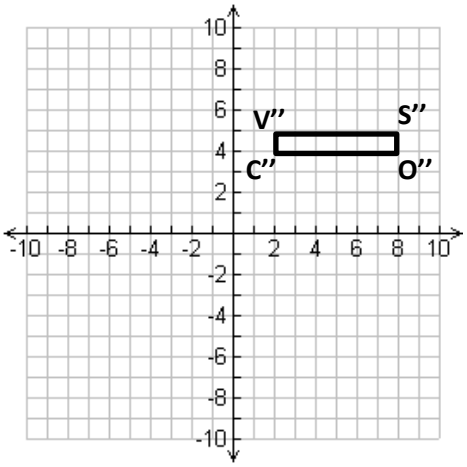
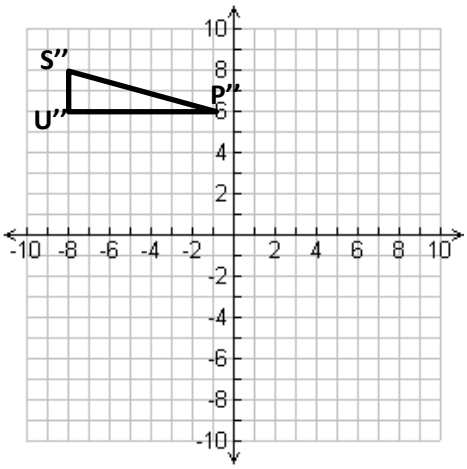
Name: _____

Practice: Reverse Transformations and Finding Sequences of Transformations

1) A rectangle was reflected across the x-axis, and then translated 4 units down. The image is shown. Draw the original rectangle.



2) A triangle was rotated 90° clockwise, then translated 1 unit left and 4 units up. The image is shown. Draw the original triangle.



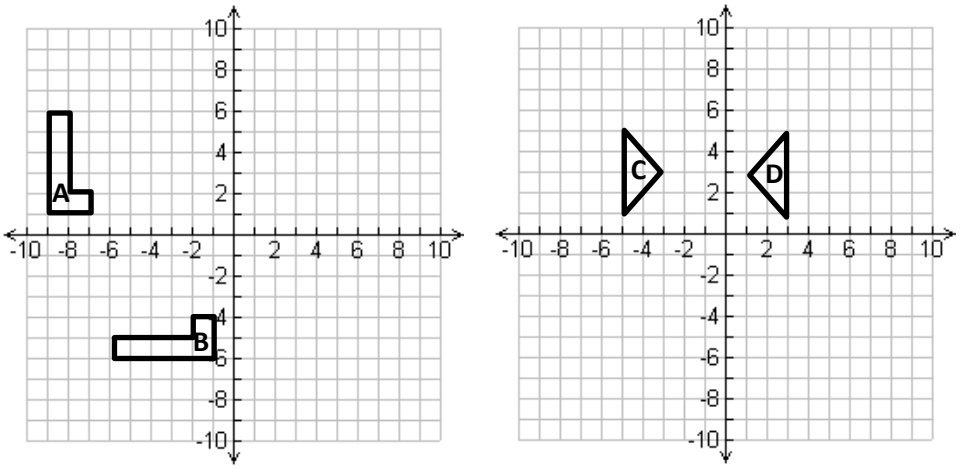
3) A figure was reflected across the x-axis, then rotated 90° counterclockwise, then translated 5 units down. If you were given the final image, which of following sequences would allow you to find the original figure?

A. Translate 5 units down, then rotate 90° counterclockwise, then reflect across the x-axis
B. Reflect across the x-axis, then rotate 90° clockwise, then translate 5 units up
C. Reflect across the y-axis, then rotate 90° clockwise, then translate 5 units up
D. Translate 5 units up, then rotate 90° clockwise, then reflect across the y-axis
E. Translate 5 units up, then rotate 90° clockwise, then reflect across the x-axis

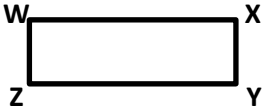
4) Can you figure out a series of transformations that would map shape "A" onto shape "B"? Be precise – say how many squares, what direction, how many degrees, etc.

5) Can you figure out a series of transformations that would map shape "C" onto shape "D"? Be precise!

6) Come up with as many additional methods you can think of for problem 5. (There are tons!)



For 7 – 14, draw how rectangle WXYZ would look after the given transformation. Pay special attention to which vertices would end up where!



7) Reflection across x-axis

8) 180° rotation

9) Translation right and down

10) 90° CW rotation

11) Reflection across y-axis

12) 270° CW rotation

13) Reflection across y = 5

14) 90° CCW rotation, followed by a reflection across the y-axis