Sudokt and puzzles on interconnected grids Selected puzzles from CISPC 2019 Kropki Sudoku Variations Snakes Mix Suguru Thermo Sudoku Tapa Sudoku on unusual grids and many-many more

## Squared Skyscrapers

Fill the grids with the numbers from 1 to $N$ (where $N$ is the size of the grid). Each number represents the building of that height. Each row and column should contain each number exactly once. Digits outside the grid show the number of buildings visible from their positions (shorter buildings are hidden behind the taller ones).
Clues in the grey cells between the grids are common for both adjacent grids.
$\omega \mathrm{N} \rightarrow$


## Snakes Mix

## Snake

Draw a 45-cells long snake which cannot touch itself even at a point. Numbers outside the grid show the number of cells occupied by the snake in the corresponding row or column. The head and the tail of the snake are given.

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## Dutch snake

Draw a 45-cells long snake which cannot touch itself even at a point going through all cells with circles. It should go straight through the cells with white circles and it should make turns in the cells with black circles. The head and the tail are not given and are subjects to determine.

| 5 |  |  |  |  |  |  |  |  |  |  |
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## Belarusian snake

Draw a 45 -cells long snake which cannot touch itself even at a point. Each outlined area should contain exactly three cells occupied by the snake. Areas containing the head and the tail of the snake are painted grey.

|  | 0 |  |  |
| :---: | :---: | :---: | :---: |
|  | 0 | 0 |  |
| 0 | 0 | 0 | 0 |
| 0 | $\bullet$ |  | 0 |
|  | $\bullet$ |  | 0 |
|  | $\bullet$ | 0 | 0 |


|  |  |  |  |  |  |  |  |  |  | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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|  |  |  |  |  |  |  |  |  |  | 4 |
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|  |  |  |  |  |  |  |  |  |  | 4 |
| 4 |  |  |  |  |  |  |  |  |  |  |
| 3 | 4 | 0 | 4 | 1 | 2 | 2 | 2 | 1 | 3 |  |

## Pathfinding snake

Draw a 45-cells snake which cannot touch itself even at a point. Word "FORSMARTS" should be read going along the snake from head to tail. The head and the tail are not given and are subjects to determine.

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | 2 |  |  |  |  |  |  |
|  |  |  |  |  |  | 2 |  |  |  |
|  | 2 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 2 |  |
|  |  |  | 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 2 |  |
| 2 |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 2 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

## Striped snake

Draw a 45-cells snake which cannot touch itself even at a point. All odd cells of the snake are black, all even - are grey. Clues at the right show the number of the black cells in the corresponding row, clues in the bottom - number of the grey cells in the corresponding column. The head and the tail of the snake are given.

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | F | T |  | R | O |  | S | F |  |
| R | O |  | M | F |  | O | A |  |  |
|  |  |  |  |  |  |  |  |  |  |
| M | T |  | R | S |  | M | F |  |  |
| A | O |  | F | M |  | S | T |  |  |
|  |  |  |  |  |  |  |  |  |  |
| O | F |  | S | T |  | O | F |  |  |
| T | R |  | R | O |  | R | M |  |  |
|  |  |  |  |  |  |  |  |  |  |

## All seeing snake

Draw in the grid a 45 -cells long snake which cannot touch itself even at a point. Numbers indicate how many cells of the snake are "seen" from this cell, not counting the cell itself. Snake always makes a turn in the cells with numbers. The head and the tail are not given and are subjects to determine.

## Suguru

Place a number in each cell in the grid. Each outlined region must contain each digit from 1 to N exactly once, where $N$ is the number of cells in a given region. Identical digits cannot touch, not even diagonally.

|  | 3 |  | 6 |  |  |  | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | 5 |
|  |  |  | 1 |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | 3 | 1 | 4 |  |  |  |
|  |  |  |  |  |  |  |  |
|  | 5 |  |  |  |  |  |  |
|  |  |  |  |  | 4 | 2 |  |


| 3 |  |  |  |  |  |  | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | 2 | 2 |  |  |  |  |
| 4 |  |  |  |  |  |  |  |
|  |  |  |  | 4 | 4 |  |  |



## Ripple effect

Place a number in each cell in the grid. Each outlined region must contain each digit from 1 to N exactly once, where $N$ is the number of cells in a given region. Any number $M$ in the grid must be at least $M$ cells away in a horizontal or vertical direction from any other instance of $M$ in the grid.

|  | 3 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  | 3 |  |  |
|  |  | 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 5 | 6 |
| 4 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 3 |
| 1 |  |  |  |  | 2 |  |  |  |


|  |  |  |  |  | 1 | 1 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  | 1 |  | 6 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 3 |  |  |  |  |  |
|  |  | 4 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  | 1 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | 4 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 6 |  |  |  |



## Tapa

Shade in some squares so that they form a connected group and no $2 \times 2$ square is completely shaded. Two squares that touch at a point are not considered connected. Numbers in the grid give the lengths of each consecutive block of shaded squares in the eight surrounding cells. Distinct blocks must have at least one unshaded square between them.

