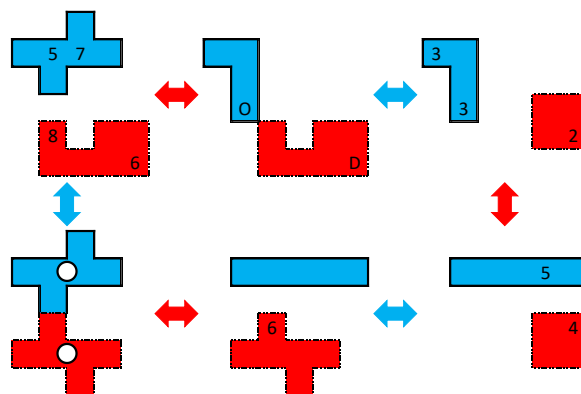


DIVIDE AND CONQUER



Instruction Booklet

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Timing: 150 minutes

Testsolvers: Edderiofer, Peter Hudák

The contest will consist of 10 puzzle types listed below (their rules are on follow up pages). These puzzles have in common that they need to be divide into smaller regions.

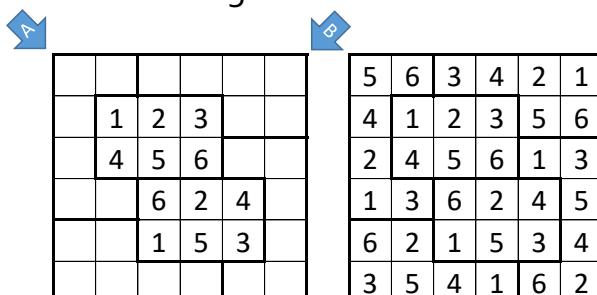
- Tripod Suguru
- Pentominoes
- Araf
- Yagit
- Slitherlink [multiple loops]
- Shikaku
- Heterocut
- Fillomino
- Spiral Galaxies
- Star Battle Builder

All puzzles form one big, interconnected puzzle. They connect through regions that are marked by a cell of the same colour as their common arrow. This coloured cell is always part of the region that looks the same in both puzzles (in shape, orientation, and position of colour cells).

In every puzzle, there are exactly two cells of each colour (two red cells and two blue cells). In every puzzle, these cells have the same position (for example all red cells are in the second row and third column in every puzzle). The region can contain any number of coloured cells.

Instant Grading is enabled. Once you submit the answer to a puzzle, you will immediately know if it's correct or not, and you may correct it if it's wrong. Every puzzle is worth 100 points with regular system of penalties (90%, 70%, 40%, 10%). In total, you can earn 1 000 points.

Answer key: In every puzzle, you will input the content of the main diagonals. The first diagonal leads from the top-left cell to the bottom-right cell. The second diagonal leads from the top-right cell to the bottom-left cell. There will be no marked diagonals in the contest puzzle (too many arrows may be misleading). If a cell contains a multidigit number, only enter the last digit, e.g. 0 for a cell containing 10.

