WPF SUDOKU/PUZZLE **GRAND PRIX** 2025

ROUND 7

WPF PUZZLE GP 2025 COMPETITION BOOKLET

Host Country: Czechia

Jan Vondruška, Ondřej Motlíček

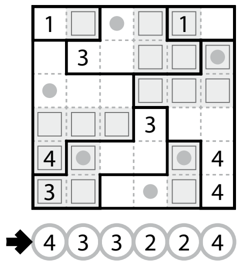
Special Notes: Anything red (in the competition booklet) is for aesthetic value only; please treat as equivalent to black when solving.

1-2. Double Choco [Ondřej Motlíček] (11, 57 points)

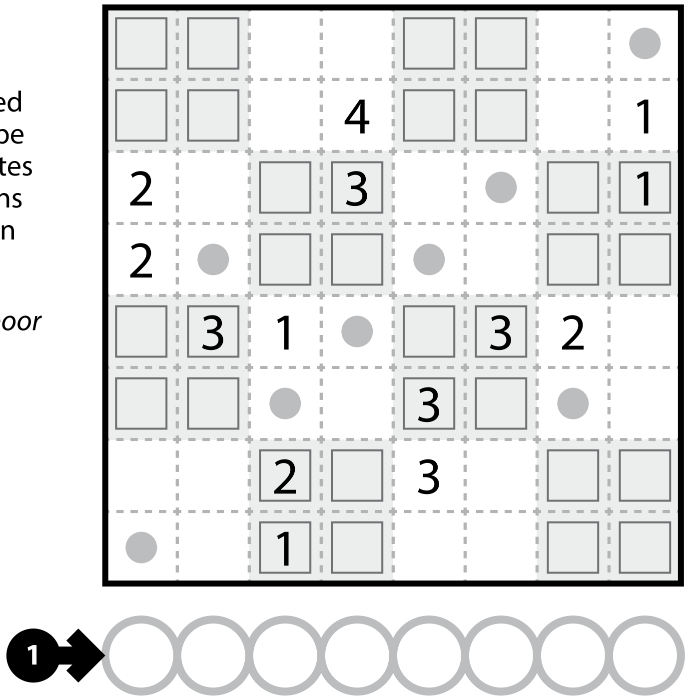
Divide the grid into regions along grid lines. Each region must contain exactly one group of orthogonally connected white cells and exactly one group of orthogonally connected gray cells. Both connected groups must form the same shape (rotations and reflections are allowed). Each number indicates the area of the group (not region) that number is in. (Regions might contain no numbers, or multiple given numbers, even in the same color.)

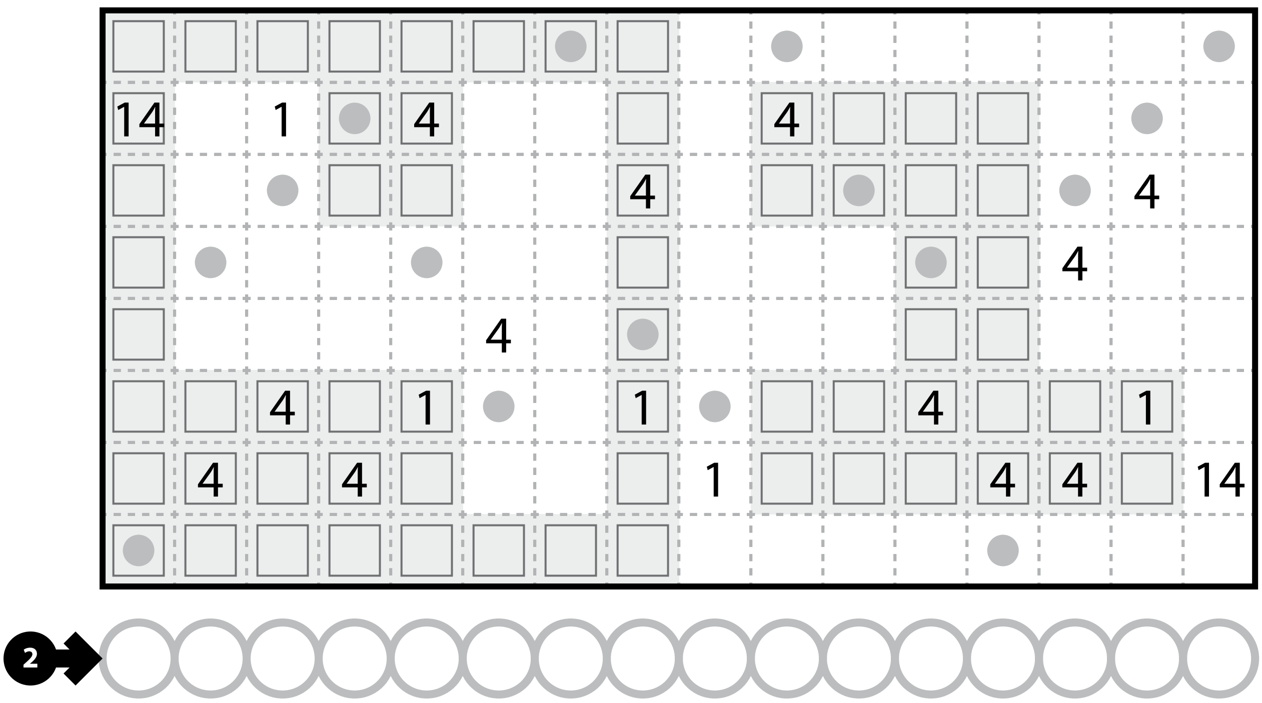
The squares in gray cells are only to make them distinctive in poor printing conditions. The dots in cells are only used for entering your answers.

Answer: Enter the area of the group (not region) each dot is in, reading 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 group of size 10.



Example Answer: 433224





3-4. Math Path [Jan Vondruška] (18, 44 points)

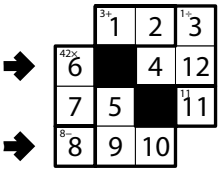
Place a number from 1 to X into each cell so that every cell has a different number. (X is the total number of cells.) If two numbers differ by one, they must be in cells that touch at a corner or an edge. A number in the upper-left corner of each region (if given) indicates the value of one of the four basic operations applied to all numbers in the region, starting with the largest number for subtraction and division (e.g., 1, 2, 4 with division has a clue of 2÷ as 4÷2÷1=2). The operation may or may not be given in the region, but at least one of the four operations must apply. Some numbers may be given in the grid.

Black areas are not part of the grid (do not put any numbers in them).

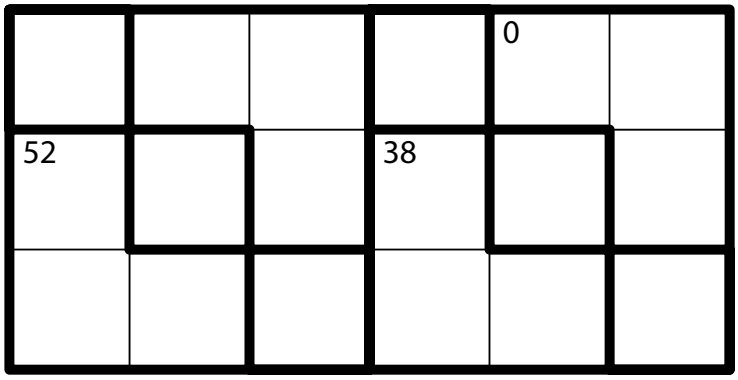
If a region has only one cell, a given number is equal to the number that should be placed in the cell and any operation has no effect and is for aesthetic purposes only.

Answer: For each designated row, enter its contents, from left to right. Use only the last digit for two-digit numbers; e.g., use '0' for a cell that contains the number 10.

Example Answer:
642,890

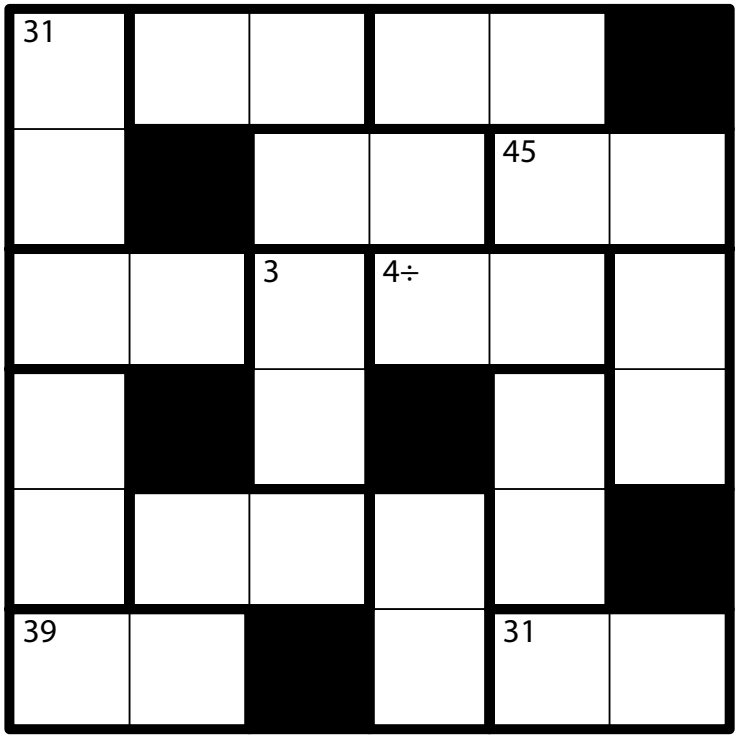


3



4a

4b



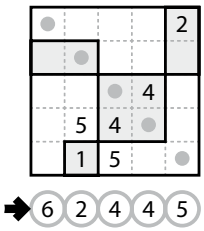
5-6. Chocolate Banana [Jan Vondruška] (11, 28 points)