|  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | ${ }_{2}{ }_{2}$ |  |  | 2 |  |  | $1_{1}$ |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | 7 |  | 7 |  |  |  |
|  | 6 |  |  |  |  |  | 5 |  |
|  |  |  | 5 |  | 6 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | $1_{1}$ |  |  | 4 |  |  | $2_{2}$ |  |
|  |  |  |  |  |  |  |  |  |


| 3 |  |  |  | 2 |  |  |  | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | ${ }^{1} 5$ |  |  |  | ${ }^{2}{ }_{3}$ |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1 |  | ${ }_{2}{ }_{2}$ |  |  |  | ${ }^{2}$ |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | $1_{2}$ |  |  |  | ${ }^{1}{ }_{5}$ |  |  |
| 1 |  |  |  | 4 |  |  |  | 2 |



|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 3 |  | 4 |  |  |  |  |  |  |
|  |  |  |  |  | 4 |  | 2 |  |  |
|  | 4 |  | 6 |  |  |  |  |  |  |
|  |  |  |  |  | 6 |  | 4 |  |  |
|  |  | 5 |  | 4 |  |  |  |  |  |
|  |  |  |  |  |  | 6 |  | 5 |  |
|  |  | 2 |  | $2_{2}$ |  |  |  |  |  |
|  |  |  |  |  |  | 4 |  | 3 |  |
|  |  |  |  |  |  |  |  |  |  |


| 3 |  |  | ${ }^{1}$ |  |  |  |  |  | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ${ }^{2} 3$ |  |  | ${ }^{1} 4$ |  |  |  |  |  | 5 |
|  |  |  |  | ${ }^{1} 5$ |  |  | ${ }^{2} 3$ |  |  |  |  |
|  | ${ }^{1} 5$ |  |  |  |  |  |  |  | 6 |  |  |
|  |  |  |  |  | ${ }^{2} 3$ |  | 6 |  |  |  |  |
|  | ${ }^{2} 4$ |  |  |  |  |  |  |  |  |  | ${ }^{1} 3$ |
|  |  |  |  | ${ }^{2} 4$ |  | ${ }^{1} 5$ |  |  |  |  |  |
| $1_{2}$ |  | 7 |  |  |  |  |  |  |  | 6 |  |
|  |  |  |  |  | 7 |  |  | ${ }^{1} 5$ |  |  |  |
|  |  | ${ }^{1} 5$ |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  | 6 |  | ${ }^{1} 5$ |  |  |  |  |
|  |  | ${ }^{2} 2$ |  | 3 |  |  |  |  | 12 |  |  |

## Interconnected Mix

## Coral

Shade some squares in the grid so that they form a connected region and no $2 \times 2$ area is completely shaded. The shaded area must not touch itself at a point and may not completely surround any unshaded cells. A number outside the grid indicates the length of the consecutive blocks of shaded squares in that row/column, not necessarily in order.


The puzzles on this page are interconnected.
That means wherever two cells from different grids are connected by the line - they should be both shaded or both unshaded. If there's no line between the cells

- their shading should be different.



## LITS

Shade some cells, such that shaded cells within a boldlined area form a single tetromino (L, I, T or S). All shaded cells must be connected orthogonally, and there may be no $2 \times 2$ square of cells consisting entirely of shaded cells. No two of the same type of tetromino may touch along an edge, irrespective of rotation or reflection.

## Nurikabe

Shade some cells so that every number in the puzzle remains as part of a continuous shaded area of precisely the given number of cells. There must be exactly one number per shaded area. Unshaded cells cannot form any $2 \times 2$ areas. All unshaded cells must form one continuous area. Cells are continuous if they touch orthogonally.
Please note that in this puzzle the reverse way of shading is used (comparing to the usual one)


## Hula-hoop

Draw the snake-like loop (one cell wide, not touching itself even at a point) in the grid. Loop cannot go through the numbered and grey cells. Fill all the cells not used by the loop with the numbers 1 to 6 ( 1 to 9) so that they're used at most once in each row, column and outlined area. Numbers in grey cells should be equal to the number of the neighbouring cells (adjacent and touching at a point) used by the loop.

|  |  |  |  |  |  | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 5 |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |
|  |  |  |  | 6 | 4 |  |  |
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| 2 |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | 5 |  |  | 3 |  |  |  |
|  |  | 7 |  |  | 1 |  |  |  |  |
|  | 8 |  |  |  |  |  |  |  |  |
|  |  |  |  | 9 |  |  |  | 7 | 8 |
|  |  |  |  | 9 | 8 |  |  |  |  |
|  | 1 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  | 6 |  |  |  | 9 |  |  |  |
|  |  | 9 | 1 |  |  |  |  |  |  |
|  |  |  |  | 7 |  |  |  |  |  |
|  |  |  |  |  |  |  | 3 |  |  |

Magic Summer


|       28 <br>        <br> 127       <br>        <br>        <br>       37 <br>       136 <br>        <br> 55 37    55  |
| :--- |


|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
| 87 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 60 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 141 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 96 |  |  |  |  |  |  |
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| OOU |
| :--- |

## Magic summer

Place in the grid digits from 1 to 4 ( 1 to 5 in bigger grids), so that each row and column contains each digit exactly once. Numbers outside the grid show the total of all numbers formed in corresponding rows and columns. These numbers are separated by at least one empty cell.

Selected puzzles from CISPC 2019

CISPC 2019 was held on August, 3-4, in Silichi, Belarus. "Mosaic" was the team part of four puzzles intended for solving on an actual mosaic board with the colored pins. Here you can try to solve two of them, using colored pencils. "Metapart" was also a team part. Here it's presented in full. The best team of the championship was able to correctly fill only half of the grid in one hour. How much can you?

