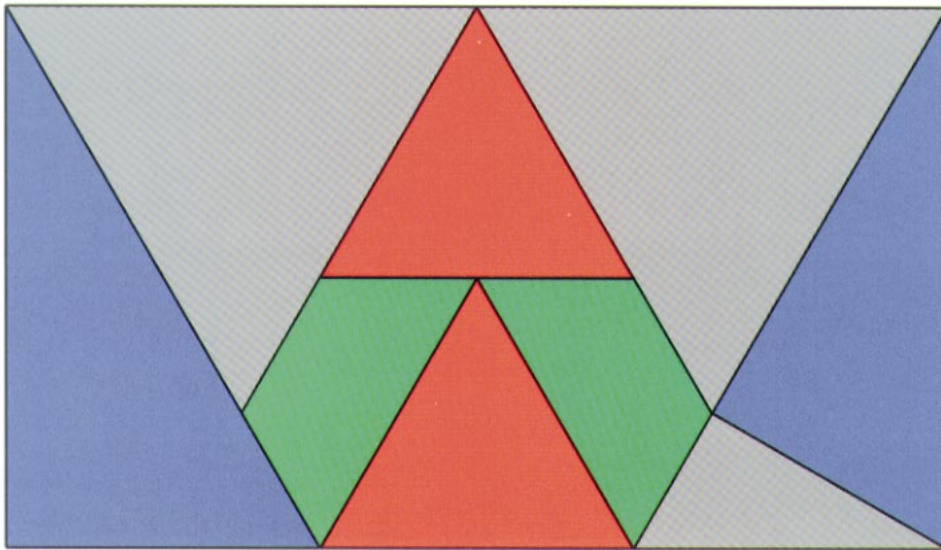


The Nine Puzzle

Problem-of-the-Week

The Problem

Use all nine of these puzzle pieces to make a star with six points and sides of equal lengths. To make your own pieces, start with a rectangle that is 24 centimeters long. Four of the triangles are equilateral and three are right.



Strategies and Hints

1. Sketch a regular hexagon. Then add 6 equilateral triangles to the sides to make a six-pointed star.
2. Which two puzzle pieces look like good possibilities for points of the star you are trying to make?
3. Take the three right triangles and use them to make one equilateral triangle. None of the three vertices of this figure will end up as vertices of the star.
4. One part of the star will look like the drawing at the right. The solid lines are part of the border; the dotted lines are inside the star.

