Kompetisi Puzzle Klasik 2021
Instruction Booklet

(English)

https://ammar.fath.in/kpk

No	Puzzle	Size	Author	Points
01	Killer Sudoku	6x6	Nusi	19
02	Yin-Yang	7x7	Athin	5
03	Yin-Yang (Killer)	8x8	Athin	21
04	Arrow Sudoku	6x6	Nusi	27
05	Easy as …	7x7	Athin	17
06	Easy as … (Arrow)	8x8	Athin	42
07	Little Killer Sudoku	6x6	Nusi	23
08	Double Back	7x7	Athin	12
09	Double Back (Little Killer)	8x8	Athin	22
10	Palindrome Sudoku	6x6	Athin	15
11	Tapa	7x7	Athin	5
12	Tapa (Palindrome)	8x8	Nusi	16
13	Skyscrapers Sudoku	6x6	Nusi	96
14	Nanro	7x7	Athin	14
15	Nanro (Skyscrapers)	8x8	Athin	14

| No	Puzzle	Size	Author	Points
16	Antiknight Sudoku	6x6	Nusi	28
17	Minesweeper	7x7	Nusi	5
18	Minesweeper (Antiknight)	8x8	Athin	17
19	Thermometer Sudoku	6x6	Nusi	38
20	Kropki	7x7	Nusi	20
21	Kropki (Thermometer)	8x8	Nusi	156
22	Even/Odd Sudoku	6x6	Nusi	11
23	Haisu	7x7	Nusi	19
24	Haisu (Even/Odd)	8x8	Nusi	17
25	Quadruple Sudoku	6x6	Nusi	82
26	Cave	7x7	Athin	9
27	Cave (Quadruple)	8x8	Athin	36
28	Classic Sudoku	9x9	Nusi	110
29	KPK	9x9	Athin	81
30	Instructionless Puzzle	9x9	Athin	23
			Total	1000

Notes:

This rule applies to all sudokus and will be written as "apply classic sudoku rules": Place a number from 1 to N into each empty cell so that each row, column, and bold bordered region contains every number with no repeats, where N is the side length of the grid.

01 Killer Sudoku [Nusi, 19 Points]

Apply classic sudoku rules. In addition, Digits on the cage must sum to the total in the top left corner cage. Digit on cage cannot repeat
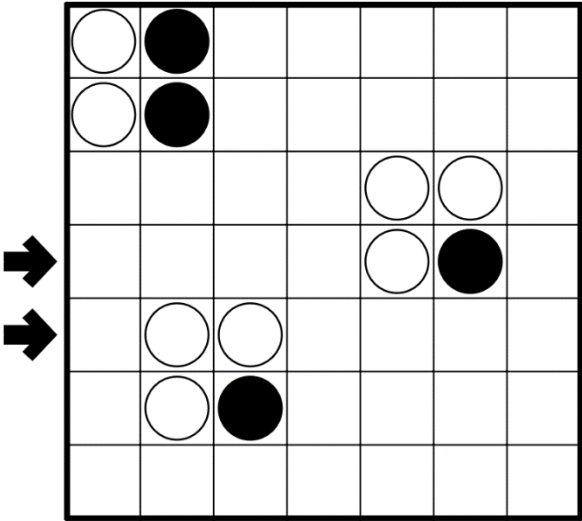
Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).
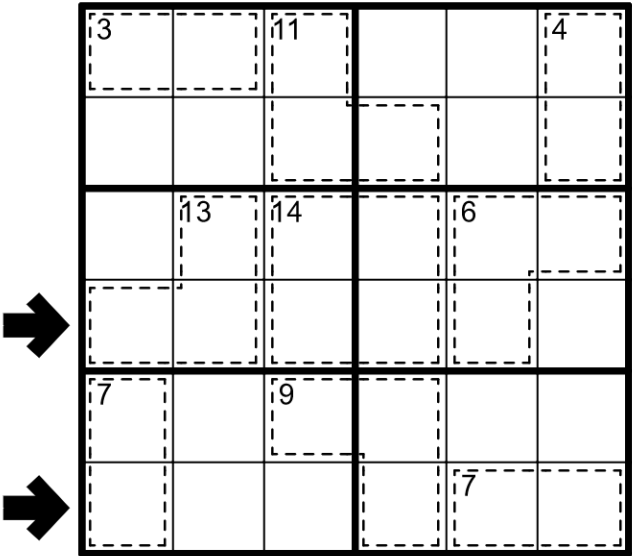
02 Yin-Yang [Athin, 5 Points]

