



WPF
SUDOKU/PUZZLE
GRAND PRIX
2014

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WORLD PUZZLE FEDERATION

WPF PUZZLE GP 2014 COMPETITION **BOOKLET** ROUND **2**

Puzzle authors: **Slovakia**

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General Note: All puzzles for the competition, like the examples, will be on non-rectangular grids (the individual cells will still be square and have standard Cartesian geometry). All of the grids will be approximately the same shape and may contain "holes" in them. If an answer key row points to a row that has "gaps" in them because of the grid shape, the "row" includes all cells in that horizontal row, ignoring the "gaps". Because of the shape of the grids, all puzzles will be in landscape mode on A4 pages. Please be sure that your printer and solving environment can handle this change.

Note to those printing in the USA: If you are printing on USA standard "Letter" paper, the margins will be wide enough for you to "Print Actual Size" without cutting off the puzzle.

Submission Page: <http://www.gp.worldpuzzle.org/content/puzzle-gp>

Points:

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4	Irregular Battleships	22
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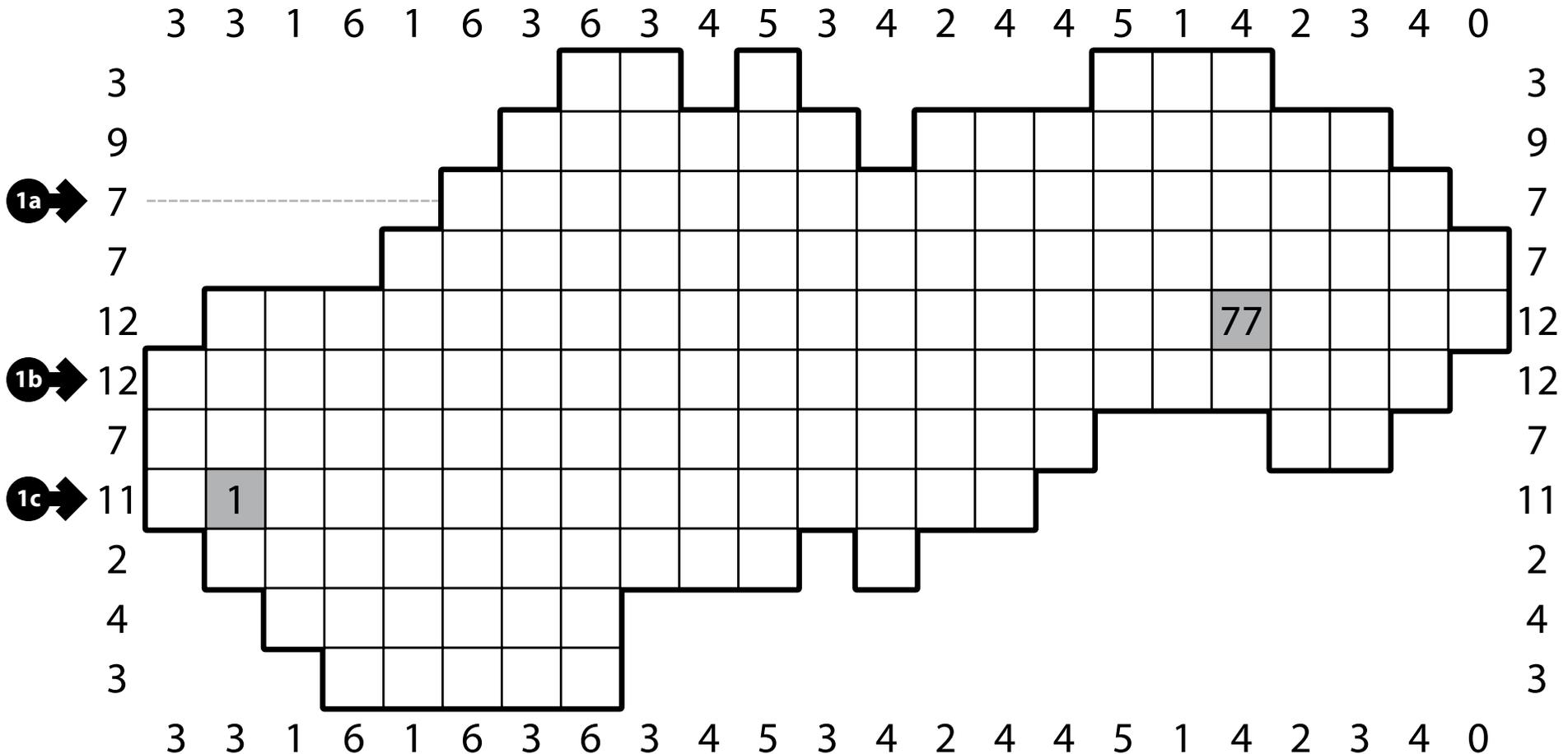
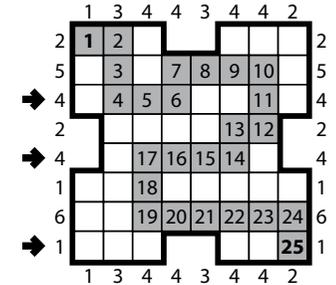
TOTAL: 609

1. Snake (18 points) [Matúš Demiger]

Locate the numbers 1-77 (1-25 in the example) in the grid, one number per cell, so that all consecutive numbers are in cells that are orthogonally adjacent to each other (creating a "snake"). Not all cells will have numbers in them. If two numbers are adjacent orthogonally, they must contain consecutive numbers, and if two numbers are adjacent diagonally, they must be exactly two apart. (In other words, the snake's body never touches itself, not even diagonally.) The head and tail of the snake, as well as possibly other numbers, are given. The numbers on all four edges of the grid reveal the number of cells occupied by the snake in that row or column. The repetition is purely for your convenience and has no significance in the puzzle. You do not need to write in all the numbers to find the answer; simply finding the path of the snake is sufficient.

