WCPN Dutch Puzzle and Sudoku Championships 2017

Saturday June 17th, 2017

Instruction booklet

Welcome to the Dutch Puzzle and Sudoku Championships 2017!
The championships are organized by the Dutch puzzle association (WCPN)
and hosted by ORTEC. ORTEC is one of the world's leaders in optimization
software and analytics solutions.

In this booklet you will find all sorts of information about the
championships. The tentative schedule of the day, rules and regulations,
and example puzzles, including solutions. You'll also find the value of the
puzzles (the amount of points), so you can decide in advance what puzzles
you want to solve. Reading this booklet will prepare you for a nice day full
of puzzles.

Have fun!

WCPN
René Gilhuijs
Richard Stolk
Hns Eendebak

ORTEC

OPTIMIZE YOUR WORLD

WCPN Dutch Puzzle and Sudoku Championships 2017

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Tentative schedule

You are expected between 09.00 and 09.30

10.00 - 10.20 Round 1: Sudoku classic

10.30 - 10.50 Round 2: Puzzle classic

11.10 - 12.10 Round 3: Sudoku - miscellaneous

12.10 - 13.00 Lunch

13.00 - 14.00 Round 4: Puzzle - miscellaneous

14.15 - 14.30 Round 5: Sudoku sprint

14.40 - 14.52 Round 6: Puzzle sprint

14.52 - 15.30 Tea and coffee

15.30 - 15.50 Semi-finals sudoku

16.00 - 16.20 Semi-finals puzzle

16.30 - 16.50 Final sudoku

17.00 - 17.20 Final puzzle

17.30 - 18.30 Awards ceremony, wine, beer, bitterballs

ORTEC will take care of tea, coffee and water all day, lunch, and the drinks and snacks afterwards.

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Overview of the Sudoku Championships

Round 1 - classic		Puzzle	Points
20 minutes	1	Classic	20
	2	Classic	30
	3	Classic	40
	4	Classic	55
	5	Classic	55
			200
Round 3 - miscellaneous	1	Arrows	60
60 minutes	2	Parity	55
	3	XV	75
	4	Maxed Quads	80
	5	Thermometers	65
	6	Renban	95
	7	Consecutive	90
	8	Chaos	65
	9	Killer	115
			700
Round 5 - sprint	1	Sudoku with gaps	**100**
15 minutes			
SF	1	Classic	
8 + 6 + 4 minutes	2	Point to next	
	3	Even Sandwich	
F	1	Classic	
8 + 6 + 4 minutes	2	GT Consecutive	
	3	Extra Regions	

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Overview of the Puzzle Championships

Round 2 - classic 20 minutes		Puzzle	Points
	1	Easy as ORTEC	15
	2	Four Winds	10
	3	Number Tree	35
	4	No four in a row	25
	5	Minesweeper	10
	6	Snake	15
	7	Tents	10
	8	Skyscrapers	30
	9	Battleships	35
	10	Number Place	15
			200

Round 4 - miscellaneous 60 minutes			
	1	Tapa	90
	2	Yajilin	110
	3	Dominion	75
	4	All or one	45
	5	Domino	35
	6	Pento touching	30
	7	Japanese Square	120
	8	Troika	85
	9	Renban	50
	10	Creek	60
			700

Round 6 - sprint 12 minutes	1	Skyscrapers	**100**

SF 8 + 6 + 4 minutes	1	Double block	
	2	Thermometers	
	3	Neighbours	

F 8 + 6 + 4 minutes	1	Kakuro special	
	2	Slitherlink	
	3	Star battle diagonal	

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Rules

These are the instructions of the WCPN Dutch Puzzle and Sudoku Championships 2017. Any questions related to these instructions can be discussed in the message board on the site of WCPN: www.wcpn.nl.

Competition Hall Rules

1.   Each competitor must sit at their pre-allocated desk to take part in the preliminary rounds. They should ensure that they are at their desk ready for the start of each round. Late arrivals may not be permitted to take part in a round.

2.   Prior to the start of each round competitors should clearly write their name and reference number on the front of their booklet. Competitors should not open their booklet.

3.   Once the signal to start a round is given competitors may open their booklet and begin solving the puzzles.

4.   During each round competitors must remain silent, unless declaring completion of a round.

5.   If declaring a round complete, close your booklet, clearly state 'finished' and raise your arm with the booklet in your hand. Keep the booklet raised until your booklet has been collected.

6.   Competitors that complete a round with more than five minutes left will be allowed to quietly leave the competition hall. Competitors that complete a round with five minutes or less left must remain seated, so as not to cause unnecessary disruption to fellow competitors.

7.   If any competitor needs to leave the competition hall prior to the end of the round, they will not be allowed to take any further part in that round.

8.   Once the signal to finish a round is given, competitors must immediately stop solving, close their booklet, put their pen/pencil down and raise the booklet in the air. All competitors must remain seated until all booklets have been collected.

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9.   Puzzles can be completed in any order. (Except the puzzles in the play-offs (semi-final and final)). The points value of a puzzle is an indication of its anticipated difficulty based on the results of test solvers. Your individual solving experience may therefore differ.

10.   If during solving you believe that there is a problem with any puzzle, leave that puzzle and continue with another. This will be investigated upon completion of the round.

Permitted items
11.   Permitted items which may be taken into the competition hall are: pens, pencils, erasers, rulers, instruction booklets (optionally annotated with notes regarding puzzle instructions and preparation notes) and blank paper. Drinks and snacks will also be allowed so long as they don't disturb other competitors (by sound or smell).