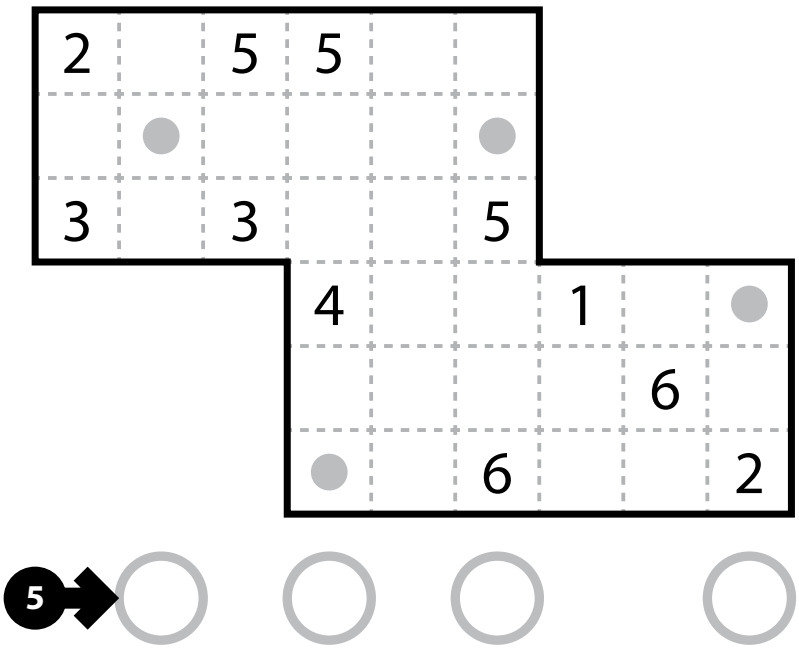
Divide the grid along the dashed grid lines into regions. Each region must either be "chocolate" (in the shape of a rectangle or square), or "banana" (not in the shape of a rectangle nor square). No two "chocolate" regions may touch each other along a cell's edge, and no two "banana" regions may touch each other along a cell's edge. Each given number indicates the area of the region that number is in. (It is possible for a region to contain no numbers, or to contain multiple numbers.)

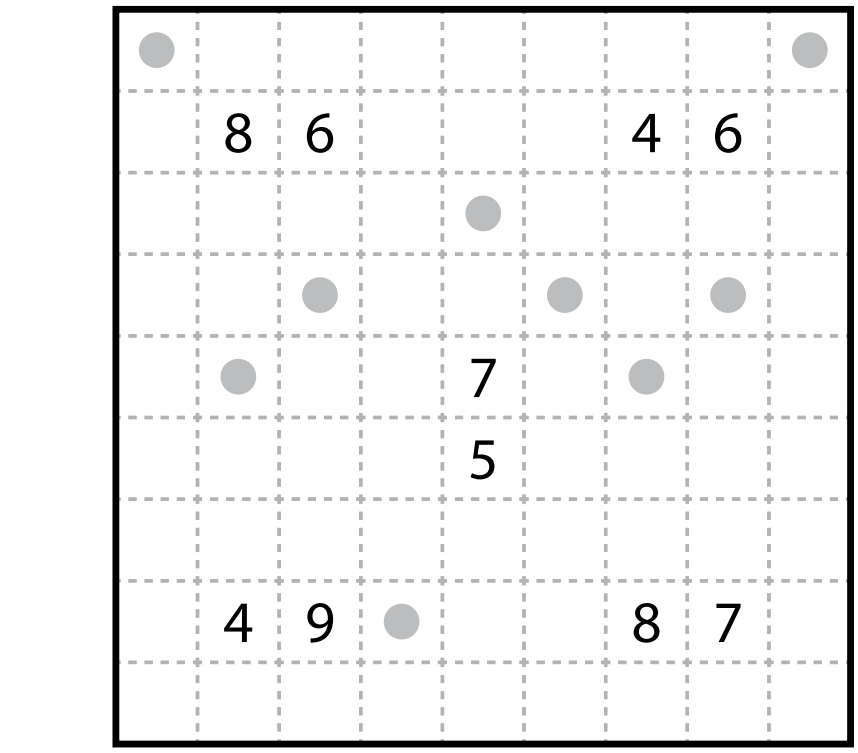
The shading of "chocolate" in the solution is only to make the solution easier to see. The dots in cells are only used for entering your answers.

Answer: Enter the area of the region each dot is in, reading 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 region of area 10.

Example Answer: 62445







7-8. Chocolate Banana (Split) [Jan Vondruška] (28, 52 points)

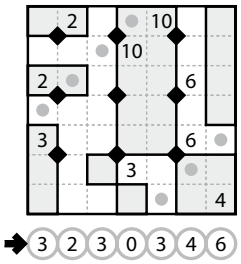
Divide the grid along the dashed grid lines into regions. Each region must either be "chocolate" (in the shape of a rectangle or square), or "banana" (not in the shape of a rectangle nor square). No two "chocolate" regions may touch each other along a cell's edge, and no two "banana" regions may touch each other along a cell's edge. Each given number indicates the area of the region that number is in. (It is possible for a region to contain no numbers, or to contain multiple numbers.)

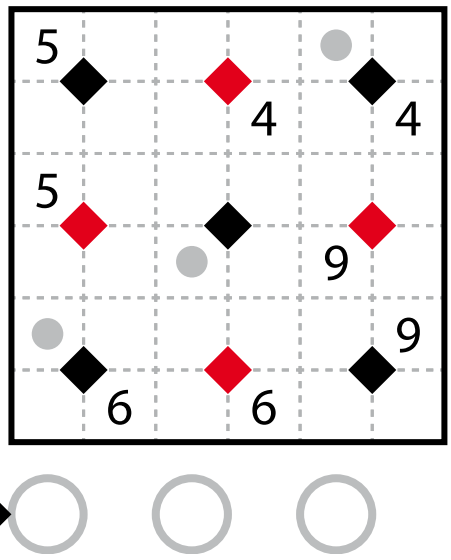
There are some black diamonds in the grid; each one touches four cells. Each such group of four cells must contain two cells that are "chocolate" and two cells that are "banana".

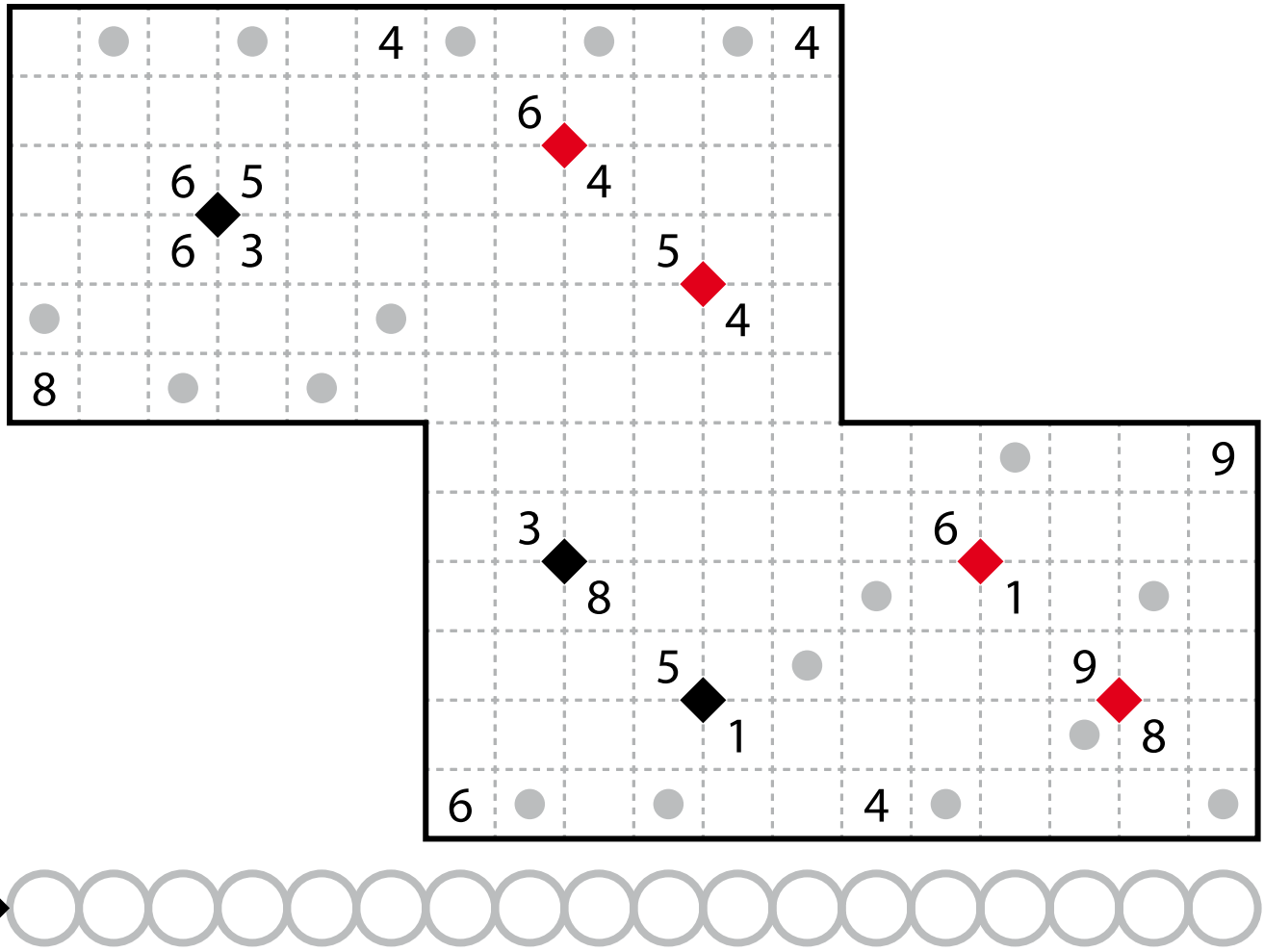
The shading of "chocolate" in the solution is only to make the solution easier to see. The dots in cells are only used for entering your answers.

