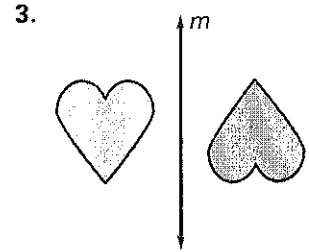
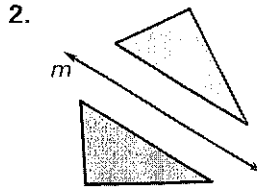
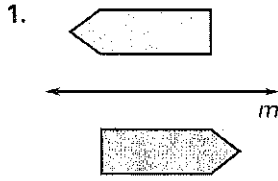


**Practice A**

For use with pages 404–410

Determine whether the light figure maps onto the darker figure by a reflection in line  $m$ .



Use the diagram at the right to complete the statement.

4.  $\overline{AB} \rightarrow$  ?

5.  $\overline{AD} \rightarrow$  ?

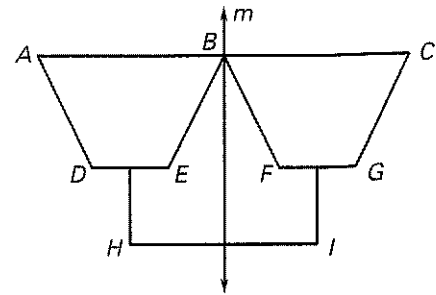
6.  $\angle D \rightarrow$  ?

7. ?  $\rightarrow \angle BFG$

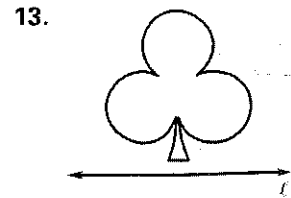
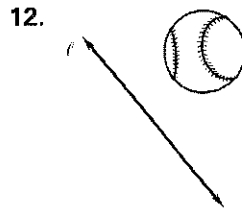
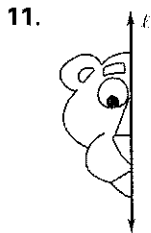
8.  $\angle EBA \rightarrow$  ?

9.  $B \rightarrow$  ?

10. figure  $ADEB \rightarrow$  figure ?



Trace the figure and draw its reflection in the line  $\ell$ .



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.

14.  $M(4, 2)$  is reflected in the  $x$ -axis.

15.  $N(3, 5)$  is reflected in the  $x$ -axis.

16.  $O(5, 1)$  is reflected in the  $y$ -axis.

17.  $P(3, 0)$  is reflected in the  $y$ -axis.

Sketch the figure, if possible.

18. A triangle with exactly one line of symmetry

19. A trapezoid with exactly one line of symmetry

20. A pentagon with exactly one line of symmetry

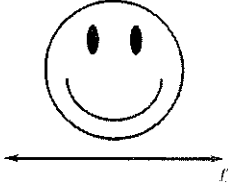
21. A hexagon with exactly two lines of symmetry

**Practice B**

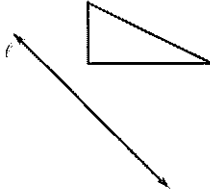
For use with pages 404–410

Trace the figure and draw its reflection in the line  $\ell$ .

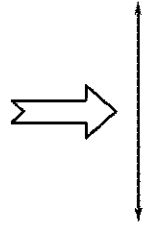
1.



2.



3.

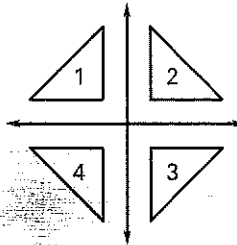


Decide whether the conclusion is *true* or *false*.

4. If  $M(2, 3)$  is reflected in the line  $y = 4$ , then  $M'$  is  $(6, 3)$ .
5. If  $N(-3, 1)$  is reflected in the line  $y = -2$ , then  $N'$  is  $(-1, 1)$ .
6. If  $P(0, -2)$  is reflected in the line  $x = 2$ , then  $P'$  is  $(0, 6)$ .
7. If  $Q(4, -3)$  is reflected in the line  $x = 2$ , then  $Q'$  is  $(0, -3)$ .

Use the diagram at the right to name the image of  $\triangle 1$  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

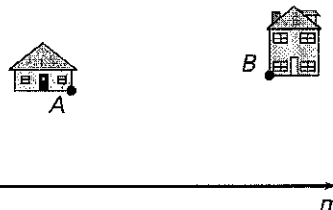


Sketch the figure, if possible.

13. A triangle with exactly two lines of symmetry
14. A quadrilateral with exactly two lines of symmetry
15. A pentagon with exactly two lines of symmetry
16. A triangle with exactly three lines of symmetry

Use the diagram at the right to answer the following.

17. Underground cable is to be laid so that two new homes may have electricity. Where along the road (line  $m$ ) should the transformer box be placed so that there is a minimum distance from the box to each of the homes?



18. Measure the minimum distance to the nearest tenth of a centimeter.