Color box
Paint each cell in one of four colors (yellow, red, green, blue). Symbols outside the grid describe the content of corresponding row, in order. Colored circle means that the row contains one or more consecutive cells of this color. Number indicates that it contains exactly such amount of consecutive cells of the same color. Question mark indicates that it contains one or more consecutive cells of the same color.


## Mosaic



## Color snakes

Place in the grid four 24 -cells long snakes. Each snake should not touch itself, but can touch other snakes. Each snake has its color (yellow, red, green, blue). Numbers outside the grid indicate how many consecutive cells of that color are presented at that row, in order.



## Selected puzzles from CISPC 2019

## Gaps

Place two circles in every row/column. Cells with circles should not touch each other, even diagonally. Numbers outside the grid indicate the number of cells between the circles in that row or column.


## Snake loop

Draw a snake-like loop in the grid. Numbers outside the grid indicate the length of the longest snake fragment in that row or column.

|  | 2 | 6 | 6 | 5 | 5 |  | 5 | 1 | 4 | 7 | 4 | 5 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  | A |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  | B |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  | c |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  | 。 |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | E |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Pentomino

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


|  | 5 | 4 | 3 | 1 | 1 | 4 | 1 | 5 | 2 | 3 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  | m |  |  |  |  |  |  |
| 2 | N |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  | - |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  | P |  |  |  | - |
| 4 |  |  |  | R |  |  |  |  |  |  |  |

Solve the same three puzzles in a single grid. The identically lettered cells should be filled similarly in both auxiliary and meta grids. l.e. if in the auxiliary puzzle the cells is used by the loop, circle or pentomino - it will be used by those in the meta grid as well. Empty cell is auxiliary puzzle will be left empty in the meta grid as well.
Numbers above an at left are the clues for "Gaps" puzzle. In the meta grid you should place three circles per row/column. The number reveals the distance between the 1st and 3rd circles.
Numbers below and at right reveal either "Snake loop" or "Pentomino" clues (possibly both).
Each cell can contain an element from at most one puzzle. Some cells will be left empty.
Three of four cells in an outlined $2 \times 2$ area should be filled identically. In a grey $2 \times 2$ area all four cells should be filled differently.


## Fortress Sudoku

Fill the grid with the digits from 1 to 9 so that each row, column and outlined area contains each digit exactly once. A digit placed in a grey cell should be greater than digits in adjacent white cells.

| 4 |  |  |  | 5 |  |  |  | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 5 | 6 |  |  |  | 2 | 1 |  |
|  | 2 |  |  |  |  |  | 3 |  |
|  |  |  | 1 |  | 5 |  |  |  |
|  | 8 |  |  | 4 |  |  | 9 |  |
|  |  |  | 3 |  | 7 |  |  |  |
|  | 3 |  |  |  |  |  | 2 |  |
|  | 6 | 1 |  |  | 4 | 5 |  |  |
| 9 |  |  |  | 2 |  |  |  | 1 |


| 8 | 3 | 9 |  |  |  |  |  | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5 | 2 |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 6 |  |  |  |
|  |  |  | 4 | 9 | 1 |  |  |  |
|  |  |  | 8 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 1 | 1 |
| 9 |  |  |  |  |  | 8 | 6 | 3 |


| 5 |  | 8 |  | 3 |  | 1 |  | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 9 |  |  |  |  |  | 8 |  |
| 1 |  |  |  |  |  |  |  | 7 |
|  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  | 2 |
|  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  | 8 |
|  | 8 |  |  |  |  |  | 6 |  |
| 3 |  | 5 |  | 2 |  | 4 |  | 9 |


|  | 4 |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | 3 | 6 |  |  |  |  |  |  |
| 7 |  | 8 | 5 |  |  |  |  |  |
| 1 | 2 | 3 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 4 | 3 | 5 |  |
|  |  |  |  |  | 2 | 8 |  | 3 |
|  |  |  |  |  |  | 2 | 6 | 9 |
|  |  |  |  |  |  |  | 5 |  |


|  |  | 3 | 4 |  | 7 | 2 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 4 |  |  |  |  |  | 3 |  |
| 8 |  |  |  |  |  |  |  | 1 |
| 9 |  |  |  |  |  |  |  | 8 |
|  |  |  |  | 6 |  |  |  |  |
| 7 |  |  |  |  |  |  | 3 |  |
| 4 |  |  |  |  |  |  |  | 2 |
|  | 6 |  |  |  |  |  | 9 |  |
|  |  | 5 | 1 |  | 9 | 3 |  |  |


| 3 |  |  |  |  |  |  |  | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 8 | 5 |  |  |  | 2 | 1 |  |
|  | 2 | 1 |  |  |  | 3 | 6 |  |
|  |  |  | 9 |  | 2 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | 4 |  | 1 |  |  |  |
|  | 1 | 2 |  |  |  | 4 | 8 |  |
|  | 4 | 7 |  |  |  | 9 | 3 |  |
| 8 |  |  |  |  |  |  |  | 1 |