12.   It is forbidden to use electronic devices in the competition hall, such as music players and headphones of any type, calculators, camera's, recording devices and mobile phones. Mobile phones have to be turned off.

Scoring and Queries
13.   Points will be awarded only for 100% correctly solved puzzles. There will be no partial credit.

14.   Ten bonus points will be awarded for each full minute remaining to any competitor who correctly solves every puzzle in a round.

15.   Booklets marked with the score will be returned to the competitor. In the event of any query once a booklet has been marked, the query must be raised as soon as possible with the jury between rounds or after the last round.

16.   The decision of the jury (Richard Stolk and Hns Eendebak) is final.

Breach of rules
17.   Any breach of these rules may lead to a competitor being disqualified from a round or the competition, such at the discretion of the jury.

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Play-offs

18.   The top four competitors from the preliminary rounds qualify for the play-offs.

19.   The play-offs consist of two semi-finals and a final. For the semi-finals the number 1 from the preliminary rounds competes against the number 4 and the number 2 competes against the number 3. The winners of the semi-finals compete against each other in the final.

20.   The play-offs are played on a podium on large sheets. Only one sheet per puzzle is available per competitor.

21.   The play-offs consist of 3 puzzles per semi final/final. After completion of a puzzle the competitor must signal silently that he or she is finished and step back. A member of the jury or someone appointed by the jury will immediatly check the result. If the puzzle is correctly solved the competitor may then start on the next puzzle. If the solution is incorrect the competitor may attempt to solve the puzzle again. Only after solving the puzzle correctly may the competitor continue with the next puzzle.

22.   The semi-final and the final will be played with a Fischer-clock. Competitors start with 8 minutes for the first puzzle. When that puzzle is solved, 6 extra minutes are rewarded to finish the second puzzle. When the second puzzle is solved, the competitor gets another 4 minutes to finish the last puzzle. The competitor who finishes all 3 puzzles first within this period of time is the winner of the semi final/final. If both competitors have not finished their puzzles within this period of time, the competitor with the most correctly solved puzzles wins. If both competitors have an equal amount of correctly solved puzzles they are allowed to finish the puzzle that they are currently solving. The winner is the competitor who correctly solves that puzzle first.

Qualification for the WSC and WPC
23.   Three competitors qualify for the WPC 2017: both finalists and the semi-finalist with the highest ranking in the preliminary rounds.

24.   Three competitors qualify for the WSC 2017: both finalists and the semi-finalist with the highest ranking in the preliminary rounds.

1-5 SUDOKU - classic (20 + 30 + 40 + 55 + 55 points)

Place the digits 1-9 in each column, each row and in all nine 3x3 regions.

4			3	6	9			5
6			1		8			7
	5	8		2		3	1	
	2	5	4		7	1	6	
	4	6	9		2	7	5	
	8	9		4		5	7	
5			2		1			4
1			8	7	5			3

4	1	7	3	6	9	8	2	5
6	3	2	1	5	8	9	4	7
9	5	8	7	2	4	3	1	6
8	2	5	4	3	7	1	6	9
7	9	1	5	8	6	4	3	2
3	4	6	9	1	2	7	5	8
2	8	9	6	4	3	5	7	1
5	7	3	2	9	1	6	8	4
1	6	4	8	7	5	2	9	3

All puzzles of the sudoku championships 2017 are designed by Richard Stolk.

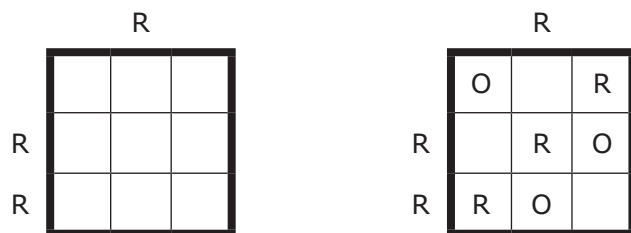# WCPN Dutch Puzzle and Sudoku Championships 2017

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Round 2: puzzle classic

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1 EASY AS ORTEC (15 points)

Fill the grid with letters ORTEC so that each row and each column contains each letter exactly once. Some cells remain empty. Letters outside the grid indicate the first letter in that row or column from that direction.
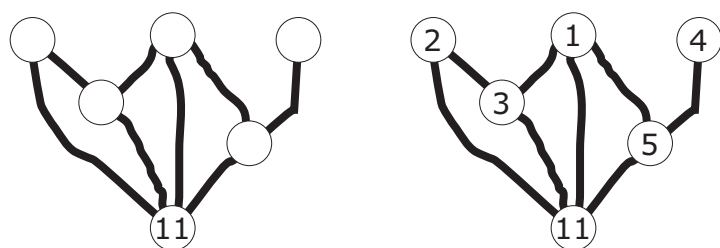
Example (with OR)

2 FOUR WINDS (10 points)

Draw one or more straight lines from each numbered cell so that each number indicates the total length of lines that are drawn from that cell, excluding the cell itself. Lines are either horizontal or vertical and connect the centers of adjacent cells without crossing or overlapping each other and the given numbers.

3 NUMBER TREE (35 points)

Fill in the numbers 1 to 14 in such a way that the number in each circle is equal to the sum of the numbers in the circles into which it branches off from bottom to top.

Example (1 to 5)

4 NO FOUR IN A ROW (25 points)

Fill in the grid with 'X' or 'O' such that four consecutive 'X's and 'O's do not appear horizontally, vertically or diagonally.

