

ONLINE PUZZLE
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BEST OF LMI

Last year “Best of LMI Puzzle Tests” recalled some memorable puzzles of 2010-2011 and had huge success among the puzzle solvers. So this just couldn’t help but be continued.

This test contains 22 puzzles: 2 puzzles selected from each of 11 monthly tests starting from “Nikoli Selection” up to “Akil Oyunlari Magazine Competition”.

Duration of the test is 150 minutes. Bonus points will be given as 3 points per minute saved if all 22 puzzles are submitted correctly.

All represented tests include “Pair Bonus”. This means bonus points will be awarded, in the case that both puzzles of that test are solved correctly.

NIKOLI SELECTION	Suraromu	10	5
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MAGIC CUBE	Cubic Star Battle	23	6
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JAPANESE PUZZLE LAND	Yajilin+	21	4
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PUZZLE FUSION	Fishermen at War	21	8
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PUZZLE MARATHON	Graffiti Snake	14	5
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LOGIRACE	Tapa loop	11	6
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AKIL OYUNLARI MAGAZINE COMPETITION	Spiral Battleships	35	8
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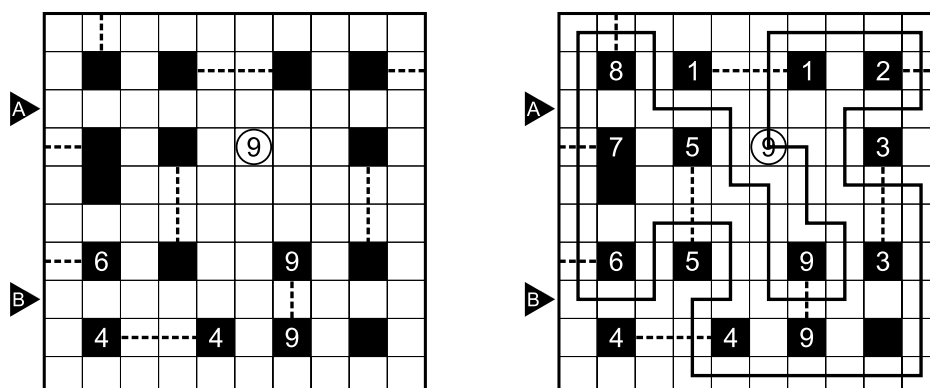
Puzzles by Andrey Bogdanov and Vladimir Portugalov.

Big thanks to Thomas Snyder for test solving.

SURAROMU (SLALOM) (from Nikoli Selection)

Draw a single closed loop in the grid, travelling horizontally and vertically through the centres of the cells it passes through. The loop must not intersect/overlap itself. The loop begins (and ends) at the circled number, and travels perpendicularly through each of the dotted gates exactly once. The gates are labelled in the order that the loop passes through. The circled number indicates the total number of gates.

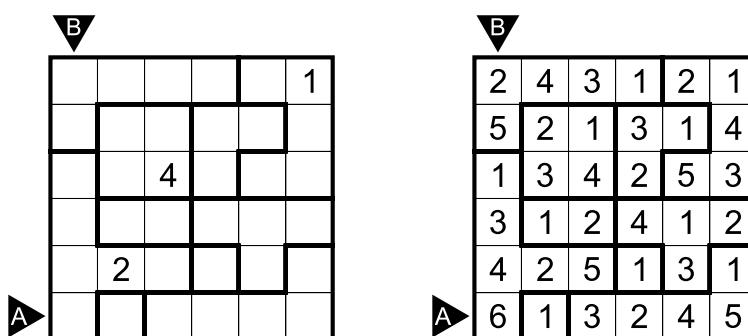
Answer key: Enter the lengths of line segments in the marked rows/columns (A:22; B:212)



RIPPLE EFFECT (from Nikoli Selection)

Place a number in each cell in the grid. The grid is divided up into several regions, and each region must contain the numbers 1-n exactly once, where n is the number of cells in a given region. Any given number m in the grid must be at least m cells away in a horizontal or vertical direction from any other instance of m in the grid.