Place a circle into each cell of the grid - some white and some black - such that all circles of the same type must lie in cells forming one orthogonally connected area. No 2x2 region may contain all one type of circle.
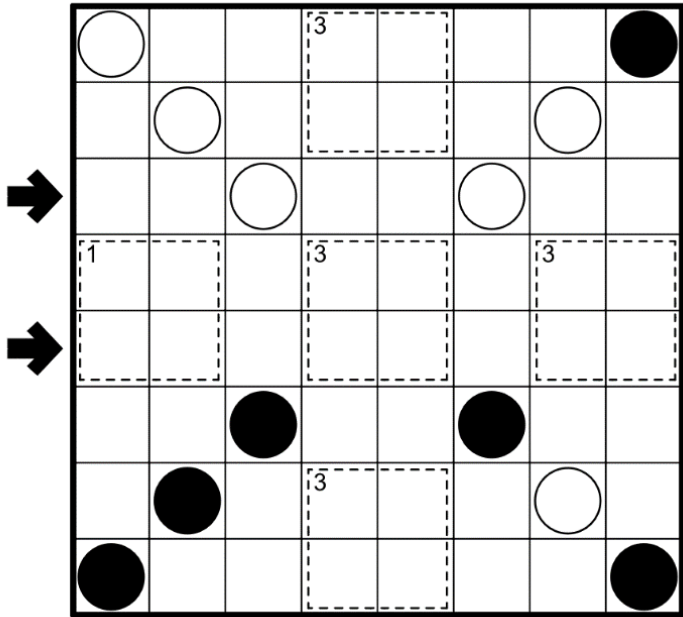
Solution Code: For the two designated rows, write O for black circle and X for white circle. Separate first and second row with – (hyphen symbol).

03 Yin-Yang (Killer) [Athin, 21 Points]

Place a circle into each cell of the grid - some white and some black - such that all circles of the same type must lie in cells forming one orthogonally connected area. No 2x2 region may contain all one type of circle. Number on black cages show how many black circles on that cage.

Solution Code: For the two designated rows, write O for black circle and X for white circle. Separate first and second row with – (hyphen symbol).

04 Arrow Sudoku [Nusi, 27 Points]

Apply classic sudoku rules applied. In addition, digits on arrow must sum to the total of the corresponding circle. If circle contains two or more digits, then digit always read from left to right or up to down. Digit on arrow can repeat.
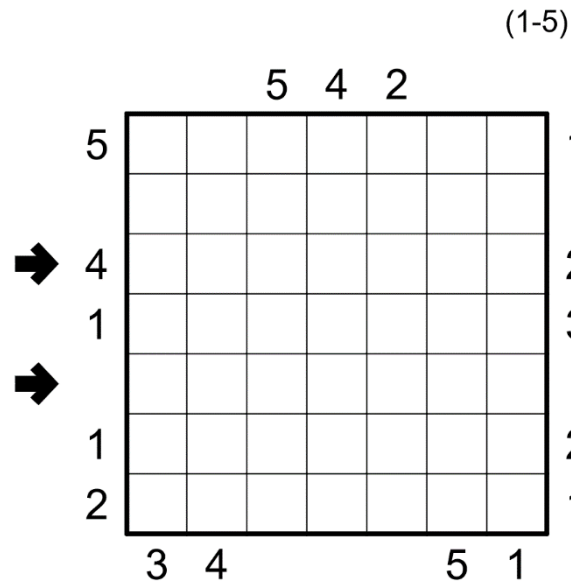
Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).
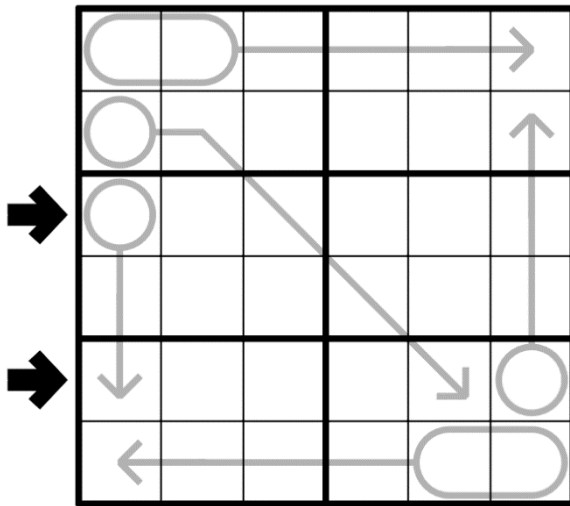
05 Easy as ... [Athin, 17 Points]

