Name $\qquad$ Date $\qquad$

## LESSON 4.8

Practice C
For use with pages 271-279
Name the type of transformation shown.
1.

2.

3.

4. Figure $A B C D$ has vertices $A(-7,-3), B(-4,2), C(-1,-1)$, and $D(-2,-2)$. Sketch $A B C D$ and draw its image after the translation $(x, y) \rightarrow(x+4, y+3)$.

5. Figure $A B C D$ has vertices $A(8,3), B(7,5), C(2,6)$, and $D(3,1)$. Sketch $A B C D$ and draw its image after the translation $(x, y) \rightarrow(x-7, y-5)$.


Figure $A B C D$ has vertices $A(-4,2), B(-3,6), C(2,4)$, and $D(1,-1)$. Draw its image after the translation.
6. $(x, y) \rightarrow(x+2, y-1)$

7. $(x, y) \rightarrow(x+3, y+4)$

8. $(x, y) \rightarrow(x-1, y+2)$

9. $(x, y) \rightarrow(x-2, y-5)$


A point on an image and the translation are given. Find the corresponding point on the original figure.
10. Point on image: $(6,2)$; translation: $(x, y) \rightarrow(x+2, y-5)$
11. Point on image: $(-13,2)$; translation: $(x, y) \rightarrow(x-7, y+4)$
12. Point on image: $(8,7)$; translation: $(x, y) \rightarrow(x-3, y-1)$
13. A triangle is rotated $90^{\circ}$ clockwise and then translated 3 units up and 2 units to the right. The vertices of the final image are $A(-1,1), B(-4,-2)$, and $C(-7,0)$. Find the vertices of the original triangle.

