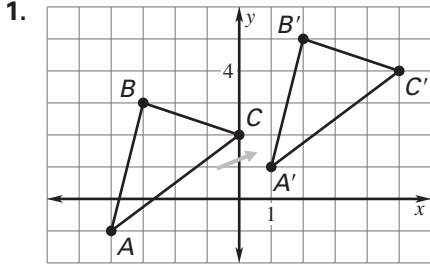NAME _____ DATE _____

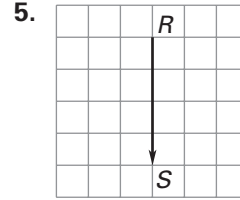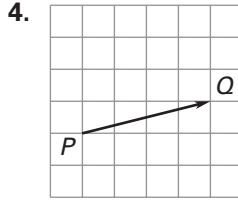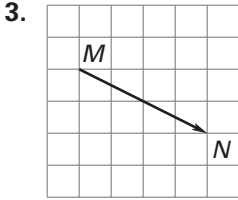## *Practice B*

For use with pages 421–428

Describe the translation using (a) coordinate notation and (b) a vector in component form.

1.

2.
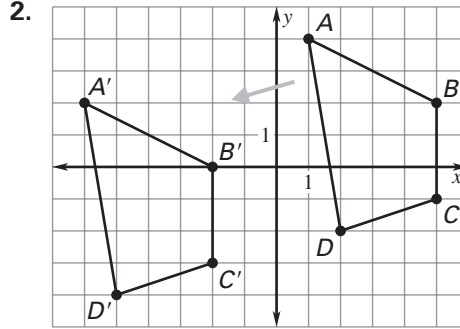
Name the vector and write its component form.
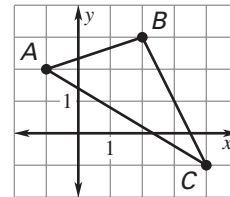
3.

4.

5.

Consider the translation that is defined by the coordinate notation
$(x, y) \rightarrow (x - 5, y + 8)$.

6. What is the image of $(4, 2)$?

7. What is the image of $(-1, 5)$?

8. What is the preimage of $(-3, -4)$?

9. What is the preimage of $(7, -5)$?

10. What is the image of $(0, 2)$?

11. What is the preimage of $(-4, 6)$?

Use a straightedge and graph paper to translate △ABC by the given vector.

12. $\langle -3, 1 \rangle$

13. $\langle 2, -3 \rangle$

14. $\langle 4, -1 \rangle$

15. $\langle -5, -2 \rangle$

Use the figure at the right which shows the distance between lines ℓ and m to be 4.

16. What is the length of $\overline{BB''}$?

17. What is the length of $\overline{AA''}$?

Lesson 7.4