Example (no three in a row)

	O	X	
	O		

O	X	O	X
X	O	X	O
X	O	X	O
O	X	O	X

5 MINESWEEPER (10 points)

Place *N* mines into empty cells in the grid. The numbers in the grid represent the number of mines in the neighbouring cells, including diagonal ones.

Example (*N* = 3)

		2
2		
		3

		2
2	●	●
	●	3

6 SNAKE (15 points)

Find a snake in the grid whose head and tail are indicated by grey cells. The snake wriggles horizontally and vertically and never touches itself, not even diagonally. The digits outside the grid indicate the number of cells occupied by the snake in that row or column.

7 TENTS (10 points)

Attach a tent to each tree, in a horizontally or vertically adjacent cell. Cells with tents do not touch each other, not even diagonally. Numbers outside the grid indicate the number of tents in that row or column.

8 SKYSCRAPERS (30 points)

Place the digits 1-N in every row and column. Each digit indicates a skyscraper of that height. Numbers outside the grid indicate how many buildings are visible when looking from that side. Higher buildings block the view of lower buildings.

Example (N=3):
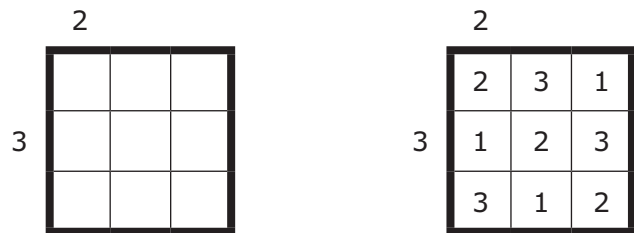
9 BATTLESHIPS (35 points)

Place the given ships in the grid, so that they do not touch each other, not even diagonally. Numbers outside the grid indicate how many cells are occupied by ship segments.
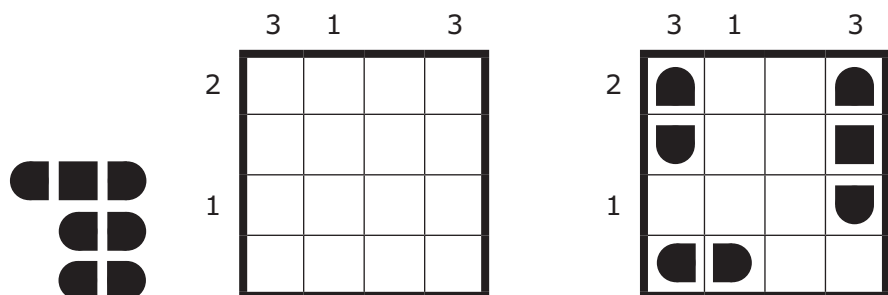
10 NUMBER PLACE (15 points)

Place the 4- and 5-digit numbers in the grid, from left to right or from top to bottom. (In this example: 3-digit numbers.)
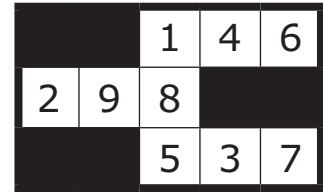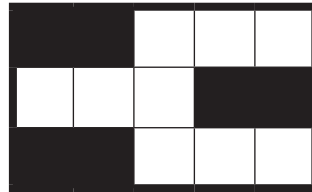
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Round 3: sudoku - miscellaneous

1 SUDOKU - arrows (60 points)

Place the digits 1-9 in each column, each row and in all nine 3x3 regions. The digits in the arrow points are the sum of the digits in the arrow.

8	2	1	9	5	7	4	3	6
9	7	6	4	1	3	5	8	2
5	4	3	8	6	2	7	9	1
1	8	4	3	9	5	2	6	7
6	3	9	2	7	4	8	1	5
7	5	2	6	8	1	9	4	3
2	9	7	1	3	8	6	5	4
4	1	8	5	2	6	3	7	9
3	6	5	7	4	9	1	2	8

2 SUDOKU - parity (55 points)

Standard sudoku rules apply. All numbers on a grey line have the same parity (odd or even).

3	7	4	2	6	9	5	8	1
2	6	1	3	5	8	9	7	4
9	8	5	4	7	1	2	3	6
8	9	2	5	1	6	7	4	3
6	5	3	9	4	7	8	1	2
4	1	7	8	3	2	6	5	9
5	3	6	7	2	4	1	9	8
7	2	8	1	9	3	4	6	5
1	4	9	6	8	5	3	2	7

3 SUDOKU - XV (75 points)

Standard sudoku rules apply. X markers show **all** adjacent pairs of cells where the two values in those cells add up to 10, while V markers show **all** pairs where the two values sum to 5.

Solution grid:

9	7	4	1	3	6	8	5	2
6	1	5	2	7	8	4	3	9
2	8	3	9	4	5	6	1	7
7	4	9	5	8	1	3	2	6
3	5	6	7	2	9	1	4	8
1	2	8	4	6	3	9	7	5
5	3	7	8	9	4	2	6	1
8	6	2	3	1	7	5	9	4
4	9	1	6	5	2	7	8	3

4 SUDOKU - maxed quads (80 points)

Standard sudoku rules apply. Arrows are present between two diagonally adjacent quads. In the quad pointed at by the arrow, all digits are greater than the digits in their corresponding positions in the other quad. Digits may repeat in quads.

Solution grid:

2	6	3	7	8	4	9	5	1
7	1	5	6	2	9	8	3	4
9	8	4	3	5	1	6	2	7
6	9	8	1	3	2	4	7	5
4	3	7	8	9	5	1	6	2
1	5	2	4	6	7	3	9	8
3	4	1	2	7	6	5	8	9
5	2	6	9	4	8	7	1	3
8	7	9	5	1	3	2	4	6

5 SUDOKU - thermometers (65 points)

Standard sudoku rules apply. The digits in each thermometer-shaped region should be in increasing order, from the bulb towards the end(s). Notice the shape of the thermometers!

