What is a “Puzzle”?

The World Puzzle Championship consists of Puzzle types and their variations. The only restrictions to the Puzzle types is that they should be culture neutral and should not require some extensive academic knowledge to solve them. Within these restrictions a puzzle can be any challenge which leads to a unique solution based on a set of rules. A large part of these puzzles are grid-based varieties which require constraints to be satisfied within a grid.

The selection of puzzles for the WPC and general organization is at the discretion of the host country. The organizers of WSPC 2017 will attempt to showcase variety within grid-based puzzle types and also explore variety beyond the grid-based types within the simple constraints mentioned above.

General Composition of WPC

The Puzzles in this document are not an extensive list, but they cover some of the categories typically seen in a WPC. Other than this, there may be other manipulations using linking, transference of properties, hybrids, matchmaking, visual speed solving, mechanical solving, etc. to make the WPC an exciting Championship full of variety designed to test the world’s best puzzle solvers.

There are typically 11-14 individual rounds and 3-4 team rounds across roughly 15 hours of solving. Each round may range roughly from 20 minutes to 120 minutes, depending on the quantity and difficulty. Individual puzzles are allotted points and typically a participant is awarded points for a puzzle completely solved correctly without a single error. There are multiple puzzles in each round barring exceptions. All puzzles are unique unless explicitly mentioned otherwise.

About this document

This document lists some basic variations puzzles. The specific Puzzles appeared in different episodes of Puzzle Ramayan 2015-16 (See this link for details - http://logicmastersindia.com/PR/2015-16pr.asp) held online at Logic Masters India site.

Puzzles in the booklet were written by the following Indian authors, in chronological order of the rounds:

Rohan Rao

Deb Mohanty

Amit Sowani

Rakesh Rai

Ashish Kumar

Swaroop Guggilam

Prasanna Seshadri

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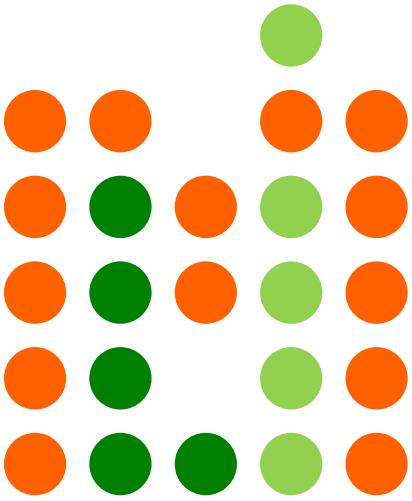
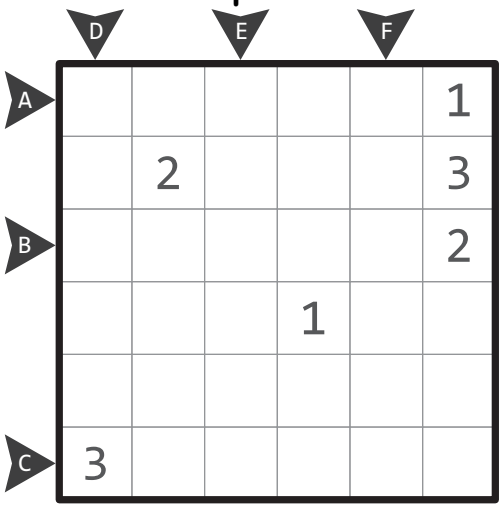


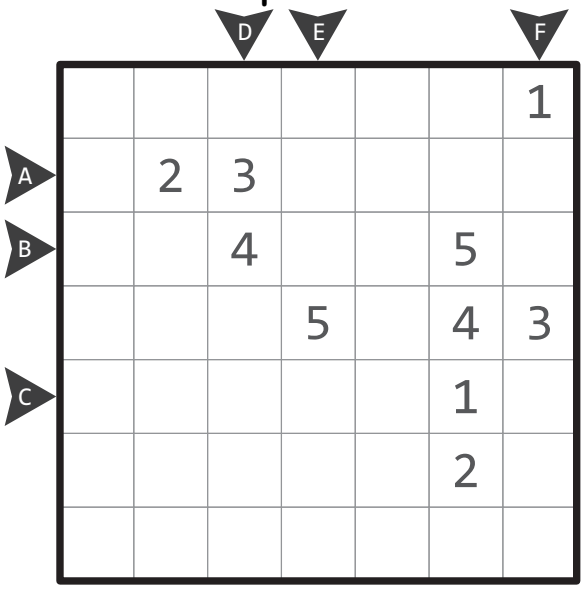
Numberlink

Connect every pair of digits through horizontal/vertical paths such that no two paths touch or cross each other.

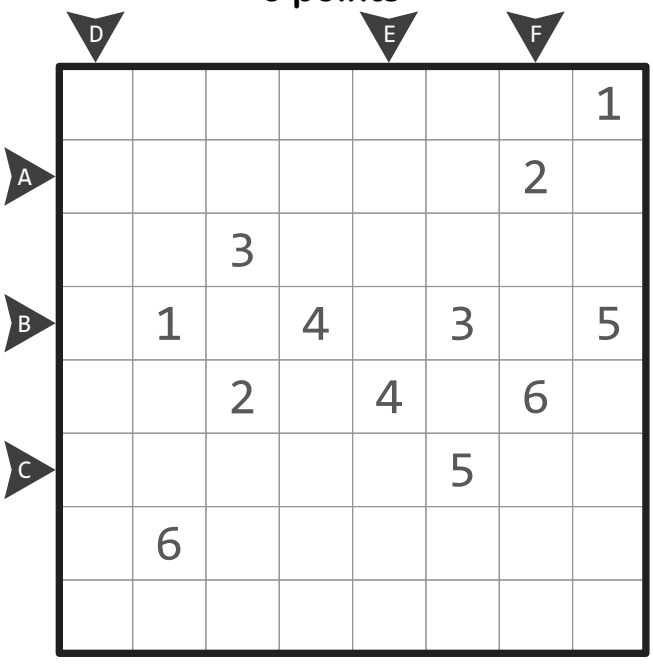
6x6
1 point



7x7
2 points



8x8
3 points

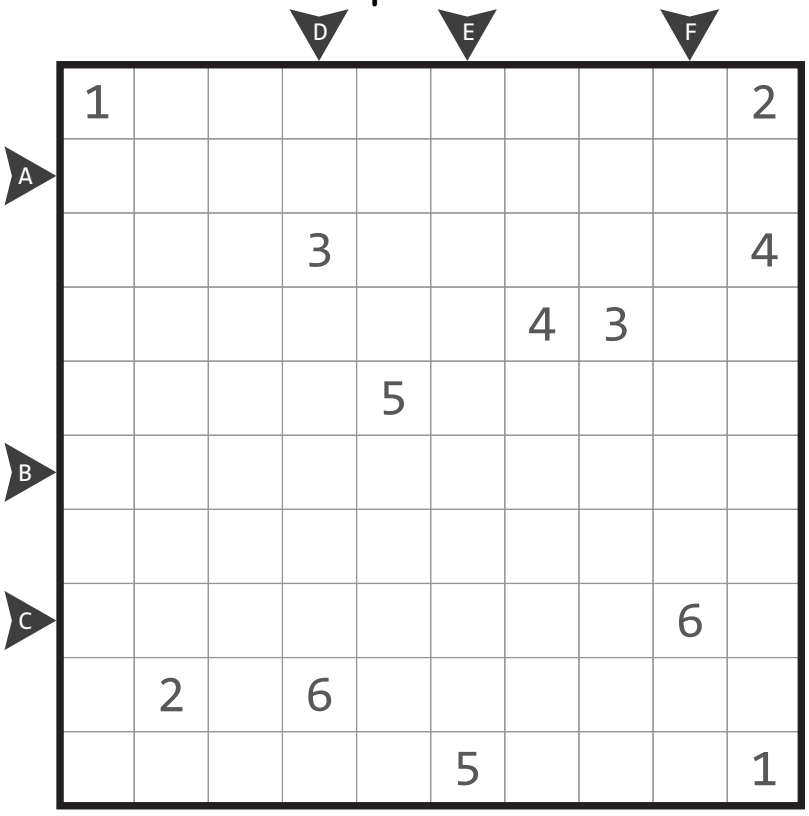


Answer Key: Enter length of largest line segment in marked row/column. Enter '0' if there are no line segments along the marked direction.

Numberlink

Connect every pair of digits through horizontal/vertical paths such that no two paths touch or cross each other.

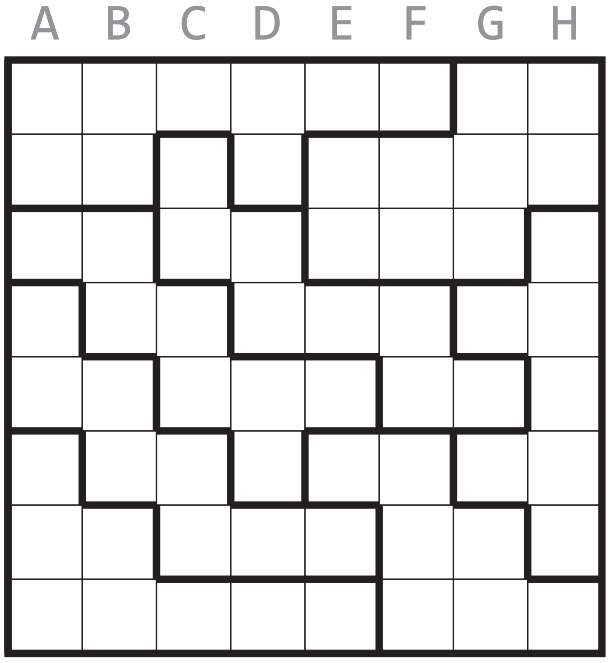
10x10
5 points



Answer Key: Enter length of largest line segment in marked row/column. Enter '0' if there are no line segments along the marked direction.

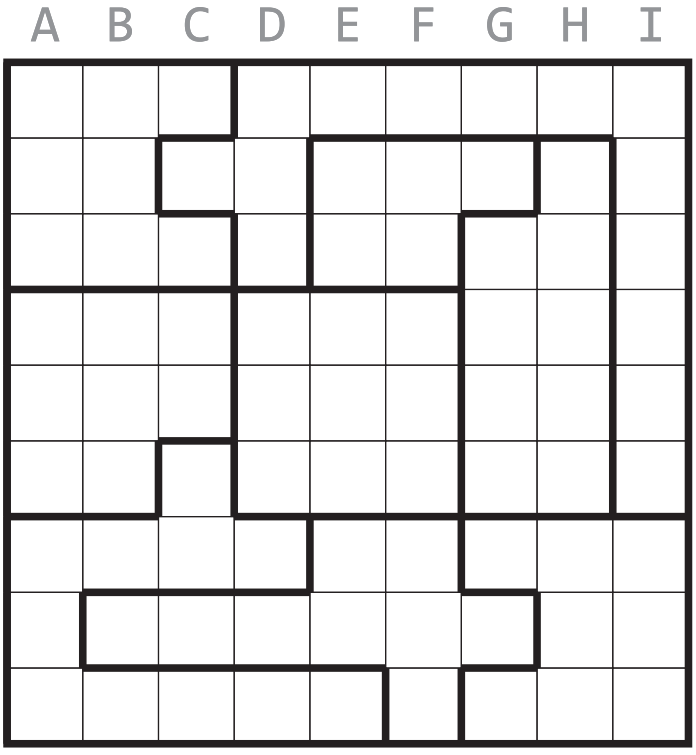
Star Battle
8x8
4 points

Place stars in the grid such that every row, column and thick-outlined region contains two stars. Stars cannot touch each other, not even diagonally.



Star Battle
9x9
7 points

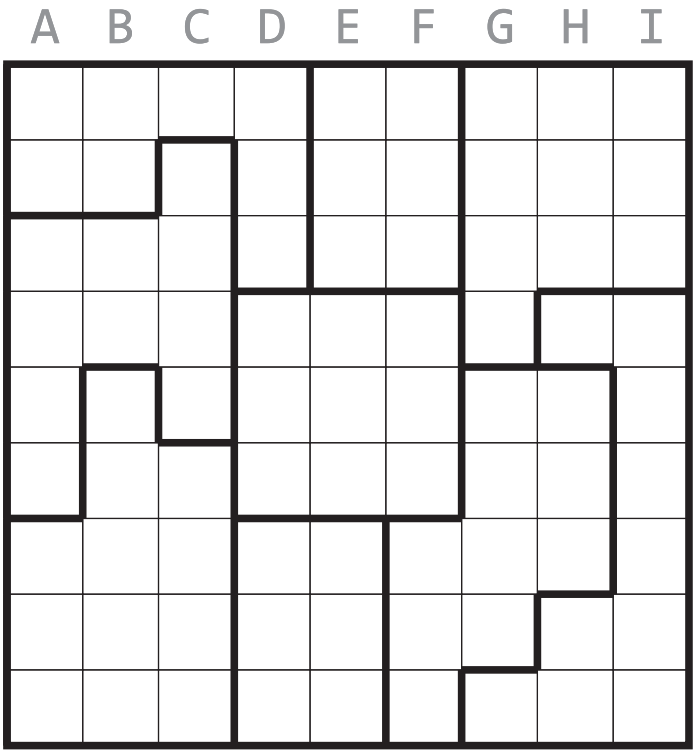
Place stars in the grid such that every row, column and thick-outlined region contains two stars. Stars cannot touch each other, not even diagonally.



Answer Key: Enter column of left-most star of each row from top to bottom.

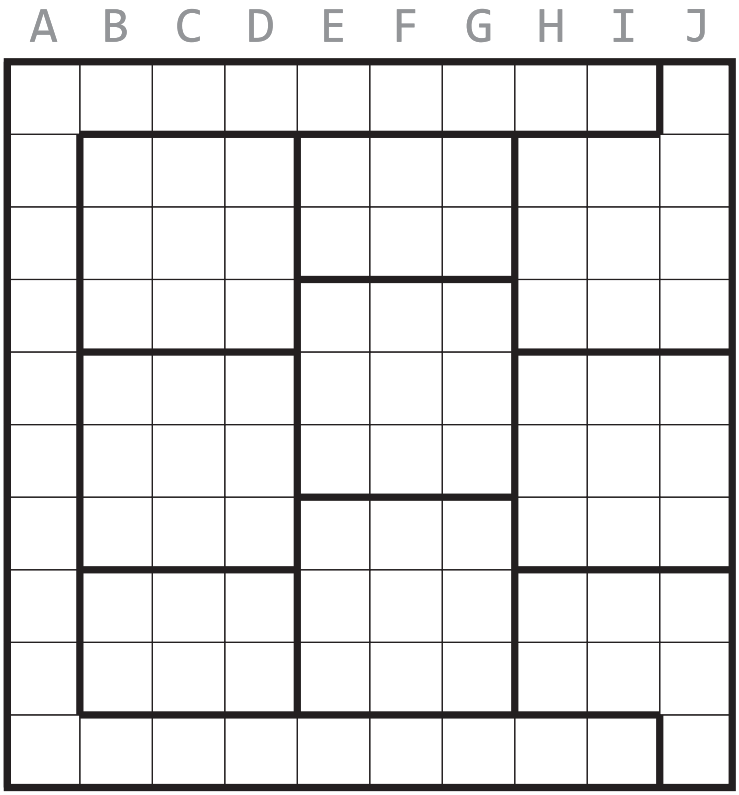
Star Battle
9X9
6 points

Place stars in the grid such that every row, column and thick-outlined region contains two stars. Stars cannot touch each other, not even diagonally.



Star Battle
10X10
3 points

Place stars in the grid such that every row, column and thick-outlined region contains two stars. Stars cannot touch each other, not even diagonally.

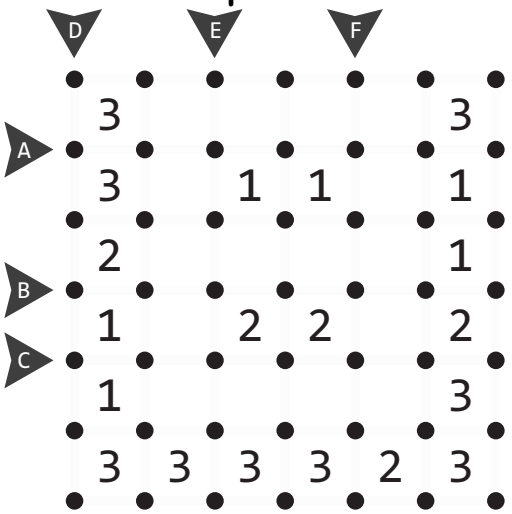


Answer Key: Enter column of left-most star of each row from top to bottom.

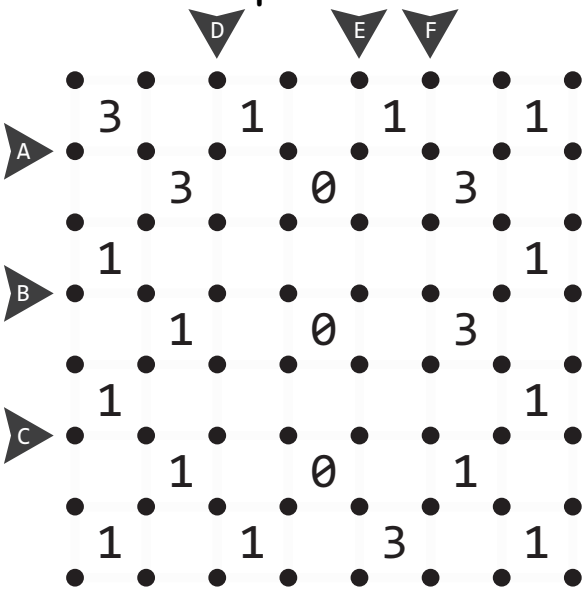
Fence

Draw a single closed loop that does not touch or cross itself. Digits in the grid indicate the amount of line segments of that cell used by the loop.

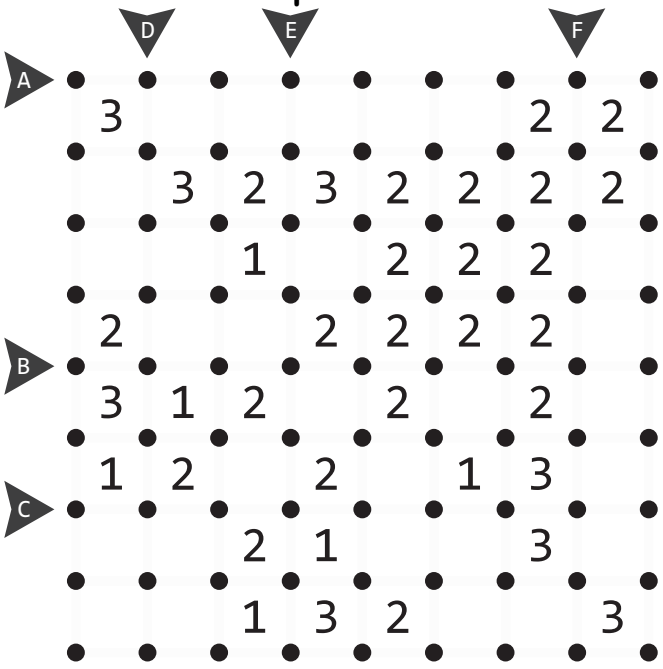
6x6
1 point



7x7
3 points



8x8
5 points

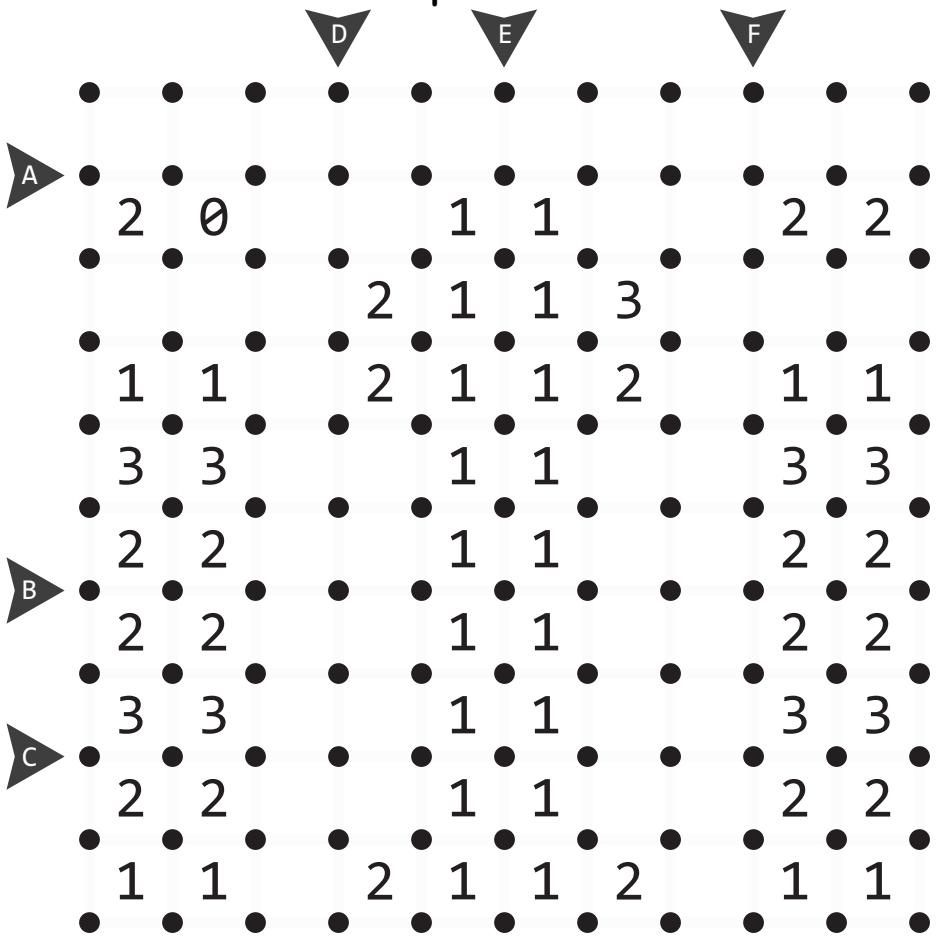


Answer Key: Enter length of largest line segment in marked row/column. Enter '0' if there are no line segments along the marked direction.

Fence

Draw a single closed loop that does not touch or cross itself. Digits in the grid indicate the amount of line segments of that cell used by the loop.

10x10
6 points



Answer Key: Enter length of largest line segment in marked row/column. Enter '0' if there are no line segments along the marked direction.

Hitori

Shade cells such that digits do not repeat in rows and columns. Shaded cells cannot be adjacent to each other and all unshaded cells must be orthogonally connected.

6x6
3 points

A		B		C	
3	2	6	5	4	6
5	4	2	5	1	6
6	3	5	1	2	4
3	1	5	4	4	3
1	2	6	3	5	4
4	2	3	6	1	5

7x7
5 points

		D		E	F	
2	3	5	6	7	4	3
5	7	6	1	2	2	3
5	2	1	4	2	7	4
1	2	4	3	5	7	4
4	3	2	3	1	6	7
7	4	6	2	1	5	5
3	1	4	5	6	1	2

8x8
6 points

		G		H		I	
4	7	5	5	8	2	3	1
6	8	3	4	2	7	8	1
7	6	6	2	4	3	4	5
6	2	7	1	1	2	6	4
5	4	3	3	5	8	2	7
1	2	2	6	7	5	5	4
3	3	4	6	5	7	1	2
2	1	5	5	3	2	4	3

Answer Key: Enter the length of continuous areas of shaded and unshaded cells in the marked rows/columns.

Hitori
10x10
7 points

Shade cells such that digits do not repeat in rows and columns. Shaded cells cannot be adjacent to each other and all unshaded cells must be orthogonally connected.

	J		K				L		
9	8	6	7	2	6	3	9	4	1
4	2	8	2	5	7	3	3	9	9
6	6	3	2	1	1	7	8	8	5
4	6	9	8	1	4	7	7	2	3
7	5	4	8	3	6	6	1	1	2
3	3	4	1	5	5	9	9	7	8
2	3	1	4	4	8	8	5	6	7
2	9	3	3	7	7	5	6	6	4
5	2	2	6	6	3	4	4	8	9
1	1	5	5	8	9	9	2	3	7

Hitori Blocks
[Exploratory]
10x10
12 points

Shade blocks of size 2x1 such that digits do not repeat in rows and columns. Shaded blocks cannot be adjacent to each other and all unshaded cells must be orthogonally connected.

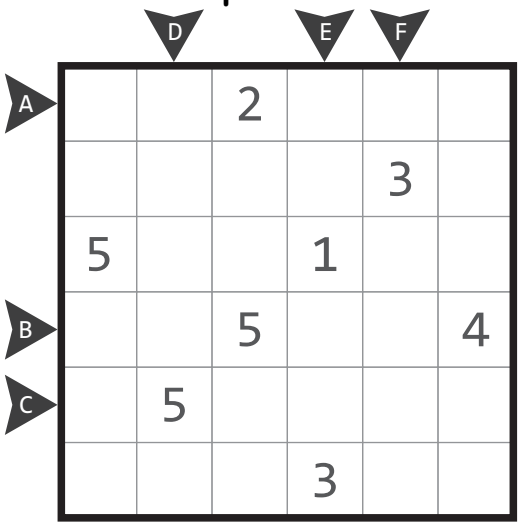
			M		N			O	
5	2	3	5	2	1	3	6	3	9
2	6	1	6	4	3	8	5	7	1
1	5	7	7	2	4	4	9	6	8
4	1	5	2	6	2	2	1	8	2
6	9	1	1	7	4	3	8	2	9
3	4	6	2	1	7	5	6	2	2
3	9	2	3	3	6	5	4	1	2
9	3	4	2	8	6	7	1	5	8
1	3	8	7	9	2	6	5	4	3
8	9	1	4	8	1	6	2	3	7

Answer Key: Enter the length of continuous areas of shaded and unshaded cells in the marked rows/columns.

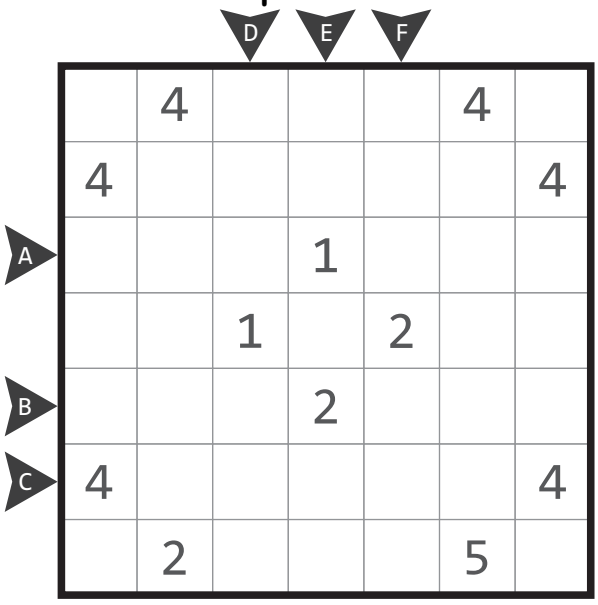
Four Winds

Draw one or more horizontal or vertical lines from each numbered clue so that all blank cells are connected to exactly one of the numbers. Lines cannot enter other numbered squares or intersect with other lines. Each number represents the total number of blank cells occupied by the lines from that number.

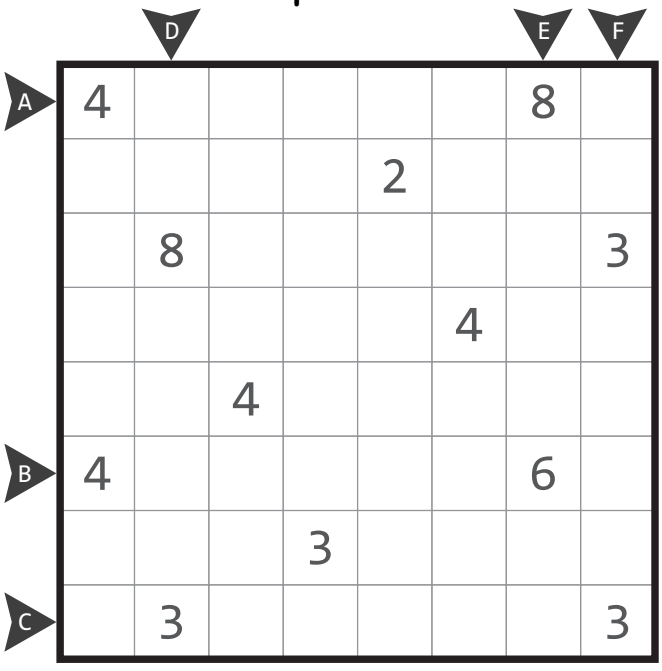
6x6
2 points



7x7
3 points



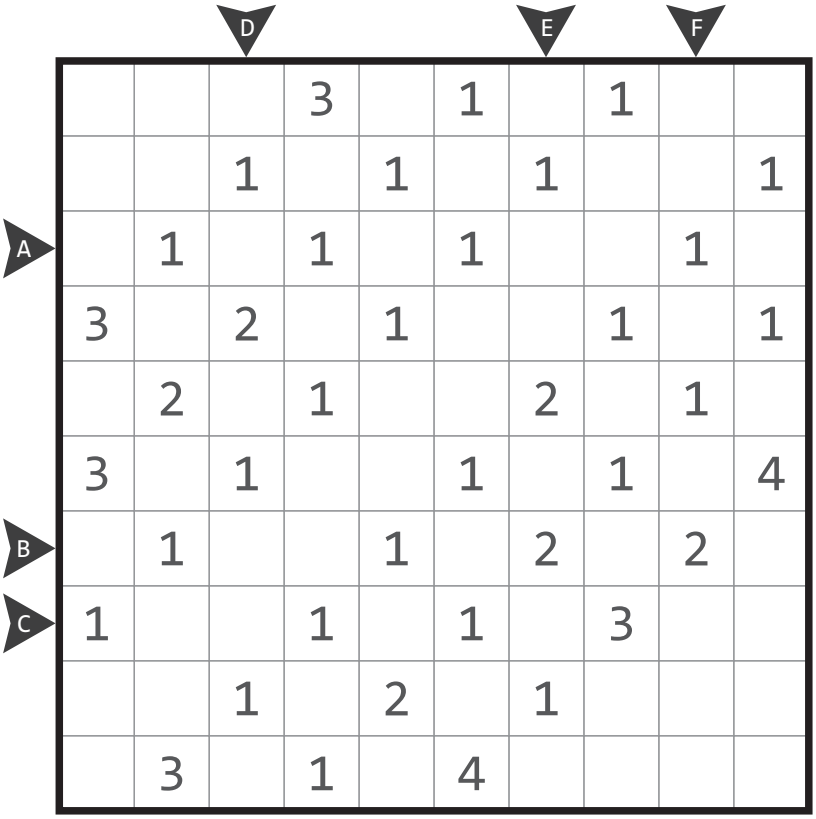
8x8
5 points



Answer Key: Enter length of largest line segment in marked row/column. Enter '0' if there are no line segments along the marked direction.

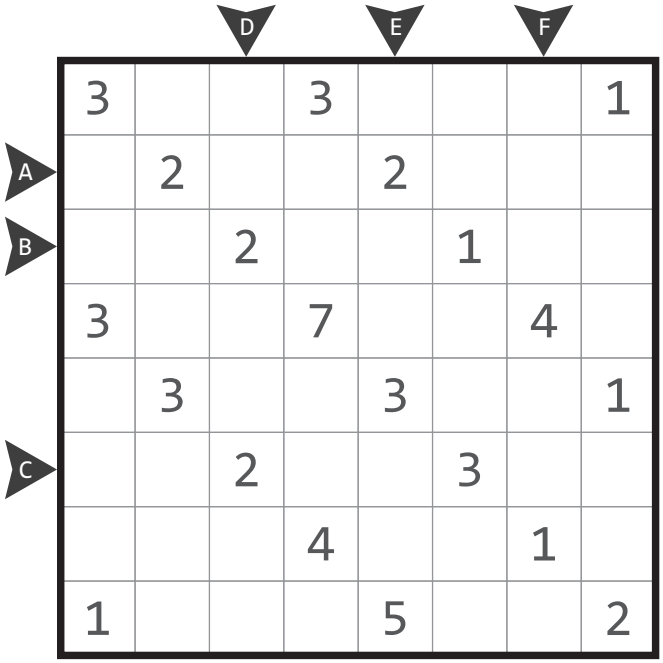
Four Winds
10x10
5 points

Draw one or more horizontal or vertical lines from each numbered clue so that all blank cells are connected to exactly one of the numbers. Lines cannot enter other numbered squares or intersect with other lines. Each number represents the total number of blank cells occupied by the lines from that number.



Walls
[Exploratory]
8x8
6 points

Place a horizontal or a vertical line in every blank cell. A number indicates the total length of the segments connected to that square.



Answer Key: Enter length of largest line segment in marked row/column. Enter '0' if there are no line segments along the marked direction.

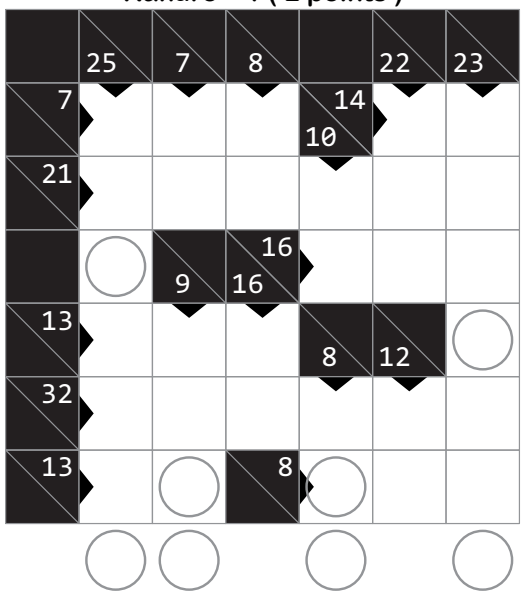
Kakuro

- Fill in the white cells in the grid with digits from 1 to 9.
- The sum of digits in each horizontal / vertical group of cells is given on its left/top.
- Digits do not repeat within any set of consecutive white cells.

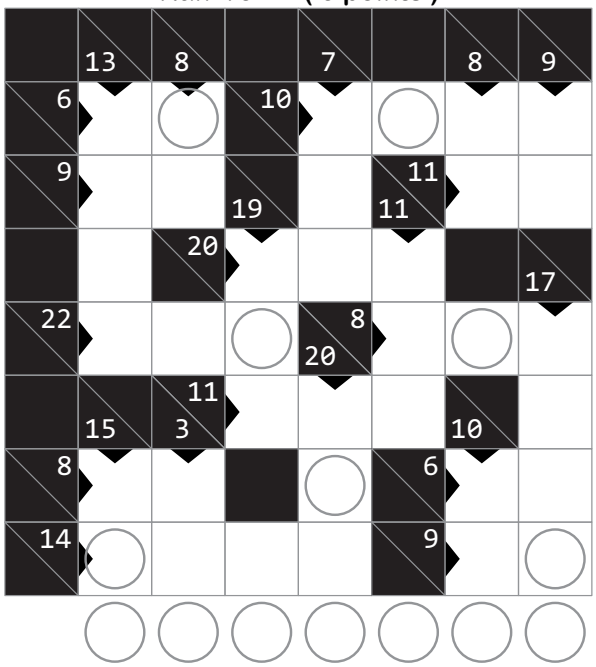
Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

Kakuro – 1 (2 points)



Kakuro – 2 (3 points)

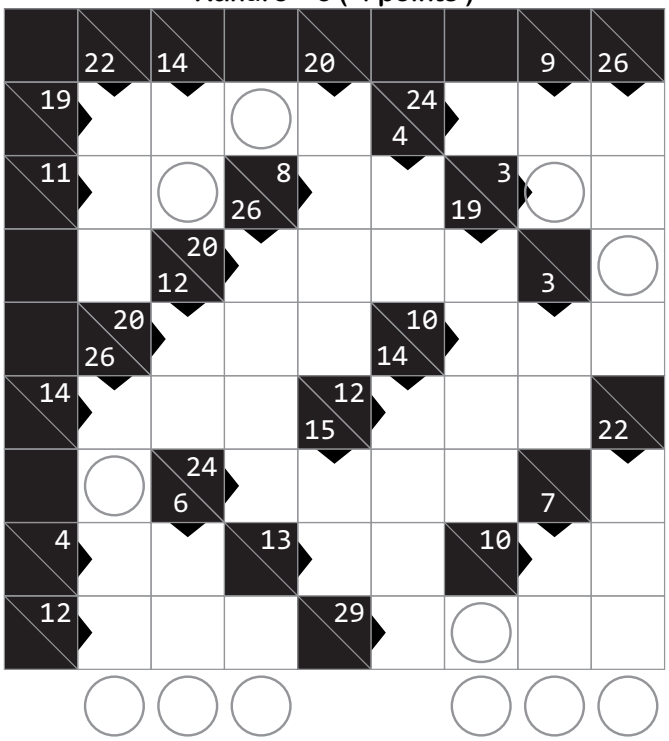


Kakuro

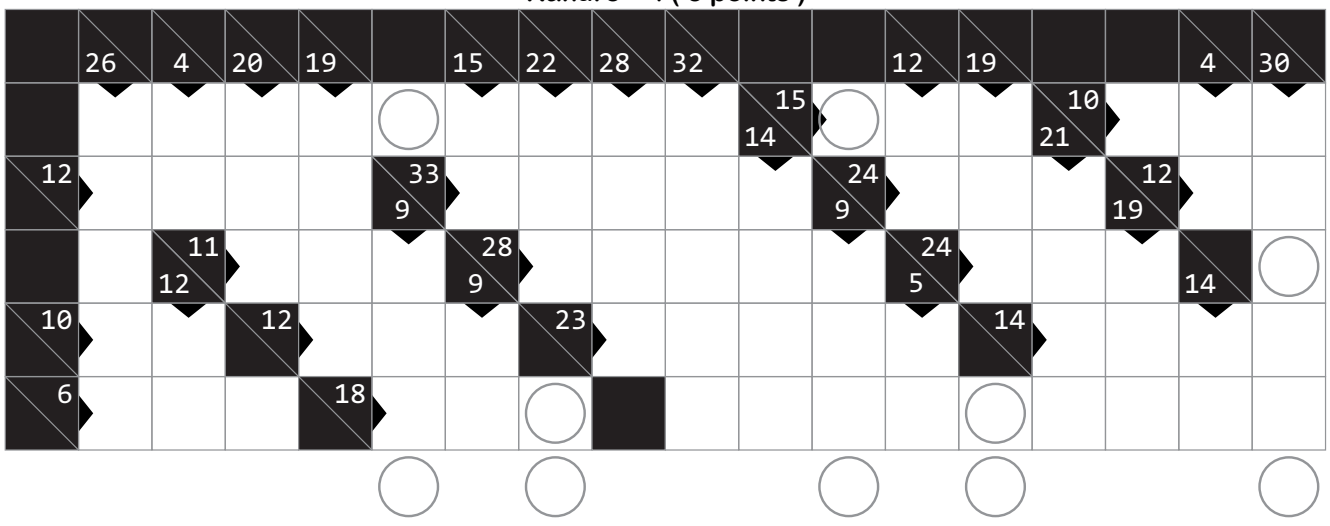
➢ See previous page for rules.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

Kakuro – 3 (4 points)



Kakuro – 4 (5 points)



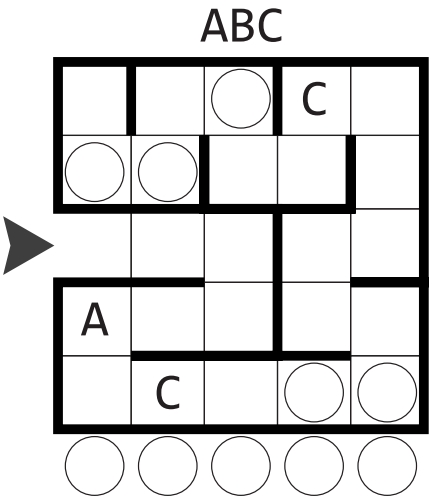
Magic Snail

- Fill in the snail like grid such that each row and column has some re-arrangement of all the letters of the given key.
- Some cells will remain blank.
- While reading the letters from outside towards the center, the order of the letters is to be same as the key. [E.g. in the example it should read as A-B-C-A-B-C…]

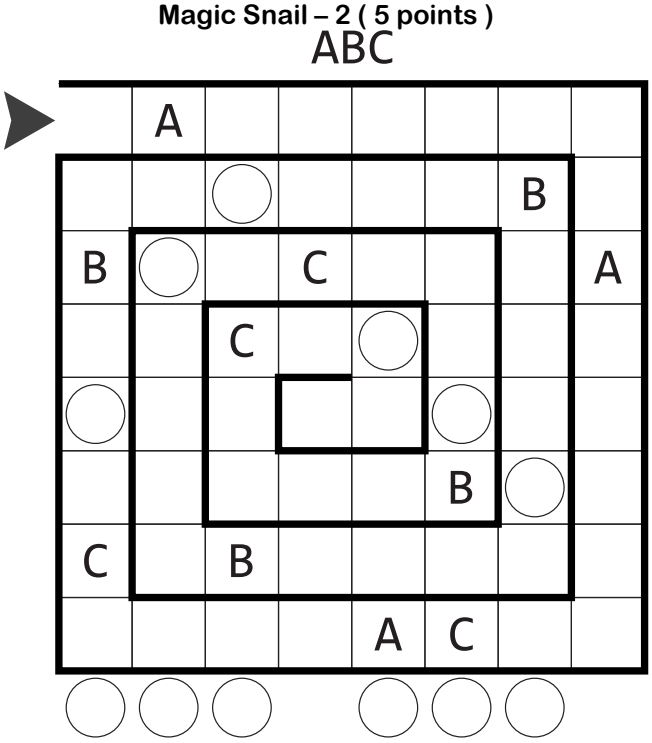
Ignore the circles while solving; they are used for answer key purposes.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

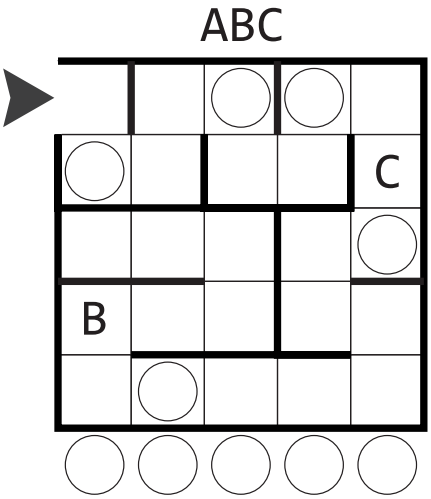
Magic Snail – 1 (2 points)



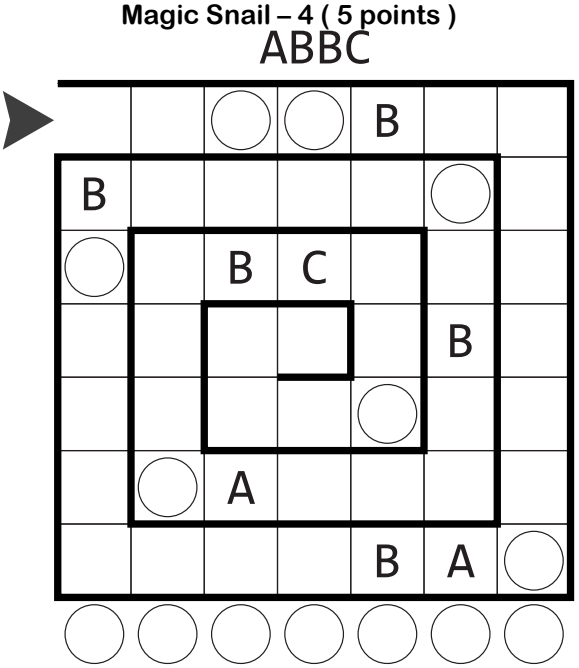
Magic Snail – 2 (5 points)



Magic Snail – 3 (3 points)



Magic Snail – 4 (5 points)

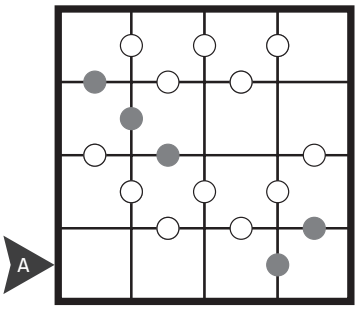


Kropki

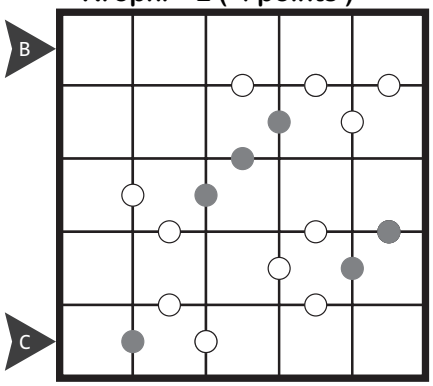
- Fill in the grid with digits 1 – N where N is the size of the grid so that each row and column contains each digit exactly once.
- If two consecutive digits appear in two neighboring cells, they are separated by white dot.
- If digit in a cell is half of digit in the neighboring cell, then they are marked by black dot.
- The dot between 1 and 2 can either be white or be black.

Answer key: Enter the digits in the marked rows.

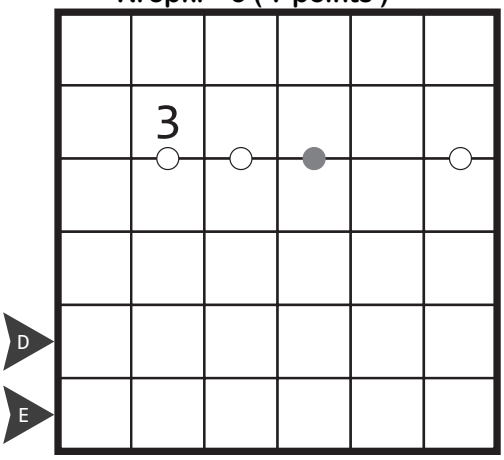
Kropki – 1 (1 points)



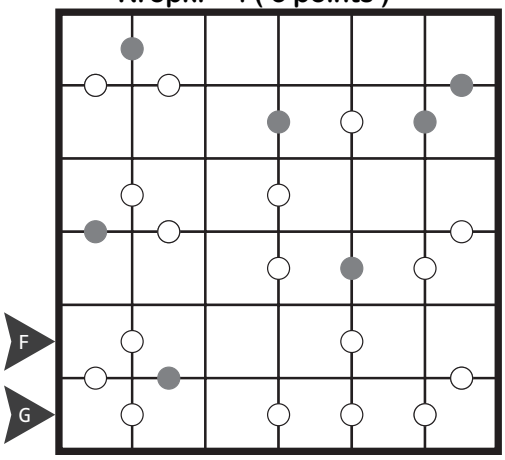
Kropki – 2 (4 points)



Kropki – 3 (7 points)



Kropki – 4 (3 points)



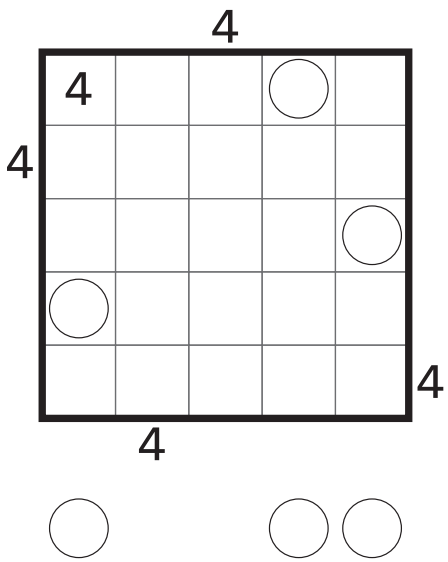
Skyscrapers

- Fill in the grid with digits 1 – N where N is the size of the grid so that each row and column contains each digit exactly once.
- Each number inside the grid represents the height of a building.
- The clues outside of the grid indicate how many buildings can be seen when looking from that direction.
- Taller buildings block the view of smaller buildings.

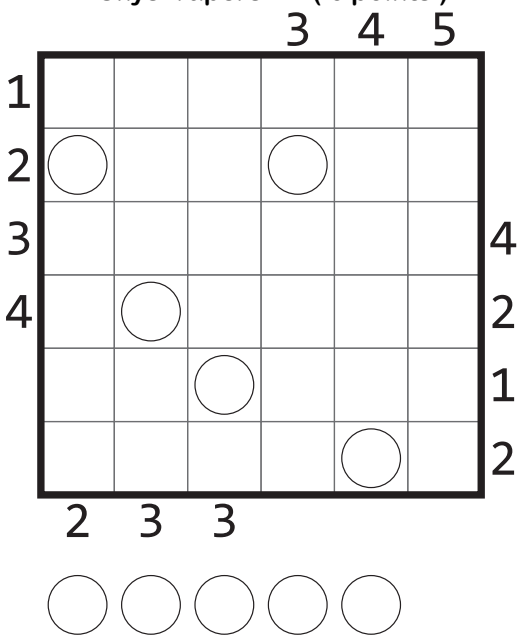
Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

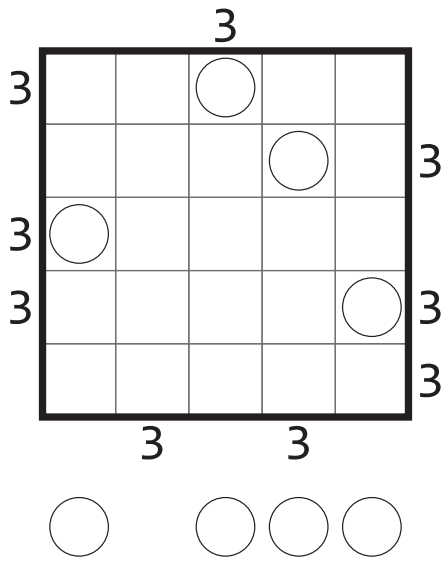
Skyscrapers – 1 (2 points)



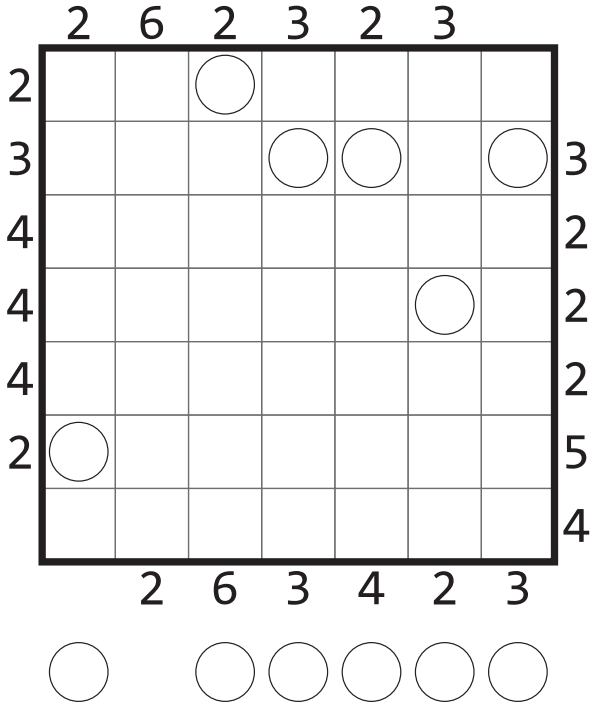
Skyscrapers – 2 (6 points)



Skyscrapers – 3 (6 points)



Skyscrapers – 4 (7 points)



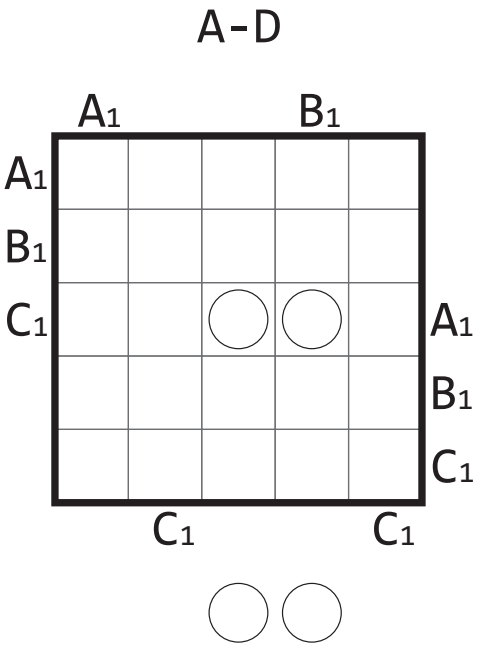
Easy As ABC [Numbers]

- Fill in the grid with letters from the given range so that each row and column contains each letter exactly once.
- Each row and column contains one blank cell.
- The clues outside the grid in the form X_N, indicate that X is the N^{th} letter seen in that row or column, in the corresponding direction.

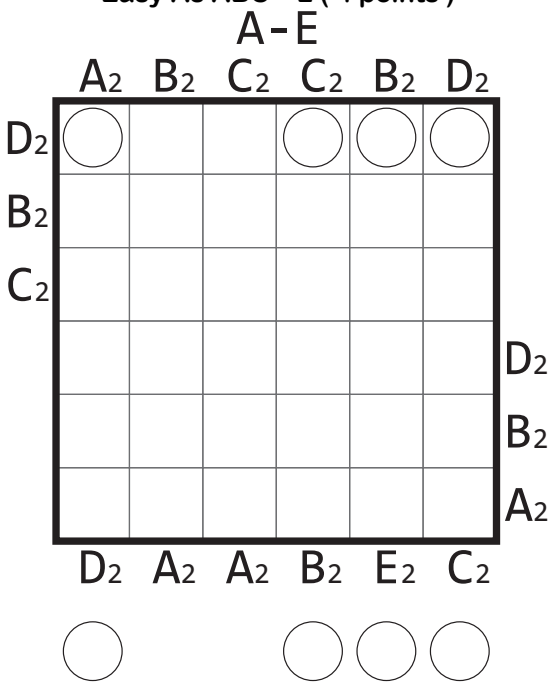
Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right. Enter X for blank cells

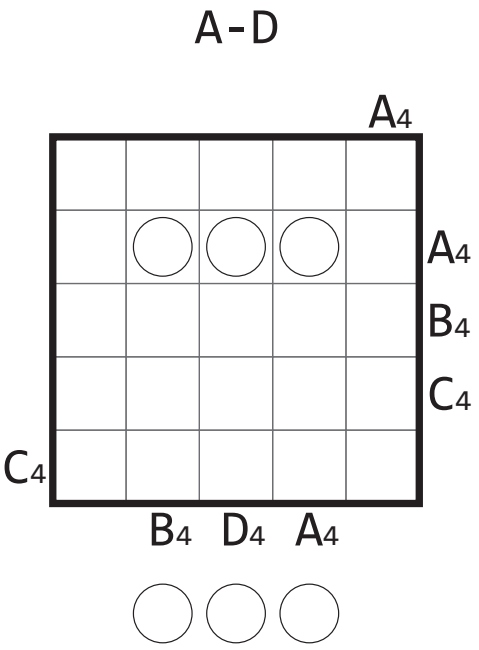
Easy As ABC – 1 (2 points)



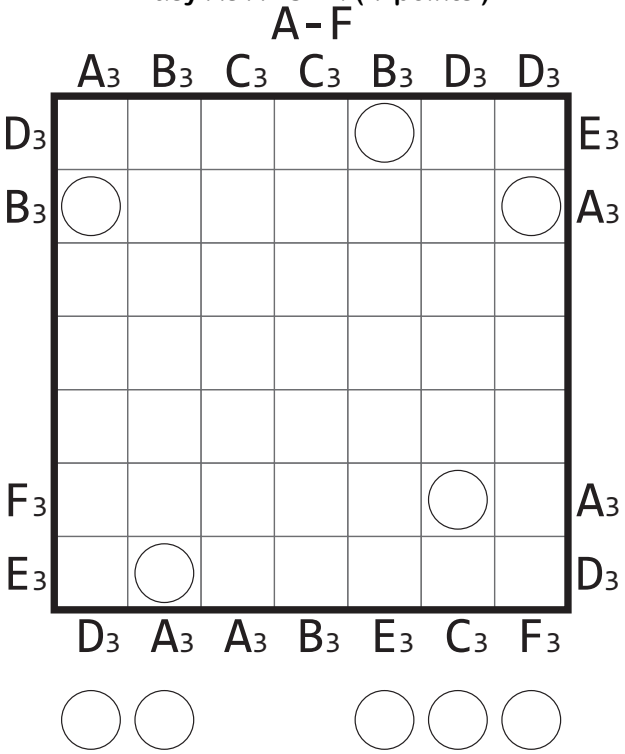
Easy As ABC – 2 (4 points)



Easy As ABC – 3 (3 points)



Easy As ABC – 4 (7 points)



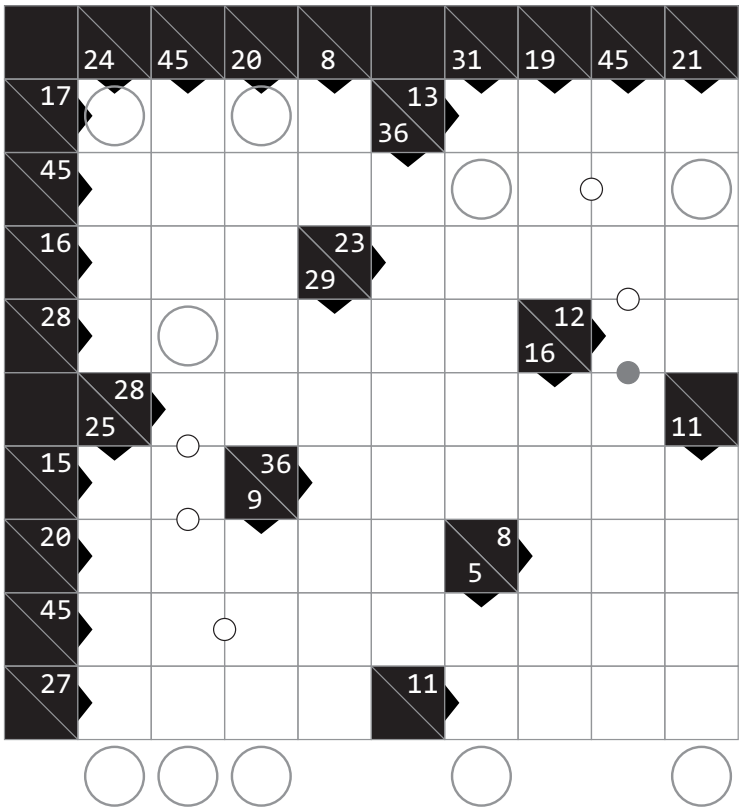
KropKuro

12 points

- Apply Kakuro rules.
- If two consecutive digits appear in two neighboring cells, they are separated by white dot.
- If digit in a cell is half of digit in the neighboring cell, then they are marked by black dot.
- The dot between 1 and 2 can either be white or be black.

Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.