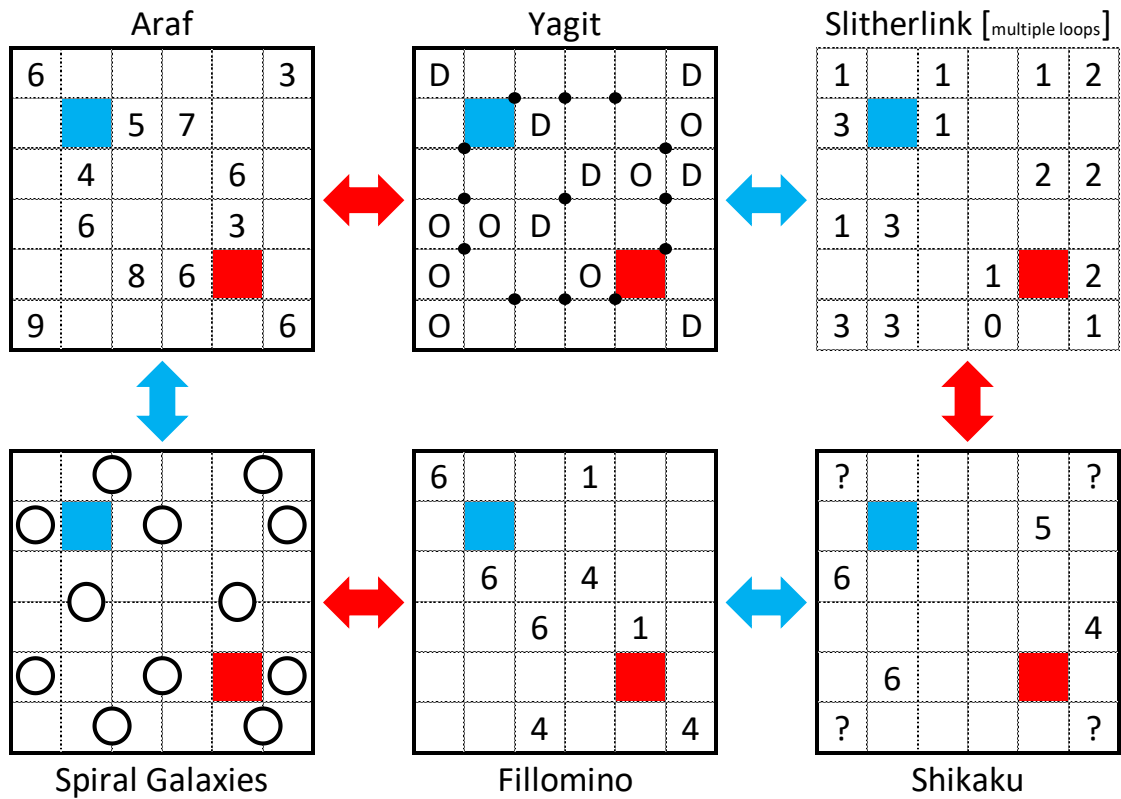


For example:

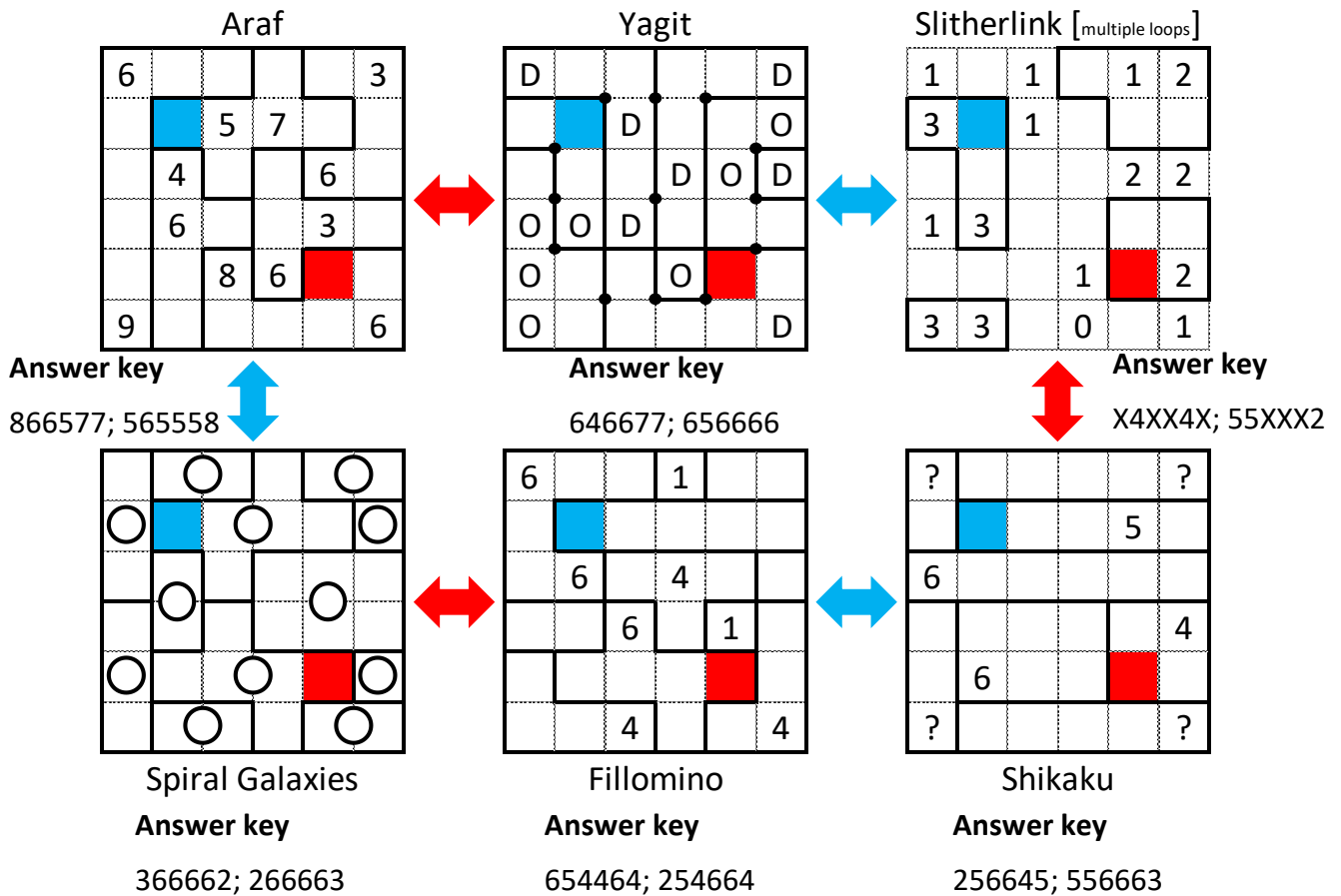
A:515232

B: 156623

Here is the example puzzle (6 puzzles contain one red cell and one blue cell), with its correct solution.

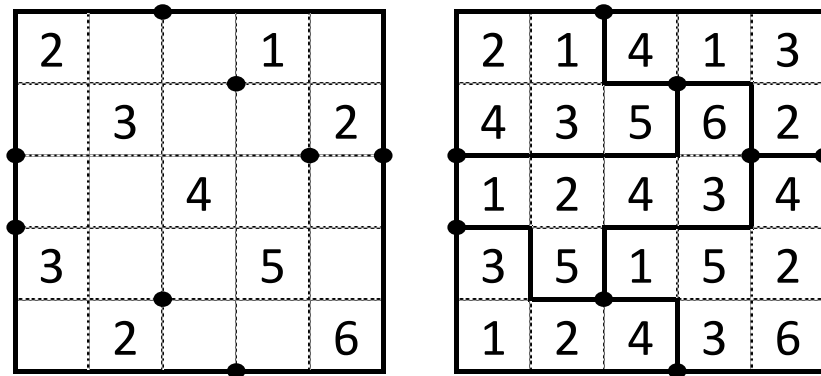


Solution



Tripod Suguru

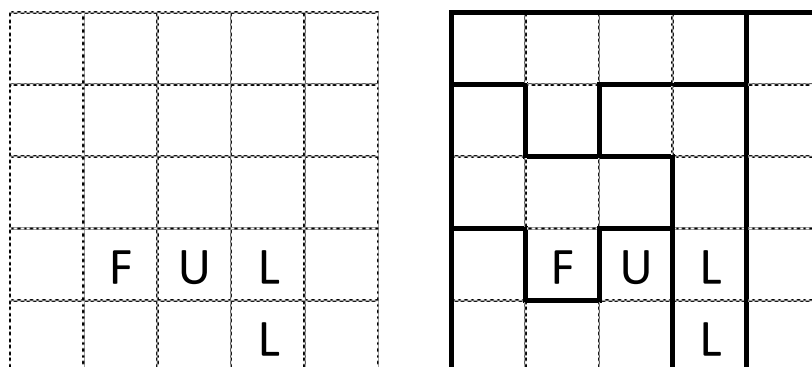
Classic Suguru rules apply (Fill in the cells with digits 1-n, where n is the size of the region, so that every number occurs in that region exactly once. Same numbers cannot be orthogonally or diagonally adjacent). The regions have to be restored from the given points. All the points where three lines meet are given. There are no points where four lines meet.



Answer key: For both main diagonals enter the numbers in cells.
For example: 23456, 36451