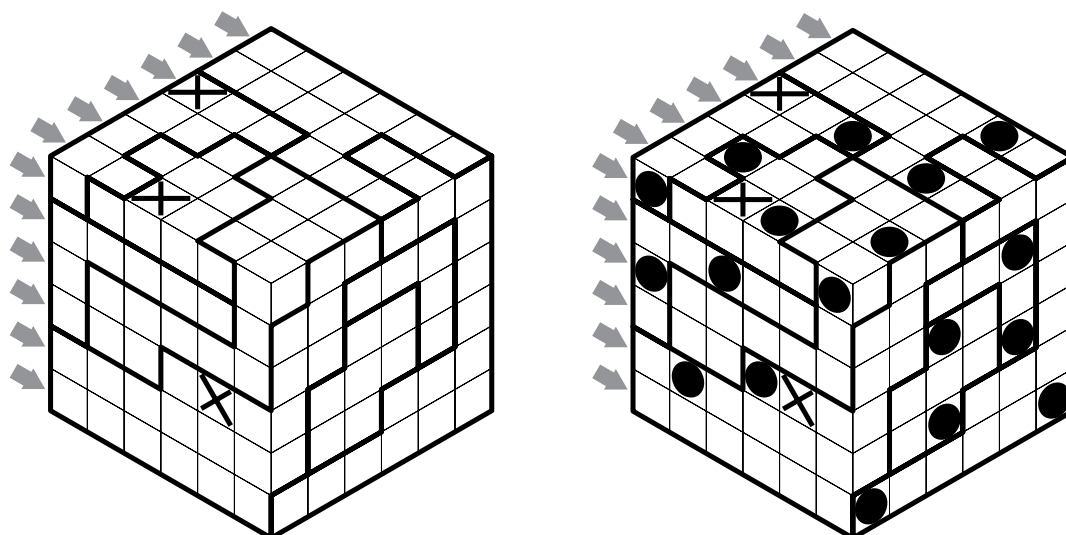
Answer key: Enter the content of the marked rows/columns (A:613245; B:251346)



CUBIC STAR BATTLE (from Magic Cube)

Place two stars on every row, in every column and in all outlined areas such that two cells containing stars never touch, not even at a point. The X-marked squares cannot contain star.

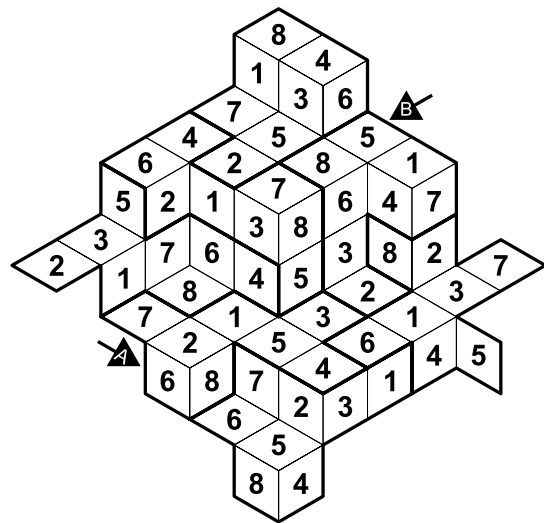
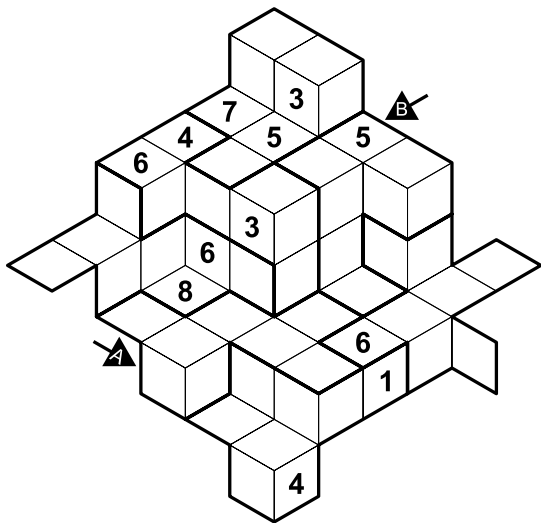
Answer key: Enter the unit digits of the the first stars' positions for all the marked rows from top to bottom (583924131427)



CUBIC SUDOKU (from Magic Cube)

Fill in the cube so that every outlined region and every row contains the digits 1 through 8.