7		9			3		6
	4		6		8		
	5		3			6	
3							4
5							9
8		6		1			2

7	8	9	2	1	5	3	4	6
1	3	4	9	6	7	8	2	5
6	2	5	8	4	3	1	9	7
4	1	6	7	8	2	9	5	3
9	5	2	1	3	4	7	6	8
3	7	8	5	9	6	2	1	4
2	6	3	4	7	9	5	8	1
5	4	1	3	2	8	6	7	9
8	9	7	6	5	1	4	3	2

6 SUDOKU - renban (95 points)

Standard sudoku rules apply. Digits placed on each shape (formed by a gray line) form a renban group. A renban group contains consecutive digits, without repetition, in any order. Notice the shape of the renban groups!

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

9	3	2	1	6	4	7	8	5
4	1	8	3	7	5	2	9	6
5	6	7	2	9	8	4	1	3
3	5	1	4	8	6	9	7	2
7	2	6	9	5	1	8	3	4
8	9	4	7	2	3	6	5	1
6	7	9	5	3	2	1	4	8
1	8	5	6	4	9	3	2	7
2	4	3	8	1	7	5	6	9

7 SUDOKU - consecutive (90 points)

Standard sudoku rules apply. **All** places where consecutive numbers have to be filled in are marked with a circle.

(left grid: partially filled consecutive sudoku with clues 2, 1, 7, 6, 5, 4, 3, 9, 8)

5	6	7	2	1	3	9	4	8
4	8	2	6	9	7	5	3	1
3	1	9	5	4	8	7	2	6
1	9	5	7	3	6	4	8	2
2	4	8	9	5	1	6	7	3
7	3	6	4	8	2	1	5	9
8	5	3	1	6	4	2	9	7
9	2	1	3	7	5	8	6	4
6	7	4	8	2	9	3	1	5

8 SUDOKU - chaos (65 points)

Place the digits 1-9 in each column, each row and in all nine outlined regions.

(left grid: partially filled chaos sudoku with clues 7, 6, 1, 2, 3, 8, 6, 4, 3, 5, 8, 7, 6, 2, 2, 7, 8, 4, 5, 3, 5)

7	2	3	5	9	1	4	8	6
4	9	6	1	2	3	8	5	7
5	1	8	3	7	4	6	9	2
8	4	7	2	6	9	5	3	1
6	5	4	9	8	2	1	7	3
1	6	5	7	3	8	9	2	4
9	3	2	4	5	6	7	1	8
2	7	1	8	4	5	3	6	9
3	8	9	6	1	7	2	4	5

9 SUDOKU - killer (115 points)

Standard sudoku rules apply. The sum of the cells in a cage must equal the total given for the cage. Each digit in the cage must be unique.

7	5	1	4	9	6	2	8	3
6	3	4	1	8	2	9	7	5
8	9	2	3	7	5	6	4	1
1	7	6	5	2	9	8	3	4
4	2	5	7	3	8	1	9	6
3	8	9	6	4	1	7	5	2
5	1	3	8	6	7	4	2	9
9	4	7	2	1	3	5	6	8
2	6	8	9	5	4	3	1	7

1 TAPA (90 points)

Grid cells must be filled in so that all the black cells form one contiguous region, not counting cells touching at a corner to be adjacent, but it is not allowed to have a two by two square of black cells. Clue cells with numbers may not be filled in and tell the length of each consecutive black cell block in the eight surrounding cells. Two cell blocks clued by two different numbers must be separated by at least one white cell.

Some numbers are replaced by question marks; the position of the question mark is not important. A question mark never replaces a zero.
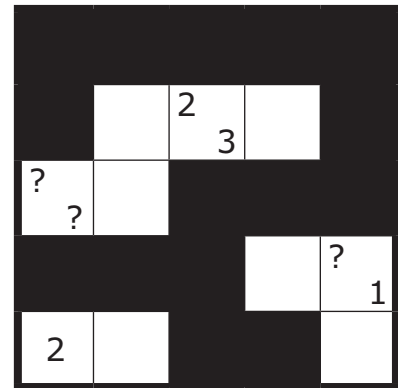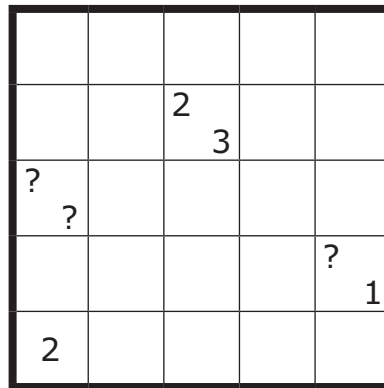
2 YAJILIN - four directions (110 points)

