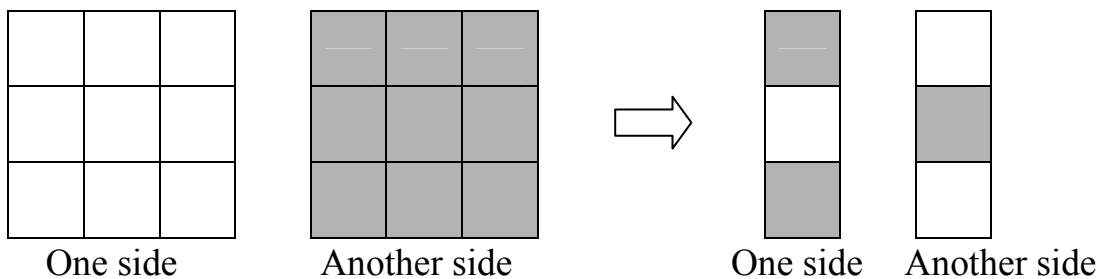


Puzzle Competition

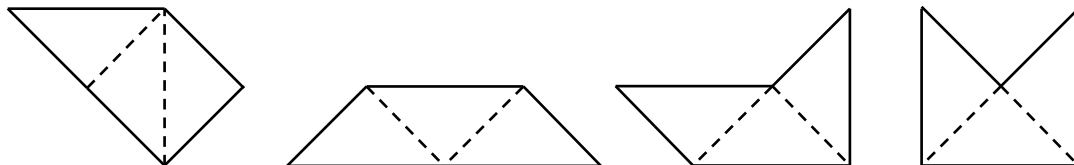
Puzzle 1.

A 3×3 square piece of origami paper is colored on one side and left blank on the other side. Fold the paper into a 1×3 rectangular stack so that the two end squares on one side are colored while the middle square is blank, and the two end squares on the other side are blank while the middle square is colored.



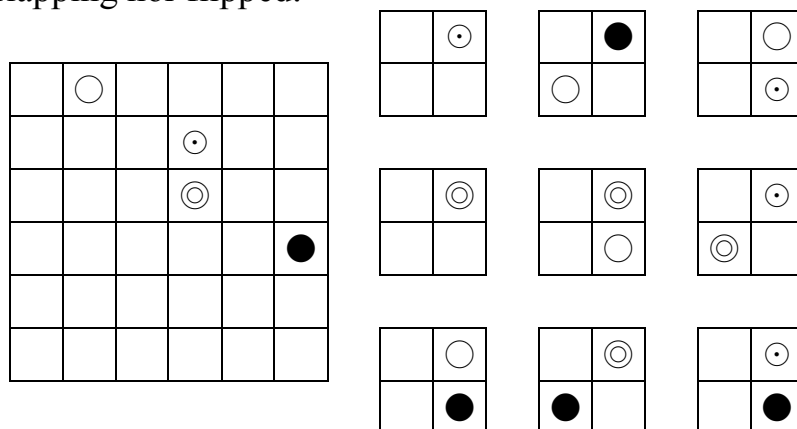
Puzzle 2.

Four shapes consisting of three congruent isosceles right triangles are shown below. Use any three of them to construct a larger figure with an axis of symmetry. The pieces may be rotated or flipped but may not overlap.



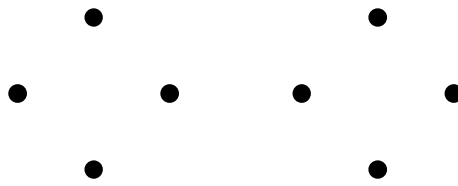
Puzzle 3.

Place the nine square pieces below (right) on the 6×6 board, each covering four cells, so that the four circles of each type form the corners of a square whose sides are not necessarily parallel to the side of the board. The four circles marked on the board must be covered by circles of the corresponding type. The pieces may be rotated but may not be overlapping nor flipped.