Answer key: Enter the content of the marked rows/columns (A:68723145; B:58734126)

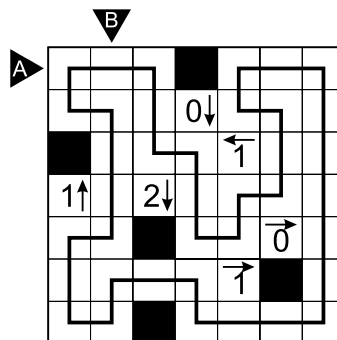
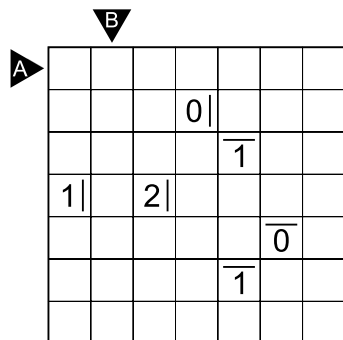


YAJILIN+ (from Japanese Puzzle Land)

Draw a single closed loop passing through the centers of orthogonally adjacent cells. The loop cannot touch or cross itself. Cells not used by the loop must be blackened, and no two black cells can share an edge. Numbers indicate the amount of black cells in at least one of the two possible directions (horizontal lines can point either left or right, and vertical lines can point either up or down).

Note: In classic Yajilin, directions of arrows are completely given. In this variant, determining directions is part of solving.

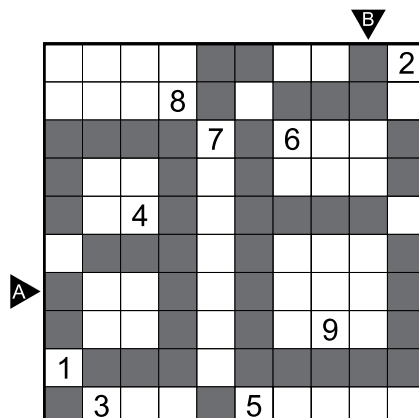
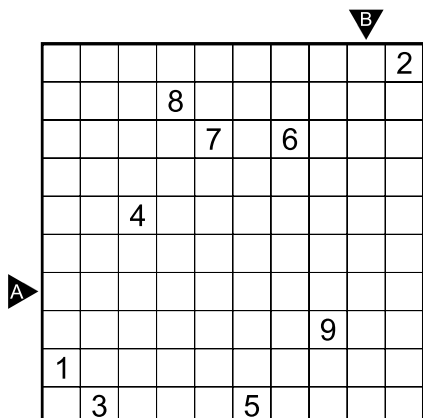
Answer key: Enter the lengths of line segments in the marked rows/columns (A:22; B:31)



MOCHIKORO (from Japanese Puzzle Land)

Blacken some cells so that every contiguous region of remaining cells must be a rectangle (including a square). All rectangles must be connected diagonally and there are no 2x2 area of black cells. Each rectangle contains at most one number, which represents the area (number of cells) of its corresponding rectangle. Cells with a number cannot be blackened.

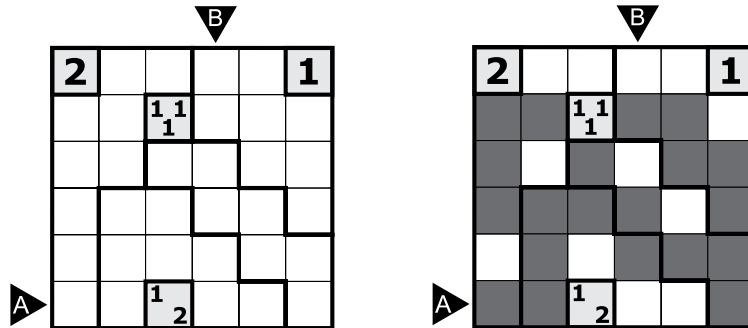
Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:1111; B:211)



MAKE ROOM FOR TAPA (from 2011 Double Decathlon)

Shade some cells black to form a continuous wall. There cannot be a 2x2 square of cells that are all shaded. Numbers in cells indicate the length of connected black cell groups in the neighboring cells; if there is more than one number in a cell, then there must be at least one white cell between each of the indicated black cell groups. Cells with numbers cannot be a part of the wall. The grid is also divided into regions by bold lines; exactly five cells must be shaded black in each region.