Answer: Enter the area of the region each dot is in, reading 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 region of area 10.

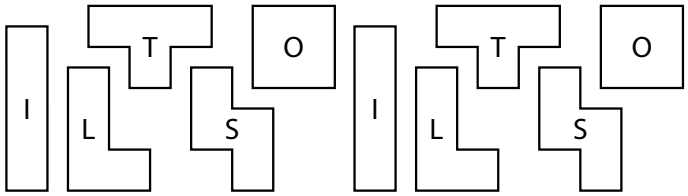
Example Answer: 3230346







9-10. Statue Park [Jan Vondruška] (27, 115 points)

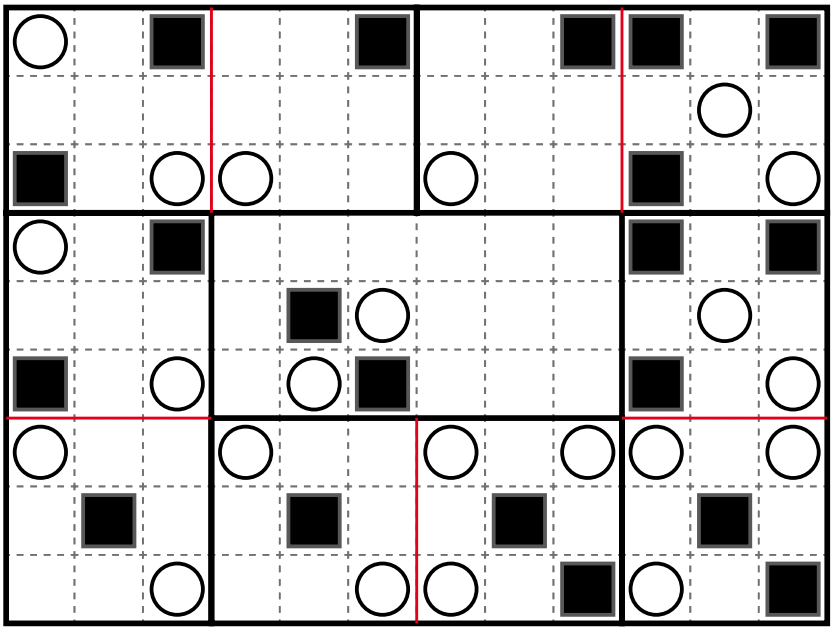


Shade some cells black (leaving the other cells white) so that the grid is divided into non-overlapping regions; cells of the same color are considered in the same region if they are adjacent along edges. The black regions must form the set of given shapes; each shape may be rotated and/or reflected in the final answer. Shapes cannot touch along an edge, but can touch at a corner. All white cells must be in the same region.

A cell with a black square must be shaded and a cell with a white circle must not be shaded.

Thick borders between cells are for aesthetic purposes and can be ignored entirely. The letters on the given shapes are only for entering your answer.

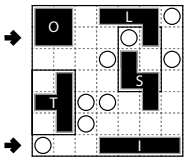
9a

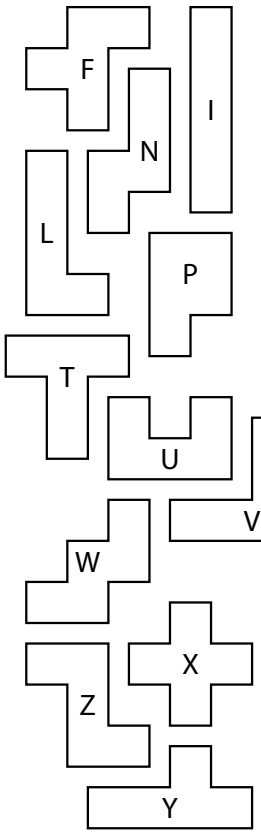


Answer: For each designated row, enter the contents of each cell, from left to right. For each cell, its contents are the letter of the shape occupying that cell, or the letter 'O' if the cell is not shaded.

9b

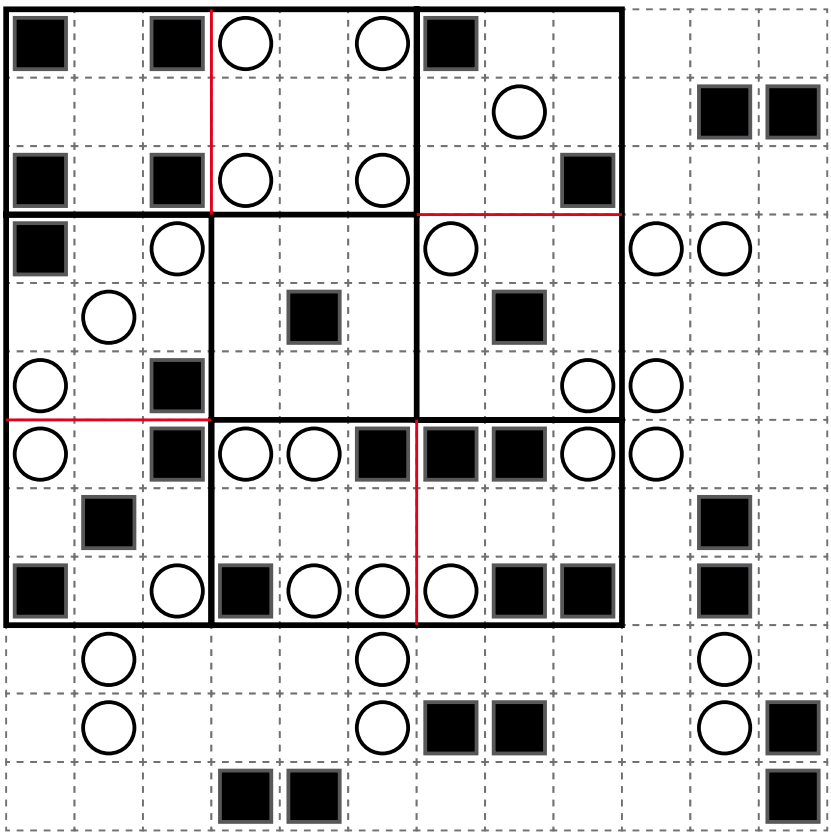
Example Answer:
`OOOOOLO,OOOIIII`





10a

10b

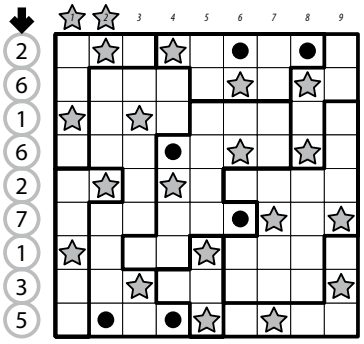


11-12. Star Battle (Black Holes) [Ondřej Motlíček] (13, 43 points)

Place stars into some cells in the grid, no more than one star per cell. A specific number of stars is displayed above the grid. Each row, each column, and each outlined region must have exactly that number of stars. Cells with stars cannot touch each other along an edge or a corner.

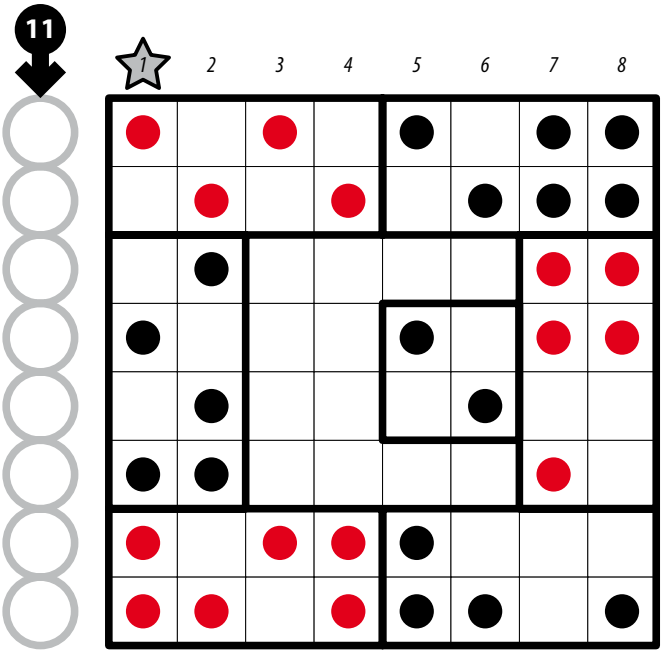
Cells with a solid black circle cannot contain stars.