Pentominoes

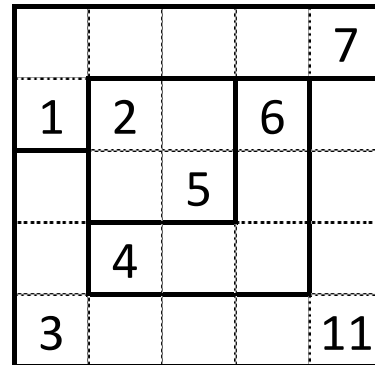
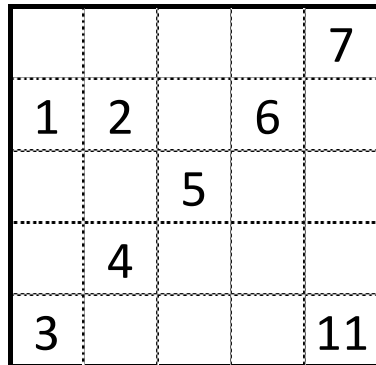
Divide the grid into pentominoes (five-cell regions) so that no two pentominoes of the same shape (including their rotations/reflections) share an edge. A cell with a letter must be part of the pentomino shape associated with that letter. An inventory of pentominoes will be given below the puzzle. Not all shapes must be used.



Answer key: For both main diagonals enter the letters associated with the pentominoes occupying each cell.
For example: YYFLI, ILFFU

Araf

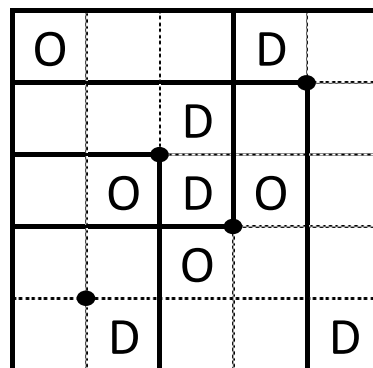
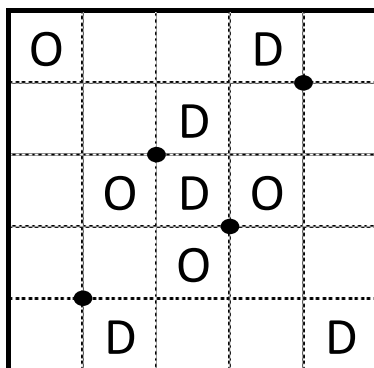
Divide the grid into some regions formed of edge-adjacent squares. Each cell is part of one region, and each region should contain exactly two given numbers. Each region must have an area that is strictly between those numbers (This means, for two number clues A and B with $A < B$, the area C fulfills $A < C < B$).



Answer key: For both main diagonals enter the size of given region.
For example: 64450, 65450

Yagit

Divide the grid into smaller regions. Each region must contain either letters O or letters D, but not both and must not be empty. Lines run along the grid-lines and can only turn at black dots. The lines may cross each other except at black dots. The lines have to start and finish at the edge of the grid. It is not necessary to use all (or any) black dots.



Answer key: For both main diagonals enter the size of the given region.
For example: 34466; 66444

Slitherlink [Multiple loops]

Classic Slitherlink rules apply (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.). Instead of drawing one loop, you may make any number of smaller loops, if you need. Different loops cannot cross or touch themselves, and one loop cannot be fully inside another one.

1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3

Answer key: For both main diagonals insert the size of the regions. If a cell is outside of all regions, insert X.

For example: X5X88, X5X88

Shikaku

Divide the grid into rectangles so that each rectangle contains exactly one number, and so that each number represents the number of cells of its corresponding rectangle. Some non-zero numbers are replaced by a question mark.

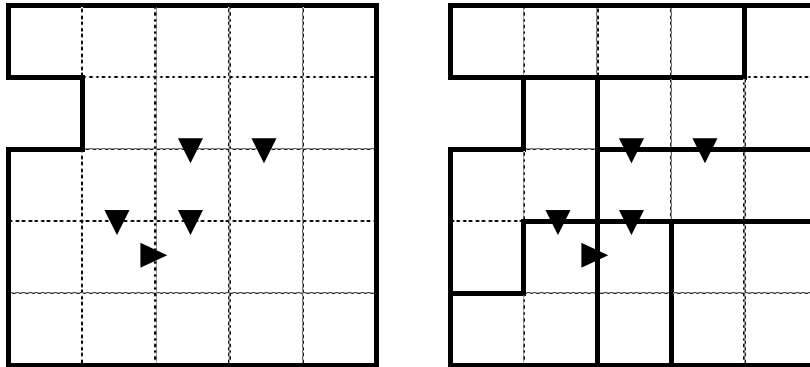
				5					5
	6					6			
		3					3		
			8					8	
?					?				

Answer key: For both diagonals enter the size of the regions.