Place digit from the range given outside the grid into some cells so that each row and column contain each digit once. A clue outside the grid represents the first digit seen in the corresponding row or column from that direction.
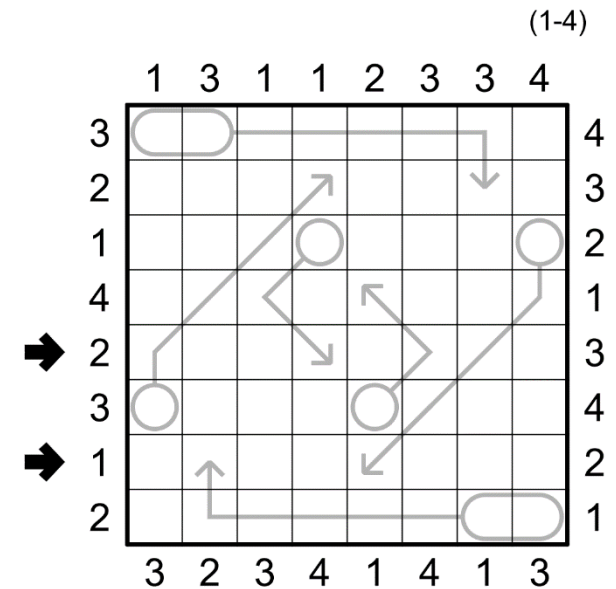
Solution Code: For the two designated rows, write every digit on cell. Use 0 if cell has no digit. Separate first and second row with – (hyphen symbol).

06 Easy as ... (Arrow) [Athin, 42 Points]

Place digit from the range given outside the grid into some cells so that each row and column contain each digit once. A clue outside the grid represents the first digit seen in the corresponding row or column from that direction. digits on arrow must sum to the total of the corresponding circle. If circle contains two or more digits, then digit always read from left to right or up to down. Digit on arrow can repeat. Non-numbered cell considered as zero.
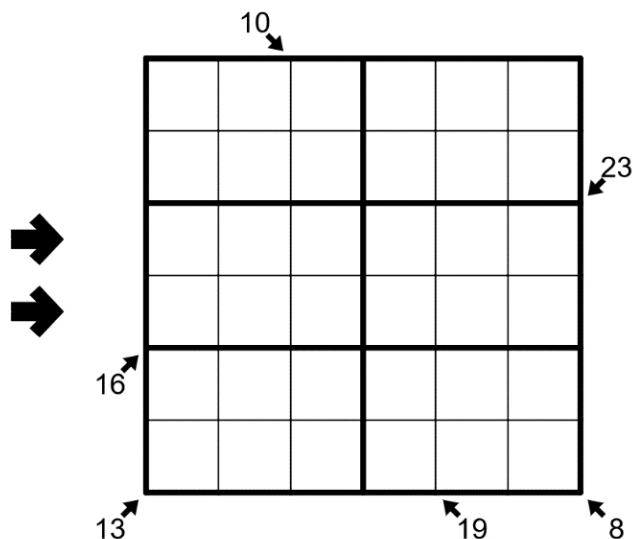
Solution Code: For the two designated rows, write every digit on cell. Use 0 if cell has no digit. Separate first and second row with – (hyphen symbol).

(1-5)

(1-4)

07 Little Killer Sudoku [Nusi, 23 Points]

Apply classic sudoku rules applied. In addition, digits on pointed diagonal must sum to the corresponding number. Digit on pointed diagonal can repeat.
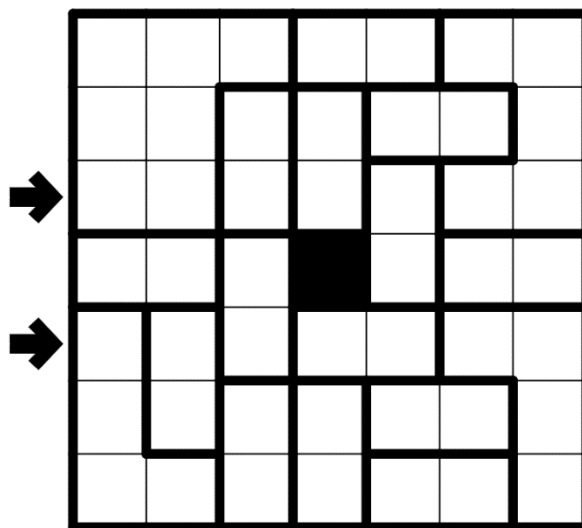
Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

