Let a k-tile *multipolyform* be a generalized polyform on a tiling, that is, a choice of k tiles in the tiling that are edge-adjacent.

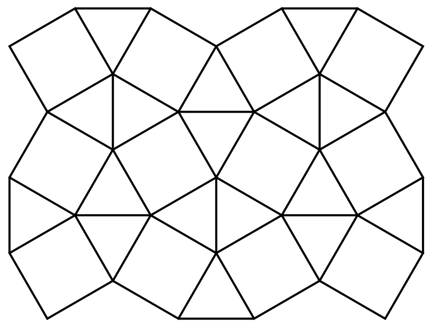

Figure 1: The snub square tiling.

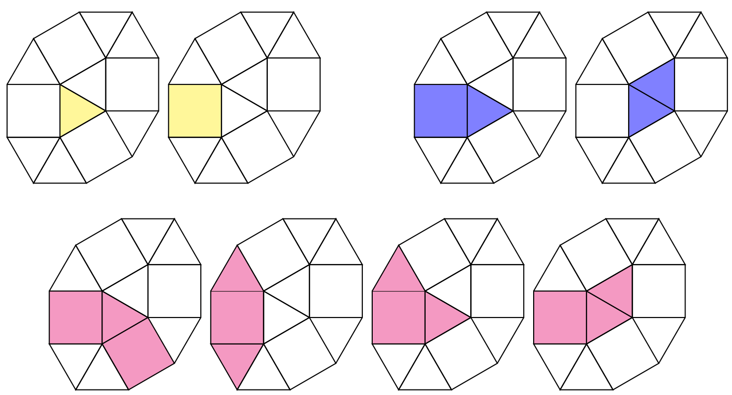

Figure 2: All 1-tile, 2-tile, and 3-tile multipolyforms on a snub square tiling.

Note. It is hard to count polyominos and polyforms more generally.

Question. Is there a unified method for counting multipolyforms on an arbitrary tiling—that is, a method that is not *ad hoc* for each tiling?

Related.

1. What is the smallest region of the plane that can contain all k-polyforms? (As in Moser's worm problem.)
2. Do the multipolyforms described in the example grow significantly faster than polyominos? What aspects of the tiling does the asymptotic growth depend on?

References.

`https://en.wikipedia.org/wiki/Snub_square_tiling#/media/File:1-uniform_n9.svg`

`https://en.wikipedia.org/wiki/Euclidean_tilings_by_convex_regular_polygons`

`https://en.wikipedia.org/wiki/Polyform`