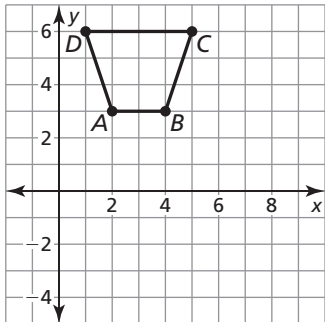


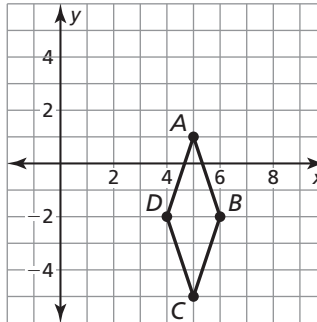
Chapter 11 Test B

Use the given translation to find the coordinates of the image of quadrilateral *ABCD*.

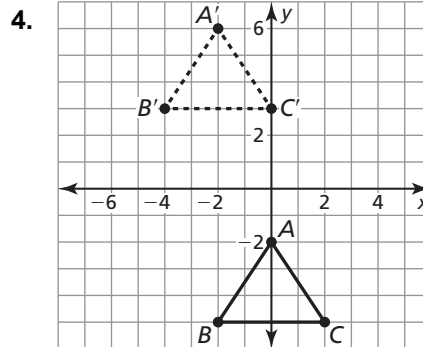
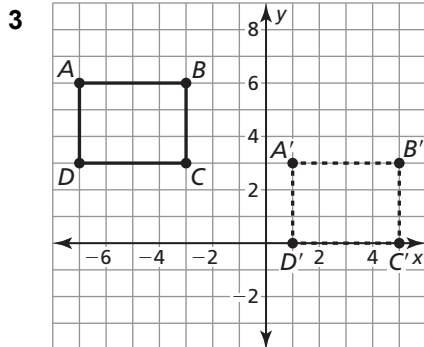
1. $(x, y) \rightarrow (x + 4), (y - 5)$



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

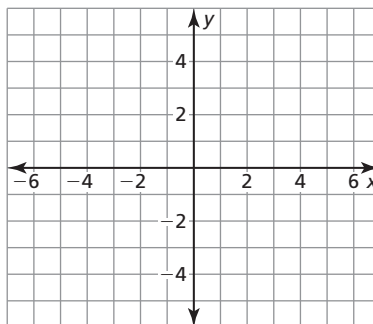
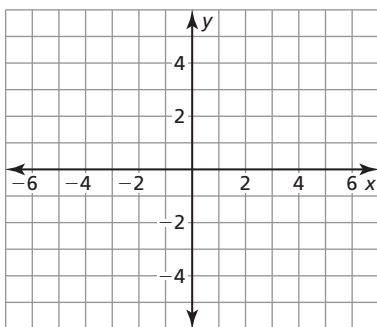


Write a rule for the translation of the preimage to the image.



Graph the polygon with the given vertices and its image after a rotation of the given number of degrees clockwise about the origin.

5. $A(4, -1), B(4, -4), C(1, -4), D(1, -3)$; 6. $D(3, 5), E(4, 1), F(1, 1)$; 270°
 180°



Determine whether the polygons with the given vertices are congruent. Use transformations to explain your reasoning.

7. $A(-6, -3), B(-3, 7), C(2, 5)$ and $E(-7, -1), F(-4, 9), G(1, 7)$
 8. $R(2, 3), S(2, -4), T(-4, 6), U(0, 6)$ and $M(9, 1), N(9, -20), O(-9, 10), P(3, 10)$

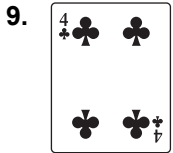
Answers

1. _____
2. _____
3. _____
4. _____
5. See left.
6. See left.
7. _____
8. _____

Chapter 11 **Test B** (continued)

Determine whether the object has line symmetry and whether it has rotational symmetry. Identify all lines of symmetry and angles of rotation that map the figure into itself.

Answers



9. _____

10. _____

11. _____

12. _____

13. _____

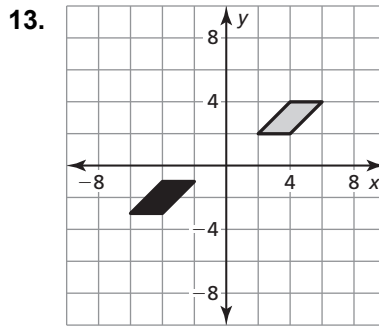
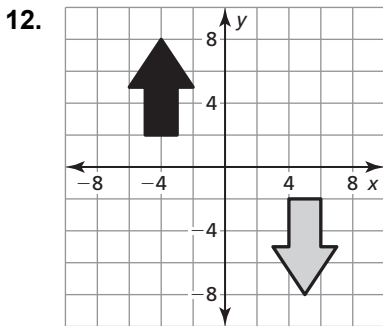
14. _____

15. _____

16. See left.

17. See left.

Describe a congruence transformation that maps the black perimage to the grey image.

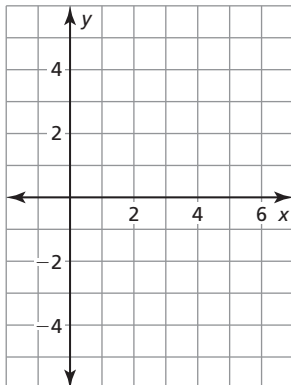


14. Consider $\triangle ABC$ with vertices $A(0, 0)$, $B(0, 4)$, $C(6, 0)$. The image of $\triangle ABC$ after a dilation has vertices $A'(0, 0)$, $B'(0, 10)$, $C'(15, 0)$. What is the scale factor of the dilation?

15. $\triangle ABC$ with vertices $A(-2, 5)$, $B(1, 8)$, $C(7, 5)$ is dilated using a scale factor of $3\frac{1}{2}$. What are the coordinates of the image of $\triangle ABC$?

The endpoints of \overline{AB} are $A(2, 0)$ and $B(4, -5)$. Translate \overline{AB} using the given vector. Graph \overline{AB} and its image.

16. $\langle 2, 4 \rangle$



17. $\langle 0, 3 \rangle$