|  |  |  |  | 3 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 8 |  | 9 |  | 4 |  |  |  |
|  |  |  |  | 6 |  |  |  |  |
|  | 6 |  |  |  |  |  | 4 |  |
| 8 |  | 7 |  | 2 |  | 9 |  | 1 |
|  | 2 |  |  |  |  |  | 5 |  |
|  |  |  |  | 5 |  |  |  |  |
| 7 |  | 2 |  | 1 |  | 9 |  |  |
|  |  |  |  | 4 |  |  |  |  |


| 5 |  |  | 4 |  |  | 2 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |
|  |  |  | 4 |  | 6 |  |  |  |
| 9 |  |  | 2 |  |  | 7 |  |  |
|  |  |  | 1 |  | 8 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 6 |  |  | 1 |  |  | 9 |  |


|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 3 |  | 8 | 5 | 4 |  |
|  |  |  |  |  |  |  |
| 7 |  | 9 |  | 3 |  | 1 |
| 9 |  | 6 |  |  | 3 |  |
| 2 |  | 5 |  | 1 |  | 9 |
|  |  |  |  |  |  |  |
|  | 4 |  | 1 | 8 | 7 |  |
|  |  |  |  |  |  |  |

## Kropki Sudoku Variations



## Double Kropki Sudoku

Fill in the grid with the digits 1 to 9 (6) so that they appear once in each row, c olumn and outlined area. All pairs of adjacent cells containing digits where one is 2 bigger than another are separated by the white diamond. All pairs of adjacent cells containing digits where one of them is 4 times bigger than another are separated by the black diamond.


## Kropki Sudoku

Fill in the grid with the digits 1 to 9 (6) so that they appear once in each row, column and outlined area. All pairs of adjacent cells containing consecutive digits are separated by the white dot. All pairs of adjacent cells containing digits where one of them is half of another are separated by the black dot. 1 and 2 can be separated by either white or black dot.


## Tripki

Fill in the grid with the digits 1 to 9 (6)
so that they appear once in each row, column and outlined area. All pairs of adjacent cells containing digits where one is 3 bigger than another are separated by the white triangle. All pairs of adjacent cells containing digits where one of them is 3 times bigger than another are separated by the black triangle.


## Kropki Chaos

Fill in the grid with the digits 1 to 9 so that they appear once in each row, column and outlined area. Outlined areas are described by the rules of other types appearing on this spread, three areas per each type. Relations between cells from different outlined areas are not marked, even if they represent the same type.

## Windoku

Fill the grid with the digits from 1 to 9 so that each row, column and outlined area contains each digit exactly once. Each
shaded area should also contain all those digits exactly once.

|  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 5 | 1 | 3 | 8 |  |  |  |
| 3 |  | 8 | 6 |  | 1 |  |  |
| 2 | 4 |  |  | 7 | 9 |  |  |
|  |  |  |  |  |  |  |  |
| 6 | 8 |  |  | 1 | 5 |  |  |
| 4 |  | 9 | 2 |  | 7 |  |  |
|  | 2 | 5 |  | 8 | 6 |  |  |
|  |  |  |  |  |  |  |  |


|  |  | 4 | 2 |  | 5 | 1 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |
| 9 |  |  |  | 8 |  |  |  | 3 |
| 6 |  |  | 1 |  |  | 5 |  |  |
| 5 |  | 3 |  |  | 6 | 7 |  |  |
| 7 |  |  | 2 |  |  | 1 |  |  |
| 4 |  |  | 3 |  |  | 9 |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | 5 | 7 |  | 8 | 4 |  |  |

## Windoku

|  | 5 | 3 | 7 |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 9 |  | 3 |  |  | 2 | 1 | 5 |
|  | 4 | 6 | 5 |  |  | 8 |  | 7 |
|  |  |  |  |  | 5 | 4 | 9 |  |
|  |  |  |  |  |  |  |  |  |
| 3 | 7 | 5 |  |  |  |  |  |  |
| 5 |  | 2 |  |  | 3 | 9 | 8 |  |
| 4 | 3 | 8 |  |  | 1 |  | 5 |  |
|  |  |  |  |  | 8 | 3 | 6 |  |


|  | 8 |  |  |  |  |  | 6 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 9 |  |  |  |  |  | 3 | 4 |
|  |  | 3 | 6 |  | 4 | 5 |  |  |
|  |  | 8 |  |  | 2 |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | 5 |  |  | 3 |  |  |  |
|  |  | 9 | 7 |  | 1 | 4 |  |  |
| 1 | 3 |  |  |  |  | 5 | 7 |  |
|  | 5 |  |  |  |  |  | 8 |  |


|  |  |  | 9 |  | 1 |  |  | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 8 |  |  | 2 |  |  |  |  |
|  |  |  | 6 |  | 7 |  |  |  |
| 7 |  | 2 |  |  |  | 9 |  | 1 |
|  | 6 |  |  |  |  |  | 4 |  |
| 9 |  | 1 |  |  |  | 6 |  | 2 |
|  |  |  | 4 |  | 8 |  |  |  |
|  |  |  |  | 5 |  |  | 9 |  |
| 1 |  |  | 7 |  | 9 |  |  |  |



## Quadruple Sudoku

Fill the grid with the digits from 1 to 9 so that each row, column and outlined area contains each digit exactly once. At some intersections, a set of digits is given. These digits must be placed in the four adjacent cells.