Answer: For each designated row, enter the length in cells of each the segments with numbers and the segments without numbers from left to right (the grid borders break up segments). Use only the last digit for two digit numbers; e.g., use '0' for a segment of length 10. If there are no numbered cells in the row, enter a single digit '0'.

Example Answer: 13211, 141, 321

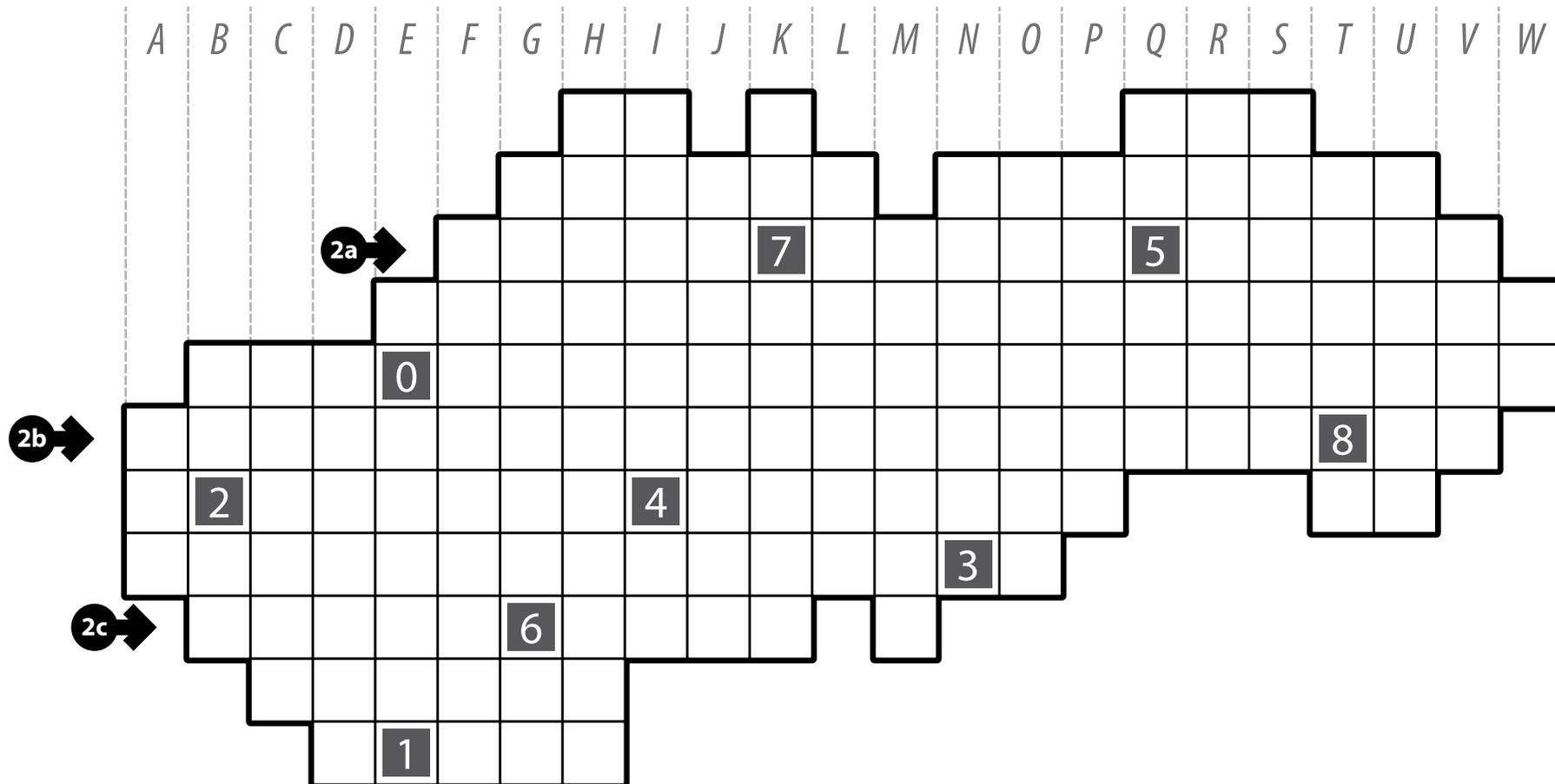
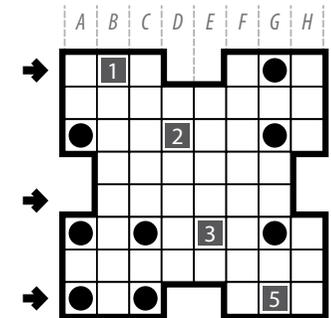


2. Lighthouses (24 points) [Matúš Demiger]

The grid has several numbers, each of which represents a lighthouse that emits light beams in the four orthogonal directions (horizontally and vertically). Place some boats into the grid, each of which occupy exactly one cell. The boats may not touch each other or any of the numbers, not even diagonally. The number on each lighthouse represents the number of boats illuminated by that lighthouse's beams. Neither boats nor lighthouses nor grid borders block light beams of (other) lighthouses from illuminating objects beyond them. The letters on the outside of the grid are only used for entering your answer.

Answer: For each designated row, enter the letters corresponding to the columns where there are boats, from left to right. If there are no black cells in the row, enter a single letter 'X'.

