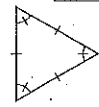
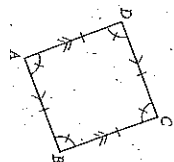
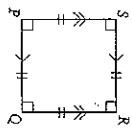


Square



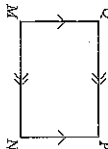
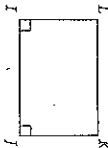
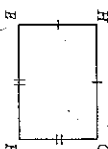
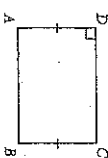
Squares

Not squares

As you learned in the investigation, a square is not a square unless it has the proper markings. Keep this in mind as you work on the exercises.

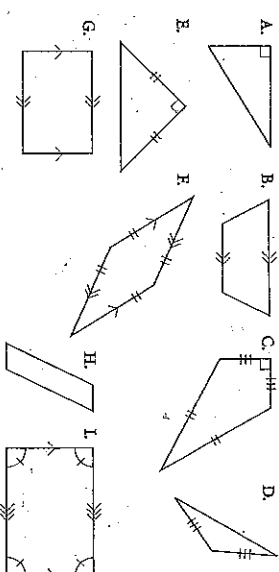
EXERCISES

1. Based on the marks, what can you assume to be true in each figure?



For Exercises 2-9, match the term on the left with its figure on the right.

2. Scalene right triangle
3. Isosceles right triangle
4. Isosceles obtuse triangle
5. Trapezoid
6. Rhombus
7. Rectangle
8. Kite
9. Parallelogram



10. Isosceles acute triangle $\triangle CT$ with $\overline{AC} = \overline{CT}$
11. Scalene triangle $\triangle CL$ with angle bisector \overline{CM}
12. Isosceles right triangle $\triangle CR$ with $m\angle CRA = 90^\circ$

For Exercises 10-18, sketch and label the figure. Mark the figures.

13. Trapezoid $ZOID$ with $\overline{ZO} \parallel \overline{ID}$

14. Kite $BENF$ with $BE = EN$

15. Rhombus $EQUJ$ with diagonals \overline{EU} and \overline{QJ} intersecting at A

16. Rectangle $RGHT$ with diagonals \overline{RH} and \overline{GT} intersecting at I

17. Two different isosceles triangles with perimeter $4a + b$

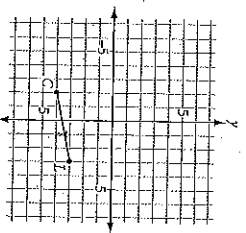
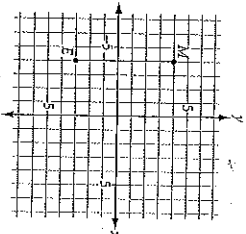
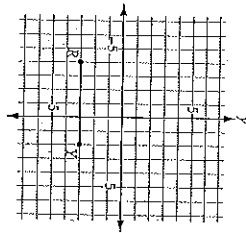
18. Two noncongruent triangles each with side 6 cm and an angle measuring 40°

19. Draw a hexagon with exactly two outside diagonals.

20. Draw a regular quadrilateral. What is another name for this shape?

21. Find the other two vertices of a square with one vertex $(0, 0)$ and another vertex $(4, 2)$. Can you find another answer?

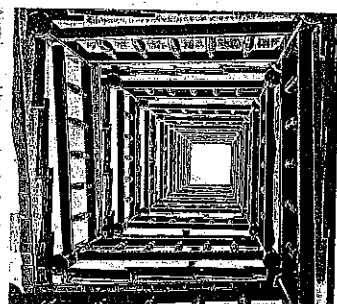
For Exercises 22-24, use the graphs below. Can you find more than one answer?



22. Locate a point L so that $\triangle LRY$ is an isosceles triangle.
23. Locate a point O so that $\triangle MOE$ is an isosceles right triangle.
24. Locate a point R so that $\triangle CRL$ is an isosceles right triangle. \textcircled{H}

Review

- For Exercises 25-29, tell whether the statement is true or false. For each false statement, sketch a counterexample or explain why the statement is false.
25. An acute angle is an angle whose measure is less than 90° .
 26. If two lines intersect to form a right angle, then the lines are perpendicular.
 27. A diagonal is a line segment that connects any two vertices of a polygon.



Austrian architect and artist Friedensreich Hundertwasser (1918-2000) designed the apartment house Hundertwasser-House (1966) with a square spiral staircase in its center. What other shapes do you see?