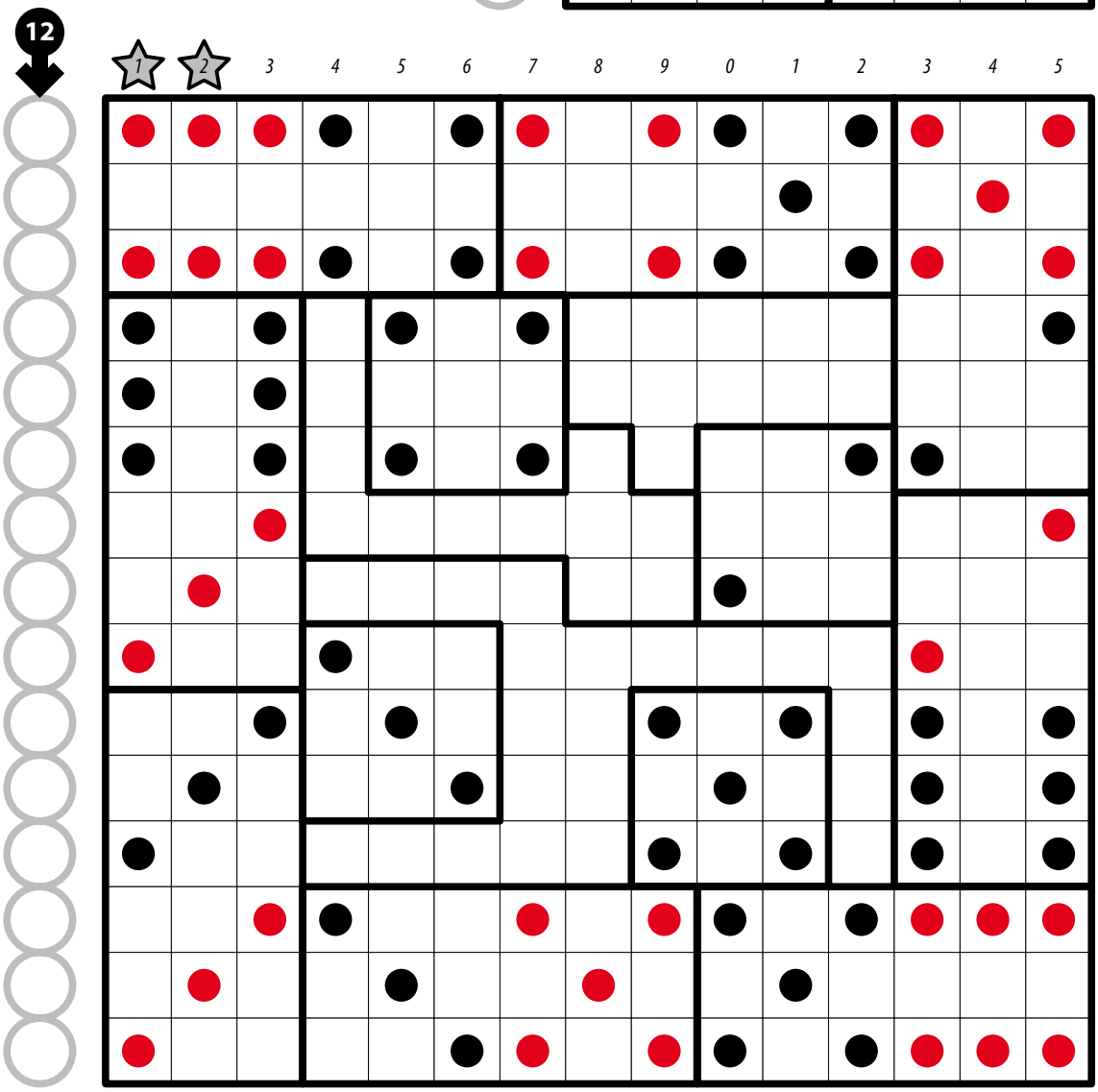
The numbers on top of the diagram are for Answer purposes only.



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



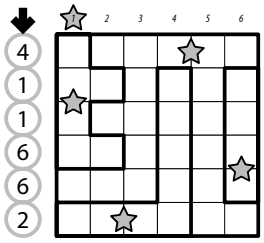


13-14. Star Battle (Domino) [Ondřej Motlíček] (15, 68 points)

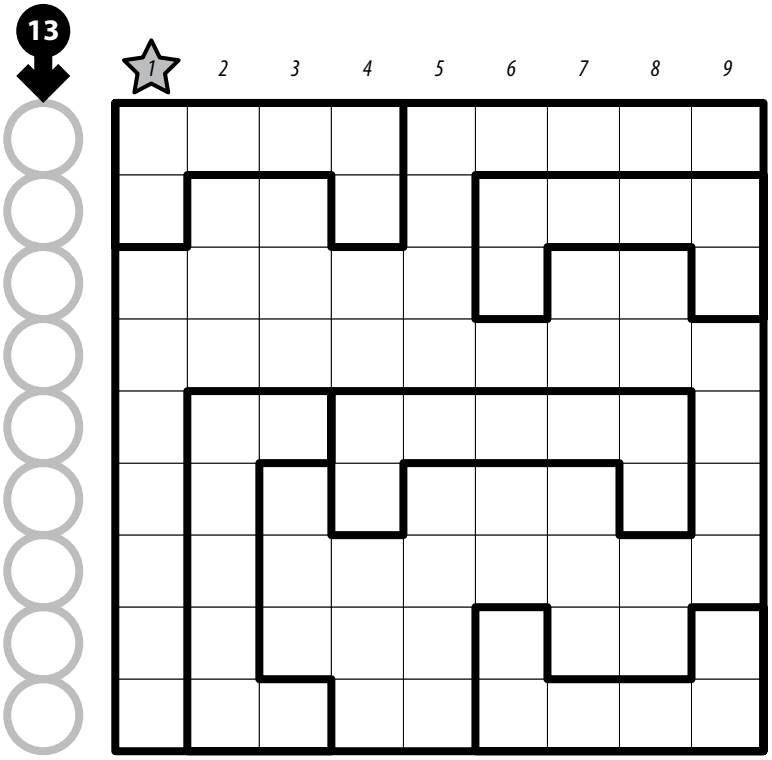
Place stars onto some cell edges in the grid, with each star on an edge between two cells that are in the same outlined region. A specific number of stars is displayed above the grid. Each row, each column, and each outlined region must have exactly that number of stars. (A star that spans two rows is in both rows; a star that spans two columns is in both columns.) If two cells are used by different stars, they cannot touch each other along an edge or a corner.

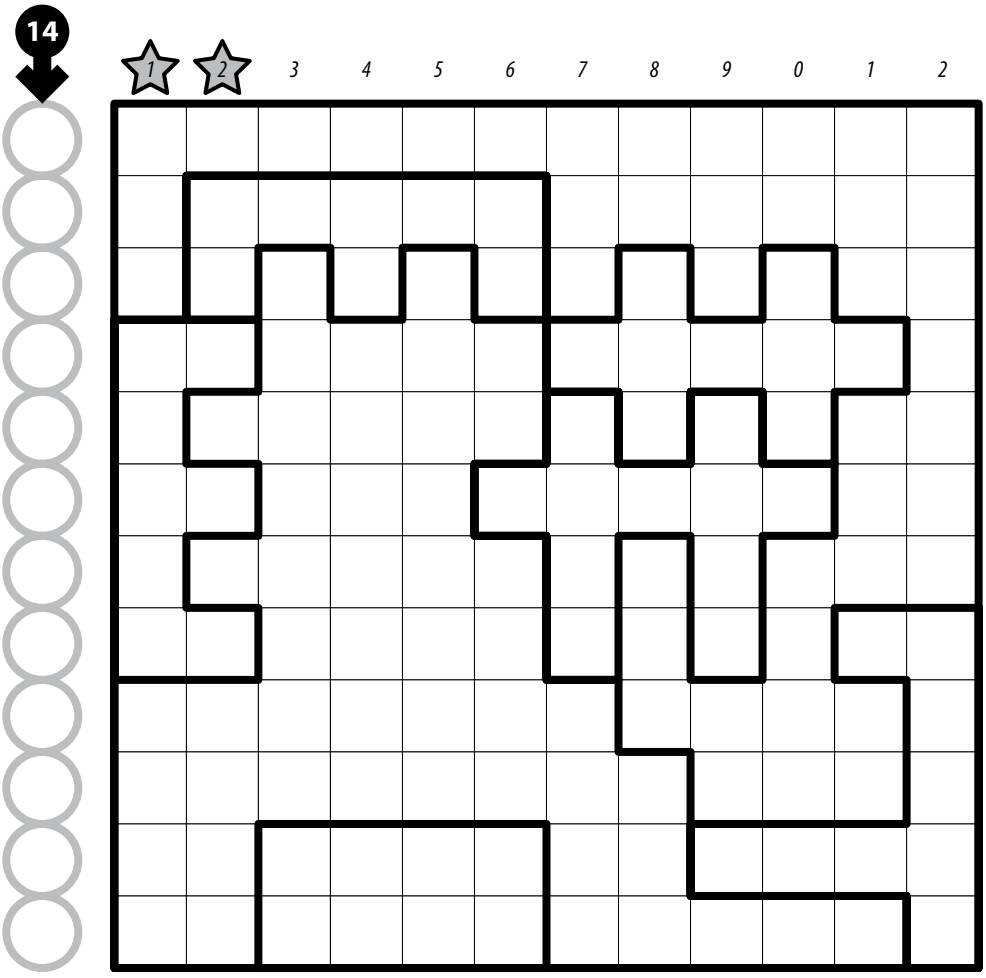
The numbers on top of the diagram are for Answer purposes only.

