

Logic Masters India presents...

April 2014 Puzzle Test

FAST

This is a sprint test. The puzzles are smaller and easier than regular puzzle tests, at the expense of a shorter time limit.

There are twenty (20) puzzles, to be completed in sixty (60) minutes. The points table is given below. If you complete the test within the time limit, you will receive a multiplier of (60 minutes / time spent) to your final score.

Online solving is not enabled; you have to print the puzzles and submit a given answer key available for each puzzle. Instant Grading is enabled; you will receive immediate feedback on your submissions.

An incorrect submission reduces the puzzle's potential score, according to the number of incorrect answers the puzzle has received (including the most recent one). Note that after four incorrect answers, the score for the puzzle becomes zero. However, you are still recommended to complete it quickly to obtain the multiplier.

Incorrect answers	Potential score, out of puzzle score
1	80%
2	50%
3	20%
4 or more	0%

Points table:

Akari	51	Nurikabe	60
Battleship	66	Ripple Effect	71
Black & White	68	Scrabble	69
Easy As ABC	59	Skyscrapers	70
Fillomino	62	Slitherlink	56
Heyawake	56	Star Battle	65
Hitori	65	Sudoku	68
LITS	65	Tapa	56
Masyu	62	Yajilin	71
Minesweeper	69	Next Term	64

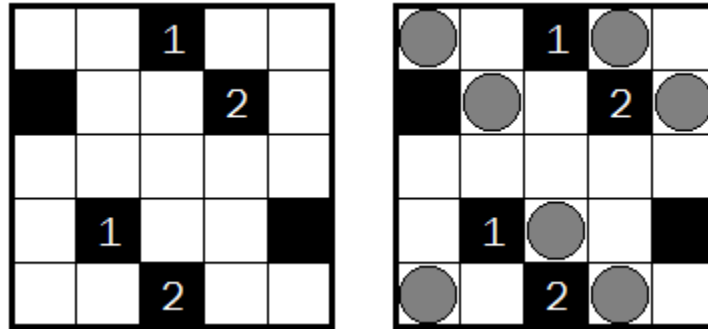
Good luck!

Akari

Put some light bulbs on the grid. Light bulbs illuminate squares in four cardinal directions (up, down, left, right), until blocked by the edge of the grid or a black square. All white squares must be either occupied by a light bulb or illuminated, but no light bulb may illuminate another. Black squares with numbers indicate the number of light bulbs sharing a side with that square.

Answer key: For each row from the top, enter the number of light bulbs in the row.

Example: 22012

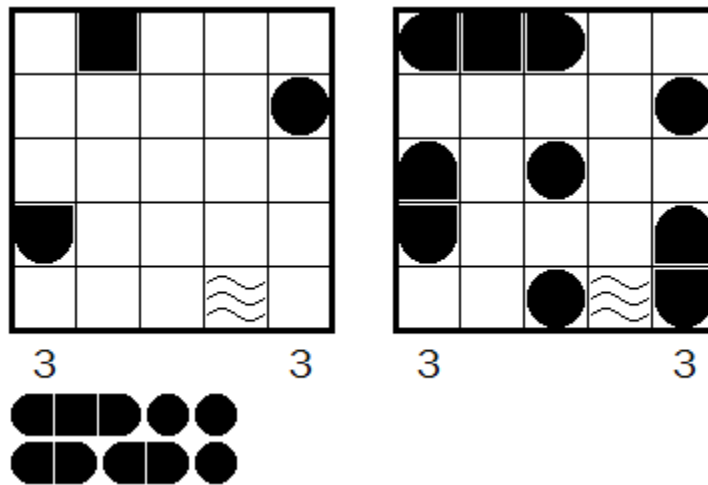


Battleships

Put the given fleet onto the grid. Ships may be rotated, but not reflected. Ships may not touch each other, even diagonally. Some segments of ships might have been given. Some squares might have been marked as sea; no ship segment can be on these squares. A number at the end of a row/column indicates the number of ship segments in the corresponding row/column.

Answer key: For each row from the top, enter the column number of the leftmost ship segment in the row. Enter 0 if there's none.

Example: 15113

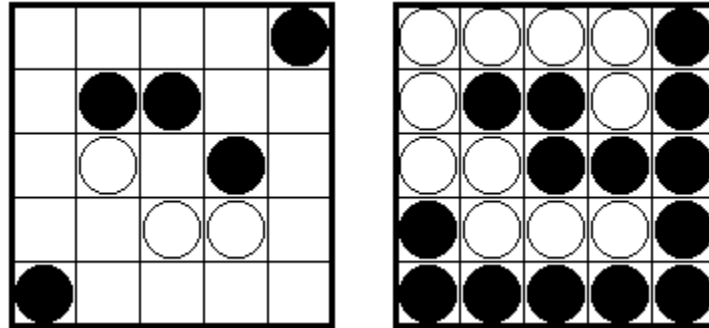


Black and White

Put a black or white circle onto each cell of the grid. All black circles must be orthogonally connected to form a single region, and so as all white circles. No 2x2 square may contain circles of the same color.