## Primrose Sudoku

Fill in the grid with the digits 1 to 9 so that they appear once in each of the 9 circular "rows" and each of the 6 outlined regions. $A$ "row" is the nine cells touching the inside edge of one of the nine circles.


Sudokube
Fill in the grid with the digits 1 to 8 so that they appear once in each of the 6 outlined regions and 12 "rows". A "row" follows the opposite, parallel sides of each quadrilateral.

## Snowflake Sudoku

Fill in the grid with the digits 1 to 6 so that they appear once in each of the 6 outlined regions and 18 horizontal and diagonal "rows".

## Quadruple Sudoku

Fill the grid with the digits from 1 to 8 so that each row, column and outlined area contains each digit exactly once. At some intersections, a set of digits is given. These digits must be placed in the four adjacent cells.


## No Touch Sudoku

Fill the grid with the digits from 1 to 8 so that each row, column and outlined area contains each digit exactly once. Equal digits must not touch each other diagonally.

## Diagonal Sudoku

Fill the grid with the digits from 1 to 8 so that each row, column and outlined area contains each digit exactly once. Both main diagonals should also contain all these digits exactly once.


## Fortress Sudoku

Fill the grid with the digits from 1 to 8 so that each row, column and outlined area contains each digit exactly once. A digit placed in a grey cell should be greater than digits in adjacent white cells.

The puzzles on this page are interconnected. That means wherever two cells from different grids are connected by the line - they should both contain the same digit. If there's no line between the cells - their content should be different.



| 1 | 3 | 5 | 6 | 3 | 1 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4 |  |  |  |  |  |  |
| 2 | 4 | 2 | 4 | 2 | 5 | 3 |
| 5 |  |  |  |  |  |  |
| 1 | 5 | 6 | 1 | 3 | 1 | 4 |



|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 | 6 | 1 | 6 | 5 | 3 | 5 |  |  |
|  | 1 | 4 | 5 | 2 | 1 | 4 | 2 |  |  |
|  | 6 | 2 | 6 | 4 | 3 | 6 | 1 |  |  |
|  | 1 | 5 | 3 | 1 | 2 | 5 | 4 |  |  |
|  | 4 | 2 | 6 | 5 |  | 1 | 6 |  |  |
|  | 3 |  | 4 | 2 | 6 | 5 | 3 |  |  |
| 4 | 2 | 5 | 3 |  | 3 | 4 | 2 |  |  |
|  |  |  |  |  |  |  |  |  |  |


| 3 | 2 | 4 | 1 | 4 | 1 | 2 | 3 | 4 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 5 | 3 | 2 | 3 | 5 | 4 | 1 | 5 | 2 |
| 4 | 2 | 1 | 5 | 1 | 2 | 3 | 2 | 3 | 1 |
| 3 | 5 | 6 | 2 | 3 | 4 | 1 | 4 | 6 | 5 |
| 1 | 2 | 3 | 1 | 6 | 5 | 6 | 2 | 1 | 2 |
| 3 | 5 | 4 | 5 | 2 | 1 | 4 | 3 | 4 | 3 |
| 1 | 2 | 1 | 3 | 4 | 3 | 2 | 1 | 5 | 1 |
| 4 | 3 | 4 | 2 | 1 | 5 | 6 | 4 | 2 | 4 |
| 1 | 5 | 1 | 3 | 4 | 2 | 1 | 3 | 5 | 3 |
| 2 | 3 | 2 | 5 | 1 | 5 | 4 | 2 | 1 | 2 |




|  | 5 | 4 | 1 | 3 | 2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 | 4 |  | 2 |  | 5 | 1 |
| 2 |  | 1 | 3 |  | 4 | 5 |
| 1 | 3 | 5 |  | 4 |  | 2 |
| 4 | 1 |  | 5 | 2 |  | 3 |
| 5 |  | 2 |  | 1 | 3 | 4 |
|  | 2 | 3 | 4 | 5 | 1 |  |

## Solutions

\section*{ | 5 | 7 | 8 | 2 | 3 | 6 | 1 | 9 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 9 | 2 | 7 | 1 | 4 | 5 | 8 | 3 |
| 1 | 3 | 4 | 9 | 8 | 5 | 6 | 2 | 7 |
| 4 | 5 | 9 | 6 | 7 | 2 | 8 | 3 | 1 |
| 8 | 1 | 6 | 4 | 9 | 3 | 7 | 5 | 2 |
| 7 | 2 | 3 | 1 | 5 | 8 | 9 | 4 | 6 |
| 2 | 4 | 7 | 5 | 6 | 9 | 3 | 1 | 8 |
| 9 | 8 | 1 | 3 | 4 | 7 | 2 | 6 | 5 |
| 3 | 6 | 5 | 8 | 2 | 1 | 4 | 7 | 9 | <br> | 3 | 6 | 4 | 1 | 2 | 5 | 7 | 9 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 7 | 8 | 5 | 3 | 9 | 6 | 2 | 1 | 4 |
| 9 | 2 | 1 | 8 | 4 | 7 | 3 | 6 | 5 |
| 1 | 7 | 8 | 9 | 6 | 2 | 5 | 4 | 3 |
| 4 | 5 | 6 | 7 | 8 | 3 | 1 | 2 | 9 |
| 2 | 3 | 9 | 4 | 5 | 1 | 8 | 7 | 6 |
| 5 | 1 | 2 | 6 | 3 | 9 | 4 | 8 | 7 |
| 6 | 4 | 7 | 5 | 1 | 8 | 9 | 3 | 2 |
| 8 | 9 | 3 | 2 | 7 | 4 | 6 | 5 | 1 |}