Answer: For each row from top to bottom, enter the number of the first column from the left where a cell that partially contains 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: 411662





15-16. Yajilin [Ondřej Motlíček] (16, 40 points)

Draw a single closed loop that passes orthogonally through centers of some empty cells in the grid. The loop connects centers of orthogonally adjacent cells, makes only right-angle turns or goes straight, and does not intersect or cross itself.

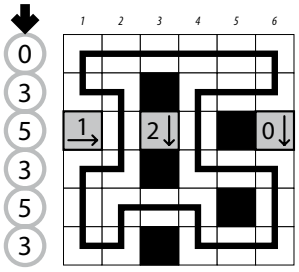
Some cells will remain empty; such cells are "unused" and cannot share an edge with each other.

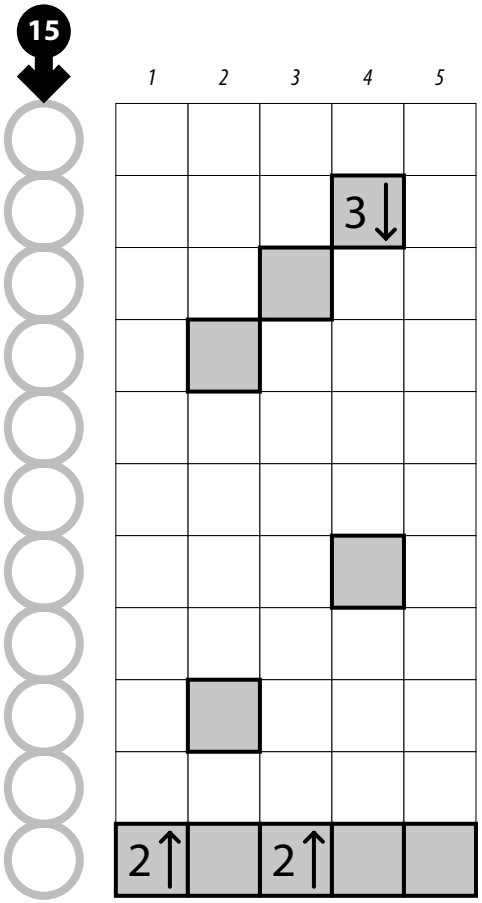
The grid contains some outlined gray cells that the loop cannot pass through. Numbered arrows in such cells indicate the total number of unused cells along the direction of the arrow, starting in the arrowed cell and going along a row or column to the edge of the grid.

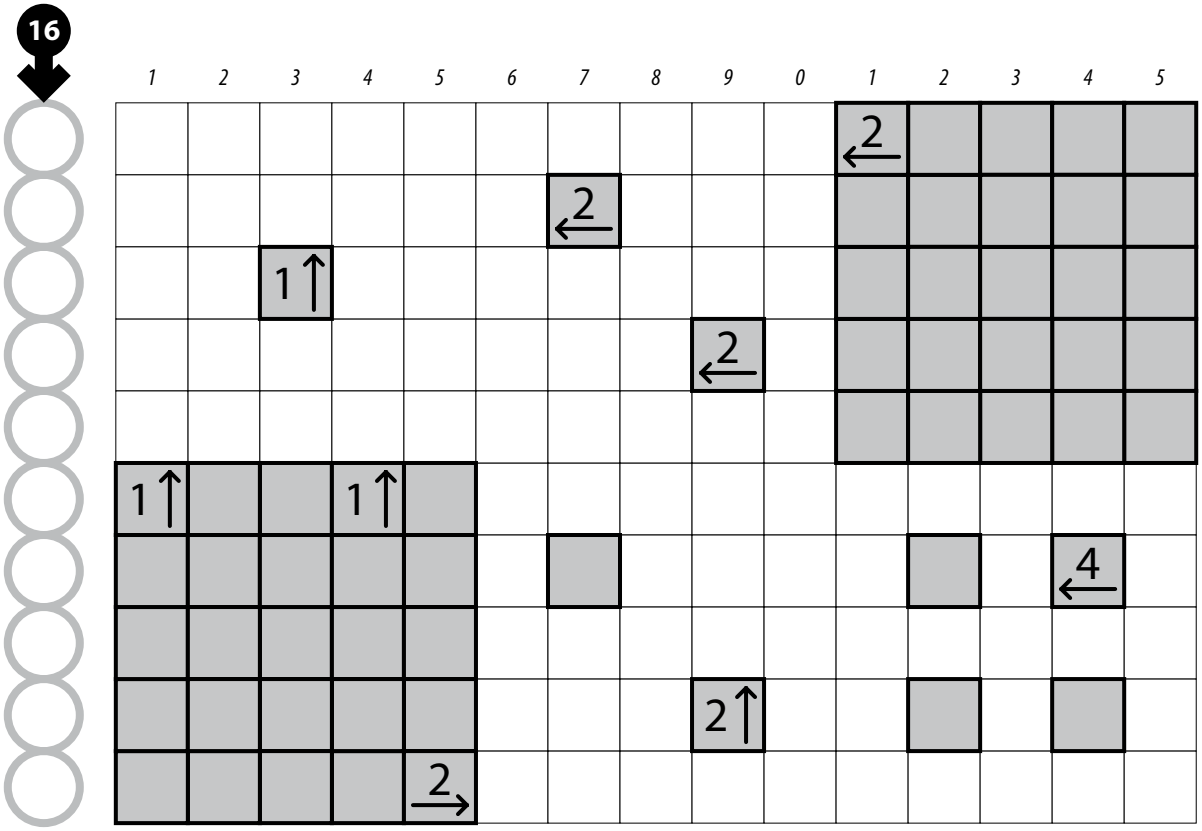
The numbers on top of the diagram are for Answer purposes only. It may be helpful to shade the unused cells, as per the example answer.

Answer: For each row from top to bottom, enter the column number of the left-most unused cell. (Outlined cells are not unused.) Use only the last digit for two-digit numbers; e.g., use '0' for column 10. If all of the cells in a row are used, enter '0' for that row.

Example Answer: 035353







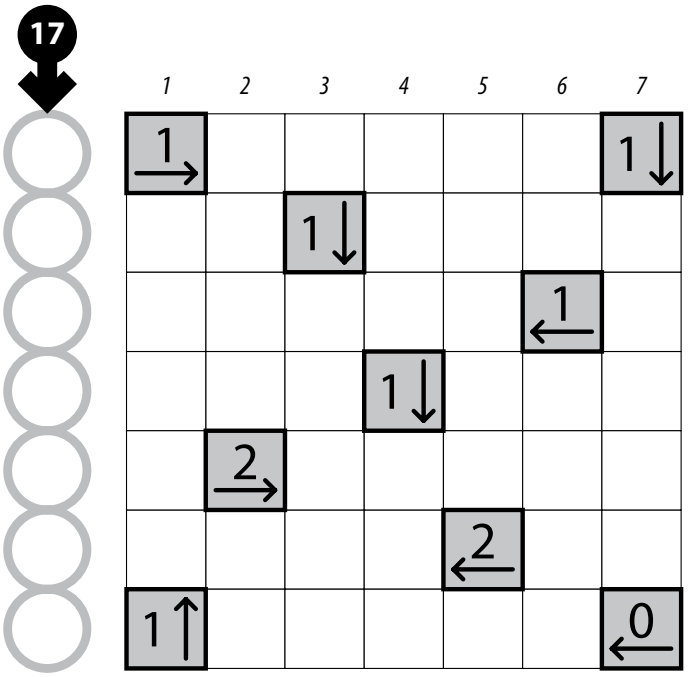
17-18. Yajilin (Domino) [Ondřej Motlíček] (8, 66 points)

Draw a single closed loop that passes orthogonally through centers of some empty cells in the grid. The loop connects centers of orthogonally adjacent cells, makes only right-angle turns or goes straight, and does not intersect or cross itself.

Some cells will remain empty; such cells are "unused". Every unused cell shares an edge with exactly one other unused cell; such a pair of cells is an "unused domino".

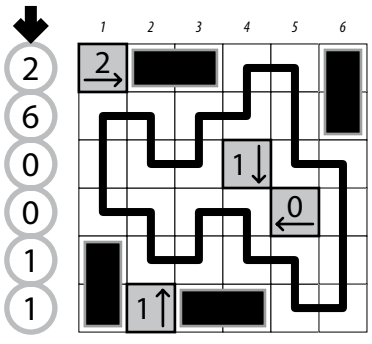
The grid contains some outlined gray cells that the loop cannot pass through. Numbered arrows in such cells indicate the total number of unused *dominoes* (not cells) along the direction of the arrow, starting in the arrowed cell and going along a row or column to the edge of the grid. (A domino that spans two rows is in both rows; a domino that spans two columns is in both columns.)