Paint some cells black. Numbered cells indicate the amount of blackened cells in the corresponding row and column. Black cells cannot touch each other at the sides but they may touch diagonally, and all remaining white cells neither occupied by a number nor blackened should be traversed by a single closed loop. That loop connects the centers of adjacent cells and does not cross itself.
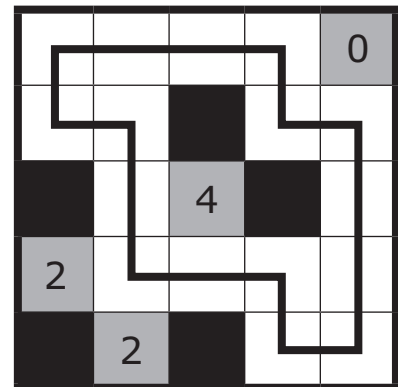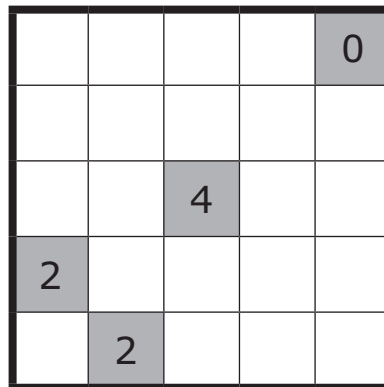
3 DOMINION (75 points)

Place some dominoes (1x2 black cells) in the grid, in order to divide the grid into regions of adjacent cells. Dominoes cannot overlap or touch each other from the sides. It is also not possible to cover a letter with a domino. Same letters belong to the same region, different letters belong to a different region. All regions contain one or more letter(s).
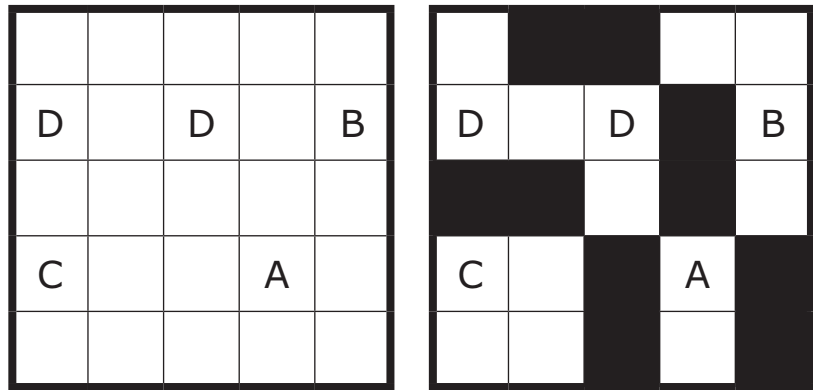
4 ALL OR ONE (45 points)

Place a circle, triangle or square in each cell. Regions of three cells, indicated by the thick lines, contain either three same symbols or three different symbols. Symbols in adjacent cells in different regions are different.
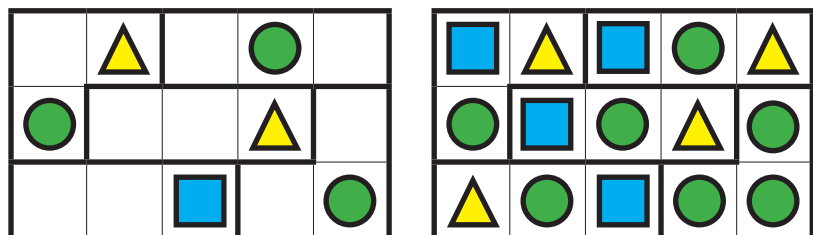
5 DOMINO (35 points)

A complete set of dominoes is placed in the grid. The boundaries are all removed and the number of pips is indicated by digits. Draw the boundaries so that the complete set of dominoes is shown.

```
00
01  11
02  12  22
03  13  23  33
```

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

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

6 PENTOMINO - touching (30 points)

Place all twelve pentominos (as shown) in the grid. The shapes can be mirrored and reflected, but they can only touch diagonally. All points where two pentominos touch are indicated by a black dot.

Example with four different pentominos

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7 JAPANESE SQUARE PLUS (120 points)

Place digits 1–6 into each column and on each row exactly once. Numbers outside the grid indicate the sums of blocks of digits in that row or column. These sums are placed in increasing order, not necessary in the order of the solution. Blocks have to be separated by at least one empty cell.

Example (1-4)

8 TROIKA (85 points)

All three puzzles can have multiple solutions, but when overlaying the correct solutions (without rotation or reflection), all cells are coloured at least once.
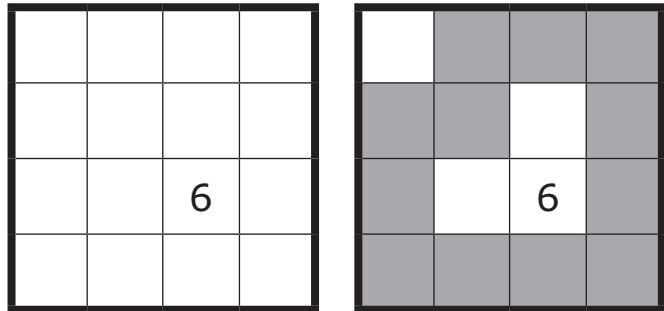
The example is on the next page.

BOSNIAN ROAD

Draw a one cell wide loop in the grid that doesn't touch itself, not even diagonally. Numbers in the grid indicate how many of the cells around it are used by the loop.

