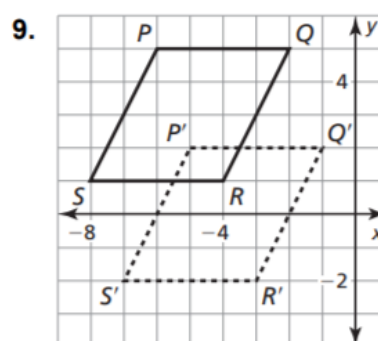
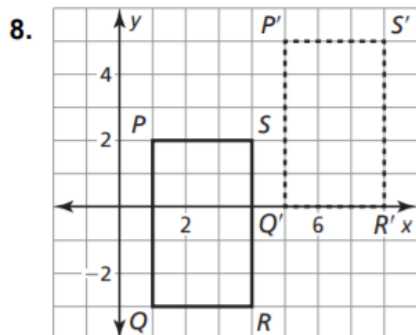


Chapter 4 Homework

Monday, November 15, 2021 11:17 AM

In Exercises 8 and 9, write a rule for the translation of quadrilateral $PQRS$ to quadrilateral $P'Q'R'S'$.



In Exercises 10 and 11, use the translation.

$$(x, y) \rightarrow (x + 6, y - 3)$$

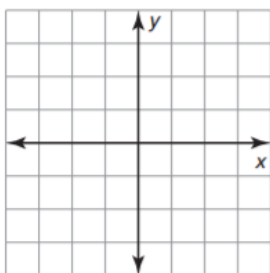
10. What is the image of $J(4, 5)$?

11. What is the image of $R'(0, -5)$?

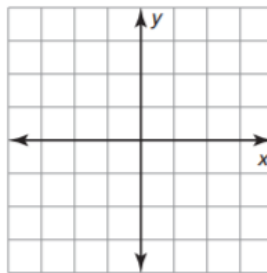
Extra Practice

In Exercises 1–4, graph $\triangle ABC$ and its image after a reflection in the given line.

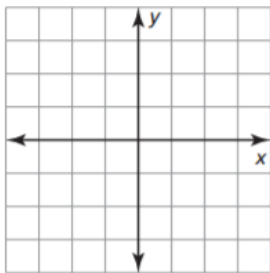
1. $A(-1, 5)$, $B(-4, 4)$, $C(-3, 1)$; y -axis



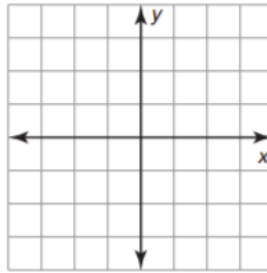
2. $A(0, 2)$, $B(4, 5)$, $C(5, 2)$; x -axis



3. $A(2, -1)$, $B(-4, -2)$, $C(-1, -3)$; $y = 1$



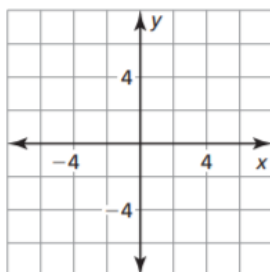
4. $A(-2, 3)$, $B(-2, -2)$, $C(0, -2)$; $x = -3$



In Exercises 7 and 8, graph $\triangle JKL$ with vertices $J(3, 1)$, $K(4, 2)$, and $L(1, 3)$ and its image after the glide reflection.

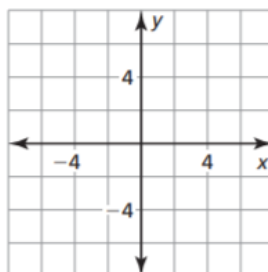
7. Translation: $(x, y) \rightarrow (x - 6, y - 1)$

Reflection: in the line $y = -x$



8. Translation: $(x, y) \rightarrow (x, y - 4)$

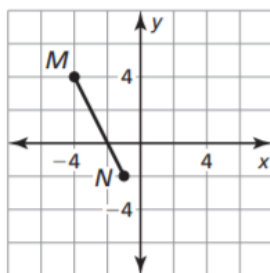
Reflection: in the line $x = 1$



In Exercises 4–7, graph the image of $\overline{MN}$ after the composition.

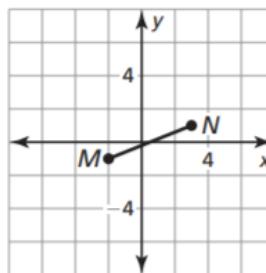
4. Reflection: x -axis

Rotation: 180° about the origin



5. Rotation: 90° about the origin

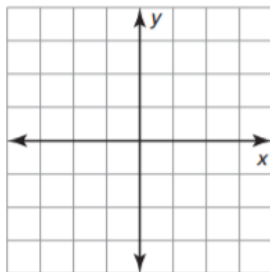
Translation: $(x, y) \rightarrow (x + 2, y - 3)$



In Exercises 8 and 9, graph $\triangle JKL$ with vertices $J(2, 3)$, $K(1, -1)$, and $L(-1, 0)$ and its image after the composition.

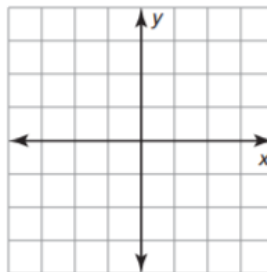
8. Rotation: 180° about the origin

Reflection: $x = 2$



9. Translation: $(x, y) \rightarrow (x - 4, y - 4)$

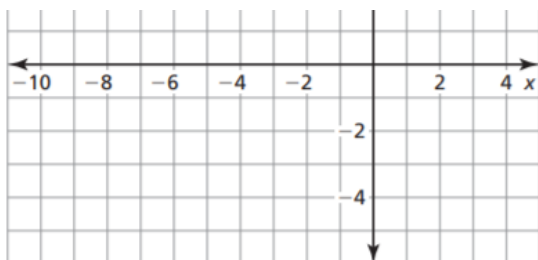
Rotation: 270° about the origin



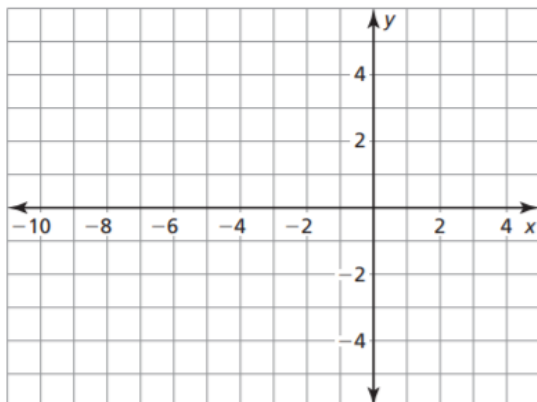
In Exercises 4 and 5, graph the polygon and its image after a dilation with scale factor k .

4. $A(-3, 1)$, $B(-4, -1)$, $C(-2, -1)$; $k = 2$





5. $P(-10, 0)$, $Q(-5, 0)$, $R(0, 5)$, $S(-5, 5)$; $k = \frac{1}{5}$



In Exercises 4–6, describe the similarity transformation that maps the preimage to the image.

