Name _____

Line Art

Use geometric figures to draw each of the following.

1. A flower using 1 line segment and 8 rays.

2. A sidewalk using 2 lines and 6 line segments.

3. Use geometric figures to draw your own design. Choose from points, lines, rays, segments, and angles.

4. ⬤ Write Math ▶ Describe your design in Problem 3. Include the names of the figures you chose.

_____

_____

_____

_____

_____

_____

Triangle Living

In the space below, draw a living room design using only acute, right, and obtuse triangles. Then color the acute triangles one color, the right triangles a second color, and the obtuse triangles a third color.

Stretch Your Thinking How could you use the triangles to create rectangles and squares?

_____

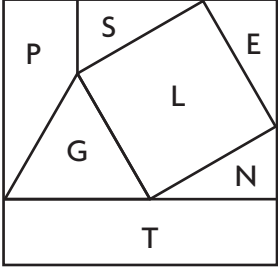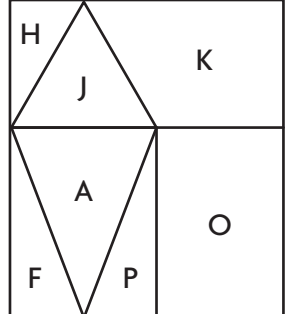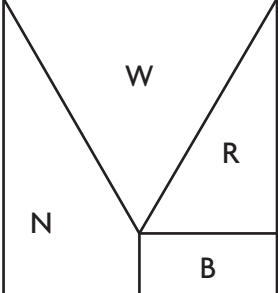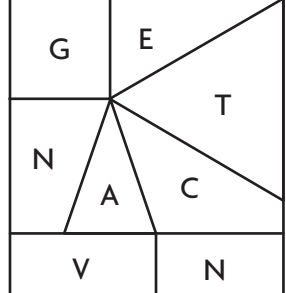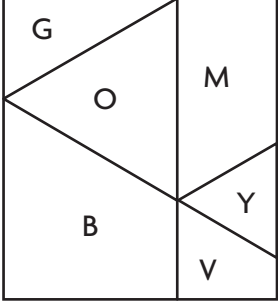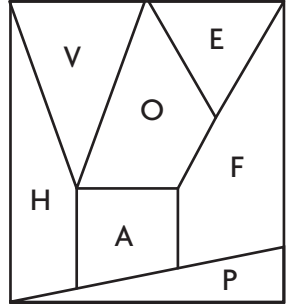_____

_____

_____

Name _____

The Great Triangle Mystery

Eli has hidden a treasure somewhere in a house. It is your job to find
the treasure. Read the clue in each box. Then shade the triangle that
matches the clue. Write the letter of the shaded triangle on the lines
below. Where is the treasure hidden?

Letter 1 is written on an equilateral triangle.

Letter 2 is written on an isosceles triangle.

Letter 3 is written on a scalene triangle.

Letter 4 is written on an isosceles triangle.

Letter 5 is written on a scalene triangle.

Letter 6 is written on an equilateral triangle.

Where is the treasure hidden?

_____   _____   _____   _____   _____   _____
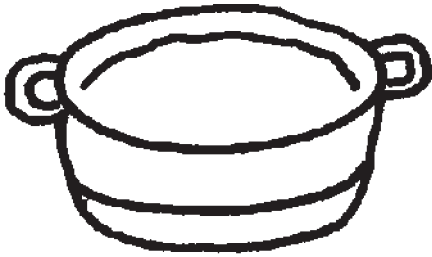Letter 1   Letter 2   Letter 3   Letter 4   Letter 5   Letter 6
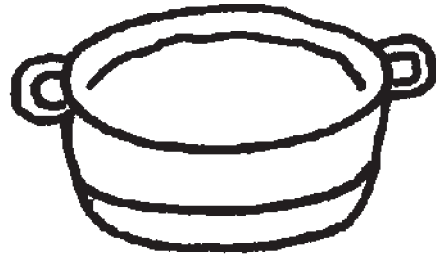
Alphabet Soup

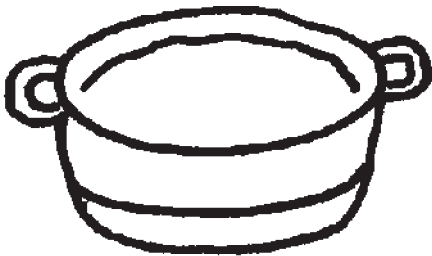**Use all 26 capital letters of the alphabet. Place them into as many "soups" as possible.**

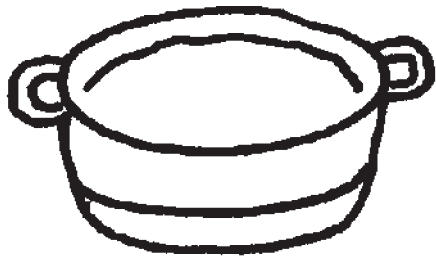**1.** Letters with parallel line segments

2. Letters with perpendicular line segments

3. Letters with intersecting, but not perpendicular, line segments

4. Letters with no parallel, perpendicular, or intersecting line segments

Name _____

Quad Logic

Read each statement carefully. Write *true* or *false*.

1. Some parallelograms are rectangles. _____

2. All trapezoids are parallelograms. _____

3. All squares are rectangles. _____

4. Some quadrilaterals are trapezoids. _____

5. Some rectangles are rhombuses. _____

6. All rhombuses are squares. _____

7. Some parallelograms are trapezoids. _____

8. All rectangles are squares. _____

Make each statement true. Write *All, No,* or *Some*.

