Congruence, Construction, and Proof | 6.8

Ready, Set, Go!
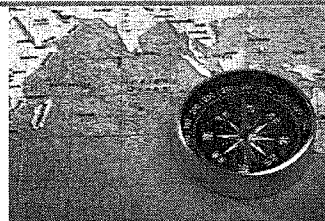
Ready

Topic: Performing a sequence of transformations.

The given figures are to be used as pre-images. Perform the stated transformations to obtain an image. Label the corresponding parts of the image in accordance with the pre-image.

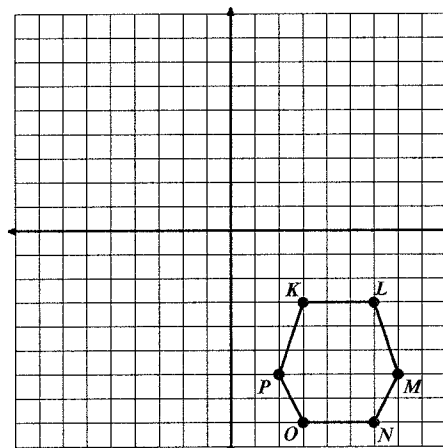1. Reflect triangle **ABC** over the line $y = x$ and label the image **A'B'C'**.

   Rotate triangle **A'B'C'** 180° counter clockwise around the origin and label the image **A"B"C"**.
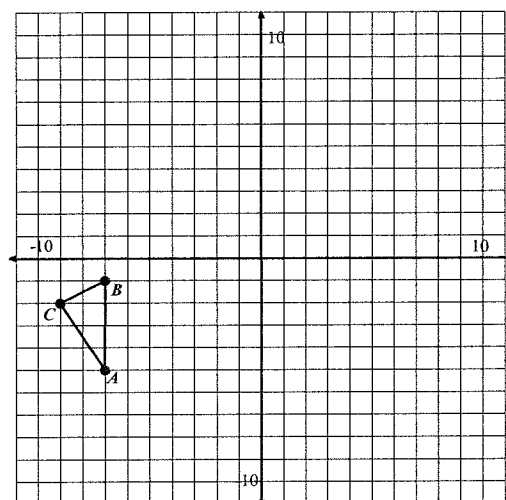
2. Reflect over the line $y = -x$.
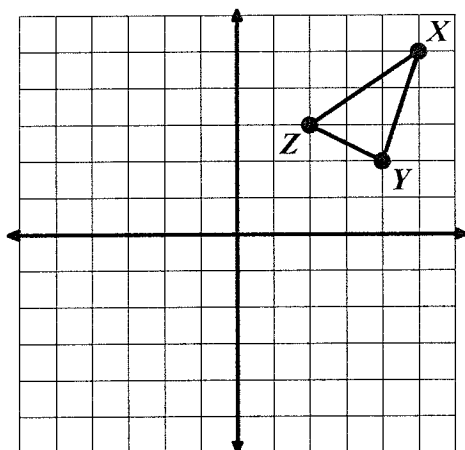
3. Reflect over y-axis and then Rotate clockwise 90° around **P'**.

4. Reflect quadrilateral ABCD over the line
   $y = 2 + x$ and label the image A'B'C'D'.

Rotate quadrilateral A'B'C'D' counter-clockwise 90^0
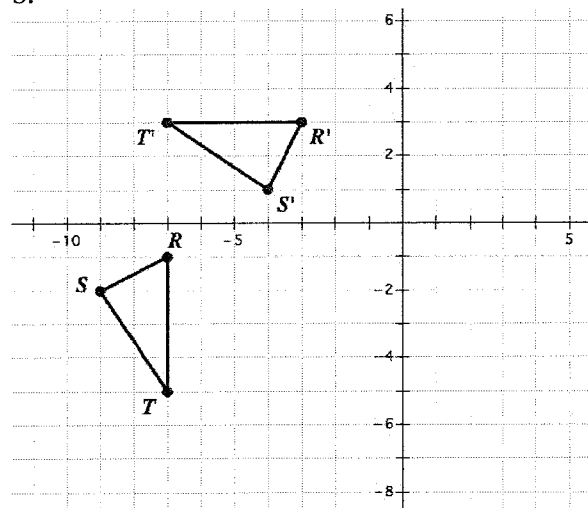   around (-2, -3) as the center of rotation label the
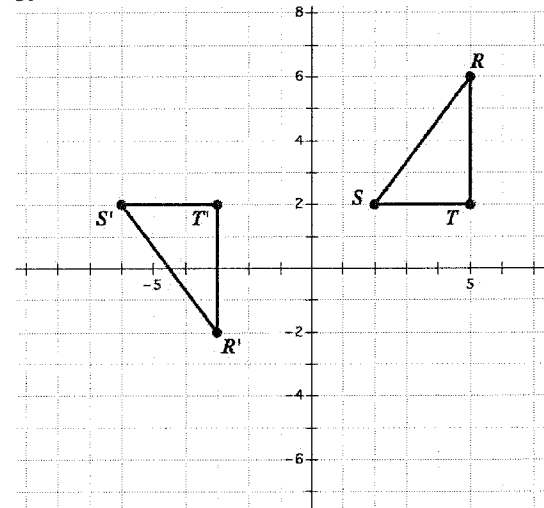   image A"B"C"C".
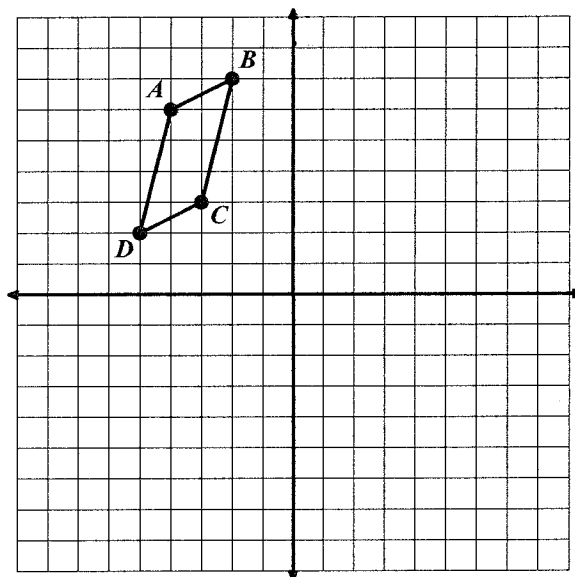
Set
Topic: Find the sequence of transformations.