08 Double Back [Athin, 12 Points]

Draw a non-intersecting loop through the centers of all empty cells which passes through each region exactly twice.
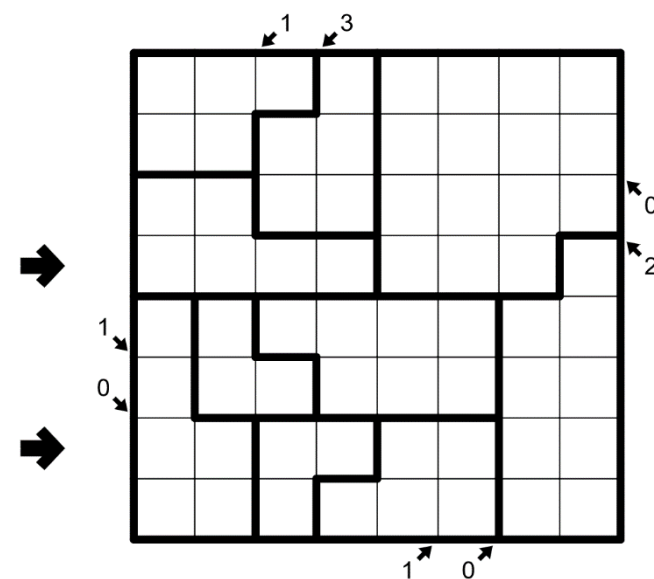
Solution Code: For the two designated rows, write I for horizontal or vertical line and L for bended line. Separate first and second row with – (hyphen symbol).

09 Double Back (Little Killer) [Athin, 22 Points]

Draw a non-intersecting loop through the centers of all empty cells which passes through each region exactly twice. digits on pointed diagonal show how many cells which the lines are turn on corresponding diagonal.

Solution Code: For the two designated rows, write I for horizontal or vertical line and L for bended line. Separate first and second row with – (hyphen symbol).

10 Palindrome Sudoku [Athin, 15 Points]

Apply classic sudoku rules. In addition, digit sequence on grey line must read the same in either direction.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).
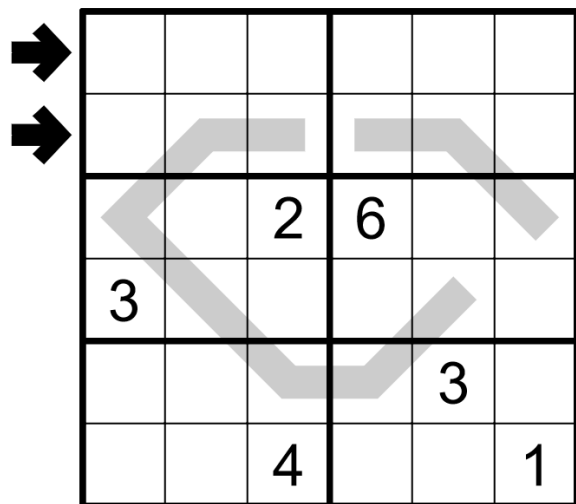
11 Tapa [Athin, 5 Points]

Shade some cells so that all shaded cells form one orthogonally connected area. Clues cannot be shaded and represent the lengths of the shaded cell surrounding that clue. If there are two or more number on clue, then the shaded cell must be separated by at least one unshaded tile cell. No 2x2 region may be entirely shaded.

Solution Code: For the two designated rows, write O for shaded cell and X for unshaded cell (including clue). Separate first and second row with – (hyphen symbol).
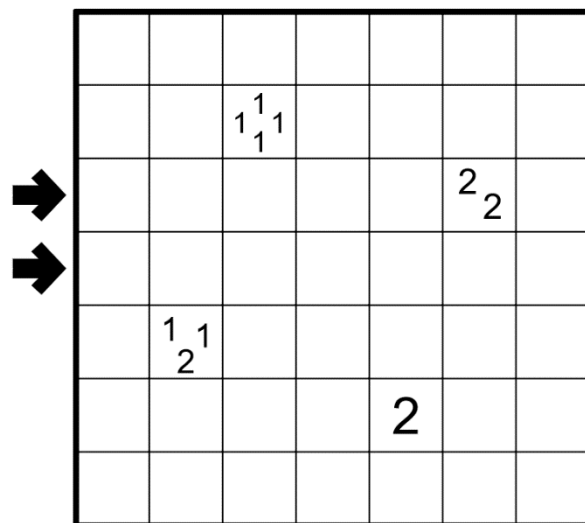
12 Tapa (Palindrome) [Nusi, 16 Points]

