Fold the Sheet

by Henry E. Dudeney

Take a rectangle piece of paper divided into eight squares (2x4), and then number them on one side as shown in the left part of the diagram. Or simply print out the pattern from the Page 3 of this Print 'n' Play Version.

Henry E. Dudeney discovered that there are 40 different ways to fold this rectangle along the lines to form a square packet with number 1 face-up on top and all other squares beneath it like that shown in the right part of the illustration.

The object of this puzzle is to fold the rectangle along the lines in such a way that the squares are in serial order from 1 to 8, with number 1 face-up on top. You aren't allowed to tear the rectangle, just fold and possibly slightly bend it.

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Fold the Sheet (solution)

The solution is as follows. Place the rectangle face down and upside down as shown in the diagram above. Now fold up the right half so that 5 goes on 2, 6 on 3, 4 on 1 and 7 on 8. Fold the bottom half up so that 4 goes on 5 and 7 on 6. Then tuck 4 and 5 together in between 6 and 3. Finally fold 1 and 2 beneath, and turn the whole square packet over to see number 1 on its top.
Fold the Sheet (pattern)

To produce the pattern first print it out. Then follow the diagram shown in the left column above - from step 1 to step F (finish).