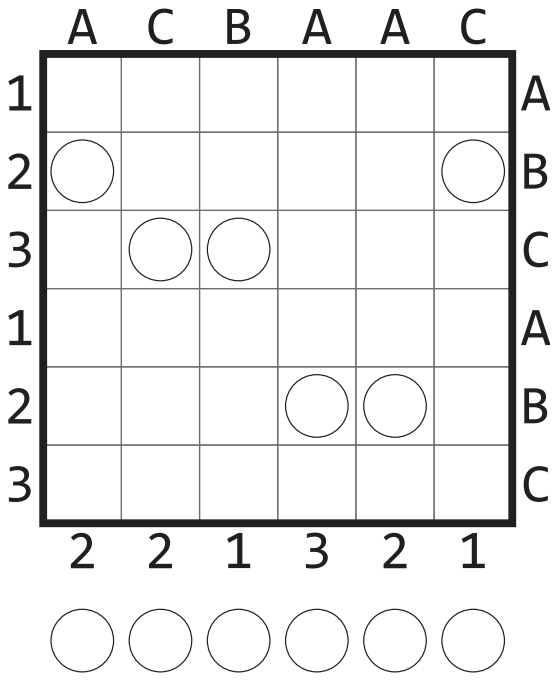
ABC Skyscrapers

7 points

- Fill in the grid with letters A, B, C and digits 1, 2, 3 so that each row and column contains different symbols. (The first example uses A, B, 1, 2)
- Each number inside the grid represents the height of a building.
- The number clues outside of the grid indicate how many buildings can be seen when looking from that direction.
- Taller buildings block the view of smaller buildings, but letters do not affect visibility.
- Letters outside the grid indicate the first seen letters from the corresponding direction.

Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.



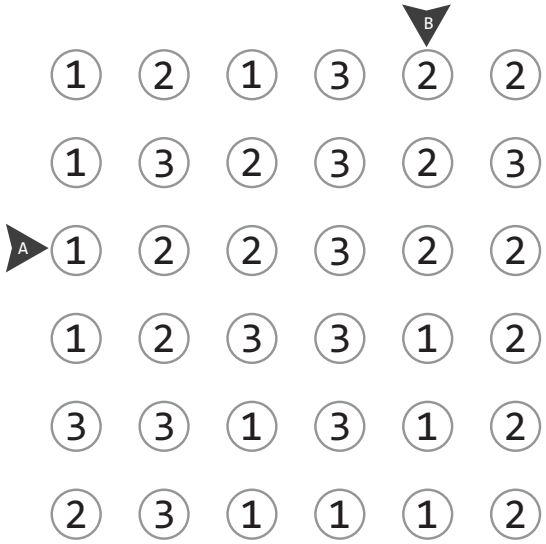
- End of Test -

Hashi 3 + 4 + 5 + 7 points

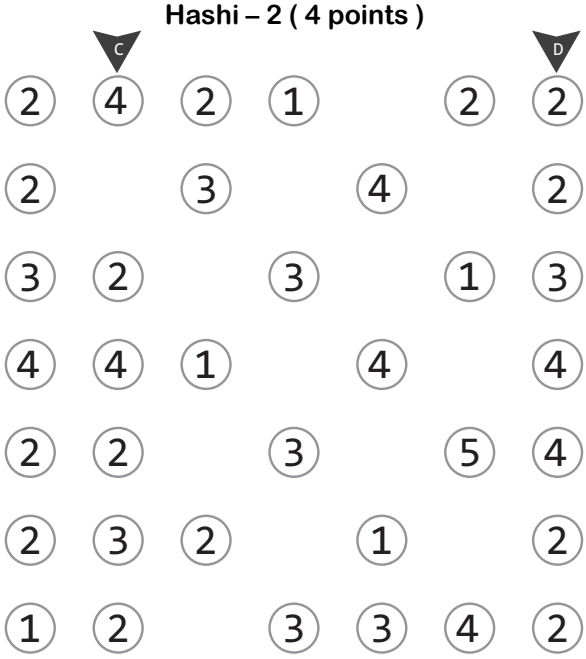
- Connect each of the numbered islands in the grid via horizontal and vertical bridges.
- Bridges are not allowed to cross each other.
- Each numbered island has that many bridges leading away from it, and at most two bridges are allowed to connect a pair of islands.
- There must be a sequence of bridges that links one given island to any other.

Answer key: Enter contents of marked row/column (use 0 for no bridge, 1 for 1 bridge and 2 for 2 bridges)

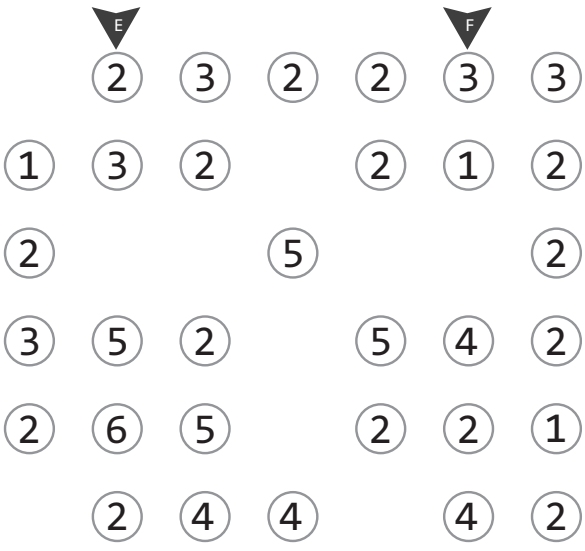
Hashi – 1 (3 points)



Hashi – 2 (4 points)



Hashi – 3 (5 points)



Hashi – 4 (7 points)

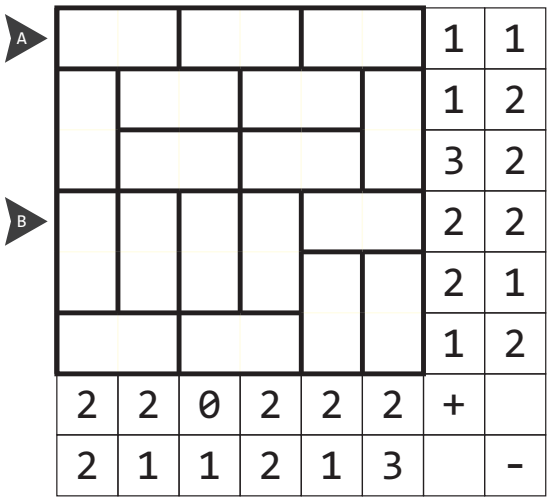
Magnets 2 + 3 points

- The grid is made up of magnetic and non-magnetic plates.
- Each magnetic plate has 2 halves: one positive (+) and one negative (-).
- Halves with the same polarity cannot touch each other vertically or horizontally.
- The digits outside the grid indicate the number of magnetic halves with a particular polarity in each row/column.

Answer key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and X for non-magnetic plate)

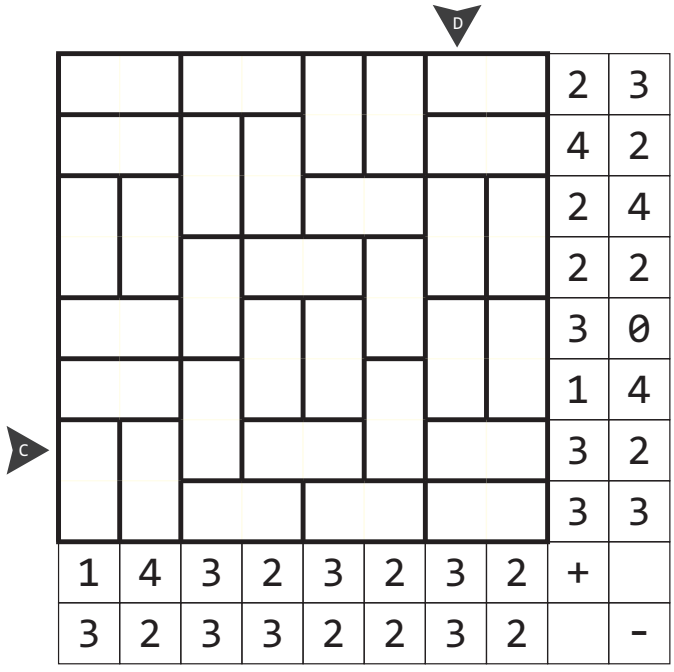
Magnets – 1

(2 points)



Magnets – 2

(3 points)



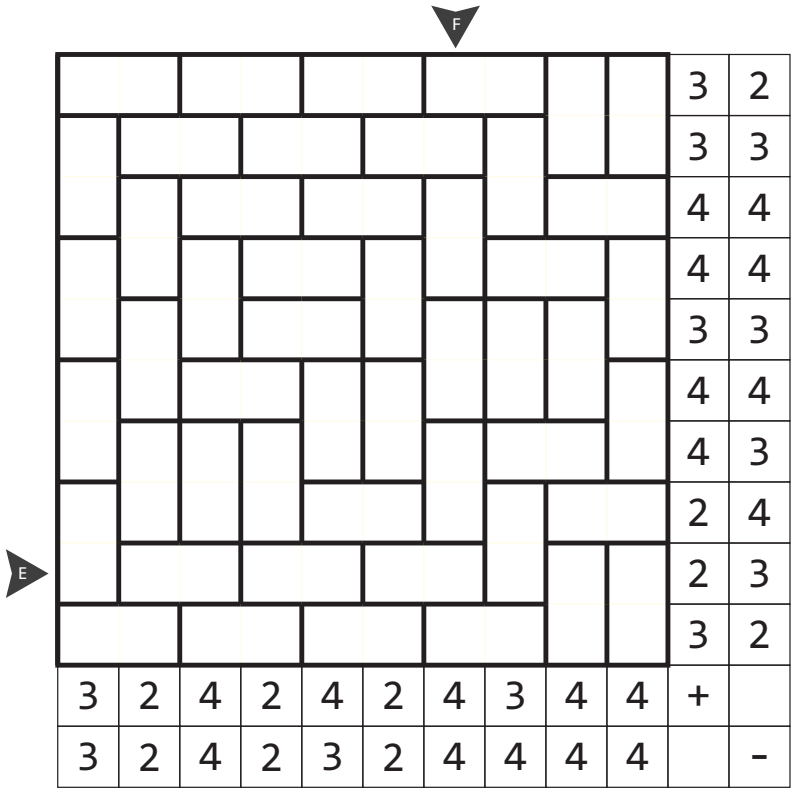
Magnets 8 + 9 points

Refer to previous page for instructions

Answer key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and X for non-magnetic plate)

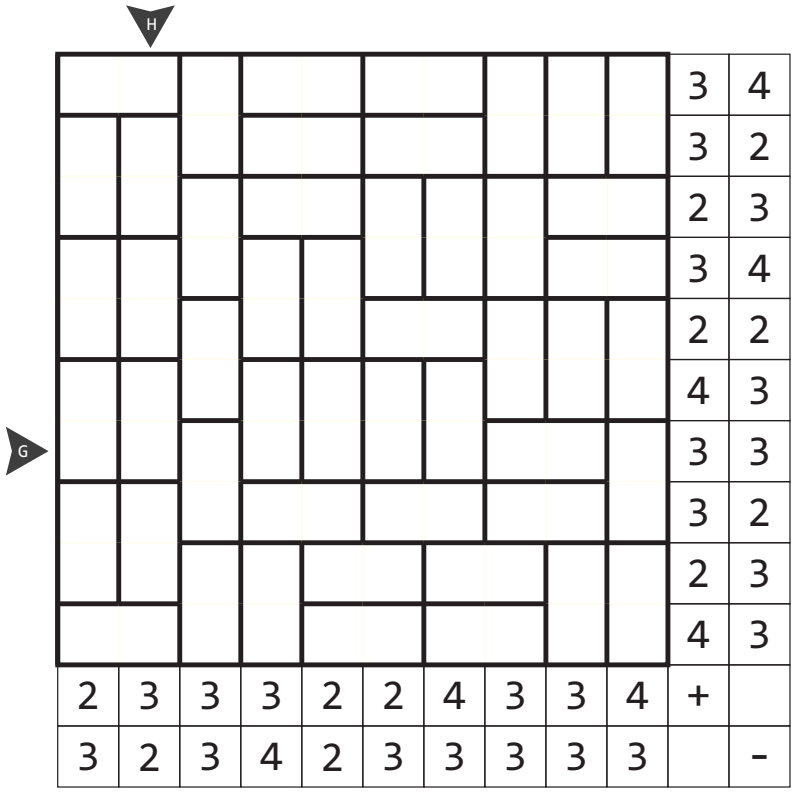
Magnets – 3

(8 points)



Magnets – 4

(9 points)



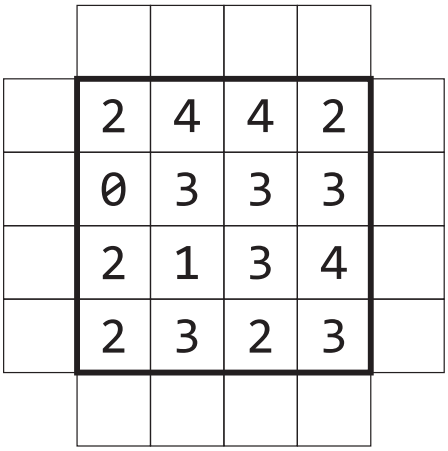
puzzle ramayan

Arrows 3 + 3 + 5 + 6 points

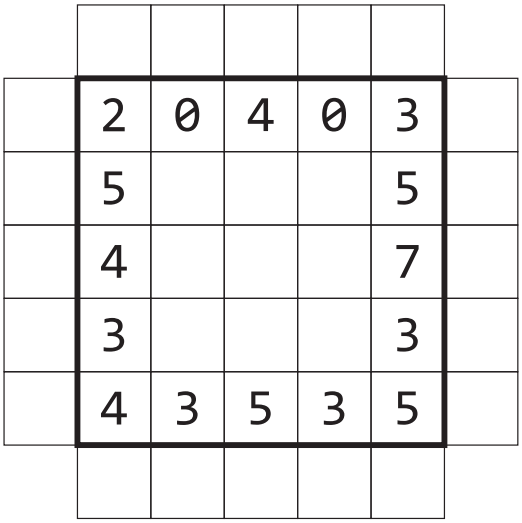
- Draw arrows in the cells around the large grid, one arrow per cell.
- Each arrow points to at least one number.
- The numbers show the total number of arrows pointing towards them.

Answer key: Enter the number of horizontal arrows, followed by the number of vertical arrows

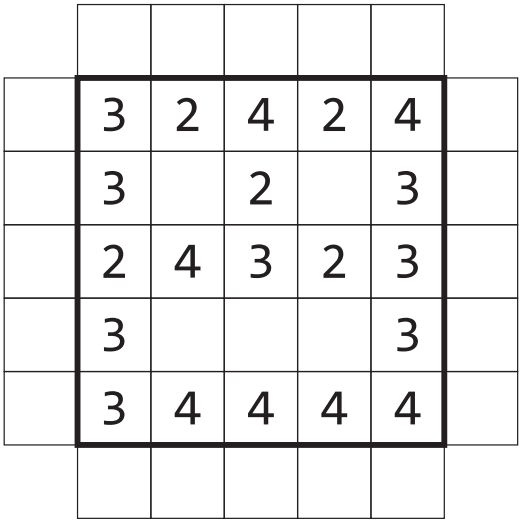
Arrows – 1 (3 points)



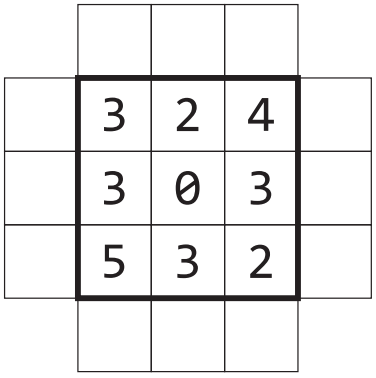
Arrows – 2 (3 points)



Arrows – 3 (5 points)



Arrows – 4 (6 points)

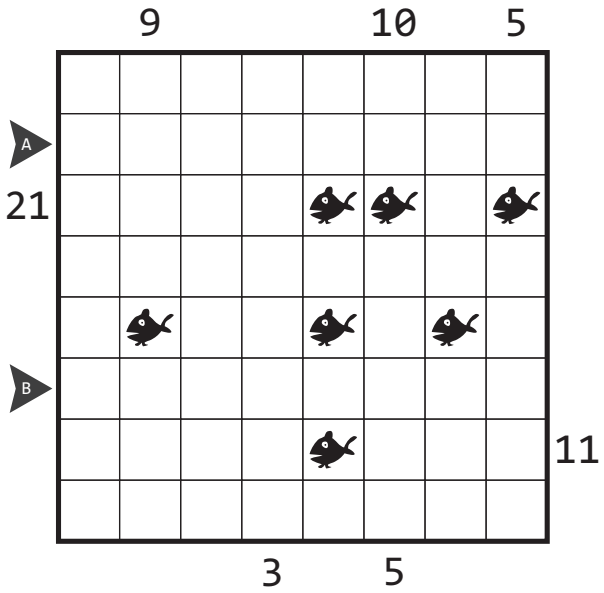


Anglers 2 + 2 + 2 + 5 points

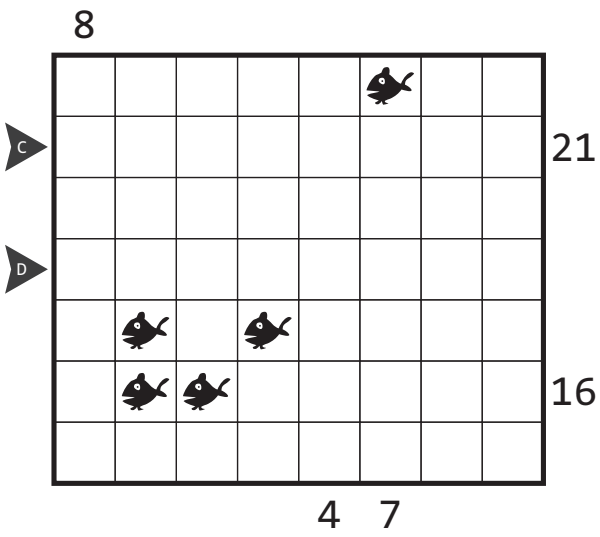
- The grid represents a lake and the numbers on the periphery represent anglers (fishermen).
- The fishes shown in the lake are such that every angler gets exactly one fish.
- The numbers indicate the length of the fishlines which are composed of horizontal and vertical line segments.
- Draw the fishlines starting from grid border such that no two of them cross or overlap each other.

Answer key: Enter the number of turns in marked rows/columns.

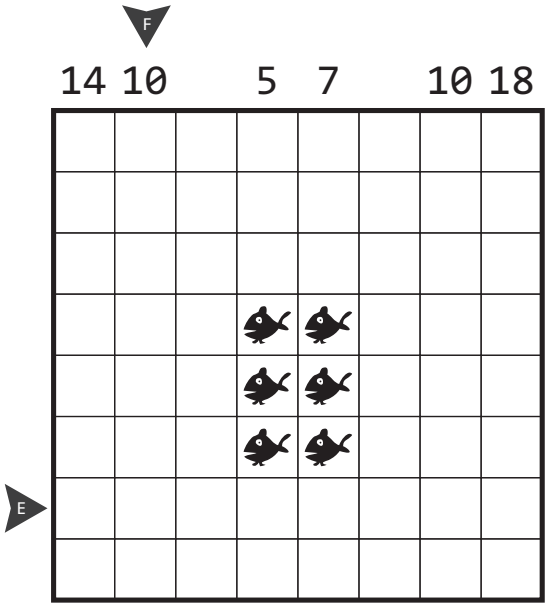
Anglers – 1 (2 points)



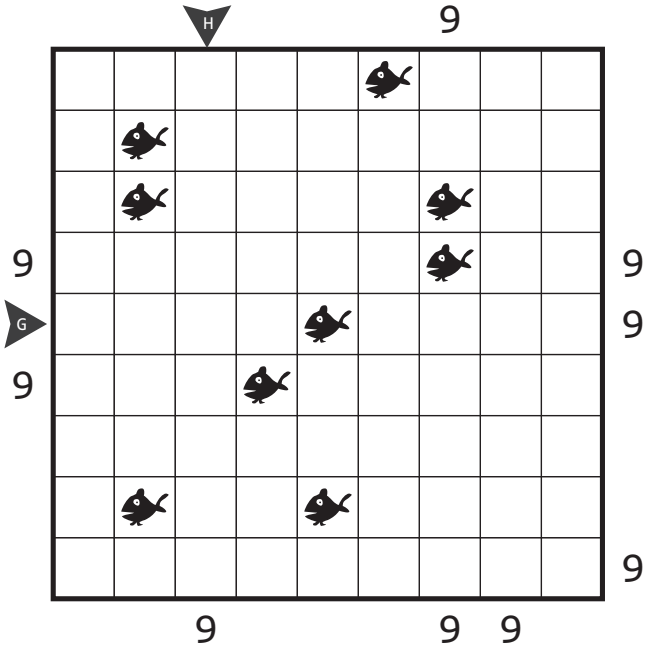
Anglers – 2 (2 points)



Anglers – 3 (2 points)



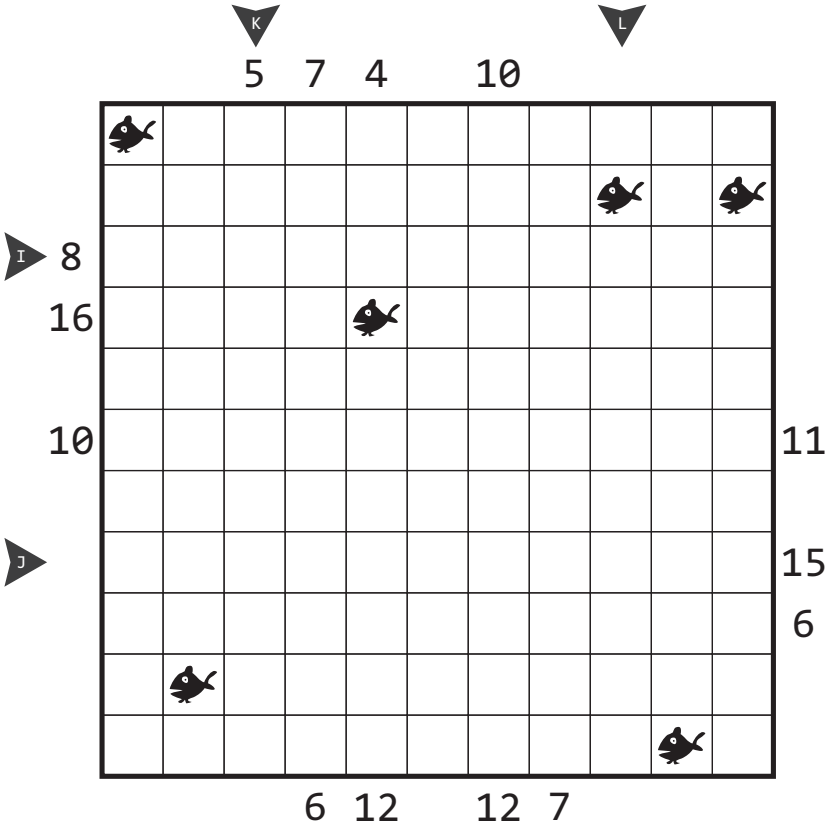
Anglers – 4 (5 points)



Multi-Anglers 6 points

- Apply rules of Anglers.
- However, multiple anglers can get the same fish.
- Each fish is captured by at least one angler

Answer key: Enter the number of turns in marked rows/columns.



Dominos 3 + 3 + 8 points

- The grid contains a set of dominos, using all combinations of zero through N.
- The layout is shown with domino edges removed.
- Reconstruct the missing edges.

Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)

Dominos – 1 (3 points)

	2	0	0	2	2	3
	2	0	1	1	0	0
A	1	1	4	4	4	3
B	2	1	3	2	3	3
	1	0	3	4	4	4

0	0	1	1	2	3	
0	1	1	2	2	4	
0	2	1	3	3	3	
0	3	1	4	3	4	
0	4	2	2	4	4	

Dominos – 1 (3 points)

	1	4	3	6	6	1	0	2	2
C	2	0	0	0	1	1	3	1	3
	2	2						0	3
	3	5						6	6
	3	4						6	3
	5	2						2	3
	5	1						6	6
D	1	2	0	1	0	4	4	4	5
	6	4	4	4	0	5	5	5	5

0	0	1	1	2	3	3	6
0	1	1	2	2	4	4	4
0	2	1	3	2	5	4	5
0	3	1	4	2	6	4	6
0	4	1	5	3	3	5	5
0	5	1	6	3	4	5	6
0	6	2	2	3	5	6	6

Dominos – 3 (8 points)

		2	0	4	0	1	
		5	6	3	6	6	2	1
E	6	5	3	4	6	5	0	1
	6	5	1	0	0	5	2	1
	5	4	3	2	0	1	2	4
F	2	3	3	4	4	1	4	4
	2	6	6	2	0	0	1	
			5	5	3	3	3	

0	0	1	1	2	3	3	6
0	1	1	2	2	4	4	4
0	2	1	3	2	5	4	5
0	3	1	4	2	6	4	6
0	4	1	5	3	3	5	5
0	5	1	6	3	4	5	6
0	6	2	2	3	5	6	6

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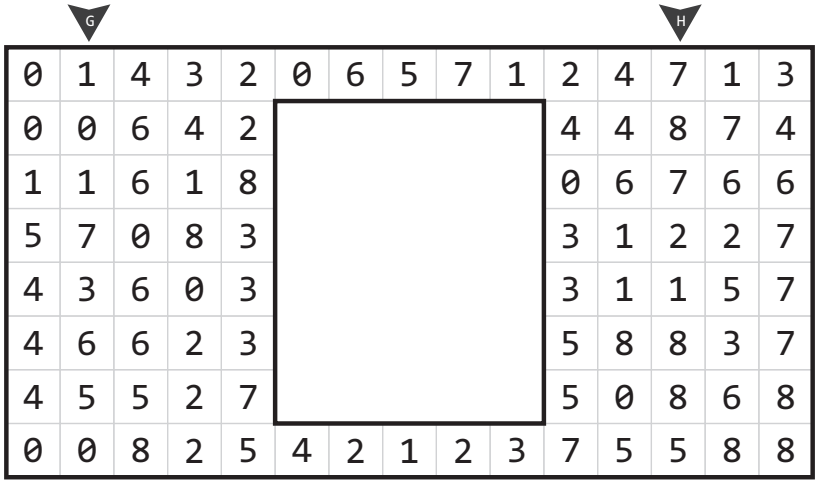
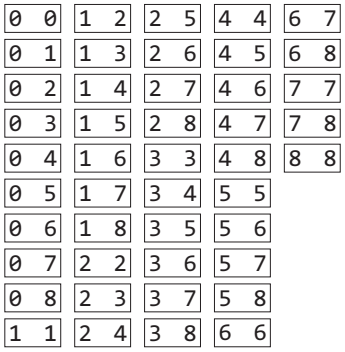
Dominos 6 points

- The grid contains a set of dominos, using all combinations of zero through N.
- The layout is shown with domino edges removed.
- Reconstruct the missing edges.

Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)

Dominos – 4 (6 points)

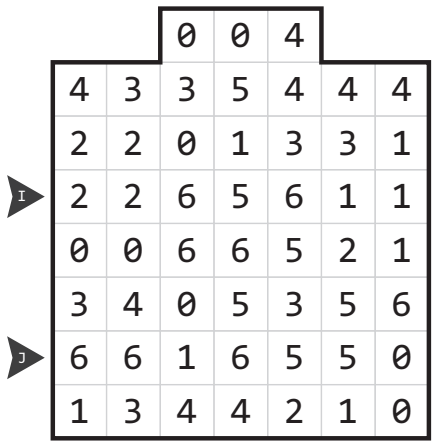


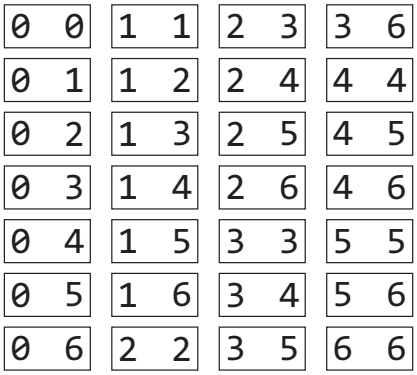


Missing Dominos 5 points

- Apply rules of Dominos.
- A few dominos from the set will be missing in the grid. It is part of the solving process to identify the missing dominos and recreate the rest within the grid.

Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)





End of Test

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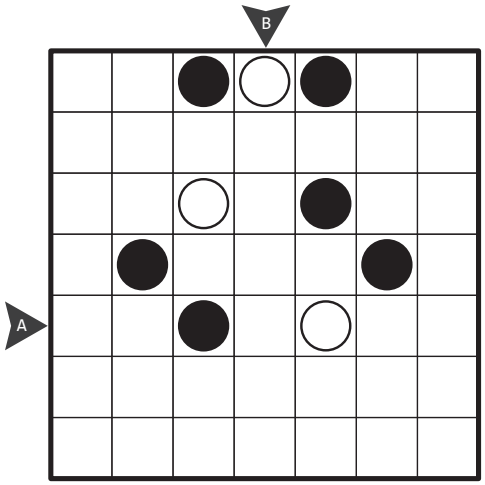
Yin Yang

1 + 2 + 4 + 7 points

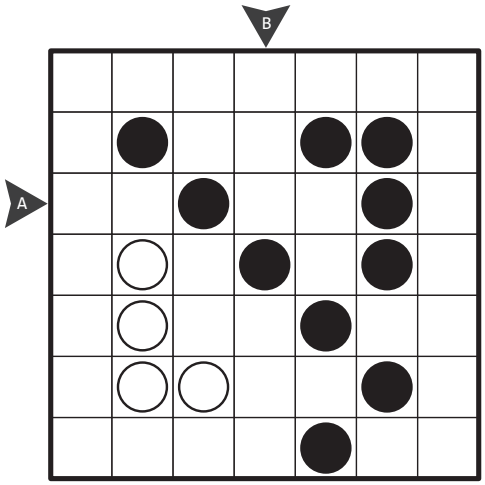
- Divide the grid into two regions of black and white by placing either a black or a white circle in each empty cell.
- All circles of same color are connected to each other, vertically or horizontally.
- No 2X2 group of cells can contain circles of a single color.

Answer Key: For each marked row/column, enter the length of continuous white and black circle blocks - from left to right / top to bottom.

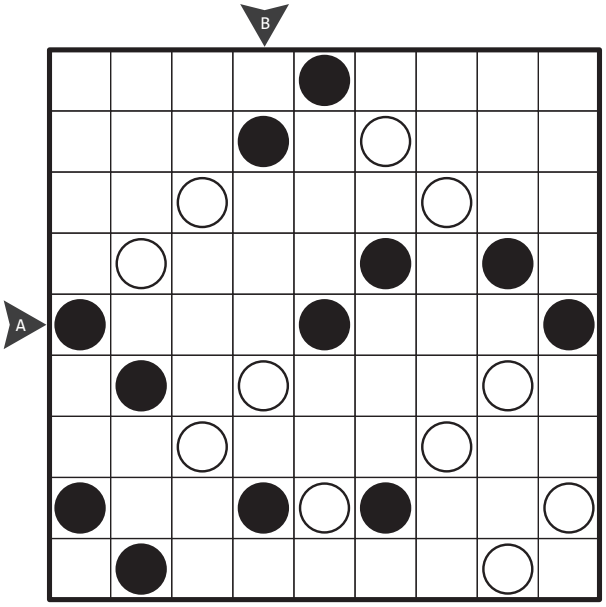
Yin Yang - 1 (1 point)



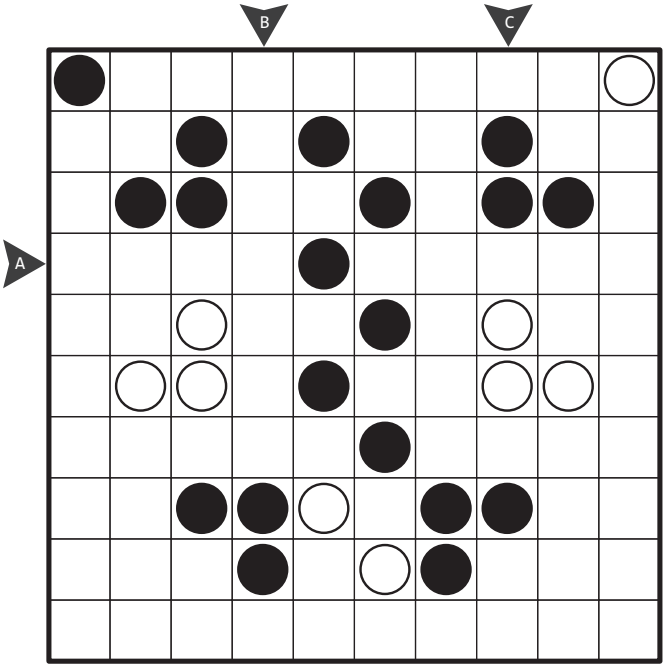
Yin Yang - 2 (2 points)



Yin Yang - 3 (4 points)



Yin Yang - 4 (7 points)

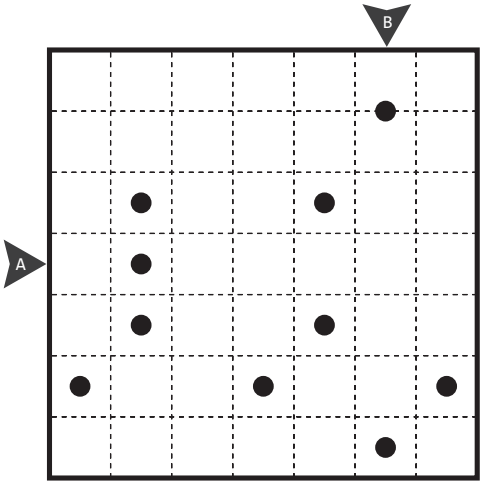


Spiral Galaxies 2 + 4 + 6 + 10 points

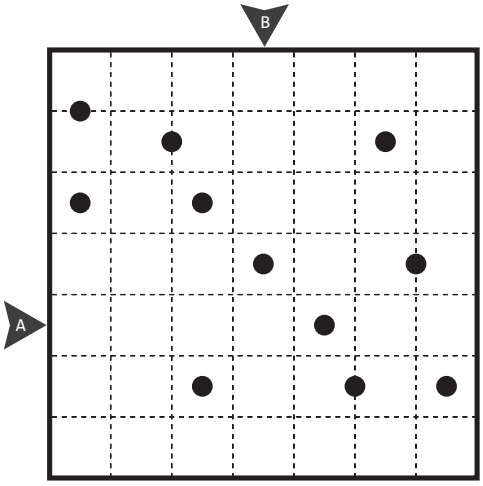
- Divide the grid into 180 degree symmetrical regions along the gridlines, so that each cell is part of only one region.
- Each region must contain exactly one circle, which represents the central symmetry point of the region. All circles are given.
- All cells must be part of a region.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

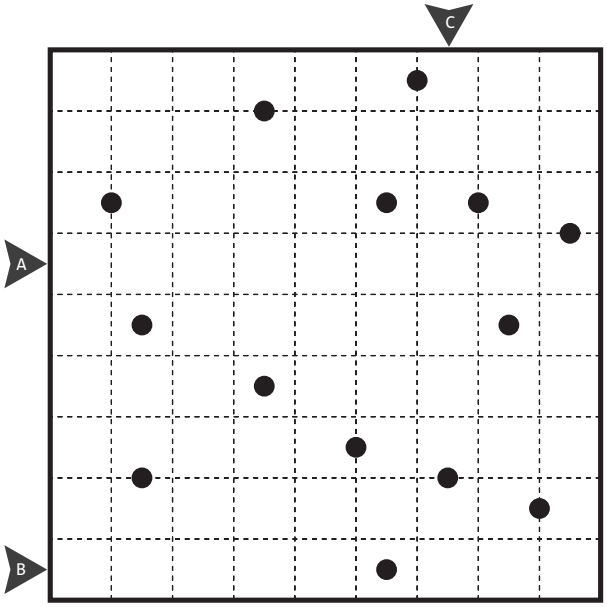
Spiral Galaxies - 1 (2 points)



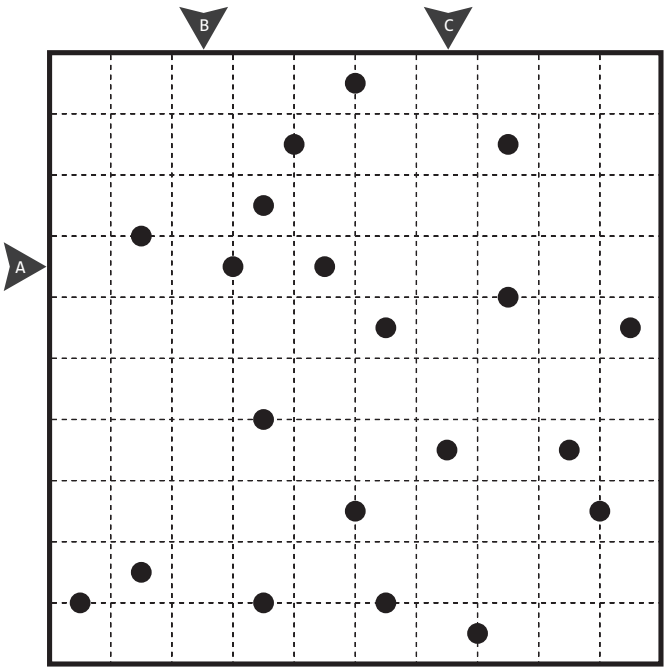
Spiral Galaxies – 2 (4 points)



Spiral Galaxies - 3 (6 points)



Spiral Galaxies - 4 (10 points)

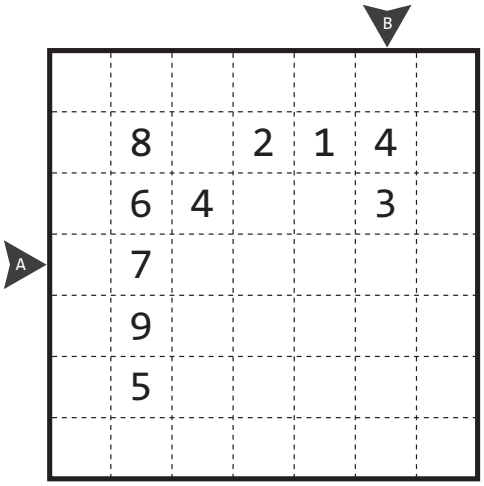


Fillomino 2 + 2 + 5 + 5 points

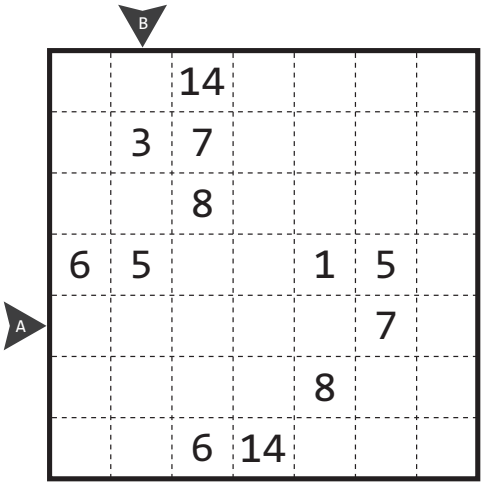
- Divide the grid into different regions along the gridlines.
- No two regions of the same size (number of cells in the region) can touch each other by a side.
- Numbers in the grid indicate that the cell is part of a region of that size (number of cells in the region).
- A region can contain more than one given number.
- There can be regions without any given numbers also.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

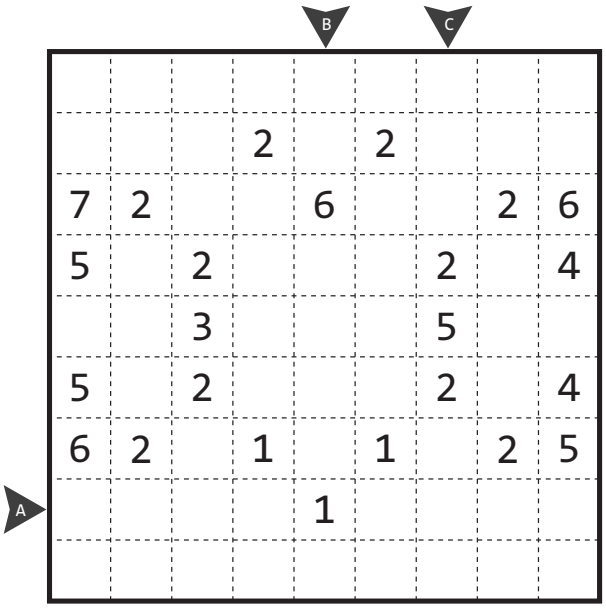
Fillomino - 1 (2 points)



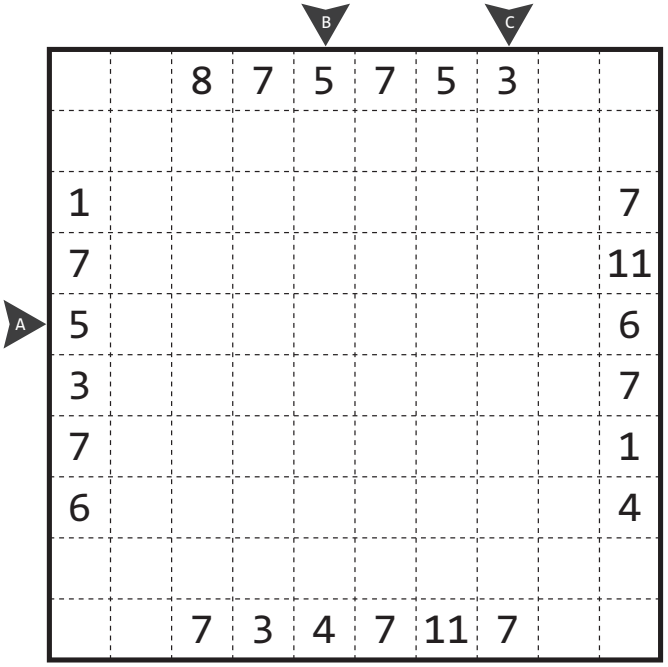
Fillomino - 2 (2 points)



Fillomino - 3 (5 points)



Fillomino - 4 (5 points)



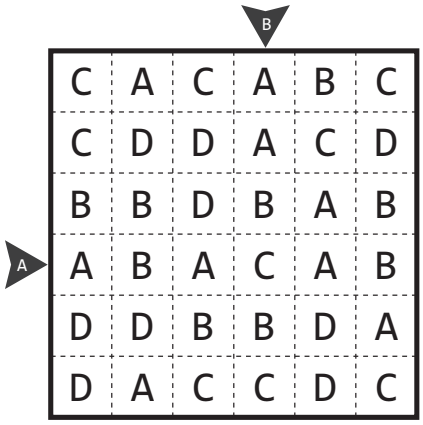
Area Division

1 + 1 + 4 + 8 points

- Divide the grid into several regions along the gridlines.
- Each region has ALL the letters of the given range exactly once.
- Each letter must be part of exactly one region.

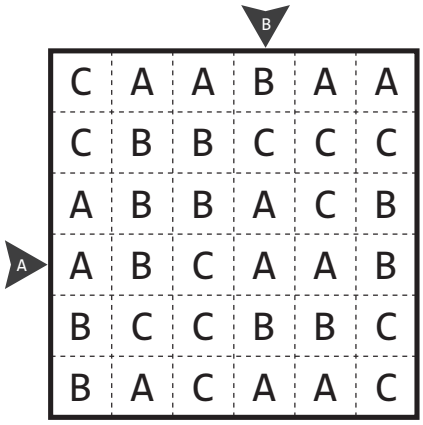
Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

Area Division - 1 (1 point)



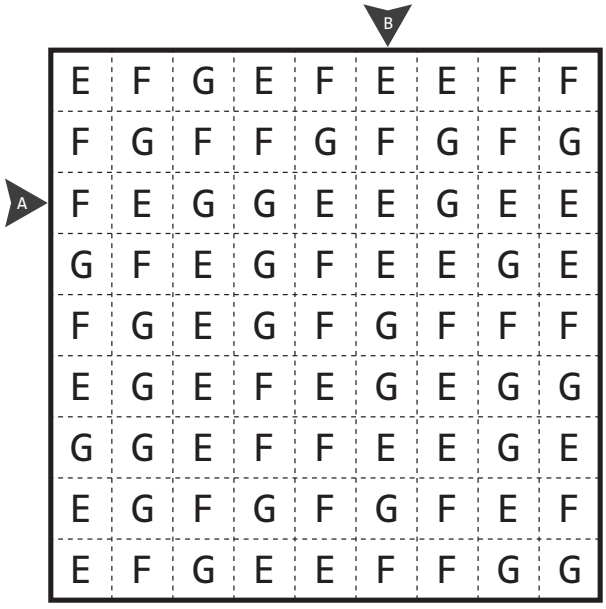
(Range: ABCD)

Area Division - 2 (1 point)



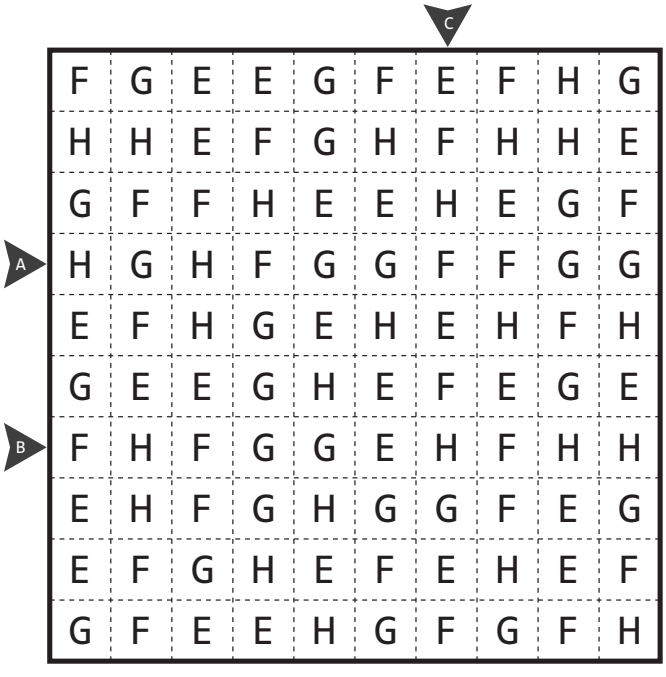
(Range: ABC)

Area Division – 3 (4 points)



(Range: EFG)

Area Division – 4 (8 points)



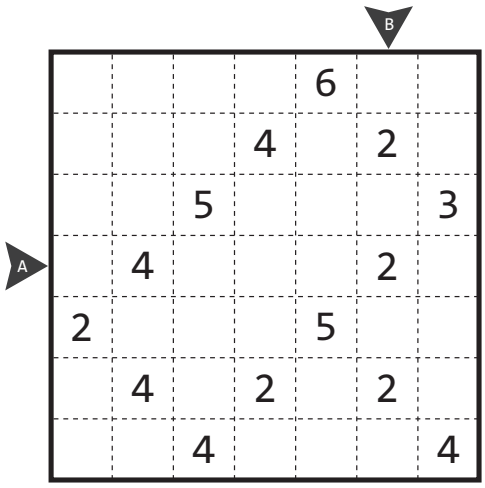
(Range: EFGH)

Shikaku 1 + 1 + 3 + 10 points

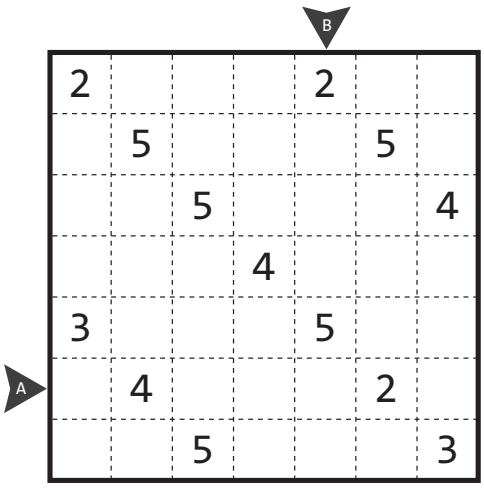
- Divide the grid into a number of non-overlapping rectangles, including squares, along the grid lines.
- Numbers in the grid indicate the size (number of cells) of the rectangle they are in.
- Each rectangle must contain exactly one given number.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

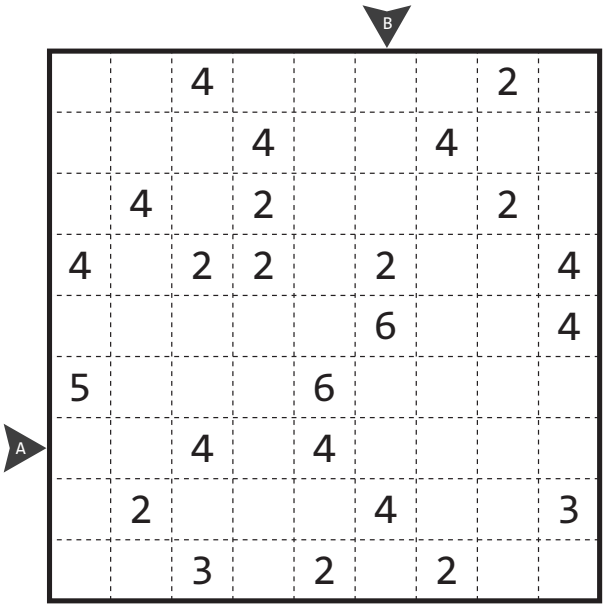
Shikaku - 1 (1 point)



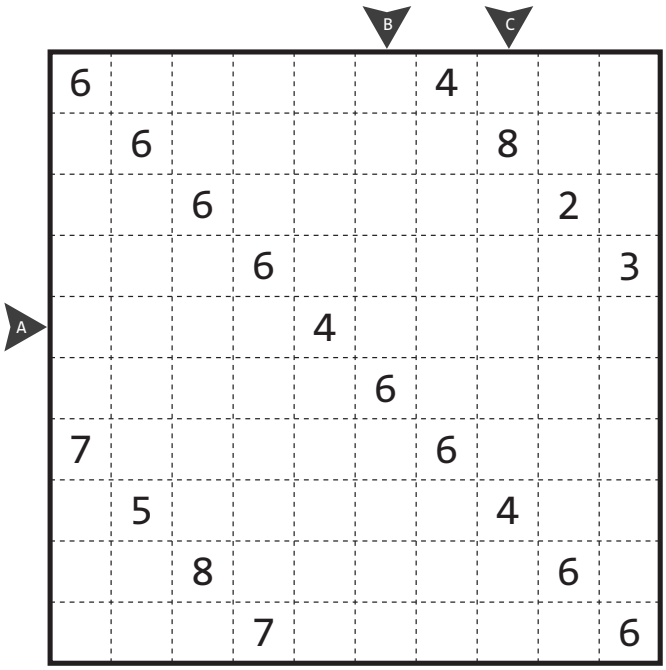
Shikaku - 2 (1 point)



Shikaku - 3 (3 points)



Shikaku - 4 (10 points)

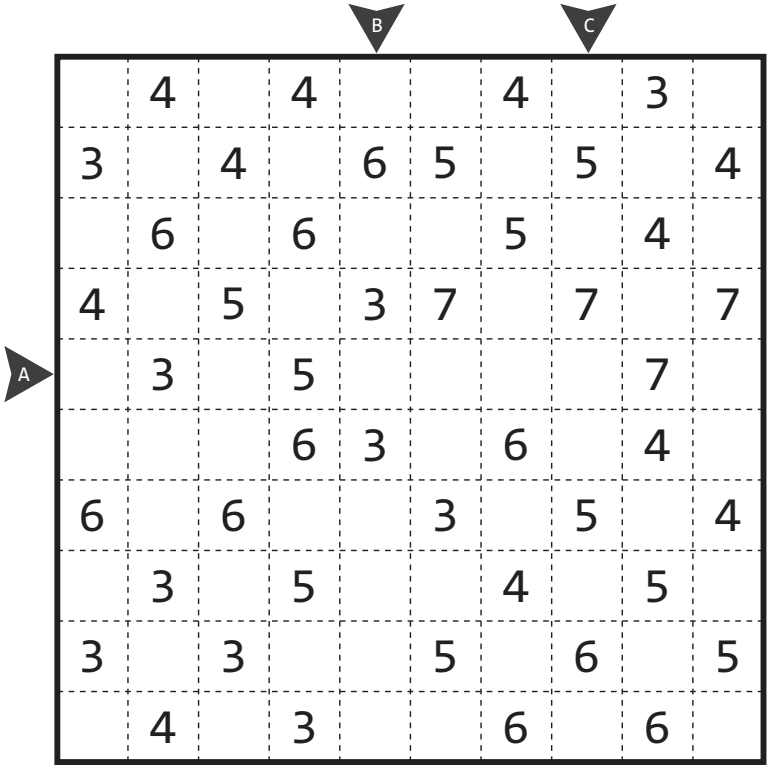


No-Rectangles Fillomino 7 points

- Apply rules of Fillomino.
- However, none of the regions can form a rectangle.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

No-Rectangles Fillomino (7 points)

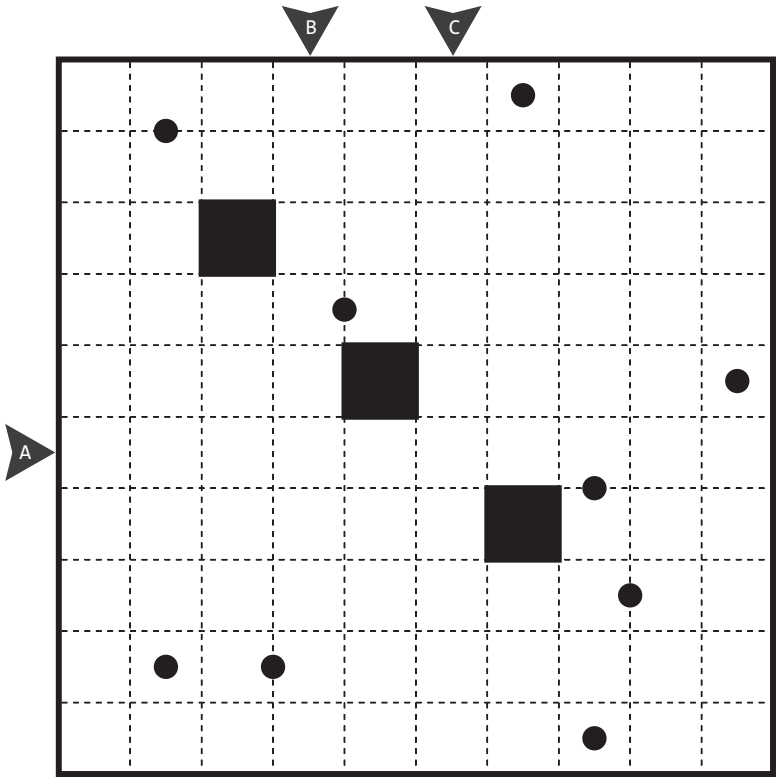


Spiral Galaxies 4/5 14 points

- Divide the grid into several regions along the gridlines such that each region has exactly 4 or 5 cells.
- Each region must be 180 degree symmetrical.
- If a region contains a black circle, then it is the point of symmetry.
- Regions may not be 2x2 squares.

Answer Key: For each marked row/column, write the number of cells that belong to different regions from left to right / top to bottom. ***Ignore the black cells for the answer key.***

Spiral Galaxies 4/5 (14 points)

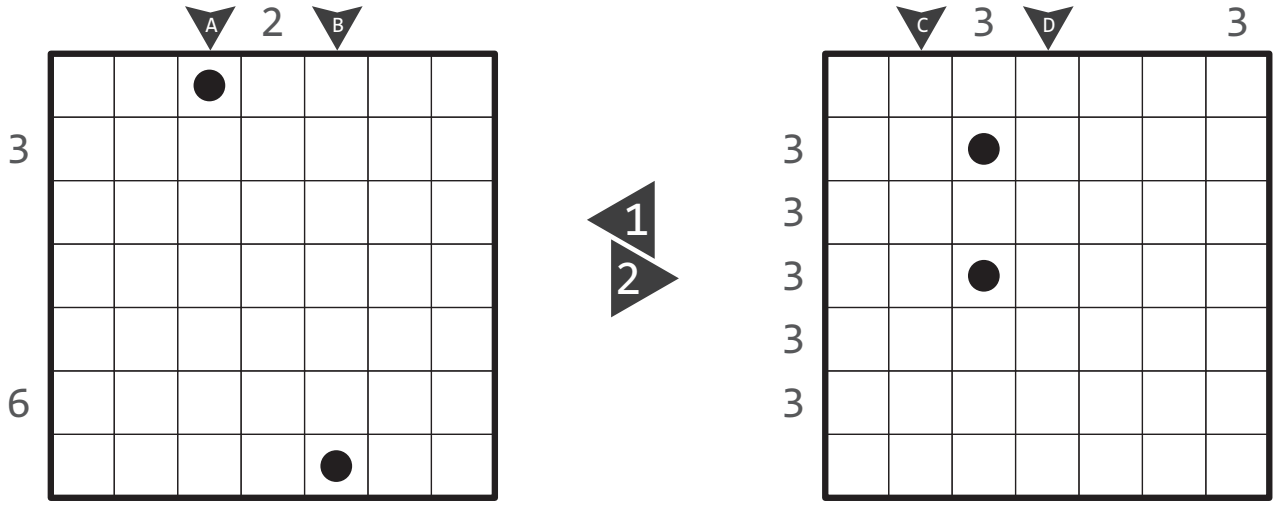


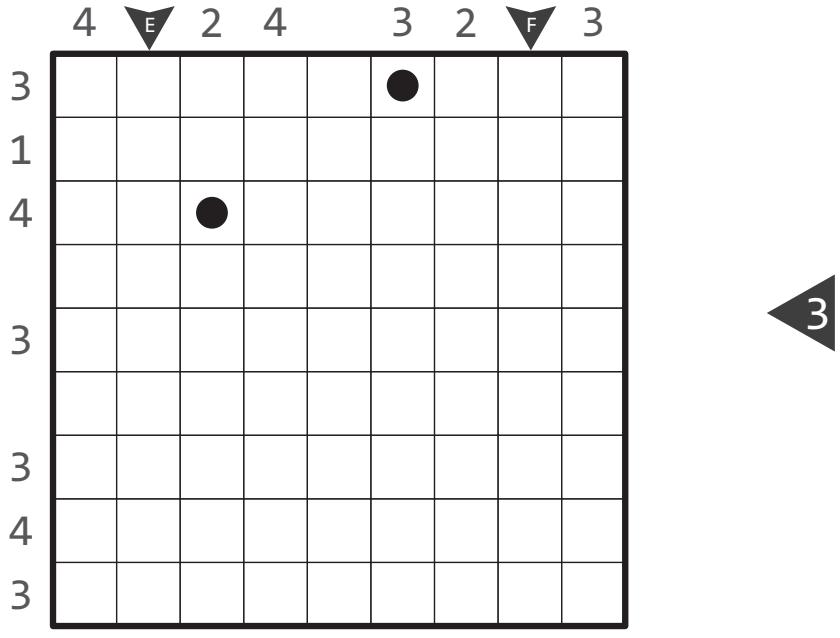
End of Test

Snake 1 + 2 + 3 points

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers outside the grid indicate the number of snake cells in that row/column.