Shade some cells so that all shaded cells form one orthogonally connected area. Clues cannot be shaded and represent the lengths of the shaded cell surrounding that clue. If there are two or more number on clue, then the shaded cell must be separated by at least one unshaded ti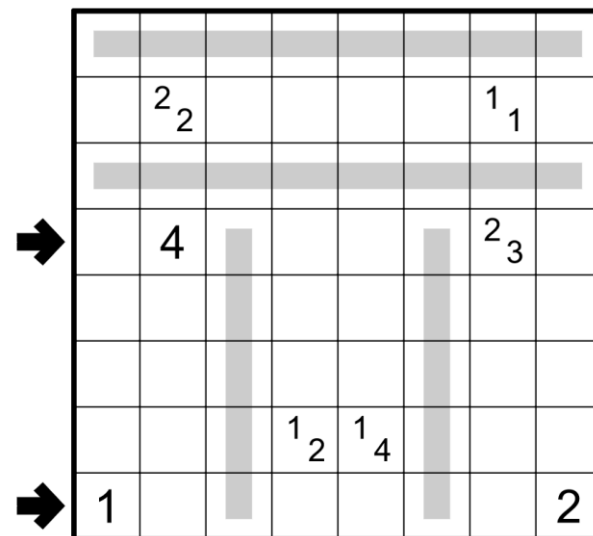le cell. No 2x2 region may be entirely shaded. If X-th cell from one end of grey line is shaded, then the X-th from the other end must be shaded too and vice versa.
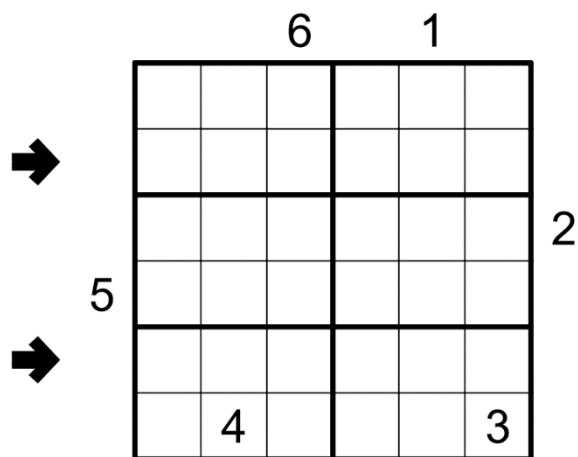
Solution Code: For the two designated rows, write O for shaded cell and X for unshaded cell (including clue). Separate first and second row with – (hyphen symbol).

13 Skyscrapers Sudoku [Nusi, 96 Points]

Apply classic sudoku rules. In addition, digit N inside the grid show a building with N floor and number outside the grid show how many buildings can be seen from that direction. Taller building hides shorter building.
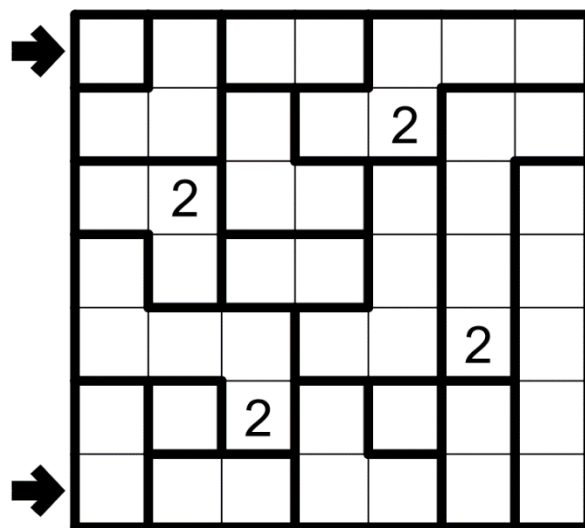
Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

14 Nanro [Athin, 14 Points]

Place a number into some cells so that all cells with numbers form one orthogonally connected area. Each region must contain at least one numbered cell, and every number in the region must be equal to how many numbered cells the region contains. Two cells containing the same number may not share a region border. No 2x2 region may be entirely numbered.

Solution Code: For the two designated rows, write every digit from left to right. Use only the last digit for two-digit numbers. Use 0 if cell has no digit. Separate first and second row with – (hyphen symbol).

15 Nanro (Skyscrapers) [Athin, 14 Points]

Place a number into some cells so that all cells with numbers form one orthogonally connected area. Each region must contain at least one numbered cell, and every number in the region must be equal to how many numbered cells the region contains. Two cells containing the same number may not share a region border. No 2x2 region may be entirely numbered. Digit N inside the grid show a building with N floor and number outside the grid show how many buildings can be seen from that direction. Building hides shorter and same floor building.

