIMILAR to the pre-image.