WPF SUDOKU/PUZZLE GRAND PRIX 2026

ROUND 5

WPF PUZZLE GP 2026 COMPETITION BOOKLET

Host Country: Japan

Taigo Ando, Aoi Nakano, Naoki Sekiya, Ryusuke Nishiyama, Tadayuki Komori, Yohei Yanagawa

Special Notes: None.

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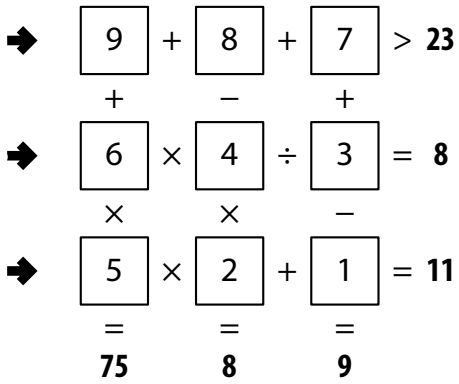
1. Arithmetic Square [Aoi Nakano] (18 points)

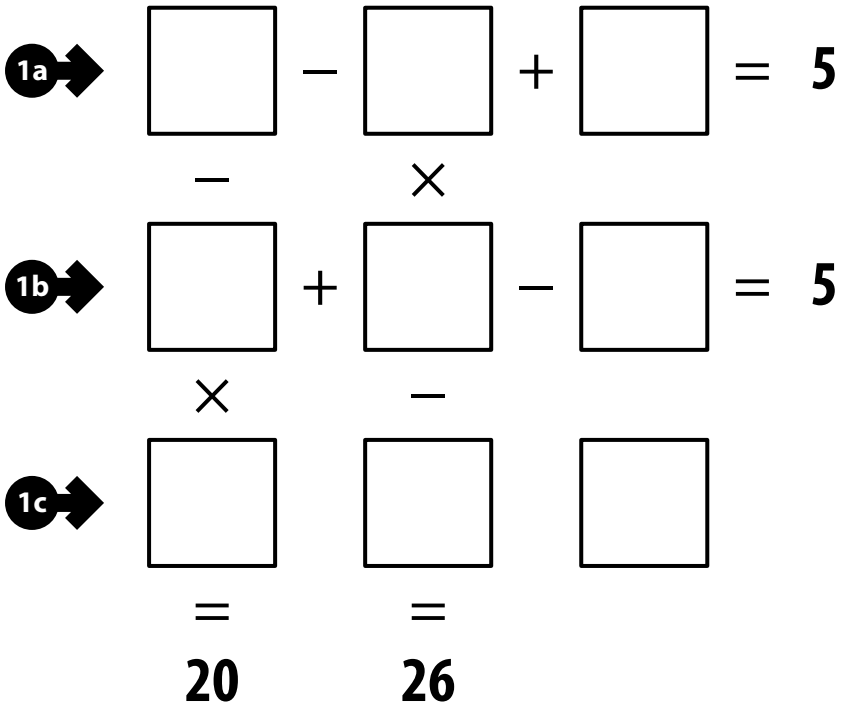
Place the numbers from 1 to 9 into the cells (a different single number in each cell) so that the indicated equations/relations are correct. Evaluate from left-to-right and top-to-bottom (ignore the usual precedence of the operators).

It is possible for expressions and partial expressions to be negative or non-integral.

Answer: For each designated row, enter the contents of the cells, in order from left to right.

Example Answer: `987,643,521`



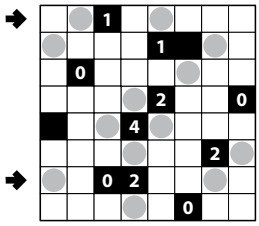


2-3. Akari [Aoi Nakano, Ryusuke Nishiyama] (26, 36 points)

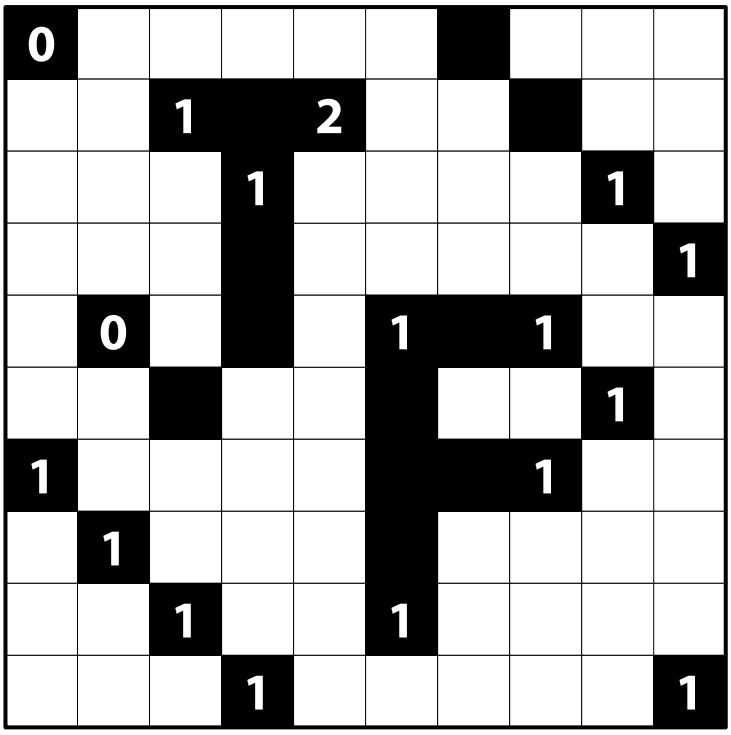
Locate some "light bulbs" in the grid such that every white cell is "lit up". Each bulb occupies a single white cell, and lights up its own cell, as well as white cells in the four orthogonal directions until the light beam encounters a black square or the edge of the grid. No light beam can encounter another light bulb. All white cells must be lit up by at least one bulb. A given number in a black cell indicates how many cells orthogonally adjacent to it are occupied by bulbs.

Answer: For each indicated row, enter its contents from left to right. Use 'O' for a cell with a bulb and 'X' for a cell without a bulb. Ignore cell colors and numbers when entering your answer. You may use other characters, as long as they are distinct.

Example Answer: XOXXOXXX, OXXXXXOX

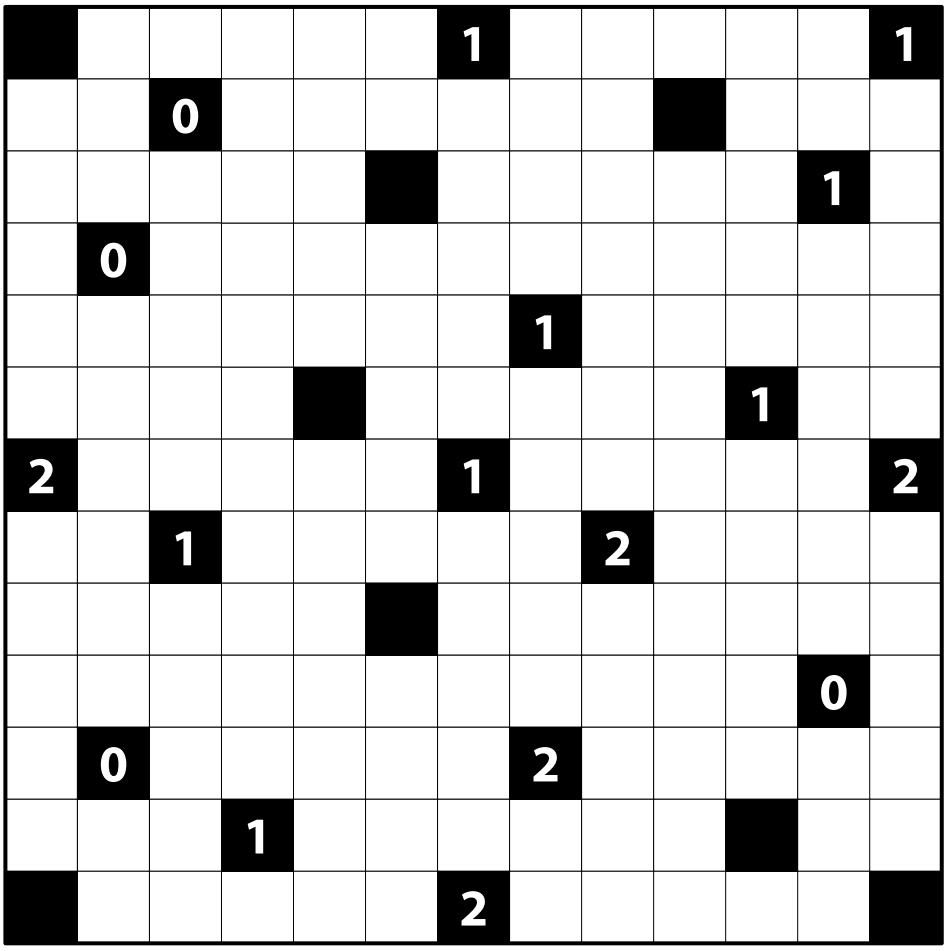


2a



2b

3a



3b

4-5. Kissing Polyominoes [Yohei Yanagawa] (15, 37 points)

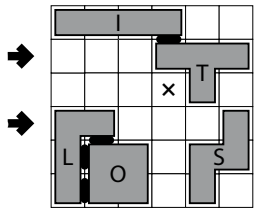
Shade some cells so that the shaded cells form the set of given shapes. (Shapes do not overlap.) Shapes can be rotated or reflected. If an edge is marked with a bar, then two shapes touch along that edge. If an edge is not marked with a bar, then two shapes do not touch along that edge (but both adjacent cells could be occupied by the same shape).

If a shape appears multiple times in the given set, then it must appear the same number of times in the grid.