Answer key: For each row from the top, enter the number of black circles in the row.

Example: 13325

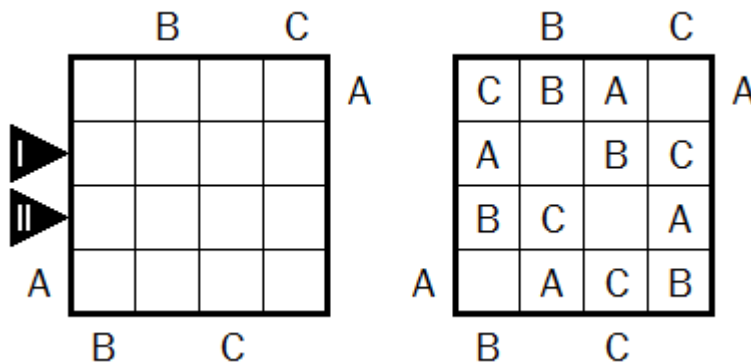


Easy As ABC

Put a letter in the range indicated into some of the cells. Each row/column must have each letter exactly once. A letter outside the grid tells the first letter seen from that direction, looking into the grid.

Answer key: For each marked row, enter the letters in the cells in the row. Use X for empty cells.

Example: AXBC, BCXA

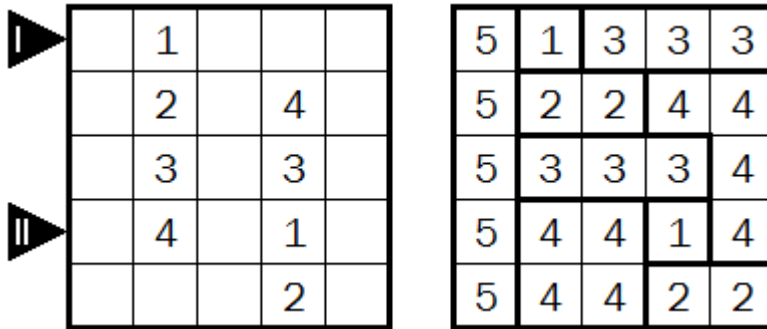


Fillomino

Divide the grid into several polyominoes. Polyominoes having same area may not share a side. A number indicates the size of the polyomino it's contained in; there might be more than one or even no number in a polyomino.

Answer key: For each cell in the marked rows, enter the area of the polyomino it's contained in.

Example: 51333, 54414

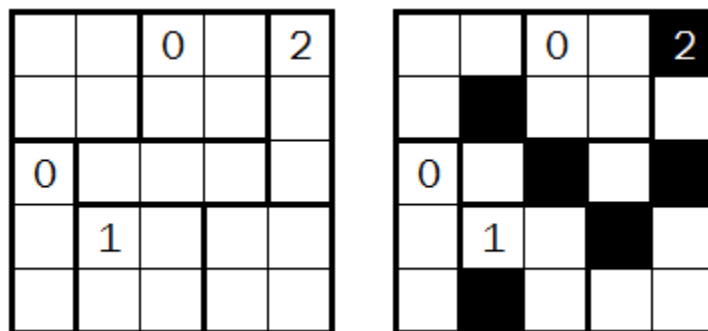


Heyawake

Shade some of the cells black. Black cells may not share a side, and all white cells must be orthogonally connected. A number in a room—a region bordered with bold borders—gives the number of black cells in it. A horizontal/vertical line of white squares may not span over two room boundaries.

Answer key: For each row from the top, enter the number of black cells in the row.

Example: 11211



Hitori

Shade some of the cells black. Black cells may not share a side, and all white cells must be orthogonally connected. Two equal unshaded numbers may not be on the same row/column.

Answer key: For each row from the top, enter the number of black cells in the row.

Example: 22021

3	2	3	1	3		2	3	1	
1	1	4	1	3	1		4		3
4	3	1	5	2	4	3	1	5	2
5	1	2	1	1	5		2		1
2	1	4	4	5	2	1		4	5

LITS

Shade some of the cells black. Black cells must be orthogonally connected, but may not form a 2x2 square. Each region bounded with bold borders must contain exactly four connected cells, forming a tetromino. Two identical tetrominoes may not be orthogonally adjacent.

Answer key: For each row from the top, enter the number of black cells in the row.