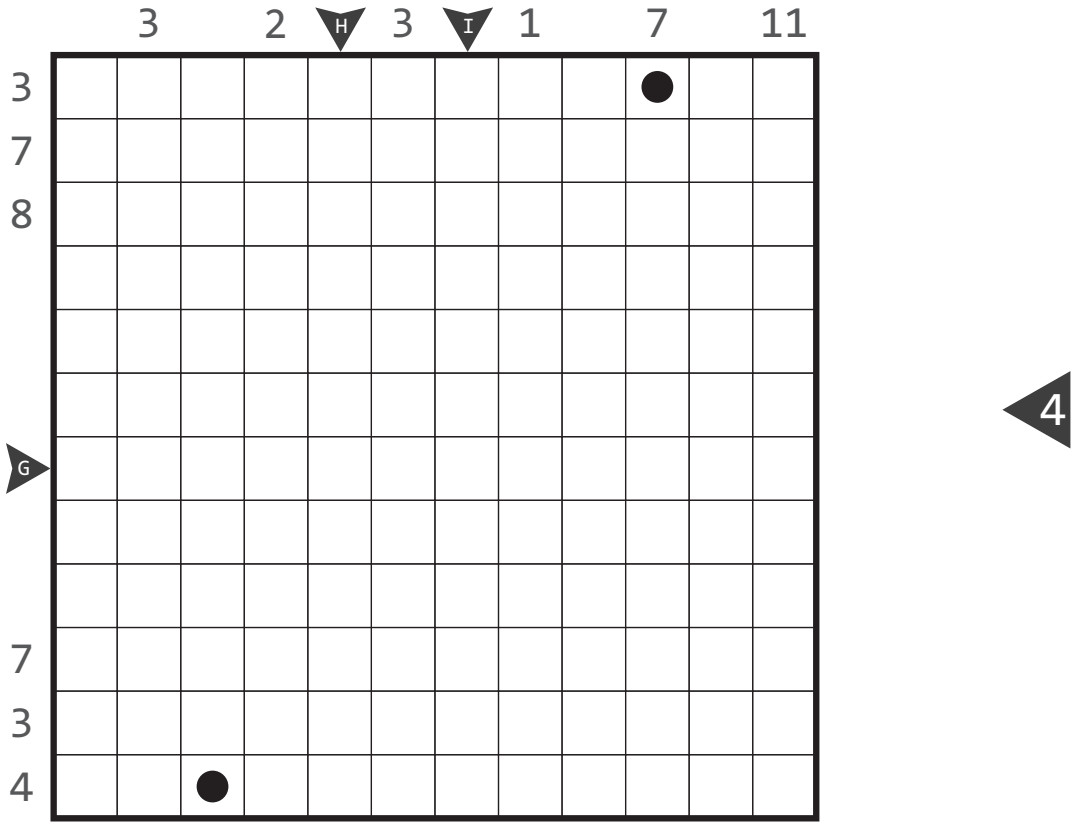
Answer key:





Snake 7 points

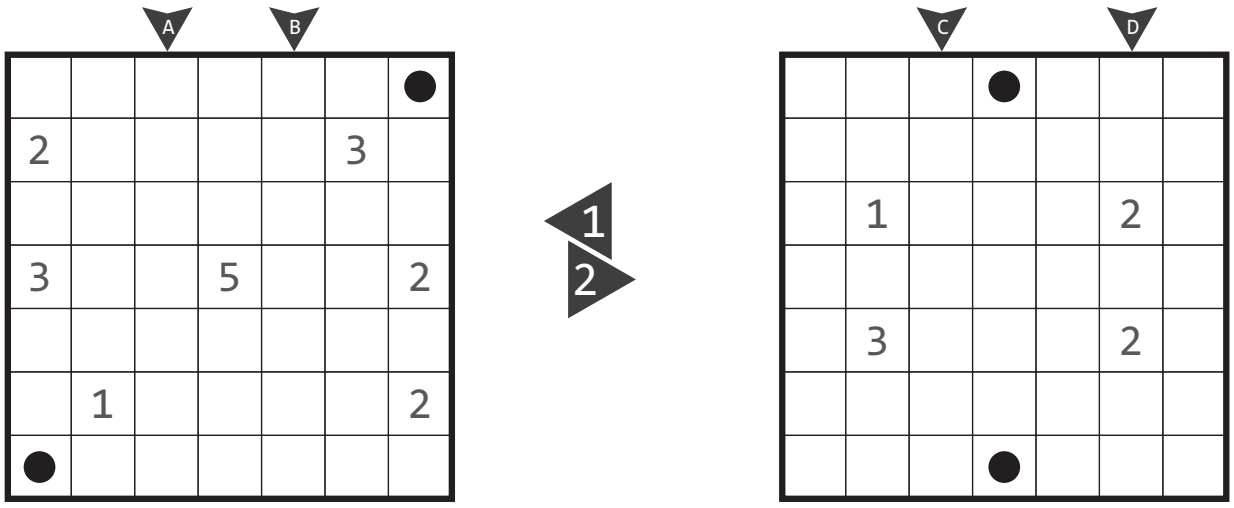
Refer to previous page for rules.



Horse Snake 2 + 5 points

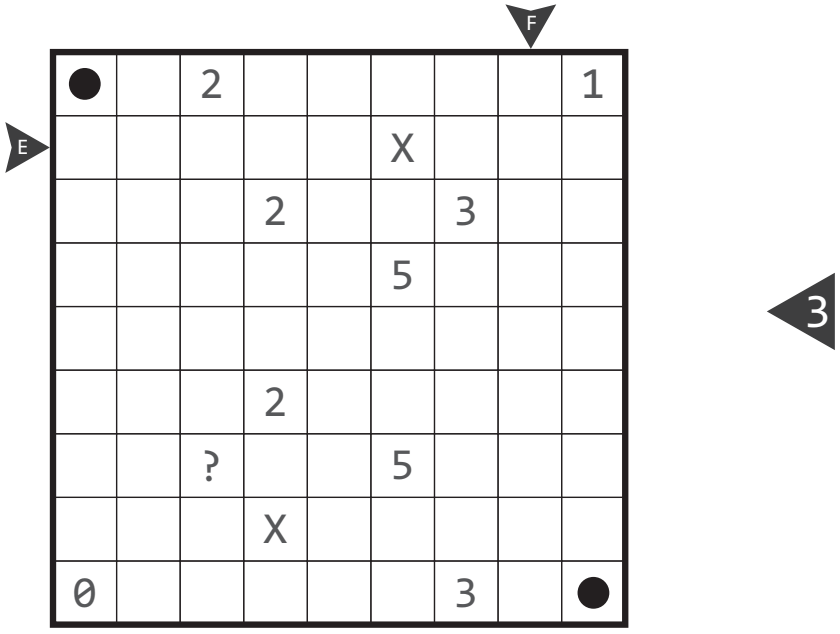
- Apply Standard Snake rules.
- The numbers inside the grid indicate the number of snake parts in the knight step from the clue indicated.
- The clue "?" can be replaced by a number greater than zero.
- The cells with cross cannot be a part of the snake

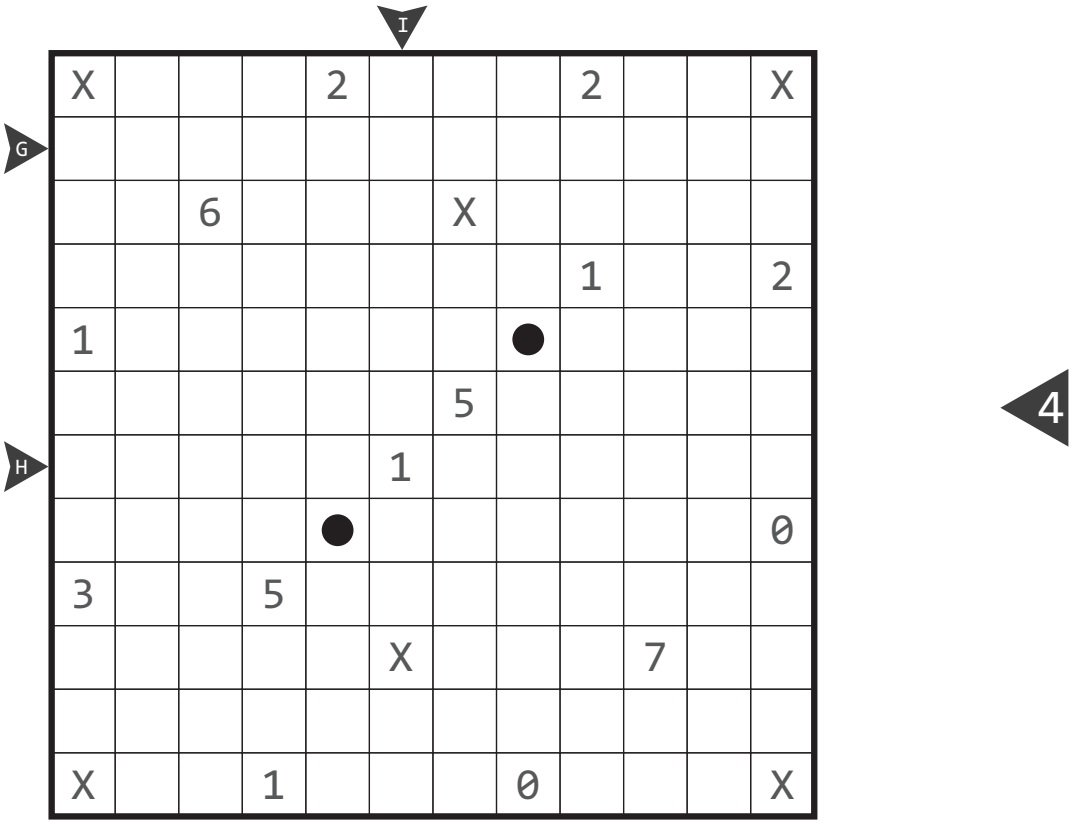
Answer key:



Horse Snake 6 + 10 points

Refer to previous page for rules.

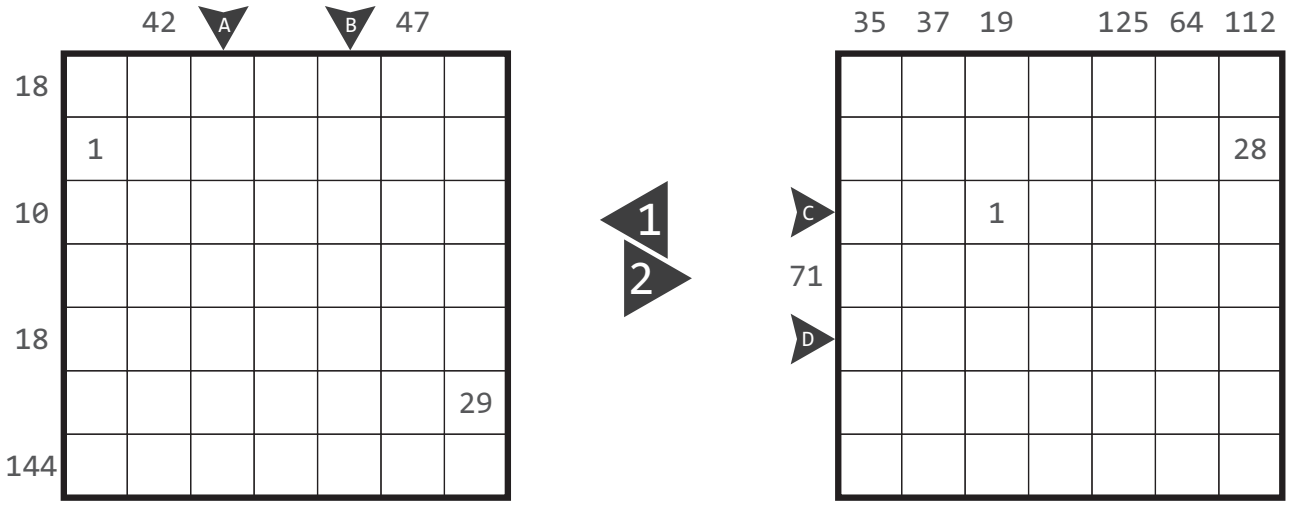


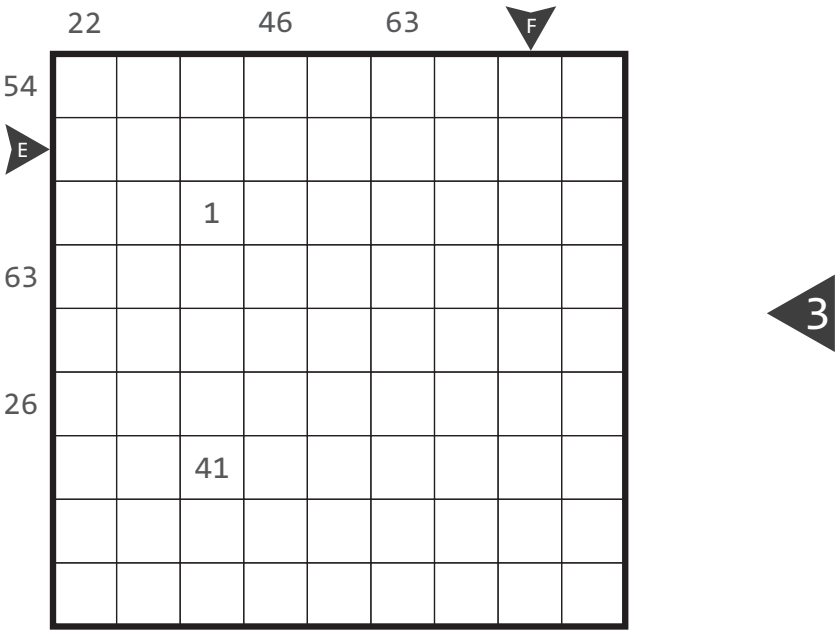


Summed Snake 3 + 4 + 6 points

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers starting 1 are put along the path of the snake.
- Numbers outside the grid indicate the sum of all the snake parts in particular row and column.

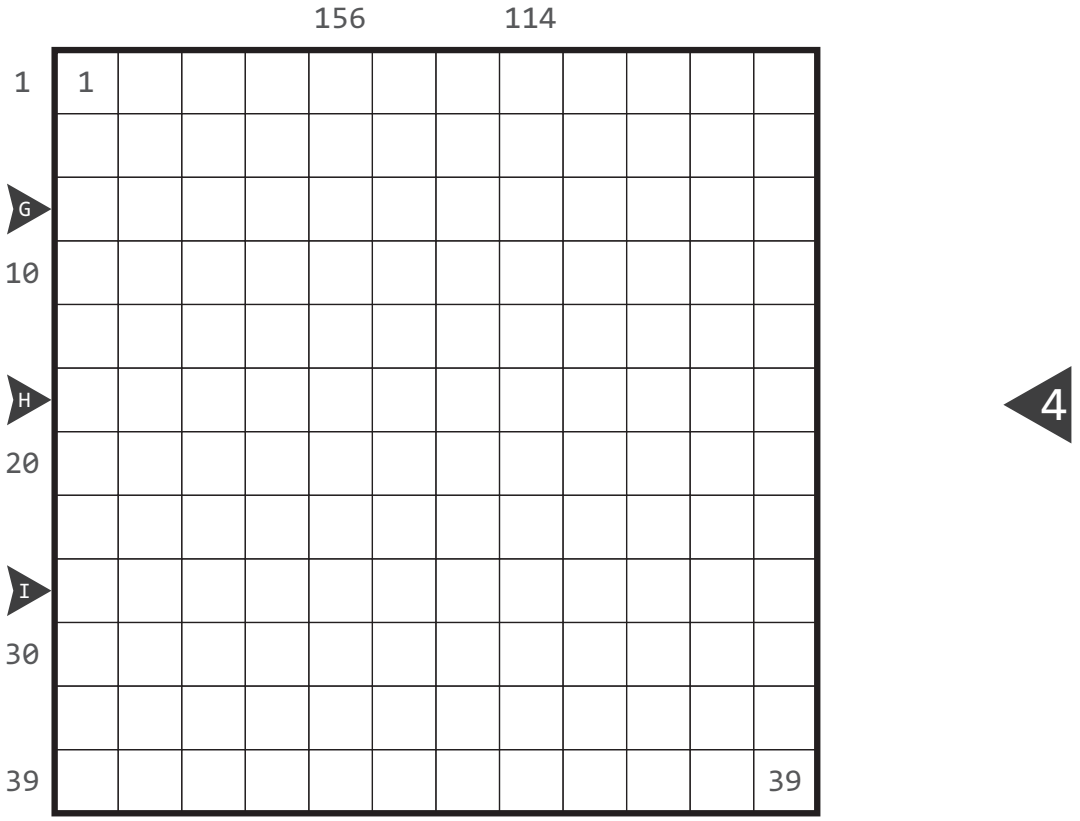
Answer key:





Summed Snake 5 points

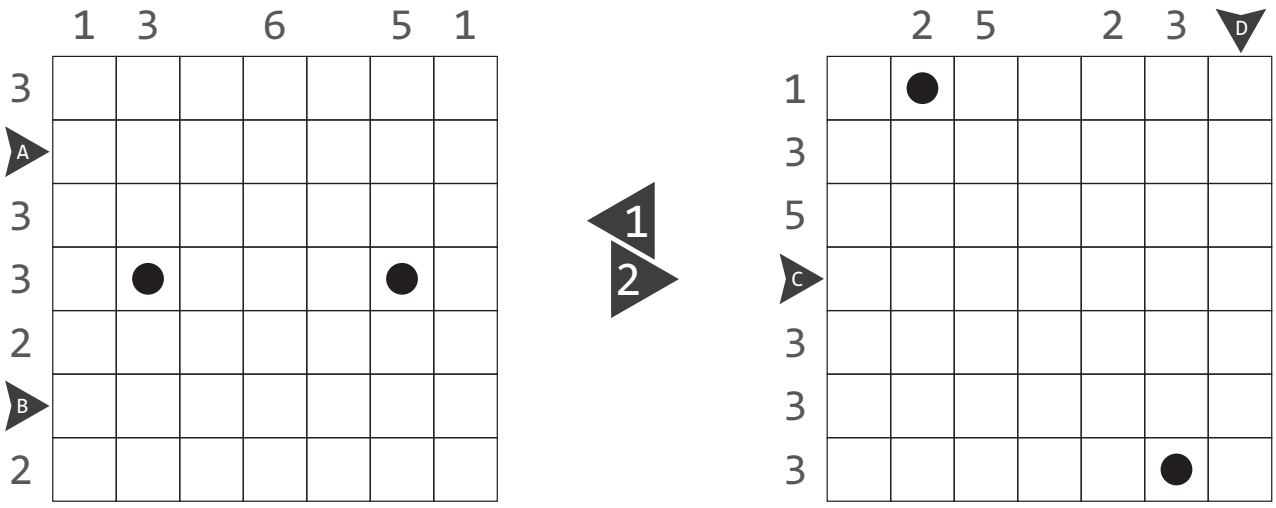
Refer to previous page for rules.



Toroidal Snake 4 + 3 points

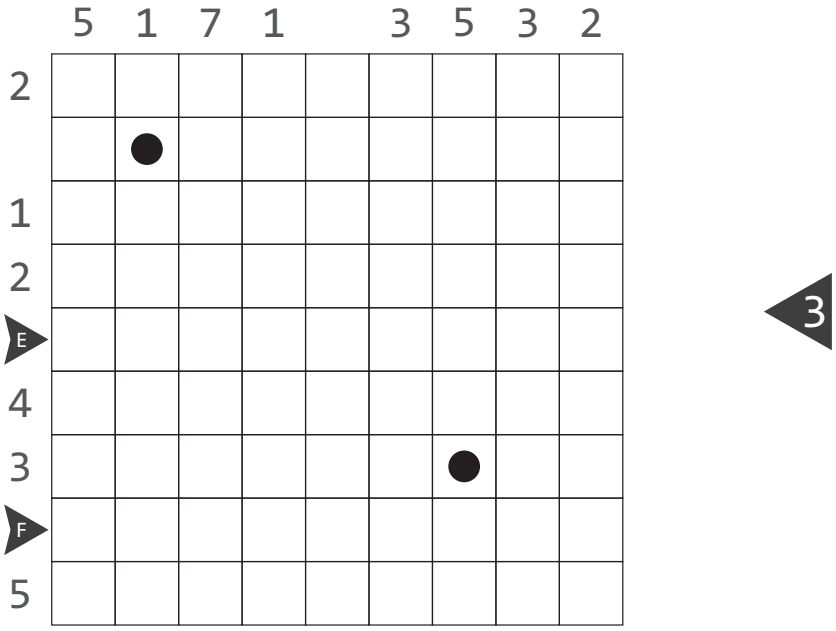
- Apply Standard Snake rules.
- Additionally, the grid wraps around itself. So the snake can go from one edge to another.

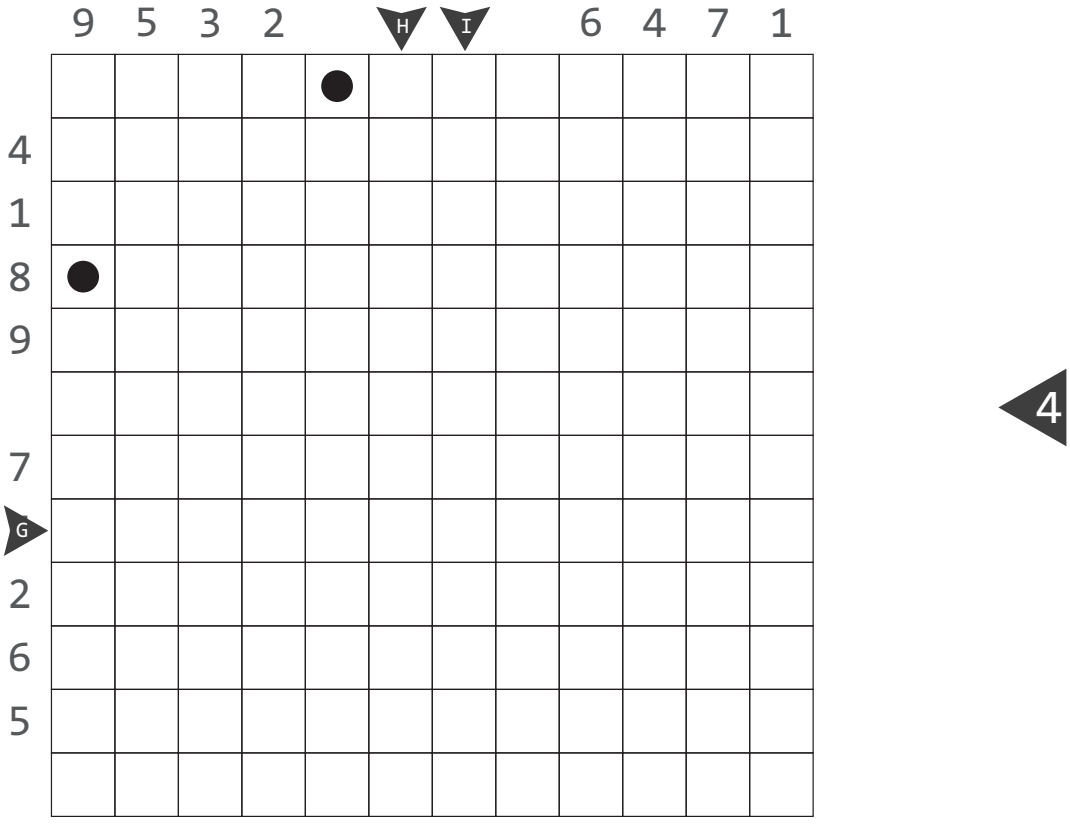
Answer key:



Toroidal Snake 6 + 10 points

Refer to previous page for rules.

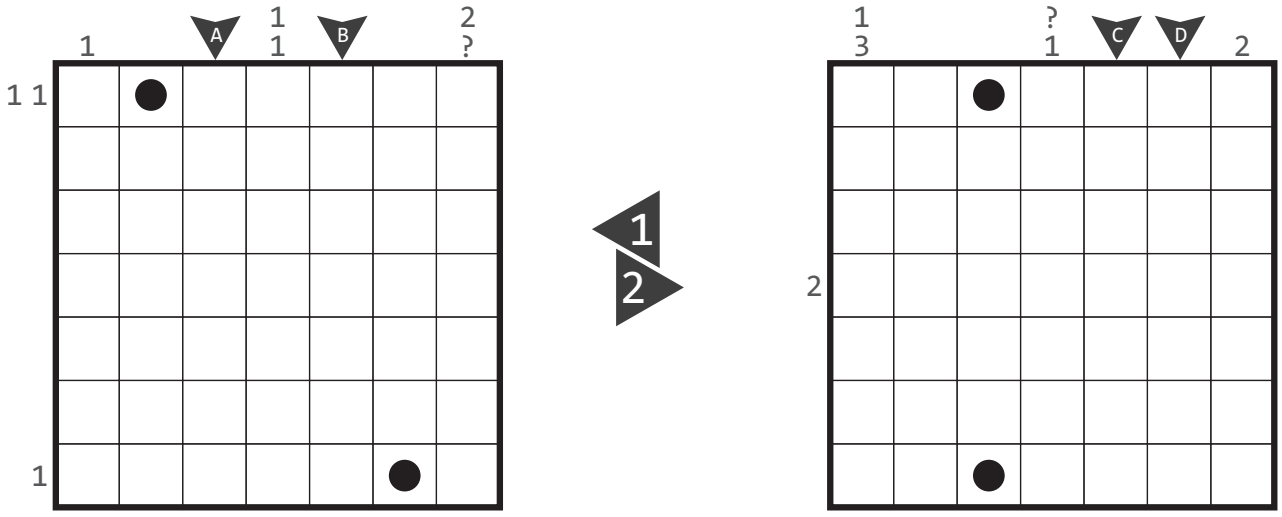


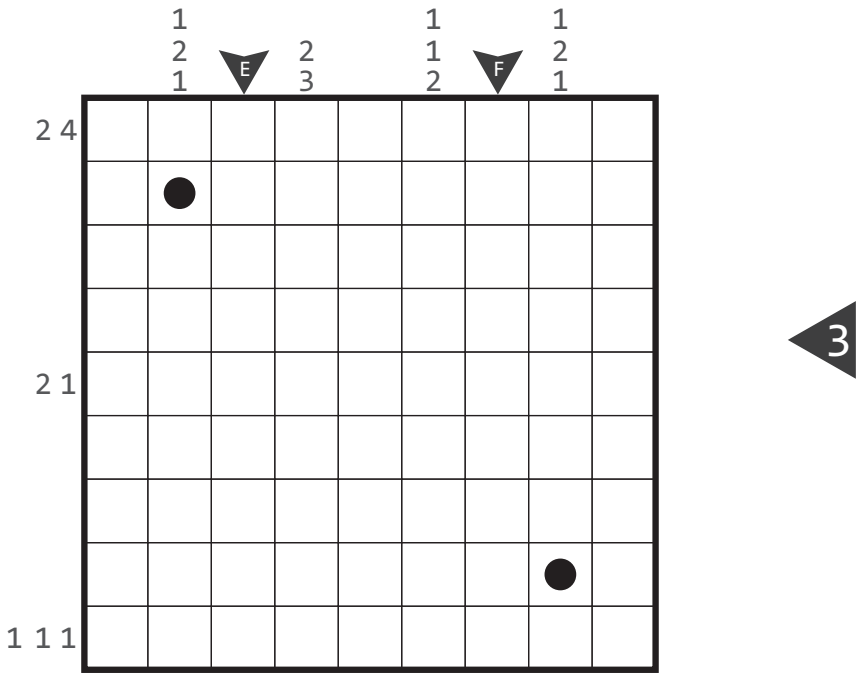


Graffiti Snake 2 + 1 + 2 points

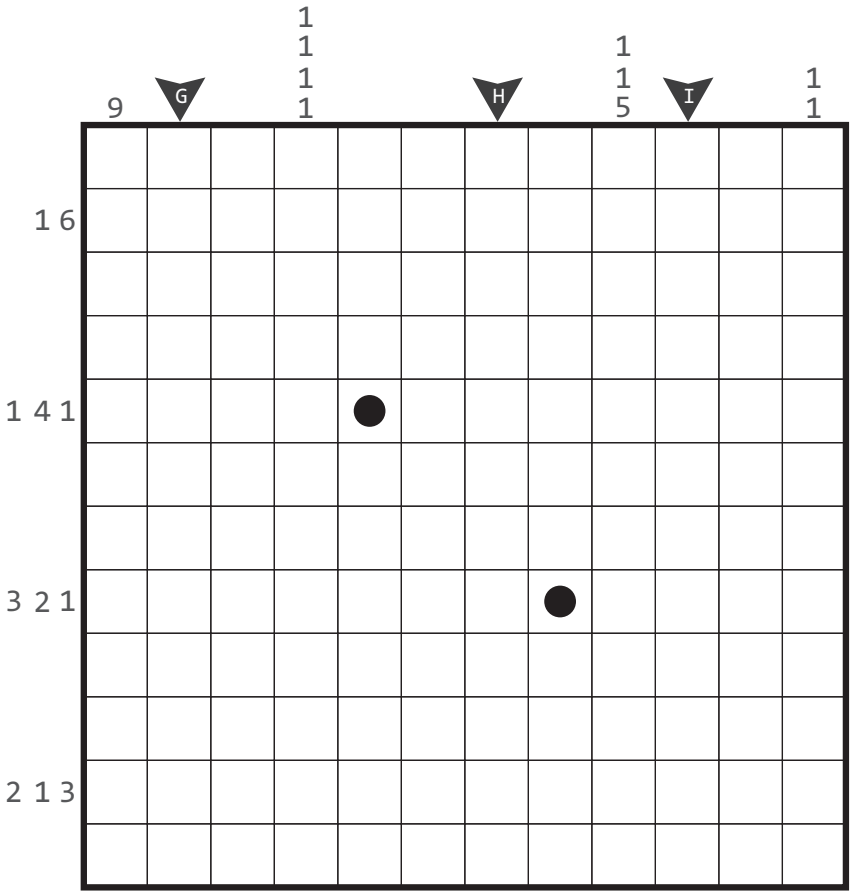
- Paint some cells black to create walls.
- Numbers outside the grid indicate the lengths of blackened cell blocks in the corresponding directions, in order.
- If there is more than one blackened block in a row or column, there must be at least one white cell between the blocks.
- After all black cells 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.
- The clue "?" can be replaced by a number greater than zero.

Answer key:





Graffiti Snake 6 points

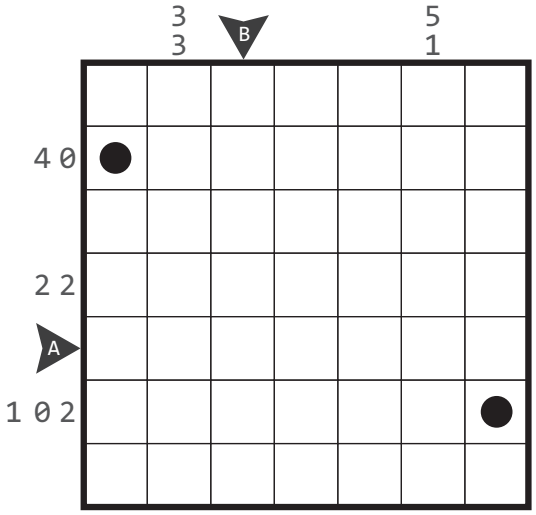


4

False Graffiti 3 points

- Apply Graffiti Snake rules, except that all clues outside the grid are false.
- They are either 1 less or 1 more than the actual clues
- Note that 1 can become 0 too.

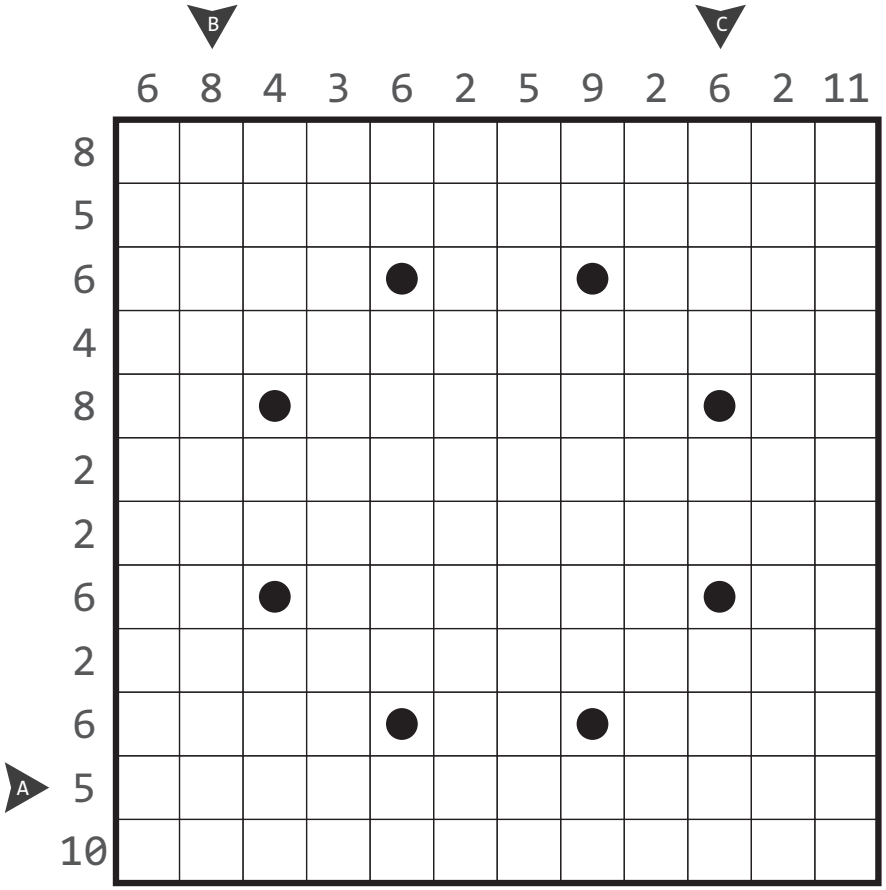
Answer key:



Multiple Snakes 9 points

- Apply standard Snake rules; however multiple snakes are there in the grid.
- Head and tail of all snakes are given.
- Different snakes cannot touch each other, even diagonally.

Answer key:

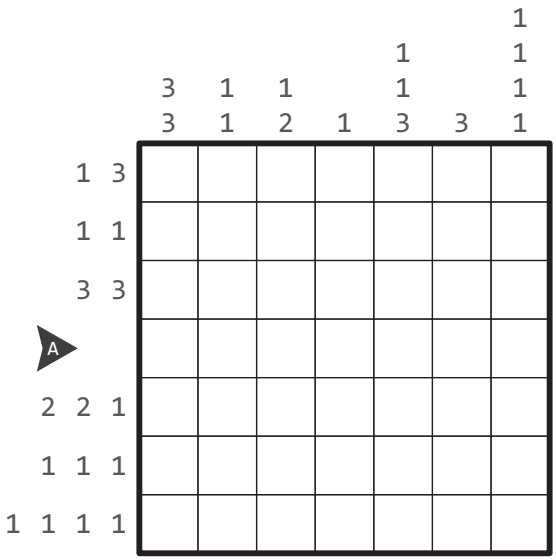


End of Test

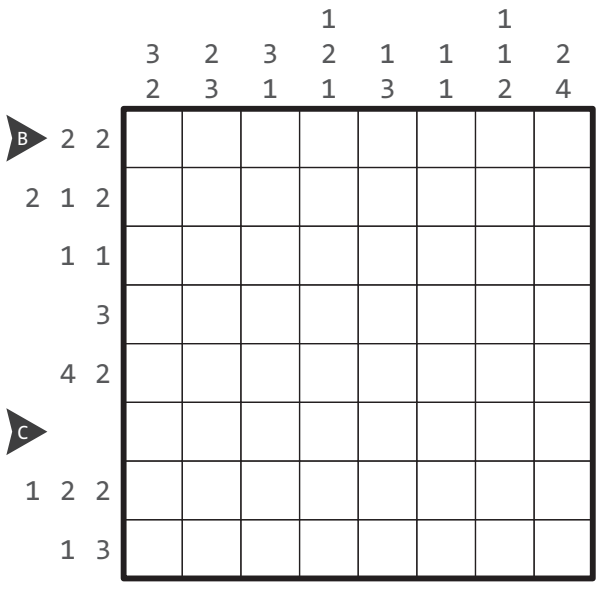
Paint By Number 1 + 2 points

- Shade some of the cells to find out the hidden figure.
- The numbers outside the grid indicate the sizes of consecutive shaded blocks in that row/column.
- Numbers are given in the order the blocks appear, first number describes the closest block.
- There must be at least one white cell between any consecutive shaded blocks.

Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.



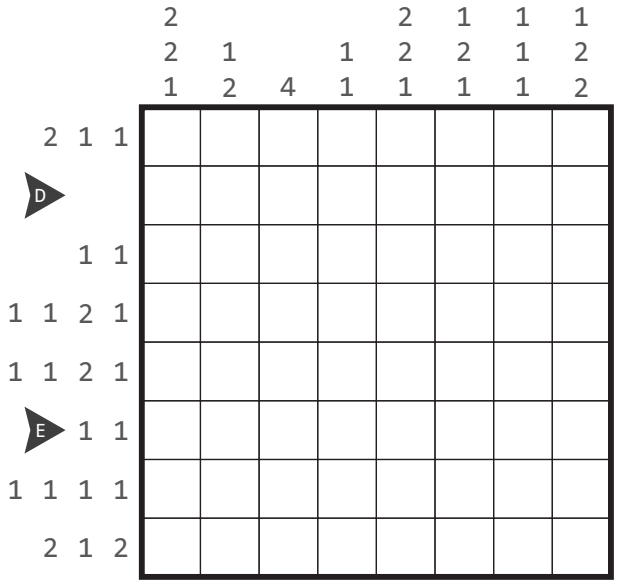
1



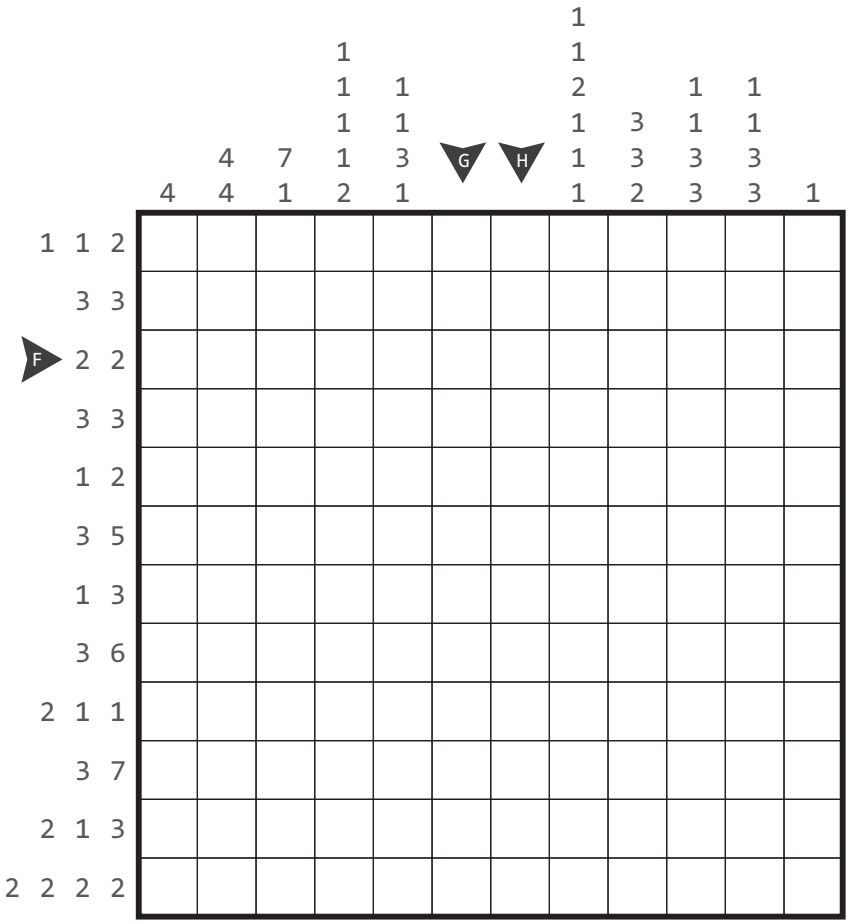
2

Paint By Number 2 + 6 points

Refer to previous page for rules and answer keys.



3

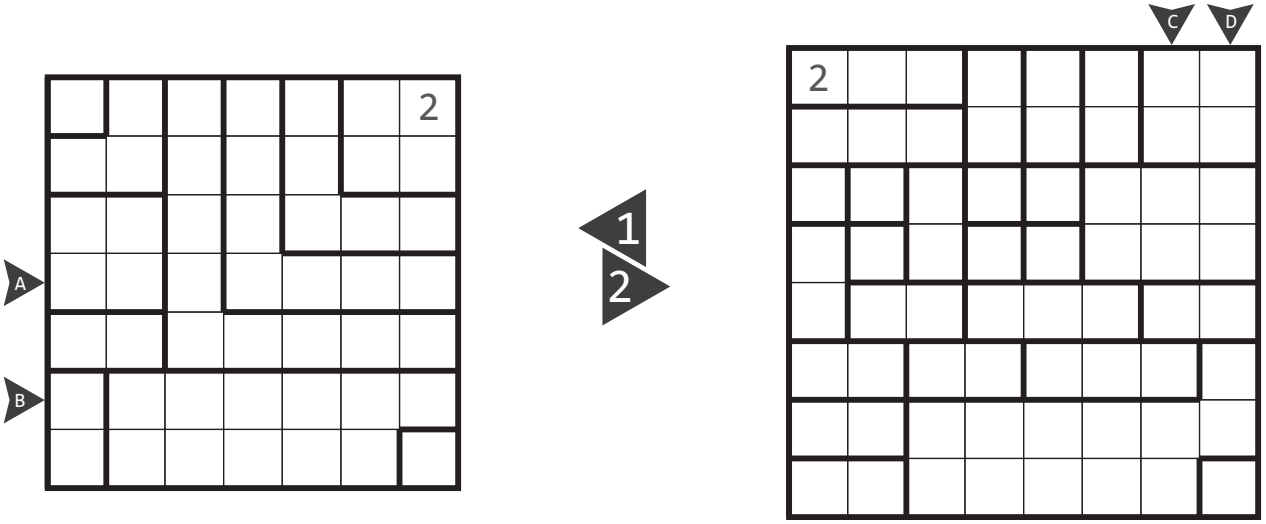


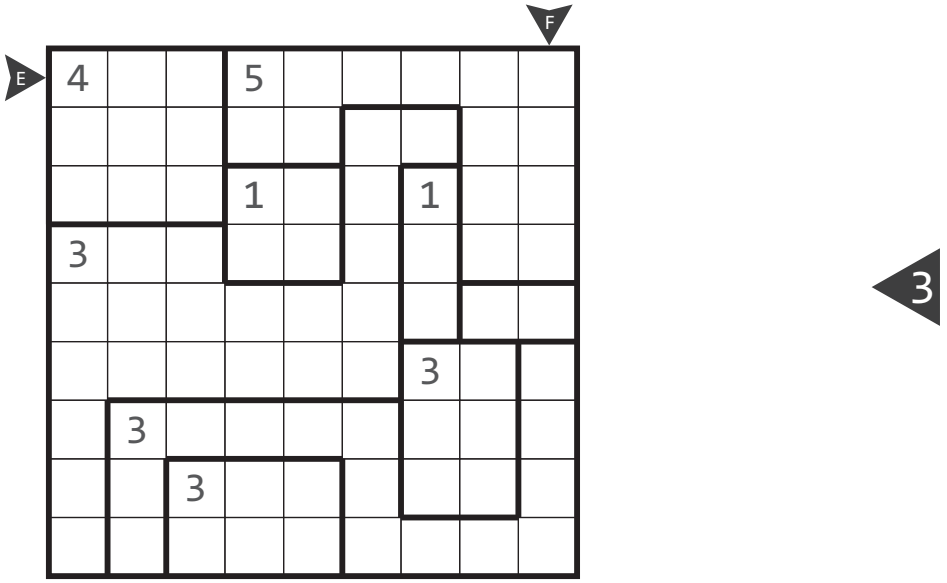
4

Heyawacky 2 + 3 + 4 points

- Shade some of the cells so that the numbers in region indicates the number of shaded cells in that region.
- Shaded cells cannot be orthogonally adjacent.
- The remaining white area must be connected to each other, horizontally or vertically.
- The white area cannot span across 2 consecutive borders (thick lines).

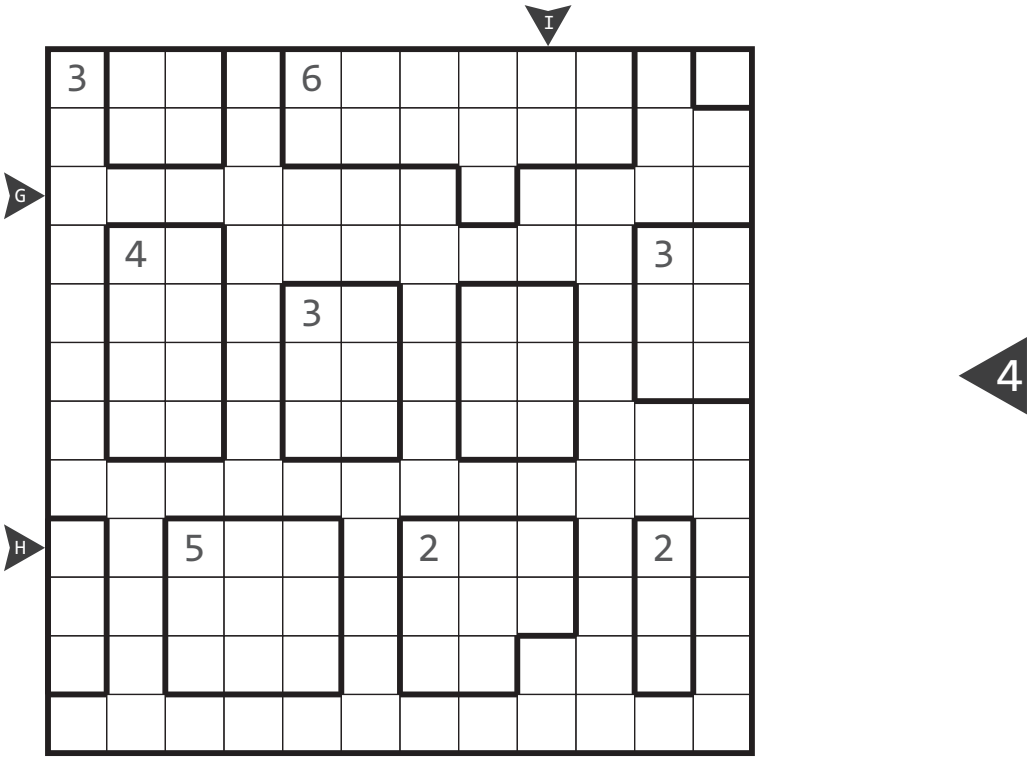
Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.





Heyawacky 10 points

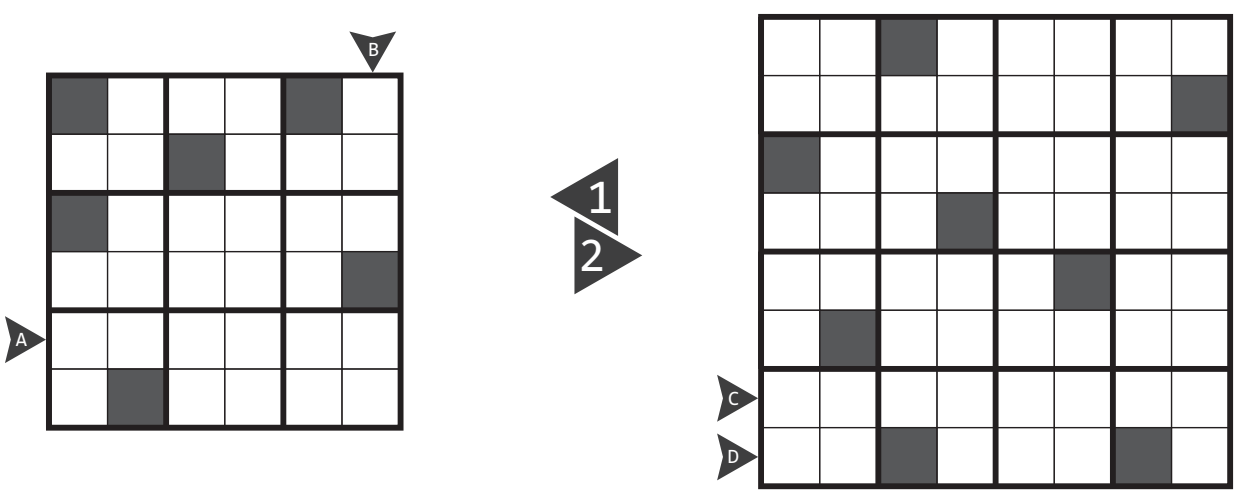
Refer to previous page for rules and answer keys.



Windows 1 + 2 points

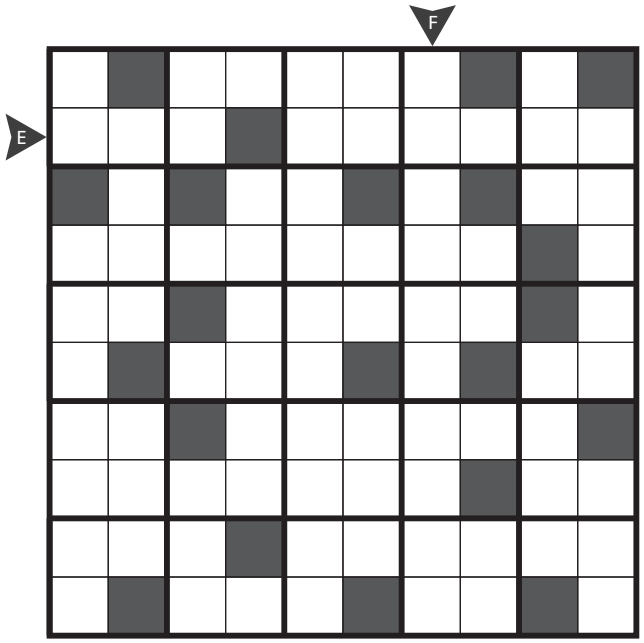
- For each of the marked 2X2 areas (the Windows), shade exactly 2 of the cells.
- No 2X2 area can contain all shaded cells or all white cells.
- All shaded cells must be connected to each other, vertically or horizontally.
- There cannot be an island with white cells i.e. the shaded cells must not enclose any white areas.

Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.

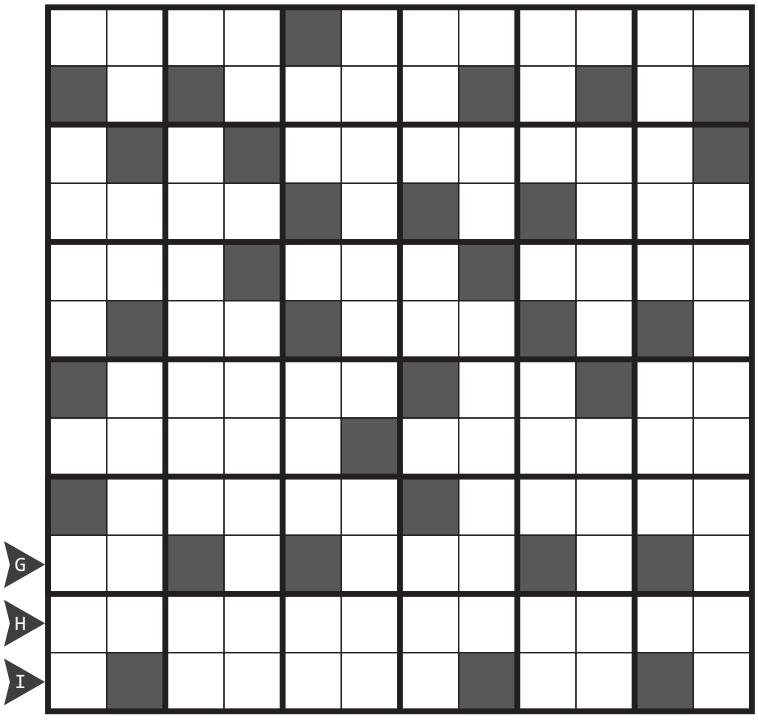


Windows 6 + 11 points

Refer to previous page for rules and answer keys.



3

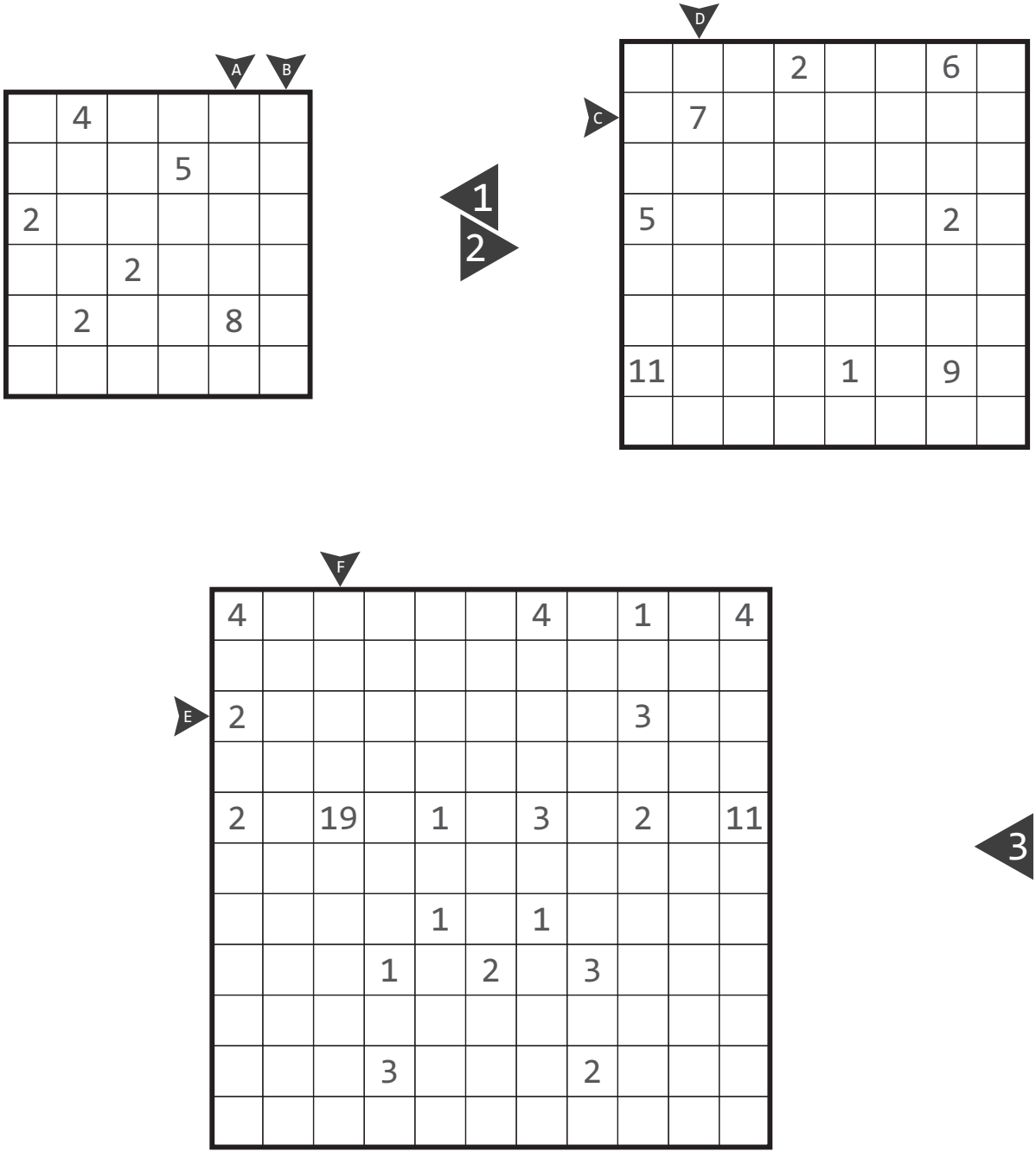


4

Lakes 1 + 4 + 5 points

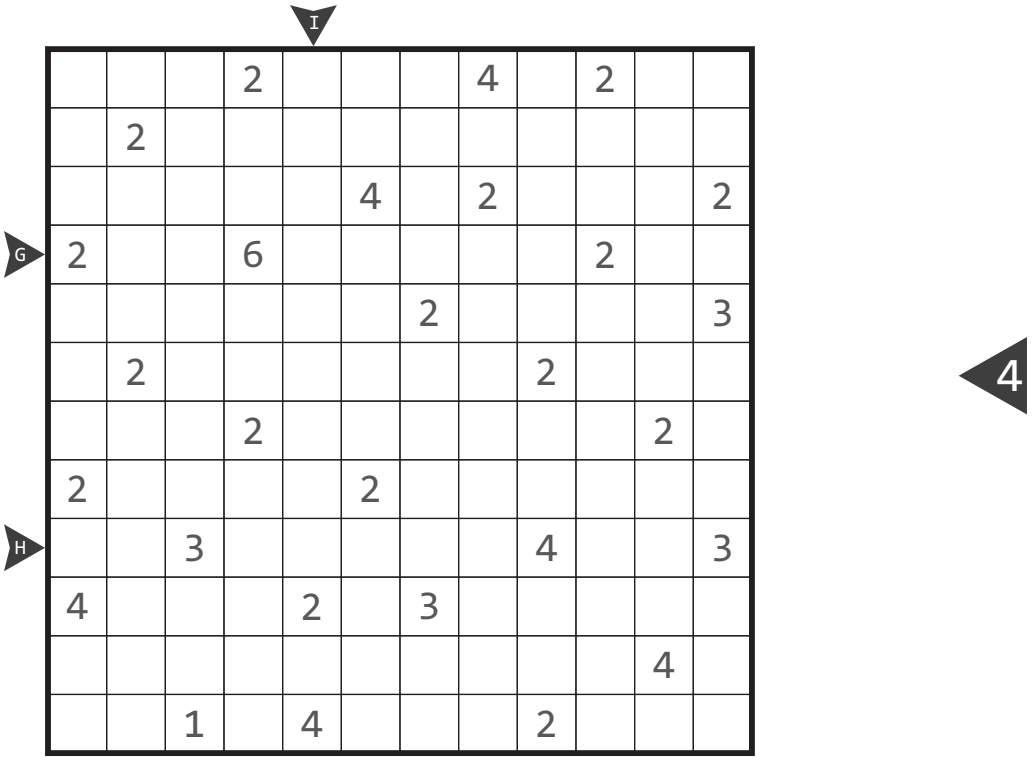
- Shade some of the cells so that the grid is divided into white areas.
- Each white area must contain exactly one number and that number must be the size of the white area it is included in.
- Cells with numbers cannot be shaded.

Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.



