

# Symmetric Stamp Foldings

If you're not tired of [stamp foldings](#) yet, a type that some people seem to care about is *symmetric* stamp foldings. For a stack made from an even number of stamps, it's top-to-bottom symmetry. For an odd number of stamps, it's 180° rotational symmetry.

A stack of one stamp is trivially symmetric:



Both foldings of two stamps are symmetric:



But of the six foldings of three stamps, only two are symmetric:



And of the sixteen foldings of four stamps, only four are symmetric:



Five stamps, six symmetric foldings:



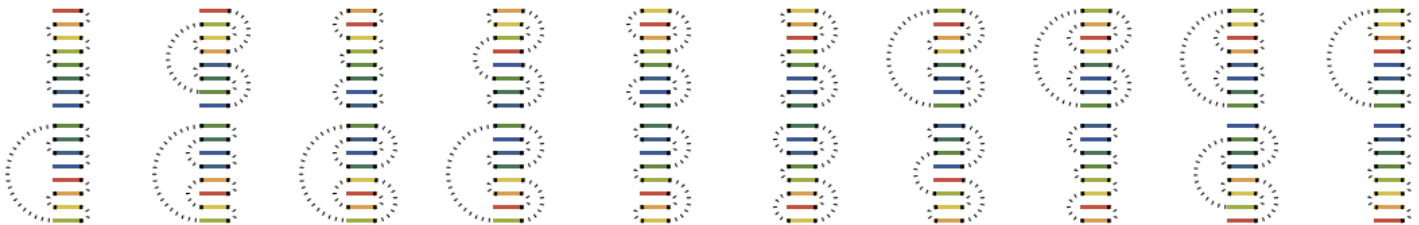
Six stamps, eight symmetric foldings:



Seven stamps, eighteen symmetric foldings:



Eight stamps, twenty symmetric foldings:



Is "foldings" even a word? Anyway, this is OEIS sequence [A001010](#). Naturally, the counts are all even numbers (apart from the one-stamp stack, which I wish I'd never brought up) because the reverse of a symmetric folding is also symmetric.

If you kind of liked this, you'll kind of love [labeled stamp foldings](#), [unlabeled stamp foldings](#), and [map foldings](#).

See Martin Gardner, *Wheels, Life and Other Mathematical Amusements*, pp. 60–61, 1983.

Figures created with [Mathematica 10](#).

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