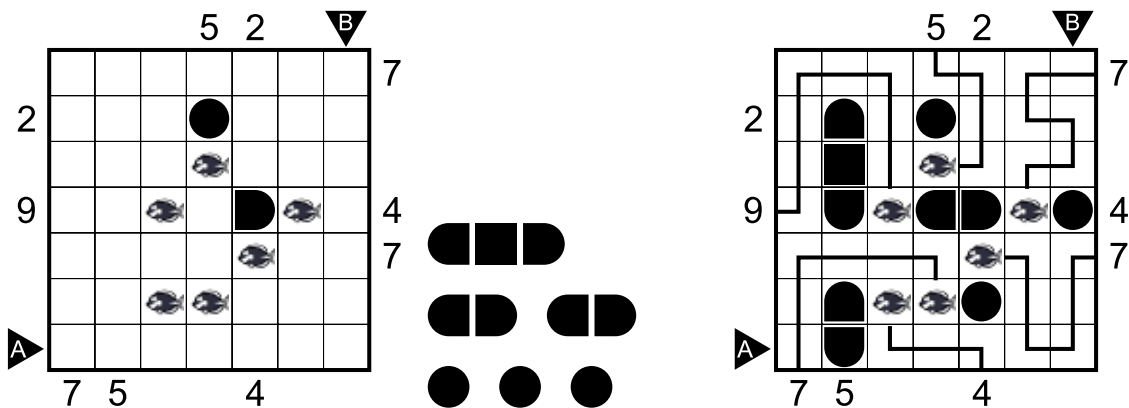
Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:21; B:12)



FISHERMEN AT WAR (from Puzzle Fusion)

Some numbers outside the grid appear as the clues for an Anglers puzzle: **Numbers represents the length of a fisherman's rod. Draw vertical and horizontal lines going into grid so that each fisherman gets his own fish and rods cannot be entangled.** Some numbers outside the grid appear as the clues for a Battleship puzzle: **Locate the ships in the grid. Numbers indicate how many ship segments are in corresponding row or column. Ships may not touch each other, not even diagonally.** Ship segments occupy all the cells in the grid that are not used by the fishermen's rods.

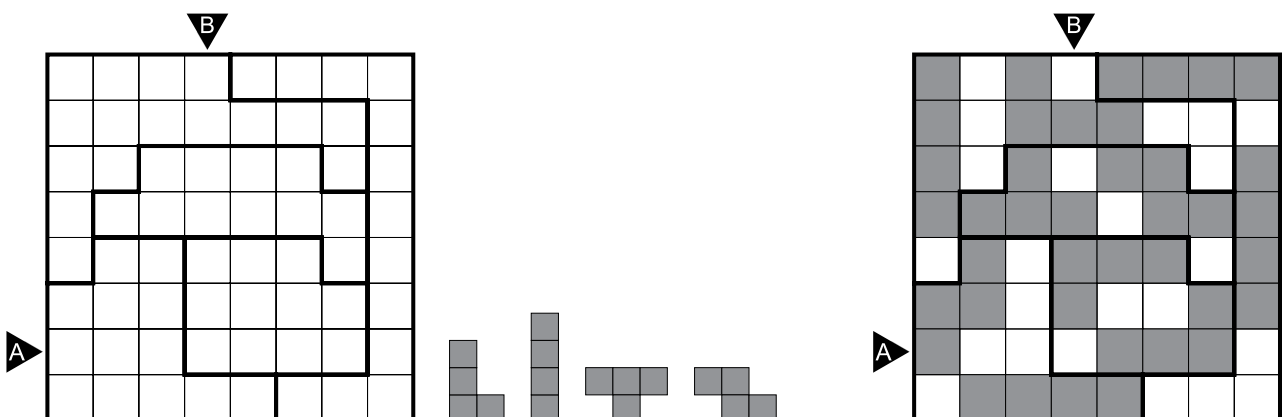
Answer key: Enter the lengths of line segments in the marked rows/columns (A:21; B:12)



LITS² (from Puzzle Fusion)

Blacken some cells so that there are any two of L, I, T or S tetromino pieces in each bolded region. The pieces in the same bolded region may not be adjacent to each other. Identical pieces also may not be adjacent to each other. There cannot be any 2x2 cells that are all shaded. In the end, all shaded squares must interconnect.