Lakes 6 points

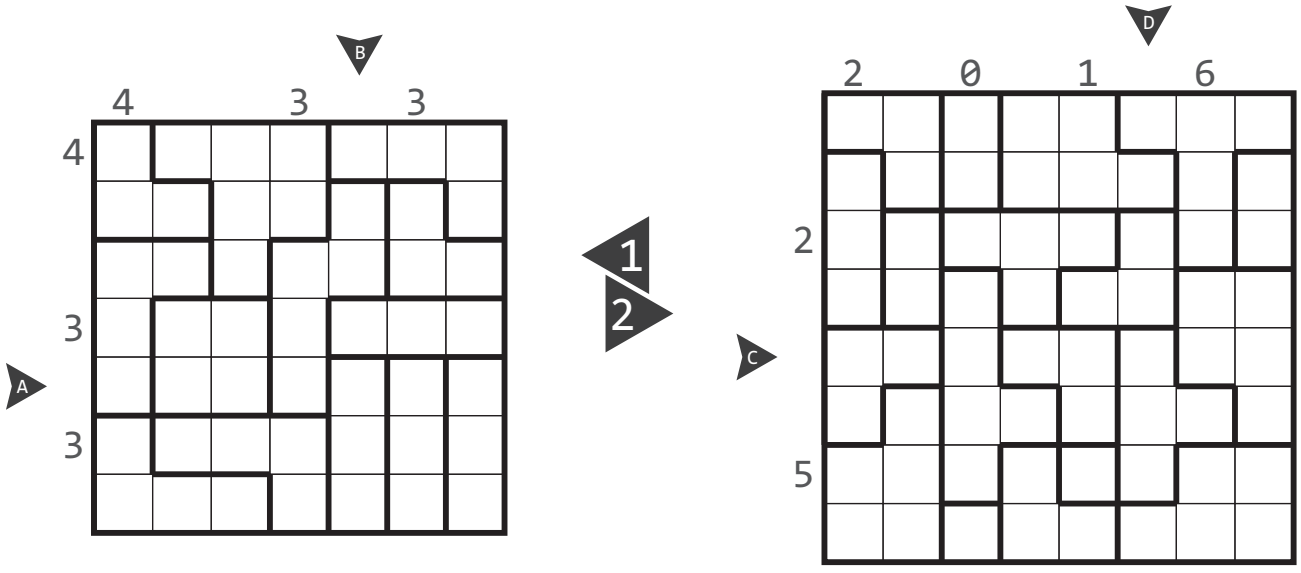
Refer to previous page for rules and answer keys.



Crazy Pavement 1 + 2 points

- Shade all cells of some regions.
- Numbers outside the grid indicate the number of shaded cells in that row/column.

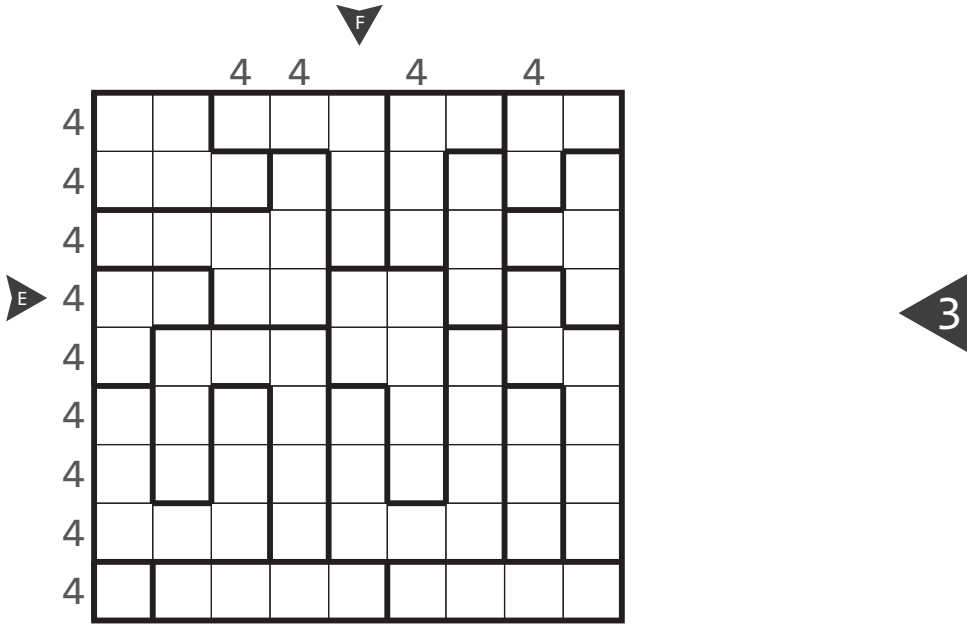
Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.

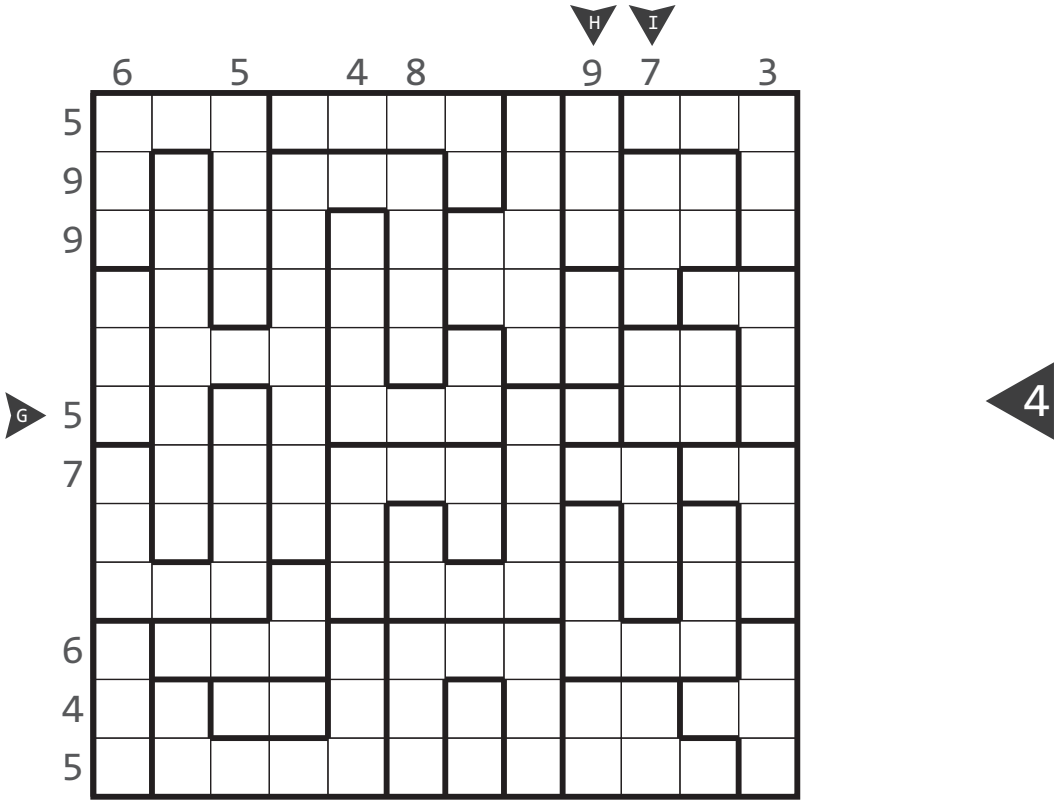


puzzle ramayan

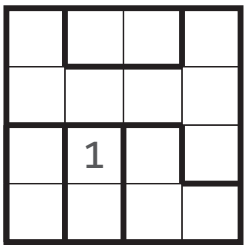
Crazy Pavement 4 + 9 points

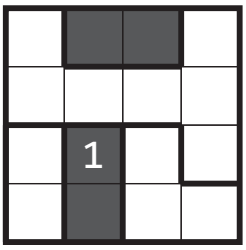
Refer to previous page for rules and answer keys.



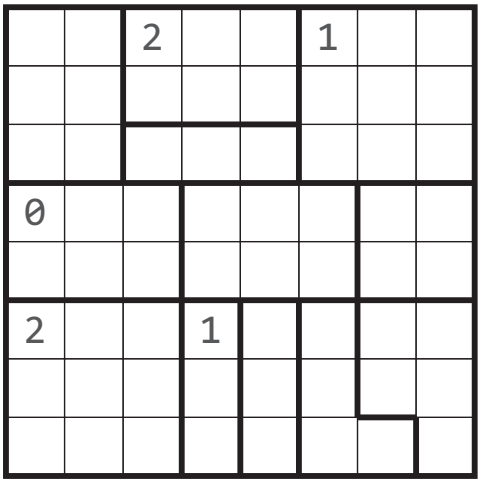


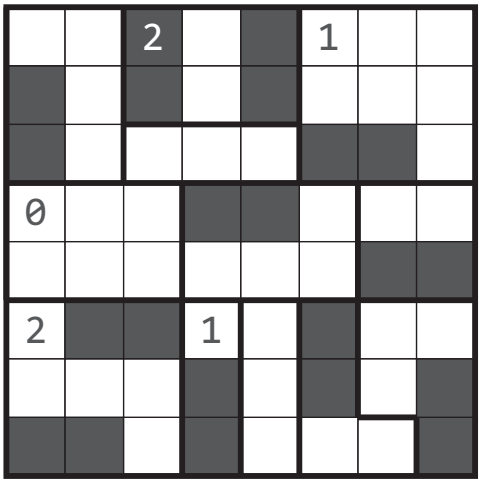
Heyawacky Variation 9 points

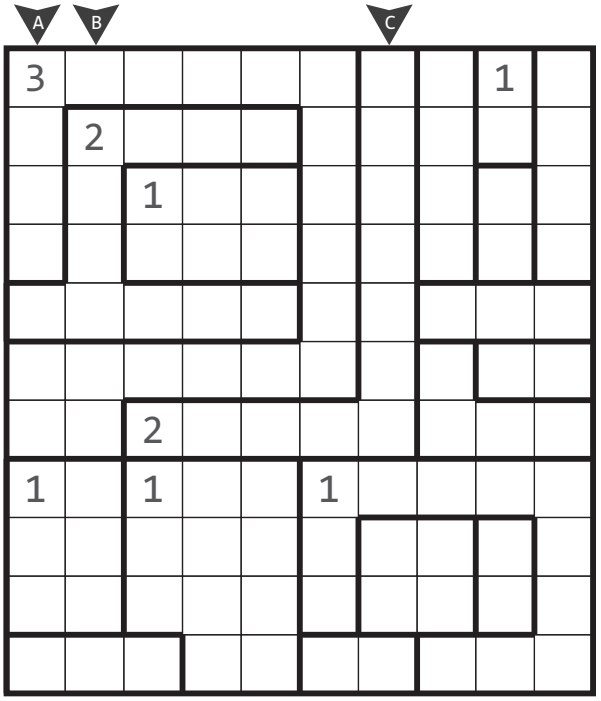




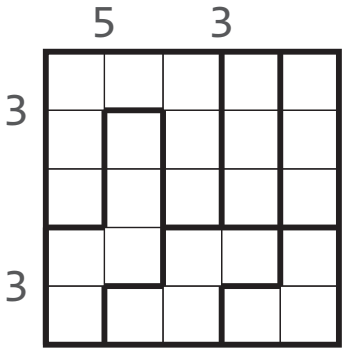
EXAMPLES



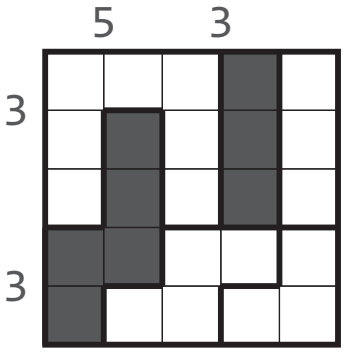


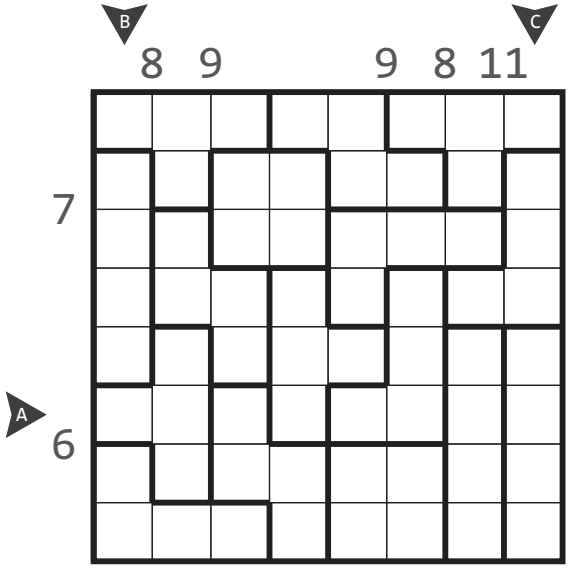


Crazy Pavement Variation 9 points



EXAMPLE





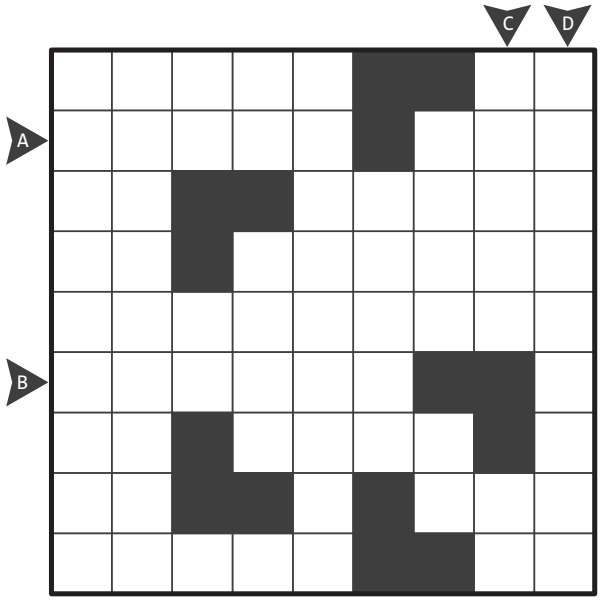
End of Test

Simple Loop

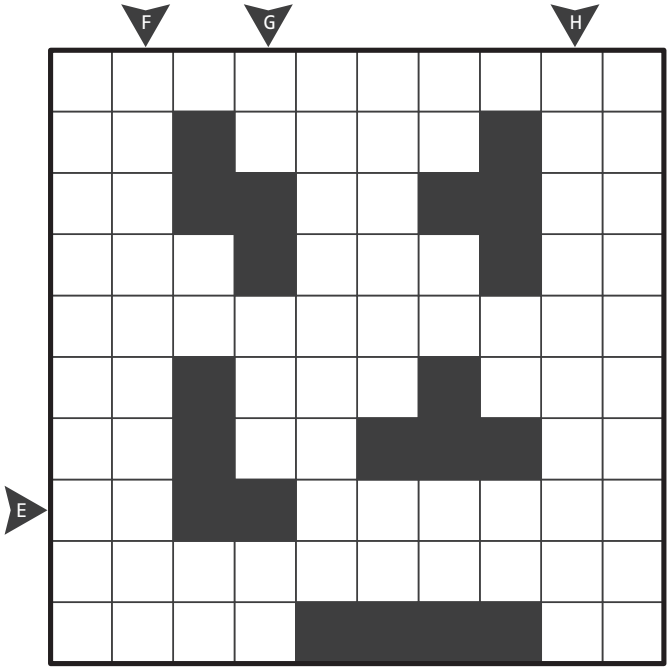
1 + 2 points

- Draw a single closed loop passing through every cell in the grid horizontally and vertically, except the given black cells.
- The loop can't cross or touch itself.

Answer key: Enter lengths of largest loop segment in marked row/column.



1

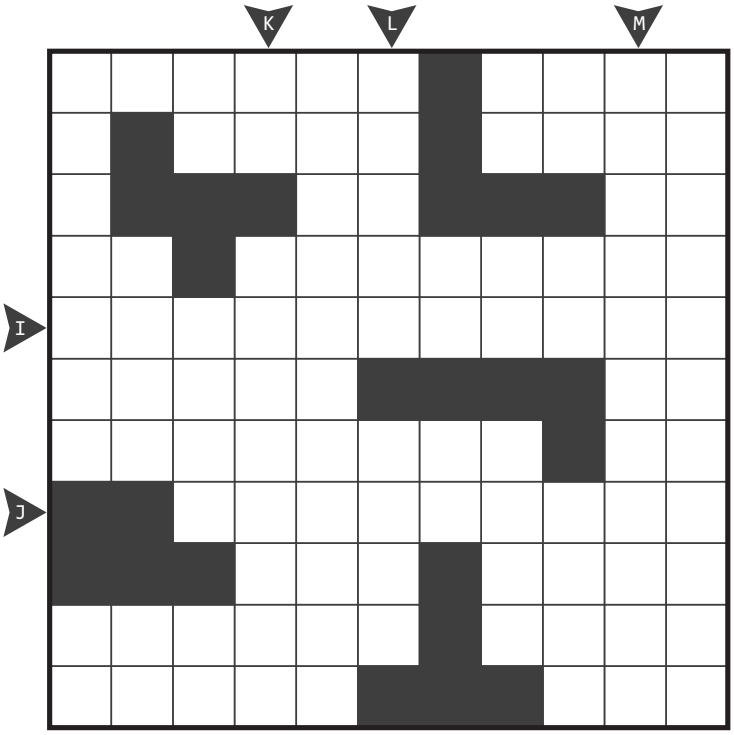


2

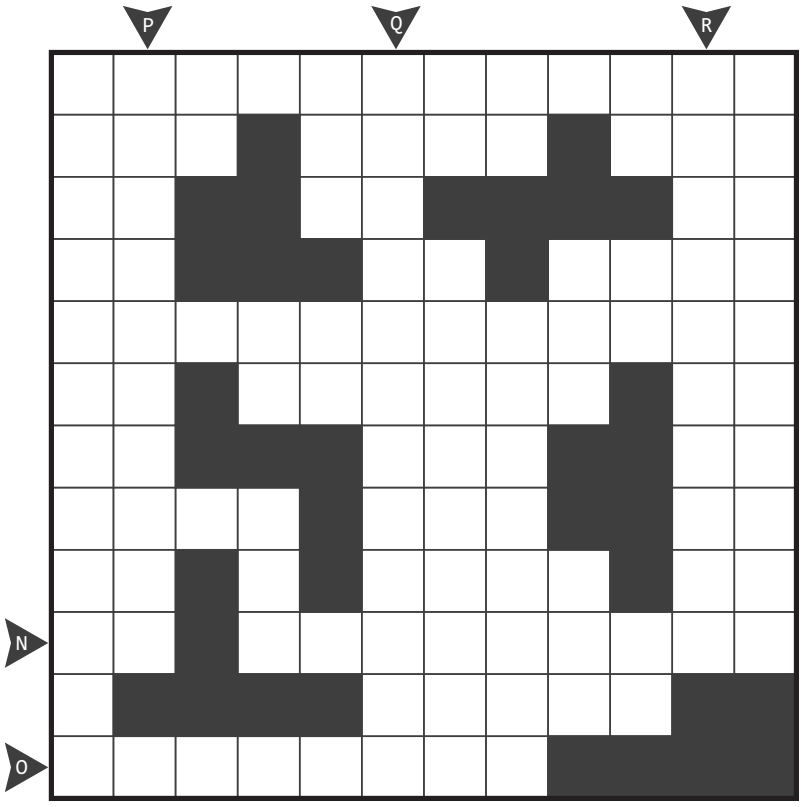
Simple Loop

2 + 3 points

Refer to previous page for rules and answer keys.



3



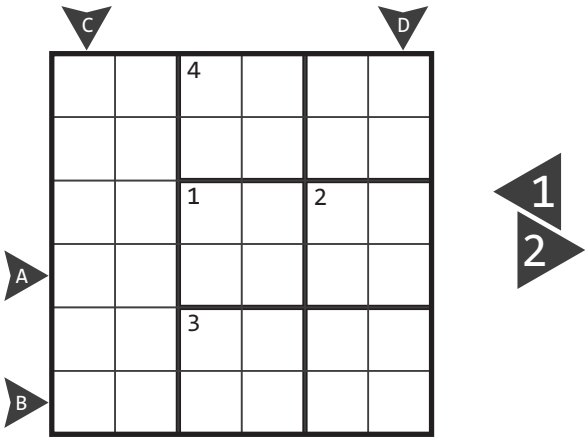
4

Maxi Loop

1 + 5 + 7 points

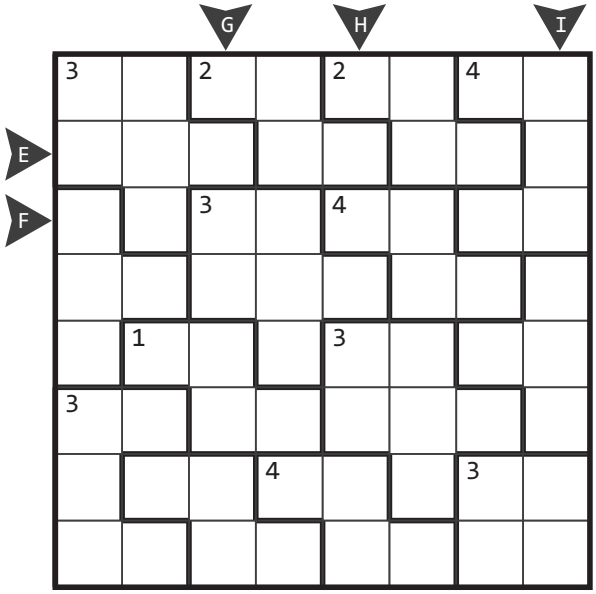
- Draw a single closed loop passing through every cell in the grid horizontally and vertically.
- The loop can't cross or touch itself.
- The numbers in the boldly marked regions indicate the highest amount of cells that the loop goes through consecutively (i.e. without exiting to another region) in that area.

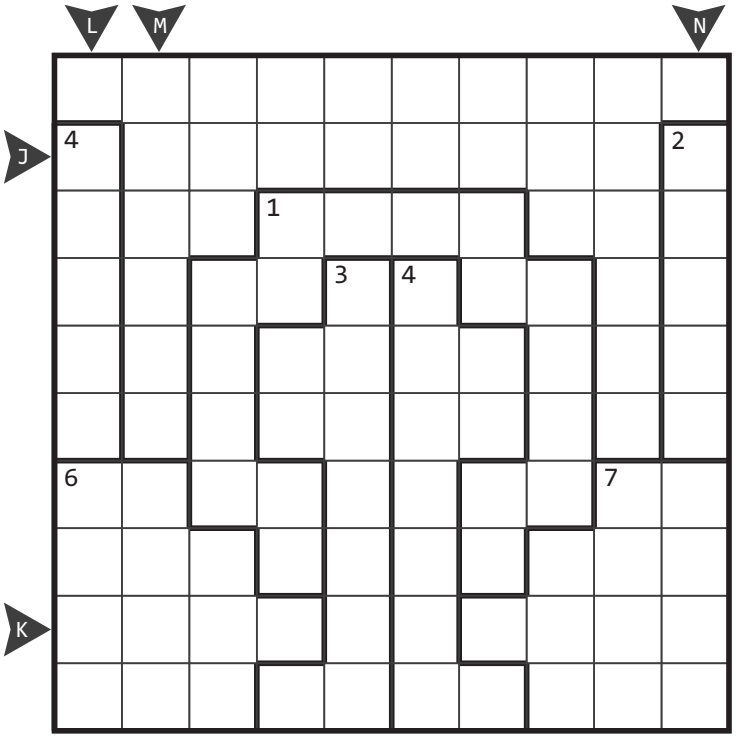
Answer key: Enter lengths of largest loop segment in marked row/column.



1

2

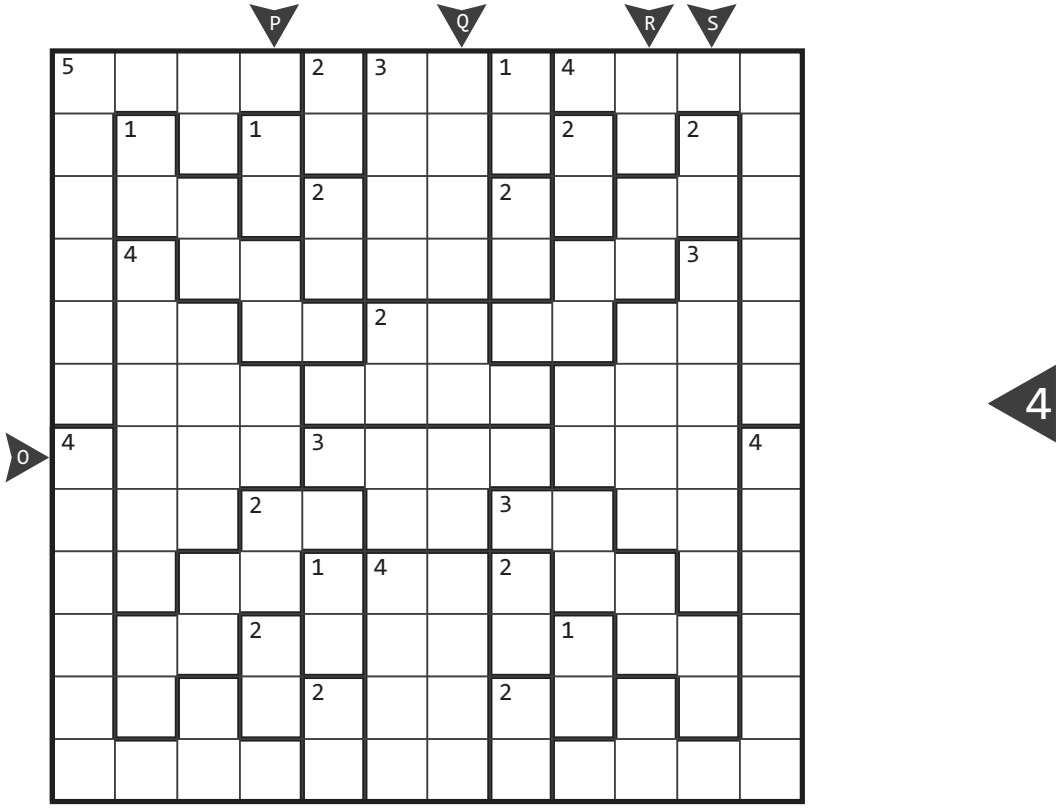




3

Maxi Loop 16 points

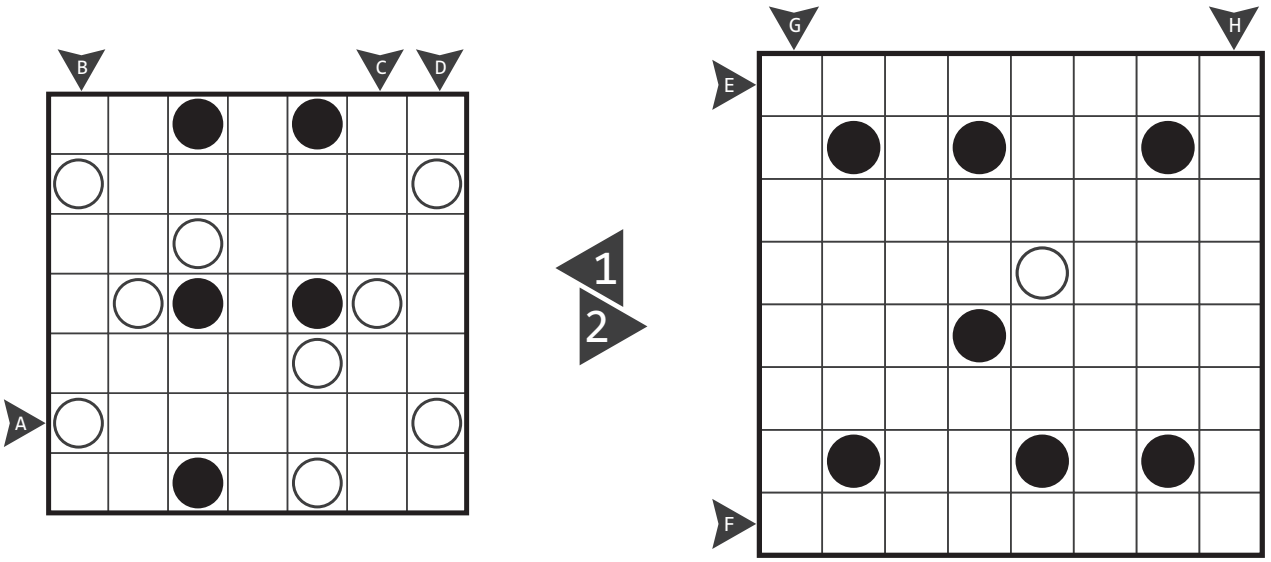
Refer to previous page for rules and answer keys.



Masyu 2 + 1 points

- Draw a single closed loop, which connects centers of some (not necessarily all) cells horizontally and vertically.
- The loop can't cross or touch itself.
- The loop turns in every black circle and goes straight through both adjacent squares.
- The loop goes straight through every white circle and turns in at least one of both adjacent squares.

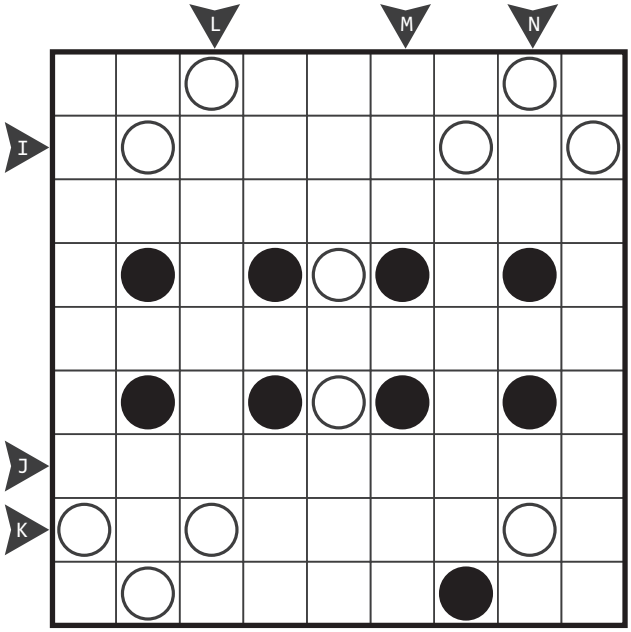
Answer key: Enter lengths of largest loop segment in marked row/column.



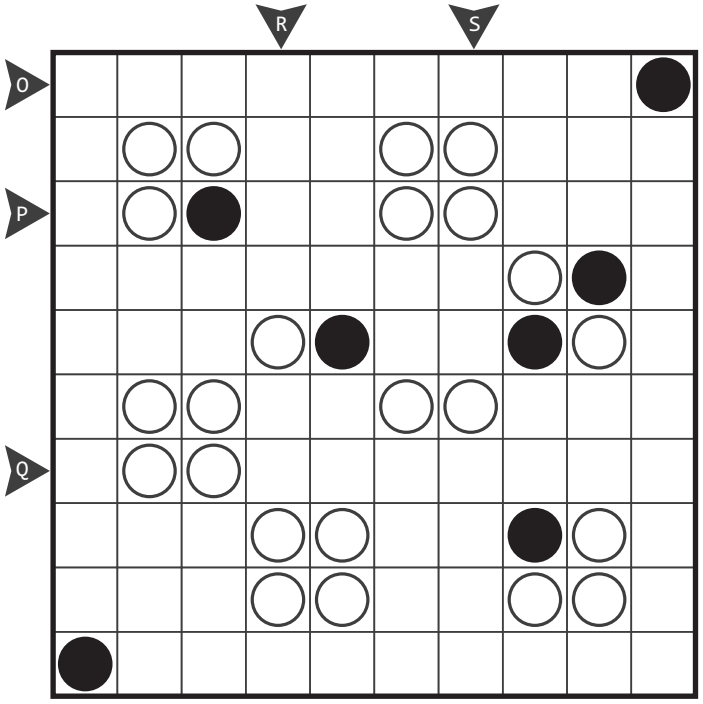
Masyu

3 + 4 points

Refer to previous page for rules and answer keys.



3



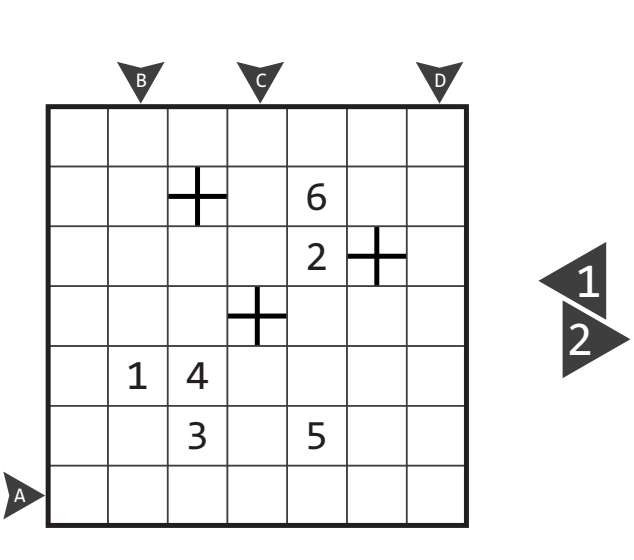
4

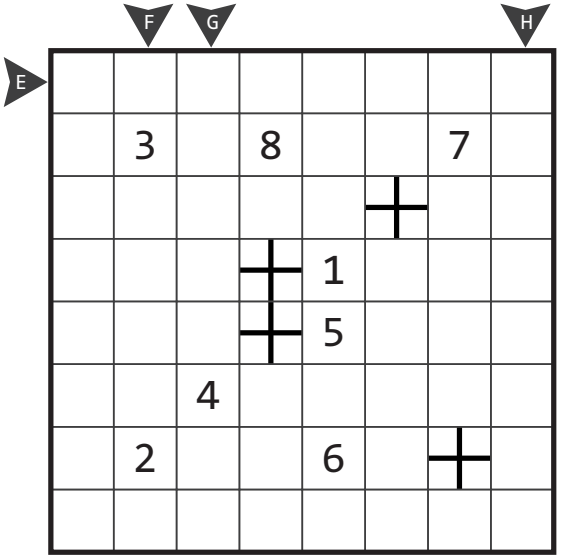
Railroad Tracks

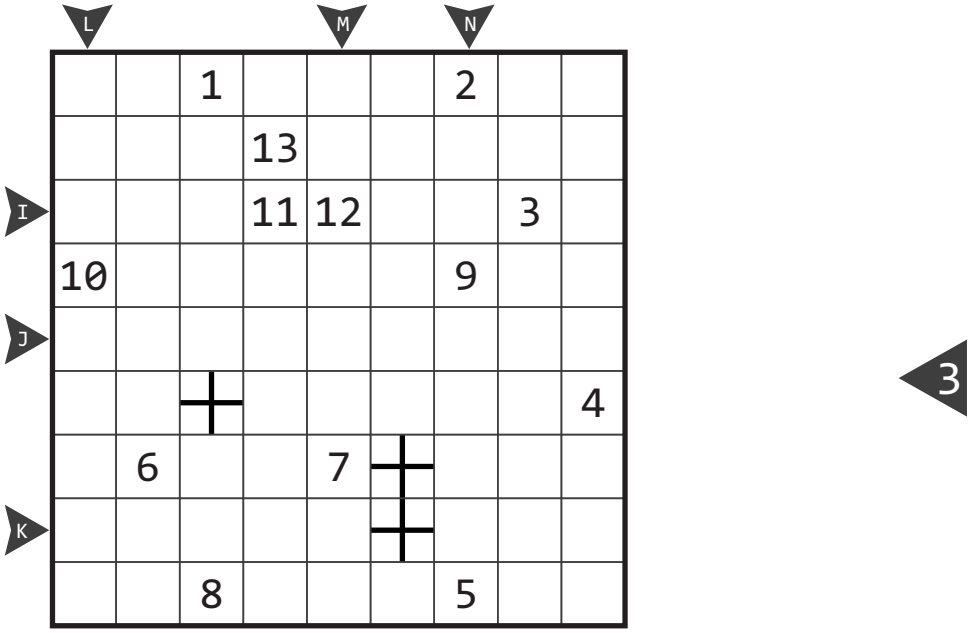
2 + 4 + 5 points

- Draw a single closed loop passing through every cell in the grid horizontally and vertically.
- The loop can't touch itself and must cross itself only in cells with a given '+'.
- The loop must pass straight through numbered cells, and must travel in order from 1 to 2 and so on till N (where N is the highest number given) and then back to 1.

Answer key: Enter lengths of largest loop segment in marked row/column.

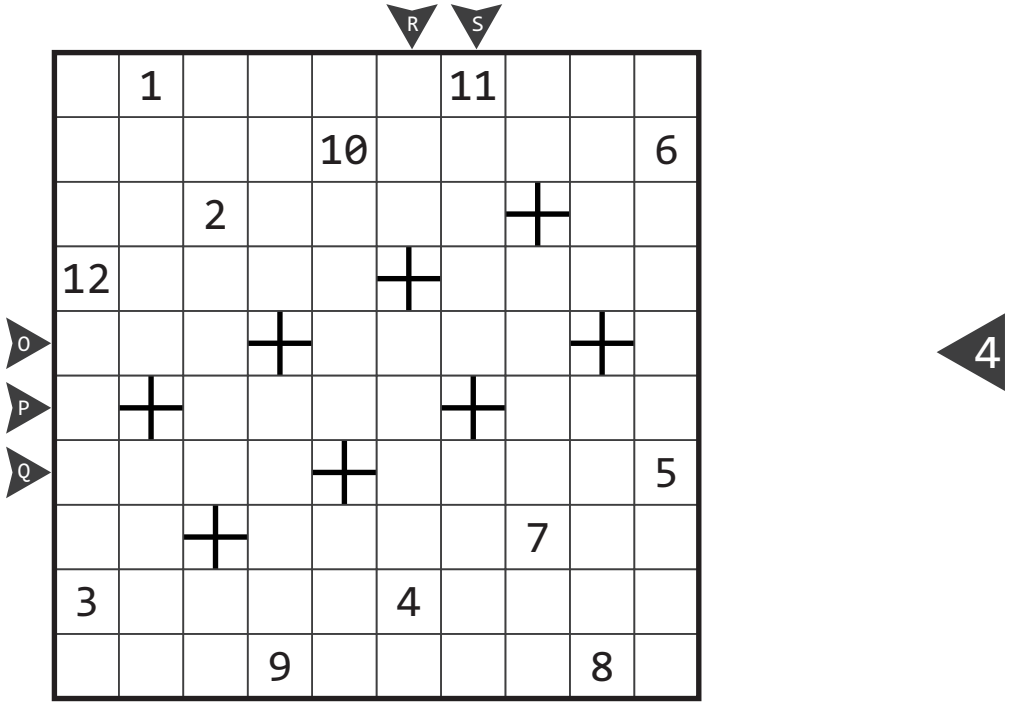






Railroad Tracks — 7 points

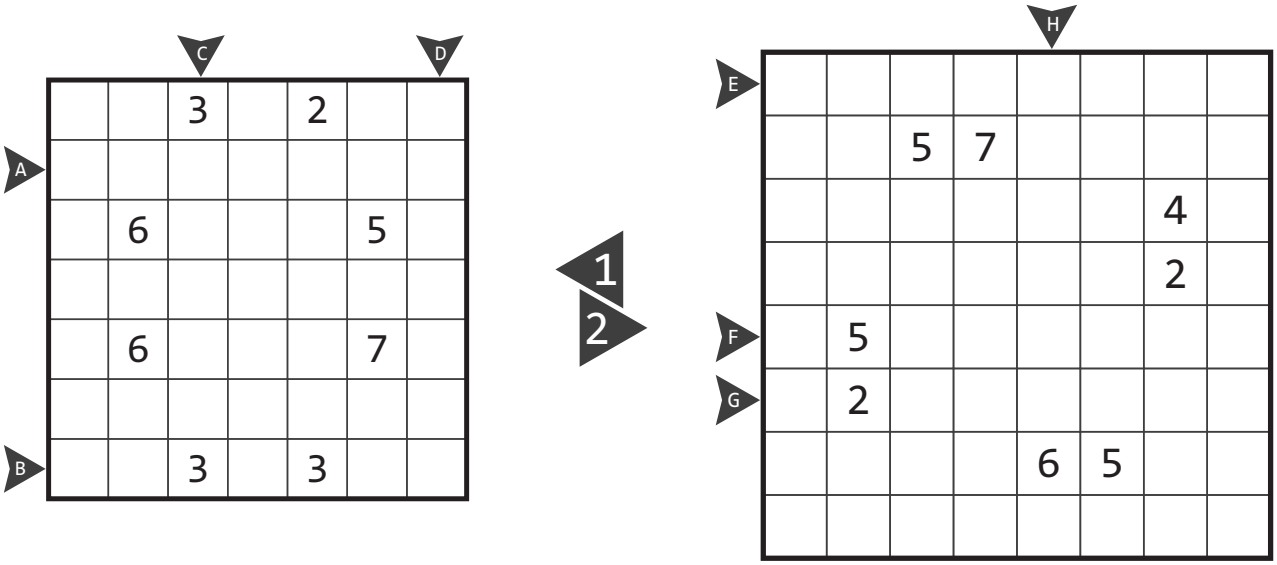
Refer to previous page for rules and answer keys.



Linesweeper — 2 + 3 points

- Draw a single closed loop, which connects centers of some (not necessarily all) cells horizontally and vertically.
- The loop can't cross or touch itself.
- Numbers in the grid show the number of cells used by the loop in the surrounding 8-cell area.
- The loop cannot pass through cells with numbers.

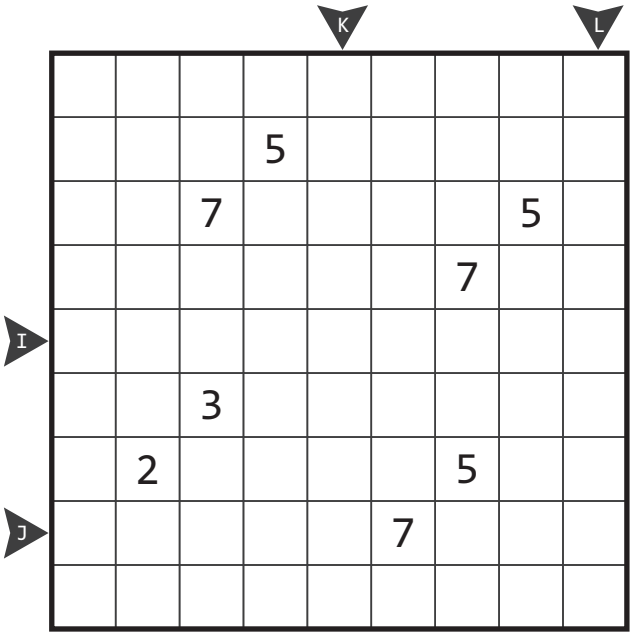
Answer key: Enter lengths of largest loop segment in marked row/column.



Linesweeper

2 + 5 points

Refer to previous page for rules and answer keys.



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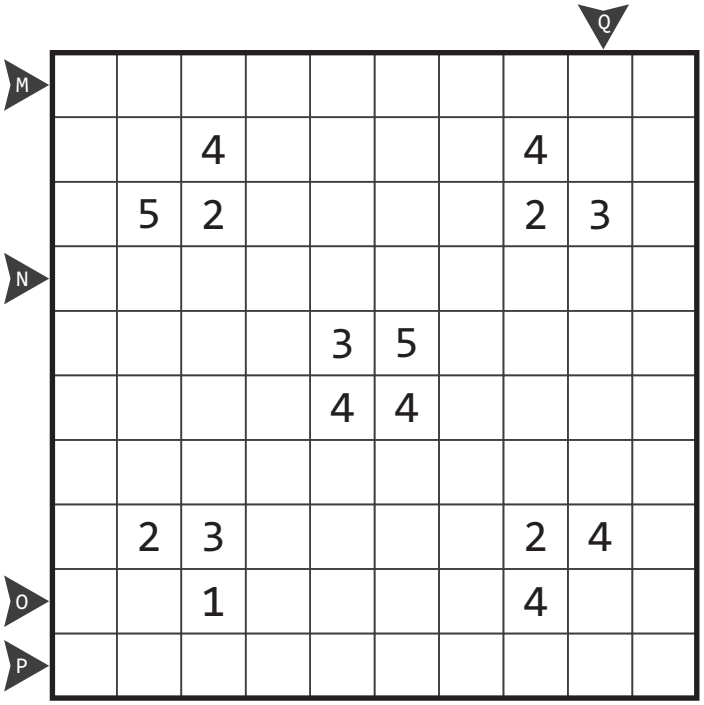
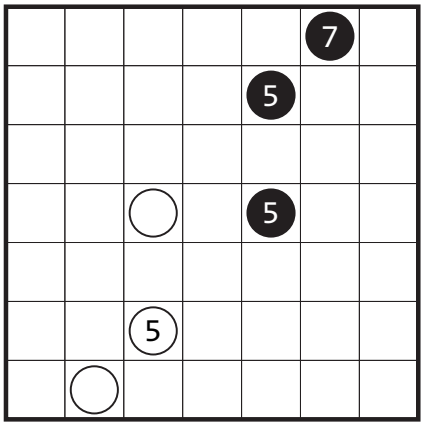
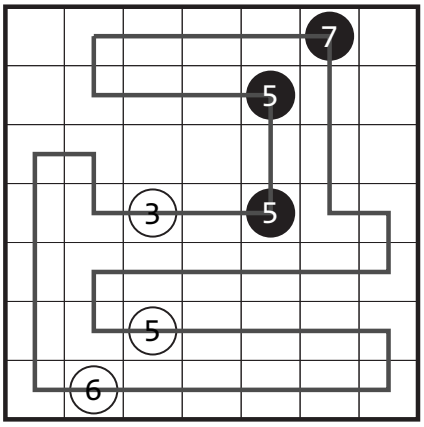


4

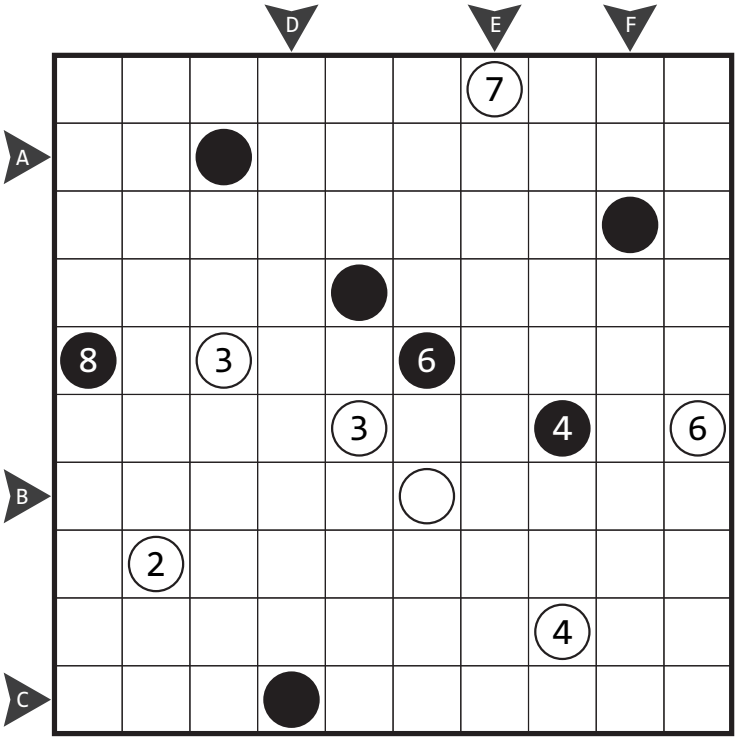
Masyu Variation 9 points



EXAMPLE



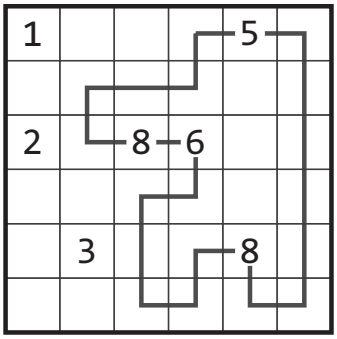
Answer key: Enter lengths of largest loop segment in marked row/column.



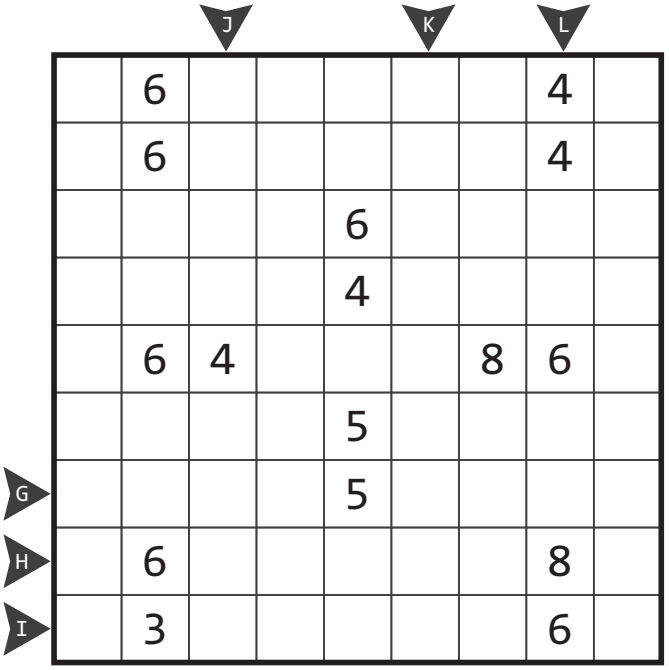
Linesweeper Variation 14 points

1				5	
2		8	6		
	3			8	

EXAMPLE



Answer key: Enter lengths of largest loop segment in marked row/column.



End of Test

Minesweeper

1 + 1 + 6 + 3 points

- Place mines into some empty cells in the grid such that the numbers in the grid represent the number of mines in the 8 neighboring cells, including diagonal ones.
- In some of the puzzles, number of mines to be used will be given.

Answer key: Enter the number of mines for each row, from top to bottom.

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

1
2

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

27 mines

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

3
4

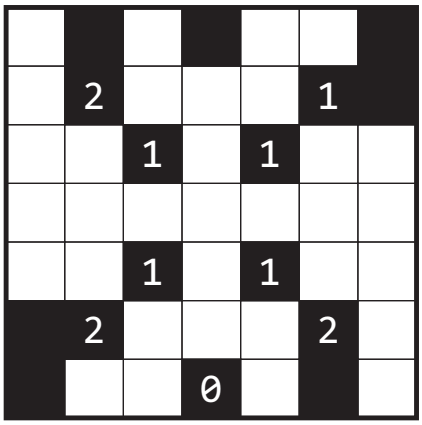
		3					2		
	3			4	2			4	
3		4	3			3			1
		3					3		
	4			1	0			3	
	2			4	2			4	
		5					2		
1			5			3	4		2
	4			3	4			2	
		2					2		

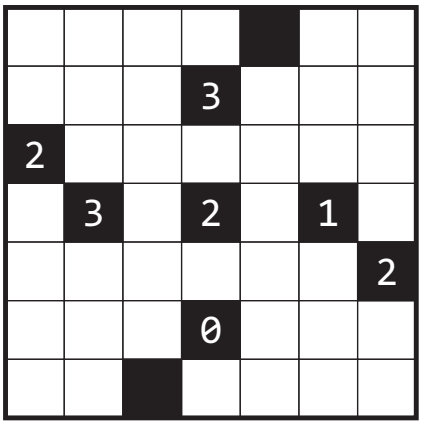
Akari

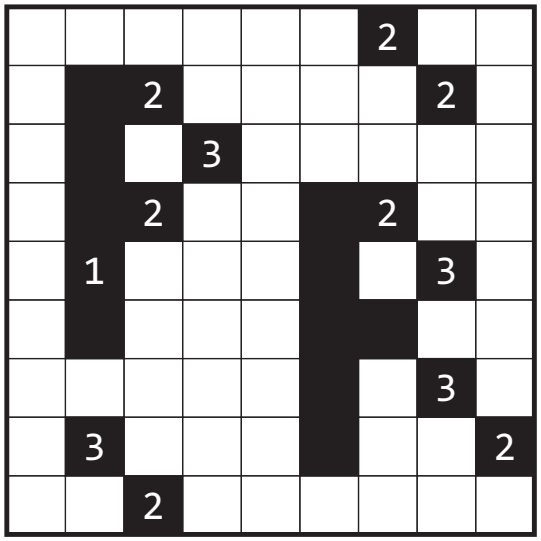
1 + 1 + 3 points

- Place lightbulbs in some of the white cells so that all white cells are illuminated.
- Lightbulbs illuminate all cells they can see horizontally and vertically, including the cell in which it is placed.
- Lightbulbs are blocked by black cells or the edge of the grid.
- No two lightbulbs may illuminate each other.
- Numbers in black cells indicate how many orthogonally adjacent cells contain a lightbulb.

Answer key: Enter the number of light bulbs for each row, from top to bottom.

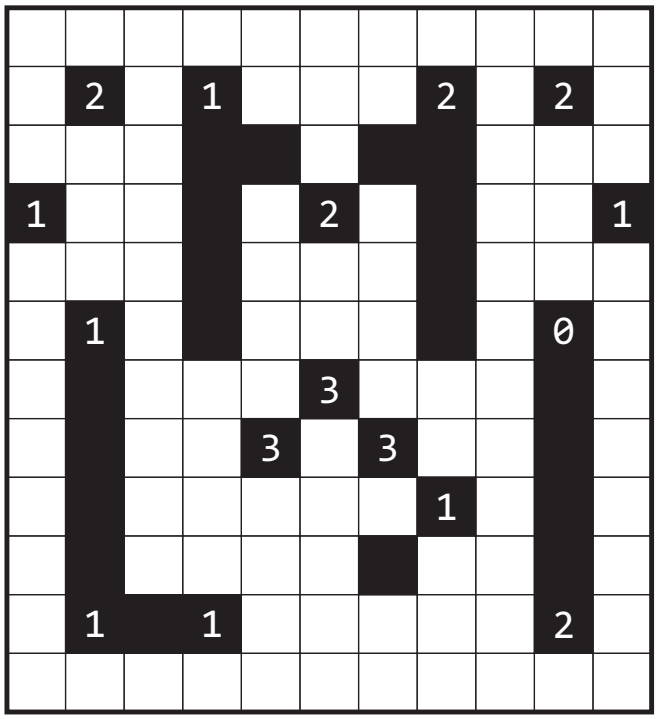






Akari 5 points

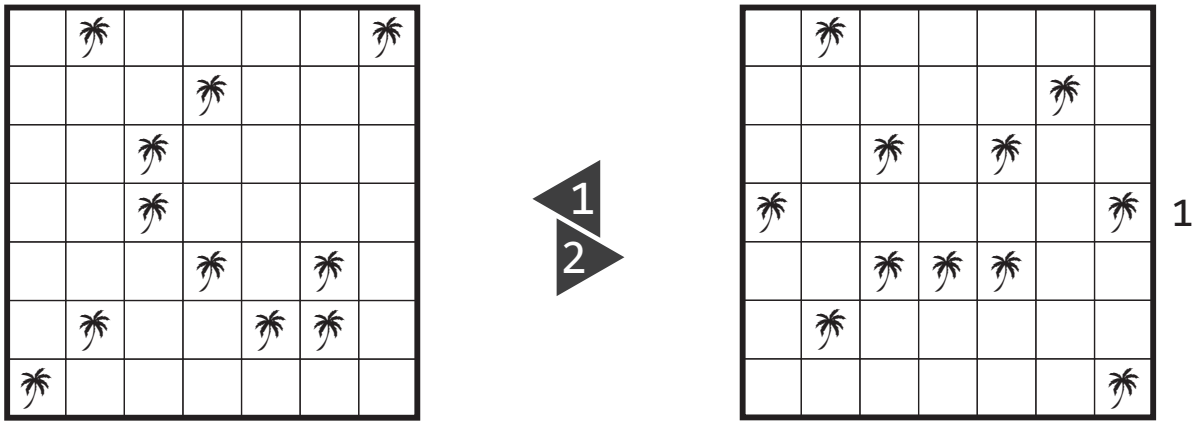
Refer to previous page for rules and answer keys.



Tents 1 + 3 points

- Place one tent horizontally or vertically next to each tree.
- Tents do not touch each other, not even diagonally.
- The numbers outside the grid indicate the number of tents in that row or column.

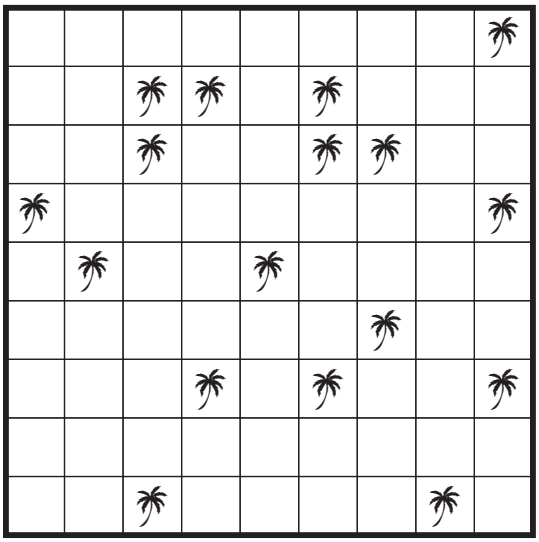
Answer key: Enter the maximum continuous non-tent area for each row, from top to bottom. In case of double digit numbers, enter the right (unit) digit only.



Tents

4 + 7 points

Refer to previous page for rules and answer keys.



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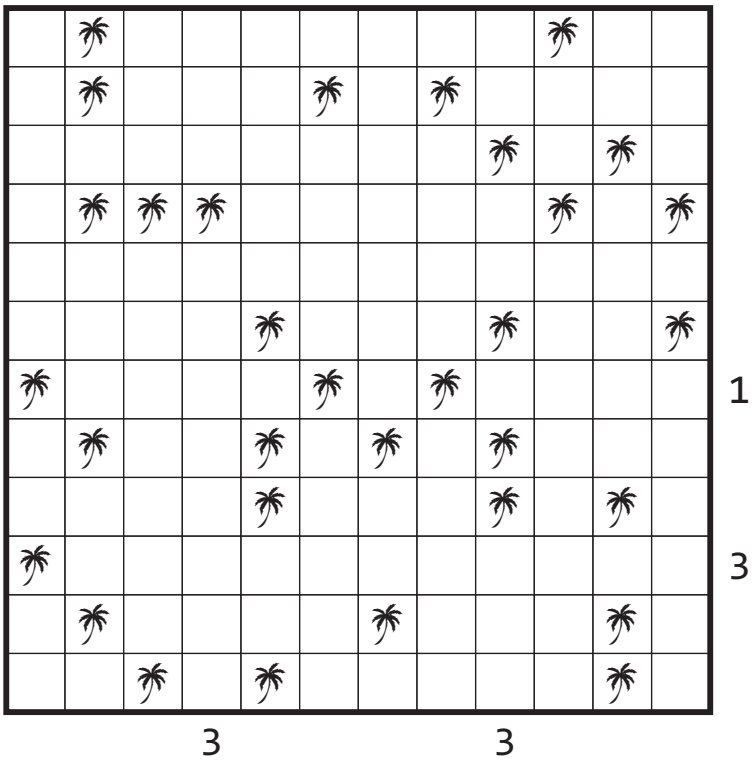
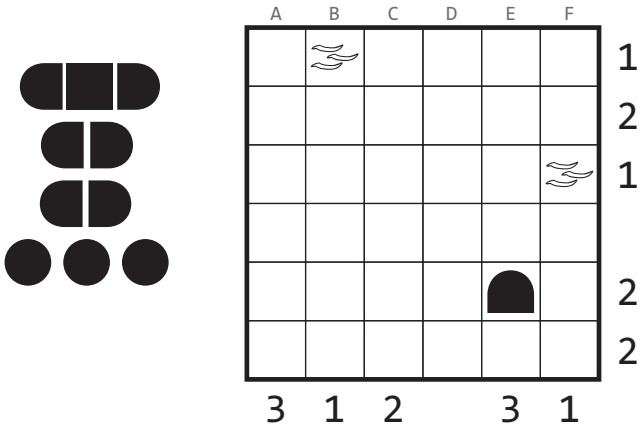


4

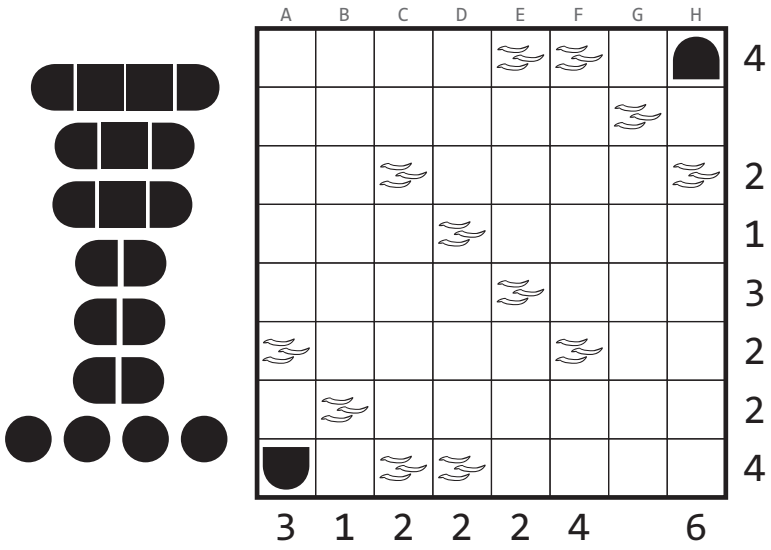
Battleships 2 + 2 points

- Place the given fleet of ships with the shapes of the ships as shown.
- The numbers outside the grid indicate the number of cells occupied by ships in that row or column.
- Ships cannot touch each other, not even diagonally.
- Some cells are known to be water and are indicated by waves.