Example Answer: G, X, AC

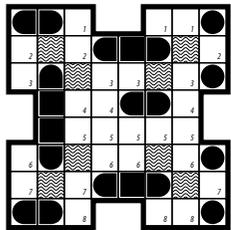


3. Battleships (40 points) [Matúš Demiger]

Locate the indicated fleet in the grid. Each segment of a ship occupies a single cell. Ships can be rotated. Ships do not touch each other, even diagonally. Some ship segments, or sea cells without any ship segments, are given in the grid. The numbers on the right and bottom edges of the grid reveal the number of ship segments in that row or column. The small numbers in the cells are only used for entering your answer. **Note:** The competition puzzle fleet will have twice as many ships as the fleet in the example.

Answer: For each column from left to right, enter the number of the first row from the top where a ship segment appears (the small number in the cell). Use only the last digit for two digit numbers; e.g., use '0' if the first ship segment appears in row 10. If the column is empty, enter '0'.

Example Answer: 11022201



4
1
1
1
9
7
2
3
6
1

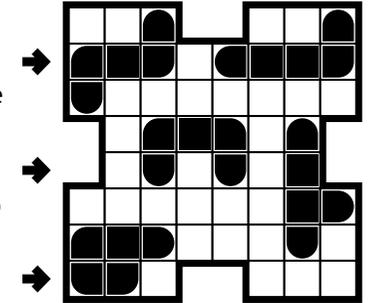
1 1 1 4 1 3 3 3 2 3 2 1 2 2 1 1 2 1 2 1 1 1 1

4. Irregular Battleships (22 points) [Matej Uher]

Locate the indicated fleet in the grid. Each segment of a ship occupies a single cell. Ships can be rotated and reflected (mirrored). Ships do not touch each other, even diagonally. Some ship segments, or sea cells without any ship segments, are given in the grid. **Note:** The competition puzzle fleet will have different ships from the fleet in the example.

Answer: For each designated row, enter the length in cells of each group of consecutive ship segments, from left to right. Use only the last digit for two digit numbers; e.g., use '0' for segment of size 10. Use only the last digit for two digit numbers; e.g., use '0' for a group of 10 consecutive ship segments. If the row is empty, enter '0'.

Example Answer: 34, 111, 2



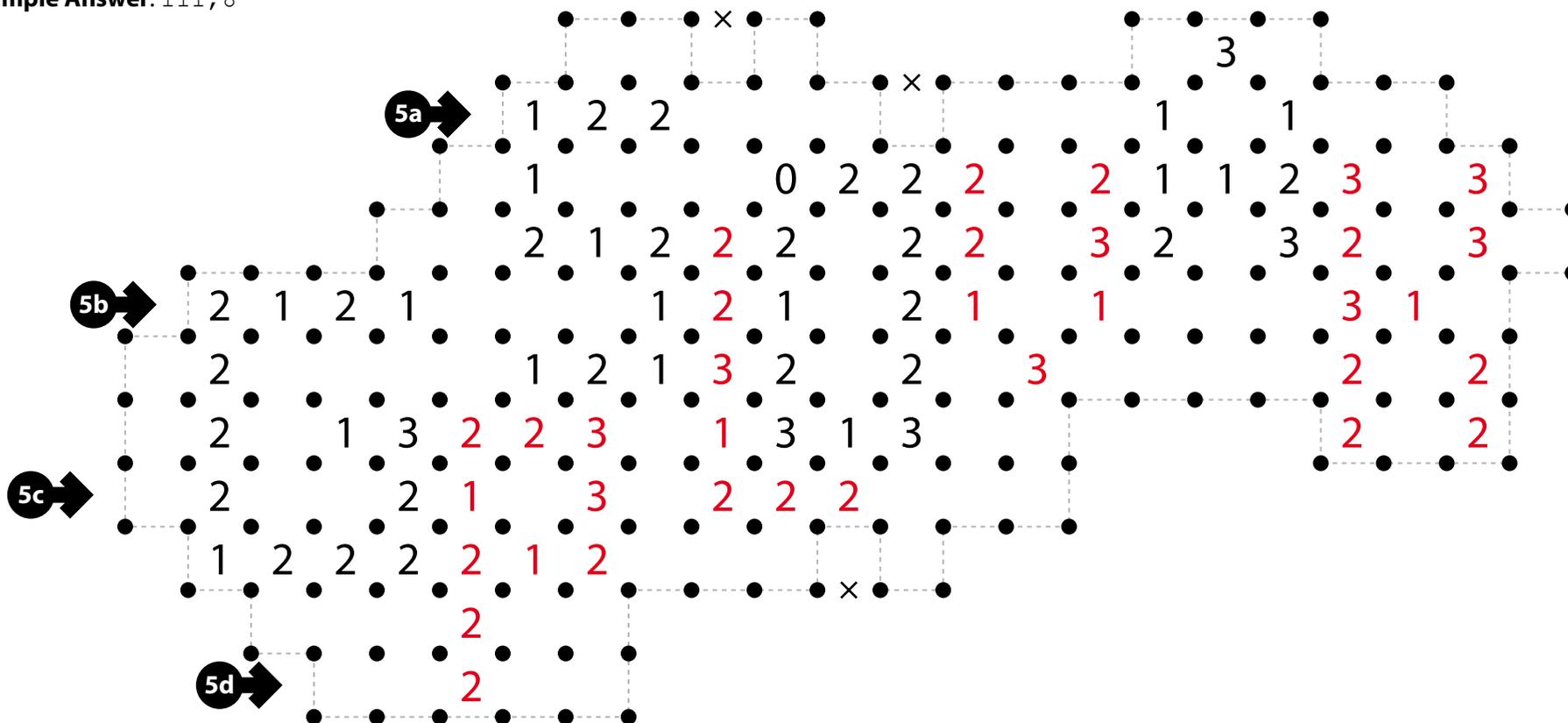
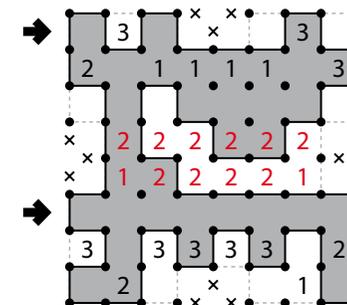
The puzzle grid is an irregular shape with the following dimensions: 10 columns and 10 rows. The grid is defined by a thick black border. Inside, there are several ship segments (black shapes) and four arrows pointing to rows 4a, 4b, 4c, and 4d. Below the grid, there are several ship shapes that can be placed on the grid. The shapes are: a 1x10 horizontal bar, a 2x2 square, a 2x3 horizontal bar, a 3x1 vertical bar, a 3x3 square, a 3x2 horizontal bar, a 4x1 vertical bar, a 4x2 horizontal bar, a 4x3 horizontal bar, a 5x1 vertical bar, a 5x2 horizontal bar, a 5x3 horizontal bar, a 6x1 vertical bar, a 6x2 horizontal bar, a 6x3 horizontal bar, a 7x1 vertical bar, a 7x2 horizontal bar, a 7x3 horizontal bar, a 8x1 vertical bar, a 8x2 horizontal bar, a 8x3 horizontal bar, a 9x1 vertical bar, a 9x2 horizontal bar, a 9x3 horizontal bar, a 10x1 vertical bar, a 10x2 horizontal bar, a 10x3 horizontal bar, a 10x4 horizontal bar, a 10x5 horizontal bar, a 10x6 horizontal bar, a 10x7 horizontal bar, a 10x8 horizontal bar, a 10x9 horizontal bar, a 10x10 horizontal bar.