For example: 56388; 58363

Heterocut

Draw vertical or horizontal lines between the dots to divide the grid into regions. All regions have different shapes so that no two shapes can be the same after rotation and/or reflection. All region sizes are in the range 3-7 (2-4 in the example). **Greater than symbols always point from a larger to a smaller region.**

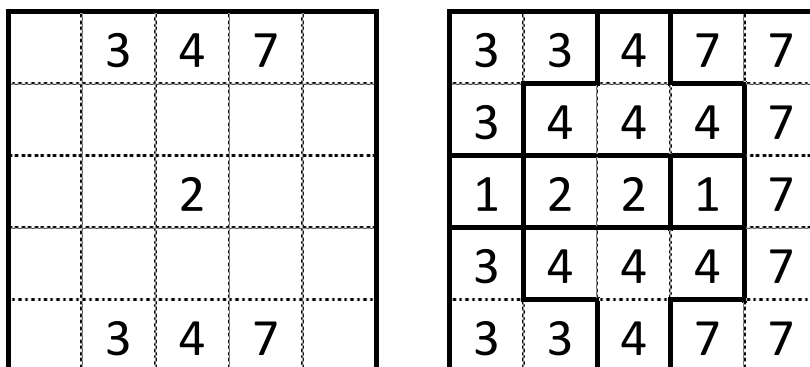


Answer key: For both main diagonals insert the size of the regions.

For example: 44344; 44333

Fillomino

Place a number in each cell of the grid, so that each number is a part of a polyomino. The size of the polyomino is equal to the value of the number. Polyominoes of the same size must not be orthogonally adjacent. Polyominoes may contain 0, 1, or many of given numbers.

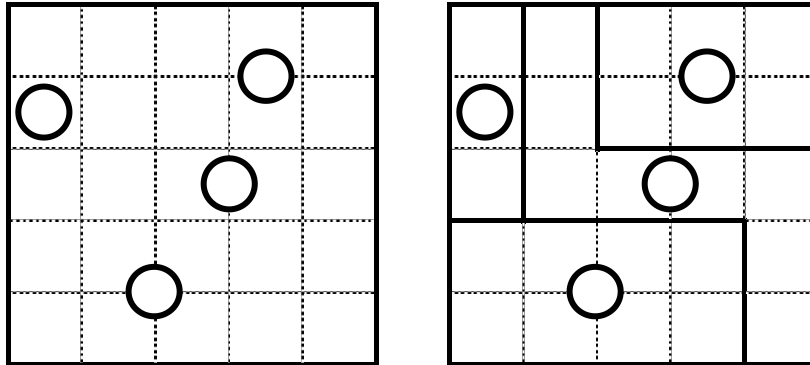


Answer key: For both main diagonals enter the size of regions.

For example: 34247; 74243

Spiral Galaxies

Divide the grid along the indicated lines into connected regions – galaxies – with rotational symmetry. Each cell must belong to one galaxy, and each galaxy should contain exactly one circle at its center of rotational symmetry.

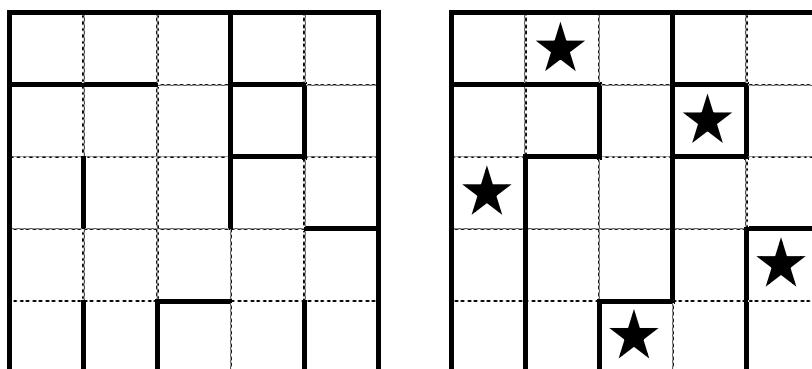


Answer key: For both main diagonals enter the size of the region.
For example: 38888, 66888

Star Battle Builder

Standard star battle rules apply (Place two stars - one in the example - in every row, every column, and every outlined region. Stars don't touch each other orthogonally or diagonally.). Also, some region boundaries are missing, but all given borders must separate cells in different regions.

Star Battle builder



Answer key: For both main diagonals if a cell is occupied by star, write S, otherwise enter X.

For example: XXXXX; XSXXX