Solution Code: For the two designated rows, write every digit from left to right. Use only the last digit for two-digit numbers. Use 0 if cell has no digit. Separate first and second row with – (hyphen symbol).
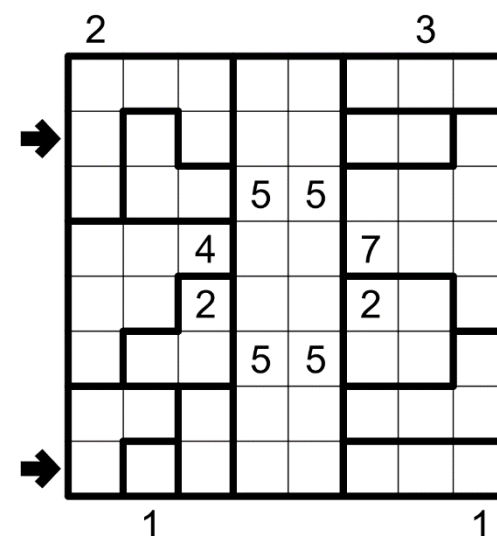
16 Antiknight Sudoku [Nusi, 28 Points]

Apply classic sudoku rules. In addition, Identical digit cannot be chess knight move away from each other.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

17 Minesweeper [Nusi, 5 Points]

Place mines into some empty cells so that each clue has the indicated number of mines in the (up to) eight surrounding cells.

Solution Code: For the two designated rows, write O if cell has bomb and X if cell has no bomb (including clue). Separate first and second row with – (hyphen symbol).

18 Minesweeper (Antiknight) [Athin, 17 Points]

Place mines into some empty cells so that each clue has the indicated number of mines in the (up to) eight surrounding cells. If a cell contains mine, Then the cell of chess knight move away from that cell cannot contain mine.

Solution Code: For the two designated rows, write O if cell has bomb and X if cell has no bomb (including clue). Separate first and second row with – (hyphen symbol).
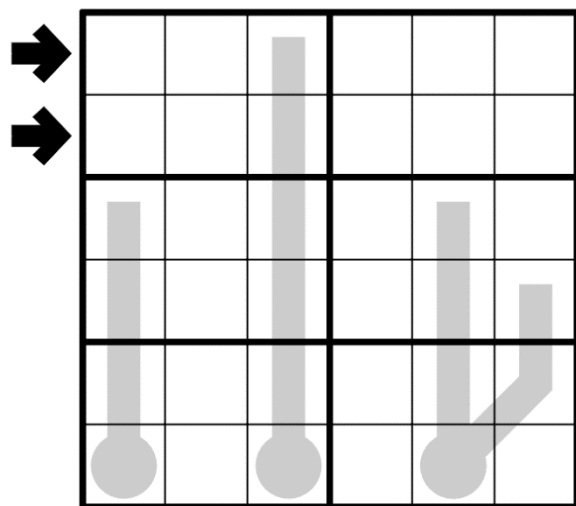
19 Thermometer Sudoku [Nusi, 38 Points]

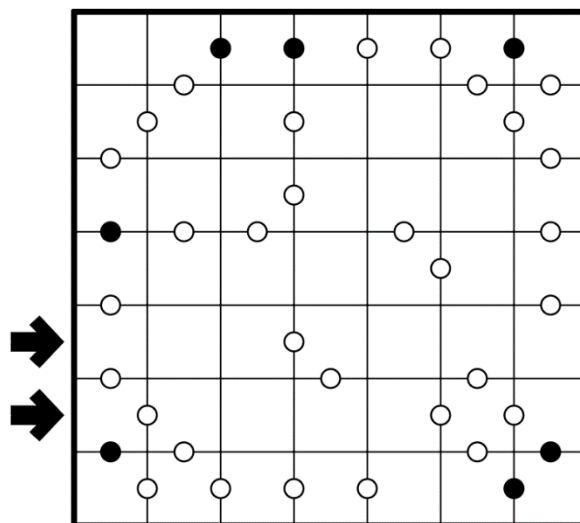Apply classic sudoku rules. In addition, digit on thermometer must strictly increasing from bulb to end.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

20 Kropki [Nusi, 20 Points]

Place a number from 1 to N into each cell so that each row and column contains every number from that range with no repeats, where N is the side length of the grid. All pairs of orthogonally adjacent cells containing numbers with a 1:2 ratio is marked with a black dot. All pairs of orthogonally adjacent cells containing consecutive numbers are marked with a white dot. A 1 next to a 2 may be marked with either dot.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