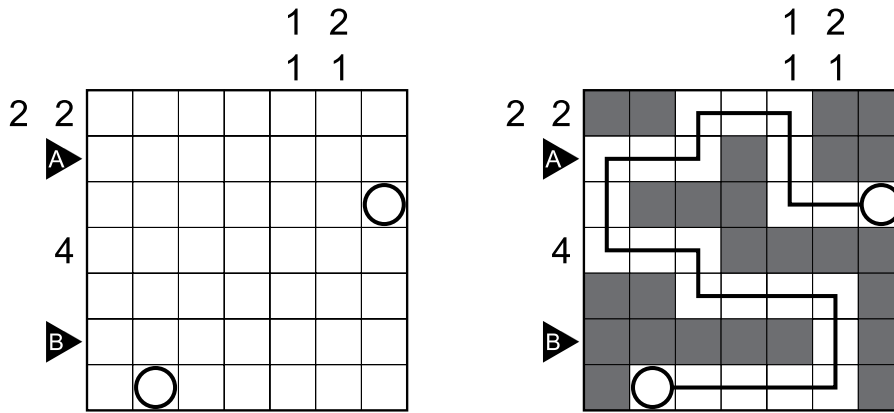
Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:13; B:131)



GRAFFITI SNAKE (from Puzzle Marathon)

Paint some cells black to create walls. The numbers outside the grid indicate the lengths of blackened cell blocks in the corresponding directions, in order; as in a Paint By Number puzzle. If there is more than one blackened block in a row or column, there must be at least one white cell between the blocks. After all black cells are determined, a snake should travel through all the unoccupied cells, moving horizontally or vertically without touching itself, even diagonally. The head and the tail of the snake are given in circles.

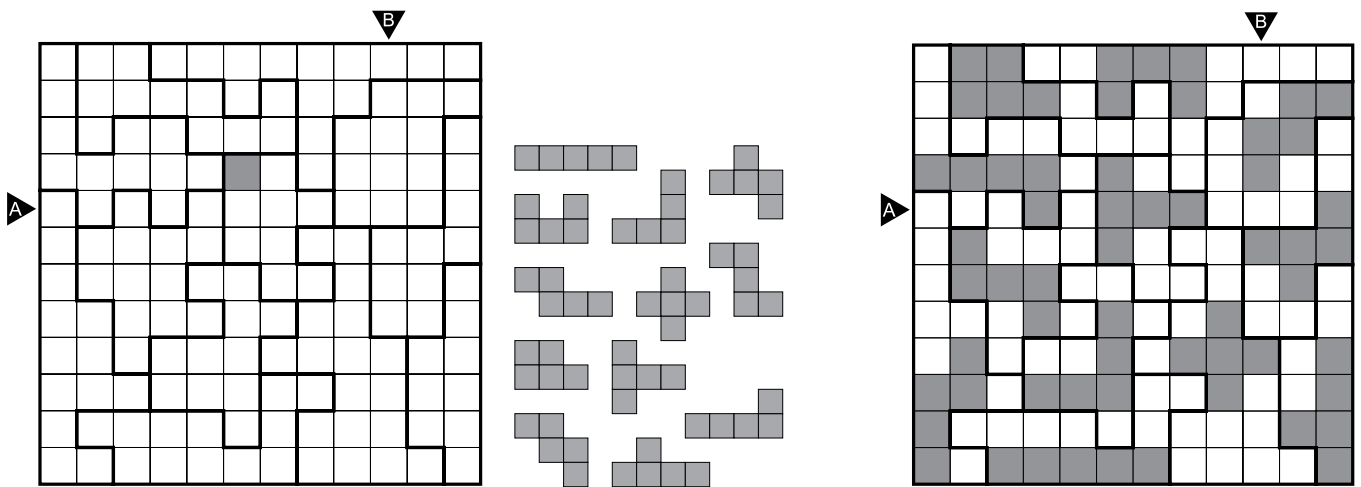
Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:12; B:51)



PENTOMINO AREAS (from Puzzle Marathon)

Place the given pentominos into the grid, such that each region has exactly one pentomino shape. The shapes cannot repeat and cannot touch each other, even diagonally. Rotations and reflections are considered as instances of the same shape.

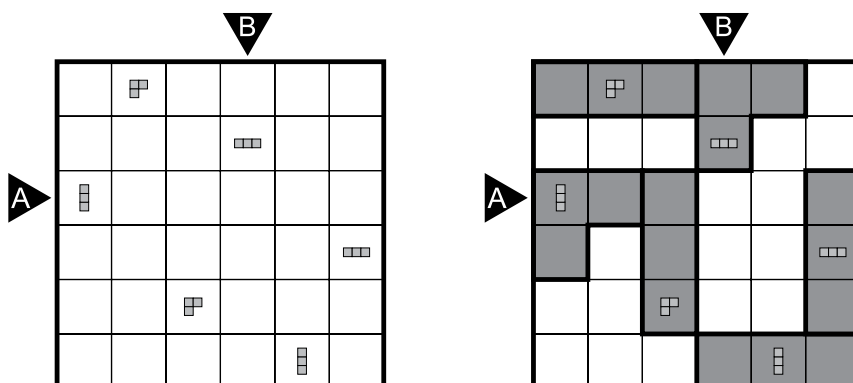
Answer key: Enter the lengths of separate occupied cell blocks in the marked rows/columns (A:131; B:211)