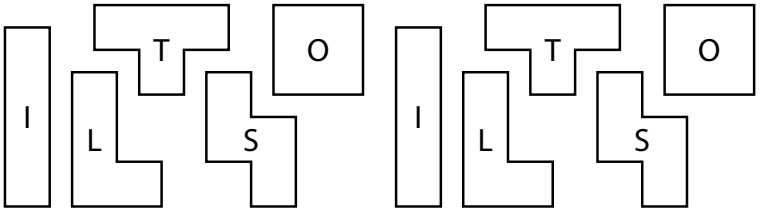
Cells marked with a cross must not be shaded.

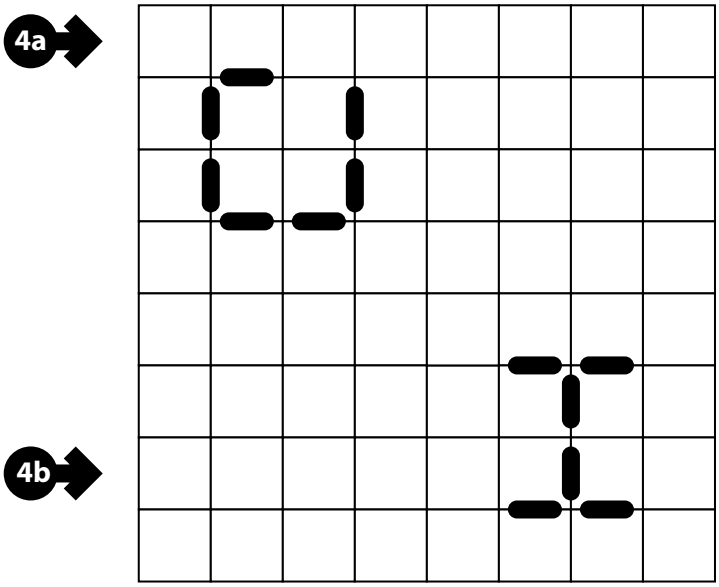
The letters for the shapes (as provided in the diagram) are only used for entering your answer.

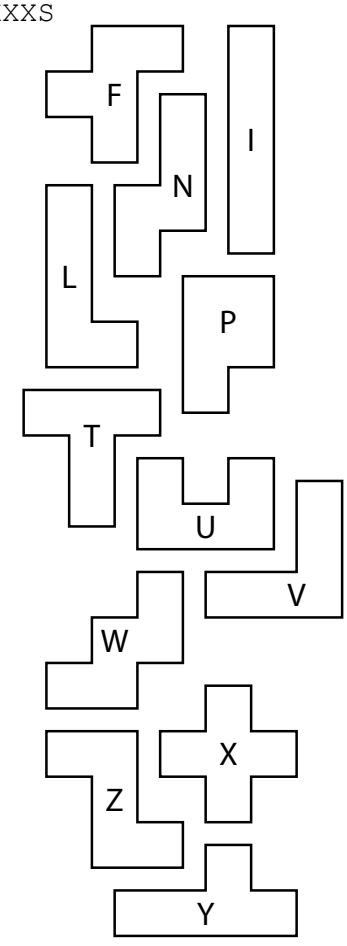
Answer: For each designated row, enter the letter for the shape that each cell belongs to, from left to right. If a cell is unshaded, use 'X' for its letter.

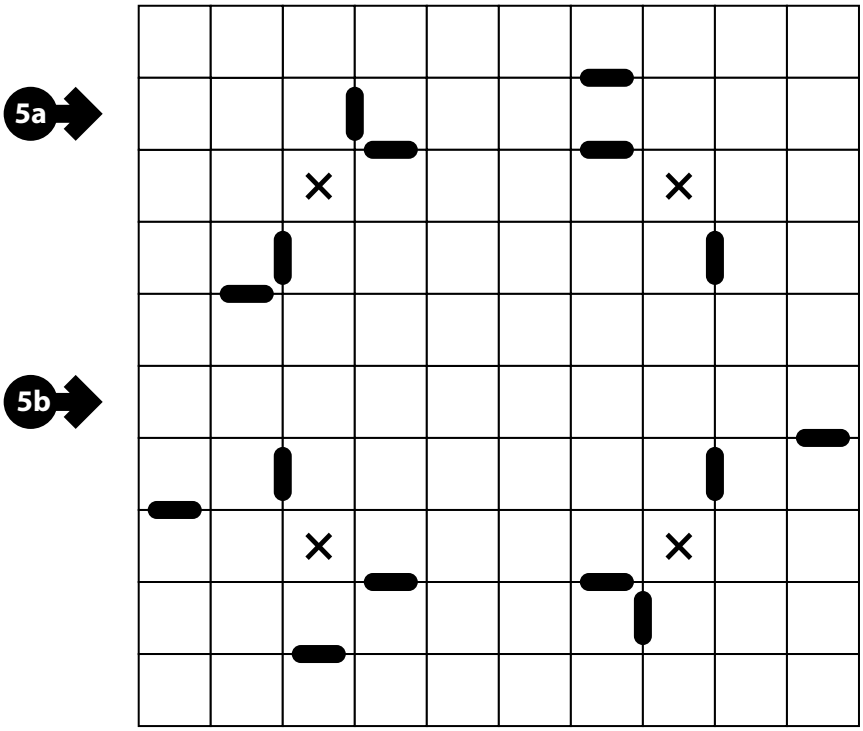


Example Answer:
XXXTTT,LLXXXS







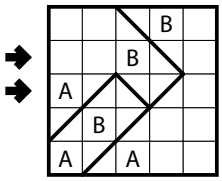


6-7. Slash Pack [Yohei Yanagawa, Naoki Sekiya] (50, 37 points)

Place a diagonal line into some empty cells such that the grid is divided by the diagonal lines into different regions (each diagonal line separates two different regions). No cell can contain more than one diagonal line, and every diagonal line must connect opposite corners of its cell. Each region must contain exactly one each of the symbols given in the grid.

Answer: For each designated row, enter its contents, from left to right. Use 'N' for a cell with a diagonal line going from upper-left to lower-right, 'Z' for a cell with a diagonal line going from upper-right to lower-left, and 'O' for a cell without a diagonal line (including cells with symbols). You may use other characters, as long as they are distinct.

Example Answer: OOONO, OZNZO



6a

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

6b

7a

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

7b

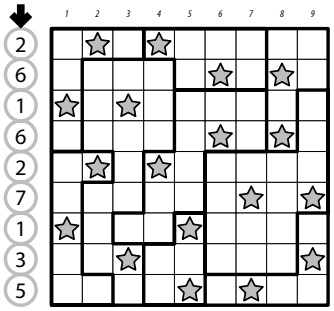
8-9. Star Battle [Ryusuke Nishiyama, Naoki Sekiya] (19, 71 points)

Place stars into some cells in the grid, no more than one star per cell. Each row, each column, and each outlined region must contain exactly two stars. Cells with stars cannot touch each other along an edge or a corner.

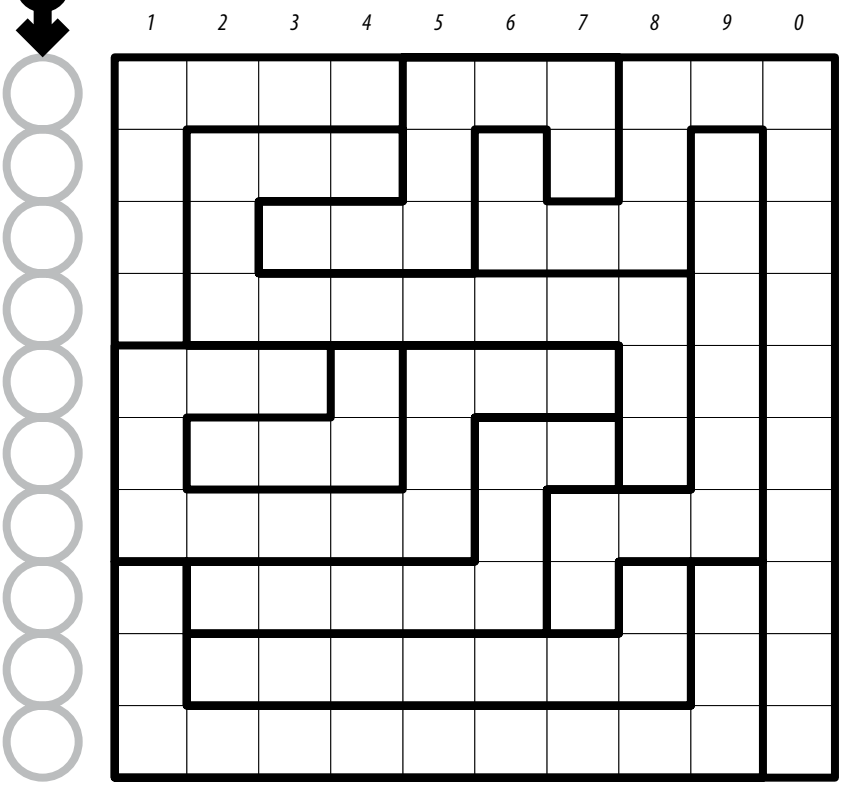
The numbers on top of the diagram are for Answer purposes only.

Answer: For each row from top to bottom, enter the number of the first column from the left where a star appears (the number on top of that column). Use only the last digit for two-digit numbers; e.g., use '0' if the first star appears in column 10.