| 4 | 1 | 3 | 8 | 5 | 2 | 9 | 7 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 8 | 5 | 6 | 9 | 7 | 3 | 2 | 1 | 4 |
| 7 | 2 | 9 | 4 | 6 | 1 | 8 | 3 | 5 |
| 3 | 4 | 2 | 1 | 9 | 5 | 6 | 8 | 7 |
| 1 | 8 | 7 | 2 | 4 | 6 | 5 | 9 | 3 |
| 6 | 9 | 5 | 3 | 8 | 7 | 1 | 4 | 2 |
| 5 | 3 | 8 | 6 | 1 | 4 | 7 | 2 | 9 |
| 2 | 6 | 1 | 7 | 3 | 9 | 4 | 5 | 8 |
| 9 | 7 | 4 | 5 | 2 | 8 | 3 | 6 | 1 |


| 6 | 2 | 9 | 3 | 1 | 7 | 8 | 5 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 7 | 4 | 8 | 9 | 6 | 5 | 3 | 2 | 1 |
| 3 | 5 | 1 | 8 | 2 | 4 | 6 | 7 | 9 |
| 8 | 6 | 4 | 7 | 3 | 1 | 2 | 9 | 5 |
| 1 | 7 | 5 | 2 | 9 | 6 | 4 | 8 | 3 |
| 2 | 9 | 3 | 4 | 5 | 8 | 1 | 6 | 7 |
| 5 | 3 | 7 | 1 | 8 | 2 | 9 | 4 | 6 |
| 4 | 1 | 2 | 6 | 7 | 9 | 5 | 3 | 8 |
| 9 | 8 | 6 | 5 | 4 | 3 | 7 | 1 | 2 |


| 9 | 4 | 5 | 3 | 7 | 6 | 1 | 2 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | 3 | 6 | 1 | 8 | 9 | 5 | 7 | 4 |
| 7 | 1 | 8 | 5 | 2 | 4 | 3 | 9 | 6 |
| 1 | 2 | 3 | 6 | 4 | 5 | 9 | 8 | 7 |
| 4 | 5 | 7 | 9 | 3 | 8 | 6 | 1 | 2 |
| 6 | 8 | 9 | 2 | 1 | 7 | 4 | 3 | 5 |
| 5 | 9 | 1 | 7 | 6 | 2 | 8 | 4 | 3 |
| 3 | 7 | 4 | 8 | 5 | 1 | 2 | 6 | 9 |
| 8 | 6 | 2 | 4 | 9 | 3 | 7 | 5 | 1 | | 6 | 4 | 1 | 5 | 3 | 2 | 7 | 8 | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 8 | 2 | 9 | 1 | 4 | 5 | 3 | 6 |
| 9 | 5 | 3 | 7 | 6 | 8 | 1 | 2 | 4 |
| 1 | 6 | 5 | 8 | 9 | 3 | 2 | 4 | 7 |
| 8 | 3 | 7 | 4 | 2 | 5 | 9 | 6 | 1 |
| 4 | 2 | 9 | 1 | 7 | 6 | 8 | 5 | 3 |
| 2 | 1 | 4 | 3 | 5 | 9 | 6 | 7 | 8 |
| 3 | 7 | 6 | 2 | 8 | 1 | 4 | 9 | 5 |
| 5 | 9 | 8 | 6 | 4 | 7 | 3 | 1 | 2 |



| 4 | 5 | 9 | 7 | 1 | 2 | 6 | 8 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 7 | 3 | 6 | 8 | 5 | 4 | 1 | 2 | 9 |
| 8 | 1 | 2 | 3 | 9 | 6 | 4 | 5 | 7 |
| 6 | 7 | 8 | 9 | 2 | 3 | 5 | 1 | 4 |
| 1 | 9 | 5 | 4 | 6 | 8 | 7 | 3 | 2 |
| 3 | 2 | 4 | 5 | 7 | 1 | 8 | 9 | 6 |
| 5 | 6 | 1 | 2 | 4 | 9 | 3 | 7 | 8 |
| 9 | 4 | 3 | 1 | 8 | 7 | 2 | 6 | 5 |
| 2 | 8 | 7 | 6 | 3 | 5 | 9 | 4 | 1 |


| 1 | 9 | 3 | 4 | 8 | 7 | 2 | 6 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 4 | 2 | 5 | 9 | 1 | 8 | 3 | 7 |
| 8 | 5 | 7 | 6 | 2 | 3 | 9 | 4 | 1 |
| 9 | 3 | 6 | 7 | 1 | 4 | 5 | 2 | 8 |
| 5 | 8 | 1 | 3 | 6 | 2 | 4 | 7 | 9 |
| 7 | 2 | 4 | 9 | 5 | 8 | 6 | 1 | 3 |
| 4 | 1 | 9 | 8 | 3 | 6 | 7 | 5 | 2 |
| 3 | 6 | 8 | 2 | 7 | 5 | 1 | 9 | 4 |
| 2 | 7 | 5 | 1 | 4 | 9 | 3 | 8 | 6 |