5. Slitherlink (39 points) [Matej Uher]

Draw a single, non-intersecting loop that only consists of horizontal and vertical segments between the dots. Numbers inside a cell indicate how many of the edges of that cell are part of the loop. You may only draw within or on the grid indicated by the dotted lines; specifically, potential edges marked with an x must not be drawn. The color of the numbers is purely for stylistic purposes and should be ignored for puzzle-solving purposes.

Answer: For each designated row, enter the length (number of cells) of each segment inside the loop, from left to right. Use only the last digit for two digit numbers; e.g., use '0' for a segment of length 10. If there are no cells inside the loop for a row, enter the single digit '0'.

Example Answer: 111, 8

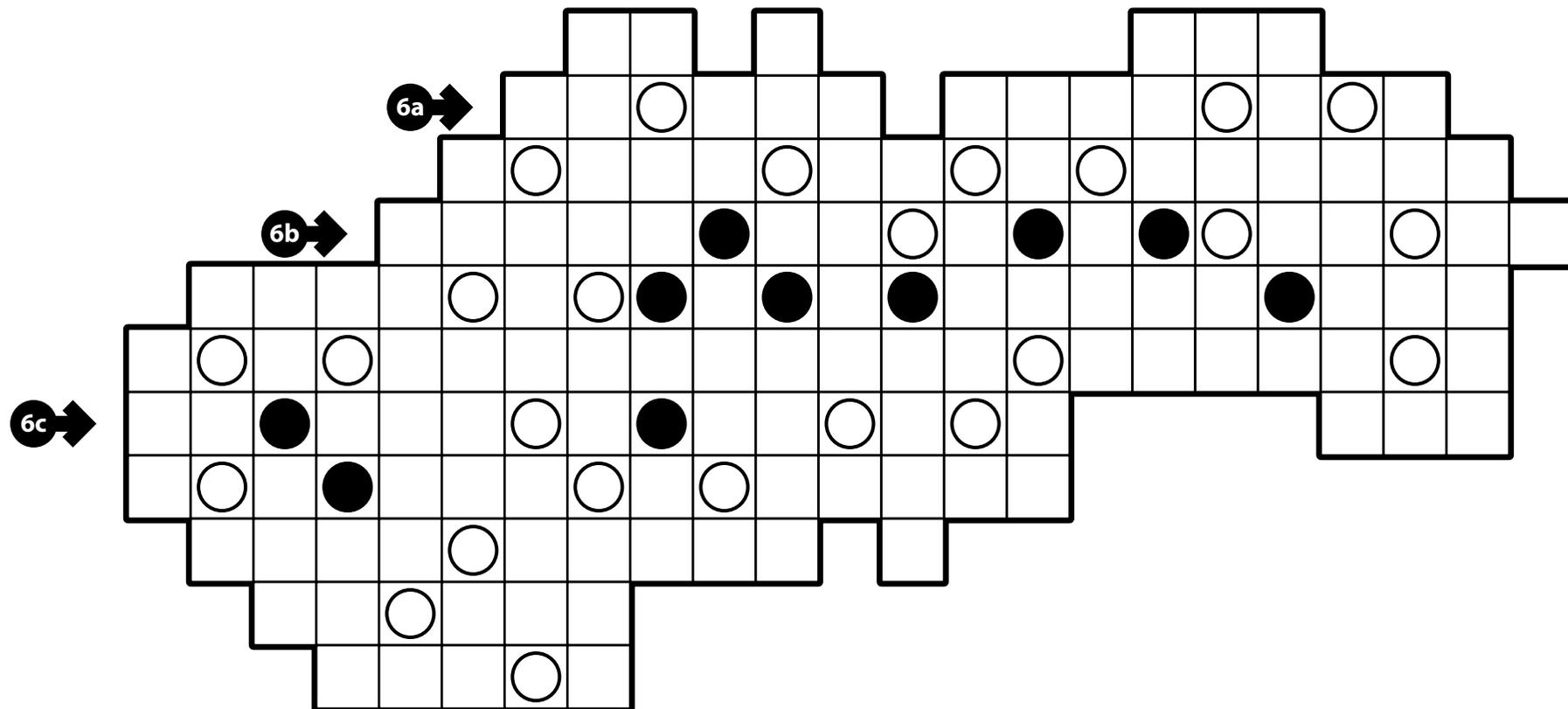
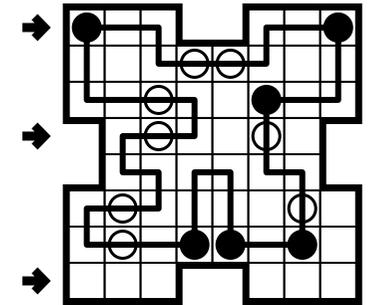