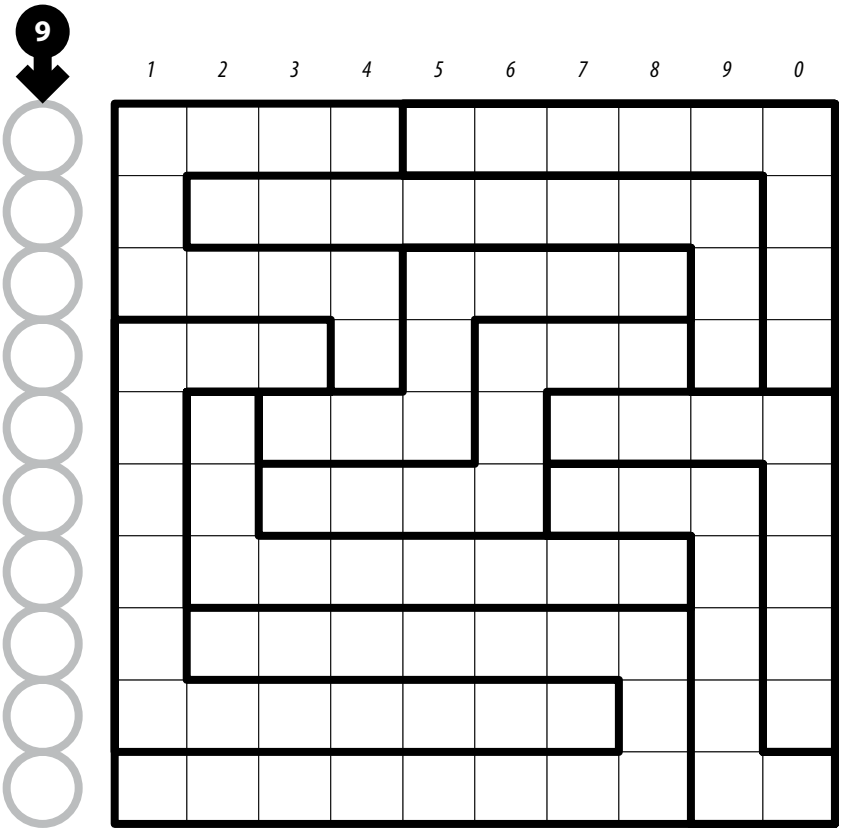
Example Answer: 261627135



8



9



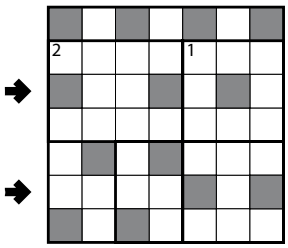
10-11. Ayeheya [Ryusuke Nishiyama] (16, 38 points)

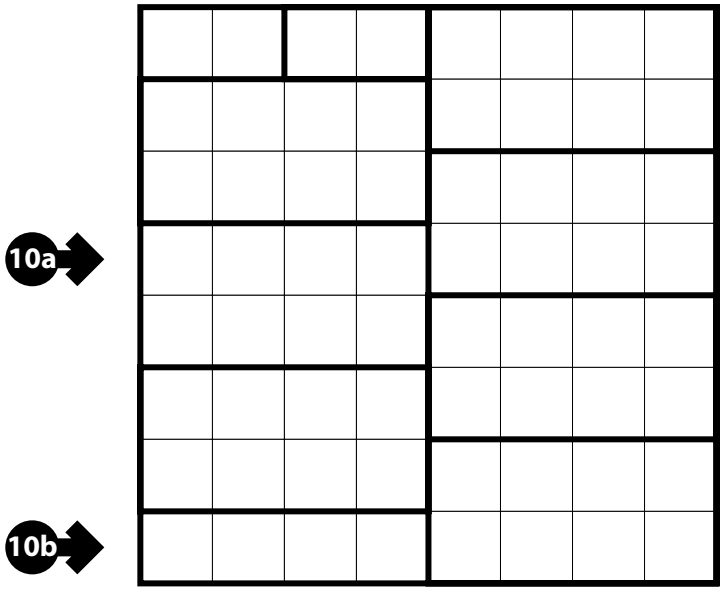
Shade some cells so that all other cells are connected orthogonally and no two shaded cells share an edge. The grid is divided into regions by thick borders; a number in a region indicates exactly how many cells in that region must be shaded. (Cells with numbers may or may not be shaded.) A group of unshaded cells connected to each other only horizontally or only vertically is called a "word". No word may cross more than one thick border.

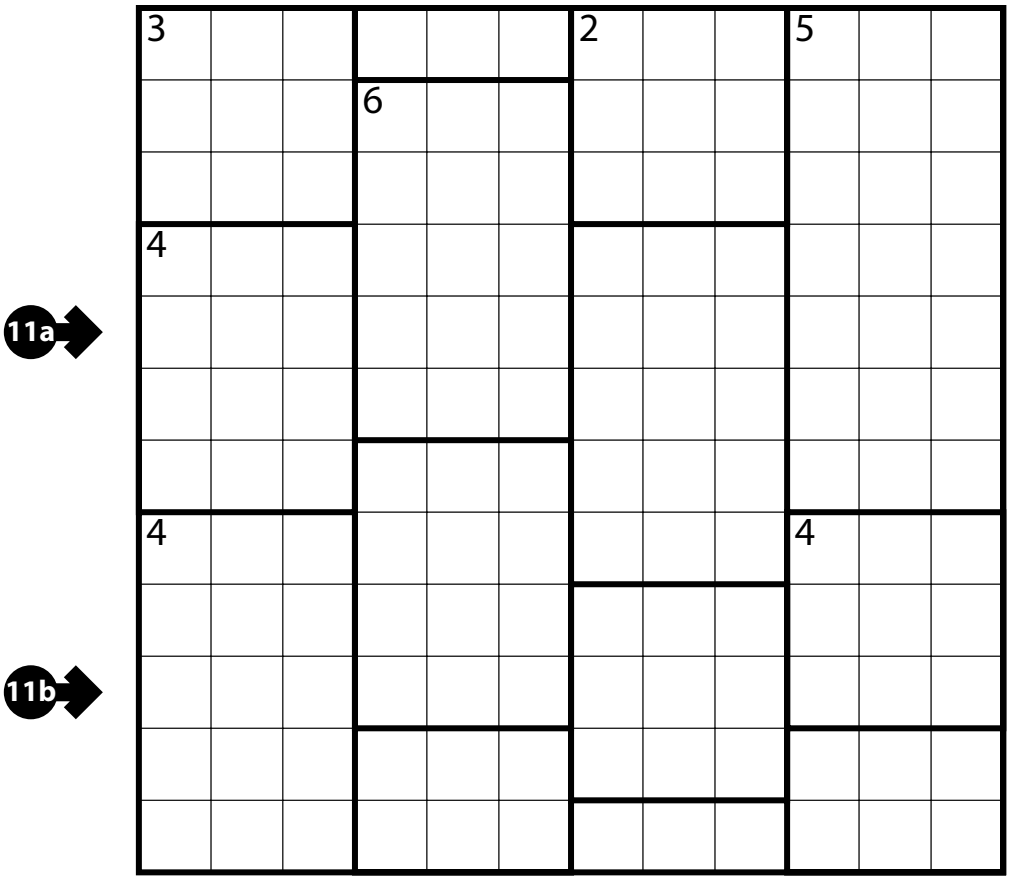
Every region's shaded cells must have rotational symmetry (that is, it should look the same when rotated 180 degrees about the region's center). (It is possible for a region to have no shaded cells.)

Answer: For each indicated row, enter its contents from left to right. Use 'O' for an unshaded cell and 'X' for a shaded cell. Ignore borders and numbers when entering your answer. You may use two other characters, as long as they are distinct.

Example Answer: XOOXOXO, OOOOXOX





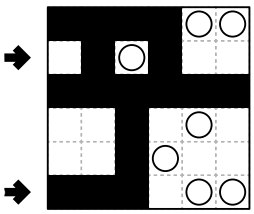


12-13. Circles in Squares [Naoki Sekiya] (11, 24 points)

Shade some cells black (leaving the other cells white) so that the grid is divided into non-overlapping regions; cells of the same color are considered in the same region if they are adjacent along edges. Each white circle must be in a white region. Every white region must have a square shape. Each black circle must be in a shaded cell. All shaded cells must be in the same region. No 2×2 group of cells can be entirely shaded black.

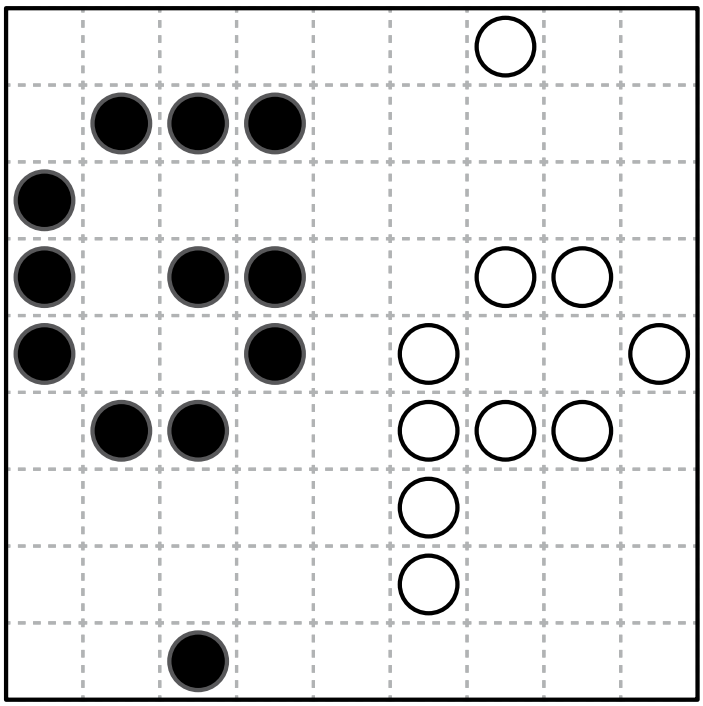
Answer: For each designated row, enter its contents from left to right. Use 'X' for a shaded cell and 'O' for an unshaded cell. You may use other letters or numbers, as long as they are distinct.