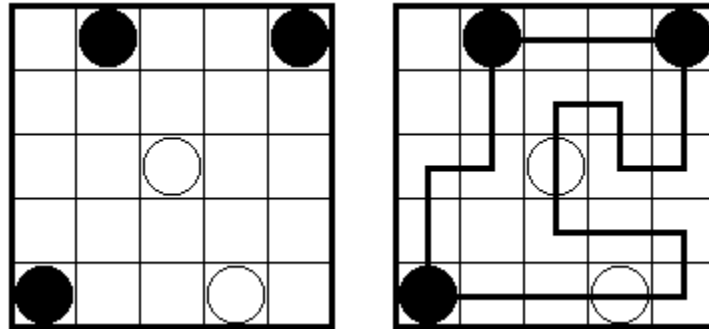
Example: 42352

Masyu

Draw a loop on the grid, passing some of the cells. The loop may only run horizontally and vertically, may only turn on cell centers, and may not touch or cross itself. The loop must pass all circles. When it passes a black circle, it must turn, but go straight both before and after it. When it passes a white circle, it must go straight, but turn either before or after it (or both).

Answer key: For each row from the top, enter the number of unused cells in the row.

Example: 11010

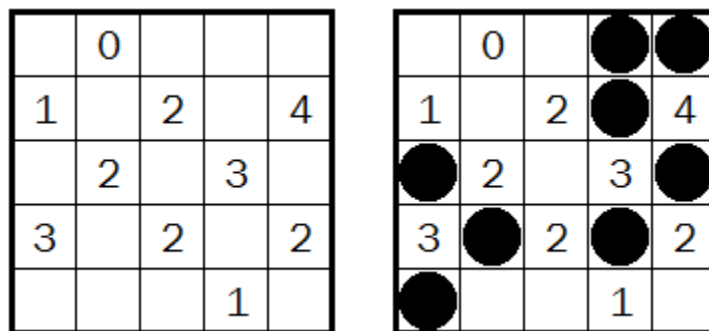


Minesweeper

Put some mines on the grid. Cells with numbers may not contain mines, and a cell can only contain at most one mine. A number indicates the number of mines in the squares orthogonally or diagonally adjacent to it.

Answer key: For each row from the top, enter the number of mines in the row.

Example: 21221

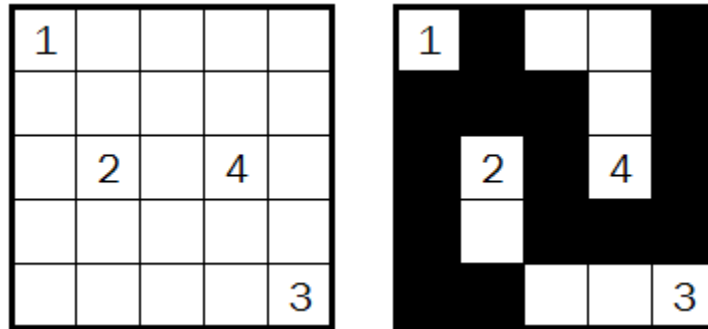


Nurikabe

Shade some of the cells black. Black cells must be orthogonally connected, but may not form a 2x2 square. Cells with numbers may not be shaded. Unshaded cells form separate regions, not connected to each other orthogonally. Each region must have exactly one number, describing the size of the region.

Answer key: For each row from the top, enter the number of black cells in the row.

Example: 24342

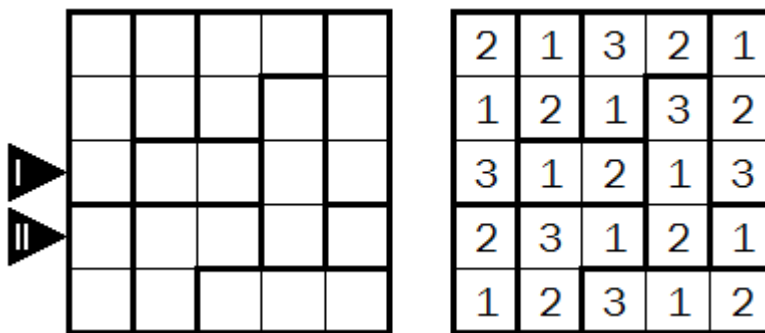


Ripple Effect

Put an integer into each cell. Each region bounded by bold borders must contain all numbers from 1 to the size of the region exactly once. Two equal numbers n in the same row/column must be separated by at least n numbers between them.

Answer key: For each marked row, enter the numbers in the cells in the row.

Example: 31213, 23121



Scrabble

Put all the given words into the grid. All words must be connected, and whenever two words intersect, they must have the same letter, just like a crossword. No other word can be formed, not even two-letter words. Some letters are already given.

Answer key: For each row from the top, enter the number of letters in the row.

Example: 14250

		R		

		F		
T	W	O		O
		U		N
T	H	R	E	E

ONE THREE

TWO FOUR

Skyscrapers

Put a number in the range indicated into each cell. Each row/column must have each number exactly once. Treating the numbers as the heights of buildings, numbers outside the grid tells the number of buildings seen from that direction, looking into the grid. Taller buildings block shorter buildings.