6. Masyu (29 points) [Matej Uher]

Draw a single, non-intersecting loop that passes through all circled cells. The loop must go straight through the cells with white circles, with a turn in at least one of the cells immediately before/after each white circle. The loop must make a turn in all the black circles, but must go straight in both cells immediately before/after each black circle.

Answer: For each designated row, enter the length in cells of the horizontal loop segments from left to right. Use only the last digit for two digit numbers; e.g., use '0' for a segment of length 10. If the loop only has vertical segments in the marked row, enter a single digit '0'.

Example Answer: 22, 2, 0

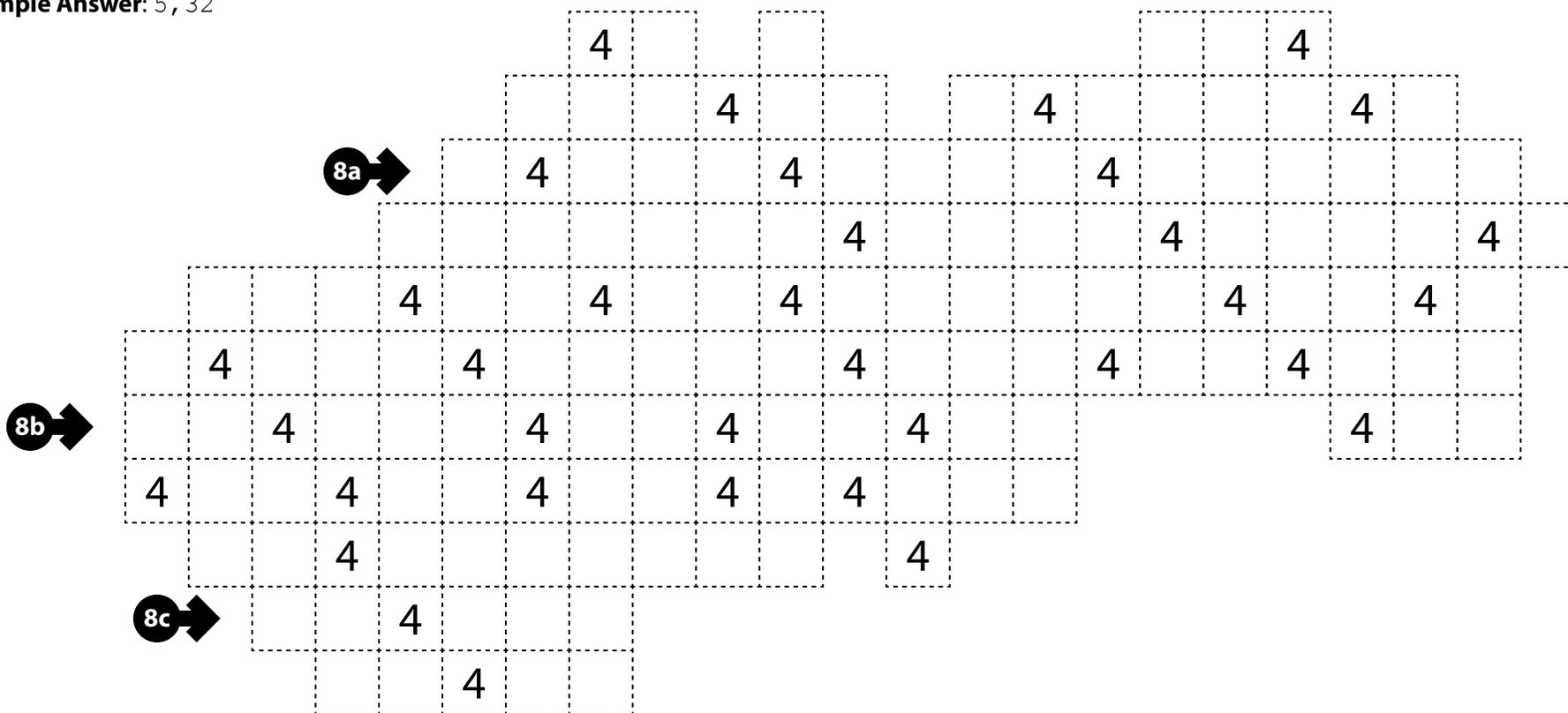
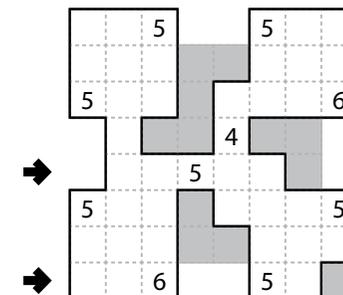


8. Cave (31 points) [Matej Uher]

Shade some cells to leave behind a single connected group — the cave — with no enclosed shaded cells. In other words, all shaded cells must be connected edge-wise by other shaded cells to an edge of the grid. All numbered cells must be a part of the cave, with each number indicating the total count of cells connected vertically and horizontally to the numbered cell *including the cell itself*. (Both the area inside the cave and the areas outside the cave are allowed to have 2x2 sub-areas.)