Example Answer: OXOXOO, XXXOOO



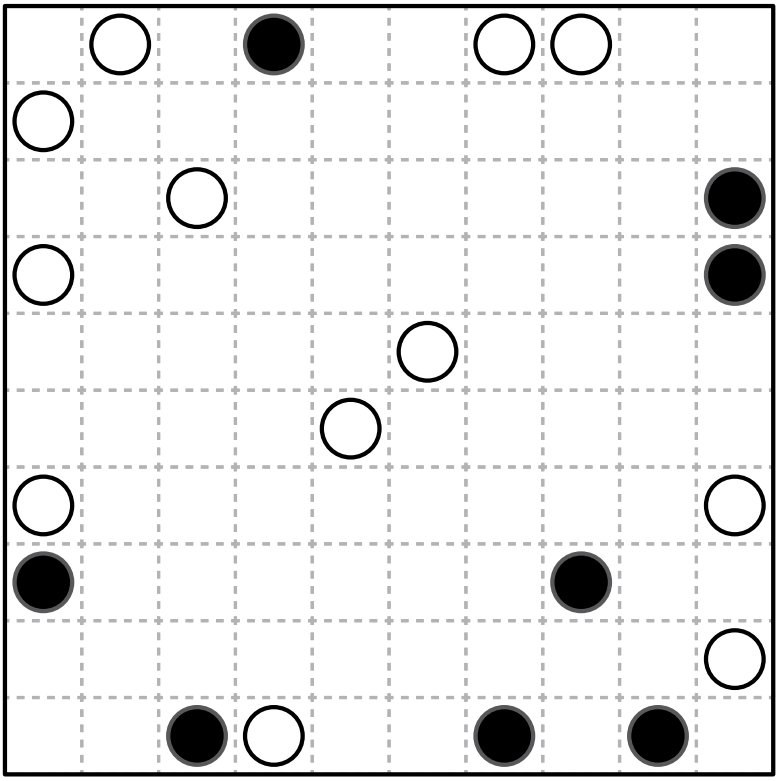
12a

12b



13a

13b



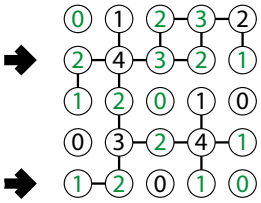
14-15. Key West [Yohei Yanagawa] (10, 50 points)

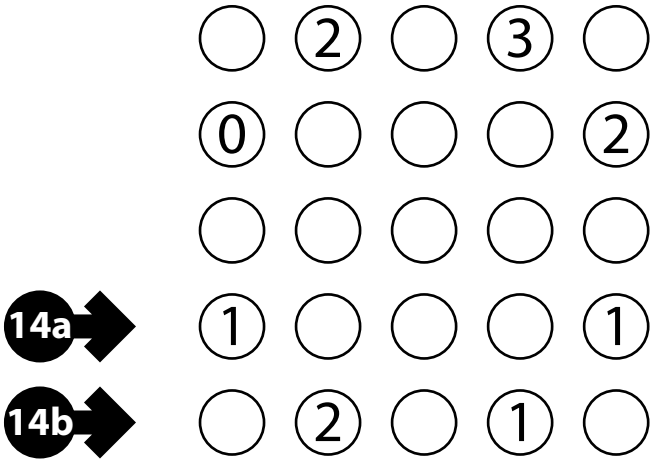
Connect some orthogonally-adjacent circles with bridges so that every number in a circle is the count of the bridges connected to its circle. If two circles are orthogonally adjacent, then they must each connect to a different number of bridges. (For example, it is not allowed to have two adjacent circles that are each connected to zero bridges.) No two bridges can connect the same pair of circles. It must be possible to get from any bridge to any other bridge by travelling along connected circles and bridges.

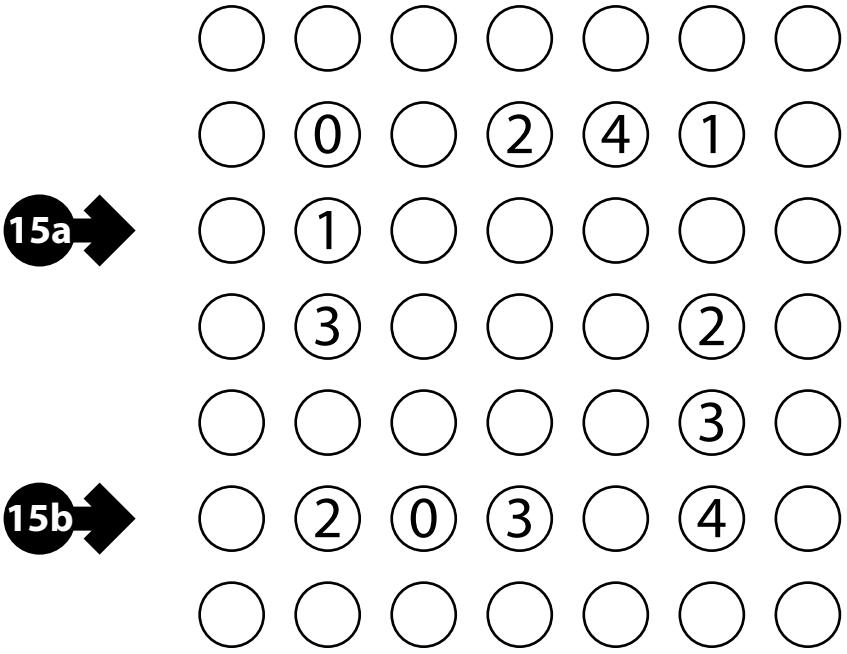
It may be helpful, especially for the answer key, to write inside the empty circles the number of bridges connected to that circle, as shown in green in the example solution, although only drawing the bridges is necessary for a correct solution.

Answer: For each designated row, enter the number of bridges directly connected to each cell in the row, from left to right.

Example Answer: `24321,12010`





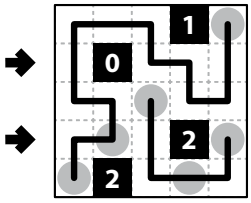


16-17. Takoyaki [Yohei Yanagawa] (14, 35 points)

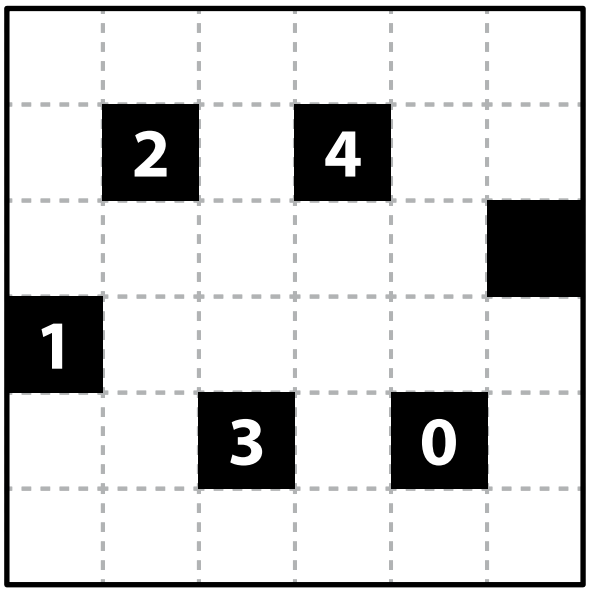
Locate some paths ("skewers") and circles ("takoyaki") in the grid. Paths must go through (only) white cells orthogonally, and do not overlap or intersect. Every white cell is used in exactly one path. Each path must use exactly three cells with circles. Both ends of each path must be in cells with circles. No two cells with circles can share an edge. If two circles are in the same row or column, they must be on different paths. A given number in a black cell indicates how many cells orthogonally adjacent to it have circles.

Answer: For each designated row, enter the letter for each cell, from left to right. The letter for a cell is 'O' if the cell has a circle or is black, 'I' if a path goes straight through the cell but does not have a circle, and 'L' if a path turns in the cell but does not have a circle. You may use other characters, as long as they are distinct.