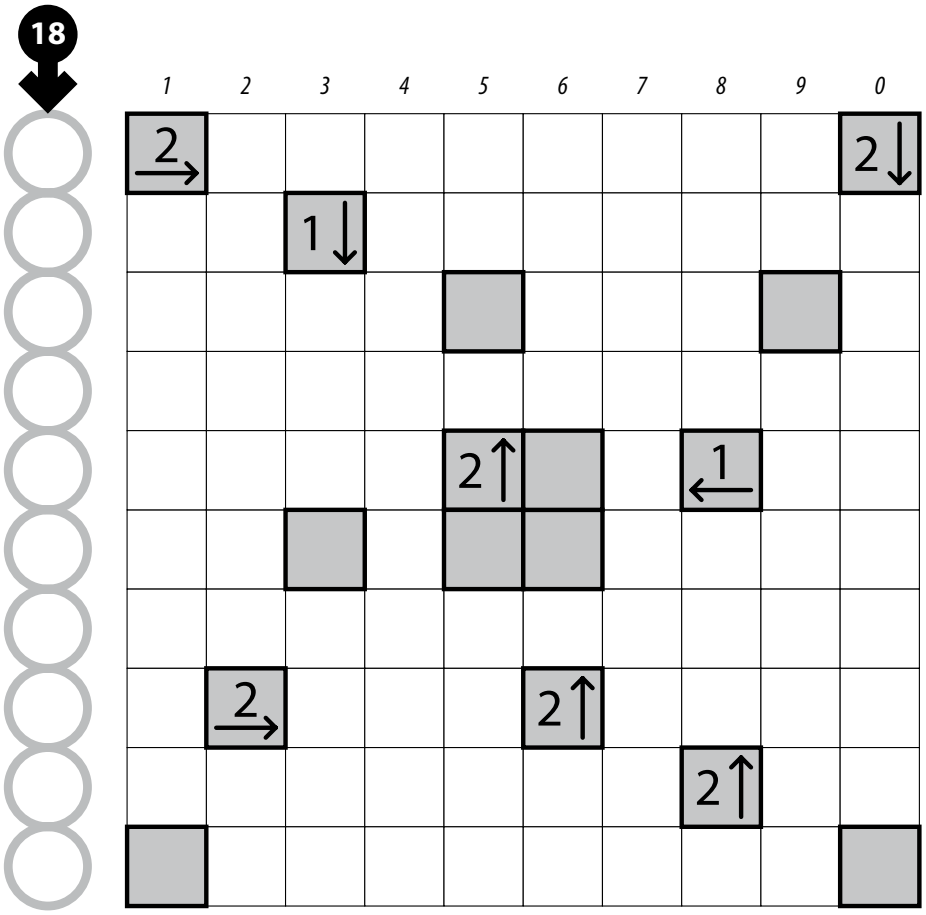
The numbers on top of the diagram are for Answer purposes only. It may be helpful to shade the unused cells, as per the example answer.



Answer: For each row from top to bottom, enter the column number of the left-most unused cell. (Outlined cells are not unused.) Use only the last digit for two-digit numbers; e.g., use '0' for column 10. If all of the cells in a row are used, enter '0' for that row.

Example Answer: 260011



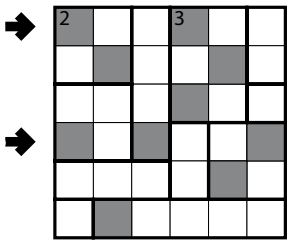


19-20. Heyawake [Jan Vondruška] (15, 166 points)

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.

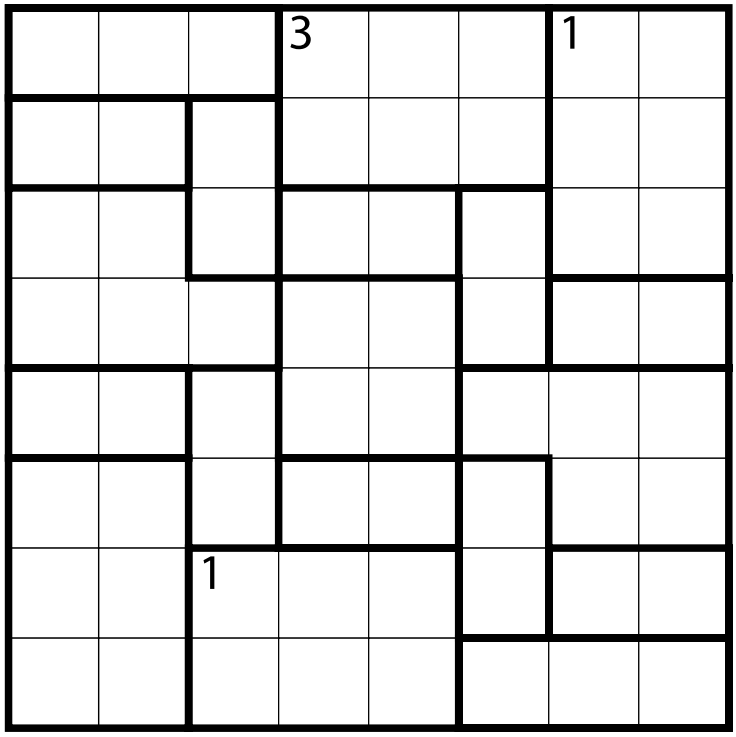
Answer: For each indicated row, enter its contents from left to right. Use 'O' for an unshaded cell and 'X' for a shaded cell. Ignore borders and numbers when entering your answer. You may use two other characters, as long as they are distinct.

Example Answer: XOOXOO, XOXOOX



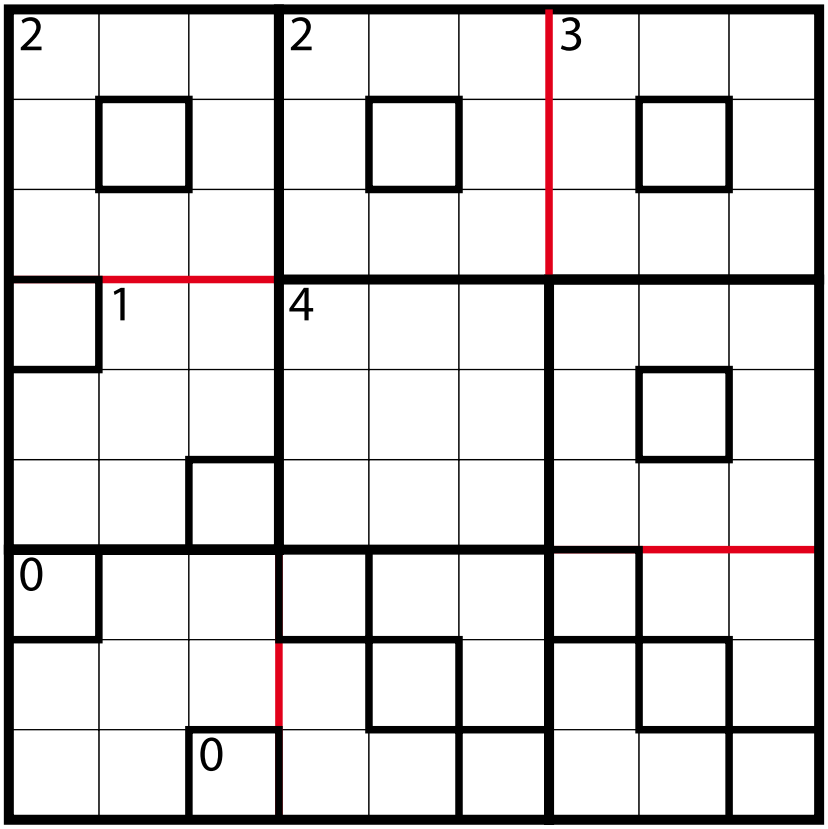
19a

19b



20a

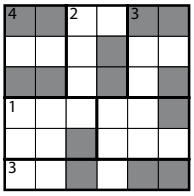
20b



21-22. Heyawake (Domino) [Jan Vondruška] (16, 79 points)

Shade some cells so that all other cells are connected orthogonally. 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.

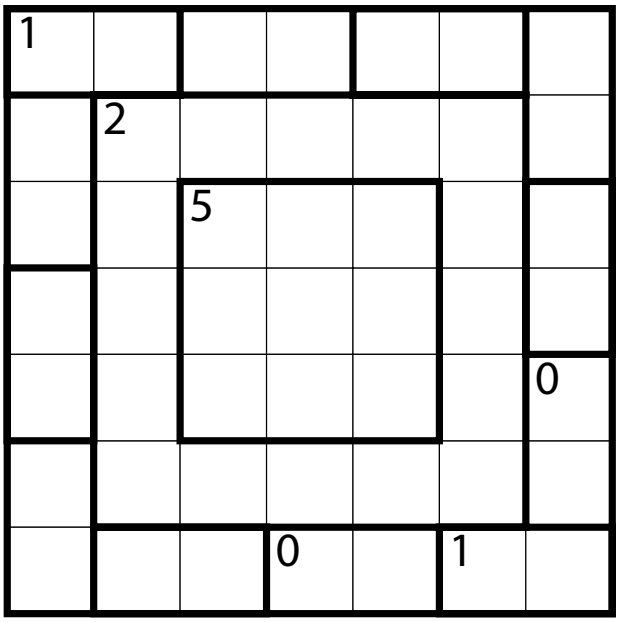
Every shaded cell shares an edge with exactly one other shaded cell.