IT'S YOURS (from No Numbers)

Put some pairs of polyominoes in the grid so that each polyomino has one clue inside it. The paired polyominoes will touch each other, and a pair of polyominoes cannot touch another pair of polyominoes. A clue in a polyomino show the shape of the other polyomino of the pair with no rotation or reflection.

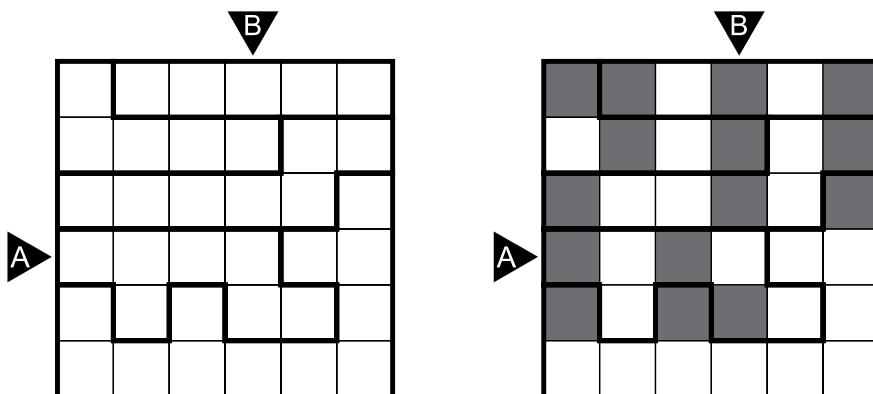
Answer key: Enter the lengths of separate occupied cell blocks in the marked rows/columns (A:31; B:21)



TRIO CUT (from No Numbers)

Paint some cells black to make some triominos so that each triomino will be cut twice by thick lines. Each region bordered by thick lines should have three painted cells.

Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:11; B:31)

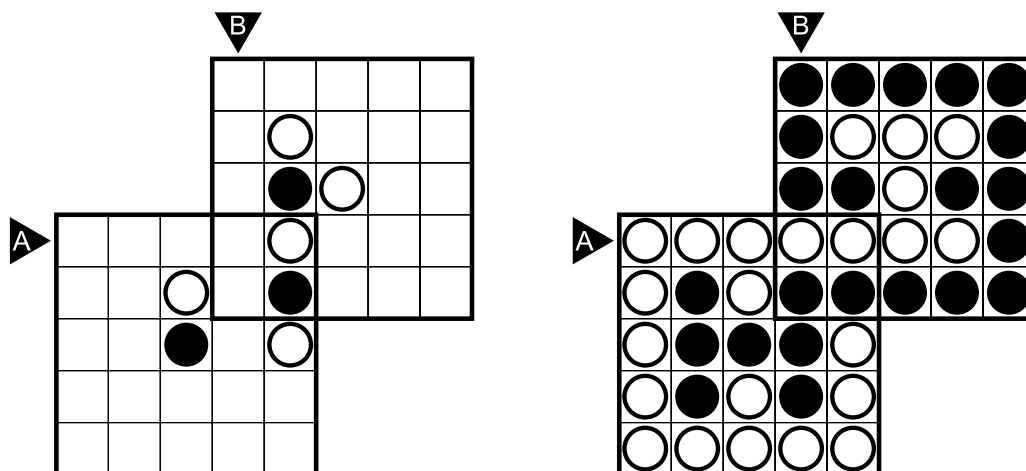


YIN YANG SAMURAI (from Seven Samurais)

Divide the grid into two connected area: black and white. Areas cannot contain 2x2 square. Some cells are already marked.

There are three (two in the example) overlapping grids. The solution should be valid for them all.

Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:1; B:33)

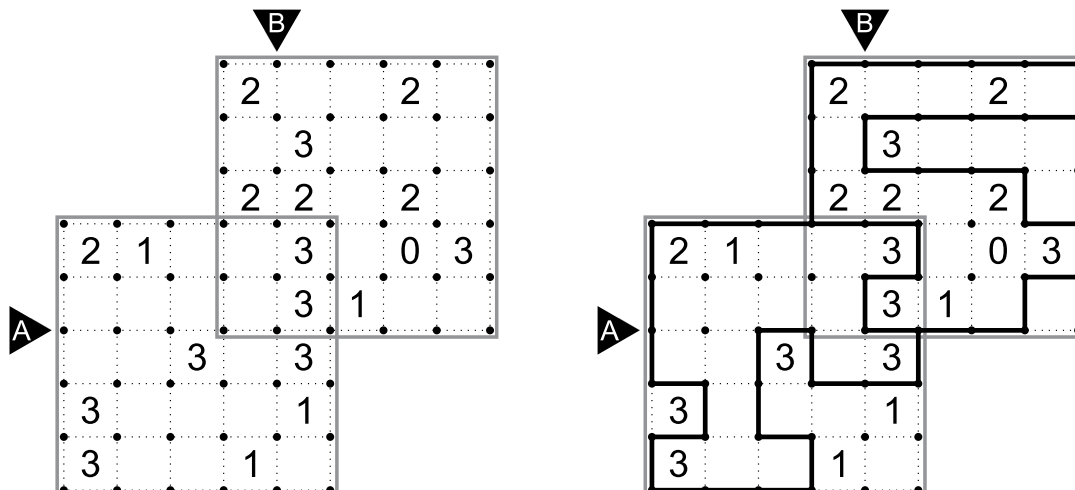


FENCE SAMURAI (from Seven Samurais)

Draw a single continuous loop going through the grid nodes horizontally or vertically. Clues show the number of cell's edges which are a part of the loop.

There are three (two in the example) overlapping grids. The solution should be valid for them all.

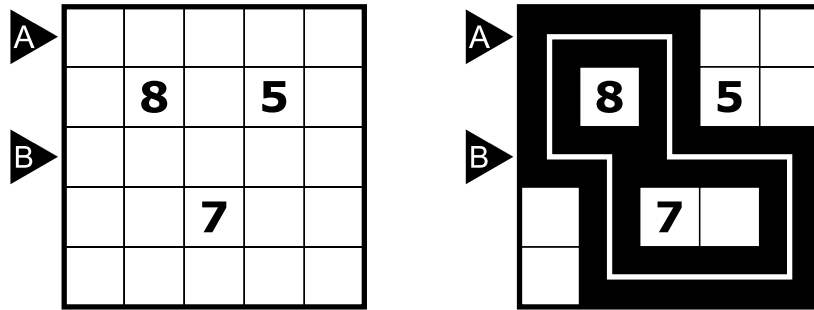
Answer key: Enter the lengths of line segments in the marked rows/columns (A:13; B:11)



TAPA LOOP (from Logirace)

Blacken some cells to create a continuous wall. Number/s in a cell indicates the length of black cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one white cell between the black cell blocks. Painted cells cannot form a 2x2 square or larger. There are no wall segments on cells containing numbers. Then draw a single closed loop passing through all blacken cells. The loop cannot touch or cross itself.

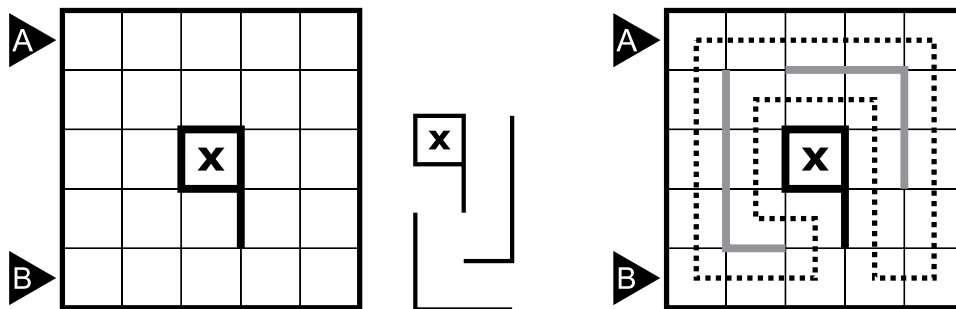
Answer key: Enter the lengths of separate black cell blocks in the marked rows/columns (A:3; B:5)



BORDER LOOP (from Logirace)

Place some given pentominoes along the grid lines so these pentominoes can't use any dot or line of edge. Pentominoes cannot touch each other and they may be rotated and/or mirrored. Then draw a single closed loop passing through all cells in the grid. The loop cannot touch or cross itself. You cannot cross placed pentominoes. Some segments of pentominoes should be given. There are no loop segments on cells marked X.

