

Name:

## Combinations of Transformations Practice #1

**TRANSLATIONS:**  $(x,y) \rightarrow (x \pm \#, y \pm \#)$

X + Moves _____	Y + Moves _____
X - Moves _____	Y - Moves _____

**ROTATIONS:**

90° Clockwise 270° Counter Clockwise	90° Counter Clockwise 270° Clockwise	180° Clockwise / counter clockwise

### REFLECTIONS

X- Axis	Y-Axis	X =	Y =
$y = x$		$y = -x$	

### Combinations! (Putting it all together ☺ )

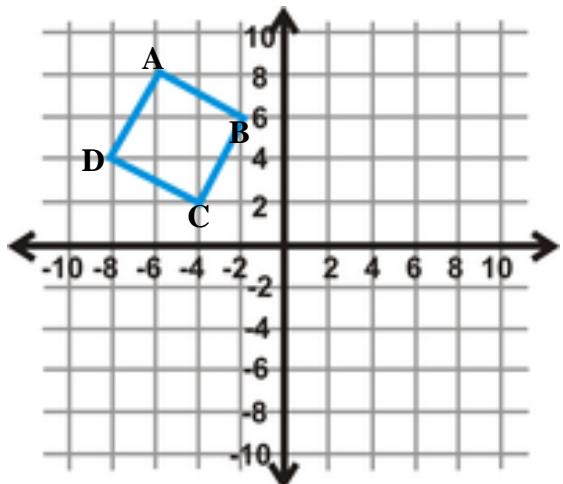
1. Write the points of the preimage below. Then complete the following transformations. A reflection over the x-axis and then rotation of 90° counterclockwise about the origin.

$$A( \quad , \quad ) \rightarrow A'( \quad , \quad ) \rightarrow A''( \quad , \quad )$$

$$B( \quad , \quad ) \rightarrow B'( \quad , \quad ) \rightarrow B''( \quad , \quad )$$

$$C( \quad , \quad ) \rightarrow C'( \quad , \quad ) \rightarrow C''( \quad , \quad )$$

$$D( \quad , \quad ) \rightarrow D'( \quad , \quad ) \rightarrow D''( \quad , \quad )$$



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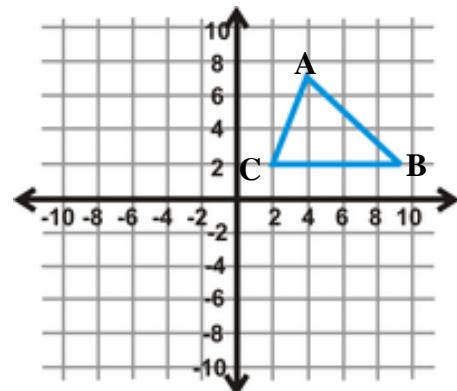
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2. Write the points of the preimage below. Then complete the following transformations. A rotation of  $180^\circ$  clockwise and then a translation of using the rule  
 $(x,y) \rightarrow (x + 4, y - 2)$

$$A( \quad , \quad ) \rightarrow A'( \quad , \quad ) \rightarrow A''( \quad , \quad )$$

$$B( \quad , \quad ) \rightarrow B'( \quad , \quad ) \rightarrow B''( \quad , \quad )$$

$$C( \quad , \quad ) \rightarrow C'( \quad , \quad ) \rightarrow C''( \quad , \quad )$$

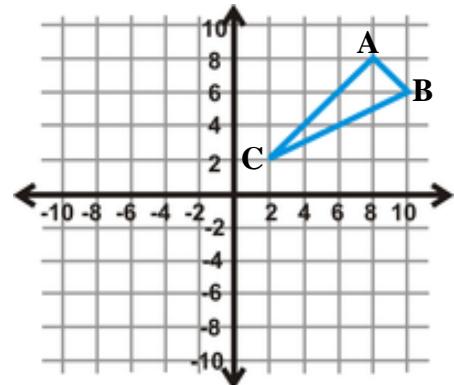


3. Write the points of the preimage below. Then complete the following transformations. A translation of left 8 and up 2 then a rotation of  $270^\circ$  clockwise about the origin.

$$A( \quad , \quad ) \rightarrow A'( \quad , \quad ) \rightarrow A''( \quad , \quad )$$

$$B( \quad , \quad ) \rightarrow B'( \quad , \quad ) \rightarrow B''( \quad , \quad )$$

$$C( \quad , \quad ) \rightarrow C'( \quad , \quad ) \rightarrow C''( \quad , \quad )$$



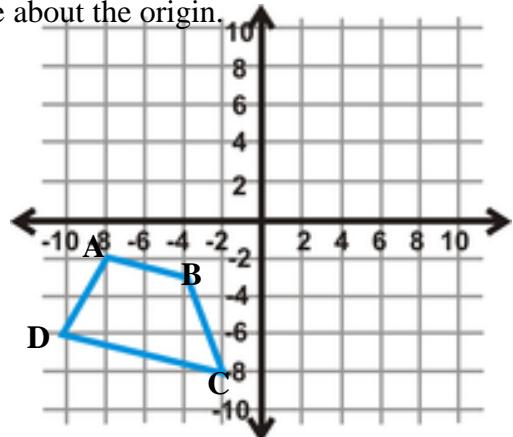
4. Write the points of the preimage below. Then complete the following transformations. A reflection over the line  $y = -x$  and then a rotation of  $270^\circ$  counterclockwise about the origin.

$$A( \quad , \quad ) \rightarrow A'( \quad , \quad ) \rightarrow A''( \quad , \quad )$$

$$B( \quad , \quad ) \rightarrow B'( \quad , \quad ) \rightarrow B''( \quad , \quad )$$

$$C( \quad , \quad ) \rightarrow C'( \quad , \quad ) \rightarrow C''( \quad , \quad )$$

$$D( \quad , \quad ) \rightarrow D'( \quad , \quad ) \rightarrow D''( \quad , \quad )$$



5. Write the points of the preimage below. Then complete the following transformations. A rotation  $90^\circ$  counter clockwise then a reflection over the line  $y = 2$

$$A( \quad , \quad ) \rightarrow A'( \quad , \quad ) \rightarrow A''( \quad , \quad )$$

$$B( \quad , \quad ) \rightarrow B'( \quad , \quad ) \rightarrow B''( \quad , \quad )$$

$$C( \quad , \quad ) \rightarrow C'( \quad , \quad ) \rightarrow C''( \quad , \quad )$$