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.

21a

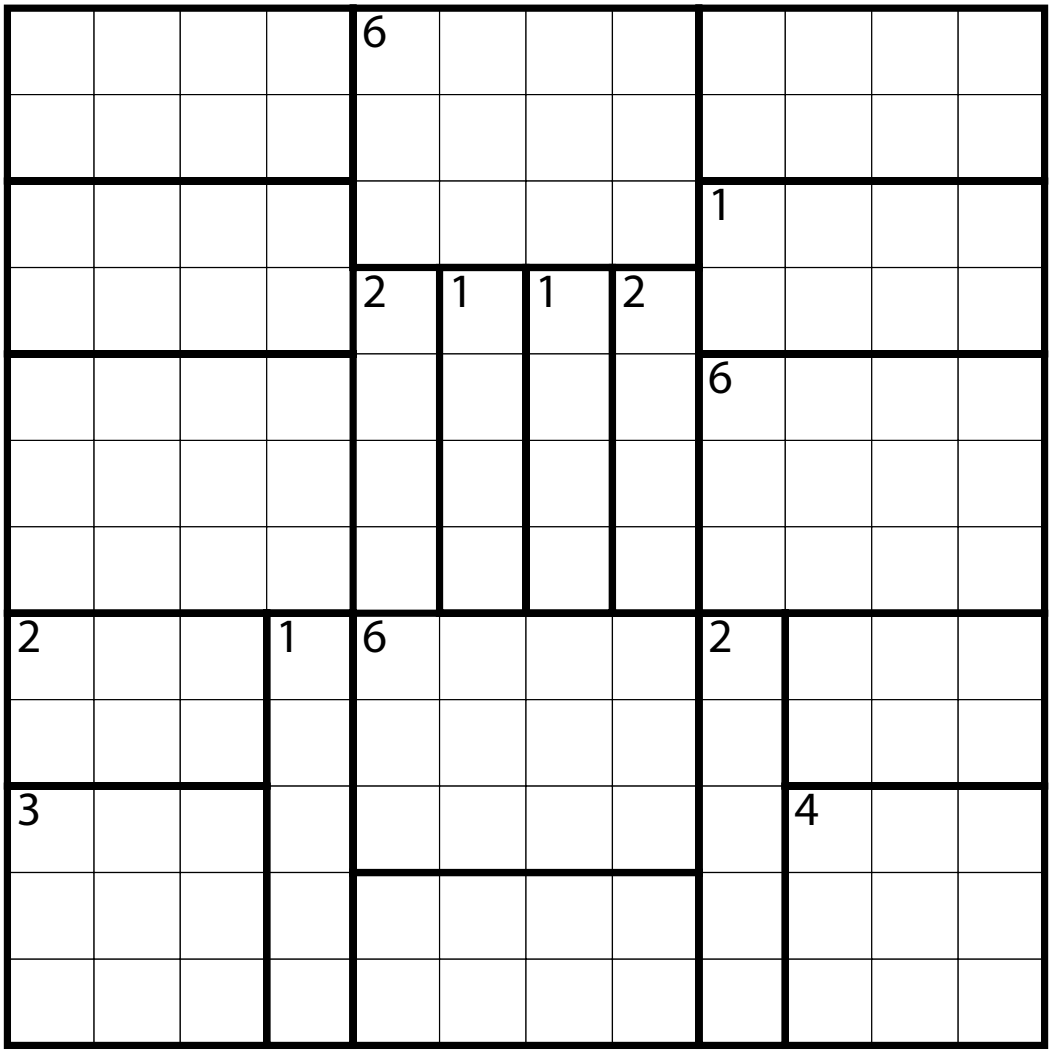
21b



Example Answer:
XXOXOX,OOXOOO

22a

22b



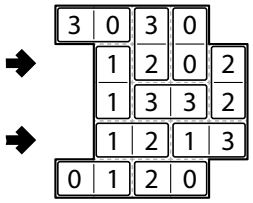
23-24. Domino Search [Jan Vondruška, Ondřej Motlíček] (29, 22 points)

Divide the grid into a full set of dominoes. Each domino must be used exactly once. The orientation of the digits does not matter. Empty cells are not part of a domino.

A checklist of the full set is provided for your convenience.

Answer: For each designated row, enter all the digits in dominoes that are *only* in that row (that is, the horizontal dominoes), from left to right. If there are no horizontal dominoes in the row, enter a single digit '0'.

Example Answer: `0,1213`



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

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

23

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

24a

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

24b

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

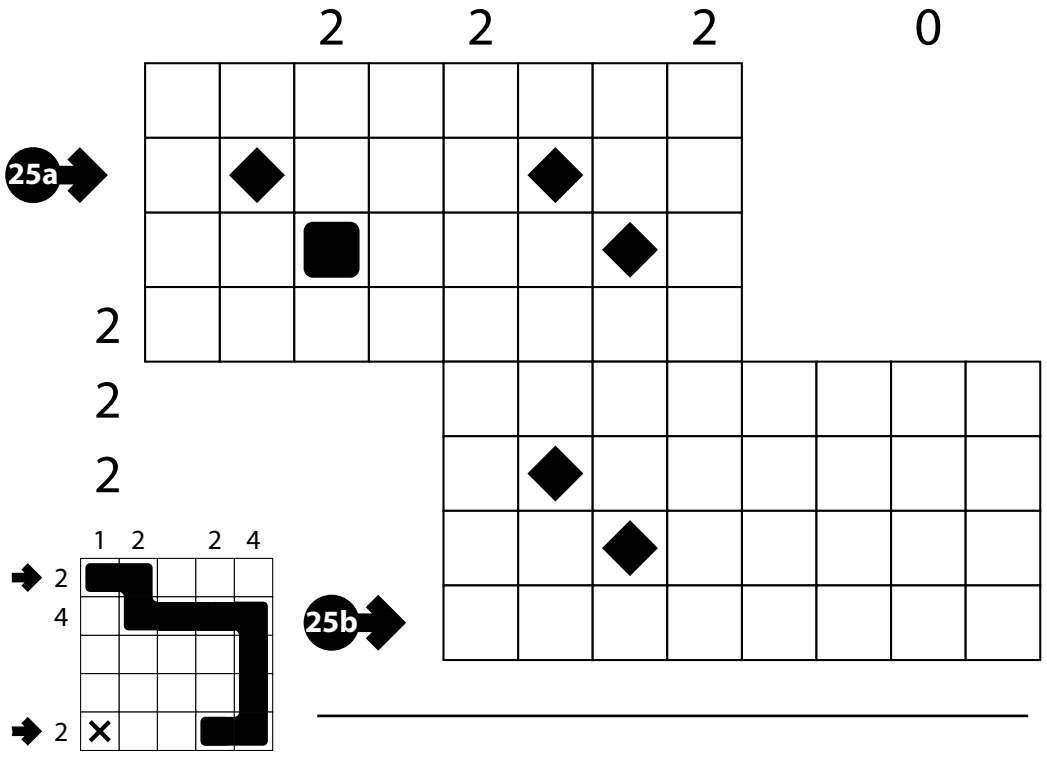
25-26. Snake [Ondřej Motlíček] (14, 59 points)