9. _____ rectangles are parallelograms.

10. _____ squares are trapezoids.

11. _____ parallelograms are quadrilaterals.

12. _____ quadrilaterals are parallelograms.

13. **Stretch Your Thinking** Write three of your own
quad-logic statements. Then exchange them with a classmate
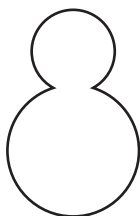and complete each other's statements.

_____

_____

_____

Name _____

Swimming Pool Symmetry

The owner of the Seaside Symmetry Resort is designing a new swimming pool. The owner wants the pool to have line symmetry. Tell if each swimming pool design below appears to have line symmetry. If it does, draw a line or lines of symmetry.
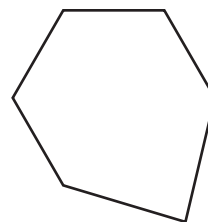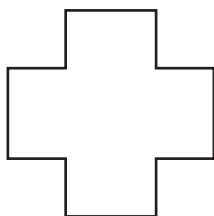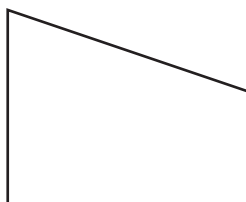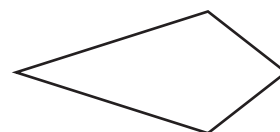
1.

2.

3.

_____ _____ _____

4.

5.

6.

_____ _____ _____

7. The owner of the resort wants to build a pool that has four sides with equal length and four lines of symmetry. In what shape can the pool be built?

_____

8. [Write Math] ▸ Describe a strategy you could use to make a symmetrical design for a swimming pool.
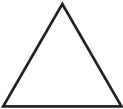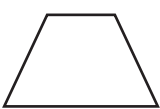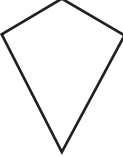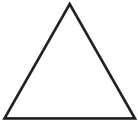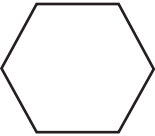
_____

_____

_____

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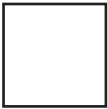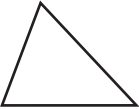
Name _____

Symmetry Riddle

What did the 0 say to the 8?

To answer the riddle, use the decoding box for each word. For each shape, decide how many lines of symmetry it appears to have, and then use the code. For example, a square has 4 lines of symmetry, so write an N on the line below the square.

1. Word 1 Code Box

Write C if the shape has no lines of symmetry.
Write E if the shape has 1 line of symmetry.
Write F if the shape has 2 lines of symmetry.
Write I if the shape has 3 lines of symmetry.
Write N if the shape has 4 lines of symmetry.
Write R if the shape has 6 lines of symmetry.

Word 1

N ___ ___ ___

2. Word 2 Code Box

Write B if the shape has no lines of symmetry.
Write E if the shape has 1 line of symmetry.
Write G if the shape has 2 lines of symmetry.
Write L if the shape has 3 lines of symmetry.
Write O if the shape has 4 lines of symmetry.
Write T if the shape has 6 lines of symmetry.

Word 2

___ ___ ___ ___

3. [Write Math] Make up your own symmetry riddle and code boxes. Exchange riddles with your classmates and solve.
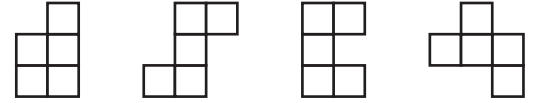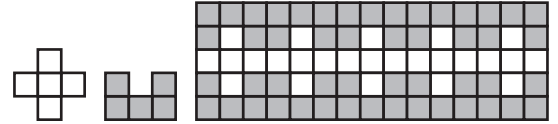
_____
_____
_____
_____
_____

Pentomino Patterns

A *pentomino* is a figure made of five same-size squares.
Each square must share a side with its neighbor.
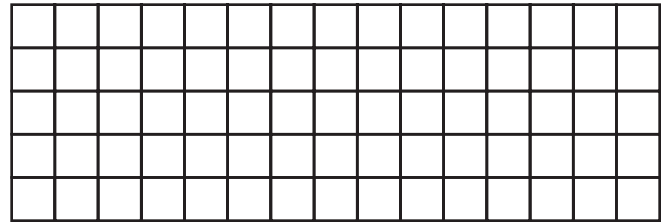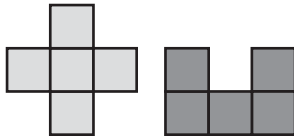
The pattern at the right uses two pentominoes
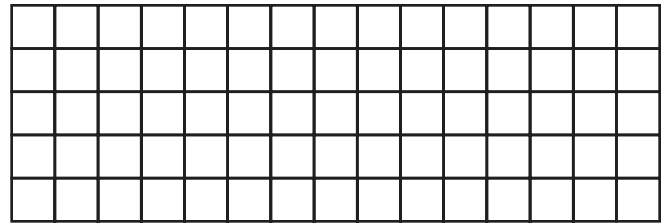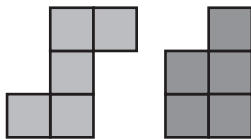to create a rectangular design.

Use the pentominoes to create a rectangular design.

1.

2.

3.