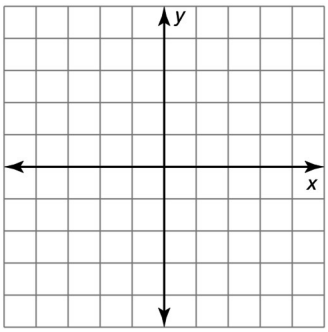
Name_____ Date _____

Chapter 4

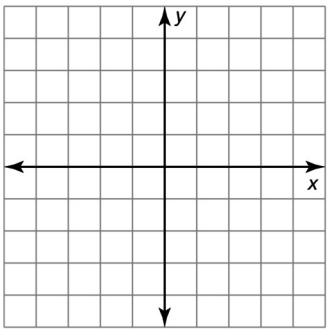
Quiz

For use after Section 4.3

1. Graph $\overline{FG}$ with endpoints $F(0, -3)$ and $G(0, -1)$ and its image after a reflection in the line $y = x$.

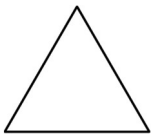


2. Graph $\triangle ABC$ with vertices $A(3, 3)$, $B(-2, 2)$, and $C(-2, -2)$ and its image after the translation $(x, y) \rightarrow (x - 1, y - 2)$.



3. Determine whether the figure has line symmetry. If so, draw the line(s) of symmetry and describe any reflections that map the figure onto itself.

4. Determine whether the figure has rotational symmetry. If so, describe any rotations that map the figure onto itself.



5. The endpoints of $\overline{AB}$ are $A(1, 1)$ and $B(3, 2)$. What are the coordinates of the endpoints of $\overline{A''B''}$ after a rotation of $450°$ about the origin, followed by a rotation of $90°$ about A'?

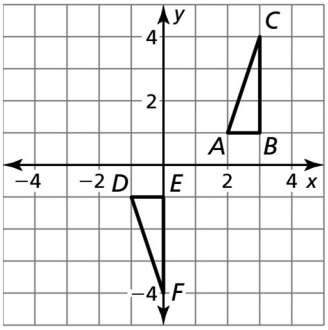
6. The point (a, b) where a and b are positive integers, is translated three units up and then reflected in the x-axis. What are the coordinates of the image of the point after this glide reflection?

Name _____ Date _____

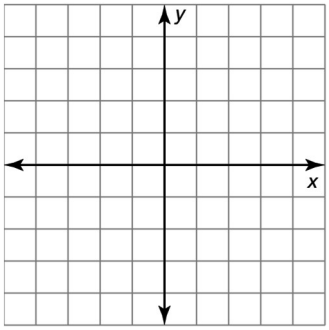
Chapter 4 Quiz

For use after Section 4.6

1. Describe a congruence transformation that maps $\triangle ABC$ to $\triangle DEF$.



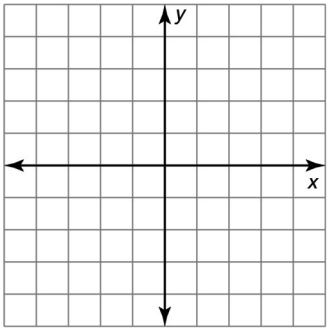
2. Graph $\triangle ABC$ with vertices $A(-2, 1)$, $B(-2, -1)$, and $C(2, -2)$ and its image after a dilation with a scale factor of 2.



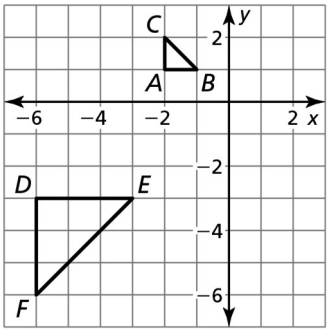
3. Graph $\triangle ABC$ with vertices $A(-2, -2)$, $B(0, 4)$, and $C(4, 0)$ and its image after the similarity transformation.

Rotation: $90°$ about the origin

Dilation: $(x, y) \rightarrow \left(\frac{1}{2}x, \frac{1}{2}y\right)$



4. Describe a similarity transformation that maps $\triangle ABC$ to $\triangle DEF$.



5. Determine whether each transformation preserves length. Then determine whether each transformation preserves angle measure.

a. rotation

b. dilation with $k > 1$

c. reflection followed by dilation with $0 < k < 1$

d. translation followed by dilation with $k > 2$