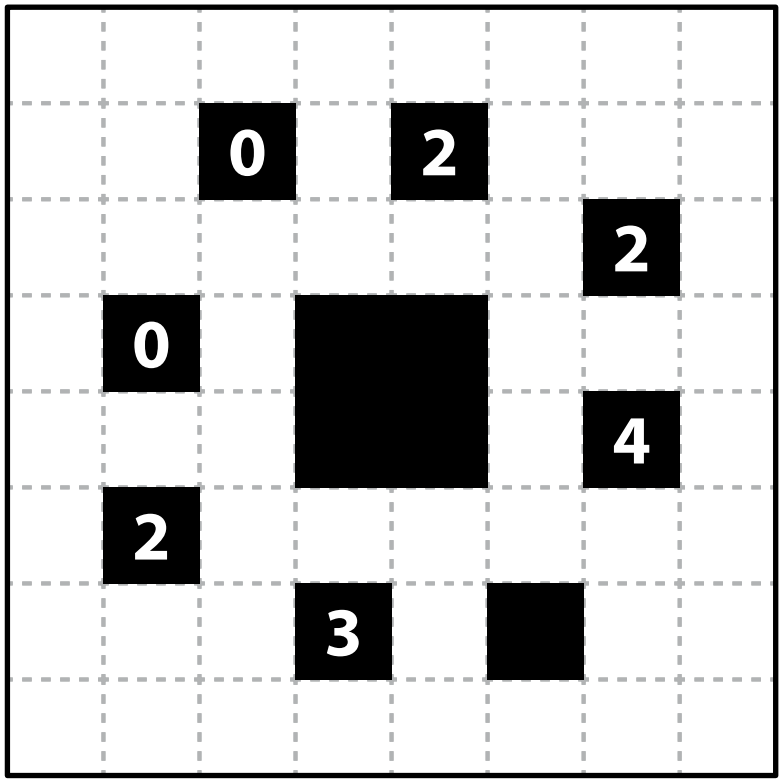
Example Answer: IOLLI,LOIOO



16a
16b



17a
17b

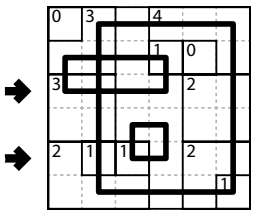


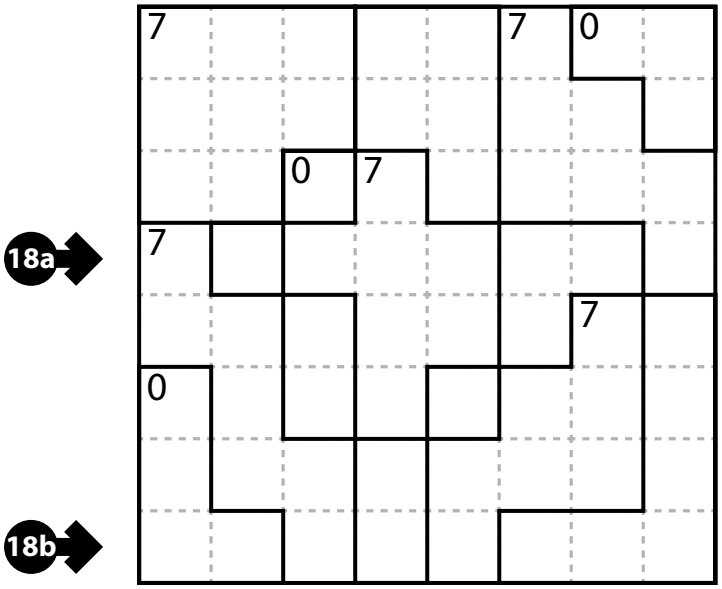
18-19. Nagenawa [Tadayuki Komori] (24, 62 points)

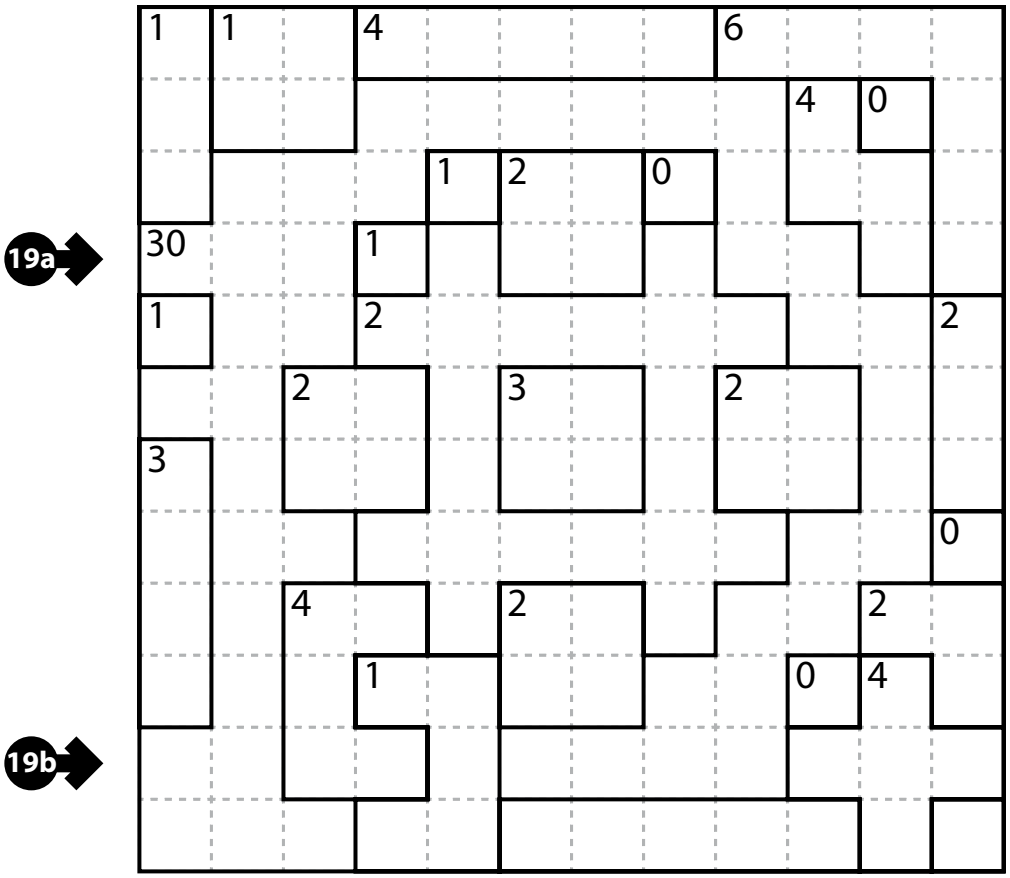
Locate some rectangles (squares are considered to be rectangles for this puzzle) in the grid. Rectangles must go through (centers of) cells orthogonally, and may intersect other rectangles. Edges of rectangles cannot overlap. No cell can contain the corner of two (or more) rectangles. The grid is divided into regions by thick borders; a number in a region indicates exactly how many cells in that region are used by (one or more) rectangles. (Cells with numbers may or may not be used by rectangles.)

Answer: For each designated row, enter the letter for each cell, from left to right. The letter for a cell is 'I' if (exactly) one rectangle goes straight through the cell, 'L' if a the cell contains the corner of a rectangle, and 'X' if the cell is used by 0 or 2 rectangles. You may use other characters, as long as they are distinct.

Example Answer: LXILXI, XILLXI







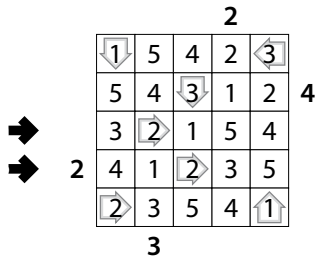
20-21. Skyscrapers (point to X) [Tadayuki Komori] (13, 46 points)

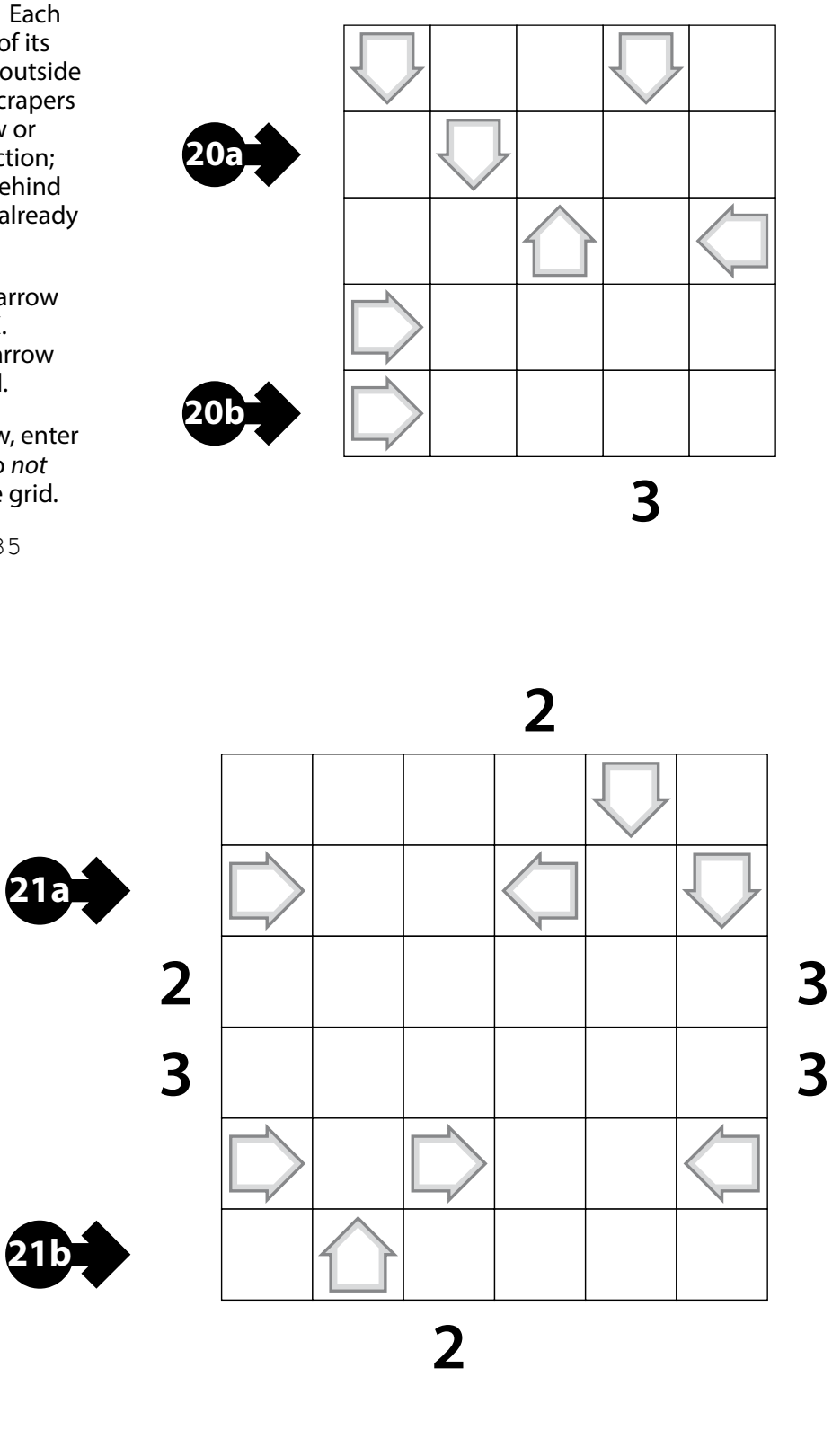
Place a number from 1 to X into each cell so that each number appears exactly once in each row and column. (X is the number of cells in each row.) Each number represents a skyscraper of its respective height. The numbers outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction; shorter skyscrapers are hidden behind taller ones. Some numbers may already be filled in for you.