CLOUDS

Draw some clouds in the grid. All clouds are rectangular or square and are at least two cells long and two cells wide. The clouds do not touch each other, not even diagonally. Numbers outside the grid indicate how many cells are part of a cloud in that row or column.
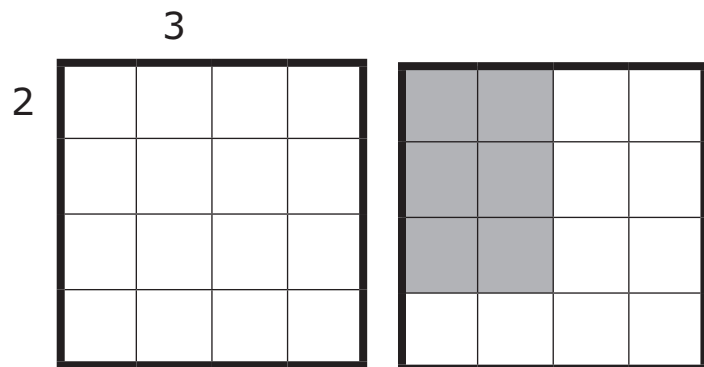
PENTOPIA

Place several unique pentominos in the grid so that they don't touch each other, not even diagonally. Arrows in the grid indicate the directions of the closest pentomino(s) when looking from that cell. Cells with arrows remain empty.
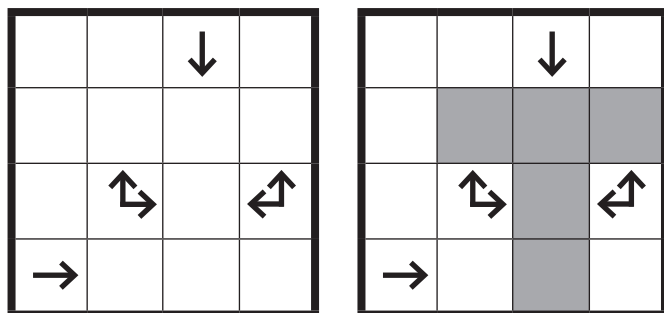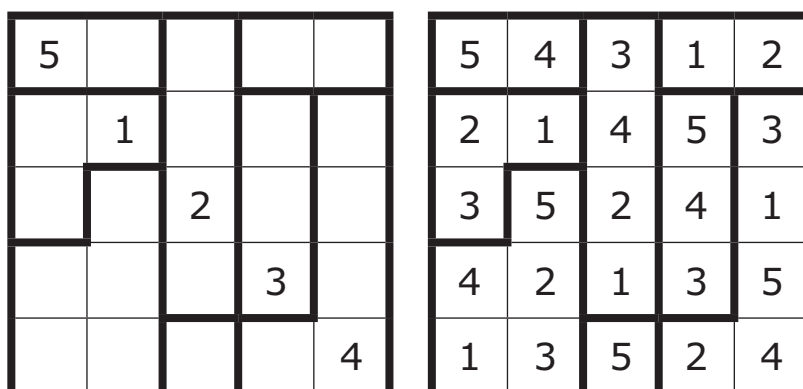
9 RENBAN (50 points)

Place the digits 1-8 on each row and in each column. Digits in black edged regions are consecutive. (In this example: digits 1-5.)

5				
	1			
		2		
			3	
				4

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

10 CREEK (60 points)

The digits in the circles indicate how many of the adjacent cells must be coloured. All remaining white cells are connected horizontally or vertically.
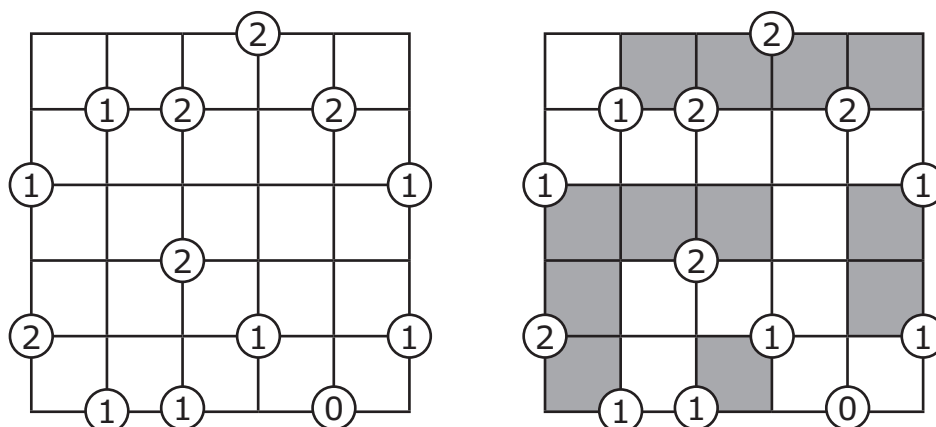
1 SUDOKU WITH GAPS (100 points)

The sudoku in this sprint round is extra large and contains gaps. However, still every row and every column has 9 cells. The digits 1 to 9 have to be filled in every row, column and 3x3-block; the gaps must be ignored while solving.

		6			1			9			
	9			7			8				
3			6			7					
		7			6						8
	6			5						9	
8			4						7		
		3					2				5
	2					9				8	
1					5				9		
				4			3				9
		9				1				5	
	8				9				4		

Solution:

7	8	6	5	4	1	3	2	9			
5	9	4	2	7	3	6	8	1			
3	1	2	6	8	9	7	4	5			
2	3	7	9	1	6			5	4	8	
4	6	1	7	5	8			2	9	3	
8	5	9	4	3	2			7	1	6	
9	4	3			8	7	2	1	6	5	
6	2	5			1	9	4	3	8	7	
1	7	8			5	3	6	9	2	4	
			1	6	4	2	5	3	8	7	9
			3	9	7	4	1	8	6	5	2
			8	2	5	9	6	7	4	3	1

