Consider folding a strip of n equilateral triangles down to 1 triangle in as few moves as possible.

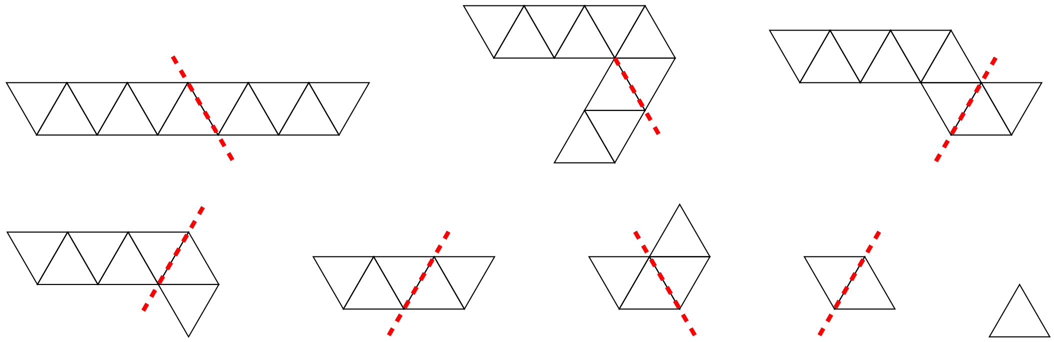

Figure 1: An example demonstrating that $a(11) \leq 7$.

Question. How many folds are required to fold a strip of n triangles down to one?

Related.

1. What if other n-iamonds are considered? Which n-iamond takes the greatest number of folds?
2. Does there exist a family of n-iamonds that require more than $\mathcal{O}(\log_2(n))$ folds?
3. Given an n-iamond uniformly at random, what's the expected value of the number of folds required?
4. What if you must fold a single cell versus across a line?
5. Consider the graded poset of polyiamonds given by the covering relation $x \lessdot y$ if y is one fold away from x. How many polyiamonds have rank n?
   - There is at least one 2^k-iamond with rank k. How many 2^k-iamonds are there with rank k?
   - What's the second largest polyiamond of rank k?
   - What's the smallest polyiamond of rank k?
   - Is this poset Sperner?
6. Is there a sensible way to generalize this construction to other polyforms?