Some cells contain arrows. Each arrow points toward a cell containing X. The number in the cell with the arrow indicates the distance to that cell.

Answer: For each designated row, enter its contents from left to right. Do *not* include any numbers outside the grid.

Example Answer: `32154,41235`





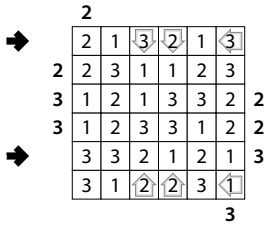
22-23. Skyscrapers (double, point to X) [Tadayuki Komori] (24, 66 points)

Place a number from 1 to X into each cell so that each number appears exactly *twice* in each row and column. (X is *half* the number of cells in each row.) Each number represents a skyscraper of its respective height. The numbers outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction; shorter skyscrapers are hidden behind taller or *equally-tall* ones. Some numbers may already be filled in for you.

Some cells contain arrows. Each arrow points toward at least one cell containing X. The number in the cell with the arrow indicates the distance to the first such cell.

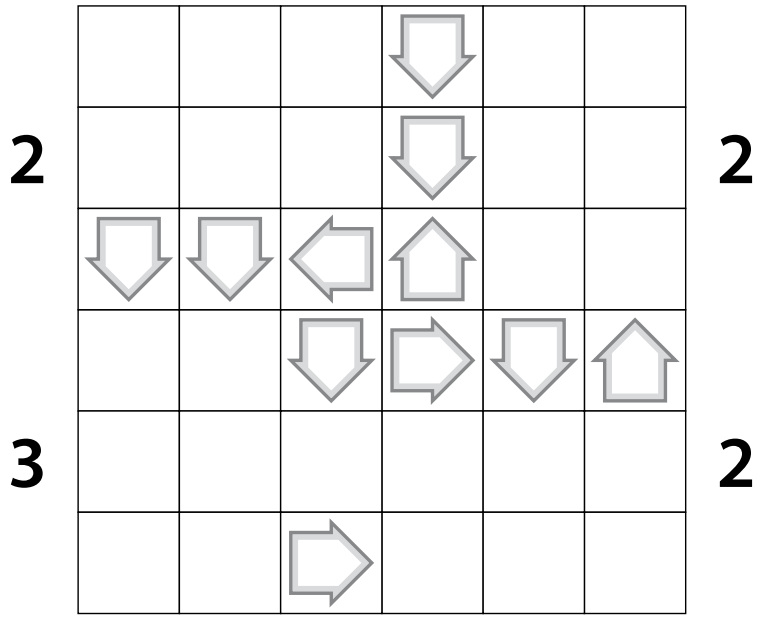
Answer: For each designated row, enter its contents from left to right. Do *not* include any numbers outside the grid.

Example Answer: `213213,332121`



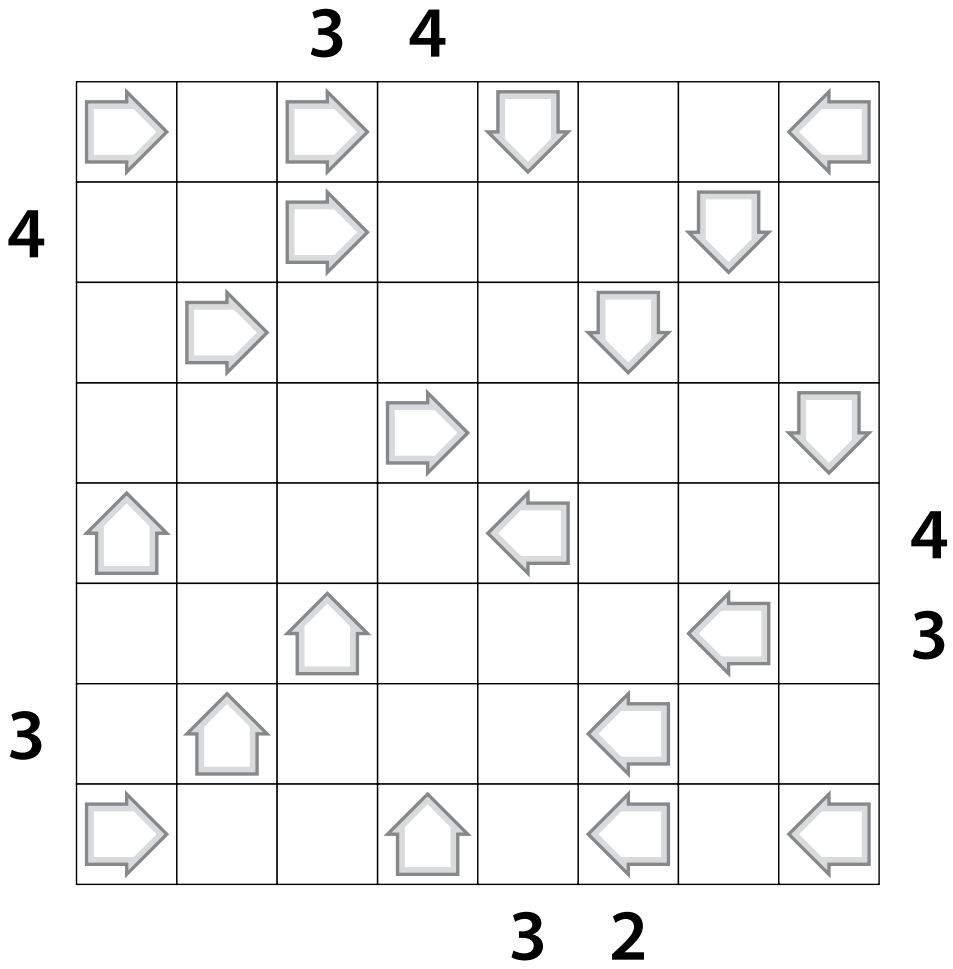
22a

22b



23a

23b



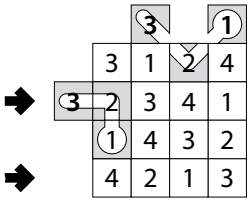
24-25. Skyscrapers (thermometers) [Ryusuke Nishiyama, Naoki Sekiya] (16, 119 points)

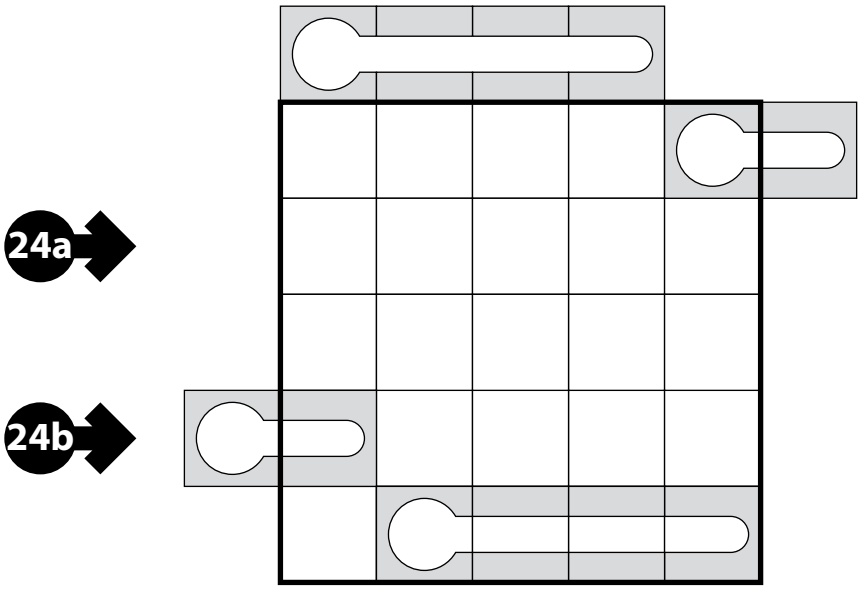
Place a number from 1 to X into each cell so that each number appears exactly once in each row and column. (X is the number of cells in each row.) Each number represents a skyscraper of its respective height. The numbers outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction; shorter skyscrapers are hidden behind taller ones. Some numbers may already be filled in for you.

