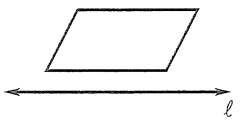
LESSON 7.2

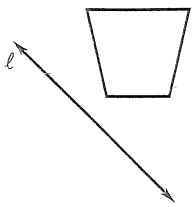
NAME _____ DATE _____

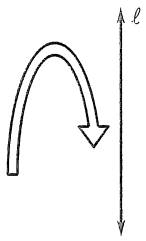
Practice C

For use with pages 404–410

Trace the figure and draw its reflection in the line ℓ.

1. 

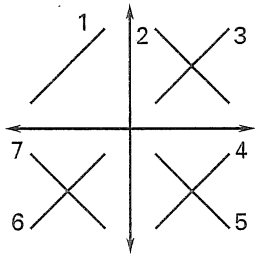
2. 

3. 

Find the coordinates of the reflection without using a coordinate plane. Then check your answer by plotting the image and preimage on a coordinate plane.

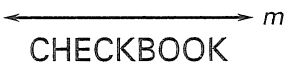
4. $M(3, 4)$ is reflected in the line $y = 1$.
5. $N(-2, 2)$ is reflected in the line $y = -1$.
6. $P(-2, 3)$ is reflected in the line $x = -3$.
7. $Q(5, -2)$ is reflected in the line $x = 3$.

Use the diagram at the right to name the image of Segment 1 after the reflection.



8. Reflection in the x-axis
9. Reflection in the y-axis
10. Reflection in the line $y = x$
11. Reflection in the line $y = -x$
12. Reflection in the y-axis, followed by a reflection in the x-axis
13. Reflection in the x-axis, followed by a reflection in the y-axis

Use the diagram at the right to answer the following.



14. Reflect the word in line m. What does it *read*?
15. What letters of the alphabet have horizontal line symmetry?
16. Use the letters you found in Exercise 14 to write a mirror message.

Find point C on the x-axis so $AC + BC$ is a minimum.

17. $A(1, 4), B(4, -1)$
18. $A(-2, 3), B(-4, 0)$
19. $A(-3, 2), B(-6, -4)$
20. $A(1, -3), B(-1, 1)$

The points $A(2, 5)$ and $B(-4, -7)$ are reflection images of one another.

21. Find the coordinates of the midpoint of $\overline{AB}$.
22. Find the slope of $\overline{AB}$.
23. Find the slope of a line perpendicular to $\overline{AB}$.
24. Use your answers to Exercises 21 and 23 to write the equation of the line in which A is reflected to B.