Answer key: For each marked row, enter the numbers in the cells in the row.

Example: 3124, 4231

2

2

2 2 2

1	3	4	2
2	4	1	3
3	1	2	4
4	2	3	1

2

2

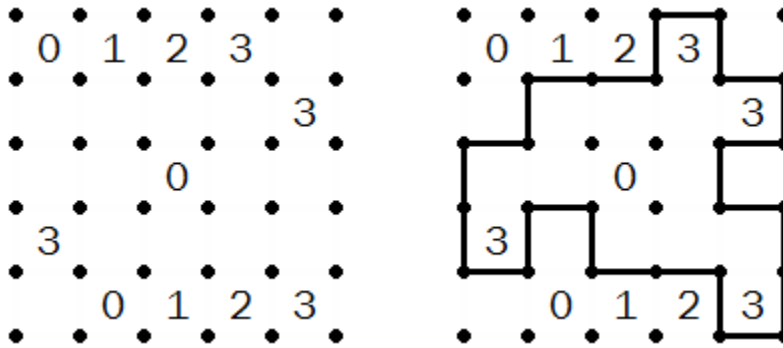
2 2 2

Slitherlink

Draw a loop along the grid borders, passing some of the dots. The loop may only run horizontally and vertically, may only turn on dots, and may not touch or cross itself. A number indicates how many of the four sides are part of the loop.

Answer key: For each row from the top, enter the number of cells inside the loop in the row.

Example: 14441

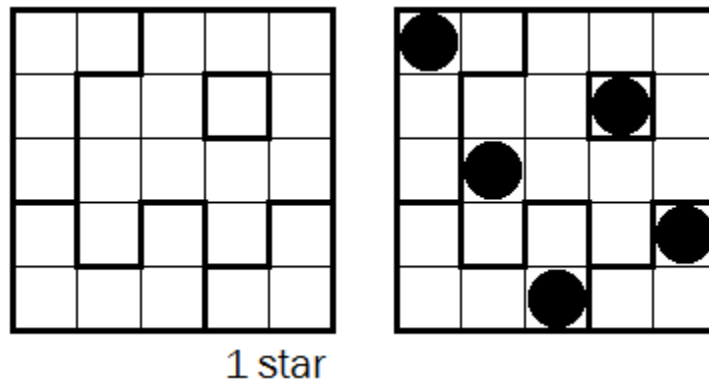


Star Battle

Put some stars on the grid. Each row, column, and region bounded by bold borders must contain exactly the given number of stars. Stars may not touch each other, even diagonally.

Answer key: For each row from the top, enter the column number of leftmost star.

Example: 14253



Sudoku

Put a number in the range indicated into each cell. Each row, column, and region bounded by bold borders must have each number exactly once.

Answer key: For each marked row, enter the numbers in the cells in the row.

Example: 45123, 34512

1	2	3		
		2	3	4

4	5	1	2	3
1	2	3	4	5
3	4	5	1	2
5	1	2	3	4
2	3	4	5	1

Tapa

Shade some of the cells black. Black cells must be orthogonally connected, but may not form a 2x2 square. Cells with numbers may not be shaded. They indicate the lengths of contiguous black cells on the eight cells around the clue, with at least a white cell separating distinct blocks.

Answer key: For each row from the top, enter the number of black cells in the row.

Example: 33332

3				2
		24		
1				11

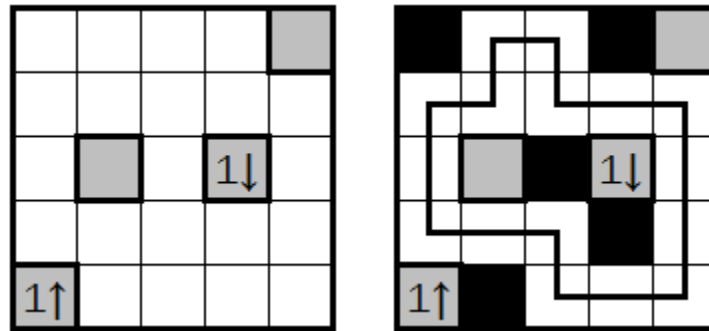
3				2
		24		
1				11

Yajilin

Draw a loop on the grid, passing some of the white cells. The loop may only run horizontally and vertically, may only turn on cell centers, and may not touch or cross itself. Shade all the remaining white cells. Clue cells are not white cells. Shaded cells may not share a side. A number indicates the number of shaded cells in the given direction, looking from the number to the edge of the grid.

Answer key: For each row from the top, enter the number of black cells in the row.

Example: 20111



Next Term

Determine the term that follows the sequence. (Think easily; the sequences will not be convoluted.)

Answer key: Enter the answer. No need of explanation.

Example: 49

1, 4, 9, 16, 25, 36, ...