



We're interested in looking at "highly composite" polyominoes, which are n -ominoes that can be tiled by the greatest number of (weakly) smaller polyominoes, where we only allow one kind of free polyomino in the tiling.

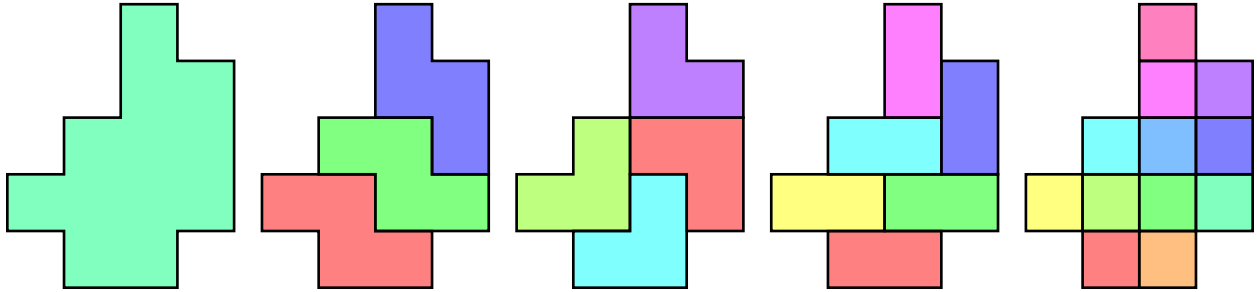


Figure 1: Five (all?) polyominoes that can tile the given 12-omino.

Question. What do the highly composite polyominoes look like? Are they always rectangles?

Related.

1. What if this is done for polycubes? On other tilings?
2. What if we count the number of tilings? (i.e. if there's multiple domino tilings, we count them separately.)
3. What if we look at tilings by fixed polyominoes? One-sided polyominoes?

References.

Drake Thomas's prime polyominoes (A342430).

Problem 77.