| 2 | 4 | 7 | 6 | 5 | 1 | 8 | 3 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 3 | 5 | 8 | 9 | 4 | 7 | 1 | 2 | 6 |
| 6 | 1 | 9 | 3 | 8 | 2 | 7 | 5 | 4 |
| 8 | 7 | 2 | 4 | 9 | 6 | 5 | 1 | 3 |
| 1 | 9 | 6 | 5 | 2 | 3 | 4 | 7 | 8 |
| 5 | 3 | 4 | 1 | 7 | 8 | 9 | 6 | 2 |
| 9 | 2 | 5 | 7 | 3 | 4 | 6 | 8 | 1 |
| 4 | 6 | 3 | 8 | 1 | 5 | 2 | 9 | 7 |
| 7 | 8 | 1 | 2 | 6 | 9 | 3 | 4 | 5 |

## PAGE 16


$\left.\begin{array}{|l|l|l|l|l|l|}\hline 1 & 2 & 5 & 3 & 4 & 6 \\ \hline 6 & 4 & 3 & 3 & 1 & 5\end{array}\right) 2 \mid$

| 7 | 9 | 2 | 1 | 5 | 6 | 8 | 4 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 1 | 3 | 3 | 4 | 8 | 9 | 2 | 7 |
| 0 | 5 |  |  |  |  |  |  |  |
| 5 | 8 | 4 | 3 | 7 | 2 | 9 | 6 | 1 |
| 2 | 7 | 8 | 9 | 3 | 5 | 4 | 1 | 6 |
| 3 | 5 | 1 | 6 | 4 | 8 | 7 | 2 | 9 |
| 4 | 6 | 9 | 2 | 1 | 7 | 5 | 5 | 3 |
| 9 | 4 | 6 | 5 | 2 | 1 | 3 | 8 | 7 |
| 8 | 3 | 5 | 7 | 6 | 4 | 8 | 1 | 9 |
| 1 | 2 | 7 | 8 | 9 | 3 | 6 | 5 | 4 |



| 7 | 1 | 5 | 3 | 4 | 6 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | | $2 \wedge 6$ | 8 | 7 | 9 | 5 | 1 | 4 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | | 9 | 4 | 3 | 2 | 1 | 8 | 7 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | | $8 \triangle 5$ | 7 | 6 | 4 | 3 | $4<1$ | 9 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4 | 3 | 2 | 1 | 7 | 9 | 6 | 5 | | 4 | 3 | 2 | 1 | 7 | $\hat{9}$ | 6 | 5 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

 \begin{tabular}{|l|l|l|l|l|l|l|l|}
\hline 6 \& 8 \& 9 \& 4 \& 3 \& 2 \& 5 \& 7 <br>
\hline

 

\hline 5 \& 7 \& 4 \& 9 \& 8 \& 1 \& 3 \& $2 \wedge 6$ <br>
\hline \& 2 \& 4 \& 5 \& 6 \& 7 \& 8 \& <br>
\hline

 

\hline 5 \& 7 \& 4 \& 9 \& 8 \& 1 \& 3 \& 2 \& 6 <br>
\hline 3 \& 2 \& 1 \& 5 \& 6 \& 7 \& 8 \& 9 \& 4 <br>
\hline
\end{tabular}

| 7 | 9 | 1 | 5 | 2 | 8 | 3 | 4 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4 | 0 | 2 |  | $\hat{0}$ | 3 | 7 | 5 | 1 |

 \begin{tabular}{|l|l|l|l|l|l|l|}
\hline 695 \& 3 \& 1 \& 7 \& 4 \& 8 \& 9 <br>
\hline

 

\hline 3 \& 7 \& 6 \& 4 \& 1 \& 9 \& 5 \& $2 \bullet 8$ <br>
\hline \& 4 \& 8 \& 7 \& 5 \& 2 \& 1 \& 6 \& 3 <br>
\hline

 

\hline 9 \& 4 \& 8 \& 7 \& 5 \& 2 \& 1 \& 6 <br>
\hline 2 \& \& 5 \& 3 \& \& \& <br>
\hline

 

\hline 2 \& 1 \& 5 \& 3 \& 8 \& 6 \& 9 \& 7 \& 4 <br>
\hline 1 \& 6 \& 7 \& 8 \& 4 \& 5 \& 2 \& 3 \& <br>
\hline

 

\hline 1 \& 6 \& 7 \& 8 \& 4 \& 5 \& 2 \& 3 <br>
\hline 8 \& 3 \& 4 \& 2 \& 9 \& 7 \& 6 \& 1 <br>
\hline

 

\hline 8 \& 3 \& 4 \& 2 \& 9 \& 7 \& 6 \& 1 \& 5 <br>
\hline 5 \& 2 \& \& 6 \& $\frac{1}{3}$ \& 1 \& 4 \& 8 \& 7 <br>
\hline

 

