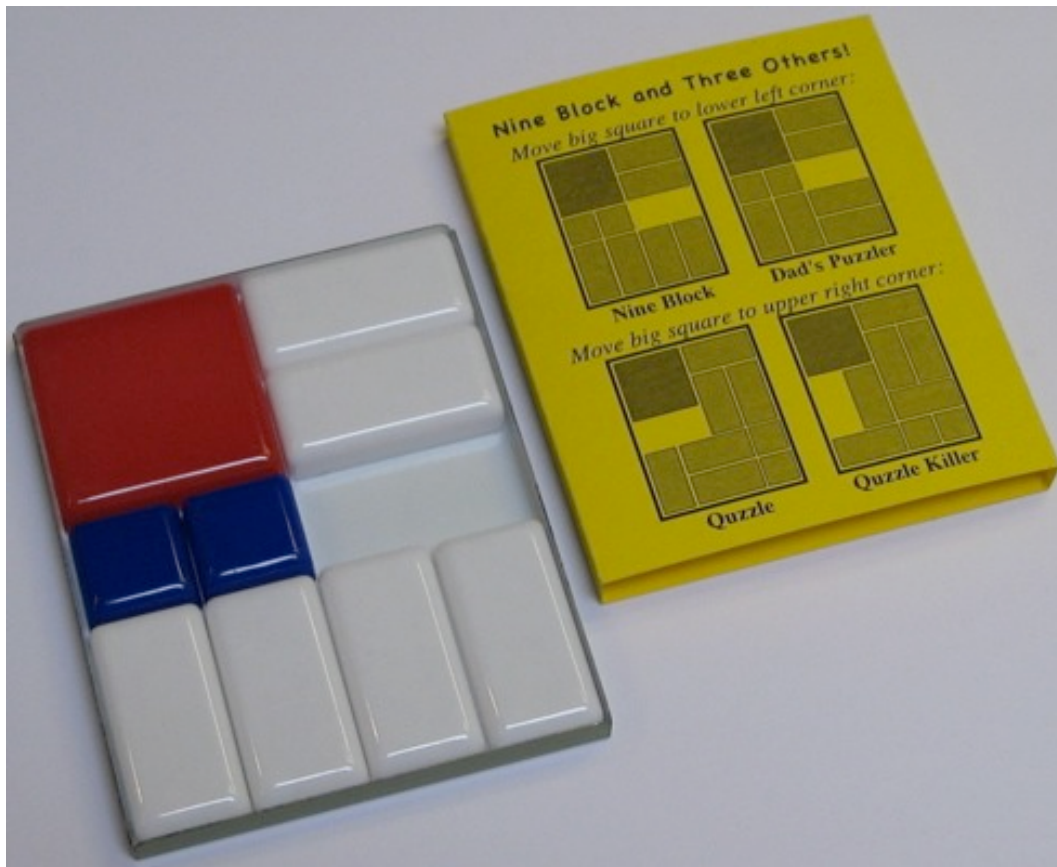


# Nine Block Puzzle

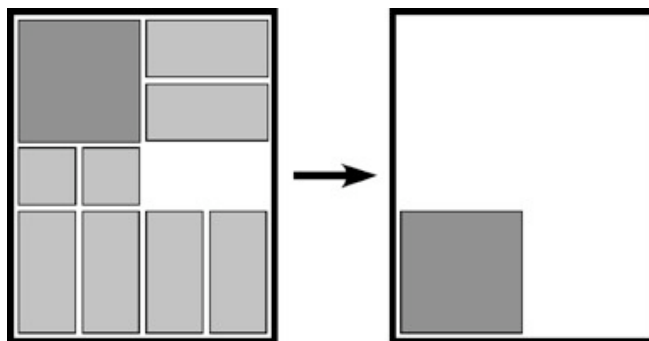


Originally manufactured by *Kum-Bak Sports, Toys & Games London, circa 1935*;  
*this puzzle a 1961 Adams Co. Dad's Puzzler,*  
*with cardboard sleeve by J. A. Storer 2007.*

(cardboard sleeve, metal tray, and 9 plastic pieces, 3.75 x 3 x 5/16 inches,  
the sleeve has directions for *Nine Block, Dad's Puzzler, Quzzle, and Quzzle Killer*)

The same piece set as *Dad's Puzzler*, and infact, this name is sometimes used to refer to *Dad's Puzzler* (e.g., in the *Filipiak book*). It is presented on the web page of *Hirofumi Fujiwara* as puzzle 17 of his "Step By Step Problems", and also in the *Hordern book*.

The start position is different from *Dad's Puzzler*, but the problem is the same; slide the 2x2 piece from the upper left to the lower left (without picking up pieces):



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## A Nine Block Solution

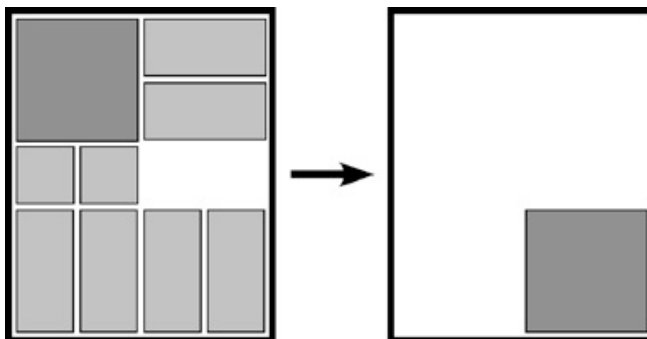
Here is a solution of 47 straight-line steps; it can be converted to 45 rectilinear moves by combining steps 6/7, 36/37:

X X 3 3	X X 3 3	X X 3 3	3 3	3 3	3 3 4 4	3 3 4 4	3 3 4 4
X X 4 4	X X 4 4	X X 4 4	X X 4 4	X X 4 4	X X	X X 2	X X 2
1 2	1 2	1 2	X X 1 2	X X 1 2	X X 1 2	X X 1	X X 1
5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8
5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8
3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4
X X 2 8	X X 2 8	X X 2 8	X X 8	X X 8	5 X X 8	5 X X 8	5 X X 8
X X 1 8	X X 1 8	X X 8	X X 8	X X 8	5 X X 8	5 X X 8	5 X X 8
5 6 7	5 6 7	5 6 7	5 6 2 7	5 6 2 7	6 2 7	6 2 7	6 2 7
5 6 7	5 6 7	5 6 1 7	5 6 1 7	5 6 1 7	6 1 7	6 1 7	6 1 7
3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4
5 X X 8	5 X X 8	5 X X	5 X X	5 2 X X	5 2 X X	5 2 X X	2 X X
5 X X 8	5 X X 8	5 X X	5 X X	5 X X	5 1 X X	5 1 X X	1 X X
6 2 7	6 2 7	6 2 7 8	6 2 7 8	6 7 8	6 7 8	6 7 8	5 6 7 8
6 1 7	6 1 7	6 1 7 8	6 1 7 8	6 1 7 8	6 7 8	6 7 8	5 6 7 8
3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4
2 X X	2 X X	2 X X	2 X X 8	2 X X 8	2 X X 8	2 X X 8	2 X X 8
1 X X	1 X X	1 X X	1 X X 8	1 X X 8	1 X X 8	1 X X 8	X X 8
5 6 7 8	5 6 7 8	5 6 7 8	5 6 7	5 6 7	5 6 7	5 6 7	5 6 7
5 6 7 8	5 6 7 8	5 6 7 8	5 6 7	5 6 7	5 6 7	5 6 7	1 5 6 7
3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	4 4
X X 8	X X 8	X X 6 8	X X 6 8	X X 6 8	X X 6 8	6 8	3 3 6 8
X X 8	X X 8	X X 6 8	X X 6 8	X X 6 8	X X 6 8	X X 6 8	X X 6 8
2 5 6 7	2 5 6 7	2 5 7	2 5 7	2 5 7	5 7	X X 5 7	X X 5 7
1 5 6 7	1 5 6 7	1 5 7	1 5 7	1 5 7	1 2 5 7	1 2 5 7	1 2 5 7
4 4	4 4 6	4 4 6 8	4 4 6 8	4 4 6 8	4 4 6 8	4 4 6 8	4 4 6 8
3 3 6 8	3 3 6 8	3 3 6 8	3 3 6 8	3 3 6 8	3 3 6 8	3 3 6 8	3 3 6 8
X X 6 8	X X 8	X X	X X 5	X X 5 7	X X 5 7	X X 5 7	5 7
X X 5 7	X X 5 7	X X 5 7	X X 5 7	X X 5 7	X X 5 7	X X 5 7	X X 5 7
1 2 5 7	1 2 5 7	1 2 5 7	1 2 7	1 2	1	1 2	X X 1 2

(one move = sliding one piece any number of units in one direction)

## Nine Block Diagonal

Like *Dad's Puzzler Diagonal*, it is natural to consider moving the 2x2 piece to the lower right corner than the lower left:



Like *Dad's Puzzler*, the diagonal version of Nine Block is an easier problem. Here is a solution of only 29 straight-line moves that can be converted to 27 rectilinear moves by combining steps 6/7 and 18/19:

X X 3 3	X X 3 3	X X 3 3	3 3	3 3	3 3 4 4
X X 4 4	X X 4 4	X X 4 4	X X 4 4	X X 4 4	X X
1 2	1 2	1 2	X X 1 2	X X 1 2	X X 1 2
5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8
5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8	5 6 7 8
3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4
X X 1	X X 1	X X 1	5 X X 1	5 X X 1	5 X X 1
X X 2	X X 2	X X 2	5 X X 2	5 X X 2	5 X X 2
5 6 7 8	5 6 7 8	5 6 7 8	6 7 8	6 7 8	6 7 8
5 6 7 8	5 6 7 8	5 6 7 8	6 7 8	6 7 8	6 7 8
3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4	3 3 4 4
5 X X 1	5 X X 1	5 X X	5 X X	5 7 X X	5 7 X X
5 X X 2	5 X X	5 X X	5 X X	5 7 X X	5 7 X X
6 7 8	6 7 8	6 7 8 1	6 7 8 1	6 8 1	6 8 1
6 7 8	6 7 8 2	6 7 8 2	6 7 8 2	6 8 2	6 8 2
3 3 4 4	3 3 4 4	3 3 4 4	3 3	3 3	5 3 3
5 7 X X	5 7 X X	5 7	5 7 4 4	5 7 4 4	5 7 4 4
5 7 X X	5 7 X X	5 7 X X	5 7 X X	5 7 X X	7 X X
6 8 1	6 8	6 8 X X	6 8 X X	6 8 X X	6 8 X X
6 8 2	6 8 1 2	6 8 1 2	6 8 1 2	6 8 1 2	6 8 1 2
5 7 3 3	5 7 3 3	5 7 3 3	5 7 3 3	5 7 3 3	5 7 3 3
5 7 4 4	5 7 4 4	5 7 4 4	5 7 4 4	5 7 4 4	5 7 4 4
X X	6 X X	6 8 X X	6 8 X X	6 8 X X	6 8
6 8 X X	6 8 X X	6 8 X X	6 8 X X	6 8 X X	6 8 X X
6 8 1 2	8 1 2	1 2	1 2	1 2	1 2 X X