Answer key: For each row from top to bottom, enter the column position of first ship segment. Enter "-" if there are no ships in the row.



1

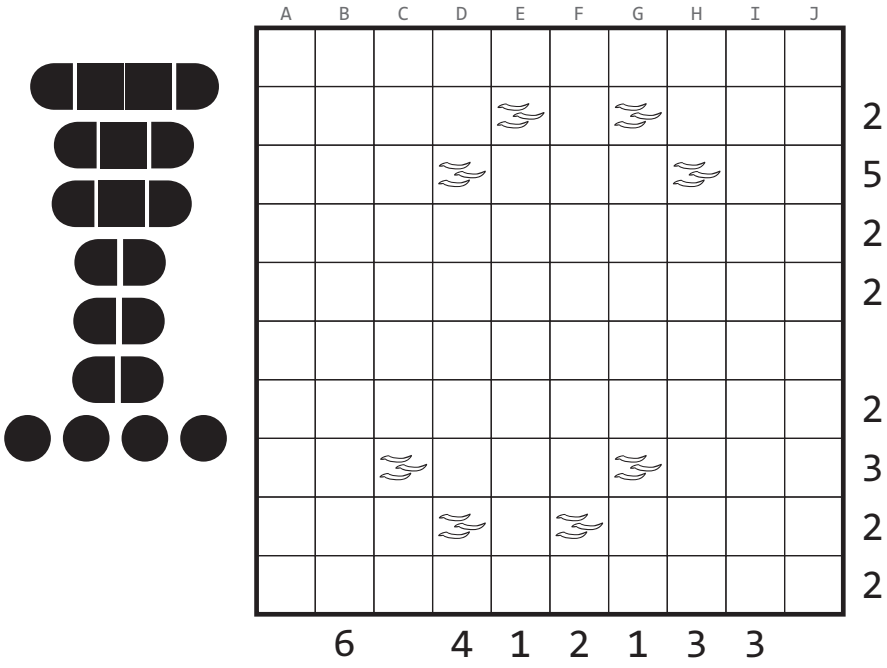


2

Battleships

3 + 6 points

Refer to previous page for rules and answer keys.



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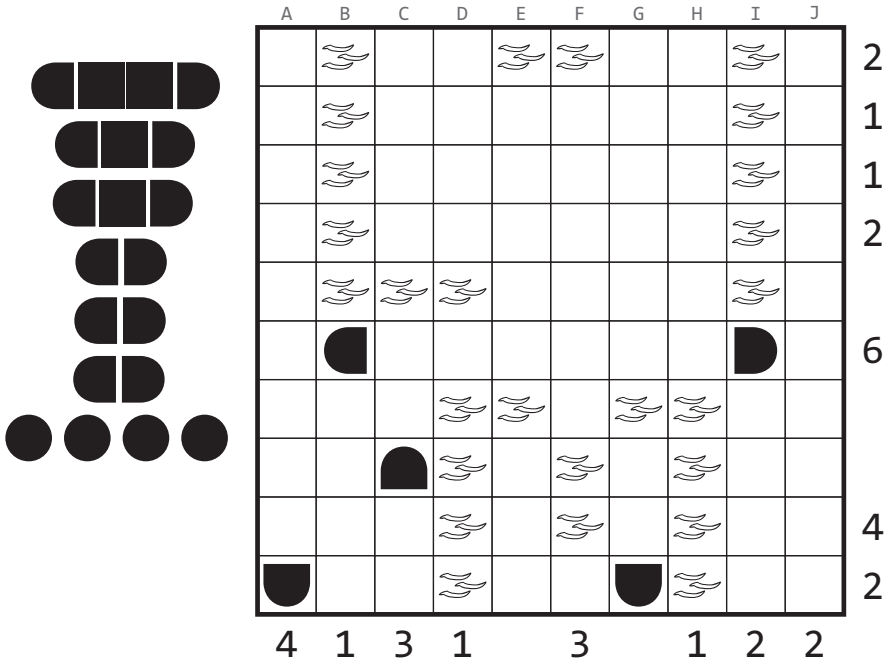


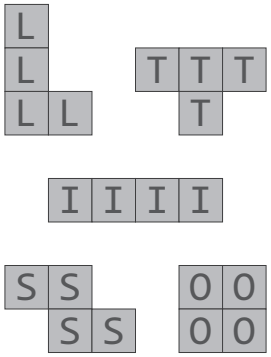
4

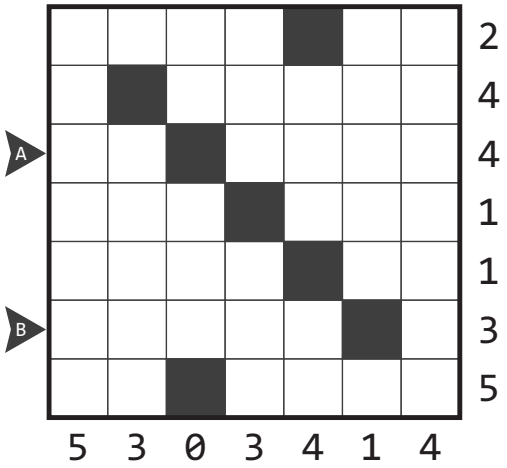
Tetromino

5 + 3 points

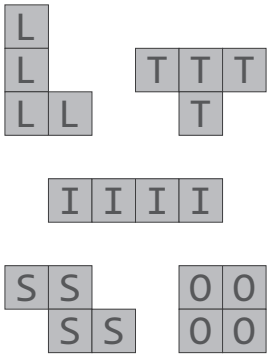
- Place the given set of polyominos in grid.
- Polyominos do not touch each other, even diagonally.
- Rotations and reflections are allowed.
- Polyominos cannot be placed in shaded cells.
- The numbers outside the grid indicate the number of cells occupied by polyominos in that row or column.

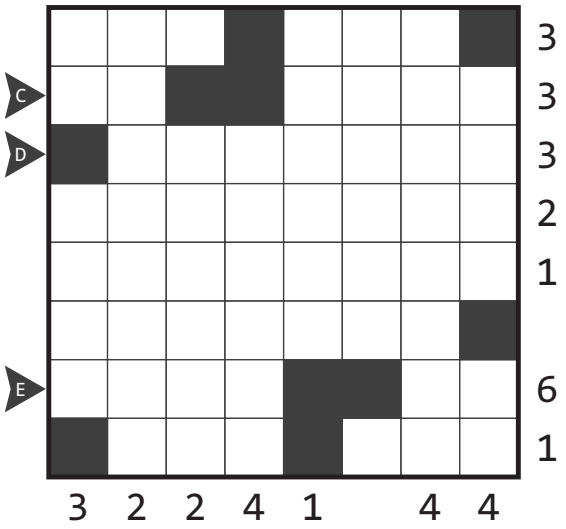
Answer key: Enter the letters corresponding to first two polyominos seen from the marked directions. (– if not enough polyominos)





1



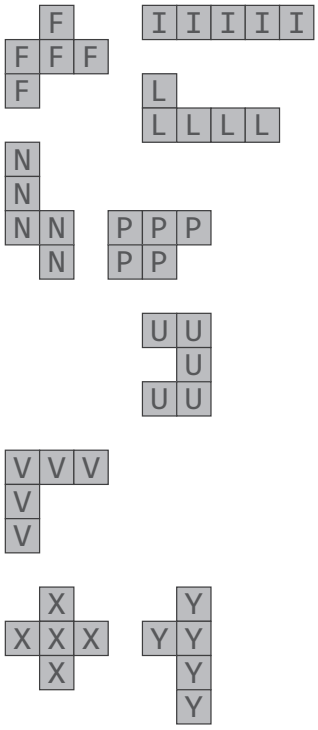


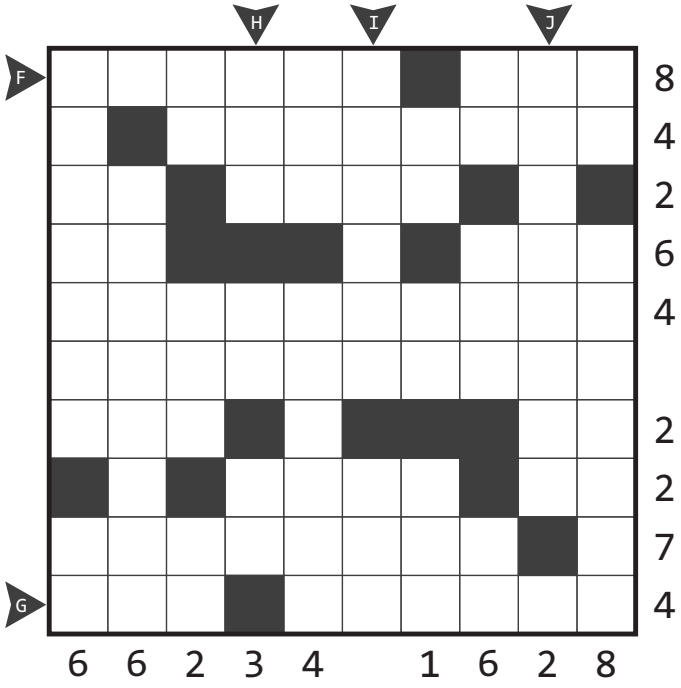
2

Pentomino

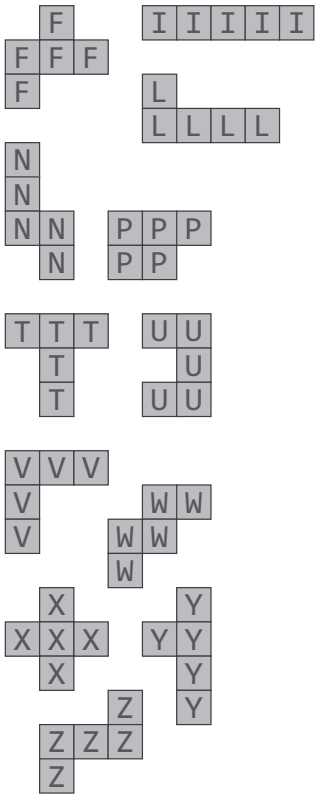
7 + 15 points

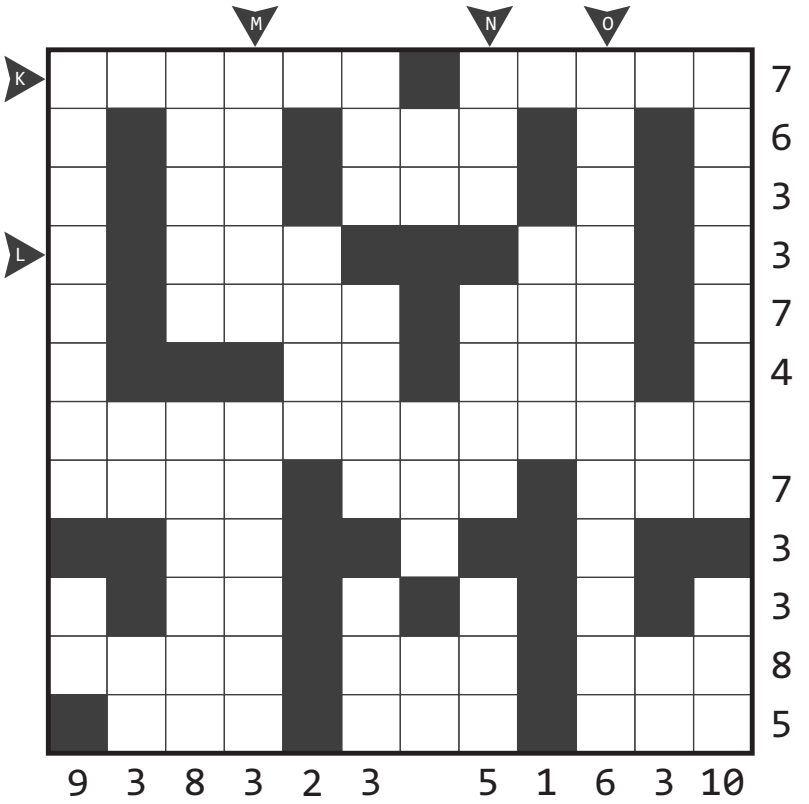
Refer to previous page for rules and answer keys.





3





4

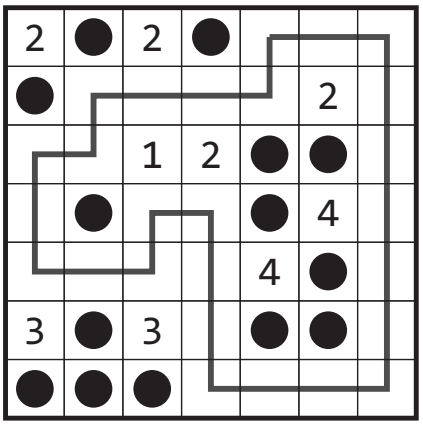
puzzle ramayan

Minesweeper Instructionsless

8 points

2		2				
					2	
		1	2			
					4	
				4		
3		3				

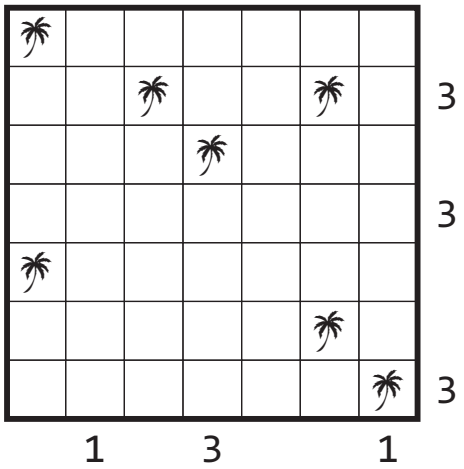
EXAMPLE



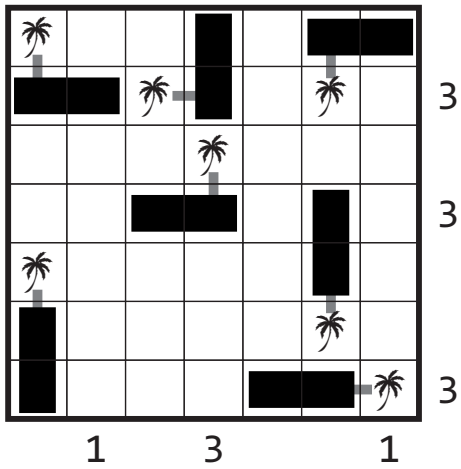
Answer key: Enter the number of mines for each row, from top to bottom.

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

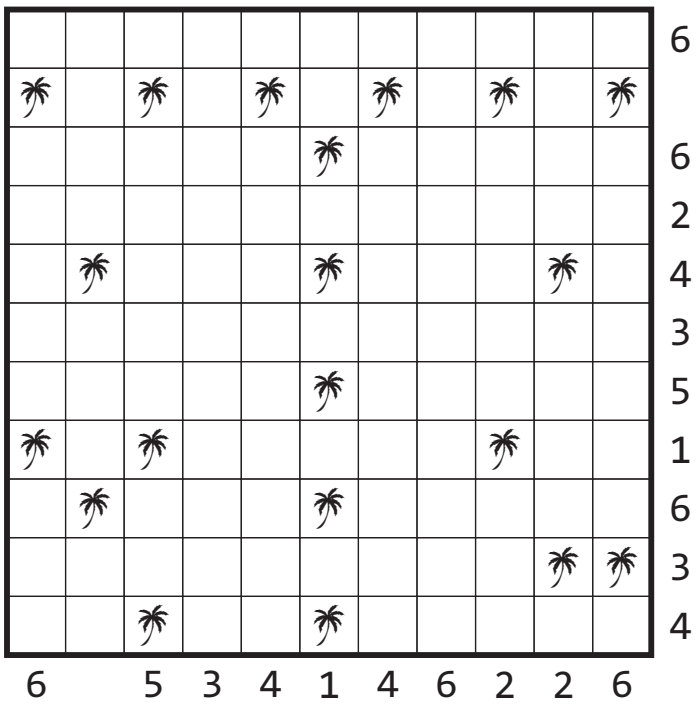
Tents Instructionsless 13 points



EXAMPLE

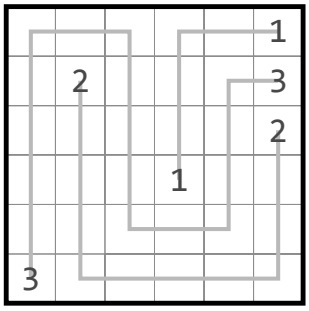


Answer key: Enter the maximum continuous non-tent area for each row, from top to bottom. In case of double digit numbers, enter the right (unit) digit only.

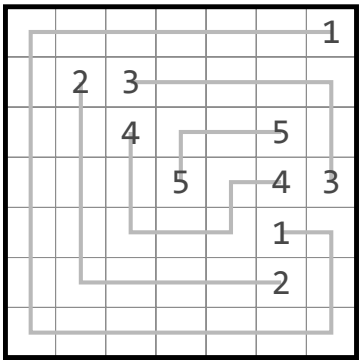


End of Test

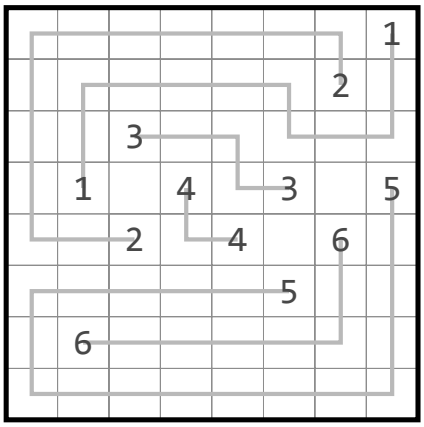
Numberlink 1



Numberlink 2



Numberlink 3



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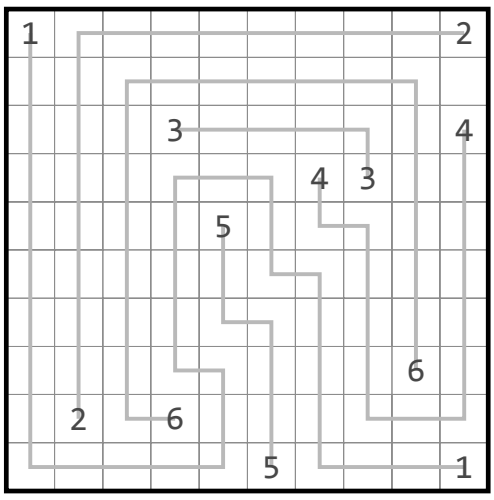
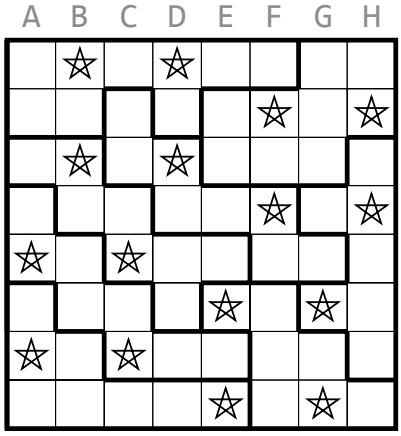
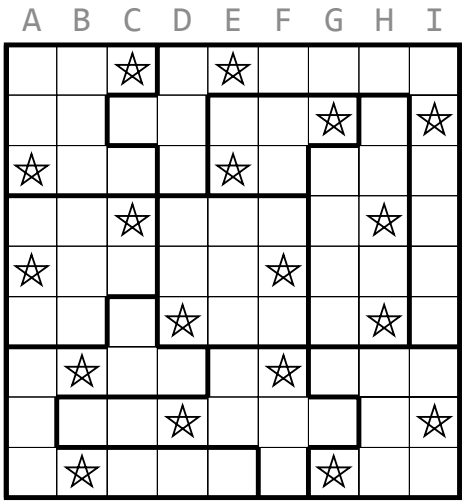


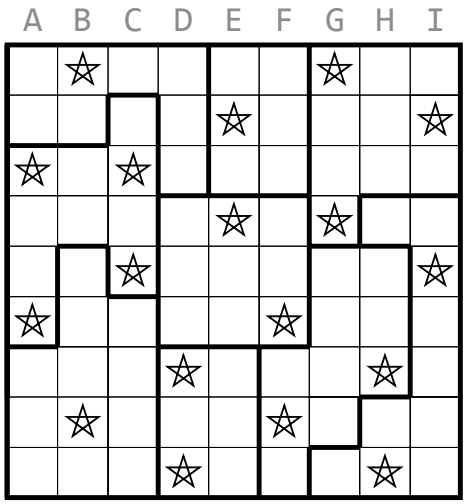
Star Battle 1



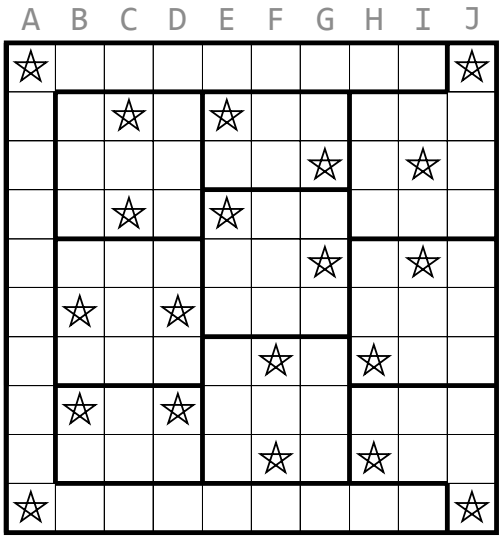
Star Battle 2



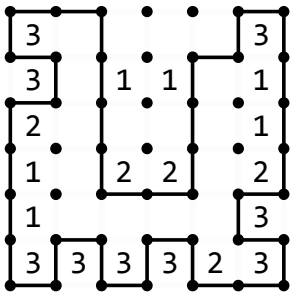
Star Battle 3



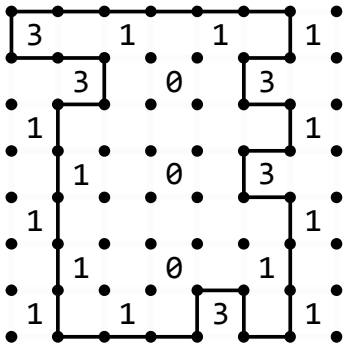
Star Battle 4



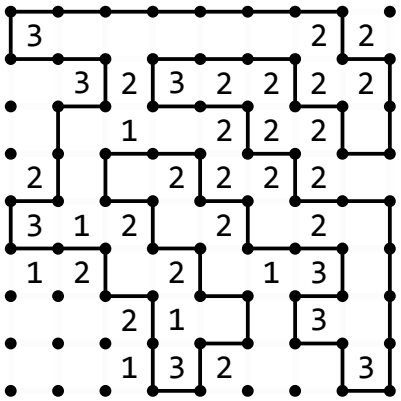
Slitherlink 1



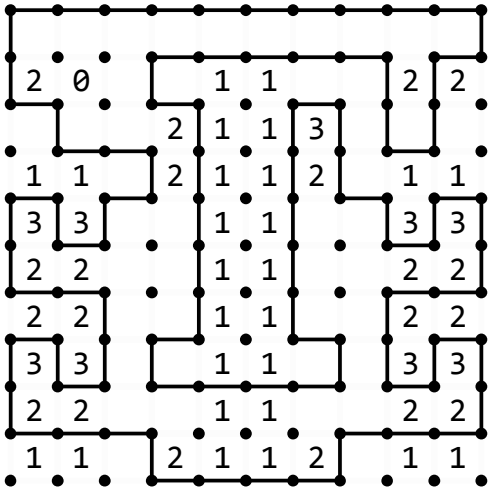
Slitherlink 2



Slitherlink 3



Slitherlink 4



Hitori 1

3	2	6	5	4	6
5	4	2	5	1	6
6	3	5	1	2	4
3	1	5	4	4	3
1	2	6	3	5	4
4	2	3	6	1	5

Hitori 2

2	3	5	6	7	4	3
5	7	6	1	2	2	3
5	2	1	4	2	7	4
1	2	4	3	5	7	4
4	3	2	3	1	6	7
7	4	6	2	1	5	5
3	1	4	5	6	1	2

Hitori 3

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

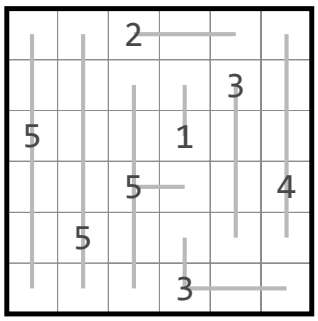
Hitori 4

9	8	6	7	2	6	3	9	4	1
4	2	8	2	5	7	3	3	9	9
6	6	3	2	1	1	7	8	8	5
4	6	9	8	1	4	7	7	2	3
7	5	4	8	3	6	6	1	1	2
3	3	4	1	5	5	9	9	7	8
2	3	1	4	4	8	8	5	6	7
2	9	3	3	7	7	5	6	6	4
5	2	2	6	6	3	4	4	8	9
1	1	5	5	8	9	9	2	3	7

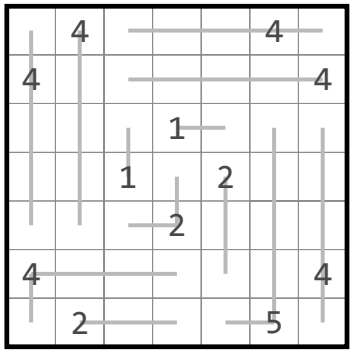
Hitori Blocks

5	2	3	5	2	1	3	6	3	9
2	6	1	6	4	3	8	5	7	1
1	5	7	7	2	4	4	9	6	8
4	1	5	2	6	2	2	1	8	2
6	9	1	1	7	4	3	8	2	9
3	4	6	2	1	7	5	6	2	2
3	9	2	3	3	6	5	4	1	2
9	3	4	2	8	6	7	1	5	8
1	3	8	7	9	2	6	5	4	3
8	9	1	4	8	1	6	2	3	7

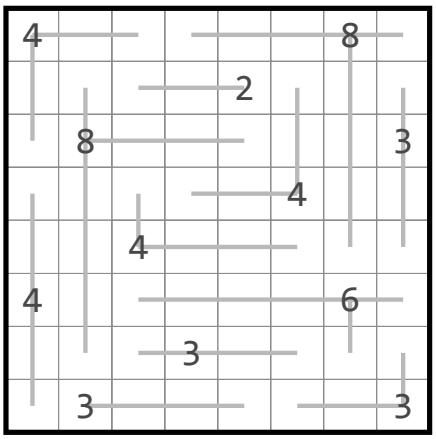
Four Winds 1



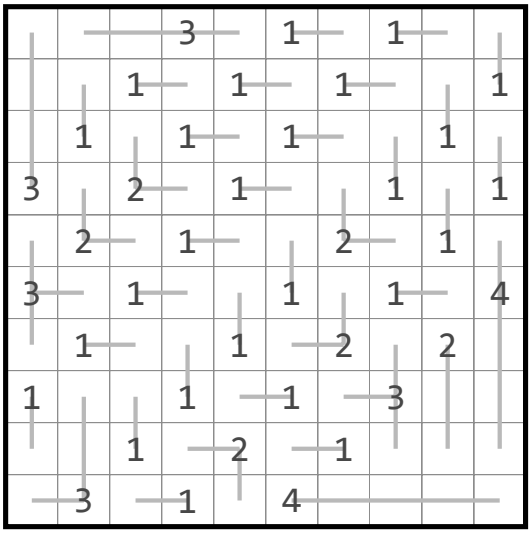
Four Winds 2



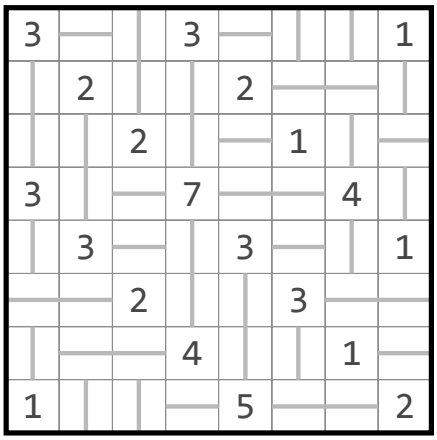
Four Winds 3



Four Winds 4



Walls



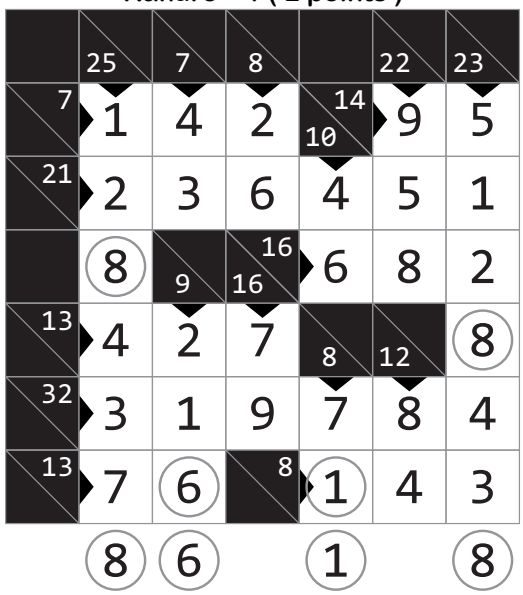
Kakuro

- Fill in the white cells in the grid with digits from 1 to 9.
- The sum of digits in each horizontal / vertical group of cells is given on its left/top.
- Digits do not repeat within any set of consecutive white cells.

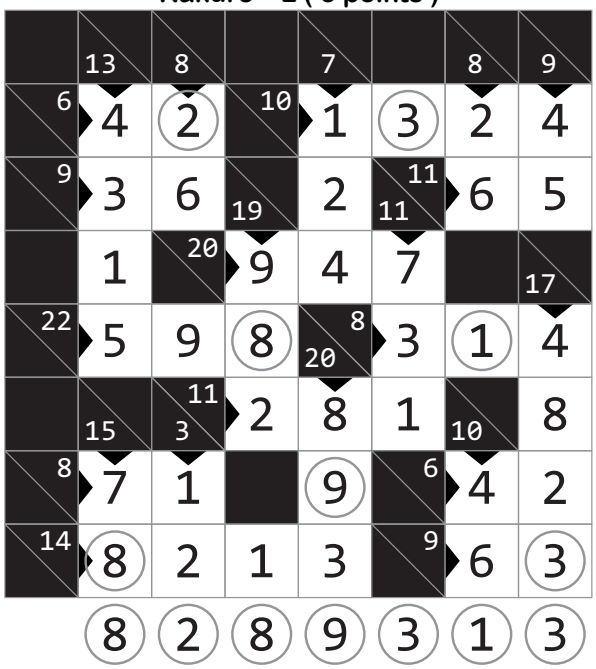
Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

Kakuro – 1 (2 points)



Kakuro – 2 (3 points)

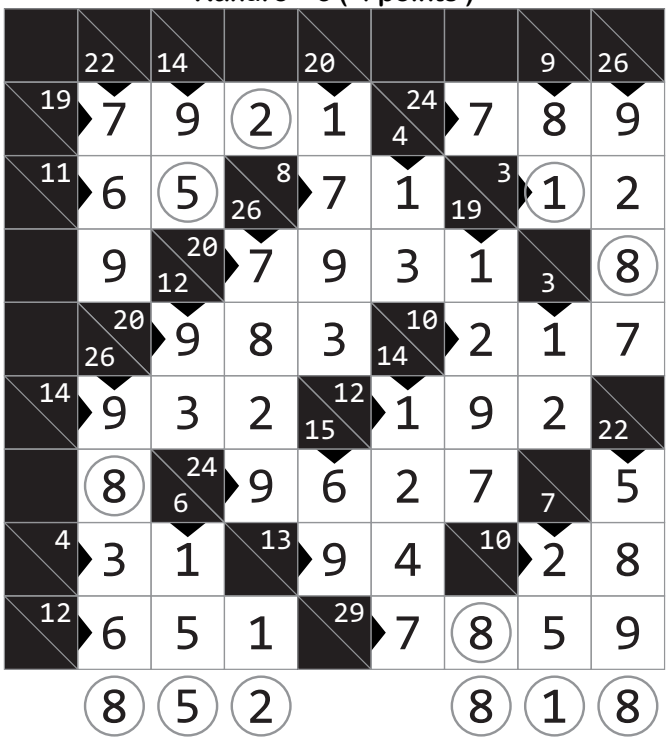


Kakuro

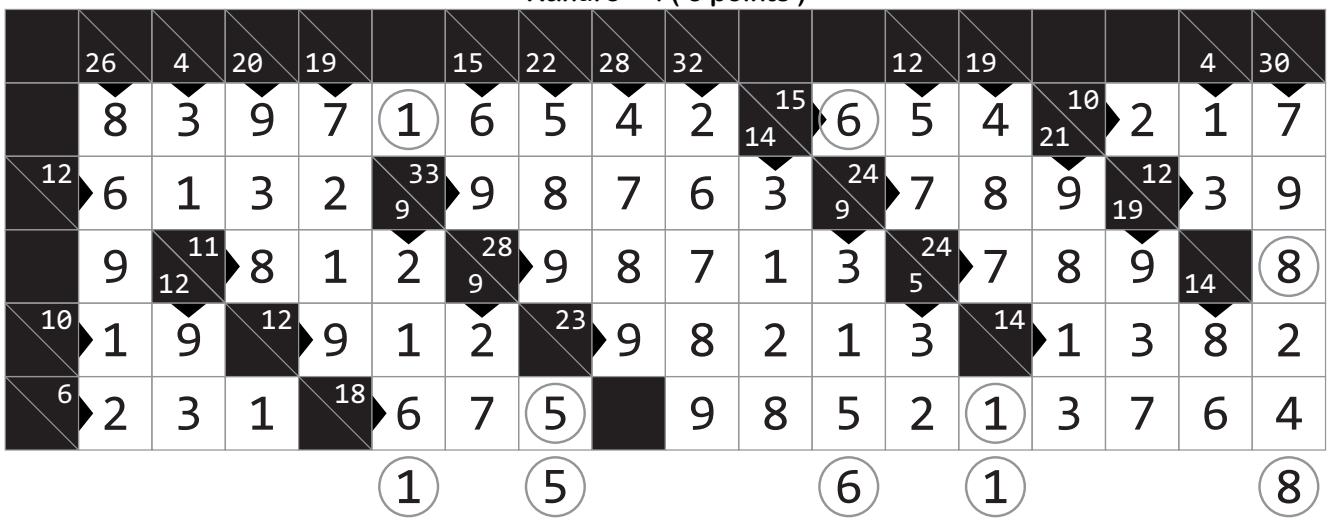
➢ See previous page for rules.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

Kakuro – 3 (4 points)



Kakuro – 4 (5 points)



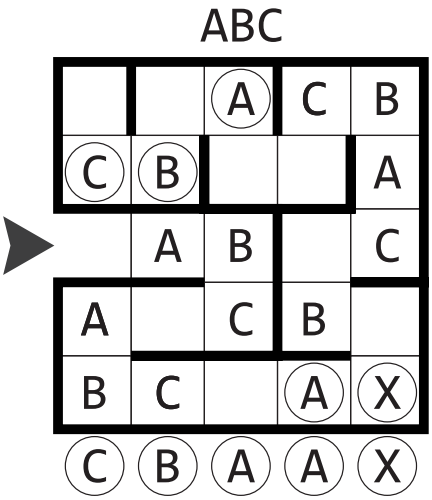
Magic Snail

- Fill in the snail like grid such that each row and column has some re-arrangement of all the letters of the given key.
- Some cells will remain blank.
- While reading the letters from outside towards the center, the order of the letters is to be same as the key. [E.g. in the example it should read as A-B-C-A-B-C…]

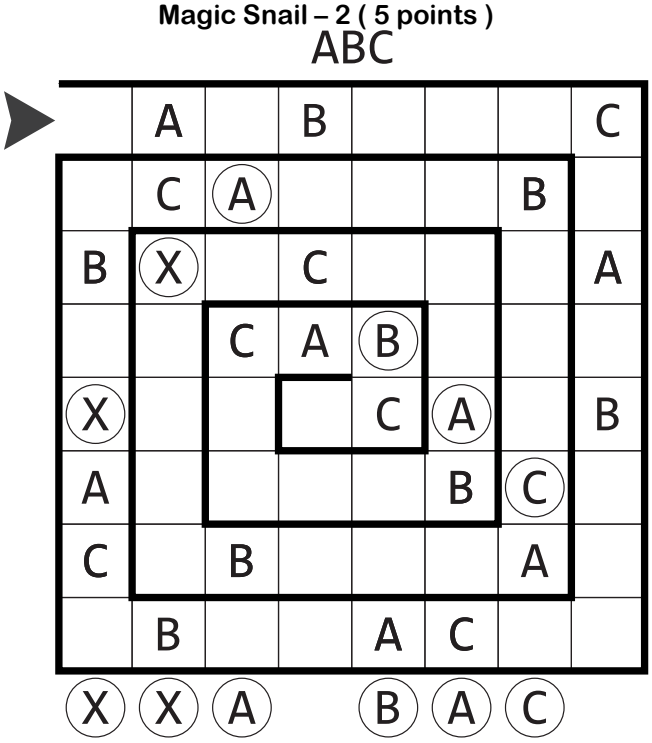
Ignore the circles while solving; they are used for answer key purposes.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

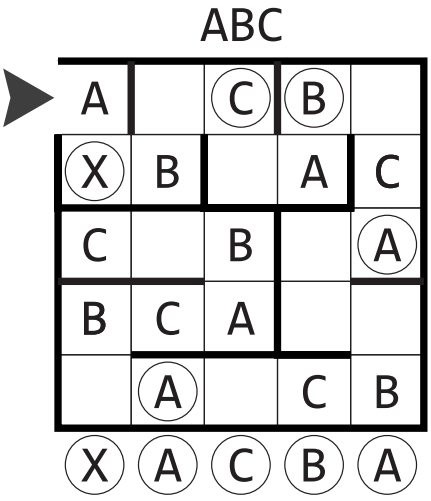
Magic Snail – 1 (2 points)



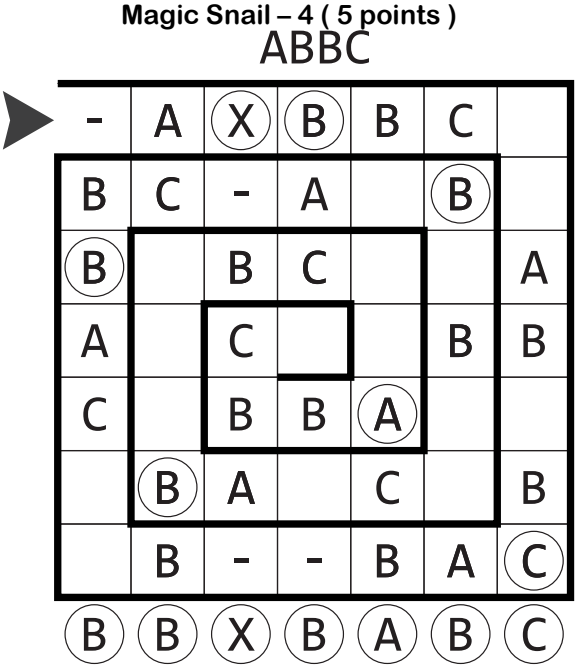
Magic Snail – 2 (5 points)



Magic Snail – 3 (3 points)



Magic Snail – 4 (5 points)

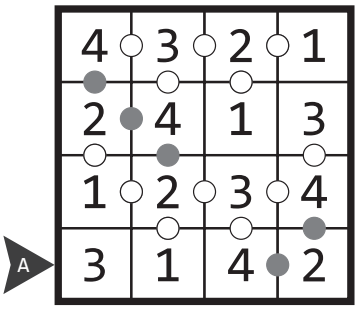


Kropki

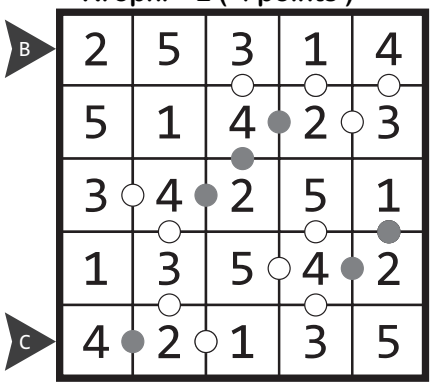
- Fill in the grid with digits 1 – N where N is the size of the grid so that each row and column contains each digit exactly once.
- If two consecutive digits appear in two neighboring cells, they are separated by white dot.
- If digit in a cell is half of digit in the neighboring cell, then they are marked by black dot.
- The dot between 1 and 2 can either be white or be black.

Answer key: Enter the digits in the marked rows.

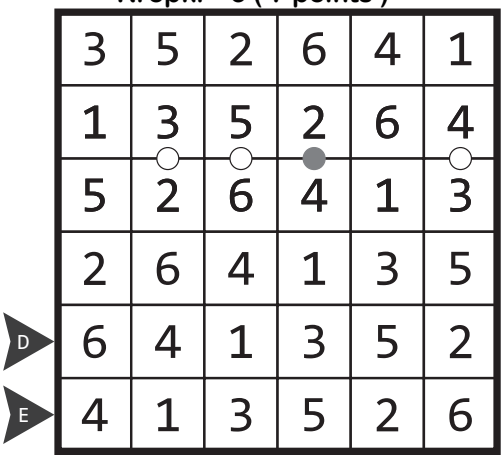
Kropki – 1 (1 points)



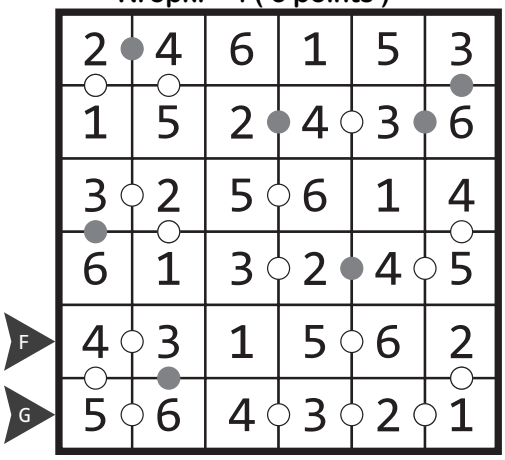
Kropki – 2 (4 points)



Kropki – 3 (7 points)



Kropki – 4 (3 points)



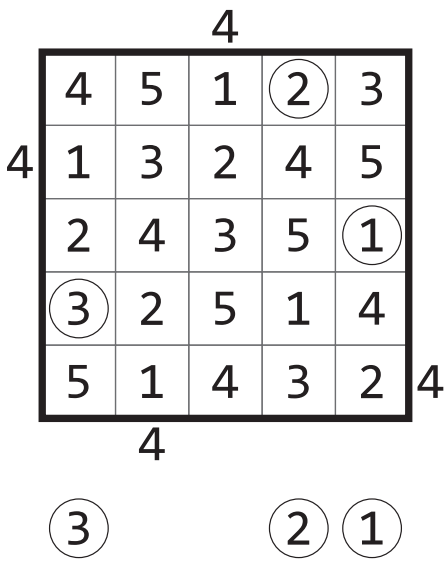
Skyscrapers

- Fill in the grid with digits 1 – N where N is the size of the grid so that each row and column contains each digit exactly once.
- Each number inside the grid represents the height of a building.
- The clues outside of the grid indicate how many buildings can be seen when looking from that direction.
- Taller buildings block the view of smaller buildings.

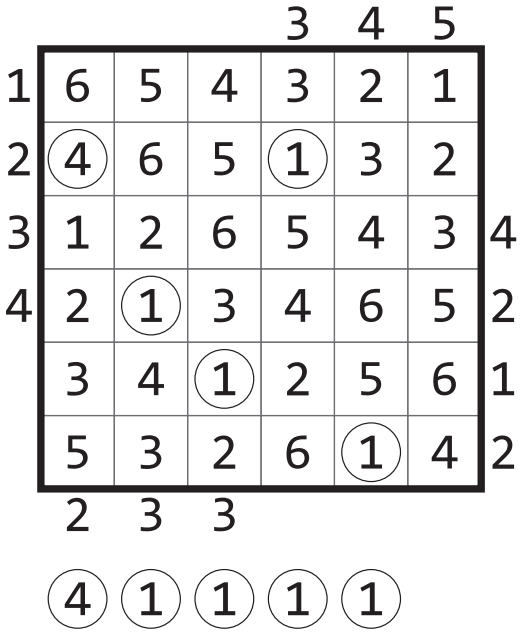
Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.

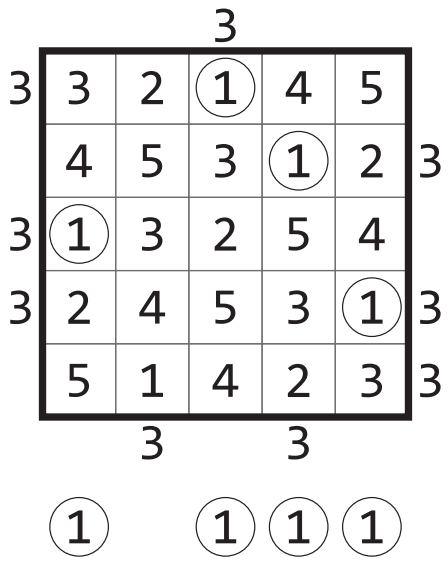
Skyscrapers – 1 (2 points)



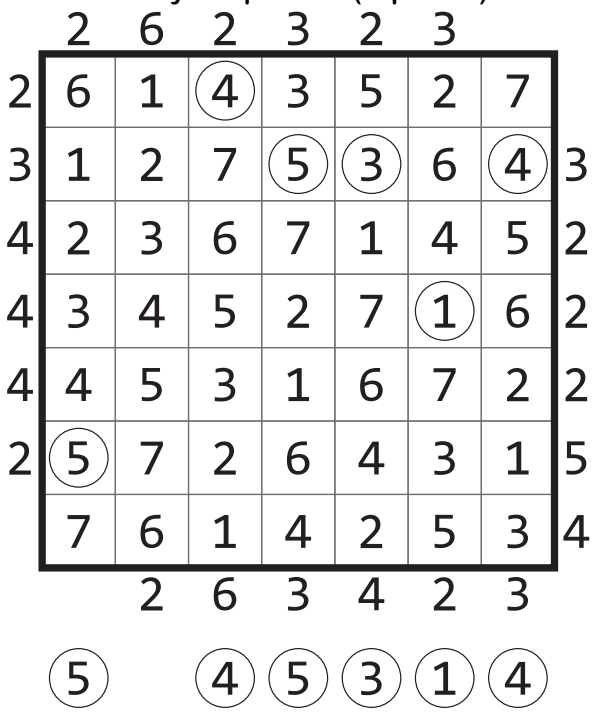
Skyscrapers – 2 (6 points)



Skyscrapers – 3 (6 points)



Skyscrapers – 4 (7 points)



Easy As ABC [Numbers]

- Fill in the grid with letters from the given range so that each row and column contains each letter exactly once.
- Each row and column contains one blank cell.
- The clues outside the grid in the form X_N, indicate that X is the N^{th} letter seen in that row or column, in the corresponding direction.

Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right. Enter X for blank cells

Easy As ABC – 1 (2 points)

A-D

	A_1			B_1	
A_1	A	D	C	B	
B_1	B	A		C	D
C_1	C	B	(D)		A
		C	A	D	B
	D		B	A	C
		C_1			C_1

(D) (X)

Easy As ABC – 2 (4 points)

A-E

	A_2	B_2	C_2	C_2	B_2	D_2	
D_2	(B)	D		(A)	(C)	(E)	
B_2	A	B	E	C		D	
C_2		E	C	D	B	A	
	E	A	B		D	C	D_2
	D	C	A	B	E		B_2
	C		D	E	A	B	A_2
	D_2	A_2	A_2	B_2	E_2	C_2	

(B) (A) (C) (E)

Easy As ABC – 3 (3 points)

A-D

				A_4	
	B	D	A	C	
A		C	D	B	A_4
B	C	A		D	B_4
C	D		B	A	C_4
C_4	D	A	B	C	
	B_4	D_4	A_4		

(X) (C) (D)

Easy As ABC – 4 (7 points)

A-F

	A_3	B_3	C_3	C_3	B_3	D_3	D_3	
D_3	B	F	D	E	(C)		A	E_3
B_3	(E)	D	B		A	F	(C)	A_3
	A		C	F	B	E	D	
		B	A	C	E	D	F	
	D	A		B	F	C	E	
F_3	C	E	F	A	D	(B)		A_3
E_3	F	(C)	E	D		A	B	D_3
	D_3	A_3	A_3	B_3	E_3	C_3	F_3	

(E) (C) (C) (B) (C)

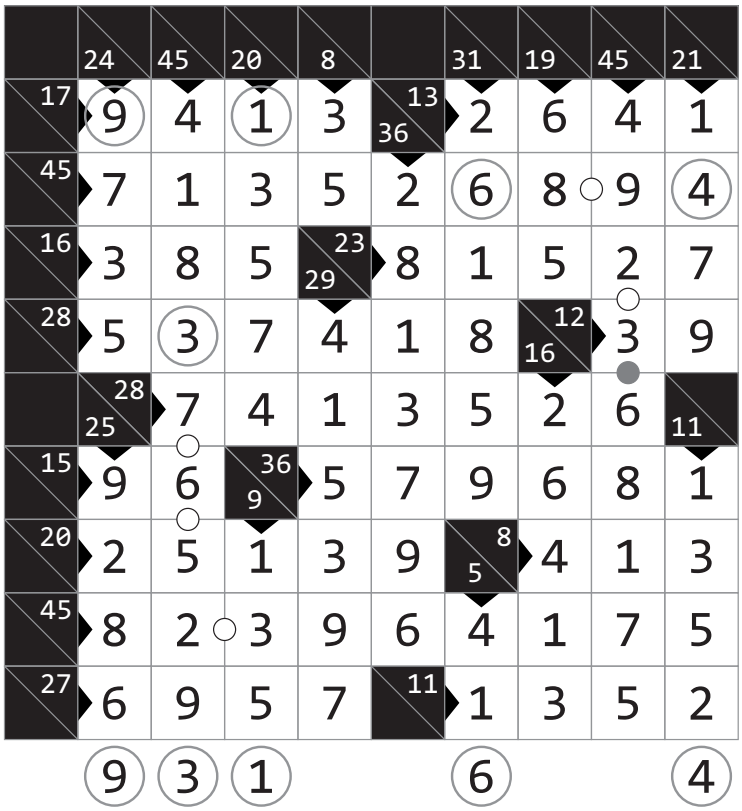
KropKuro

12 points

- Apply Kakuro rules.
- If two consecutive digits appear in two neighboring cells, they are separated by white dot.
- If digit in a cell is half of digit in the neighboring cell, then they are marked by black dot.
- The dot between 1 and 2 can either be white or be black.

Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.



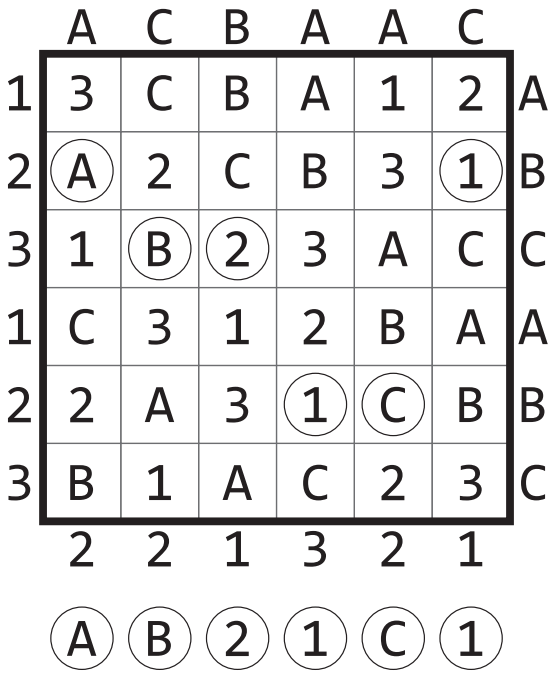
ABC Skyscrapers

7 points

- Fill in the grid with letters A, B, C and digits 1, 2, 3 so that each row and column contains different symbols. (The first example uses A, B, 1, 2)
- Each number inside the grid represents the height of a building.
- The number clues outside of the grid indicate how many buildings can be seen when looking from that direction.
- Taller buildings block the view of smaller buildings, but letters do not affect visibility.
- Letters outside the grid indicate the first seen letters from the corresponding direction.

Ignore the circles while solving. They are used for answer key purposes only.

Answer key: Some columns have one circled cell. Enter the symbols in the circles from left to right.



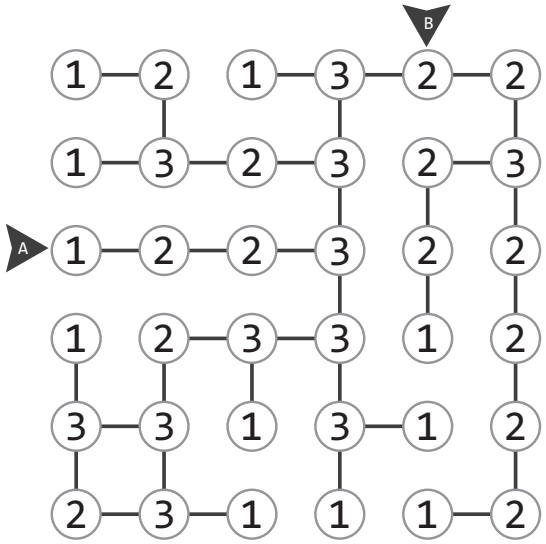
- End of Test -

Hashi 3 + 4 + 5 + 7 points

- Connect each of the numbered islands in the grid via horizontal and vertical bridges.
- Bridges are not allowed to cross each other.
- Each numbered island has that many bridges leading away from it, and at most two bridges are allowed to connect a pair of islands.
- There must be a sequence of bridges that links one given island to any other.

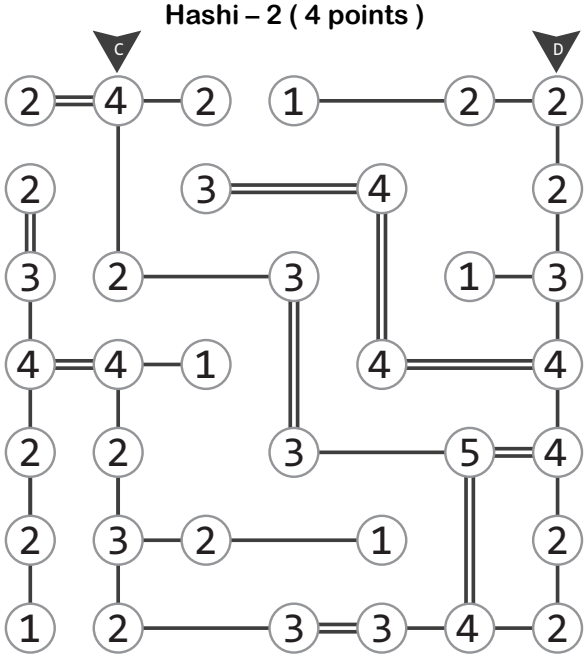
Answer key: Enter contents of marked row/column (use 0 for no bridge, 1 for 1 bridge and 2 for 2 bridges)

Hashi – 1 (3 points)



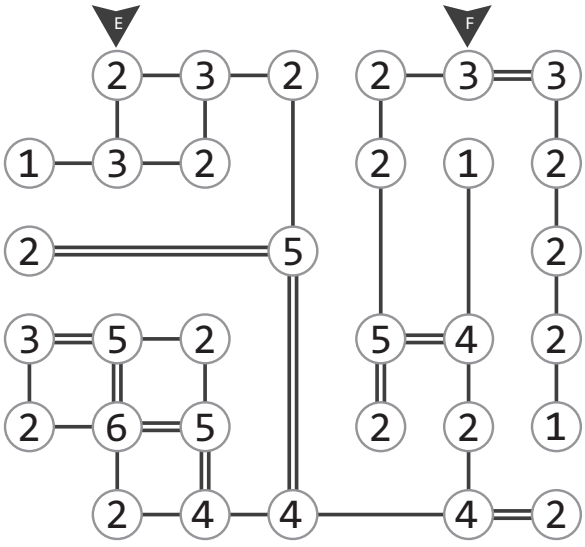
Use the "No islands" rule throughout the grid

Hashi – 2 (4 points)



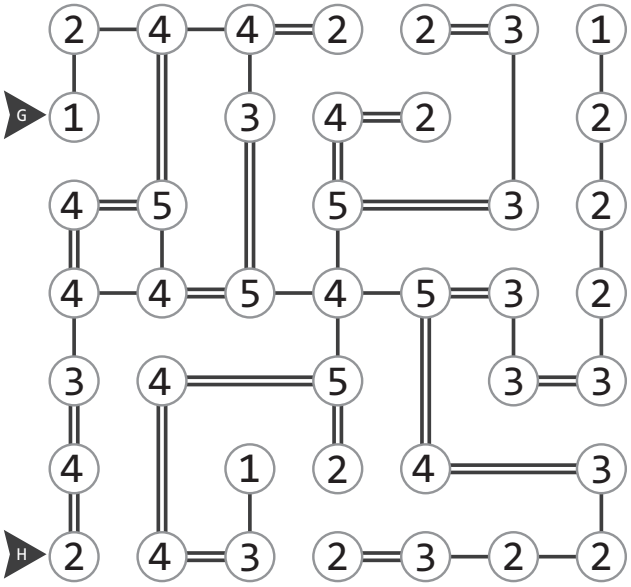
Masyu like chain which goes from top left to bottom right

Hashi – 3 (5 points)



Interaction of two 5's near the center

Hashi – 4 (7 points)



Interaction of the 4 and the 5's at the center. This one was my personal favorite for the entire set

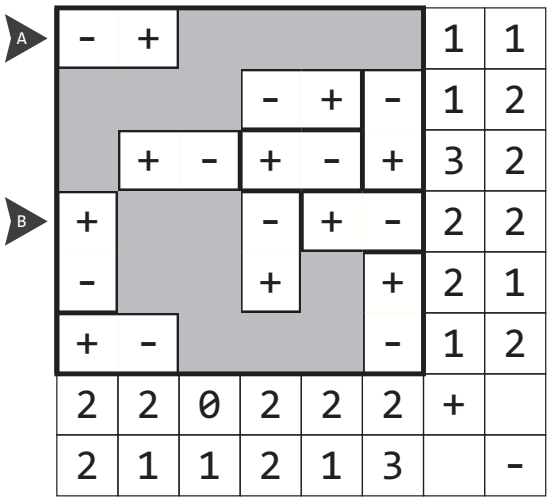
Magnets 2 + 3 points

- The grid is made up of magnetic and non-magnetic plates.
- Each magnetic plate has 2 halves: one positive (+) and one negative (-).
- Halves with the same polarity cannot touch each other vertically or horizontally.
- The digits outside the grid indicate the number of magnetic halves with a particular polarity in each row/column.