Answer: For each designated row, enter the length in cells of each of the cave segments (*not the shaded cells*) from left to right. Use only the last digit for two digit numbers; e.g., use '0' for a segment of length 10. If there are no cells belonging to the cave in the row, enter a single digit '0'.

Example Answer: 5, 32

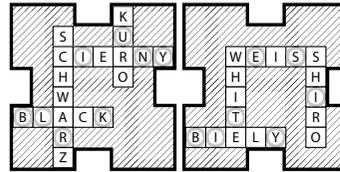


9. Double Criss-Cross (53 points) [Matúš Demiger]

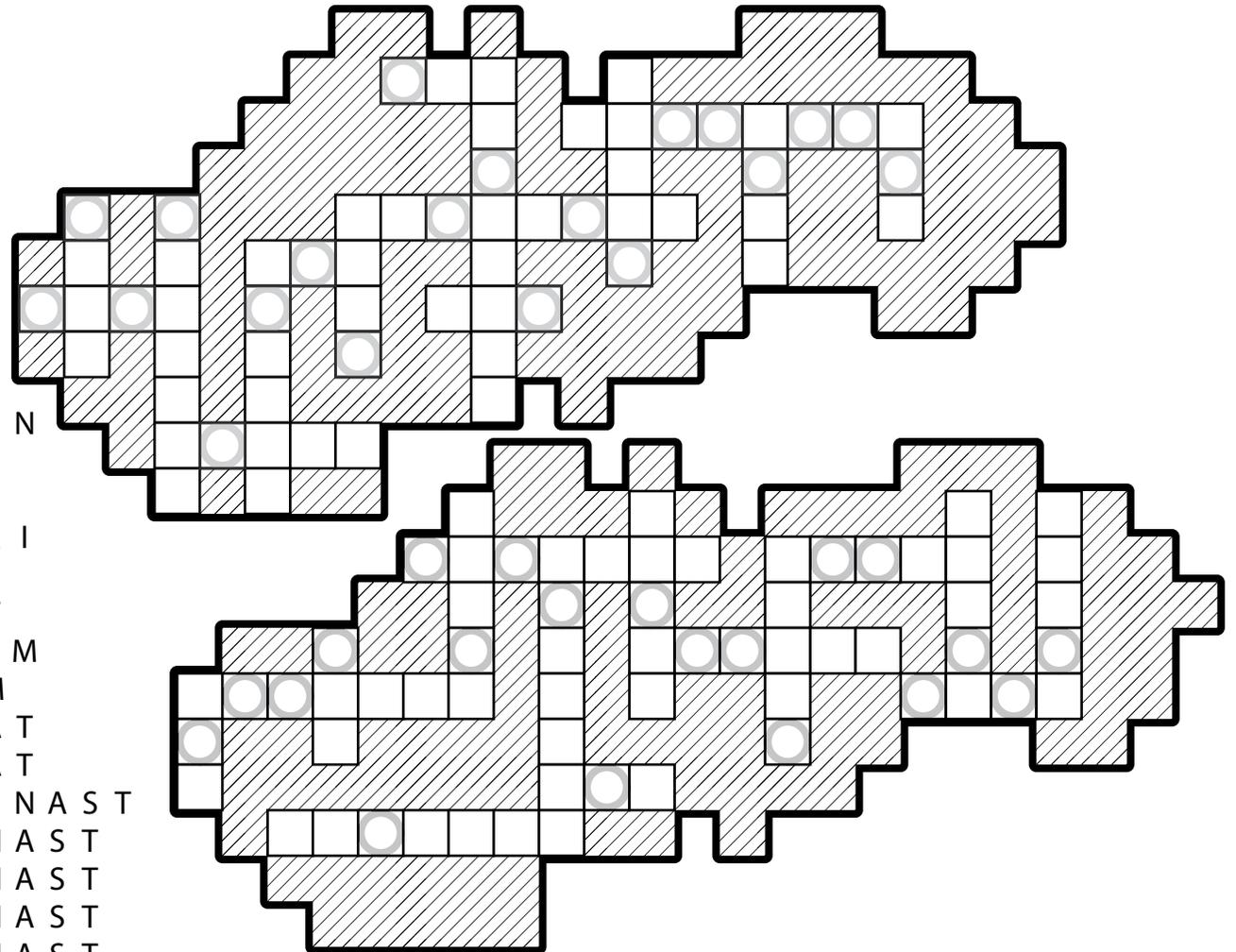
Enter the words into the crisscross grids across and down. One member of each pair will go in the TOP grid, the other in the BOTTOM grid. You need to find out which word belongs to which grid. The circles are only used for submitting your answer. The grey outline is purely for decoration and has no effect on the puzzle.

Answer: For each grid, enter the letters in the circles, from left to right. (Ignore which row the letters are in.)