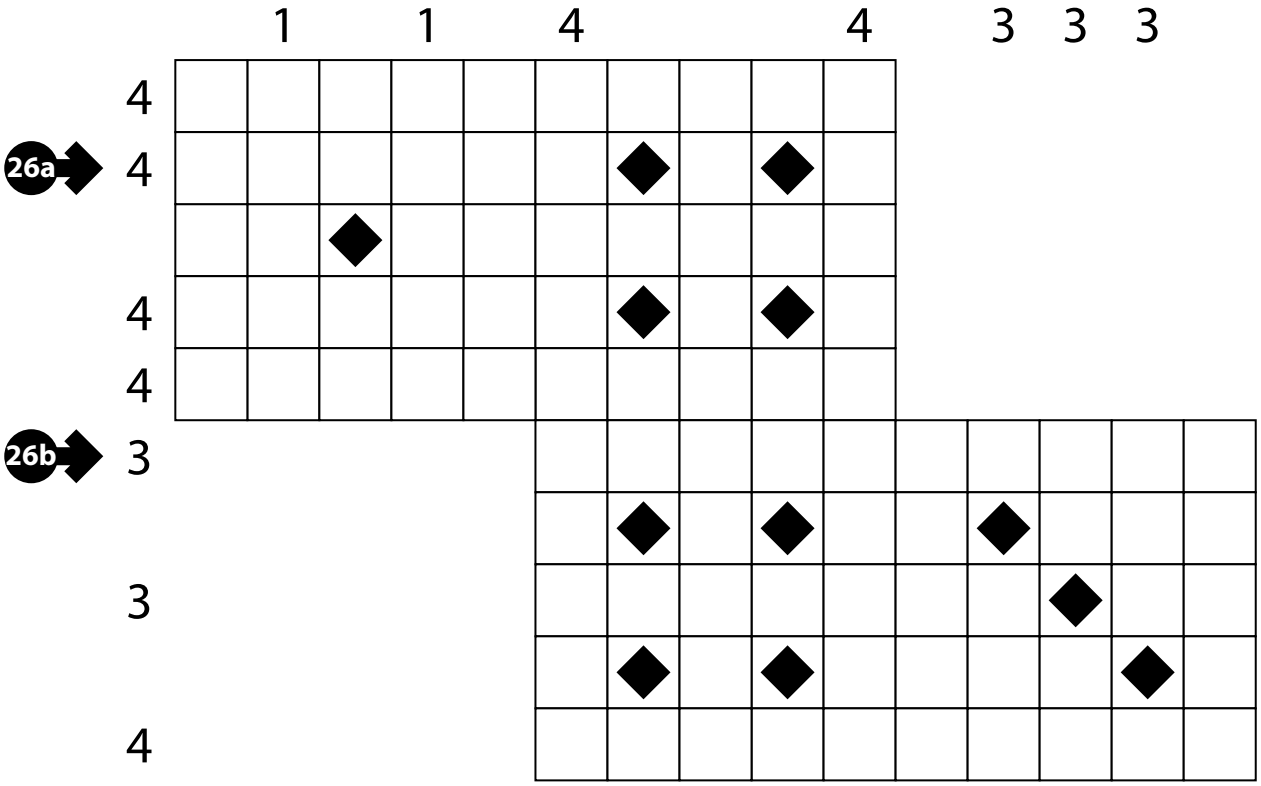
Locate a "snake" in the grid. The snake is a path that starts in a cell, goes through some number of cells orthogonally, and ends in a cell. Each cell is used at most once by the snake. The snake cannot loop around to touch itself, not even diagonally. (In other words, if two cells in the snake touch orthogonally, then they must be exactly one cell apart along the path of the snake, and if two cells in the snake touch diagonally, then they must be exactly two cells apart along the path of the snake.) Numbers outside the grid, if given, indicate how many cells in that row or column are occupied by the snake.

A cross in a cell (when provided) indicates that the snake cannot go through the cell. A diamond in a cell (when provided) indicates that the snake must go through (or end in) that cell. A rounded square in a cell (when provided) indicates that that cell must be an end of a snake.

Answer: For each designated row, enter its contents from left to right. Use 'O' for a cell occupied by the snake and 'X' for a cell not occupied by the snake. You may use other characters, as long as they are distinct.

Example Answer:
OOXXX,XXXOO





27-28. Snake Domino Search [Ondřej Motlíček] (14, 53 points)

Divide some of the grid into a full set of dominoes. Each domino must be used exactly once. The orientation of the digits does not matter. Not all cells in the grid will be used.

All used cells must make a "snake" in the grid. The snake is a path that starts in a cell, goes through some number of cells orthogonally, and ends in a cell. Each cell is used at most once by the snake. The snake cannot loop around to touch itself, not even diagonally. (In other words, if two cells in the snake touch orthogonally, then they must be exactly one cell apart along the path of the snake, and if two cells in the snake touch diagonally, then they must be exactly two cells apart along the path of the snake.)

When two dominoes share an edge, the numbers in the cells touching that edge must be the same.

A rounded square in a cell (when provided) indicates that that cell must be an end of a snake.

Answer: For each designated row, enter its contents from left to right. Use 'O' for a cell occupied by the snake and 'X' for a cell not occupied by the snake. You may use other characters, as long as they are distinct.

Example Answer:
XOOXOX, XXOOOX

0	0	1	1	1	1	
0	0	1	1	2	2	➡
1	0	0	1	2	2	
1	1	0	1	2	2	
1	1	0	0	2	2	➡
1	1	0	2	2	2	

0 | 0
0 | 1 | 1 | 1
0 | 2 | 1 | 2 | 2 | 2

27 ➡

2	1	1	0	0	0
2	1	1	0	0	0
2	1	1	0	0	2
0	0	2	2	2	2
0	0	1	2	2	2

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

28a ➡

28b ➡

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

29-30. Rail Pool [Jan Vondruška] (16, 113 points)

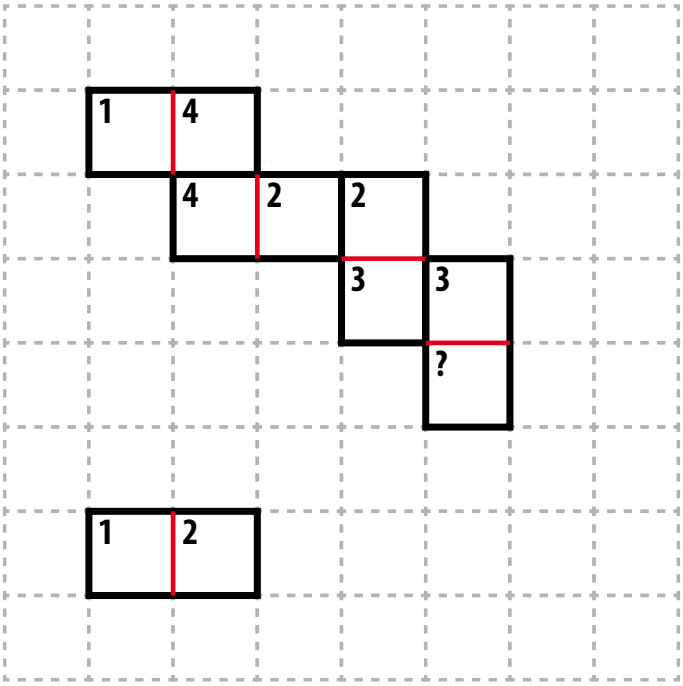
Draw a single loop that passes orthogonally through centers of all cells. The loop cannot intersect itself or enter the same cell more than once.

Some regions are drawn and include a set of numbers in the upper-left corner. Each maximally straight segment in the loop (that is, a section of the loop between two consecutive turns of the loop) that is partially or fully contained in a region must have its length equal to one of those numbers. Every number in a region's set must be represented by at least one maximally straight segment in the loop that is partially or fully contained in that region.

A '?' symbol represents a number whose value is for you to determine; however, it cannot represent a number that is already in the set of that region's numbers (either a given number or another '?').

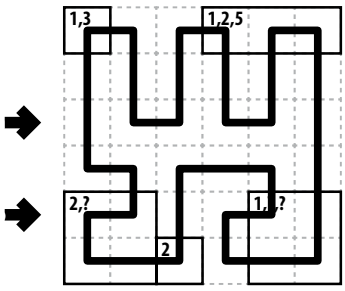
Answer: For each designated row, enter the letter for each cell, from left to right. The letter for a cell is 'I' if the path goes straight through the cell, and 'L' if the path turns in the cell. You may use other letters or numbers, as long as they are distinct.

Example Answer: `ILLLLI,LLILLI`

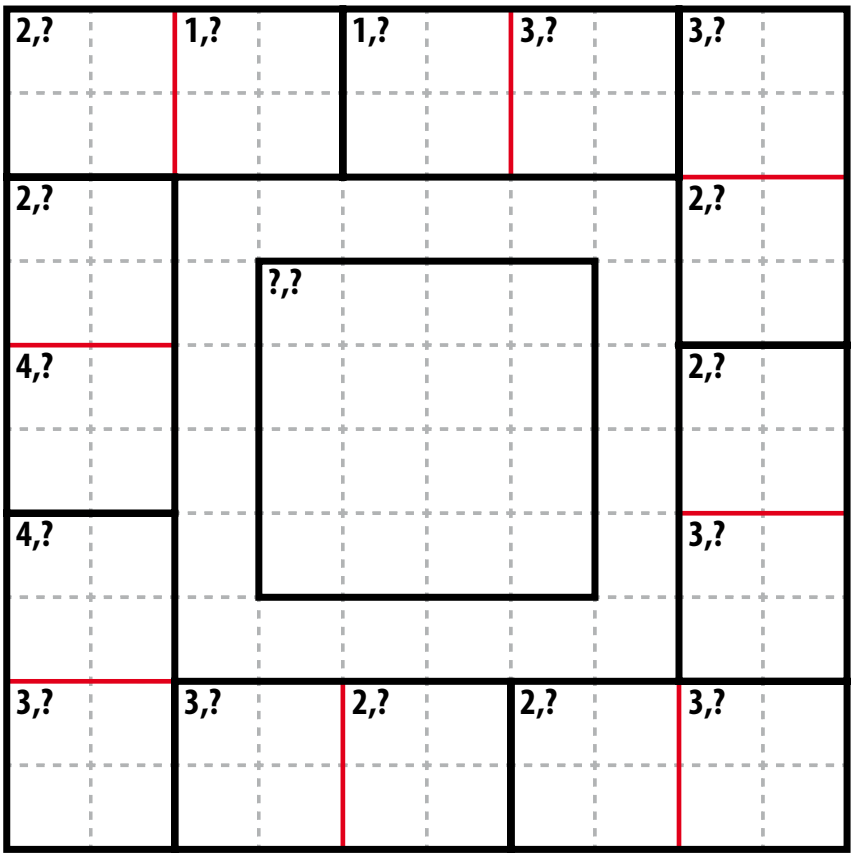


29a

29b



30a



30b