Answer key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and X for non-magnetic plate)

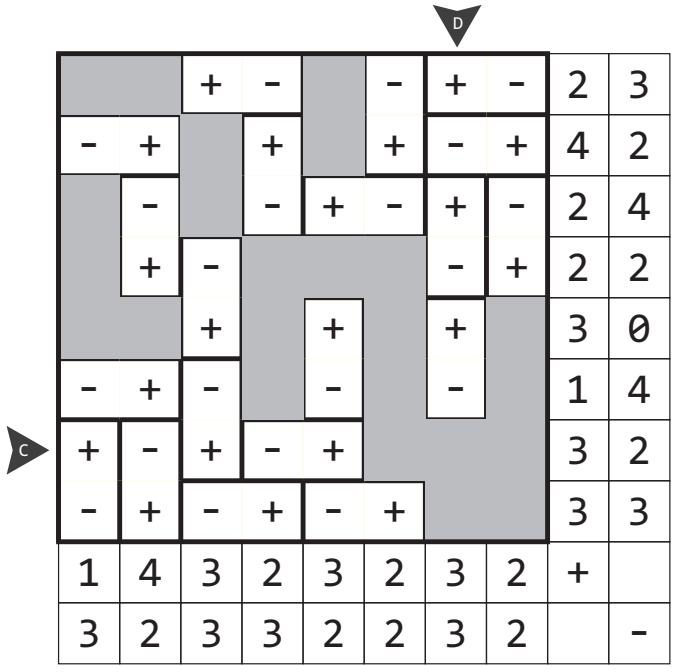
Magnets – 1

(2 points)



Magnets – 2

(3 points)



Existence of half the grid size (8/2 =4) in one of the polarities forces a few bars to be magnets

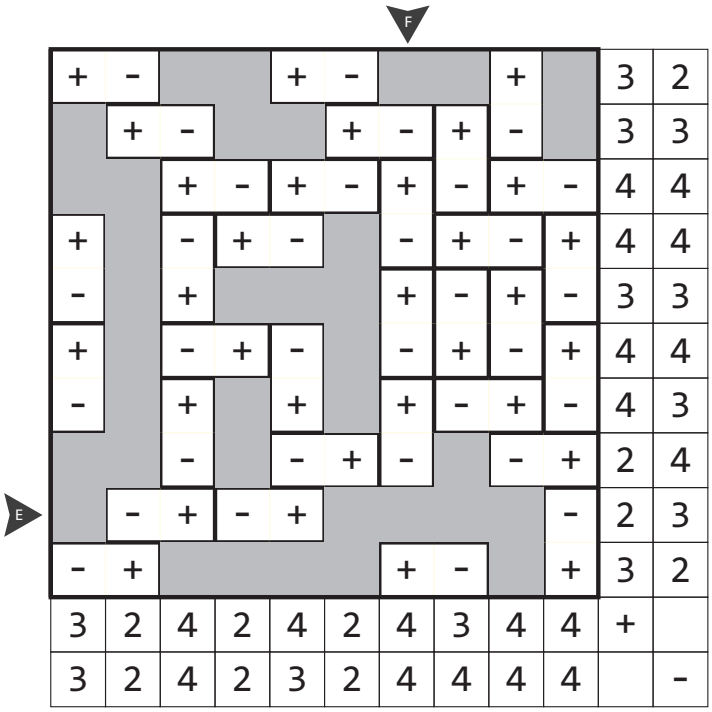
Magnets 8 + 9 points

Refer to previous page for instructions

Answer key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and X for non-magnetic plate)

Magnets – 3

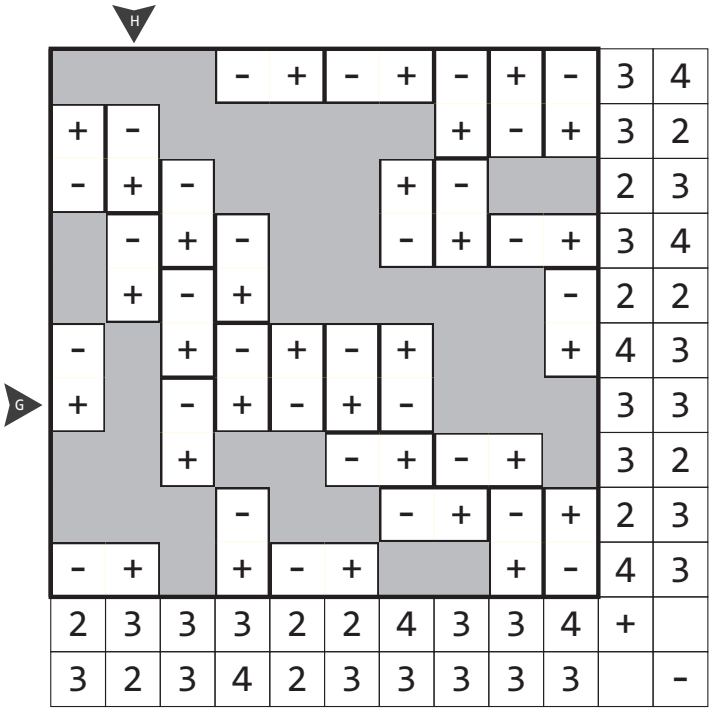
(8 points)



Min max - A less loaded column surrounded by two heavily loaded columns.

Magnets – 4

(9 points)



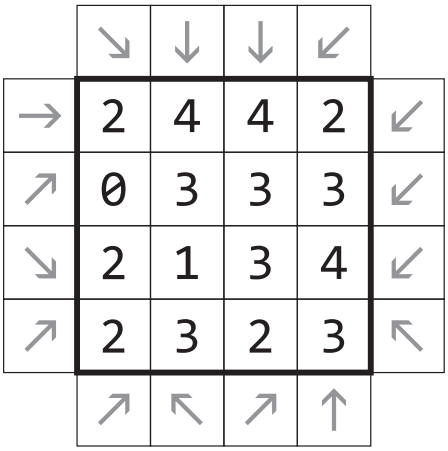
Transfer of polarities across rows

Arrows 3 + 3 + 5 + 6 points

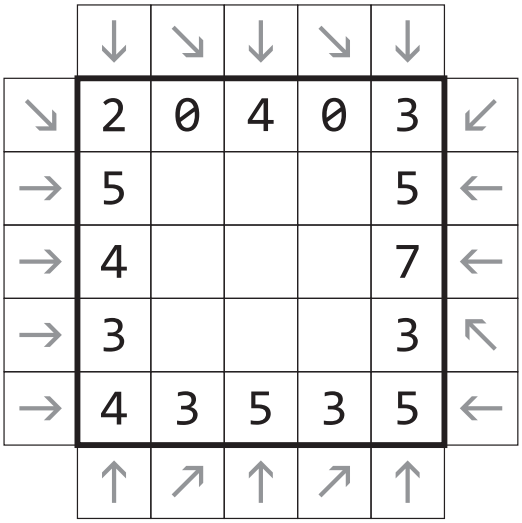
- Draw arrows in the cells around the large grid, one arrow per cell.
- Each arrow points to at least one number.
- The numbers show the total number of arrows pointing towards them.

Answer key: Enter the number of horizontal arrows, followed by the number of vertical arrows

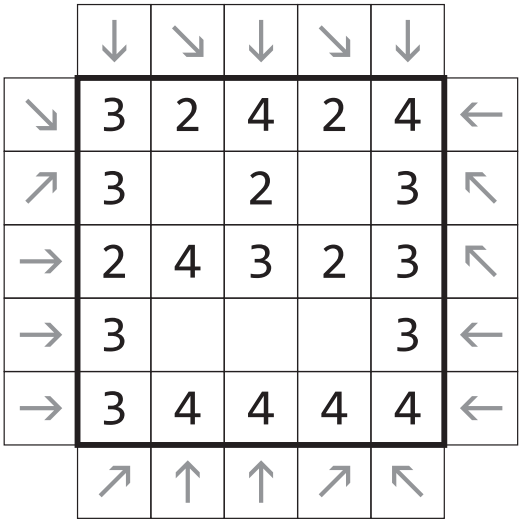
Arrows – 1 (3 points)



Arrows – 2 (3 points)

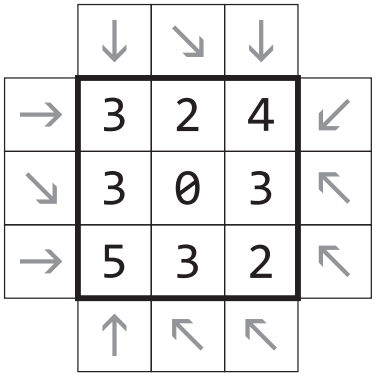


Arrows – 3 (5 points)



3 in the center gives good starting point

Arrows – 4 (6 points)



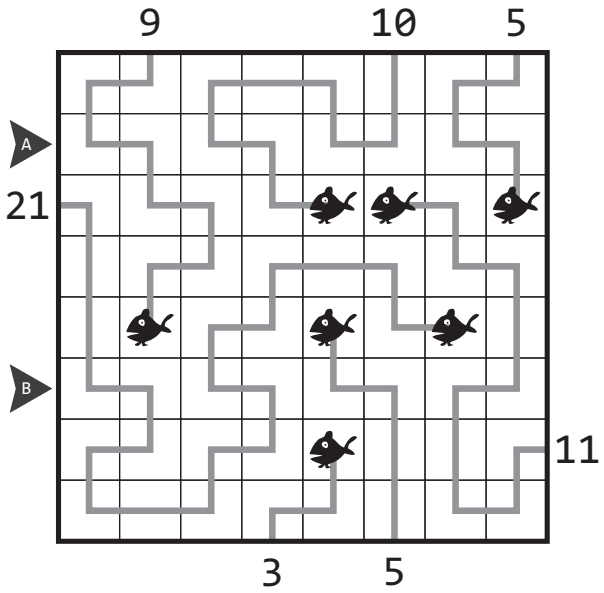
Interaction of two large numbers in the corners (4 and 5) along with the smaller numbers int he remaining two corners (2 and 3)

Anglers 2 + 2 + 2 + 5 points

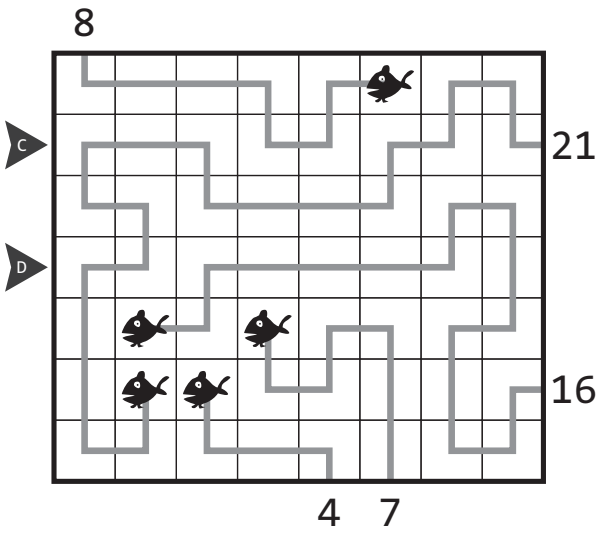
- The grid represents a lake and the numbers on the periphery represent anglers (fishermen).
- The fishes shown in the lake are such that every angler gets exactly one fish.
- The numbers indicate the length of the fishlines which are composed of horizontal and vertical line segments.
- Draw the fishlines starting from grid border such that no two of them cross or overlap each other.

Answer key: Enter the number of turns in marked rows/columns.

Anglers – 1 (2 points)

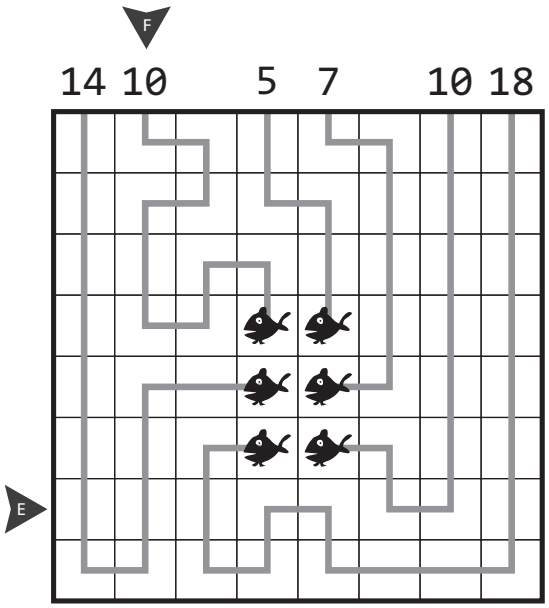


Anglers – 2 (2 points)

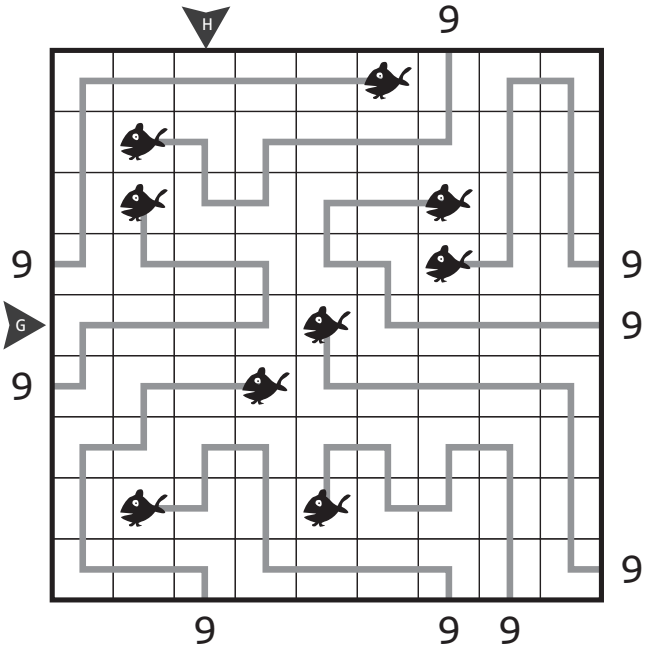


Parity - Only one angler can reach the fish on bottom left as it has different parity compared to all other fish

Anglers – 3 (2 points)



Anglers – 4 (5 points)

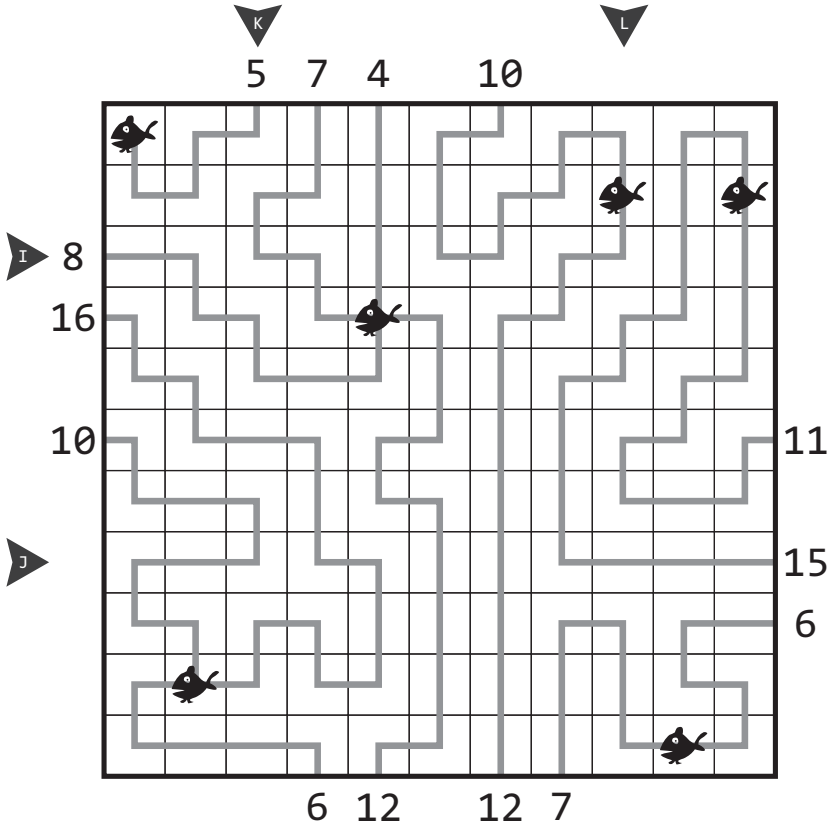


Reach ability of top left fish to an angler

Multi-Anglers 6 points

- Apply rules of Anglers.
- However, multiple anglers can get the same fish.
- Each fish is captured by at least one angler

Answer key: Enter the number of turns in marked rows/columns.



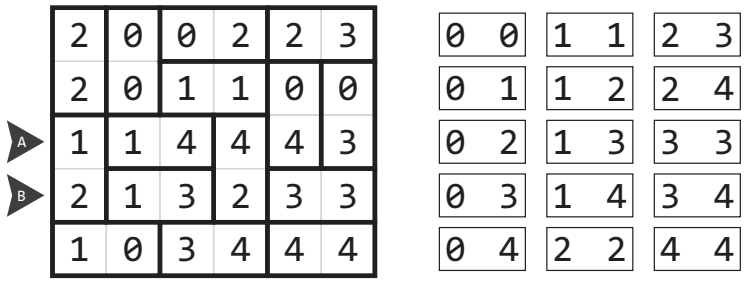
Count of total number of anglers and how many anglers can reach each fish.

Dominos 3 + 3 + 8 points

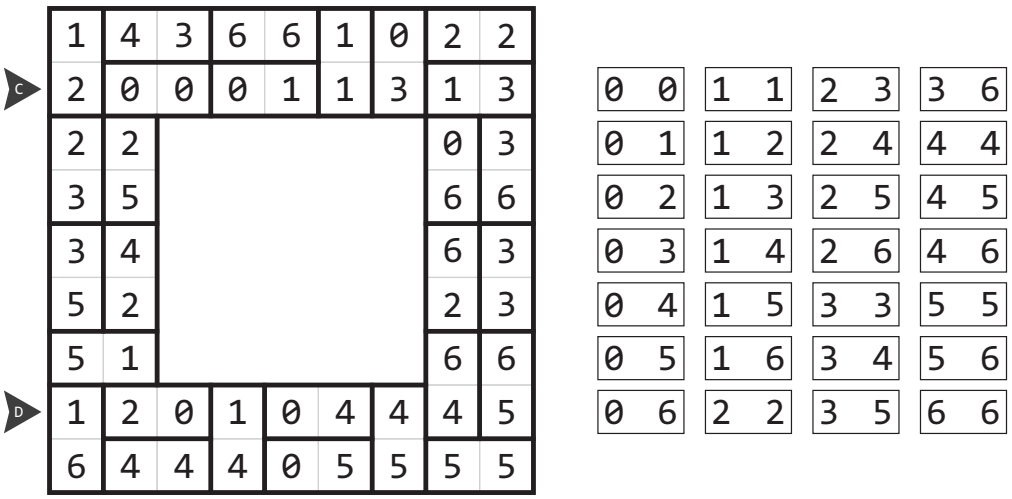
- The grid contains a set of dominos, using all combinations of zero through N.
- The layout is shown with domino edges removed.
- Reconstruct the missing edges.

Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)

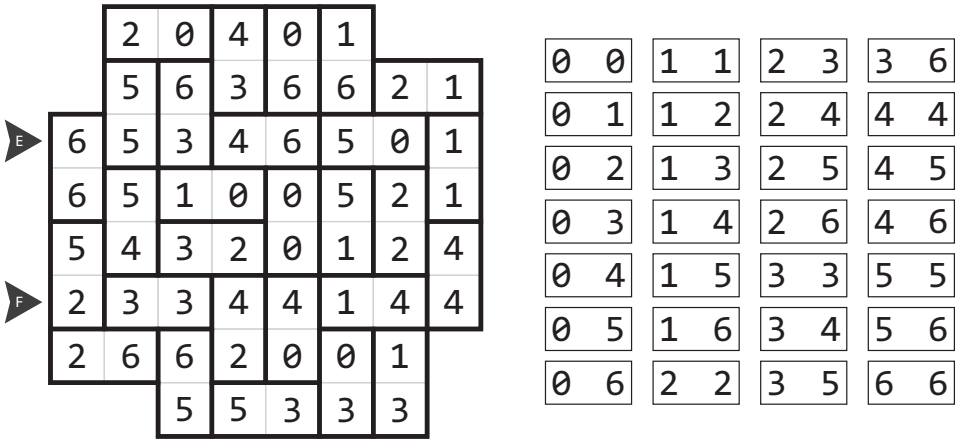
Dominos – 1 (3 points)



Dominos – 1 (3 points)



Dominos – 3 (8 points)



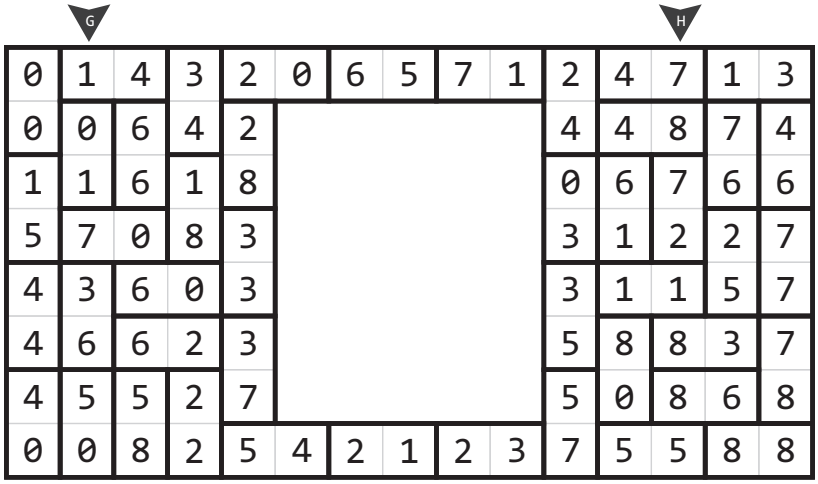
puzzle ramayan

Dominos 6 points

- The grid contains a set of dominos, using all combinations of zero through N.
- The layout is shown with domino edges removed.
- Reconstruct the missing edges.

Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)

Dominos – 4 (6 points)

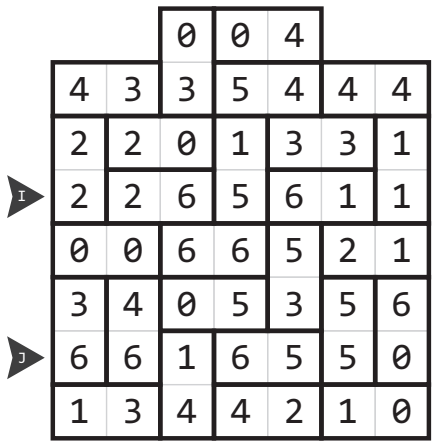


0 0	1 2	2 5	4 4	6 7
0 1	1 3	2 6	4 5	6 8
0 2	1 4	2 7	4 6	7 7
0 3	1 5	2 8	4 7	7 8
0 4	1 6	3 3	4 8	8 8
0 5	1 7	3 4	5 5	
0 6	1 8	3 5	5 6	
0 7	2 2	3 6	5 7	
0 8	2 3	3 7	5 8	
1 1	2 4	3 8	6 6	

Missing Dominos 5 points

- Apply rules of Dominos.
- A few dominos from the set will be missing in the grid. It is part of the solving process to identify the missing dominos and recreate the rest within the grid.

Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)



0 0	1 1	2 3	3 6
0 1	1 2	2 4	4 4
0 2	1 3	2 5	4 5
0 3	1 4	2 6	4 6
0 4	1 5	3 3	5 5
0 5	1 6	3 4	5 6
0 6	2 2	3 5	6 6

End of Test

puzzle ramayan

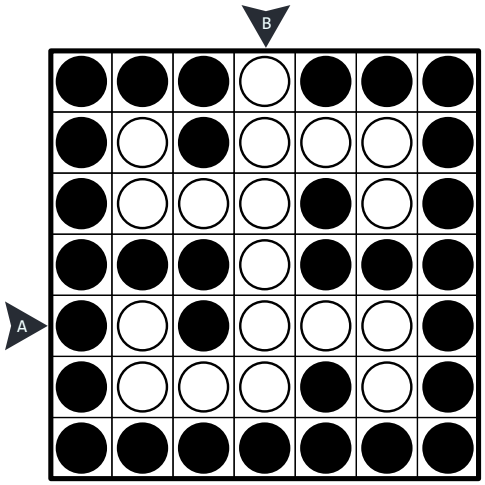
Yin Yang

1 + 2 + 4 + 7 points

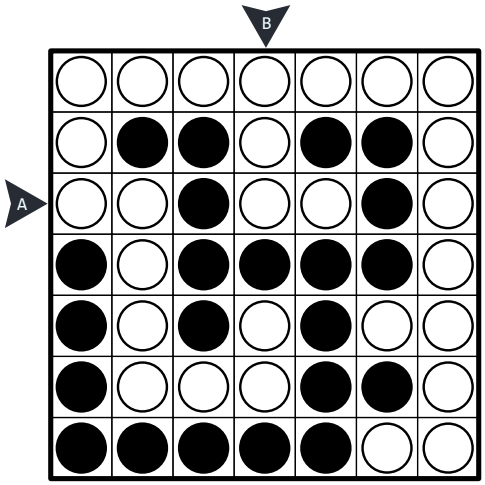
- Divide the grid into two regions of black and white by placing either a black or a white circle in each empty cell.
- All circles of same color are connected to each other, vertically or horizontally.
- No 2X2 group of cells can contain circles of a single color.

Answer Key: For each marked row/column, enter the length of continuous white and black circle blocks - from left to right / top to bottom.

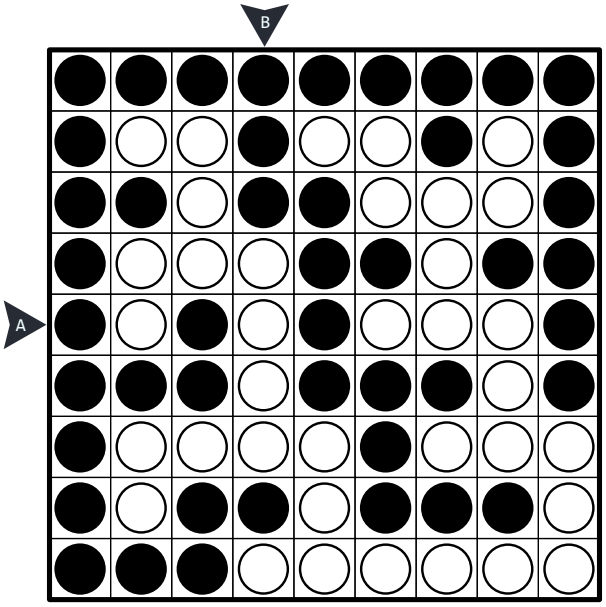
Yin Yang - 1 (1 point)



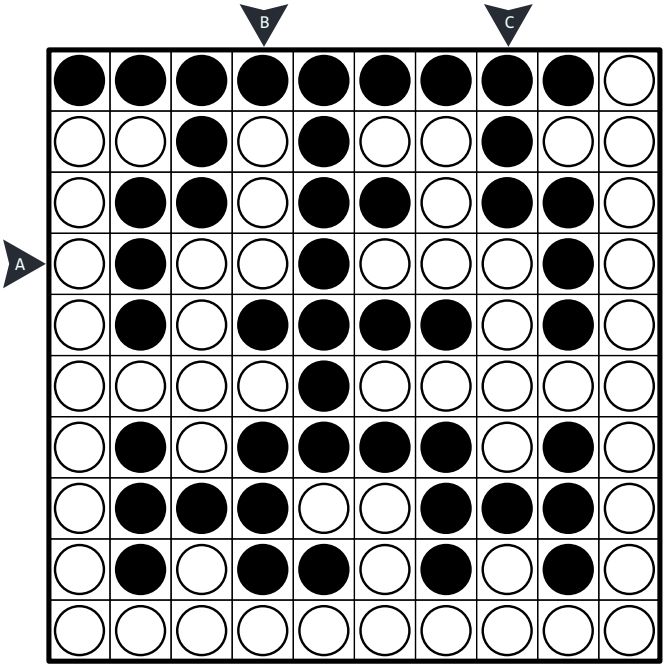
Yin Yang - 2 (2 points)



Yin Yang - 3 (4 points)



Yin Yang - 4 (7 points)

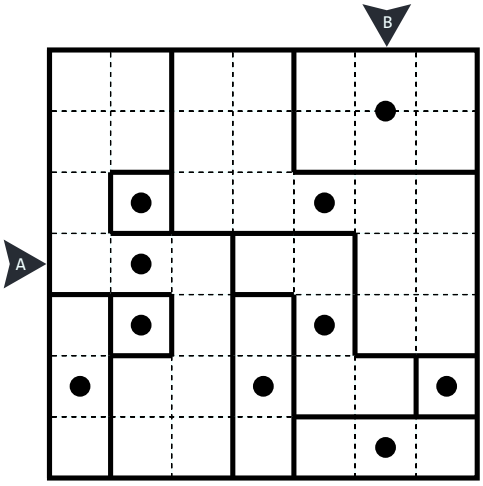


Spiral Galaxies 2 + 4 + 6 + 10 points

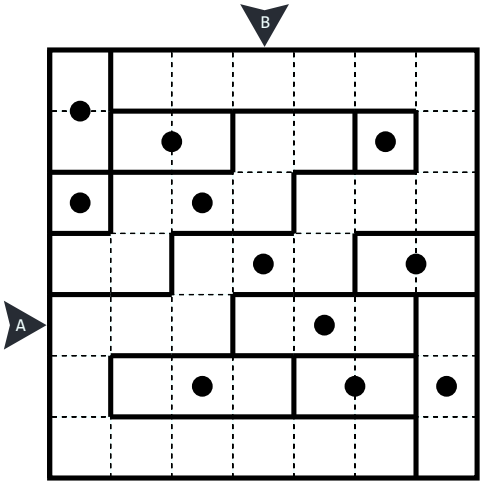
- Divide the grid into 180 degree symmetrical regions along the gridlines, so that each cell is part of only one region.
- Each region must contain exactly one circle, which represents the central symmetry point of the region. All circles are given.
- All cells must be part of a region.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

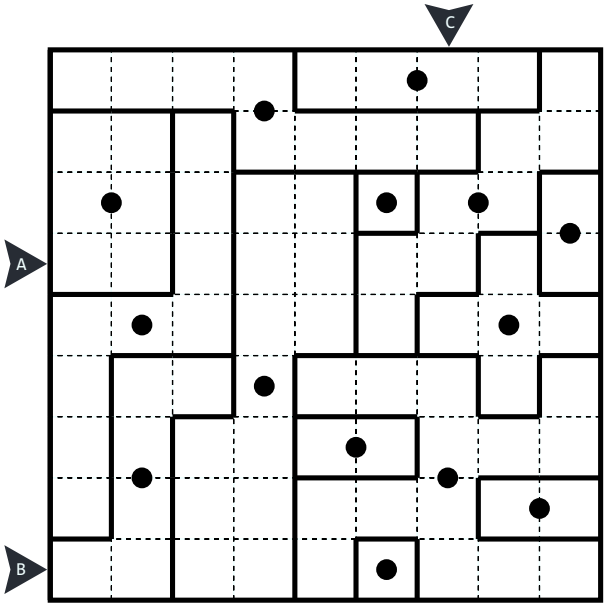
Spiral Galaxies - 1 (2 points)



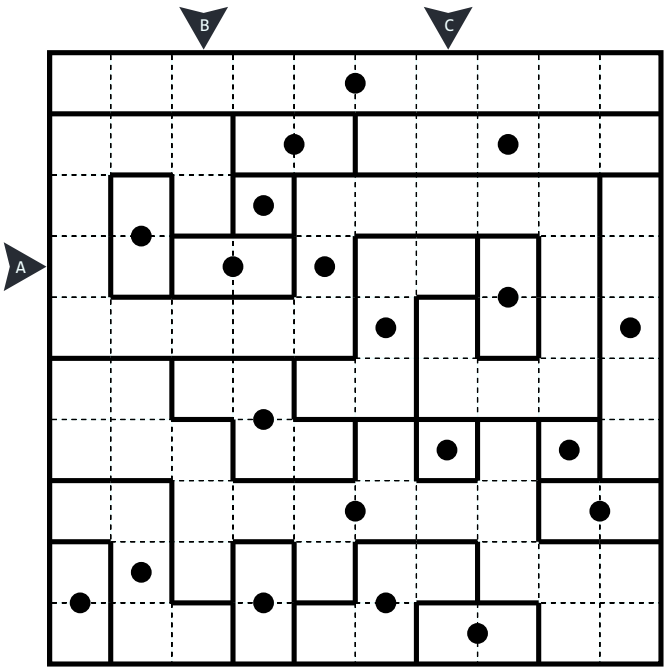
Spiral Galaxies – 2 (4 points)



Spiral Galaxies - 3 (6 points)



Spiral Galaxies - 4 (10 points)



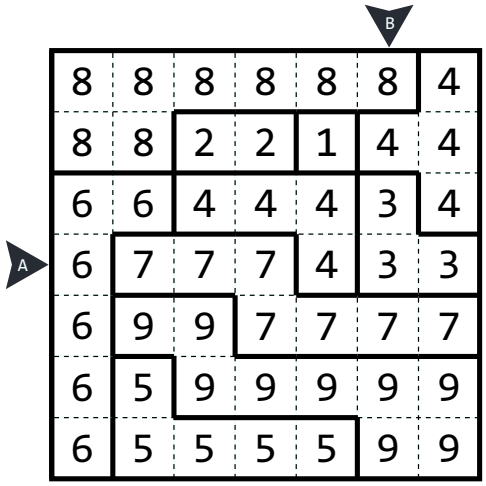
Fillomino

2 + 2 + 5 + 5 points

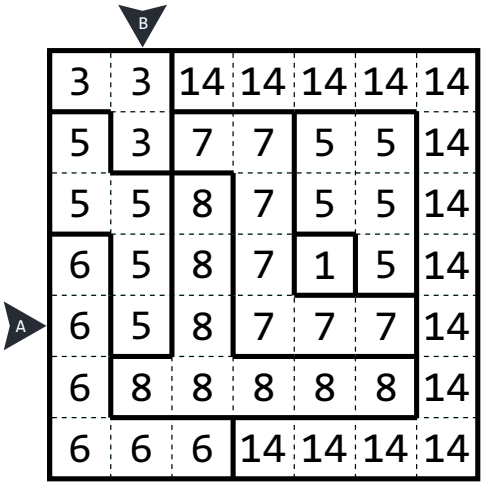
- Divide the grid into different regions along the gridlines.
- No two regions of the same size (number of cells in the region) can touch each other by a side.
- Numbers in the grid indicate that the cell is part of a region of that size (number of cells in the region).
- A region can contain more than one given number.
- There can be regions without any given numbers also.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

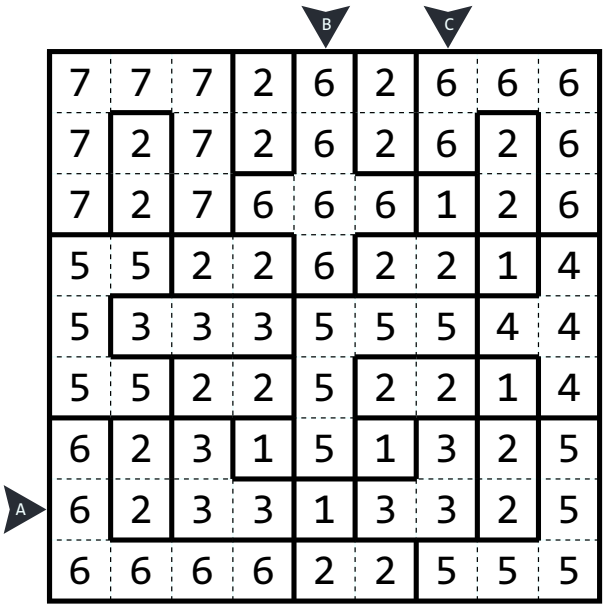
Fillomino - 1 (2 points)



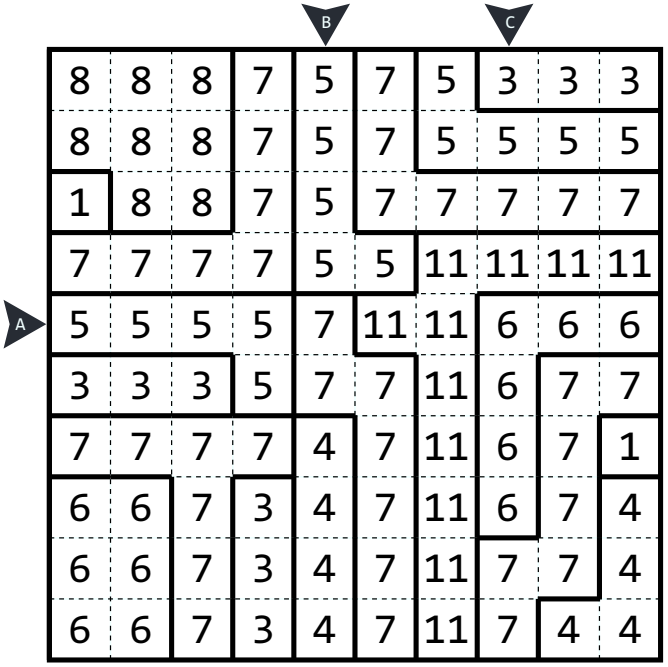
Fillomino - 2 (2 points)



Fillomino - 3 (5 points)



Fillomino - 4 (5 points)



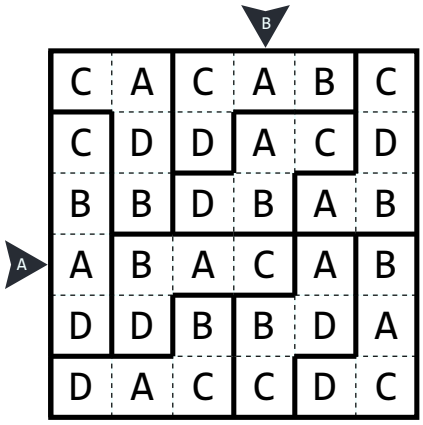
Area Division

1 + 1 + 4 + 8 points

- Divide the grid into several regions along the gridlines.
- Each region has ALL the letters of the given range exactly once.
- Each letter must be part of exactly one region.

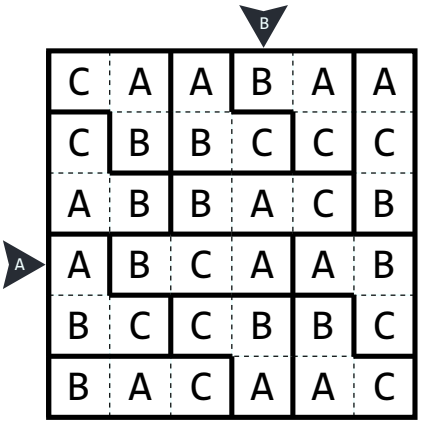
Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

Area Division - 1 (1 point)



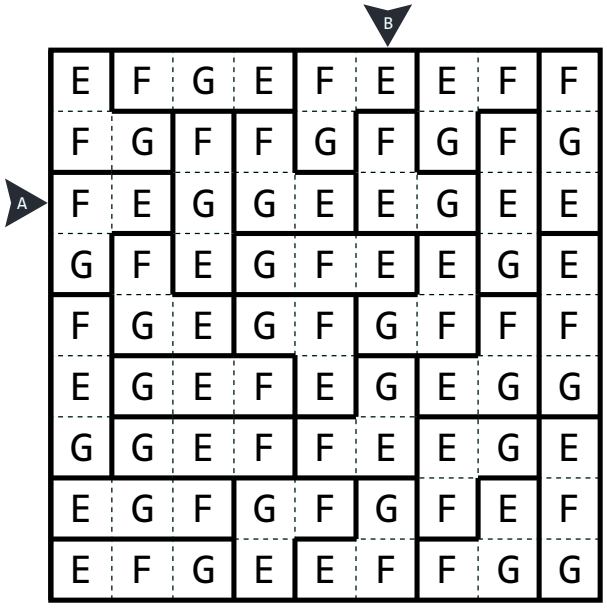
(Range: ABCD)

Area Division - 2 (1 point)



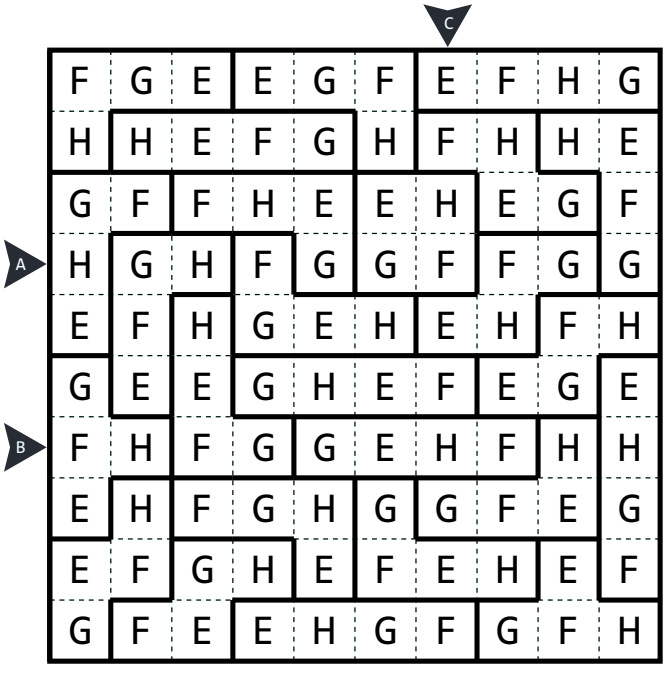
(Range: ABC)

Area Division – 3 (4 points)



(Range: EFG)

Area Division – 4 (8 points)



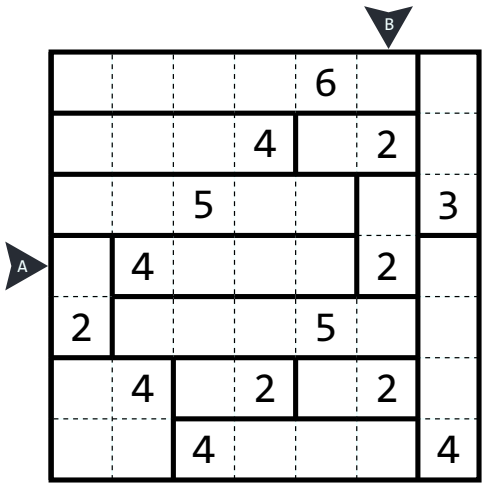
(Range: EFGH)

Shikaku 1 + 1 + 3 + 10 points

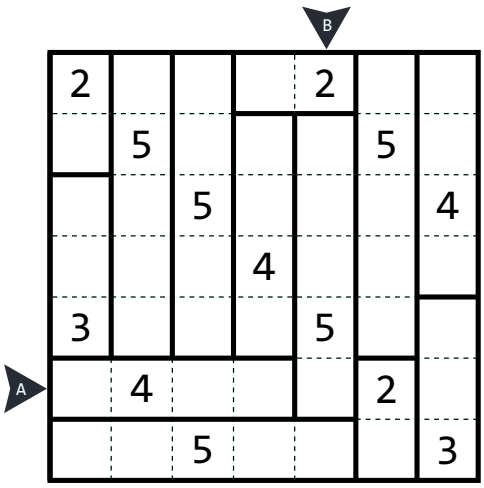
- Divide the grid into a number of non-overlapping rectangles, including squares, along the grid lines.
- Numbers in the grid indicate the size (number of cells) of the rectangle they are in.
- Each rectangle must contain exactly one given number.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

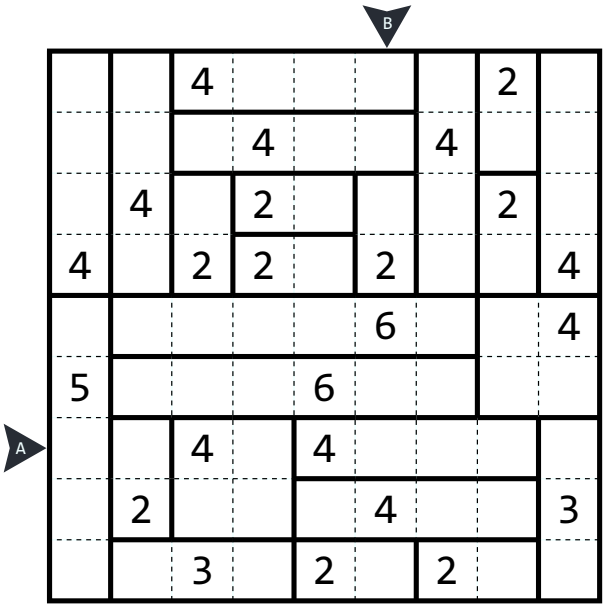
Shikaku - 1 (1 point)



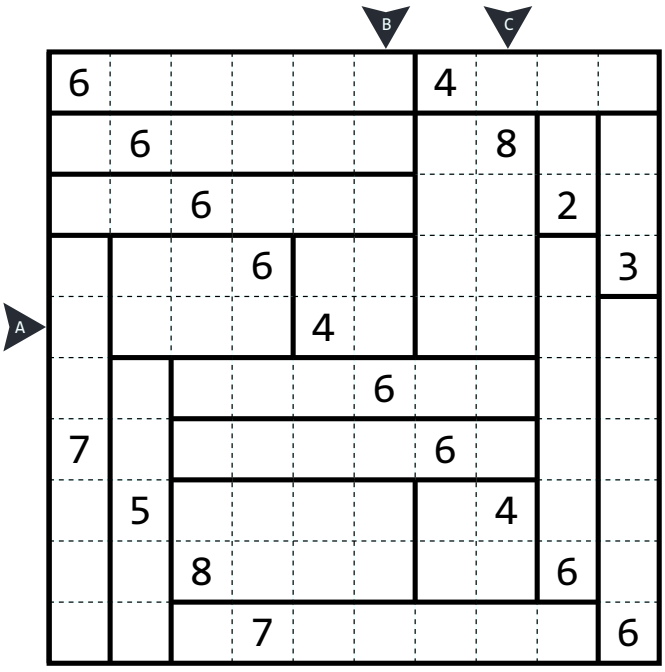
Shikaku - 2 (1 point)



Shikaku - 3 (3 points)



Shikaku - 4 (10 points)

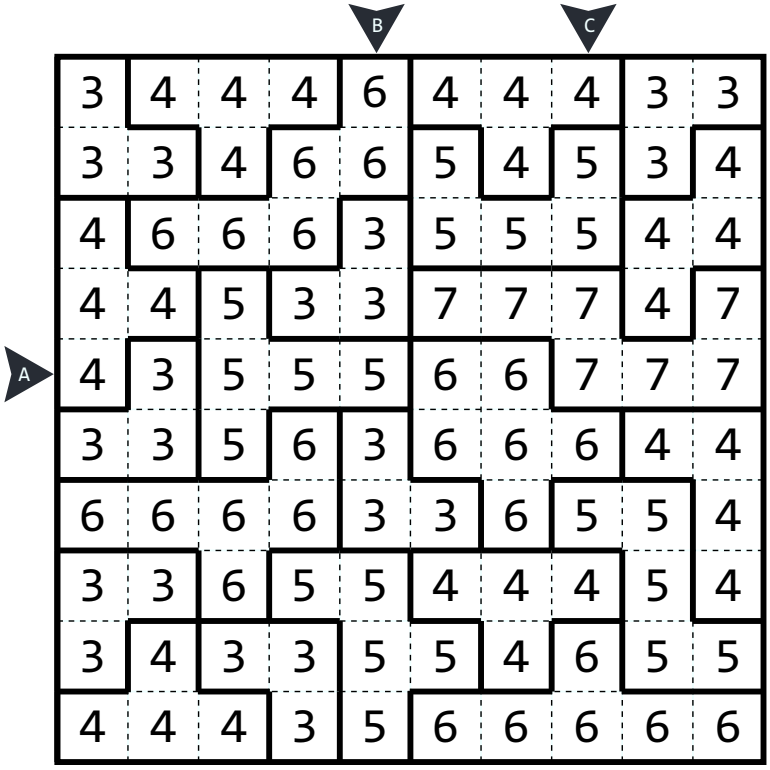


No-Rectangles Fillomino 7 points

- Apply rules of Fillomino.
- However, none of the regions can form a rectangle.

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom.

No-Rectangles Fillomino (7 points)

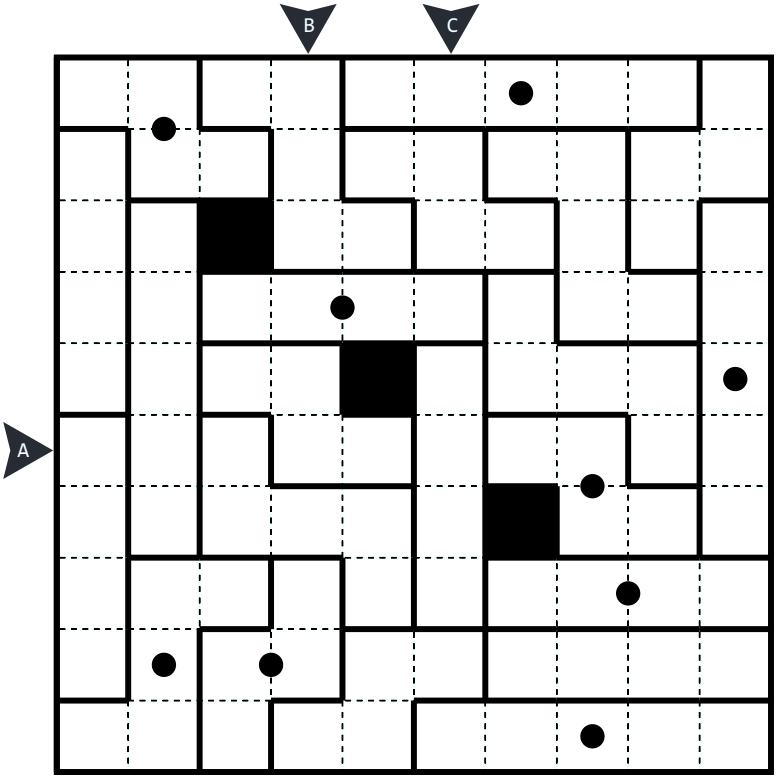


Spiral Galaxies 4/5 14 points

- Divide the grid into several regions along the gridlines such that each region has exactly 4 or 5 cells.
- Each region must be 180 degree symmetrical.
- If a region contains a black circle, then it is the point of symmetry.
- Regions may not be 2x2 squares.

Answer Key: For each marked row/column, write the number of cells that belong to different regions from left to right / top to bottom. ***Ignore the black cells for the answer key.***

Spiral Galaxies 4/5 (14 points)

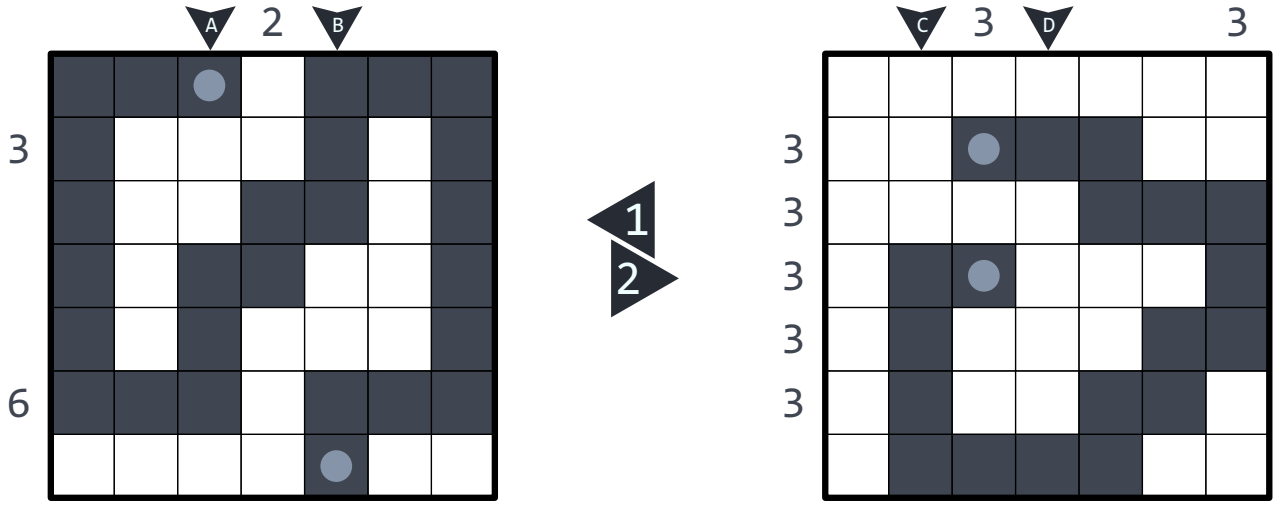


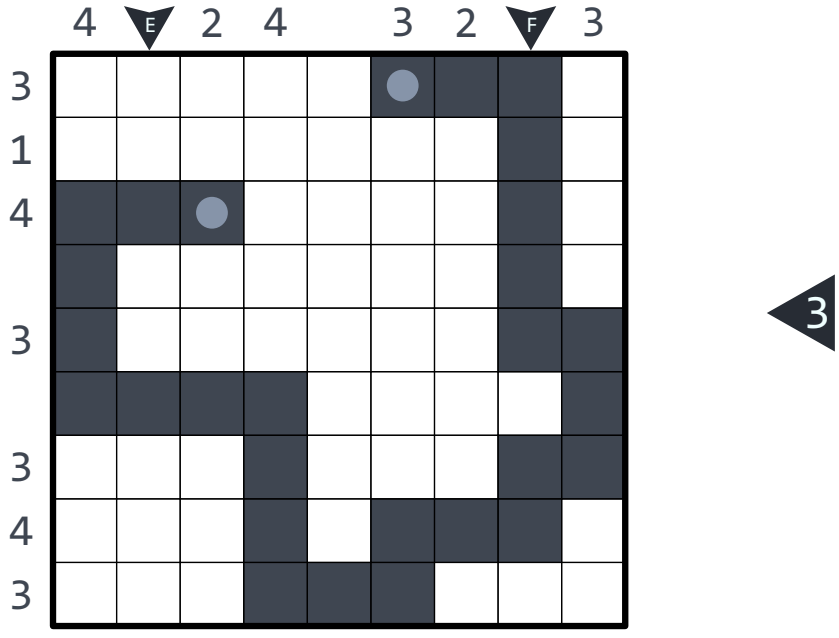
End of Test

Snake 1 + 2 + 3 points

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers outside the grid indicate the number of snake cells in that row/column.

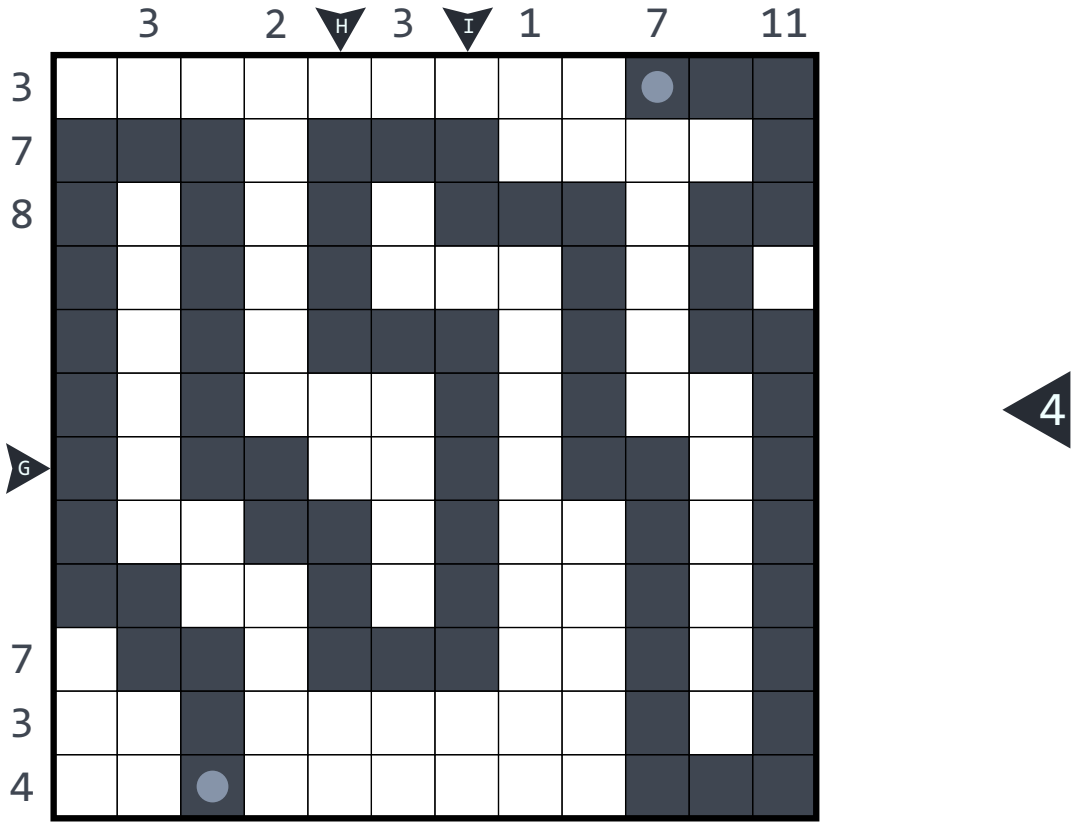
Answer key:





Snake 7 points

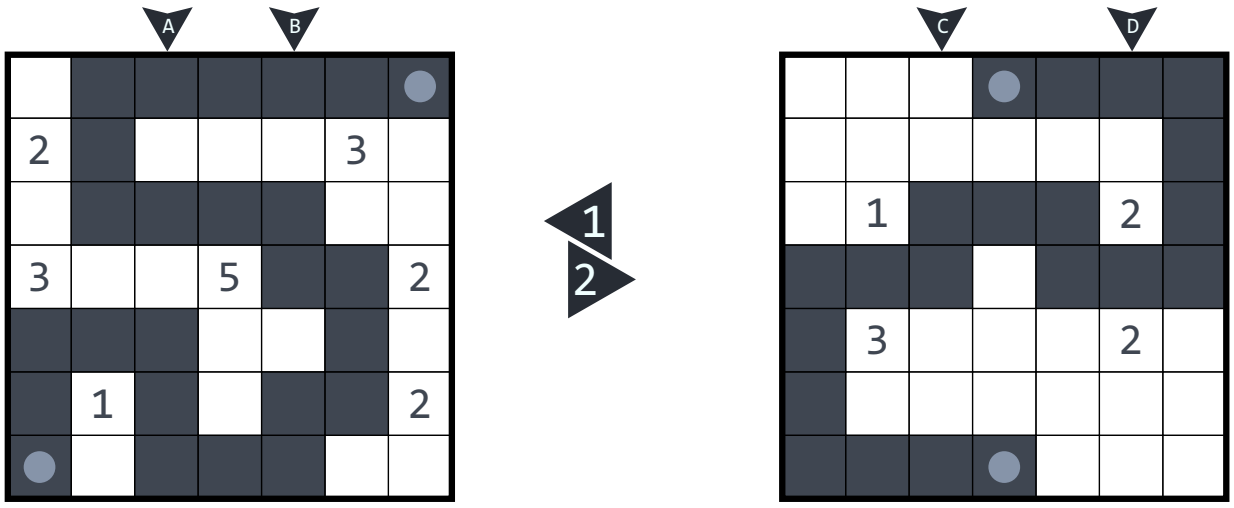
Refer to previous page for rules.