Find the sequence of transformations that will carry triangle **RST** onto triangle **R'S'T'**.
Clearly describe the sequence of transformations below each grid.
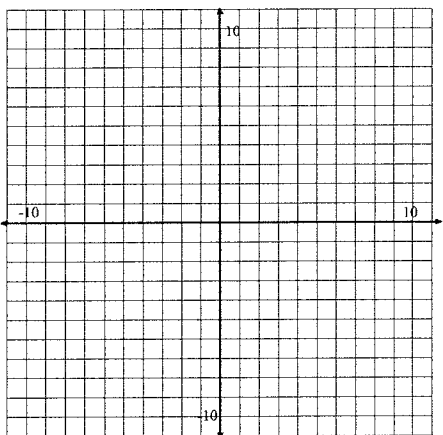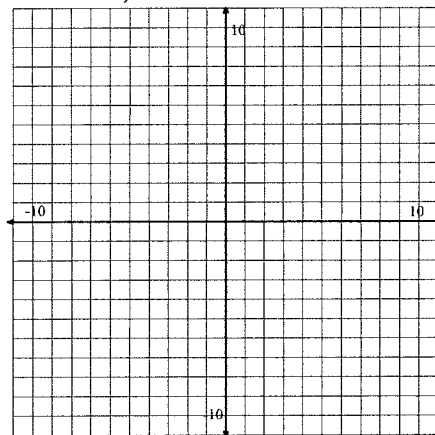
5.

6.

Go

Topic: Graphing functions and making comparisons.

Graph each pair of functions and make an observation about how the functions compare to one another.
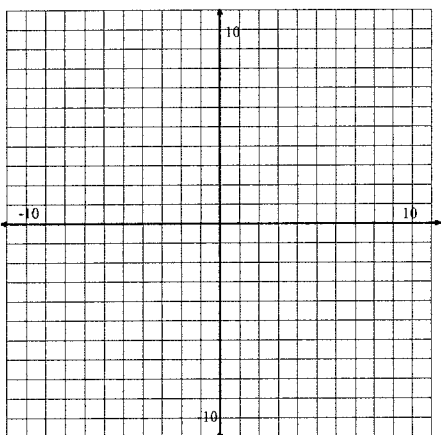
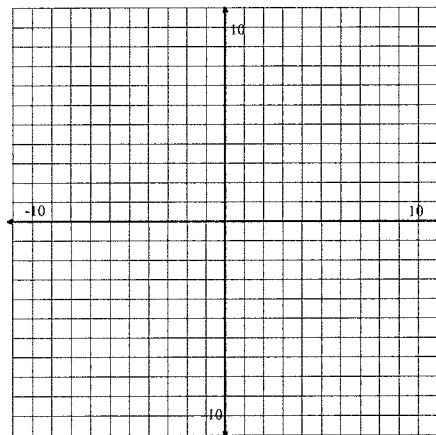7. $y = \frac{1}{3}x - 1$
   $y = -3x - 1$

8. $y = -\frac{2}{3}x + 5$
   $y = \frac{3}{2}x + 5$

9. $y = \frac{1}{4}x + 2$
   $y = -\frac{1}{4} + 2$

10. $y = 2^x$
    $y = -2^x$