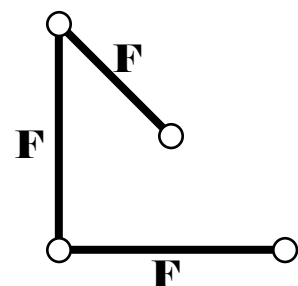
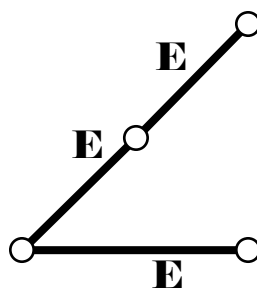
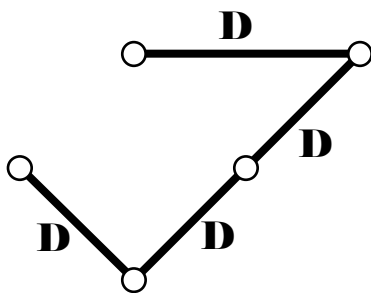
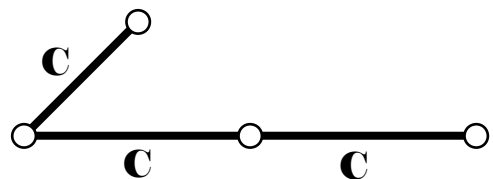
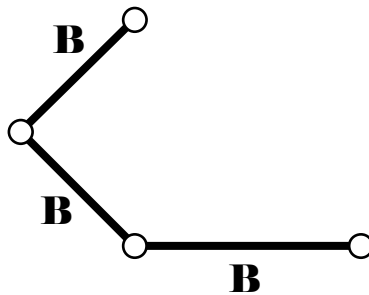
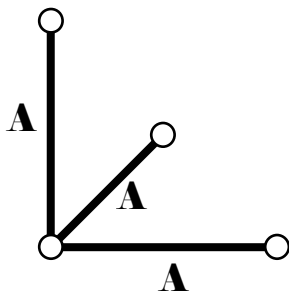
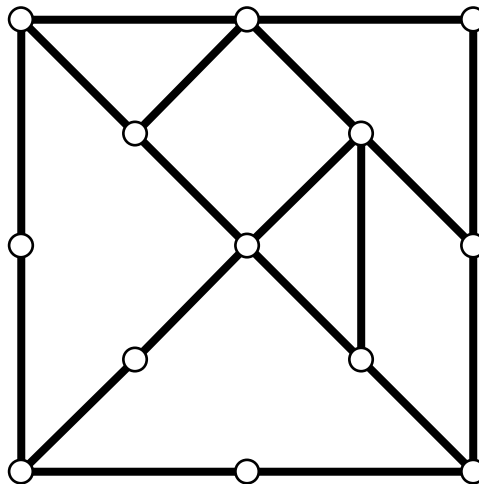
Puzzle 4.

Without lifting your pen from the paper, draw 4 straight line segments that passes through each of the eight points in the diagram below exactly once.



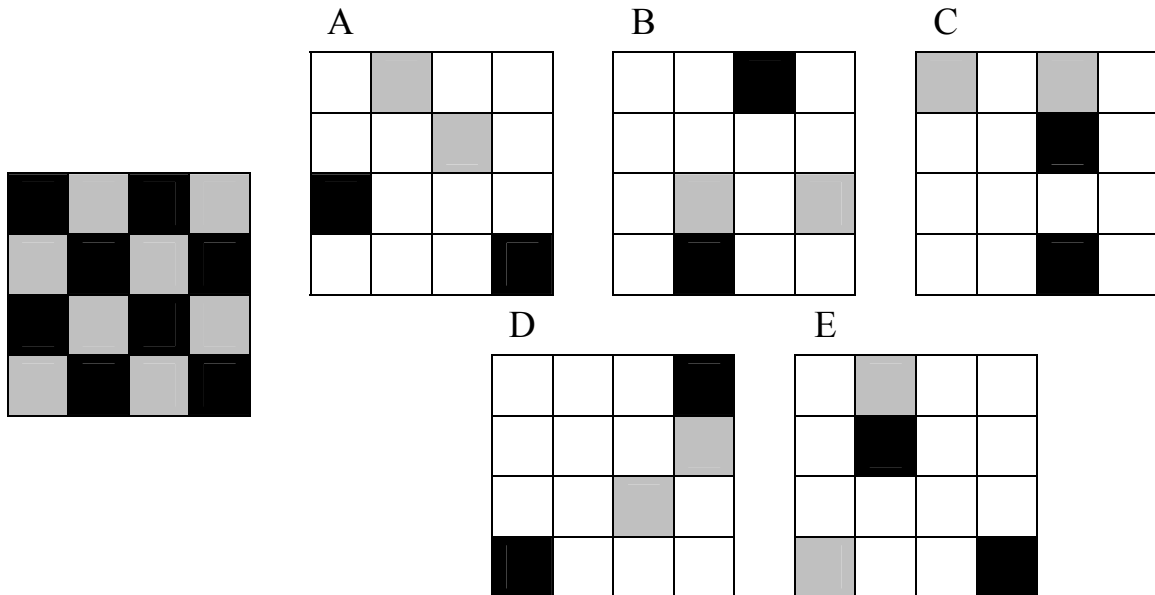
Puzzle 5.