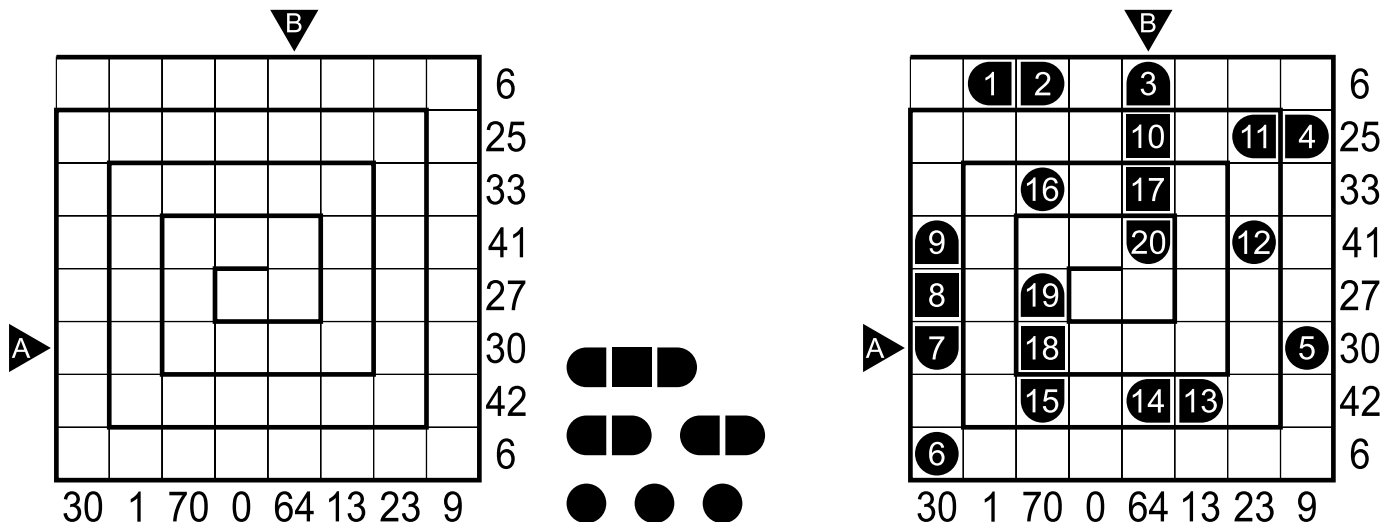
Answer key: Enter the lengths of line segments in the marked rows/columns (A:4; B:21)



SPIRAL BATTLESHIPS (from akil oyunlari magazine competition)

1. Locate the given fleet in the grid. The ships cannot touch each other, not even diagonally.
2. Clues outside the grid indicate the sum of ship segments in the corresponding directions.
3. Ship segments are numbered from 1 to 20, starting from the entrance of the spiral and moving towards the center.

Answer key: Enter the numbers in the marked rows/columns (A:7,18,5; B:3,10,17,20,14)



CHAINED SHIPS (from akil oyunlari magazine competition)

1. Locate the given fleet in the grid. The ships cannot touch each other, not even diagonally.
2. The clues outside the grid indicate the number of ship segments in the corresponding directions.
3. All cells that do not contain ship segments include some lines that connect the same letters, moving horizontally or vertically.

Answer key: Enter the lengths of line segments in the marked rows/columns (A:11; B:0)

The diagram shows a 6x6 grid with clues and ship segments. The grid is divided into two parts by a vertical line. The left part shows the grid with clues and ship segments. The right part shows the grid with clues and ship segments, including a path of line segments connecting the same letters.

Grid 1 (Left):

A				A	B
C		D			
			B		
		D			C

Clues: Row 1: 1, 3; Column 3: 3; Row 5: 3.

Grid 2 (Right):

A	●	■	●	A	B
	—	—	—	—	—
C	●	D	●	●	
	—	—	—	—	—
	—	D	●		C
●	—	—	—	—	●

Clues: Row 1: 1, 3; Column 3: 3; Row 5: 3.

Legend:

- : Ship segment (circle)
- : Ship segment (square)
- : Line segment connecting same letters