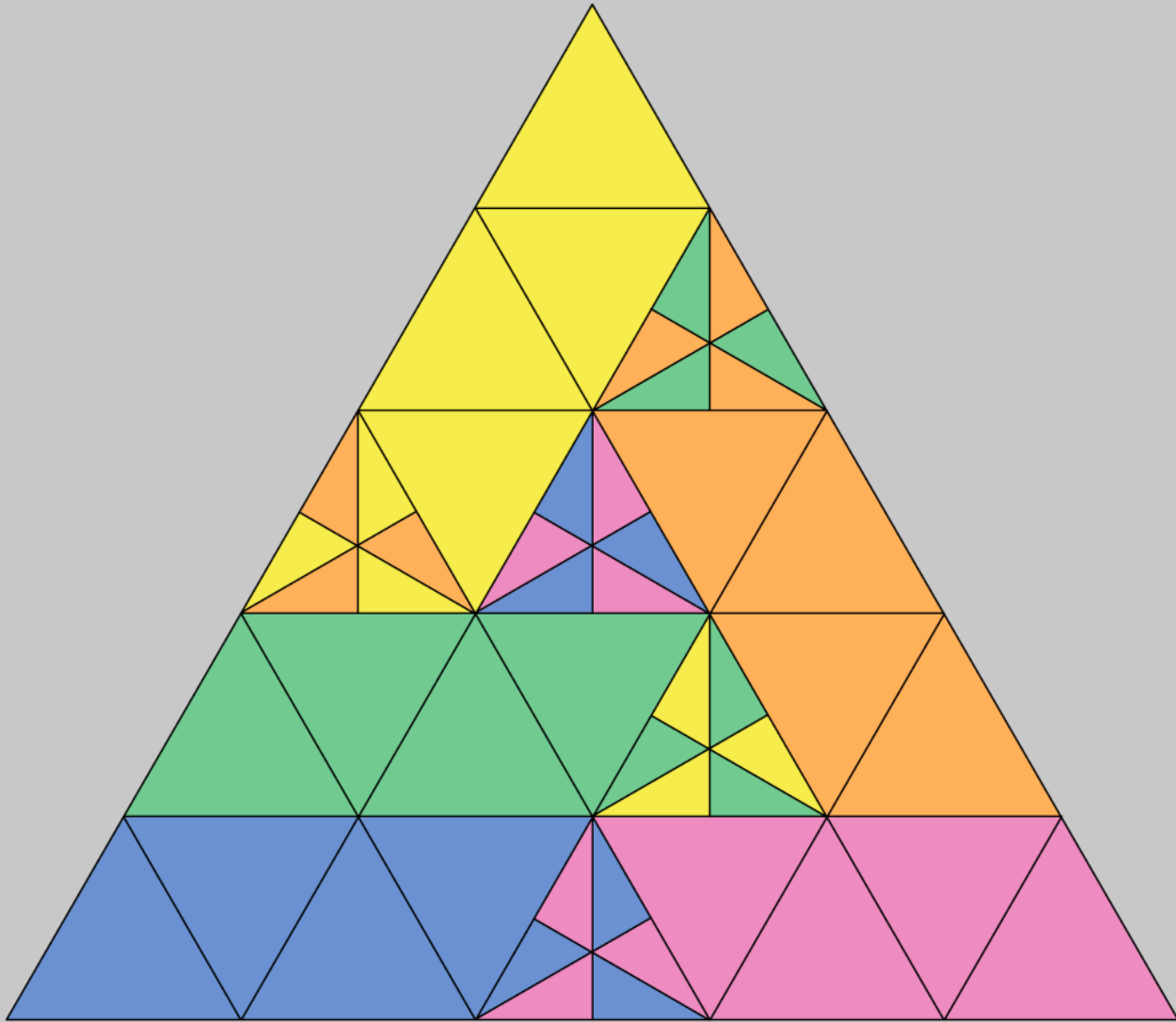


Dissection of an Equilateral Triangle Into Five Congruent Open Sets



All five figures in this picture are pairwise disjoint open sets and the union of them with their boundaries is equal to the triangle. Two of these figures are congruent by a reflection in a vertical axis, two figures are congruent by a translation, and three figures are congruent by rotations.

Several questions remain open:

1. Can we replace 5 by an arbitrary positive integer?
2. Is there a similar dissection with *connected* open sets?
3. Is there a *partition* of an equilateral triangle into 5 congruent subsets?

—Submitted by Mikhail A. Patrakeev