21 Kropki (Thermometer) [Nusi, 156 Points]

Place a number from 1 to N into each cell so that each row and column contains every number from that range with no repeats, where N is the side length of the grid. All pairs of orthogonally adjacent cells containing numbers with a 1:2 ratio is marked with a black dot. All pairs of orthogonally adjacent cells containing consecutive numbers are marked with a white dot. A 1 next to a 2 may be marked with either dot. Digit on thermometer must strictly increasing from bulb to end.
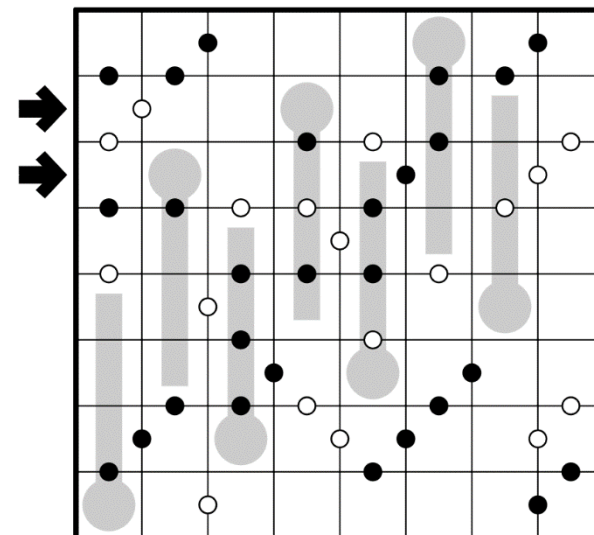
Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

22 Even/Odd Sudoku [Nusi, 11 Points]

Apply classic sudoku rules. In addition, digit on grey circle must odd and digit on grey square must even.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).
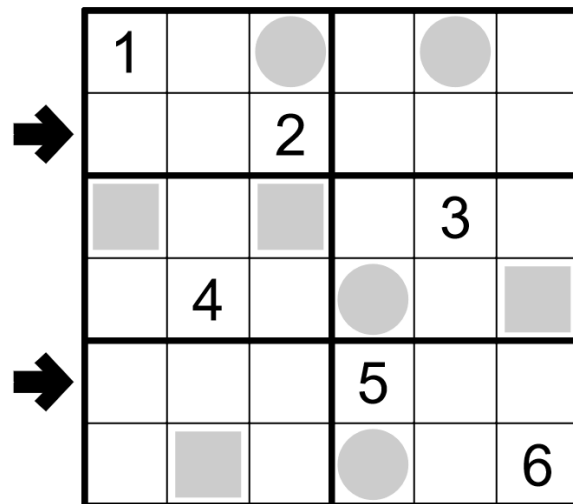
23 Haisu [Nusi, 19 Points]

Draw a non-intersecting path through the centers of all cells, starting from the S (Start) and finishing at the G (Goal). Each clued cell must be travelled through on the path's N-th visit to the region the clue lies within, where N is the value of the clue.

Solution Code: For the two designated rows, write I for horizontal or vertical line and L for bended line. Line on Start (S) and Goal (G) cell act as vertical or horizontal line. Separate first and second row with – (hyphen symbol).
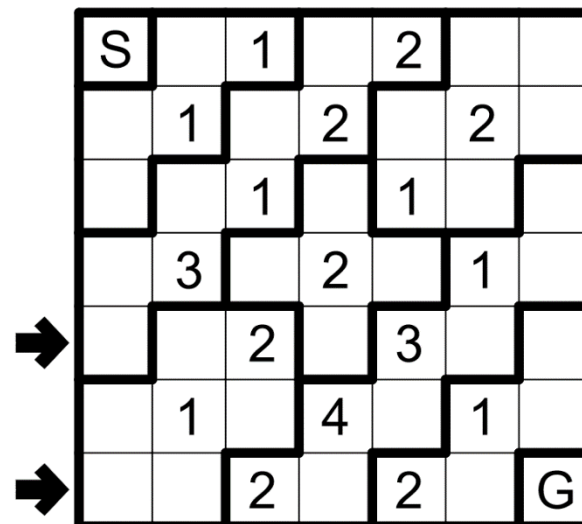
24 Haisu (Even/Odd) [Nusi, 17 Points]

Draw a non-intersecting path through the centers of all cells, starting from the S (Start) and finishing at the G (Goal). Each clued cell must be travelled through on the path's N-th visit to the region the clue lies within, where N is the value of the clue. A cell with grey circle must be visited on X-th line's visit to the region, where X is odd number; and a cell with grey square must be visited on Y-th line's visit to the region, where Y is even number.