Horse Snake 2 + 5 points

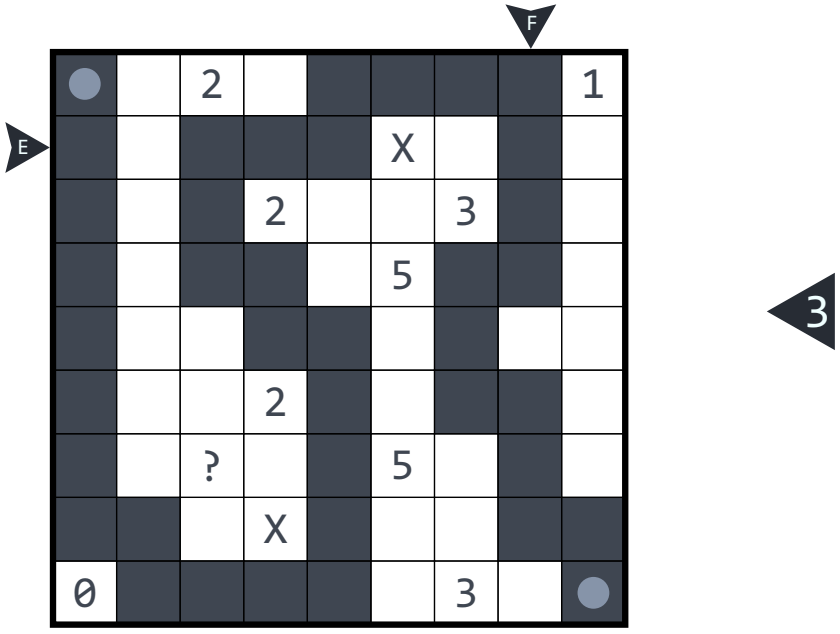
- Apply Standard Snake rules.
- The numbers inside the grid indicate the number of snake parts in the knight step from the clue indicated.
- The clue "?" can be replaced by a number greater than zero.
- The cells with cross cannot be a part of the snake

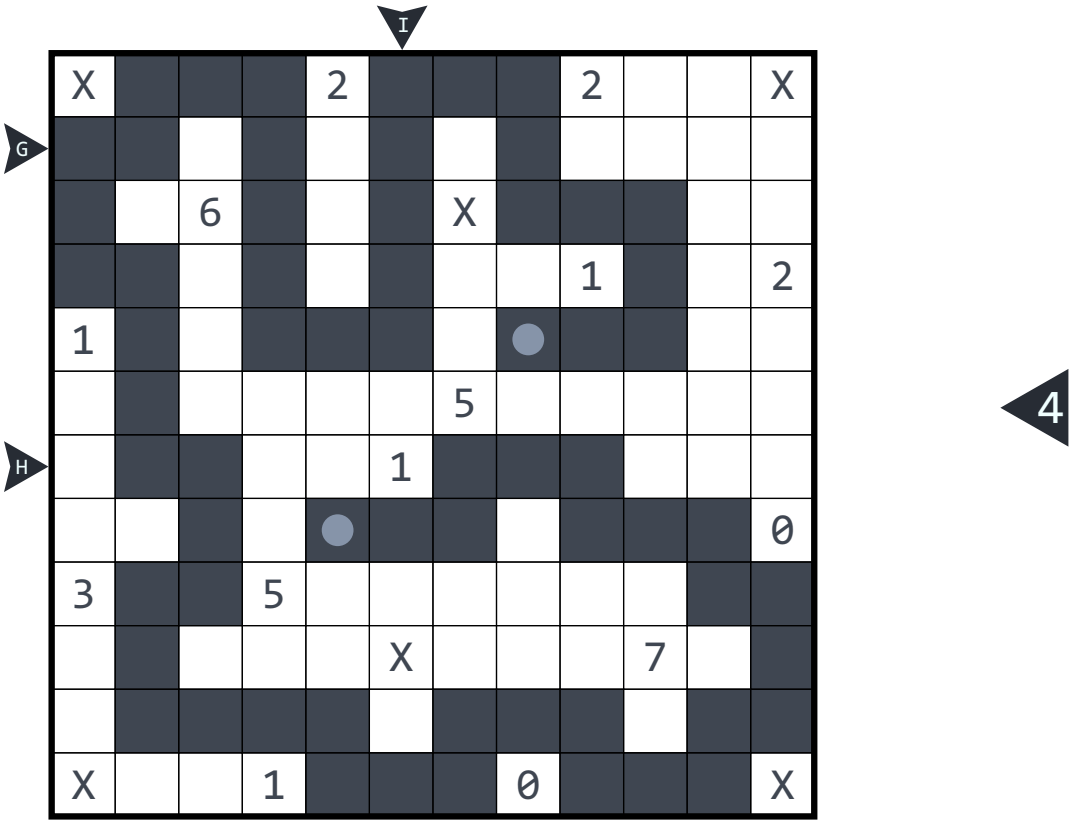
Answer key:



Horse Snake 6 + 10 points

Refer to previous page for rules.

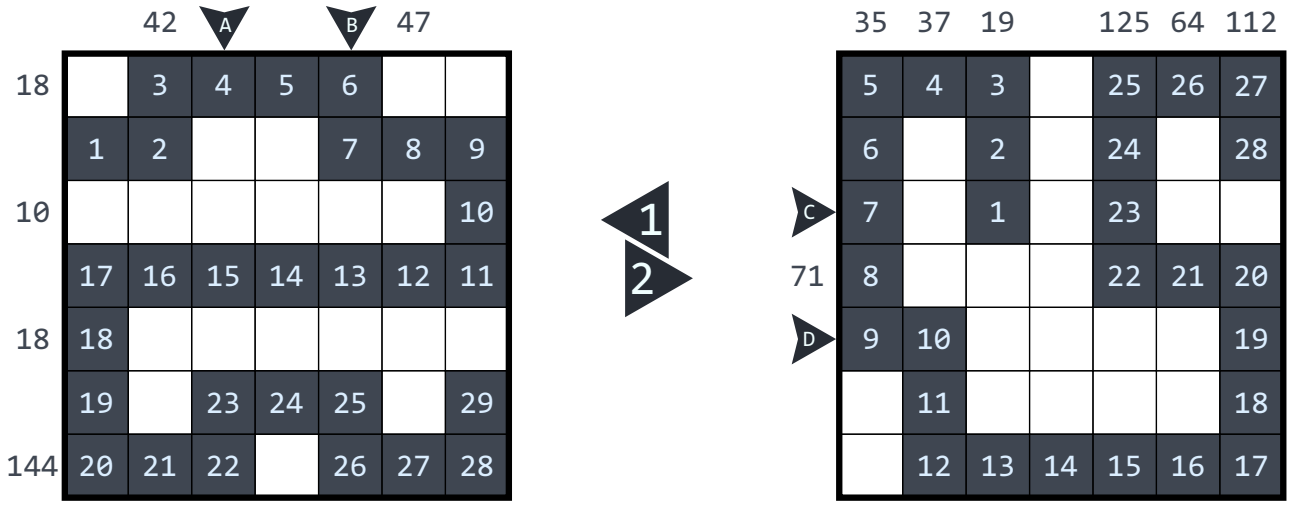


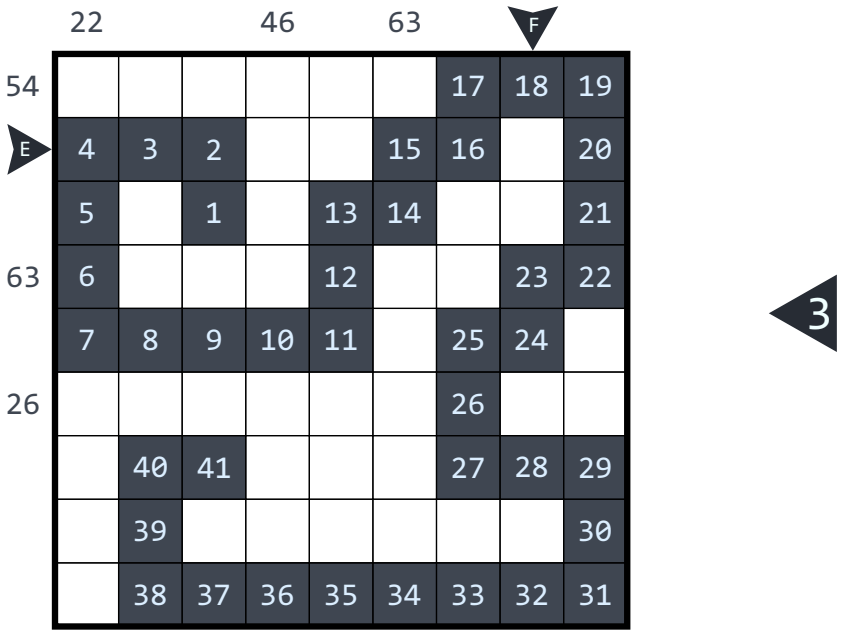


Summed Snake 3 + 4 + 6 points

- Locate a snake (a 1 cell-wide single continuous path) in the grid whose head and tail are given.
- The snake does not touch itself, even diagonally.
- Numbers starting 1 are put along the path of the snake.
- Numbers outside the grid indicate the sum of all the snake parts in particular row and column.

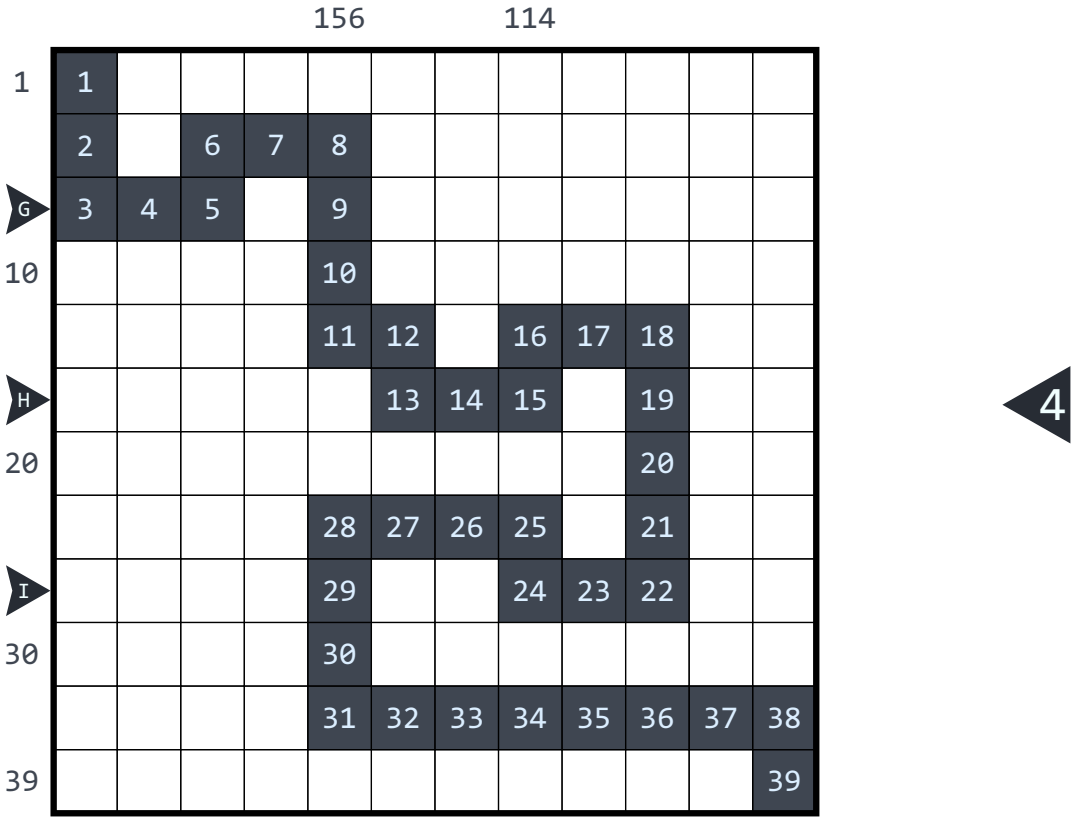
Answer key:





Summed Snake — 5 points

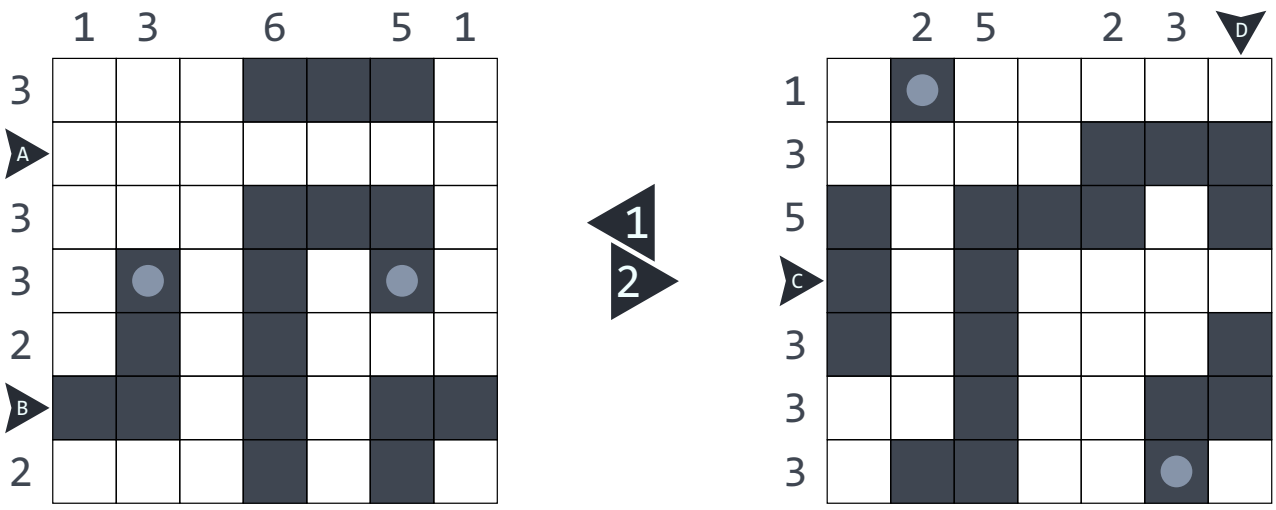
Refer to previous page for rules.



Toroidal Snake — 4 + 3 points

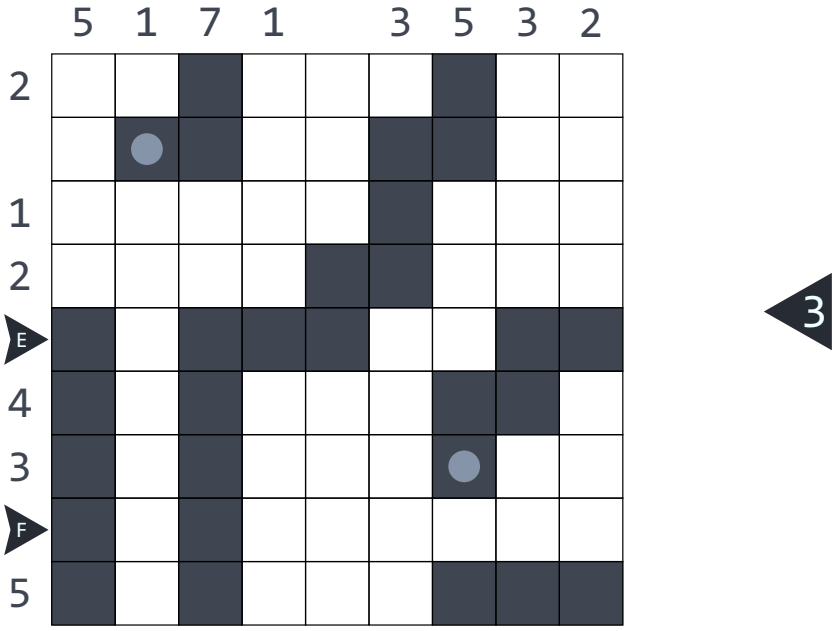
- Apply Standard Snake rules.
- Additionally, the grid wraps around itself. So the snake can go from one edge to another.

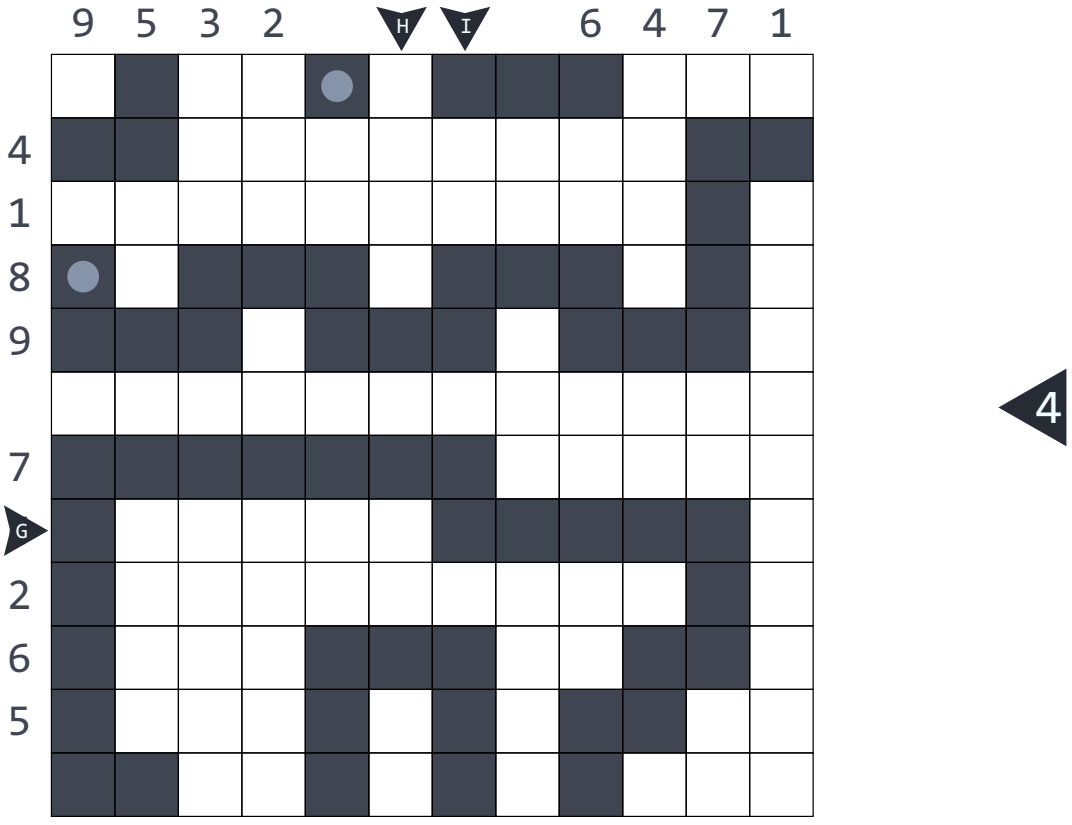
Answer key:



Toroidal Snake 6 + 10 points

Refer to previous page for rules.

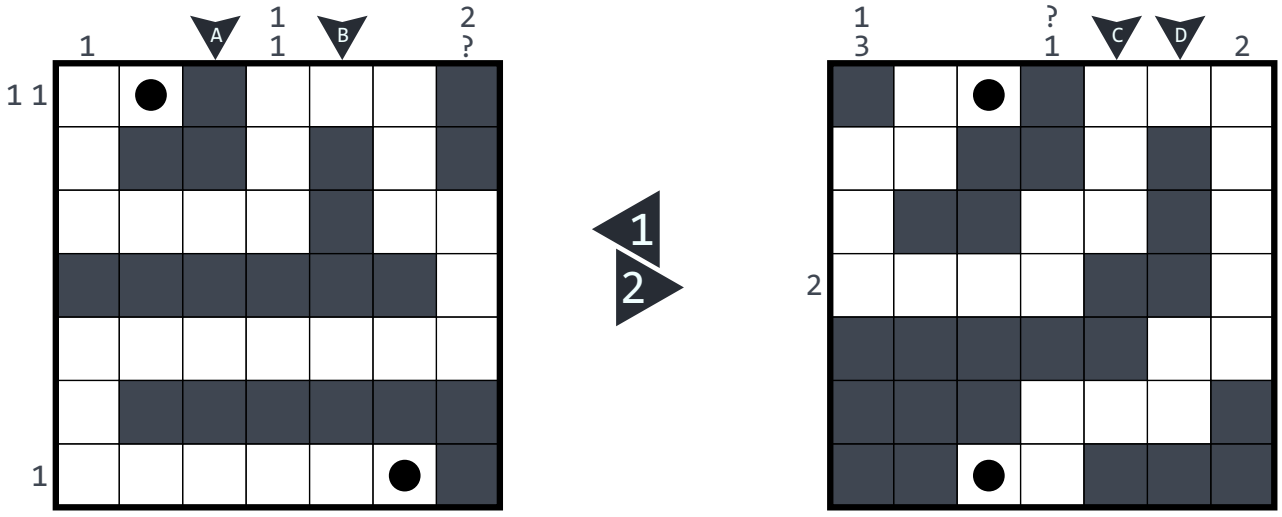


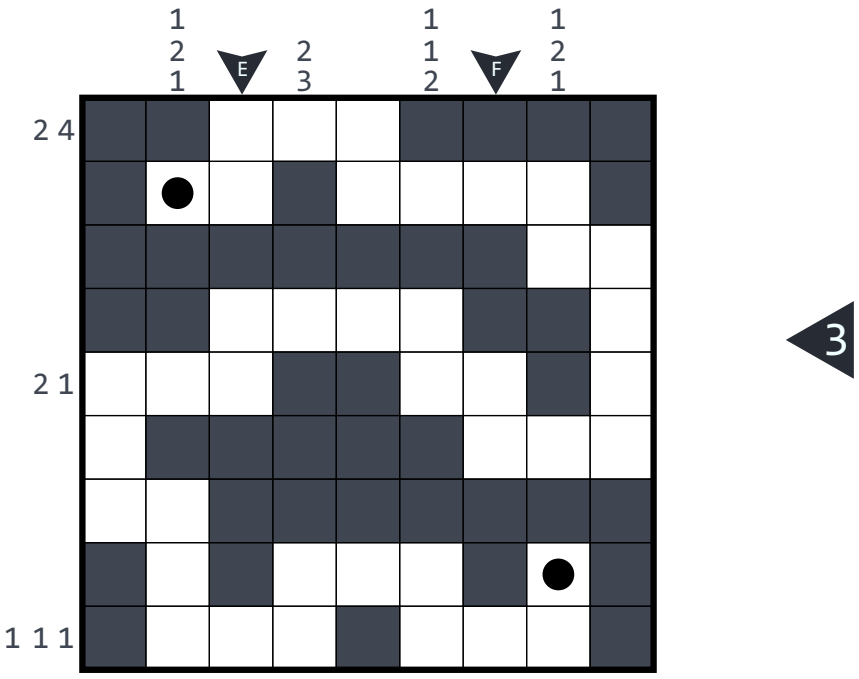


Graffiti Snake 2 + 1 + 2 points

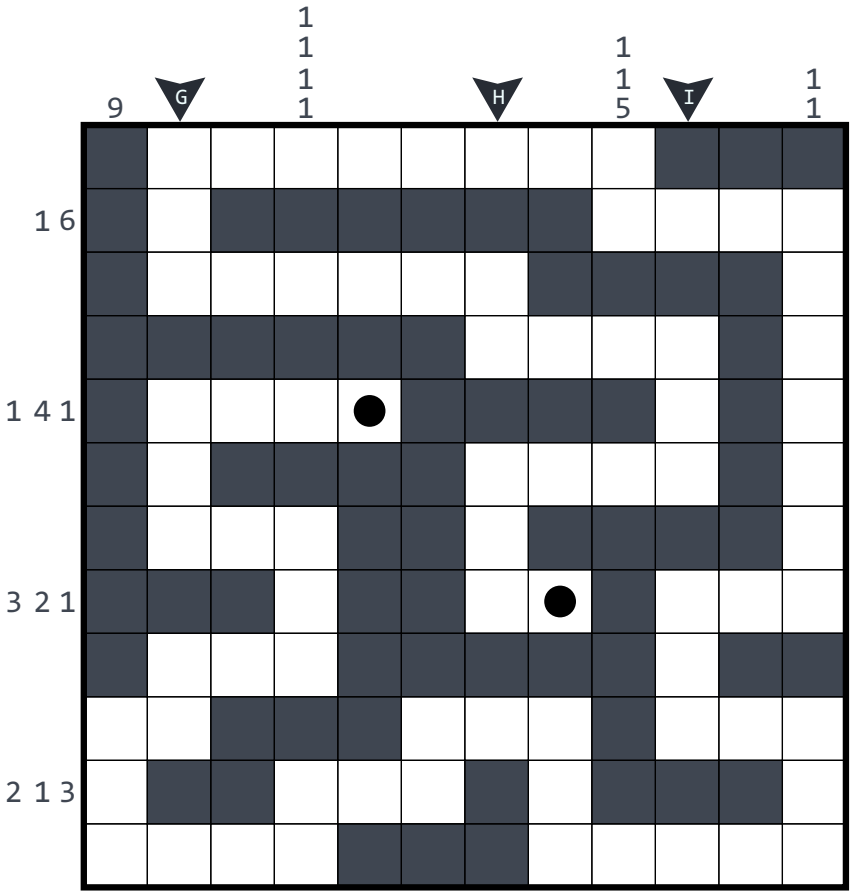
- Paint some cells black to create walls.
- Numbers outside the grid indicate the lengths of blackened cell blocks in the corresponding directions, in order.
- If there is more than one blackened block in a row or column, there must be at least one white cell between the blocks.
- After all black cells 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.
- The clue "?" can be replaced by a number greater than zero.

Answer key:





Graffiti Snake 6 points

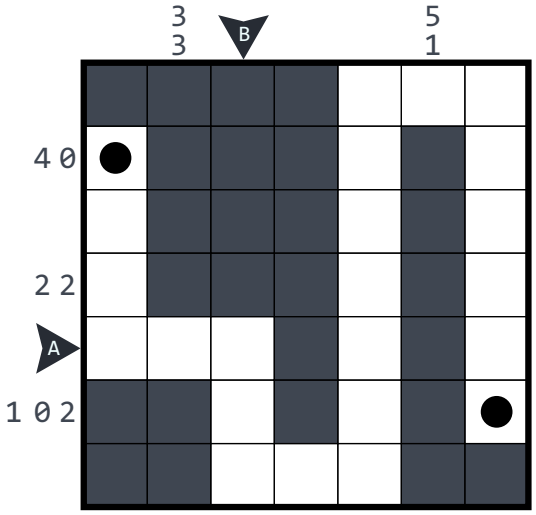


4

False Graffiti 3 points

- Apply Graffiti Snake rules, except that all clues outside the grid are false.
- They are either 1 less or 1 more than the actual clues
- Note that 1 can become 0 too.

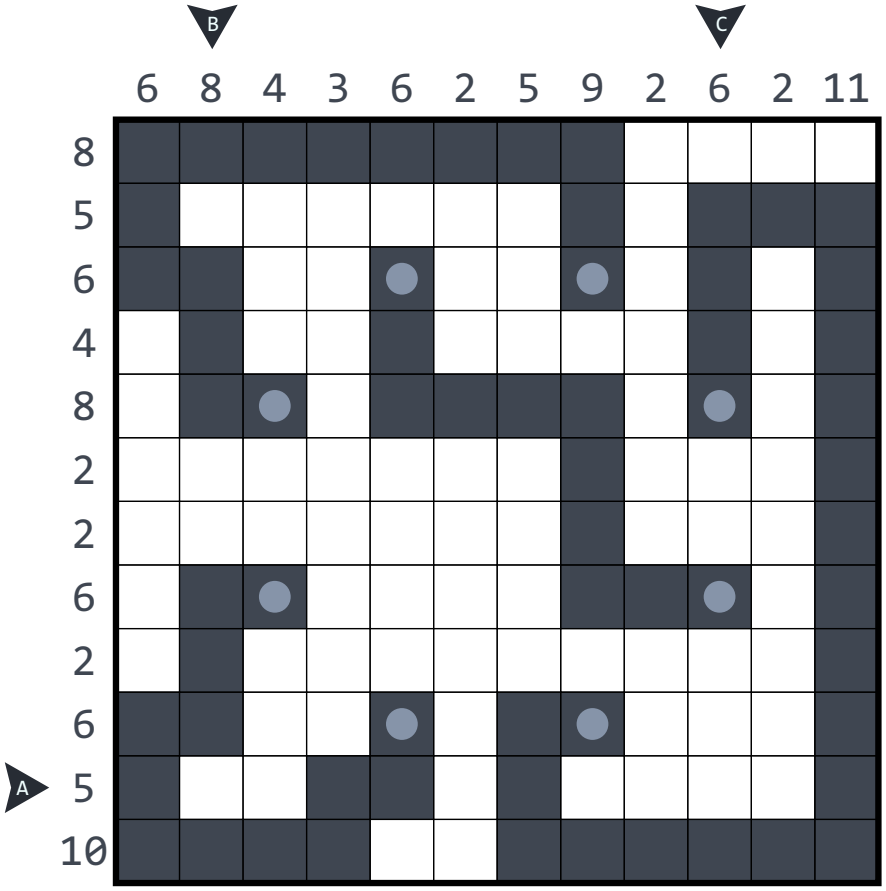
Answer key:



Multiple Snakes 9 points

- Apply standard Snake rules; however multiple snakes are there in the grid.
- Head and tail of all snakes are given.
- Different snakes cannot touch each other, even diagonally.

Answer key:

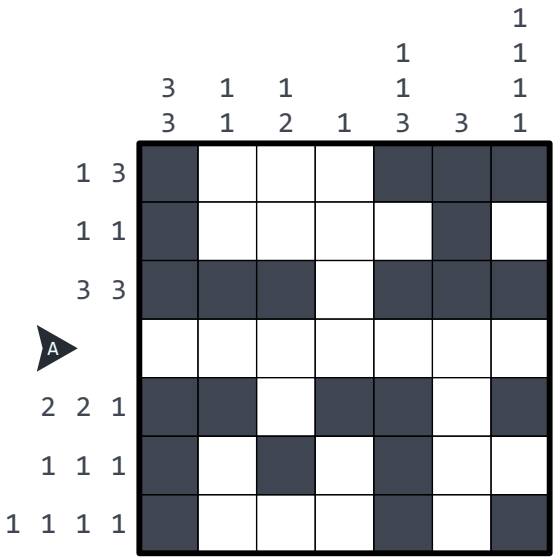


End of Test

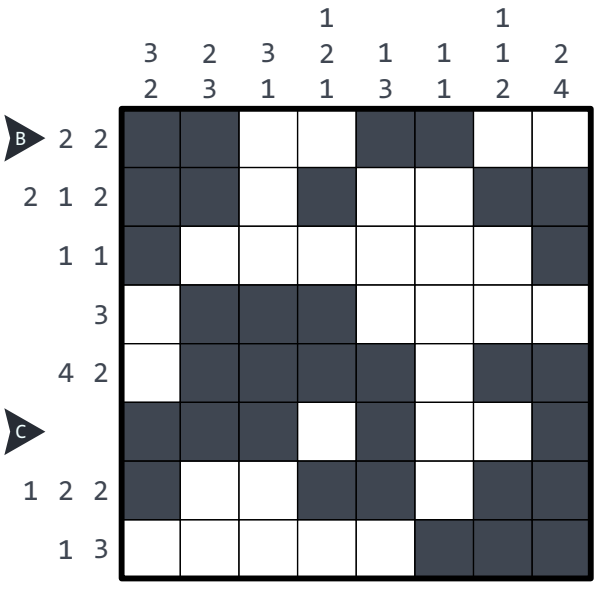
Paint By Number 1 + 2 points

- Shade some of the cells to find out the hidden figure.
- The numbers outside the grid indicate the sizes of consecutive shaded blocks in that row/column.
- Numbers are given in the order the blocks appear, first number describes the closest block.
- There must be at least one white cell between any consecutive shaded blocks.

Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.



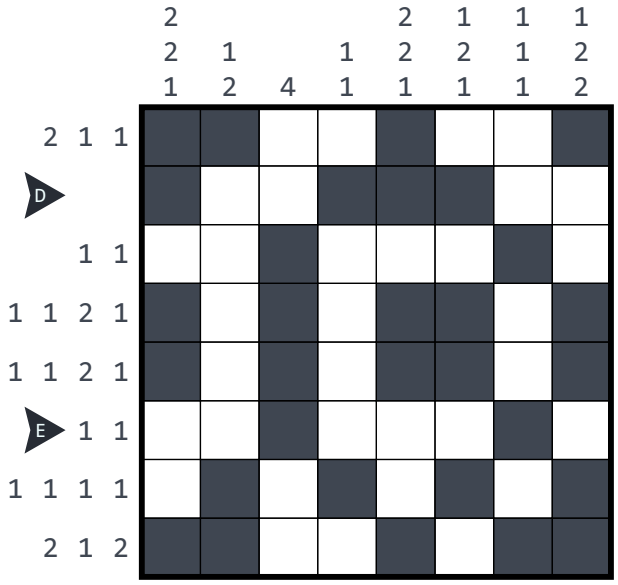
1



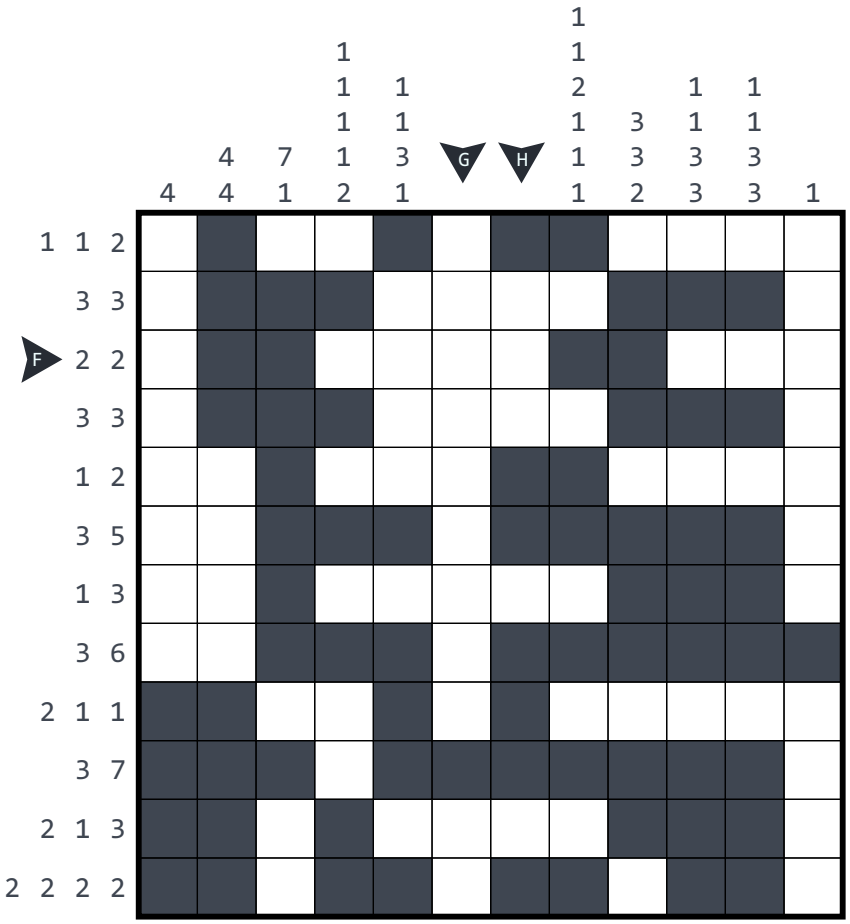
2

Paint By Number 2 + 6 points

Refer to previous page for rules and answer keys.



3

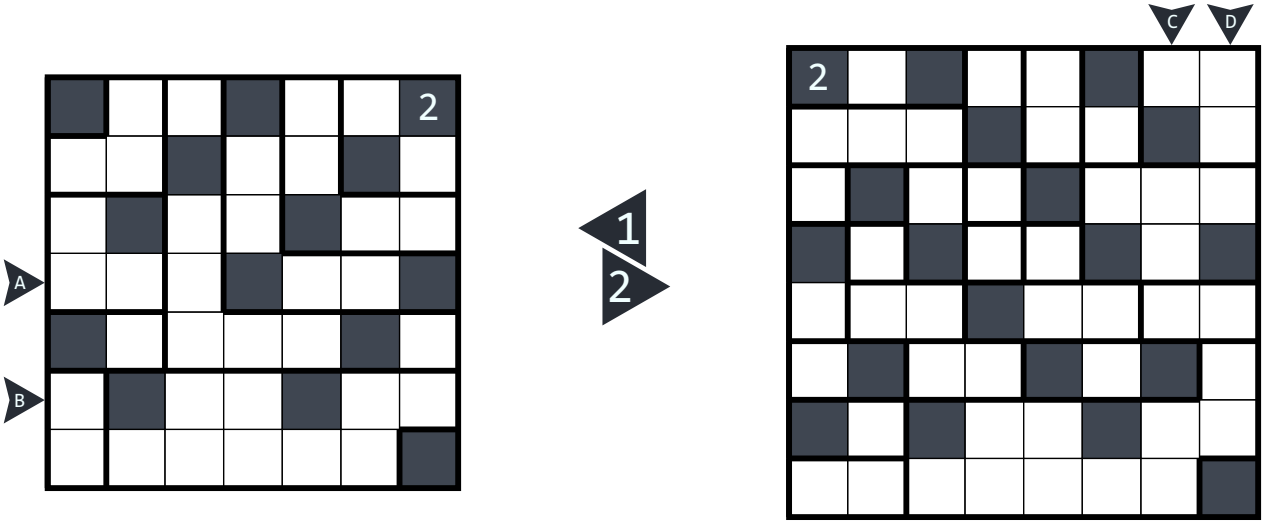


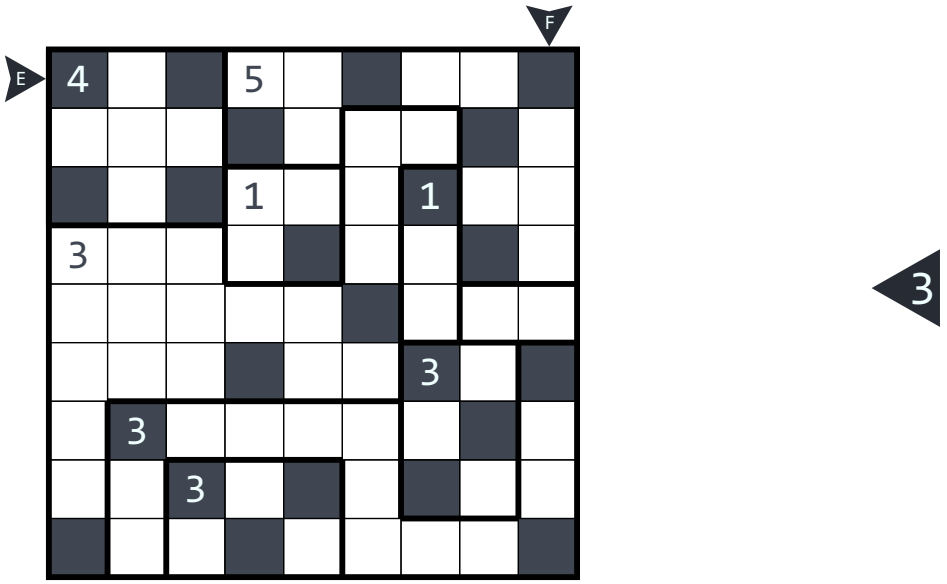
4

Heyawacky 2 + 3 + 4 points

- Shade some of the cells so that the numbers in region indicates the number of shaded cells in that region.
- Shaded cells cannot be orthogonally adjacent.
- The remaining white area must be connected to each other, horizontally or vertically.
- The white area cannot span across 2 consecutive borders (thick lines).

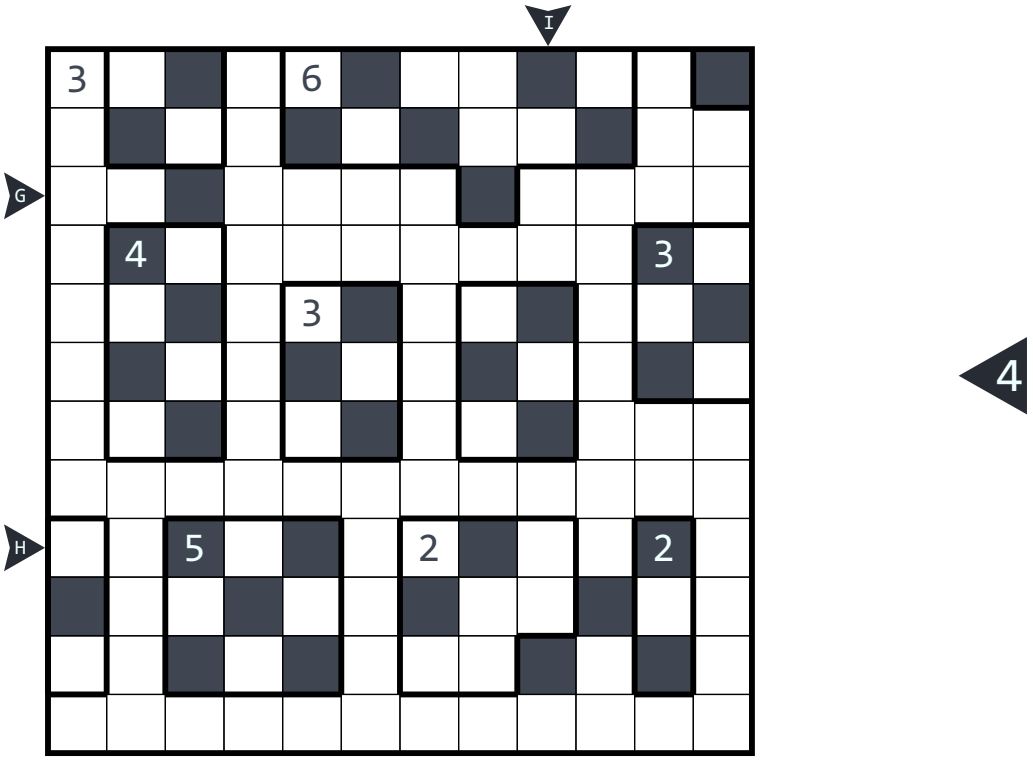
Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.





Heyawacky 10 points

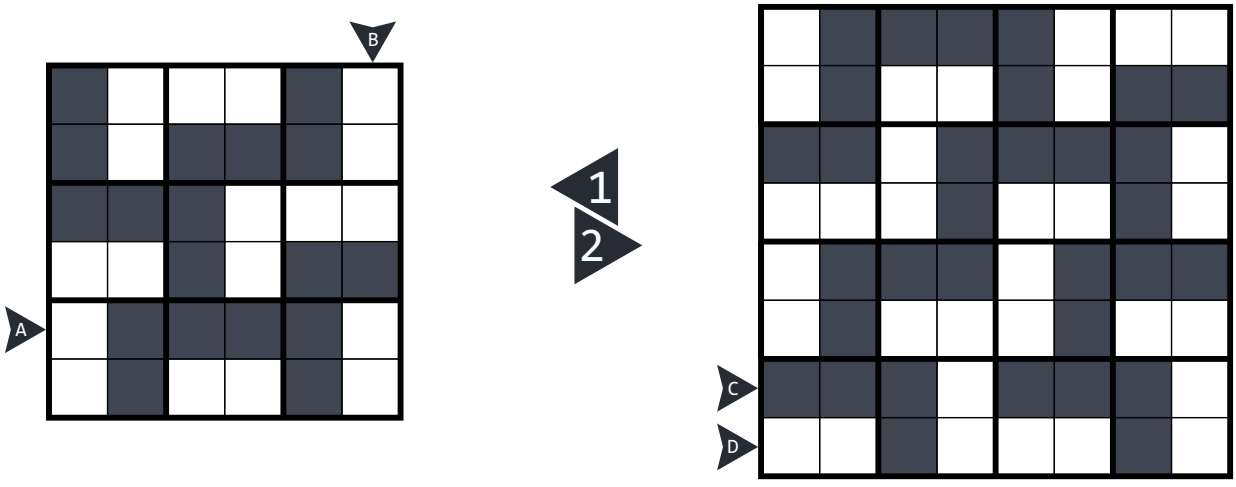
Refer to previous page for rules and answer keys.



Windows 1 + 2 points

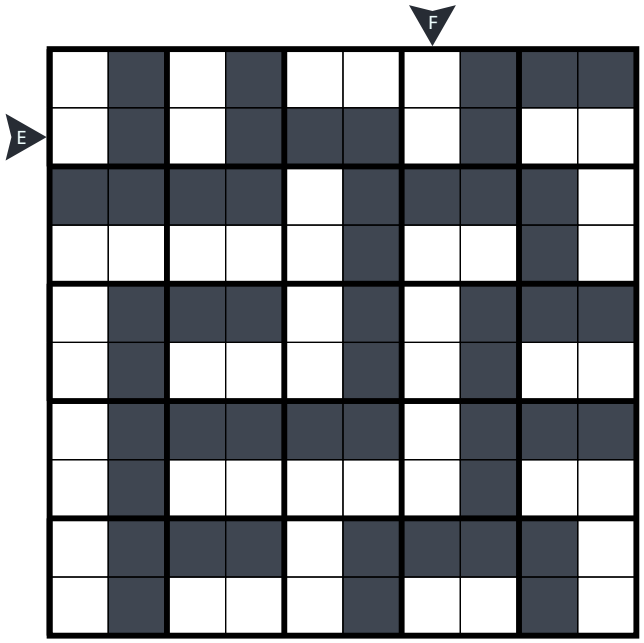
- For each of the marked 2X2 areas (the Windows), shade exactly 2 of the cells.
- No 2X2 area can contain all shaded cells or all white cells.
- All shaded cells must be connected to each other, vertically or horizontally.
- There cannot be an island with white cells i.e. the shaded cells must not enclose any white areas.

Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.

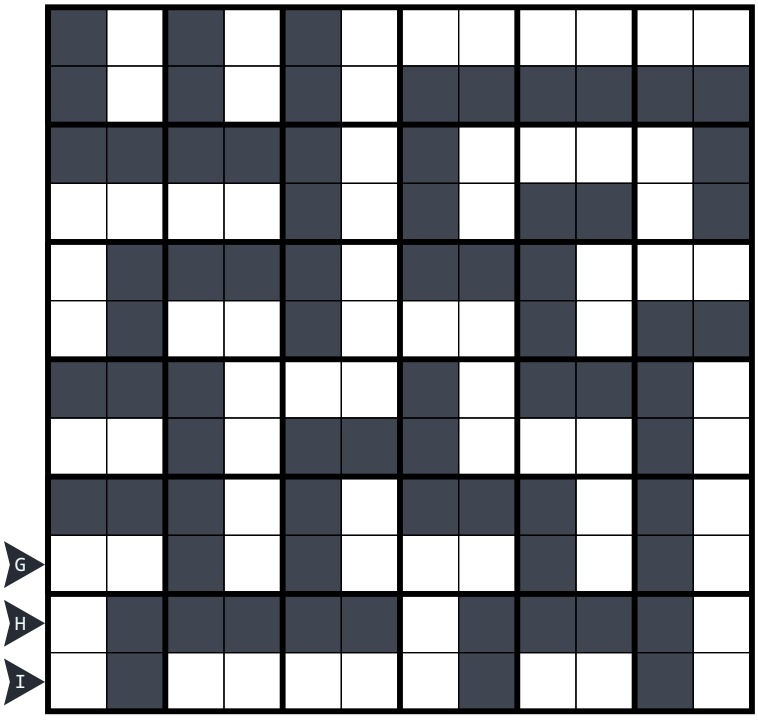


Windows 6 + 11 points

Refer to previous page for rules and answer keys.



3

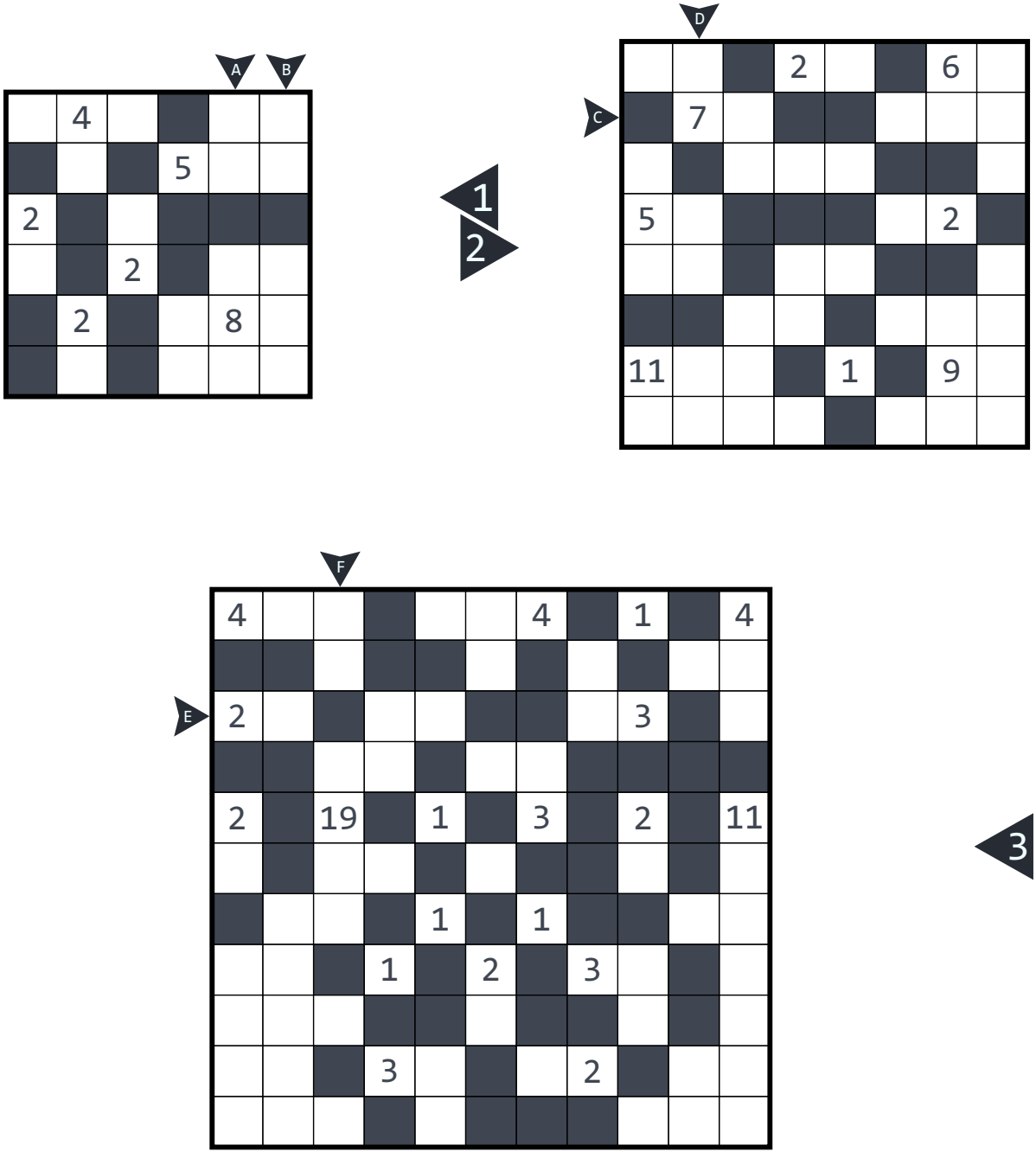


4

Lakes 1 + 4 + 5 points

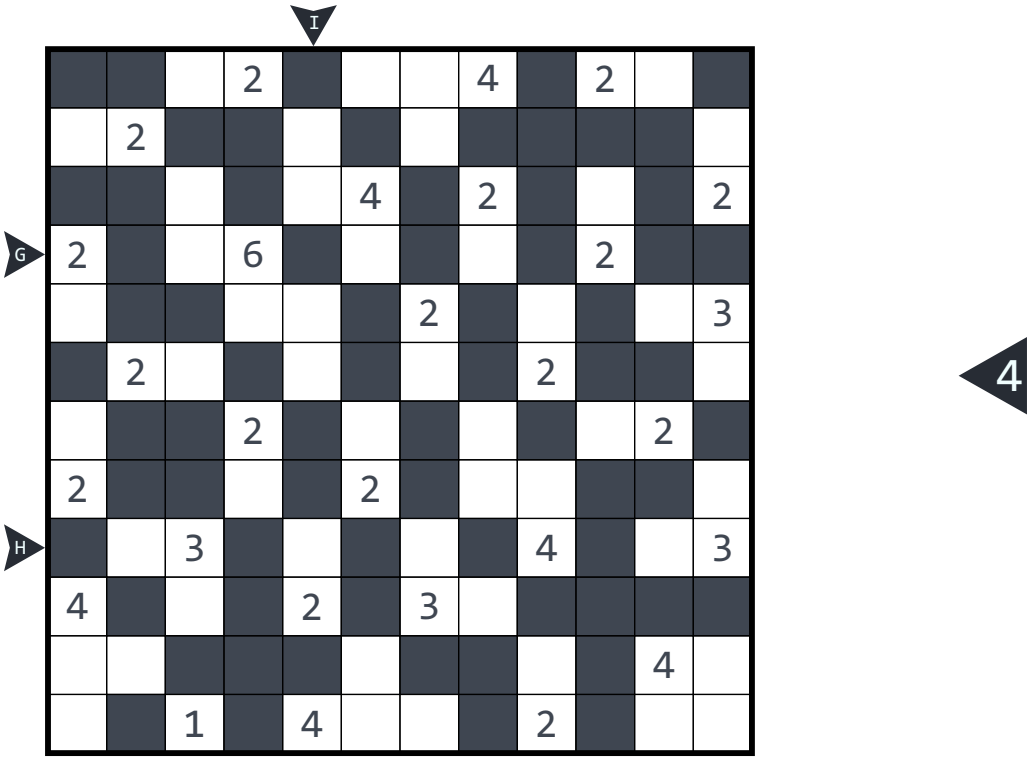
- Shade some of the cells so that the grid is divided into white areas.
- Each white area must contain exactly one number and that number must be the size of the white area it is included in.
- Cells with numbers cannot be shaded.

Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.



Lakes 6 points

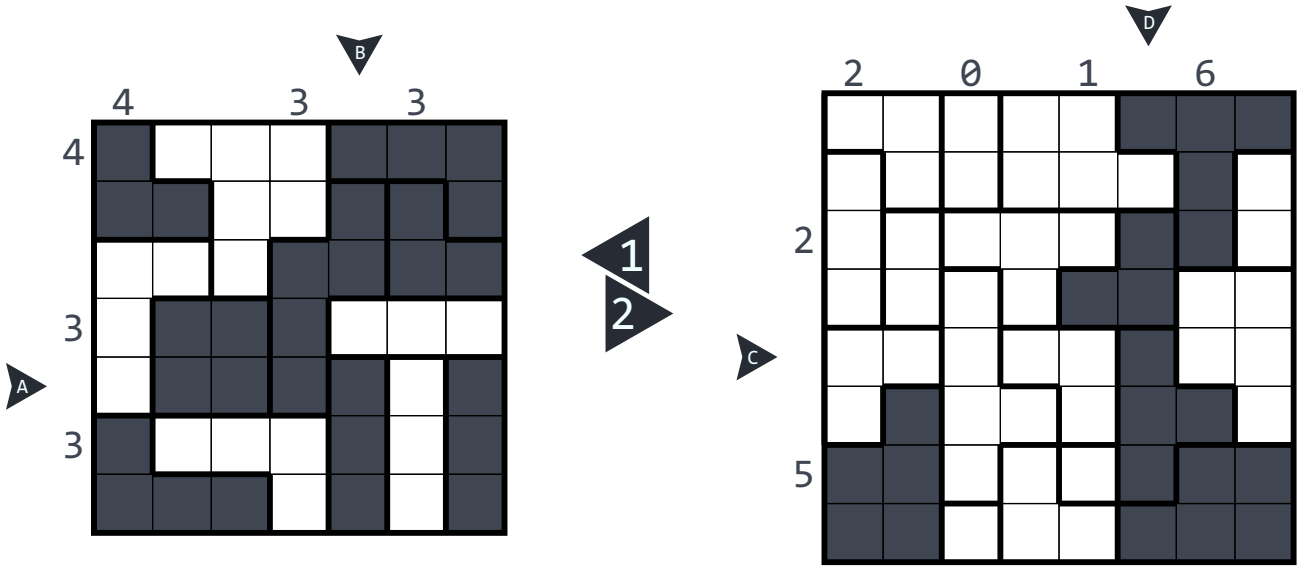
Refer to previous page for rules and answer keys.