\hline 5 \& 2 \& 9 \& $6, ~$ \& 3 \& 1 <br>
\hline
\end{tabular}



| 1 | 5 | 3 | 7 | 8 | 2 | 4 | 9 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 8 | 9 | 7 | 3 | 4 | 6 | 2 | 1 | 5 |
| 2 | 4 | 6 | 5 | 1 | 9 | 8 | 3 | 7 |
| 6 | 2 | 1 | 8 | 3 | 7 | 5 | 4 | 9 |
| 9 | 8 | 4 | 6 | 2 | 5 | 1 | 7 | 3 |
| 3 | 7 | 5 | 1 | 9 | 4 | 6 | 2 | 8 |
| 5 | 6 | 2 | 4 | 7 | 3 | 9 | 8 | 1 |
| 4 | 3 | 8 | 9 | 6 | 1 | 7 | 5 | 2 |
| 7 | 1 | 9 | 2 | 5 | 8 | 3 | 6 | 4 |


| 5 | 8 | 4 | 9 | 1 | 3 | 7 | 6 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 9 | 1 | 5 | 2 | 7 | 8 | 3 | 4 |
| 7 | 2 | 3 | 6 | 8 | 4 | 5 | 9 | 1 |
| 9 | 7 | 8 | 4 | 3 | 6 | 2 | 1 | 5 |
| 3 | 1 | 6 | 2 | 7 | 5 | 9 | 4 | 8 |
| 2 | 4 | 5 | 1 | 9 | 8 | 3 | 7 | 6 |
| 8 | 6 | 9 | 7 | 5 | 1 | 4 | 2 | 3 |
| 1 | 3 | 2 | 8 | 4 | 9 | 6 | 5 | 7 |
| 4 | 5 | 7 | 3 | 6 | 2 | 1 | 8 | 9 |


| 3 | 6 | 4 | 2 | 9 | 5 | 1 | 7 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 | 8 | 1 | 6 | 7 | 3 | 9 | 5 | 4 |
| 9 | 5 | 7 | 4 | 8 | 1 | 2 | 6 | 3 |
| 6 | 2 | 9 | 3 | 1 | 7 | 8 | 4 | 5 |
| 5 | 1 | 3 | 8 | 4 | 9 | 6 | 2 | 7 |
| 7 | 4 | 8 | 5 | 2 | 6 | 3 | 9 | 1 |
| 4 | 7 | 6 | 1 | 3 | 2 | 5 | 8 | 9 |
| 8 | 3 | 2 | 9 | 5 | 4 | 7 | 1 | 6 |
| 1 | 9 | 5 | 7 | 6 | 8 | 4 | 3 | 2 |



|  |  |  | 4 | 9 | 8 | 2 |  | 6 |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 9 | 1 | 1 | 3 | 6 | 7 | 5 | 4 |  | 2 |
| 3 | 6 |  | 2 | 1 | 4 | 5 | 7 |  |  | 9 |
| 2 | 5 |  | 3 | 4 | 1 | 8 | 6 | 9 | 9 | 7 |
| 7 | 4 | 9 | 9 | 6 | 2 | 3 | 1 |  | 5 |  |
| 6 | 1 |  | 8 | 5 | 7 | 9 | 1 |  | 2 |  |
| 1 | 8 |  | 5 | 2 | 3 | 6 | 9 | 7 | 7 | 4 |
| 4 | 2 | 26 |  | 7 | 9 | 1 | 8 |  |  |  |
| 9 |  | , |  | 8 | 5 | 4 | 2 |  |  |  |


|  | 6 | 2 | 5 | 3 | 1 | 9 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 | 5 | 3 | 4 | 9 | 8 | 2 | 1 | 6 |
| 1 | 8 | 9 | 6 | 2 | 7 | 4 | 5 | 3 |
| 5 | 4 | 1 | 2 | 7 | 3 | 6 | 9 | 8 |
| 2 | 7 | 8 | 9 | 6 | 5 | 1 | 3 | 4 |
| 9 | 3 | 6 | 1 | 8 | 4 | 7 | 2 | 5 |
| 6 | 2 | 7 | 3 | 5 | 9 | 8 | 4 | 1 |
| 3 | 9 | 4 | 8 | 1 | 6 | 5 |  |  |
|  | 1 | 5 | 7 | 4 | 2 | 3 |  |  |

[^0]
## Samurai Mix

## Samurai Mix Sudoku

This Samurai grid consists of three overlapping sudoku grids. Fill the grids with the digits from 1 to 9 so that each row, column and outlined area contains each digit exactly once. There are also some additional rules for the outlined areas, as follows:

## Even Sudoku

A digit placed in a grey cell should be even.

## Greater-Less Sudoku

The digits should satisfy the "greater-less" comparison signs.

## Killer Sudoku

The sum of all numbers in a dotted cage must match the small number printed in its corner.

## Renban Sudoku

Grey regions should contain a consecutive set of digits, in any order.

## Sum Sudoku

Sum of the numbers formed in top and middle row should equal a number formed in the bottom row.

## Mathdoku

Four numbers between the cells are the results of applying a different math operation (+,-, $x, /$ ), each once, to the digits in those cells.

## Kropki Sudoku

For rules see page 16. The rules are only effective within the outlined area.

## Arrow Sudoku

The digit in the circle at the top of each arrow must be equal to the sum of the digits that appear along the path of the arrow. Digits can repeat within an arrow shape.



[^0]:    
    
    
    

     | ${ }^{12888}$ | 4 | 4 | 5 | 9 | 6 | 3 | 1 | 7 |
    | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

    

     | 3 | 4 | 7 | 6 | $5^{1259} 9$ | 2 | 3 | 3 |
    | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
    | 8 | 4 | 7 |  |  |  |  |  |