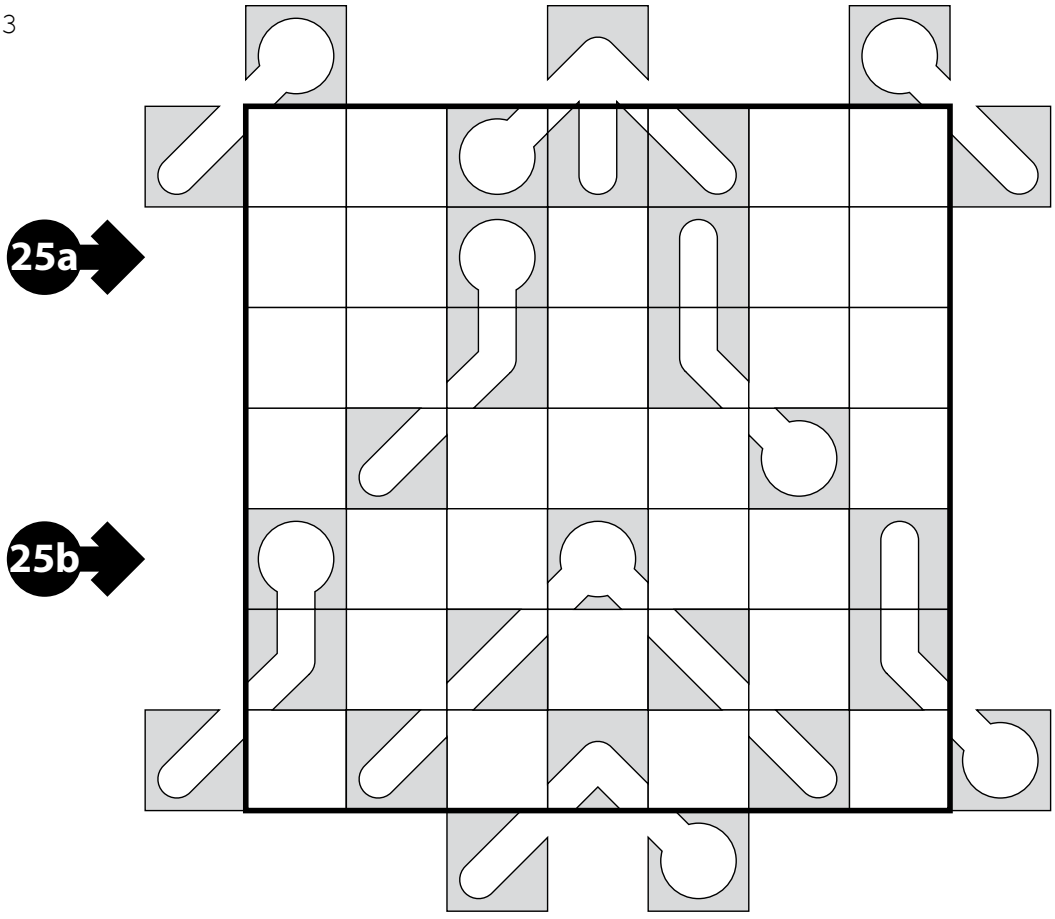
Each "thermometer" in and possibly outside the grid indicates a sequence of numbers that must be strictly increasing (no duplicates) from the round "bulb" end of the thermometer to the other end. (It is possible for thermometers to branch in different directions, but each thermometer will have only one "bulb".)

Answer: For each designated row, enter its contents from left to right. Do *not* include any numbers outside the grid.

Example Answer: `2341,4213`







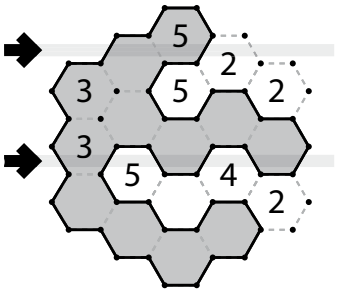
26-27. Slitherlink (hex) [Aoi Nakano, Naoki Sekiya] (21, 124 points)

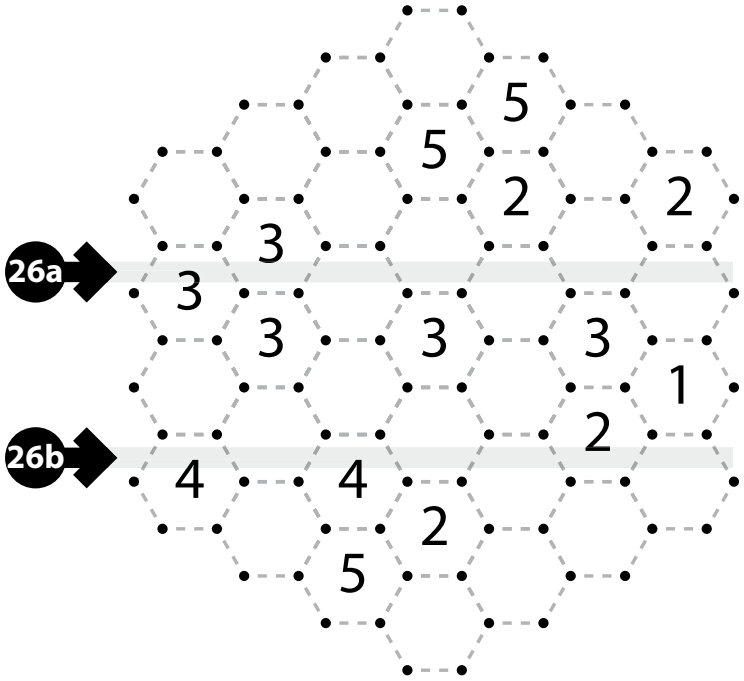
Draw a single, non-intersecting loop that only consists of line segments between the dots along the dashed lines. A number inside a cell indicates how many of the edges of that cell are part of the loop.

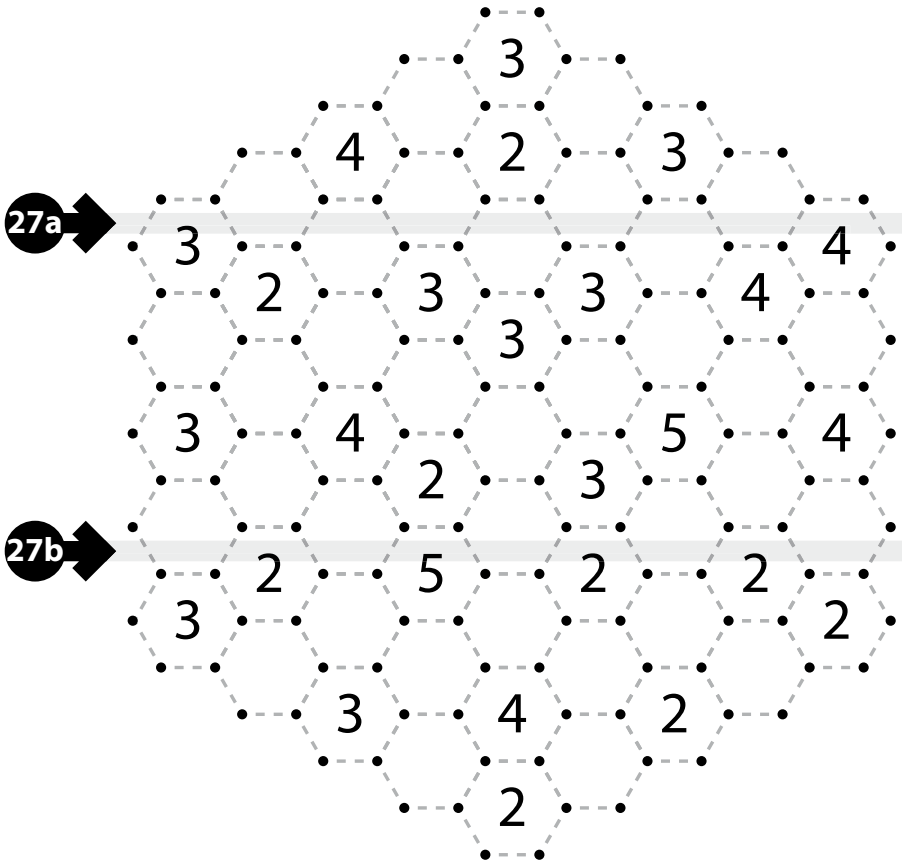
The horizontal grey lines along the arrows are only used to help you enter your answer.

Answer: For each designated row, enter its contents from left to right. Use 'o' for a cell inside the loop and 'x' for a cell outside the loop. You may use other characters, as long as they are distinct.

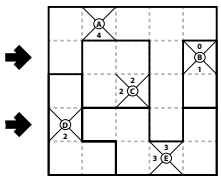
Example Answer: oox, oxoxo







28. Compass [Aoi Nakano] (58 points)

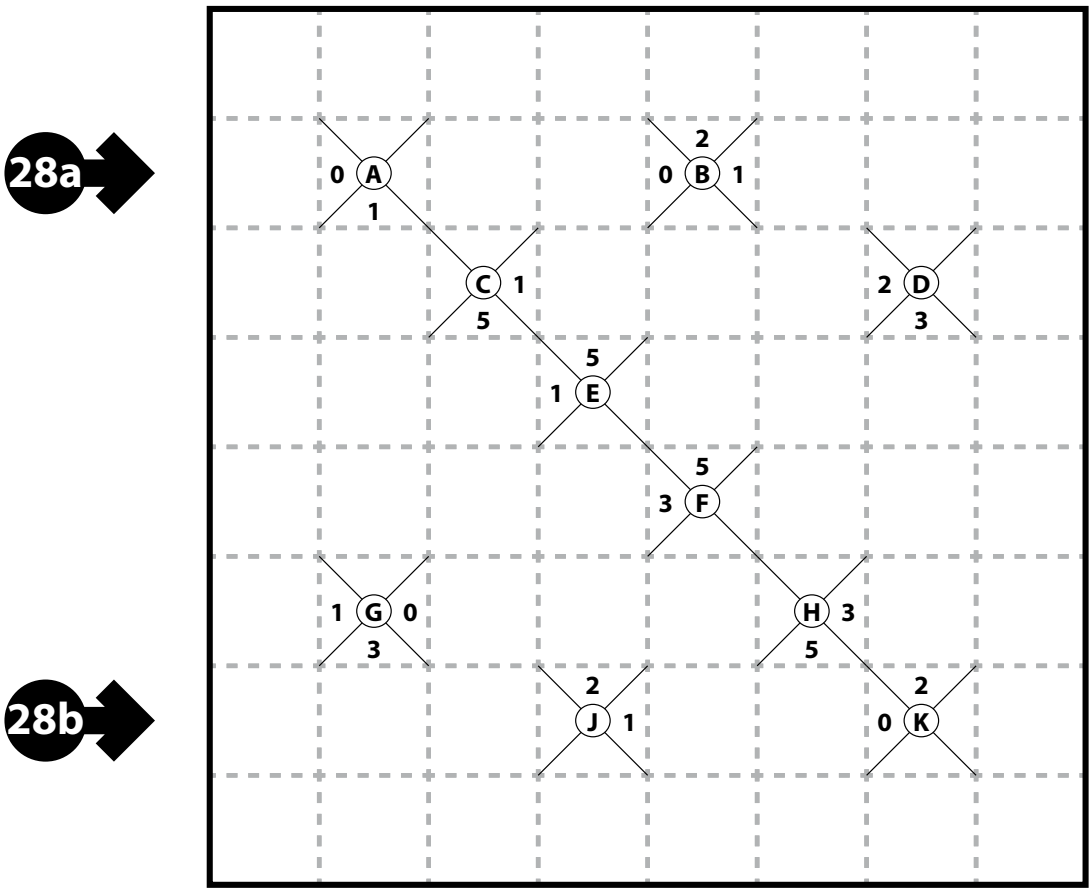


Divide the grid along the dashed lines into regions (groups of cells that are connected orthogonally). Each cell must be in exactly one region, and each region must contain exactly one clue (an X-like symbol that contains up to four numbers). For each clue, the number in the north part (north being towards the top of the page) indicates how many cells of that clue's region are located north of the clue cell (ignoring their east-west location). Analogously, numbers in the west, east, and south part indicate how many cells of that region are located west, east and south of the clue cell. If there is no number in a part, the number of cells in that direction are not given to you.