Use the six pieces of rigid wiring (on the right) to construct the framework of a Tangram set (on the left). The pieces may be rotated or flipped.



Puzzle 6.

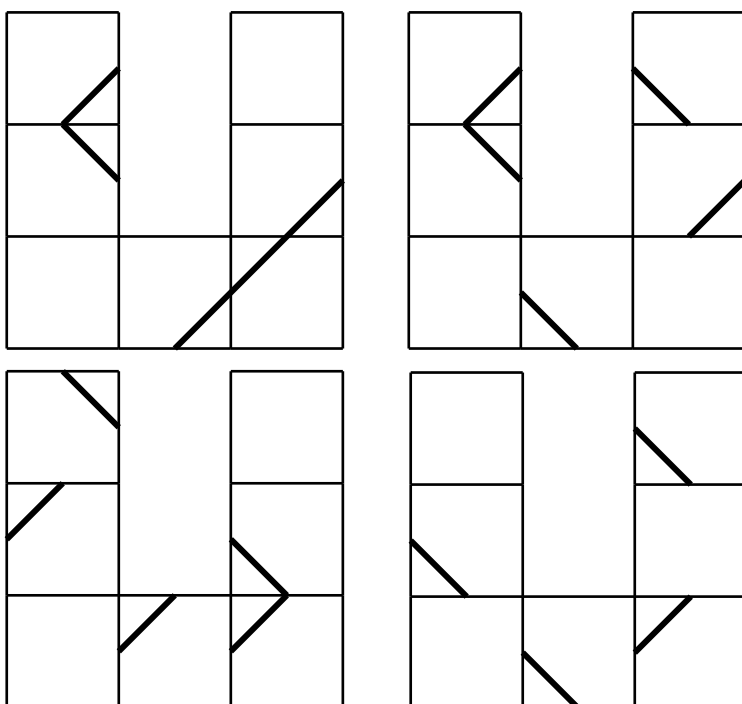
Given five pieces of transparent 4×4 boards each containing some gray and some black squares. Stack four pieces on top of each other so that the resulting 4×4 board has a checkered pattern of gray and black squares as shown in the diagram below on the left. The pieces may be rotated or flipped.



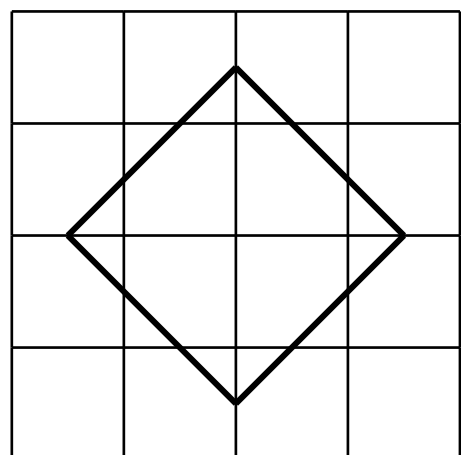
Puzzle 7.

Given four U-shaped pieces each consisting of seven squares with some line segments marked on them. By stacking them together, form a 4×4 square with the outline of a diamond in its centre, as shown in the diagram below on the right. They may also be intertwined, with one piece going over or under another piece. The pieces may be rotated, but not flipped nor folded.

Given U-shaped pieces:



Resulting Figure:



Puzzle 8.

Arrange all the given hexagonal pieces from the left to the grid at the right in such a way that the dots of the adjacent vertices always fit to form the complete dot, creating a hexagonal grid covered with black dots of two different sizes. The pieces may be rotated, but not flipped.