Example Answer: BLRIKUNY, BITEYSI



ONE	-	JEDEN
TWO	-	DVA
THREE	-	TRI
FOUR	-	STYRI
FIVE	-	PAT
SIX	-	SEST
SEVEN	-	SEDEM
EIGHT	-	OSEM
NINE	-	DEVAT
TEN	-	DESAT
ELEVEN	-	JEDENAST
TWELVE	-	DVANAST
THIRTEEN	-	TRINAST
FOURTEEN	-	STRNAST
FIFTEEN	-	PATNAST

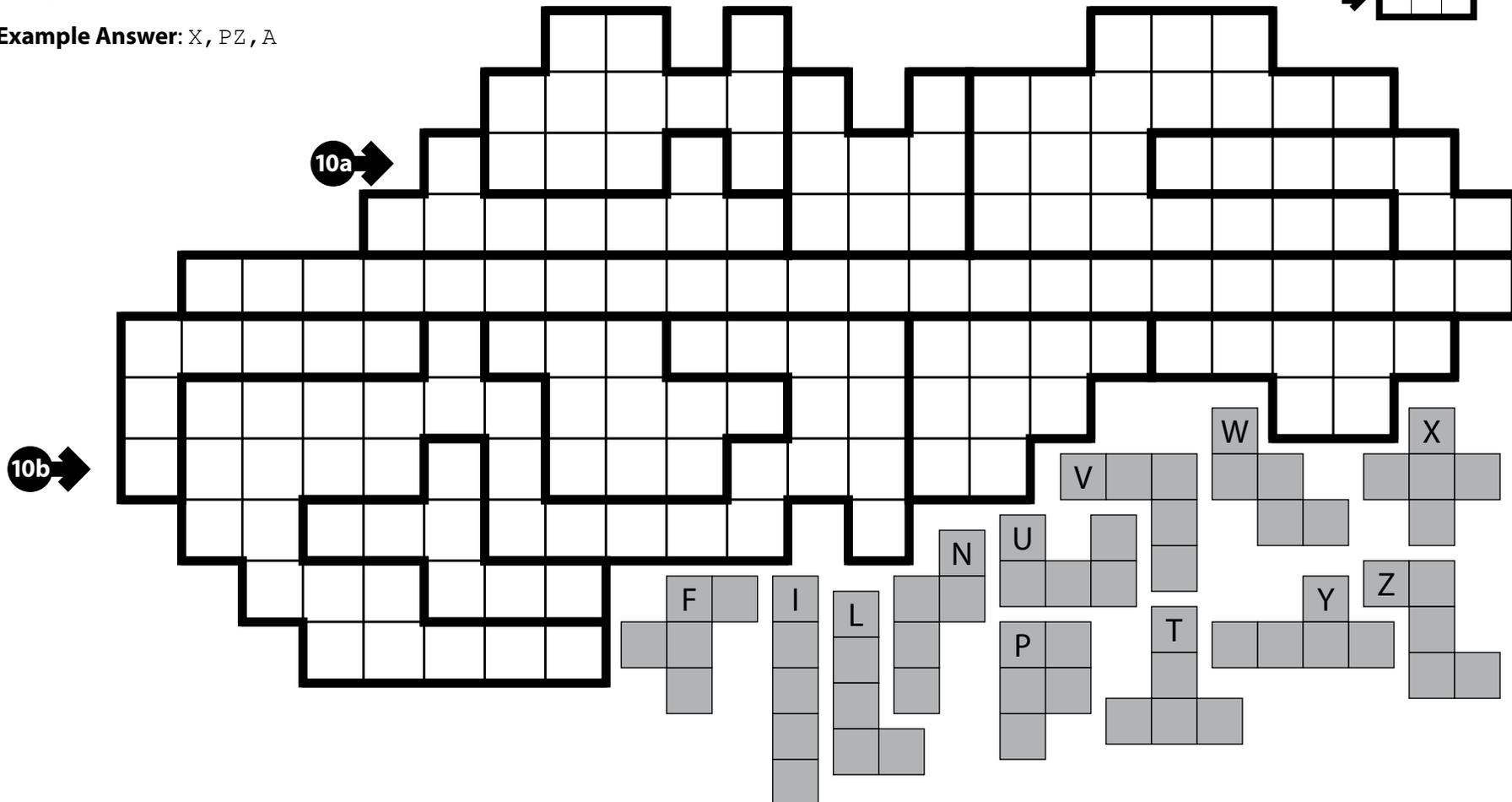
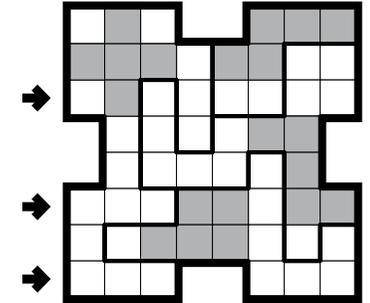


10. Pentomino Areas (43 points) [Matúš Demiger]

Place the twelve given pentominoes (4 in the example) into the grid so that they do not touch each other, not even diagonally. Each outlined region contains exactly one pentomino, and no pentomino is in more than one region. Pentominoes can be rotated and reflected.

Answer: For each designated row, enter the letter for each pentomino that appears in that row, from left to right. Within a row, if a pentomino occupies more than one cell, only enter that pentomino's letter once. If there are no pentominoes in that row, enter a single letter 'A'. (Standard pentomino letters FILNPTUVWXYZ will be used for the competition puzzle.)

Example Answer: X, PZ, A



11. Kakuro (44 points) [Matúš Demiger]

Place a digit from 1 to 9 into each white cell. The numbers in grey cells indicate the sum of digits in the adjacent “word” across or down. Digits may not repeat within a “word”. It is possible for a “word” to not have its sum provided; if so, its sum will be indicated with a ‘?’. The circles in the cells are only used for entering your answer.

Answer: Enter the numbers in the circles, from left to right. (Ignore which row the letters are in.)