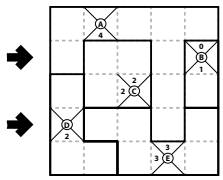
The letters in the clue cells are for Answer purposes only.

Answer: For each designated row, enter the letter of the region each cell belongs to, from left to right.

Example Answer: `ACCAB,DEEAE`

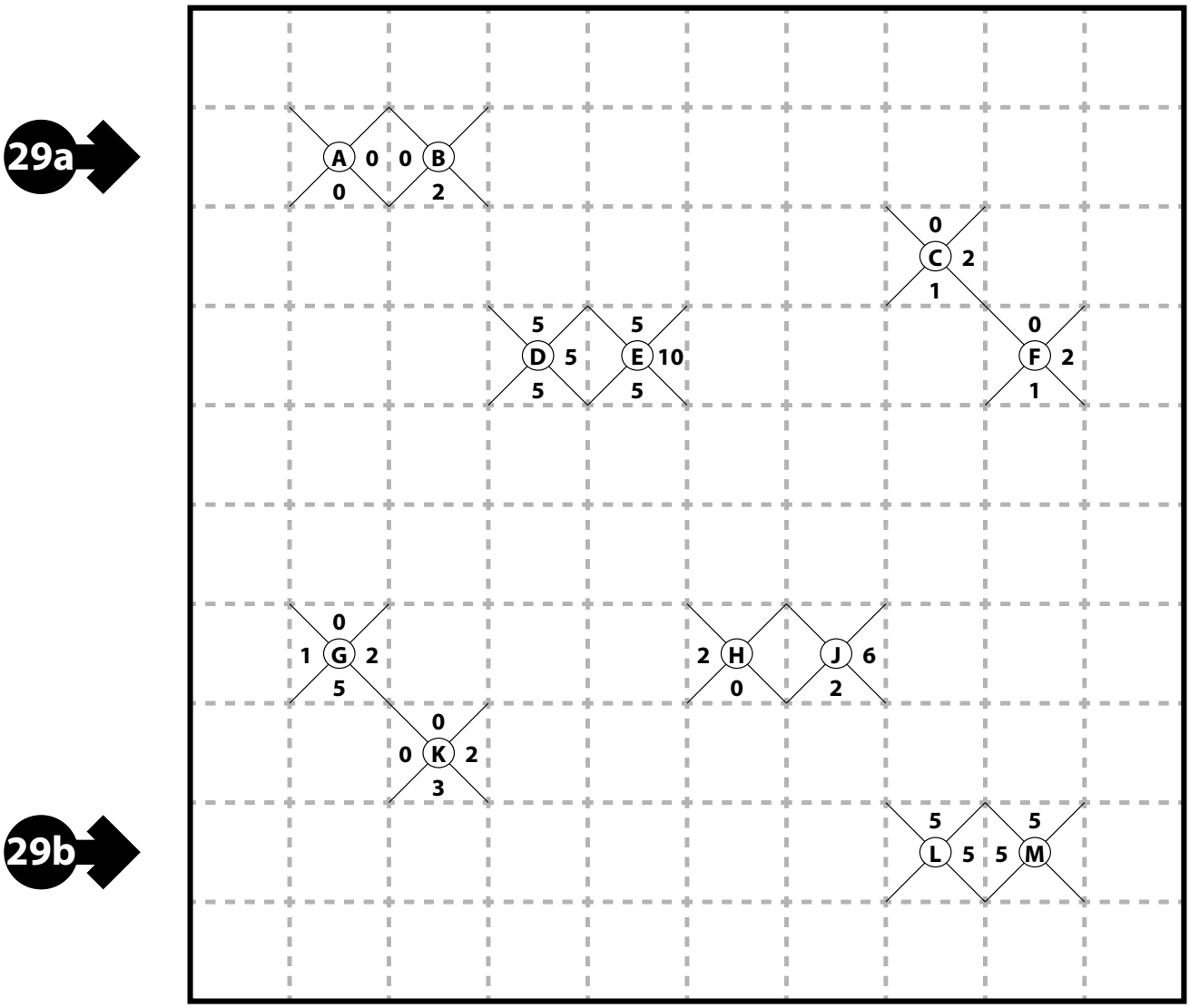


29. Compass [Aoi Nakano] (157 points)



Answer: For each designated row, enter the letter of the region each cell belongs to, from left to right.

Example Answer: `ACCAB, DEEAE`



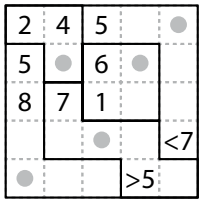
30-31. Araf [Taigo Ando, Yohei Yanagawa] (51, 61 points)

Divide the grid along the dashed lines into regions (called polyominoes). Inside some cells are numbers; each polyomino must contain exactly two numbers, and the area of the polyomino (in cells) must be strictly between those two numbers. Some numbers may be prefixed with "<" or ">"; the polyomino containing those numbers must have an area less than or greater than that number, respectively.

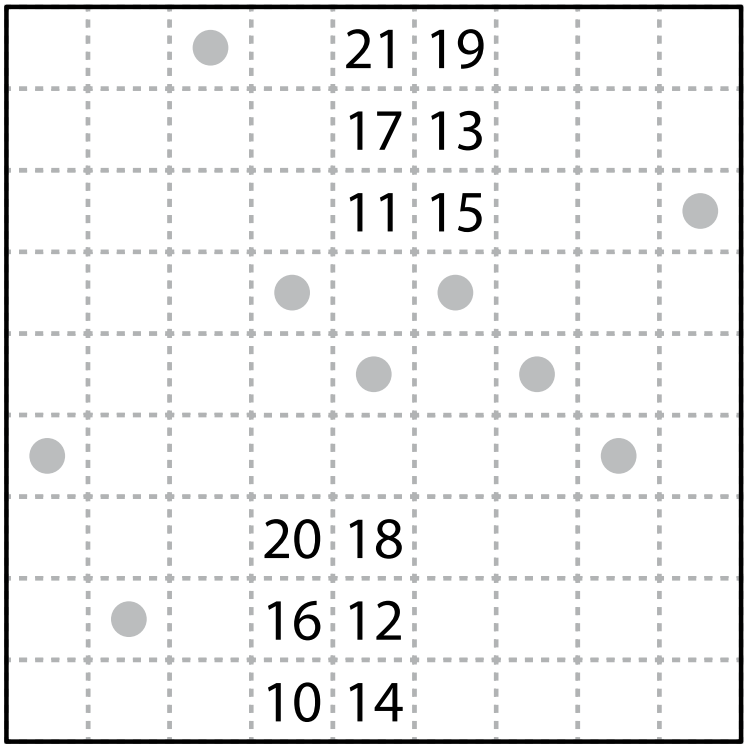
The dots in cells are only used for entering your answers.

Answer: For each dot, determine which polyomino it is in and enter the *greater* of the two numbers in that polyomino. Ignore any prefix that number might have. Read the dots from left to right. (Ignore which row the dots are in.) Use only the last digit for two-digit numbers; e.g., use '0' for a dot inside a polyomino where the greater number in it is 10.

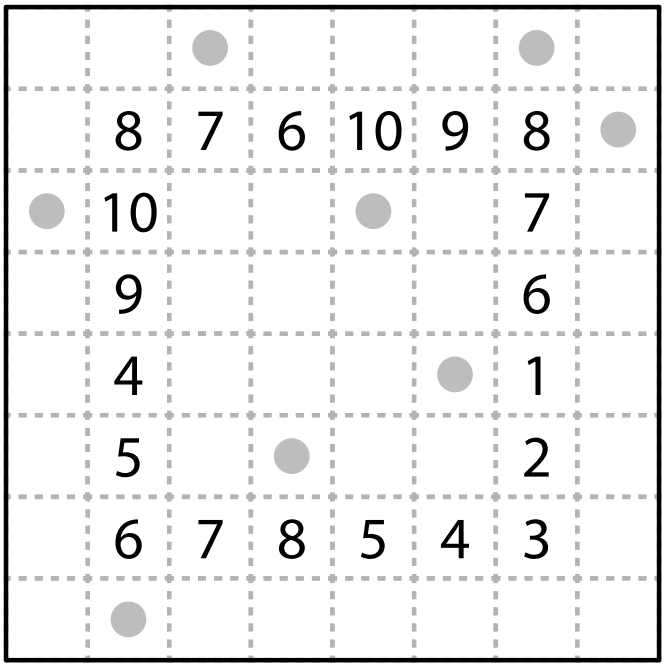
Example Answer: 84767



8 4 7 6 7



30 →



31 →