## 1 SKYSCRAPERS - clustered (100 points)

The grid is divided in four blocks. Each block is a small skyscrapers-puzzle. Place the digits 1-3 in every row and column. Each digit indicates a skyscraper of that height. Numbers outside the grid indicate how many buildings are visible when looking from that side. Larger buildings block the view of smaller buildings.
The digits in the green cells are hints for the direct adjacent blocks. A digit in a corner with two adjacent blocks is valid for both blocks.
All possible green cells are given.
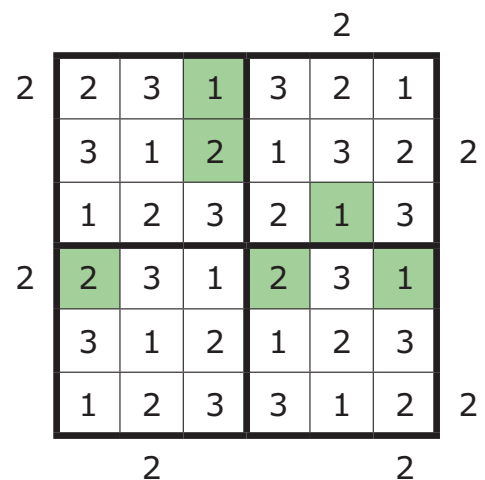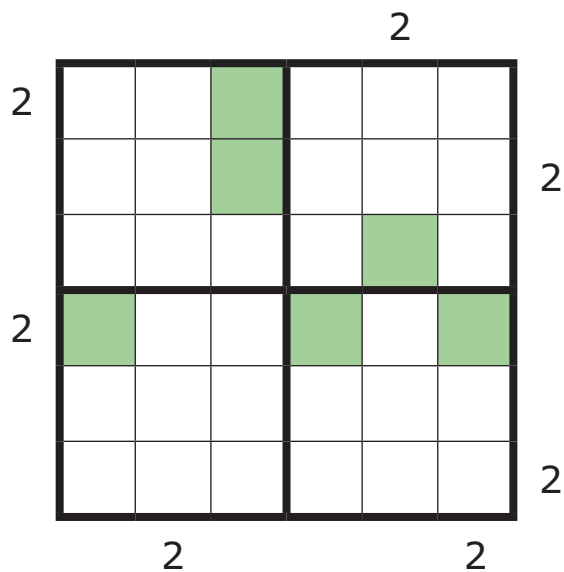
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Instruction booklet

Sudoku: semi-final

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1 SUDUKU - classic

2 SUDOKU - point to next

Standard sudoku rules apply. If a digit N is placed in a cell containing an arrow, then the digit N+1 must be placed in one of the cells pointed at by the arrow.

Puzzle grid (left):

3			9	7	8	→		
	9			→	→		4	
			↑		↑	3		
8	↓			←	9	↓		2
6			5					3
5		↑	6	→			↑	1
		1	↓		↓			
	3		←	←		1		
		←	3	4	1			8

Solution grid (right):

3	4	6	9	7	8	1	2	5
1	9	2	5	6	3	8	4	7
7	5	8	4	1	2	3	6	9
8	7	4	1	3	9	6	5	2
6	1	9	2	5	7	4	8	3
5	2	3	6	8	4	9	7	1
4	8	1	7	9	5	2	3	6
9	3	7	8	2	6	5	1	4
2	6	5	3	4	1	7	9	8

3 SUDOKU - even sandwich

Standard sudoku rules apply. Clues outside the grid show **all** the digits that have even digits as neighbours on both sides in the corresponding row or column.

Puzzle grid (left) – top clues:

```
        1 5     1
    3     7 7     3       1
    6 9 9 9 1 7 9 1 8
```

clues		1								
7 9		1								
1 3		7		3			4			
5 9									3	4
7 9									5	
5					3					
4 5			1							
8		2	8							
2 9					8			9		3
1 5										7

Solution grid (right) – top clues:

```
        1 5     1
    3     7 7     3       1
    6 9 9 9 1 7 9 1 8
```

| clues										
7 9		1	4	5	3	8	9	2	7	6
1 3		7	6	3	2	1	4	5	9	8
5 9		8	9	2	5	6	7	1	3	4
7 9		6	2	9	4	7	8	3	5	1
5		4	5	8	9	3	1	7	6	2
4 5		3	1	7	6	5	2	4	8	9
8		2	8	4	7	9	3	6	1	5
2 9		5	7	1	8	2	6	9	4	3
1 5		9	3	6	1	4	5	8	2	7

Instruction booklet

Puzzle: semi-final

1 DOUBLE BLOCK

Blacken exactly two cells in each row and each column of the grid. Place digits 1-5 (in the example: 1-2) on each row and column. Numbers outside the grid indicate the sum of the digits between the two black cells in the corresponding row or column.
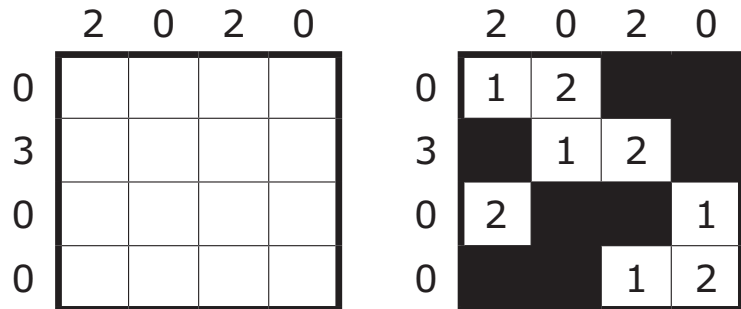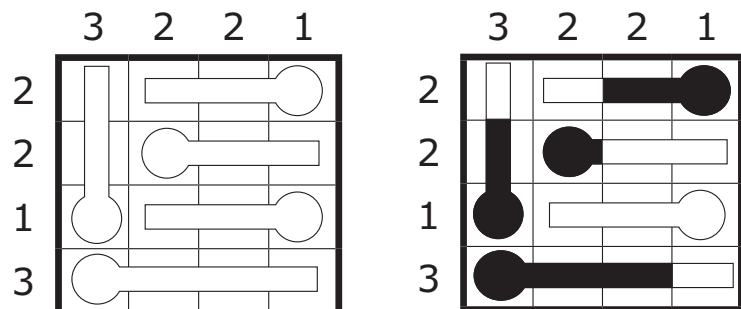
2 THERMOMETERS