Example Answer: 2435662

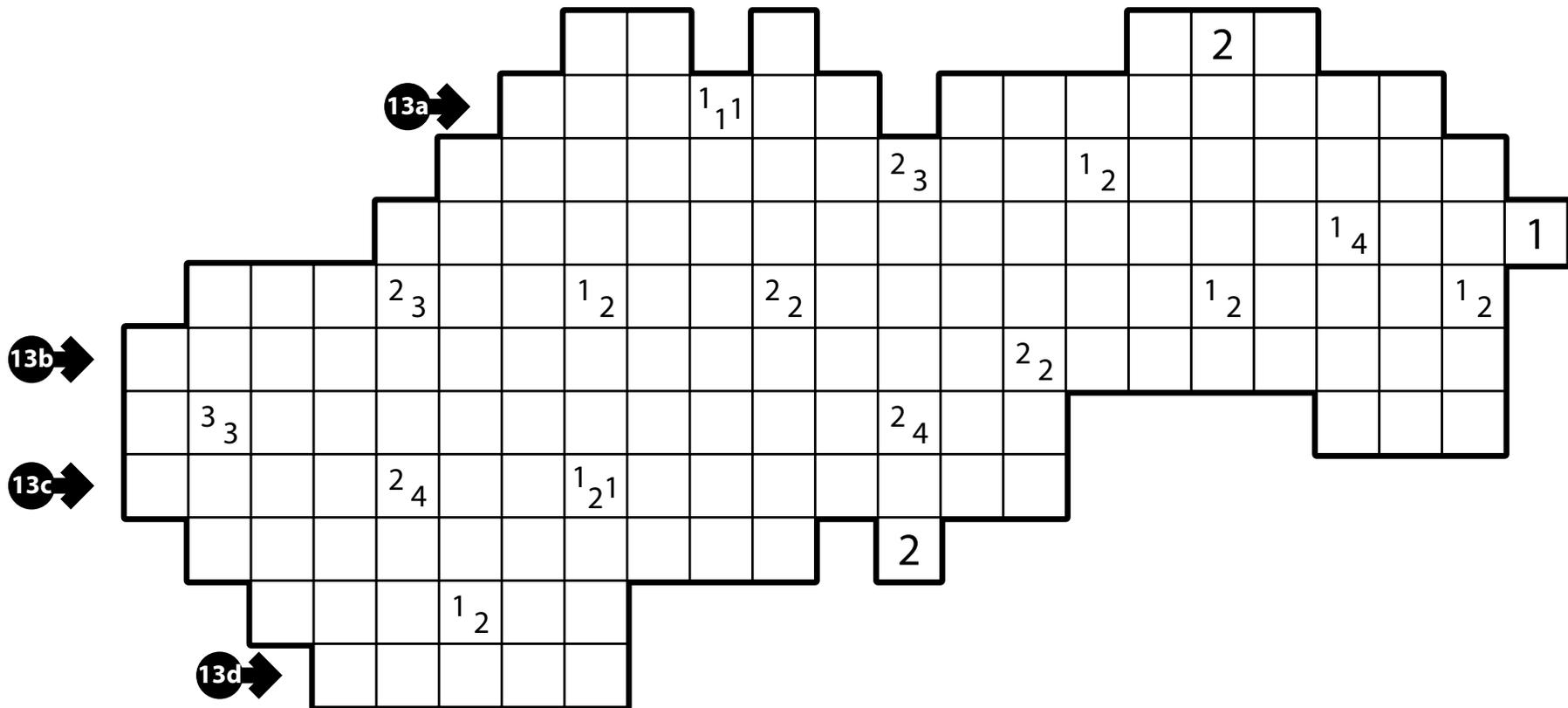
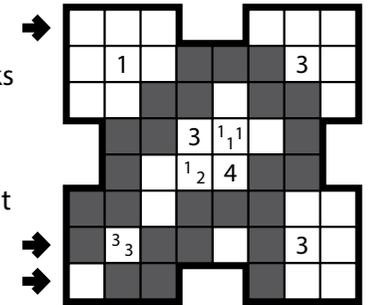
	14	28			24	14	16	
16	9	7	27	13	7	8	9	
40	5	4	8	9	1	6	7	
		10	1	3	4	2	10	
	6	11	2	9	6	8	6	2
22	2	3	7	1	5	4	?	
6	1	5	11	5	3	1	2	
9	3	6			4	3	1	

13. Tapa (33 points) [Matej Uher]

Shade some empty cells black to create a single connected wall. Numbers in a cell indicate the length of consecutive shaded blocks in the neighboring cells. If there is more than one number in a cell, then there must be at least one white (unshaded) cell between the black cell groups. Cells with numbers cannot be shaded, and the shaded cells cannot form a 2x2 square anywhere in the grid.

Answer: For each designated row, enter the length in cells of each of the shaded segments from left to right. Use only the last digit for two digit numbers; e.g., use '0' for segment of size 10. If there are no black cells in the row, enter a single digit '0'.

Example Answer: 0, 121, 21



15. Capsules (26 points) [Matúš Demiger]

Write in a single digit from 1 to 5 in each empty cell so that each bold outlined area has exactly one of each digit from 1 to 5. Cells containing identical digits must not touch each other, not even diagonally. The circles in the cells are only used for entering your answer.

Answer: Enter the numbers in the circles, from left to right. (Ignore which row the letters are in.)

Example Answer: 22412351

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

16. LITSO (98 points) [Matej Uher]

Divide the grid into tetrominos so that two identical tetrominos never share an edge (but may touch diagonally). Tetrominos that are rotations/reflections of each other are considered identical.

Answer: For each designated row, enter the shape of the tetromino each cell belongs to, from left to right. If multiple cells in a row belong to the same tetromino, enter all of them separately. Use the standard mapping "LITSO" for the tetromino shapes.

Example Answer: SSSSTT, STTS, LLLTTT

