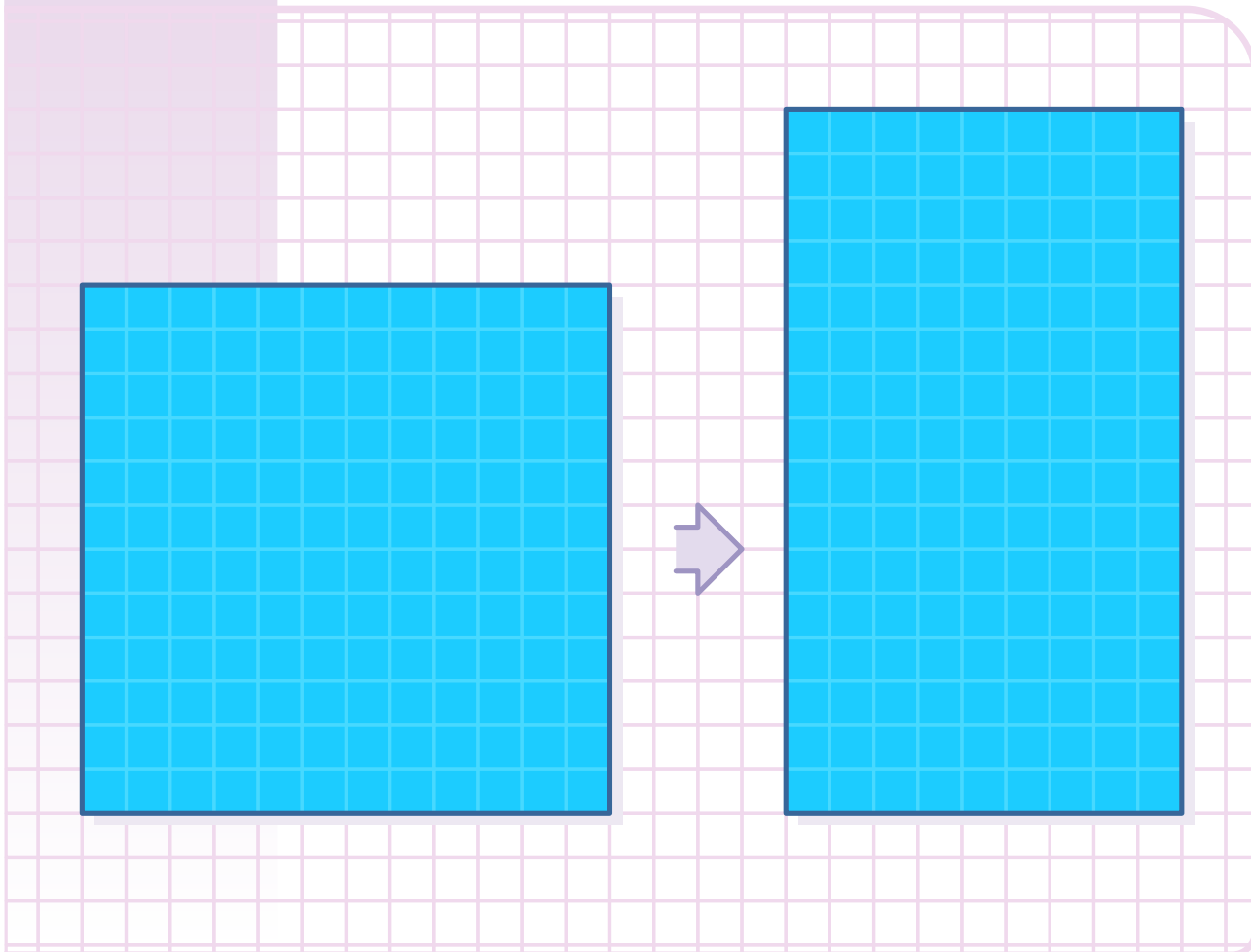


Treasure of Classic
and Modern Puzzles

Dissection Puzzles

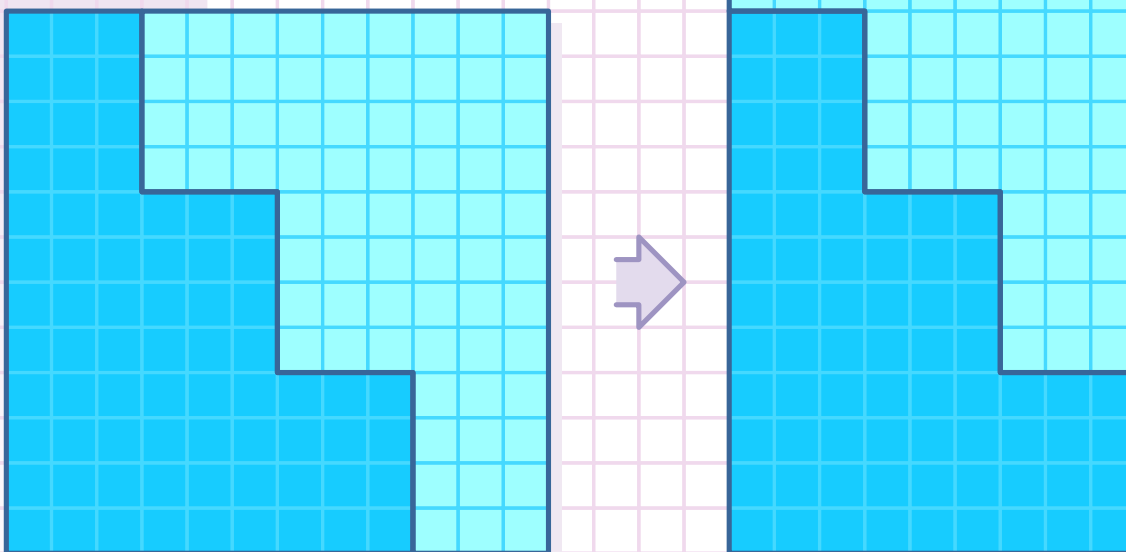


Step the Square *after Girolamo Cardano*

Divide the 12x12 square on the left into two pieces so that to rearrange them into the 9x16 rectangle on the right.

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Dissection Puzzles



Step the Square (solution)

The solution to this puzzle is shown in the illustration.

The solution is based on a dissection that uses the *step* technique, so named because of the resemblance to stair steps. Girolamo Cardano, an Italian physician and mathematician, described this dissection in 1663 in his *De Rerum Varietate*.

Greg N. Frederickson in his *Dissections: Plane & Fancy* writes: "...In its simplest form, the step technique cuts a rectangle in a zigzag pattern, alternating horizontal cuts of one length with vertical cuts of another. By shifting the two resulting pieces by one step relative to each other, we form a different rectangle..."

September 1, 2003

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