There are thermometers in the grid, all of which have their own level of mercury. The mercury always starts from the rounded end and fills toward the other end.
There may be empty or full thermometers as well. Numbers around the grid indicate the number of cells in the given row or column that contain mercury.

3 NEIGHBOURS

Place digits 1–3 in the grid so that in each row and column, each digit appears three times (in the example: two times). Digits in grey cells do not share an edge with a cell containing the same digit. Digits in white cells share an edge with at least one cell containing the same digit. All grey cells are given.
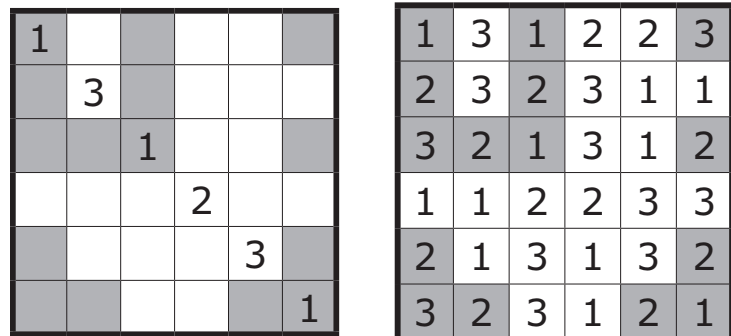
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Sudoku: final

1 SUDUKU - classic
2 SUDOKU - greater than consecutive

In **all** cases where the difference between two neighbouring digits is 1, there is a greater or less sign between those digits. Digits must be placed in accordance with the signs.

2	9	7	3 < 4	1	6 > 5	8

2	9	7	3	4	1	6	5	8
4	8	5	6	7	9	2	1	3
1	6	3	8	5	2	7	4	9
3	1	6	2	8	5	9	7	4
9	4	8	1	3	7	5	2	6
5	7	2	9	6	4	8	3	1
7	2	9	4	1	6	3	8	5
8	5	4	7	9	3	1	6	2
6	3	1	5	2	8	4	9	7

3 SUDOKU - extra regions

Place the digits 1-9 on each row, in all columns, in the nine 3x3 regions and in the coloured regions.

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

Instruction booklet

Puzzle: final

1 KAKURO special

For each number the sum is equal to the number in the grey box. A number above a diagonal relates to the digits you need to fill in to the right. A number below a diagonal relates to the digits you need to fill in vertically below it. Enter digits 1–6 (in the example: 1-3) exactly once in each row and column.
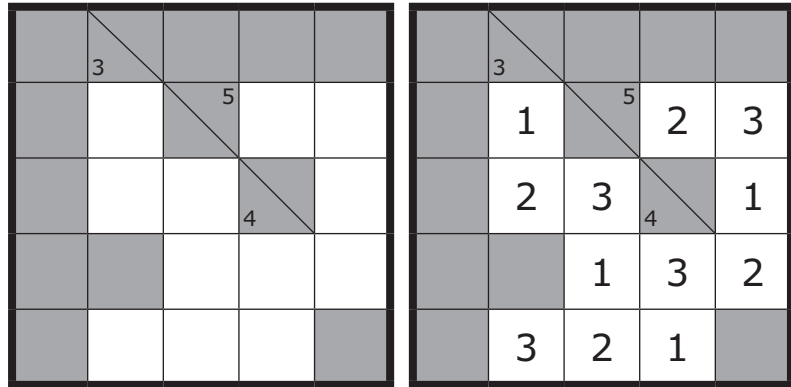
2 SLITHERLINK

Draw a single closed loop into the grid by connecting the dots. The loop cannot touch itself, not even diagonally. The numbers in the cells indicate how many parts of the loop are directly beside, under or above the number.
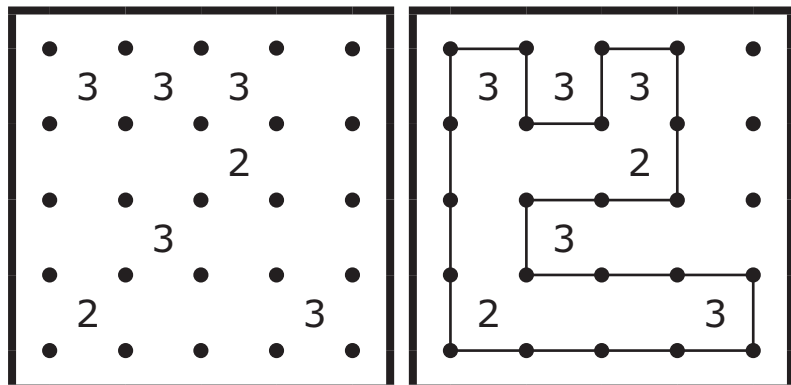
3 STAR BATLLE - diagonal

Place two stars (in this example: one star) with the size of one cell in each row and each column. The stars do not touch each other, not even diagonally. The numbers in the grid indicate the amount of stars on the diagonal lines, seen from that number.