Crazy Pavement 1 + 2 points

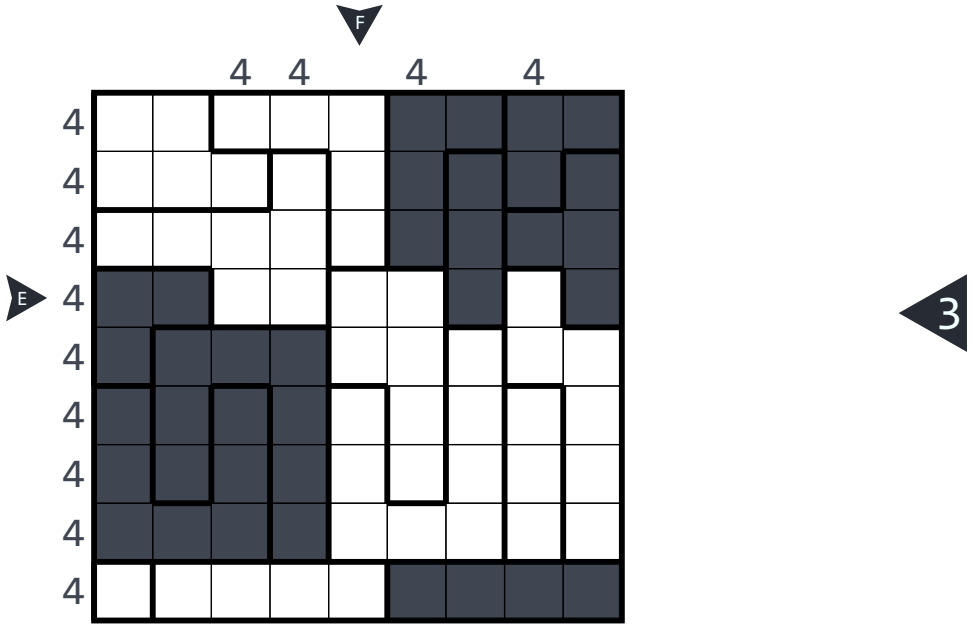
- Shade all cells of some regions.
- Numbers outside the grid indicate the number of shaded cells in that row/column.

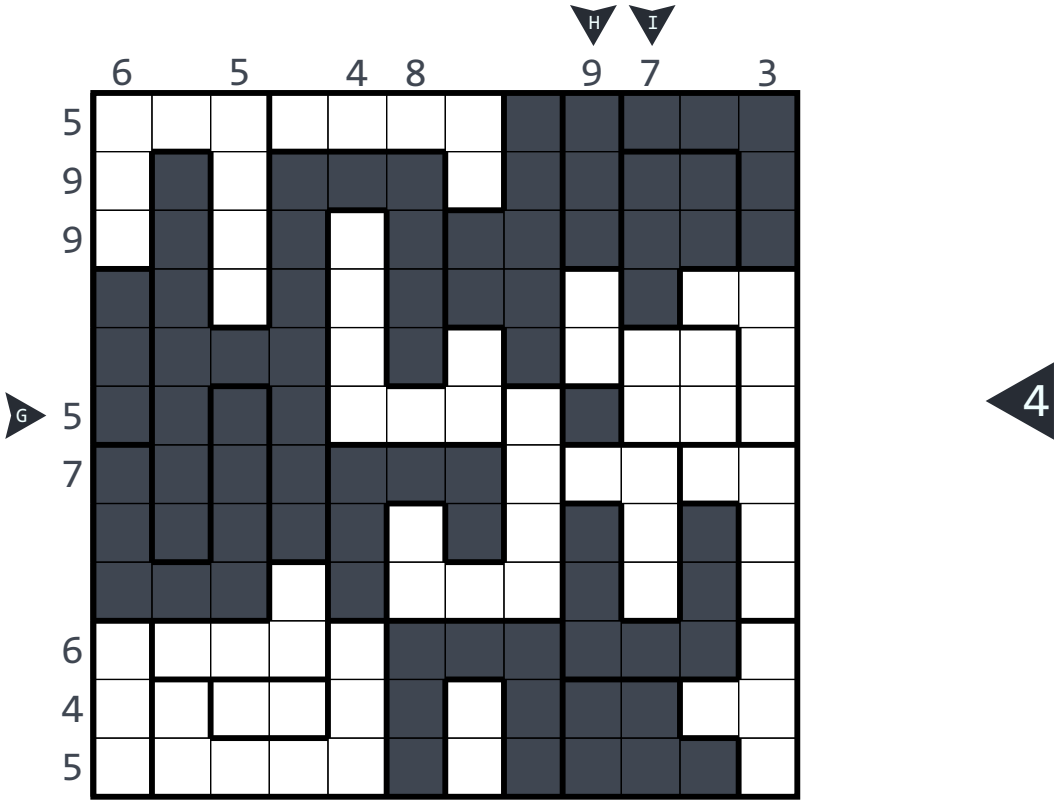
Answer key: Enter the lengths of groups of shaded cells and white cells, for the marked rows/columns.



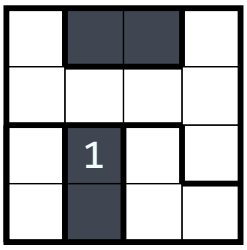
Crazy Pavement 4 + 9 points

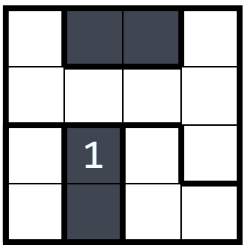
Refer to previous page for rules and answer keys.



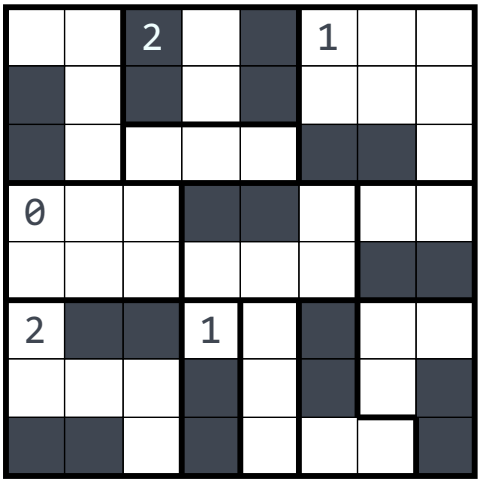


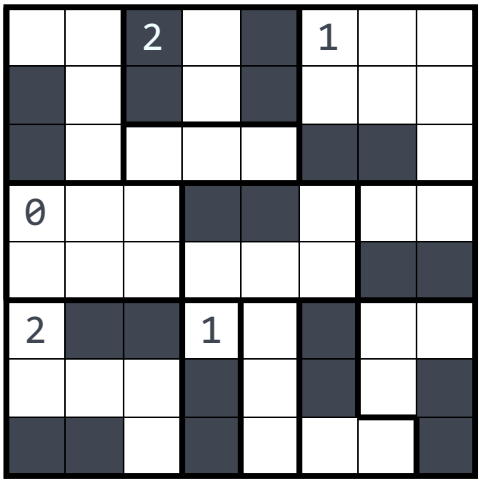
Heyawacky Variation 9 points

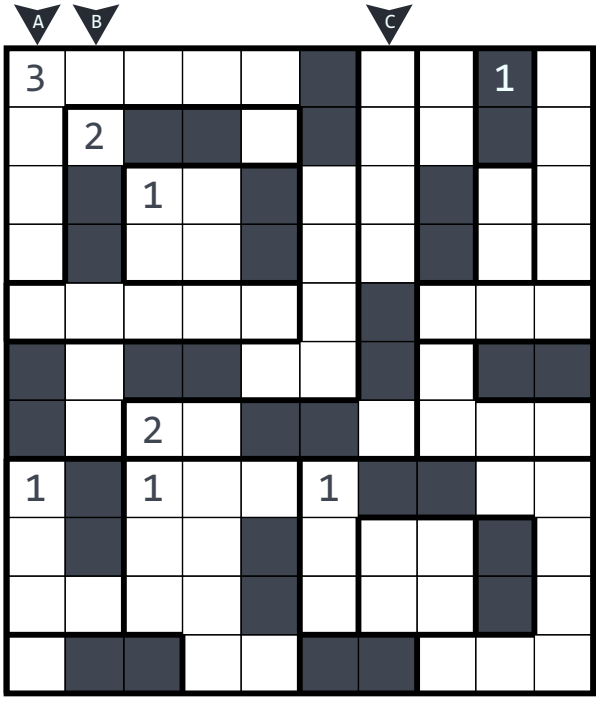




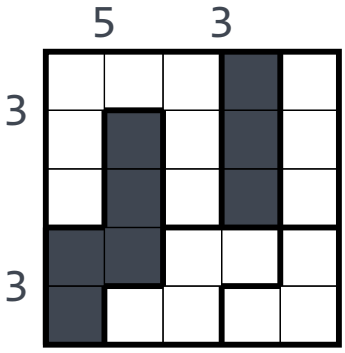
EXAMPLES



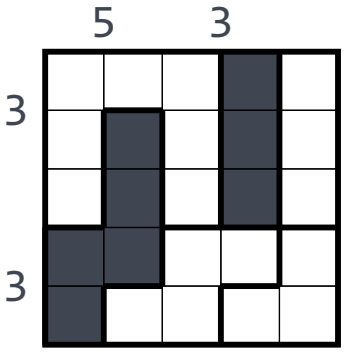


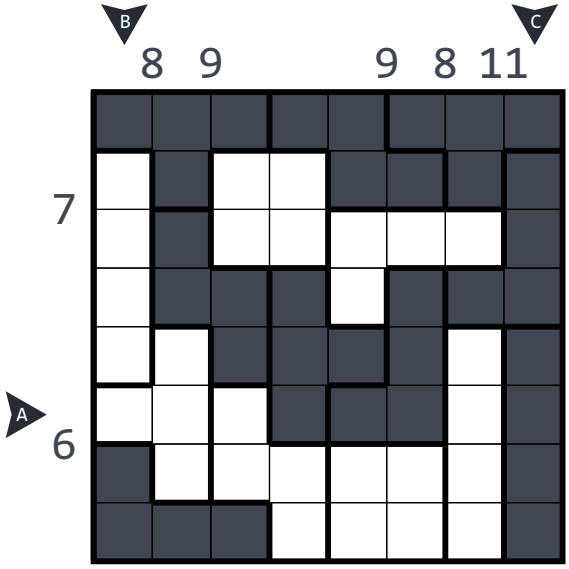


Crazy Pavement Variation 9 points



EXAMPLE

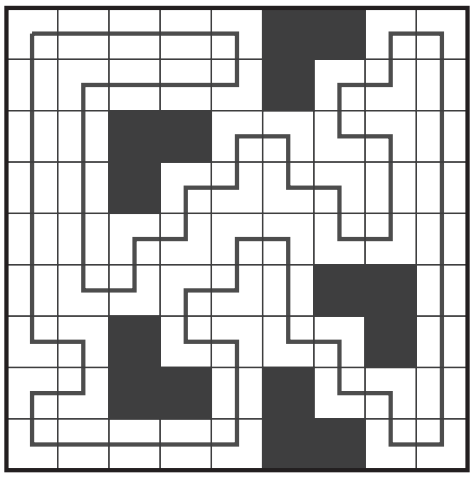


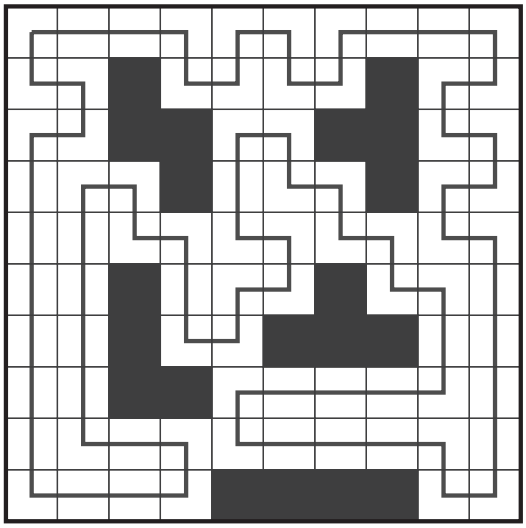


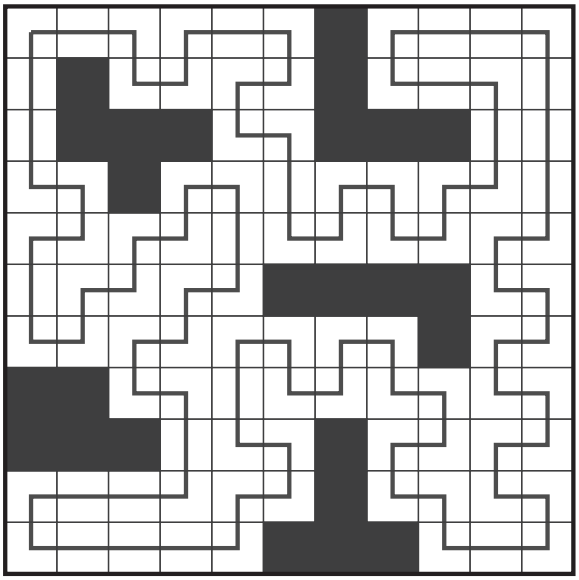
End of Test

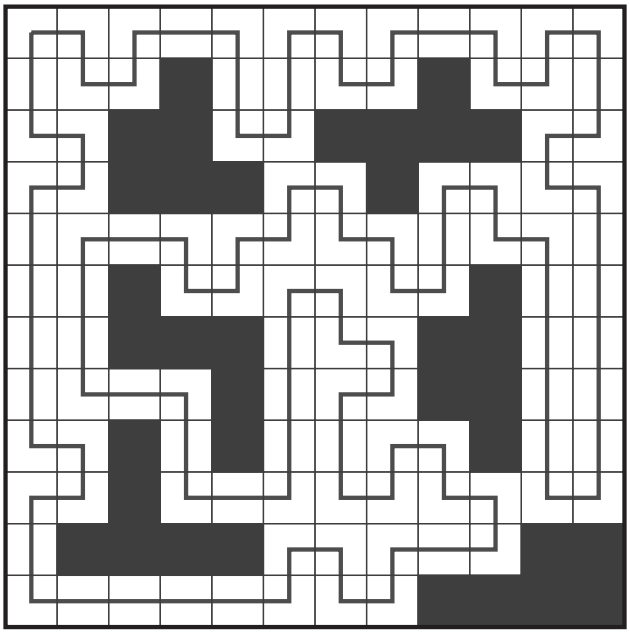
Simple Loop

1 + 2 + 2 + 3 points



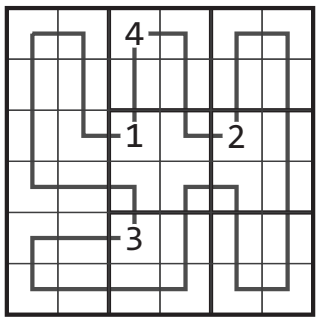


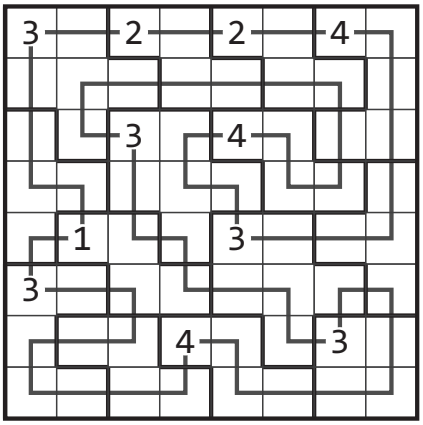


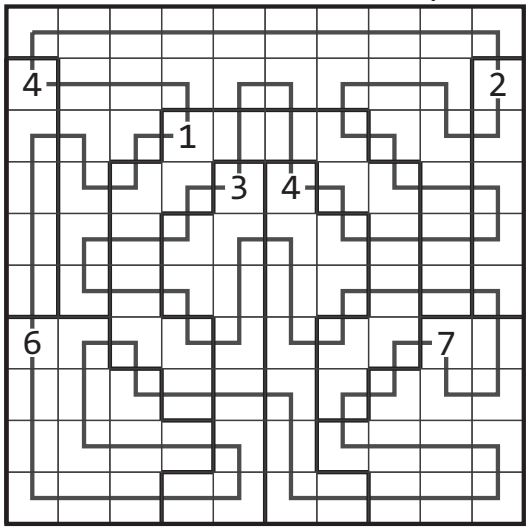


Maxi Loop

1 + 5 + 7 points

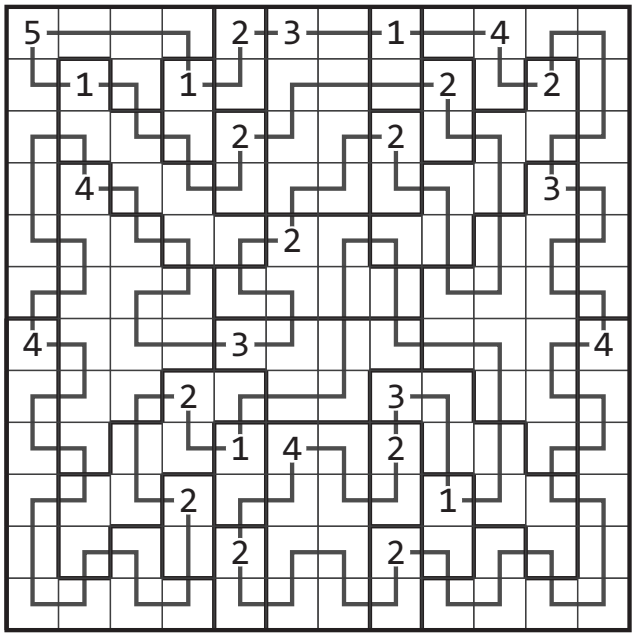






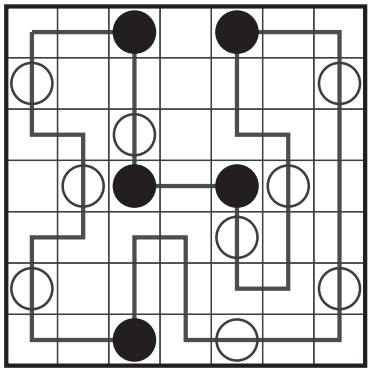
Maxi Loop

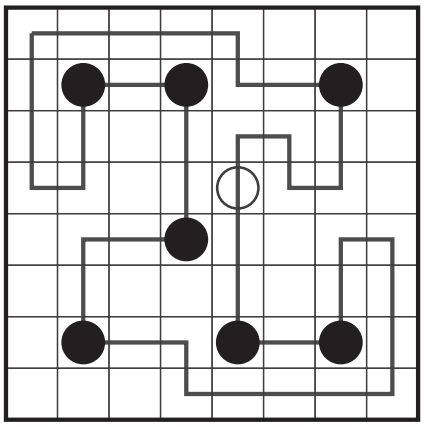
16 points

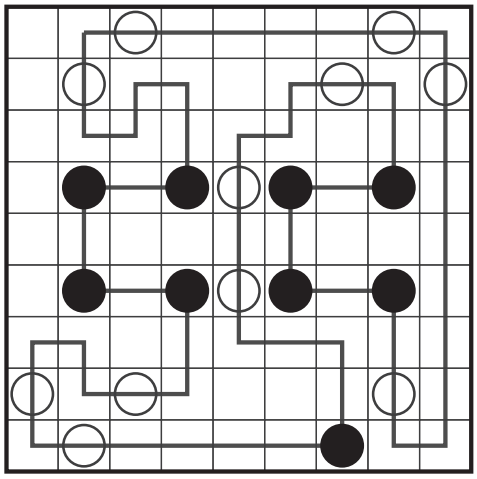


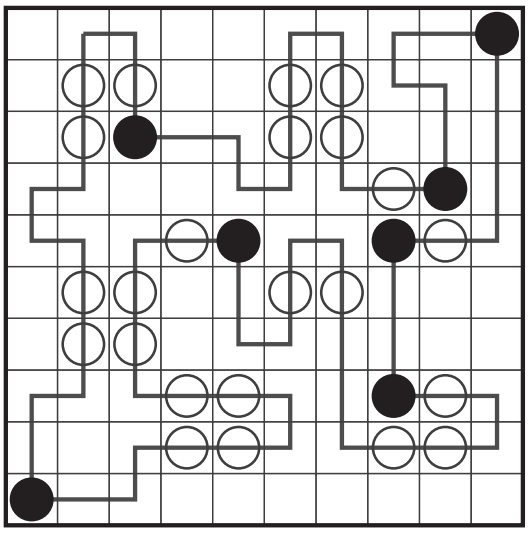
Masyu

2 + 1 + 3 + 4 points



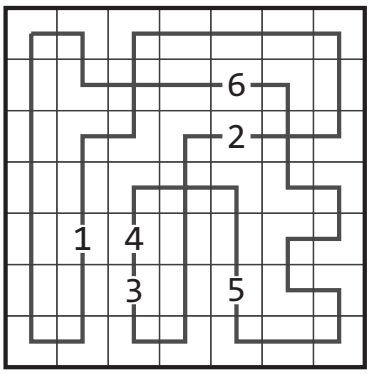


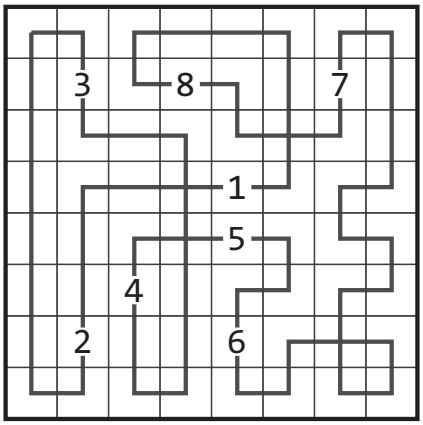


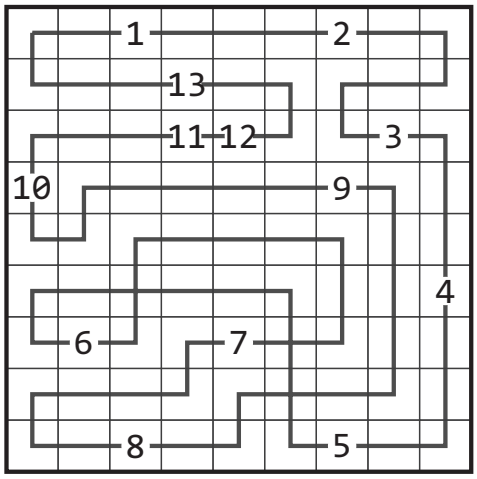


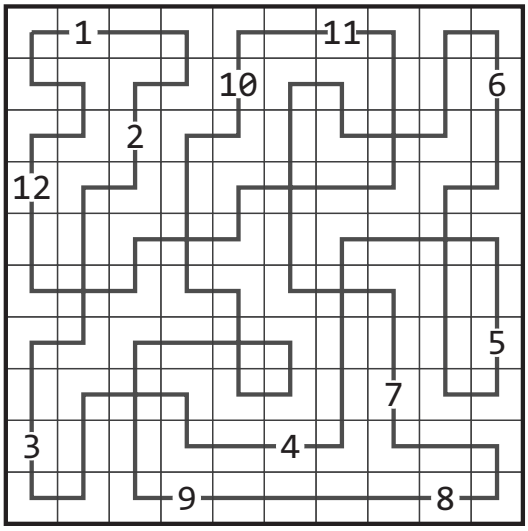
Railroad Tracks

2 + 4 + 5 + 7 points



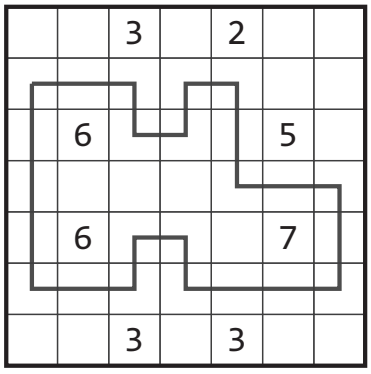


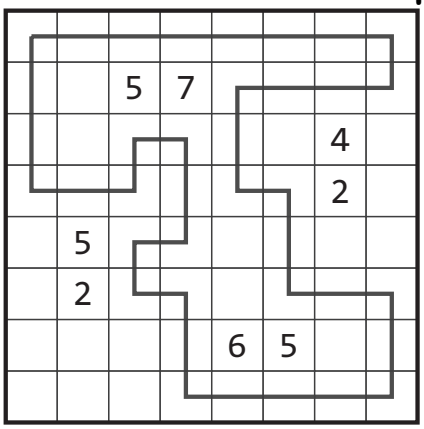




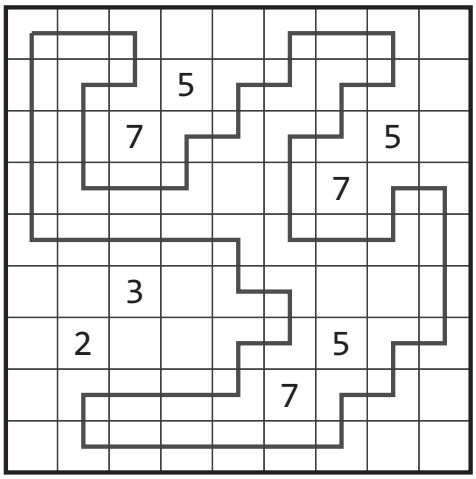
Linesweeper

2 + 3 points

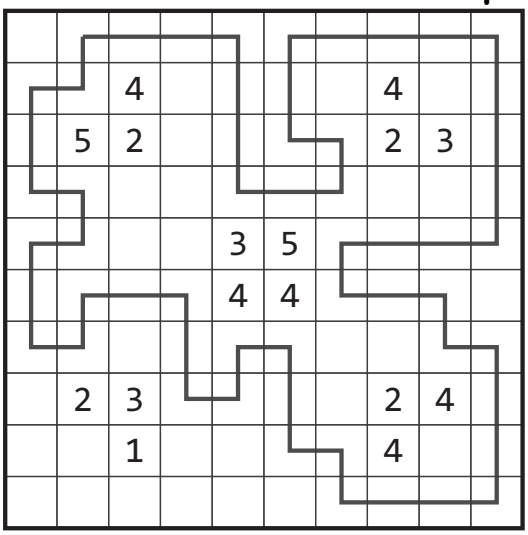




Linesweeper

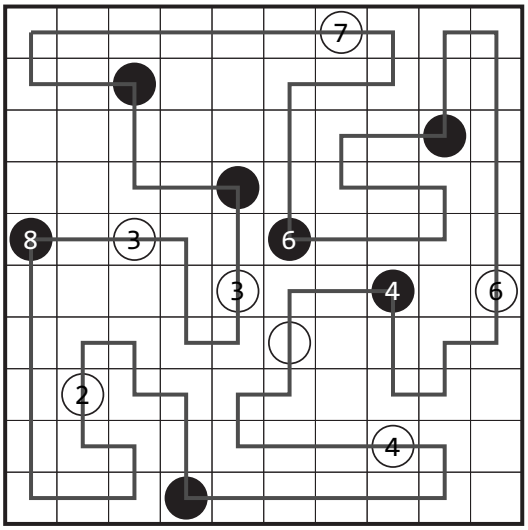


2 + 5 points



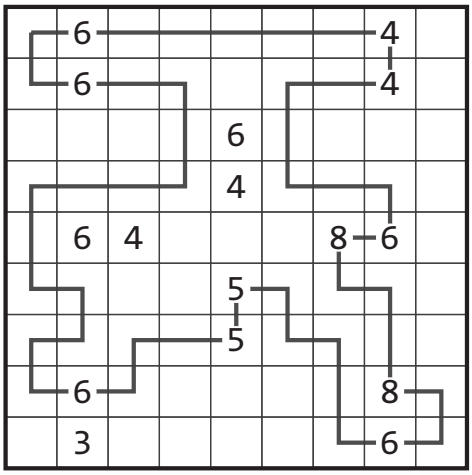
Masyu Variation 9 points

Added rule – The number in a circle gives the sum of length of loop segments on either side of the circle.



Linesweeper Variation 14 points

Changed rule – The loop can pass through clue cells, and the clue number describes the 3x3 area it is in the middle of (9-cells instead of 8-cells).

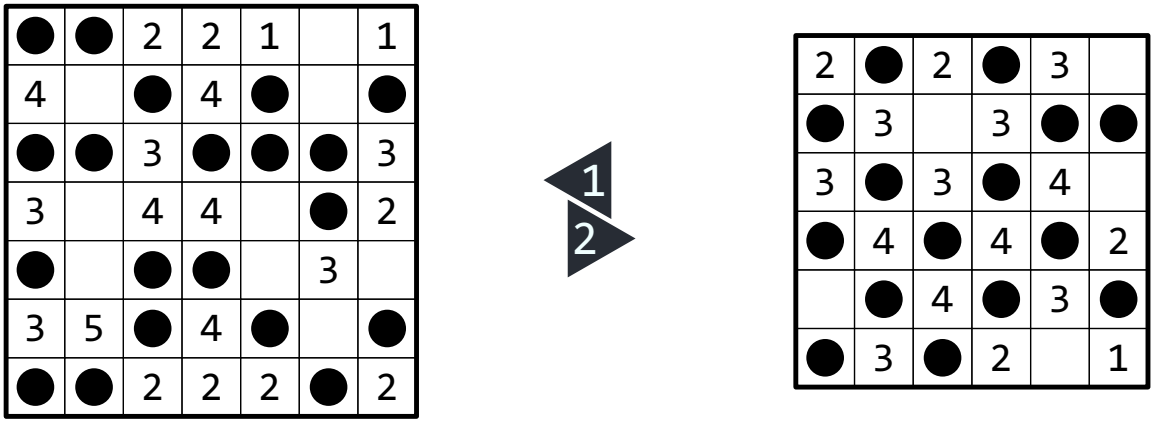


Minesweeper

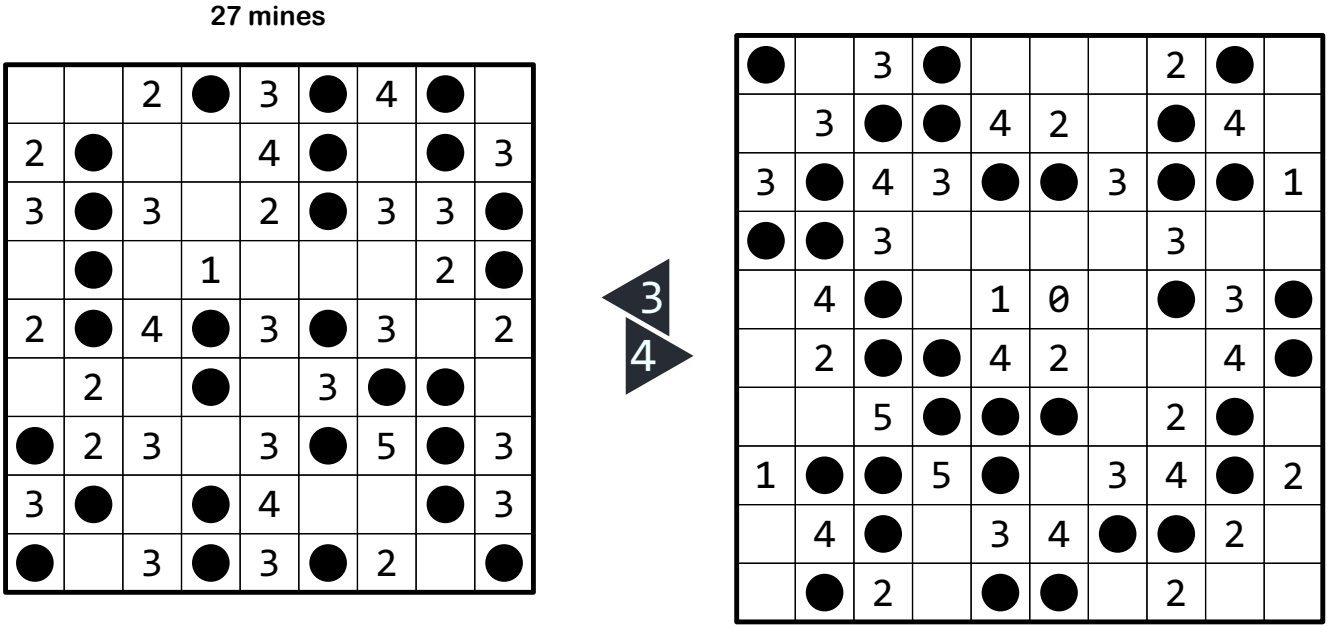
? + ? + ? + ? points

- Place mines into some empty cells in the grid such that the numbers in the grid represent the number of mines in the 8 neighboring cells, including diagonal ones.
- In some of the puzzles, number of mines to be used will be given.

Answer key: Enter the number of mines for each row, from top to bottom.



27 mines

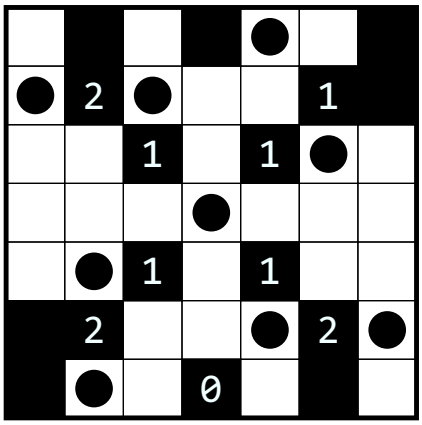


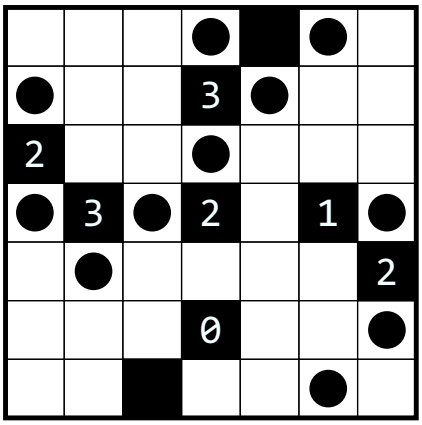
Akari

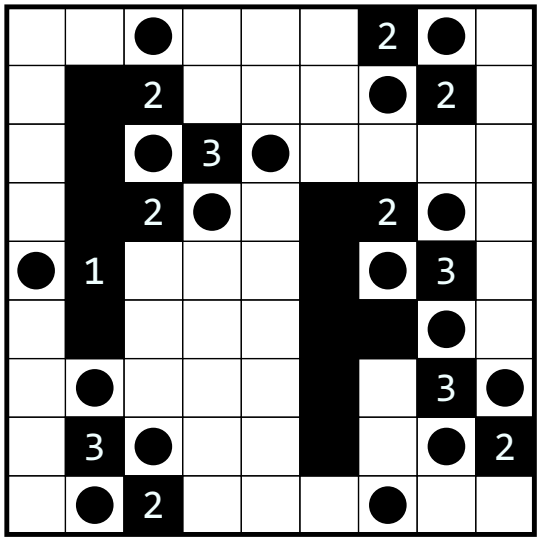
? + ? + ? points

- Place lightbulbs in some of the white cells so that all white cells are illuminated.
- Lightbulbs illuminate all cells they can see horizontally and vertically, including the cell in which it is placed.
- Lightbulbs are blocked by black cells or the edge of the grid.
- No two lightbulbs may illuminate each other.
- Numbers in black cells indicate how many orthogonally adjacent cells contain a lightbulb.

Answer key: Enter the number of light bulbs for each row, from top to bottom.

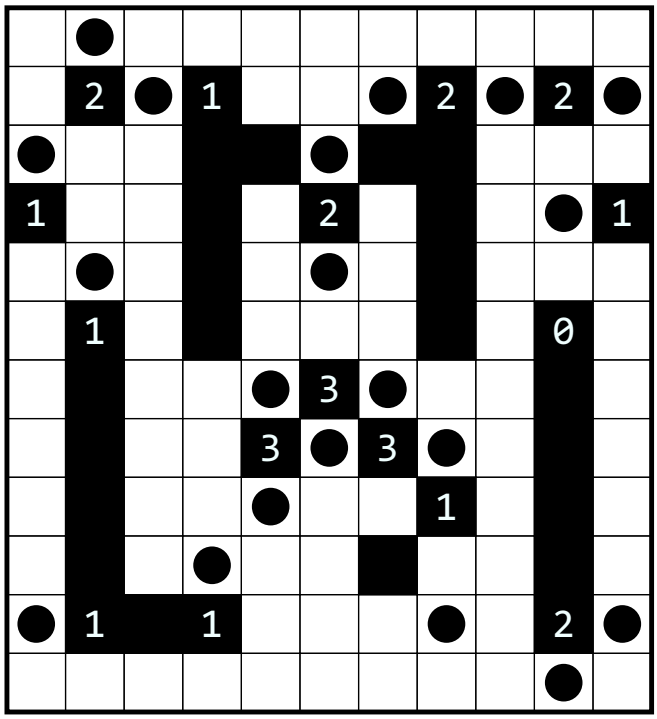






Akari ? points

Refer to previous page for rules and answer keys.

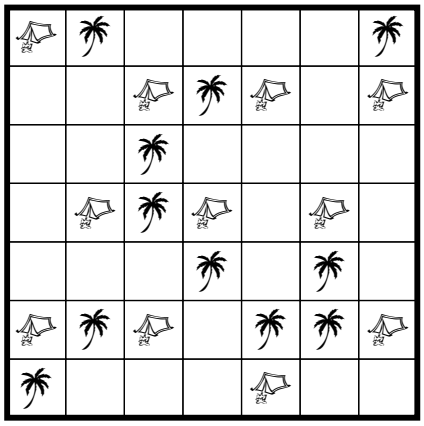


4

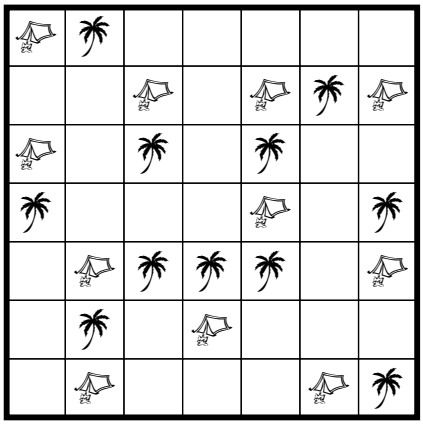
Tents ? + ? points

- Place one tent horizontally or vertically next to each tree.
- Tents do not touch each other, not even diagonally.
- The numbers outside the grid indicate the number of tents in that row or column.

Answer key: Enter the maximum continuous non-tent area for each row, from top to bottom. In case of double digit numbers, enter the right (unit) digit only.



1
2

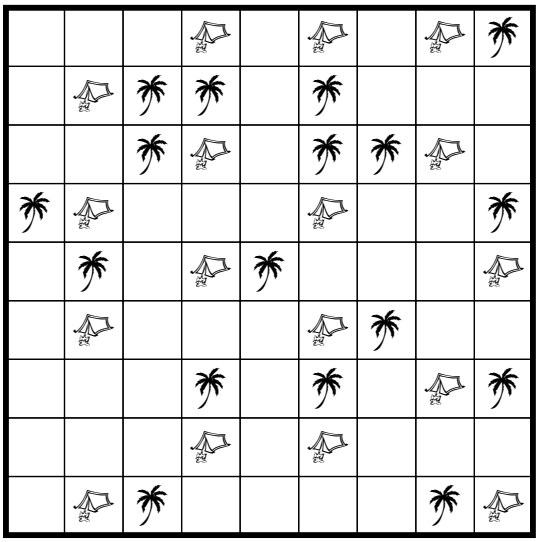


1

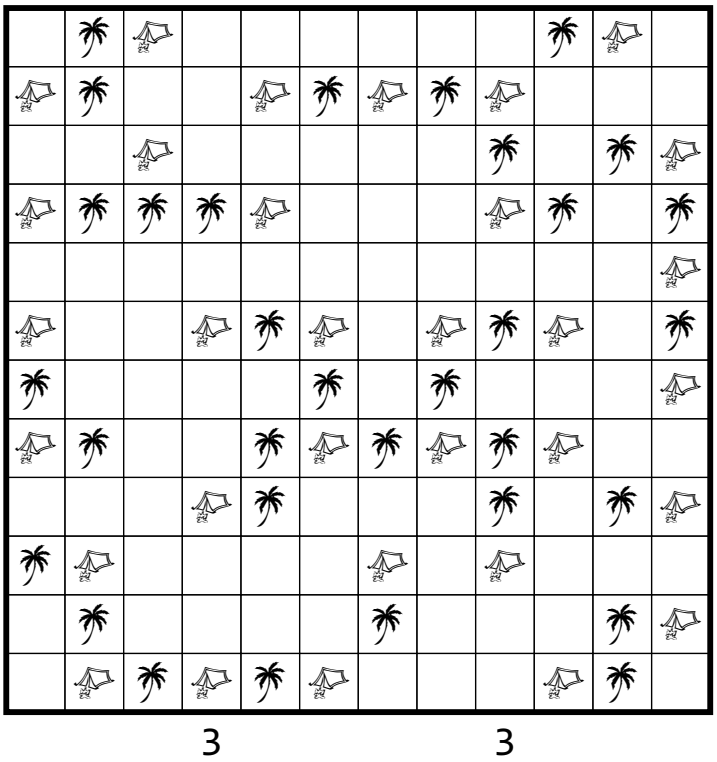
Tents

3 + 4 points

Refer to previous page for rules and answer keys.



3

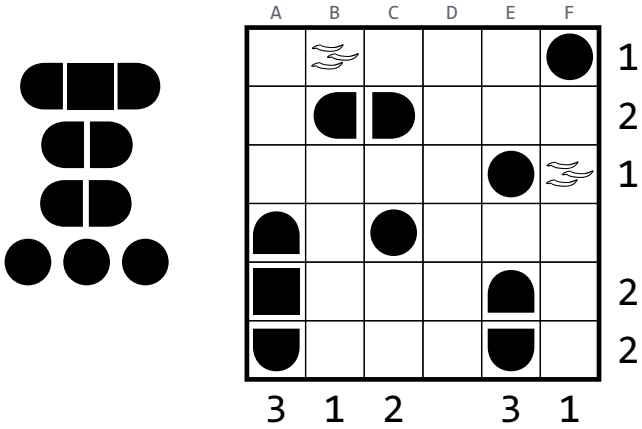


4

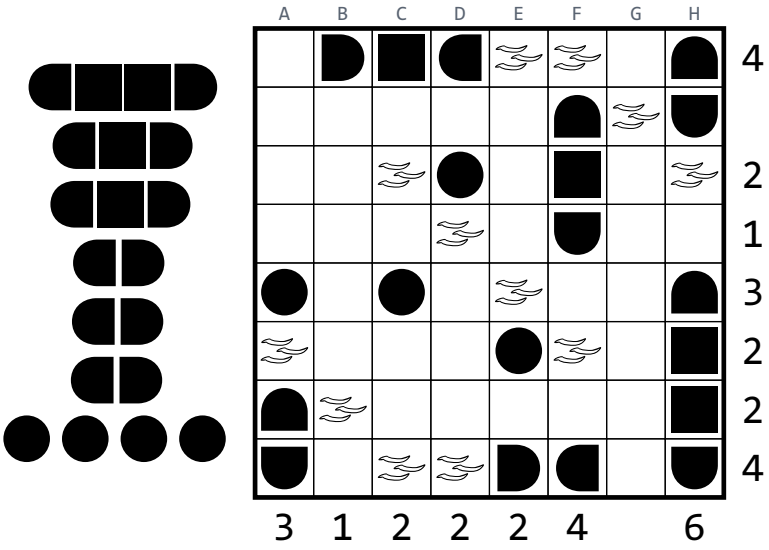
Battleships ? + ? points

- Place the given fleet of ships with the shapes of the ships as shown.
- The numbers outside the grid indicate the number of cells occupied by ships in that row or column.
- Ships cannot touch each other, not even diagonally.
- Some cells are known to be water and are indicated by waves.

Answer key: For each row from top to bottom, enter the column position of first ship segment. Enter "-" if there are no ships in the row.



1

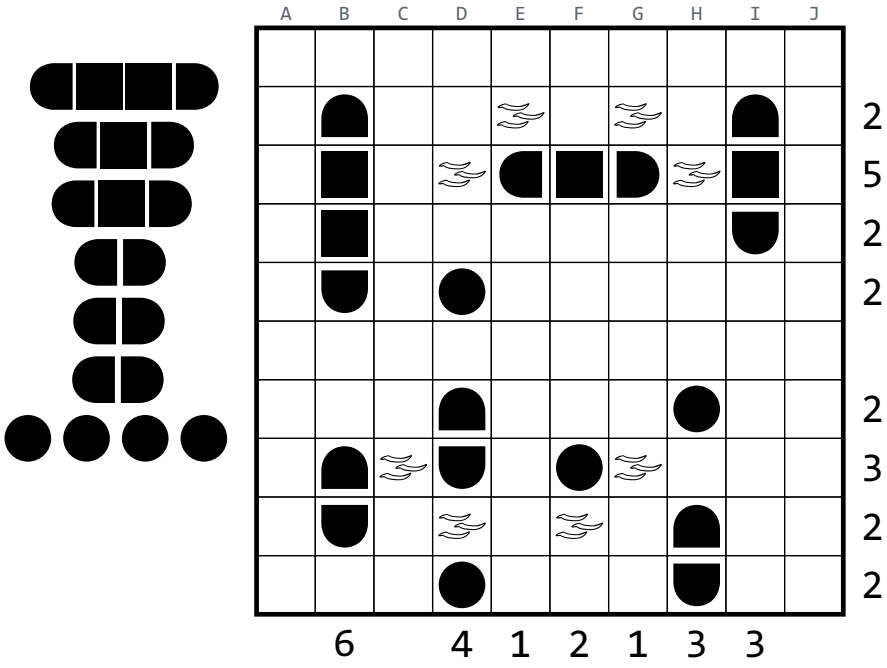


2

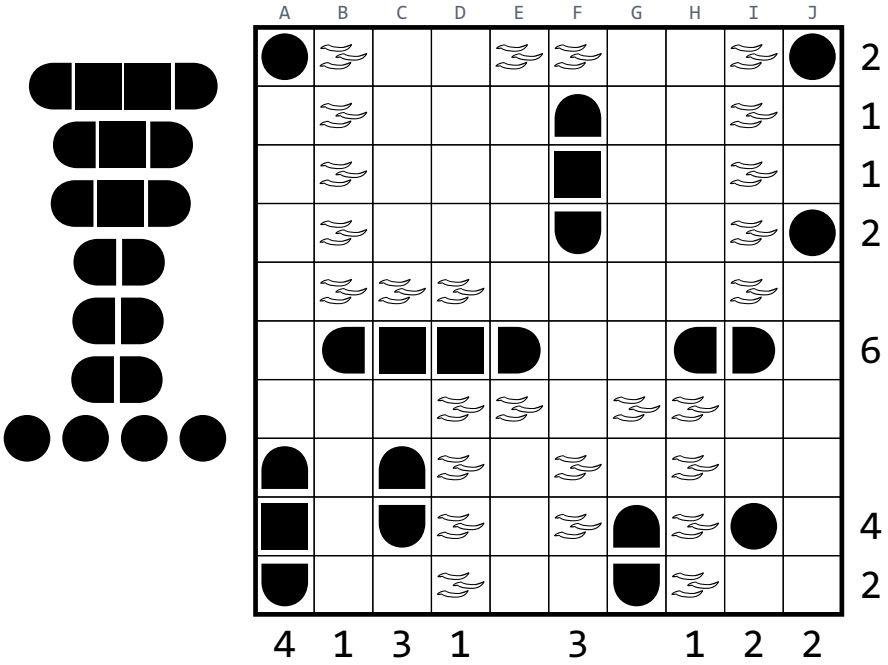
Battleships

? + ? points

Refer to previous page for rules and answer keys.



3



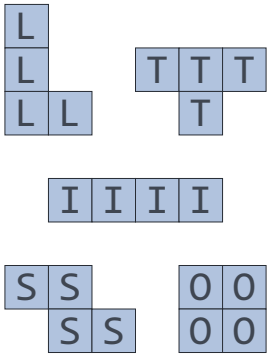
4

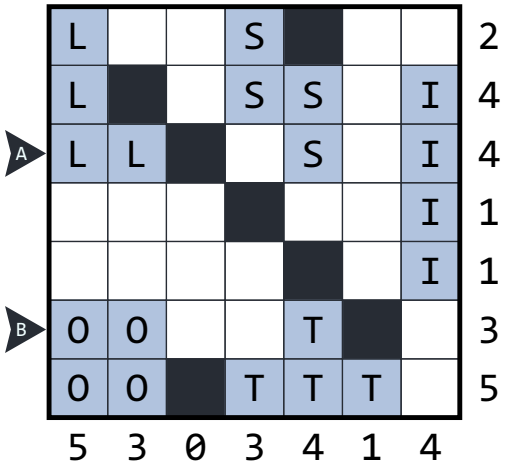
Tetromino

? + ? points

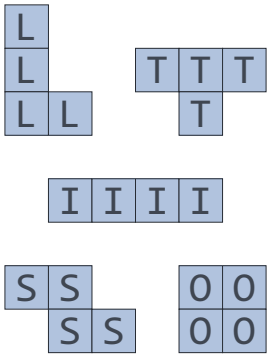
- Place the given set of polyominos in grid.
- Polyominos do not touch each other, even diagonally.
- Rotations and reflections are allowed.
- Polyominos cannot be placed in shaded cells.
- The numbers outside the grid indicate the number of cells occupied by polyominos in that row or column.

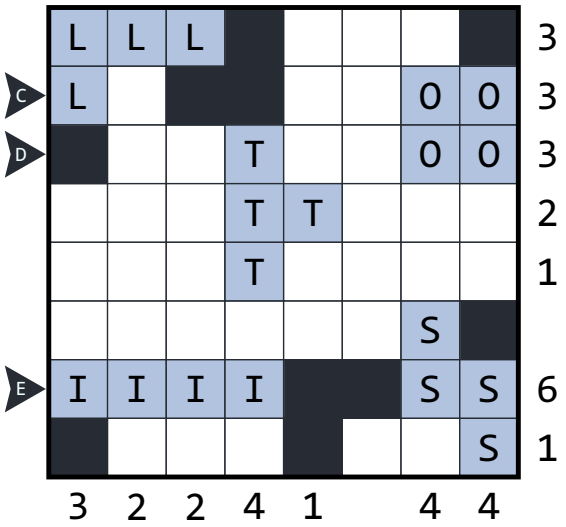
Answer key: Enter the letters corresponding to first two polyominos seen from the marked directions. (– if not enough polyominos)





1



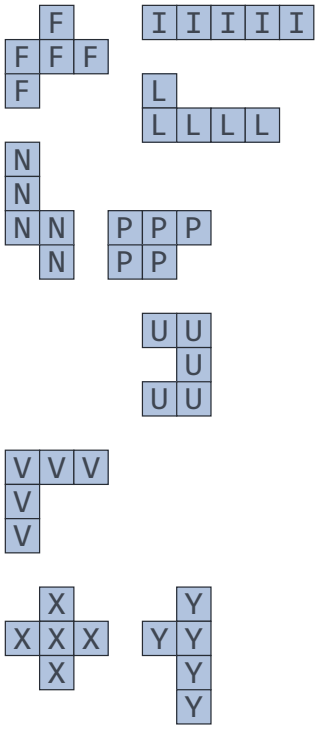


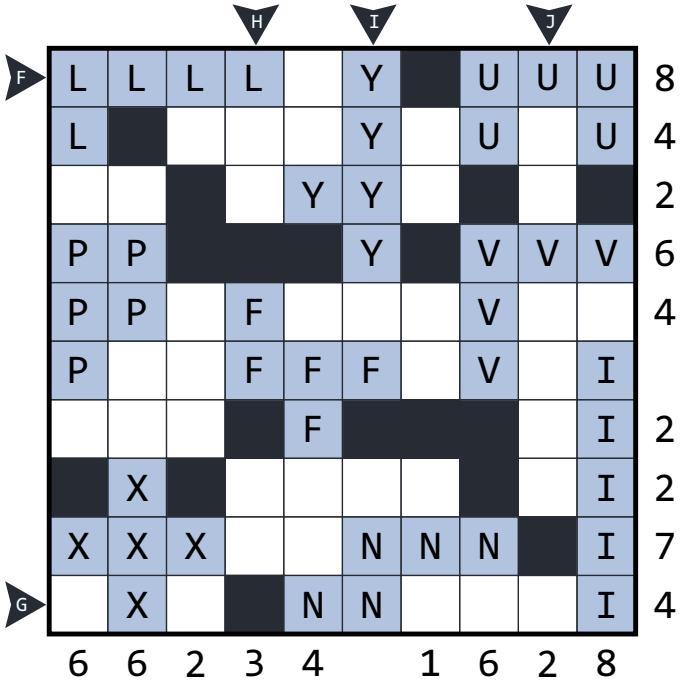
2

Pentomino

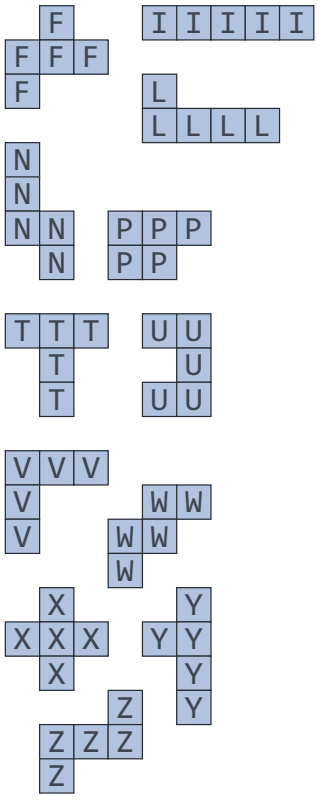
? + ? points

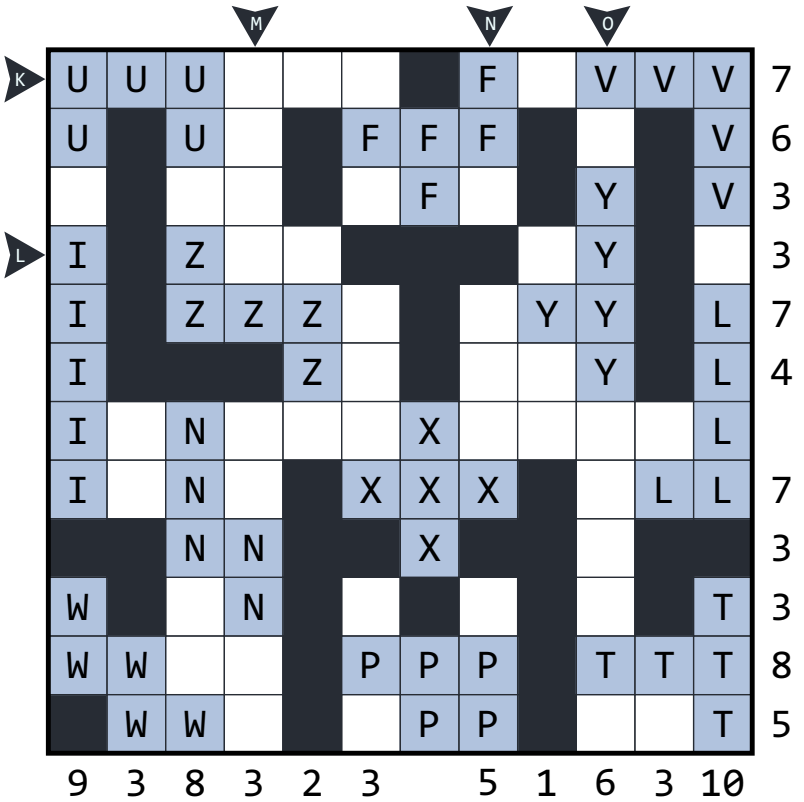
Refer to previous page for rules and answer keys.





3



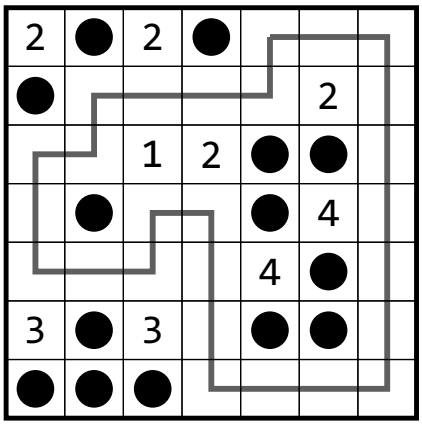


4

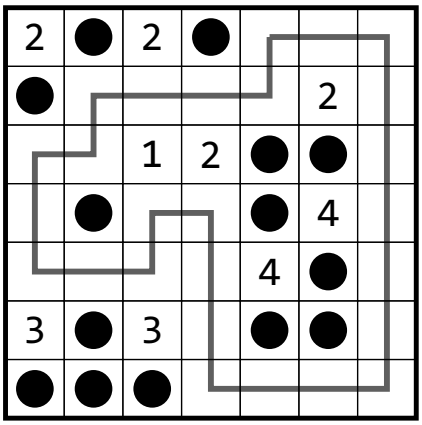
puzzle ramayan

Minesweeper Instructionsless

? points



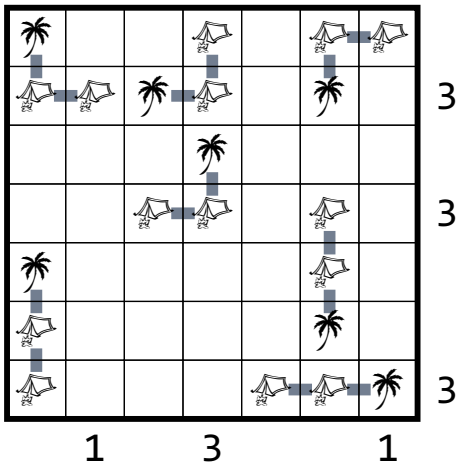
EXAMPLE



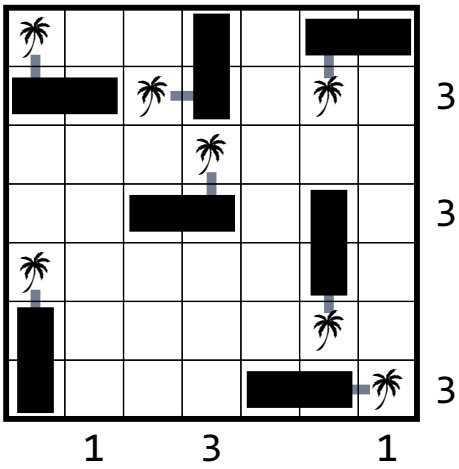
Answer key: Enter the number of mines for each row, from top to bottom.

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

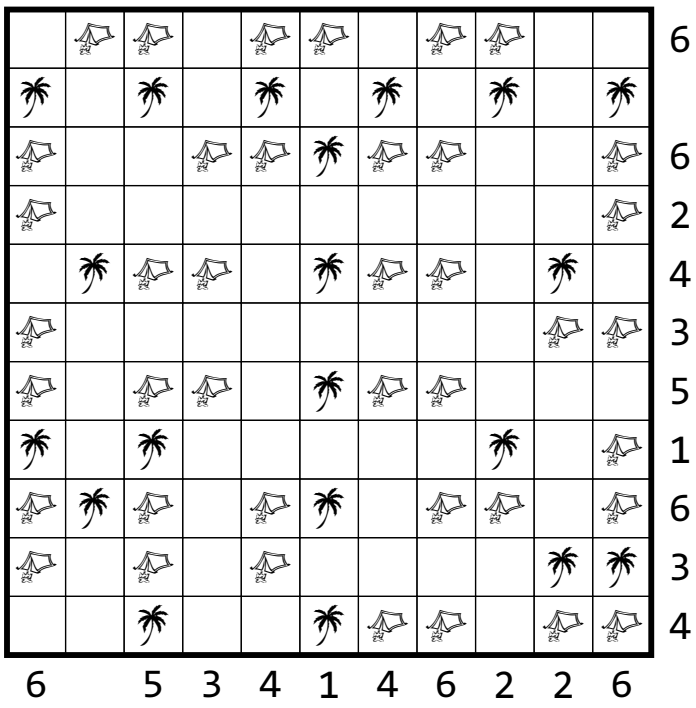
Tents Instructionsless ? points



EXAMPLE



Answer key: Enter the maximum continuous non-tent area for each row, from top to bottom. In case of double digit numbers, enter the right (unit) digit only.



End of Test