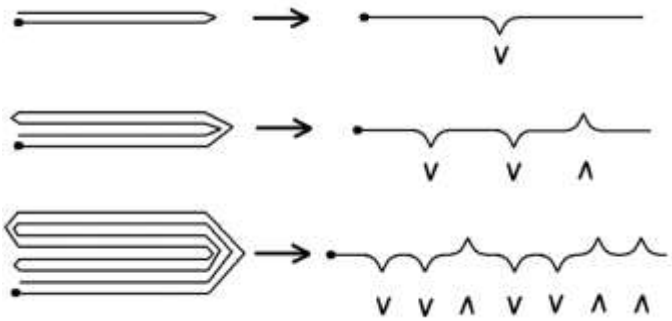
MORE WITHOUT WORDS

Mathematical Puzzles to Confound and Delight

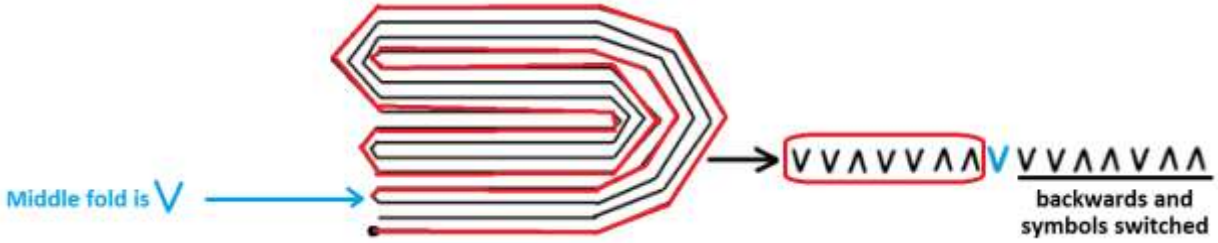
MWW 30: SOLUTION

We have



Now do a next fold.

We see that the first half of the next fold, four folds, is the previous pattern (follow the red lint) and so the first part of the crease sequence of this next fold is a repeat of the previous crease sequence. The middle fold is a V. And the remainder of the crease pattern, the second half of the strip, repeats the first set of creases but in reverse order and with each crease the opposite type.



The crease pattern for five folds is given by copying this four-fold pattern, writing V, and then writing the four-fold pattern again in reverse order with symbols switched.

Following this construction one more time, the crease pattern for six folds is:

There is a tremendous amount of mathematical structure to these folding patterns. See my chapter *FOLDINGS PATTERNS AND DRAGONS* in my book *MATHEMATICS GALORE!*
(www.maa.org/publications/ebooks/mathematics-galore)