Solution Code: For the two designated rows, write I for horizontal or vertical line and L for bended line. Line on Start (S) and Goal (G) cell act as vertical or horizontal line. Separate first and second row with – (hyphen symbol).
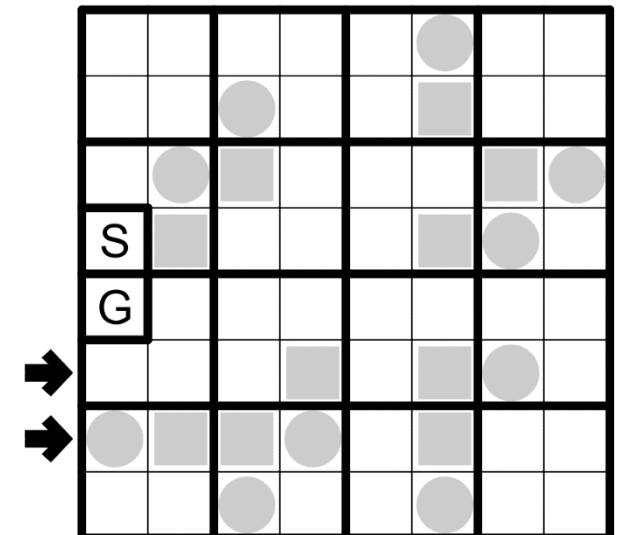
25 Quadruple Sudoku [Nusi, 82 Points]

Apply classic sudoku rules. In addition, every number on circle must be contained on four adjacent cells. If number appear N times on the circle, then the number also must appear at least N times on the adjacent cell.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).
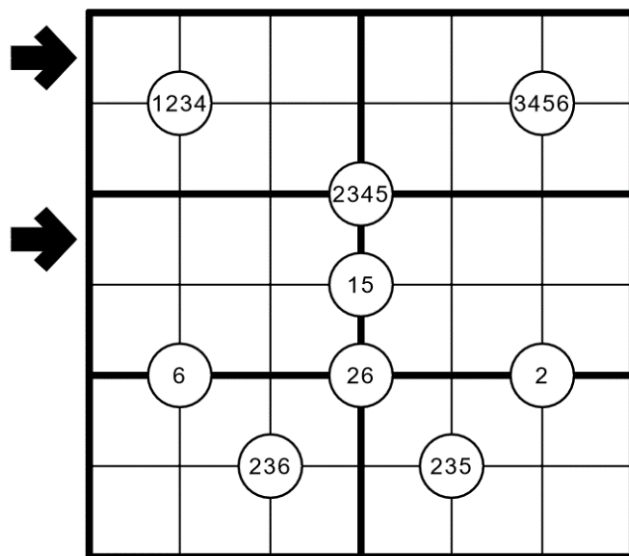
26 Cave [Athin, 9 Points]

Shade some cells so the shaded cells are all connected orthogonally by other shaded cells to the edge of the grid, and the remaining unshaded cells form one orthogonally connected area. Clues cannot be shaded and represent the total number of unshaded cells that can be seen in a straight line vertically or horizontally, including itself.

Solution Code: For the two designated rows, write O for shaded cell and X for unshaded cell (including clue). Separate first and second row with – (hyphen symbol).

27 Cave (Quadruple) [Athin, 36 Points]

Shade some cells so the shaded cells are all connected orthogonally by other shaded cells to the edge of the grid, and the remaining unshaded cells form one orthogonally connected area. Every number on circle must be contained on four adjacent cells. If number appear N times on the circle, then the num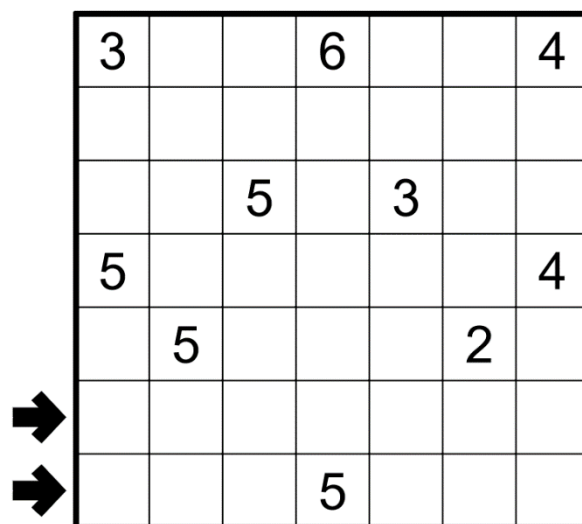ber also must appear at least N times on the adjacent cell. Clues cannot be shaded and represent the total number of unshaded cells that can be seen in a straight line vertically or horizontally, including itself.
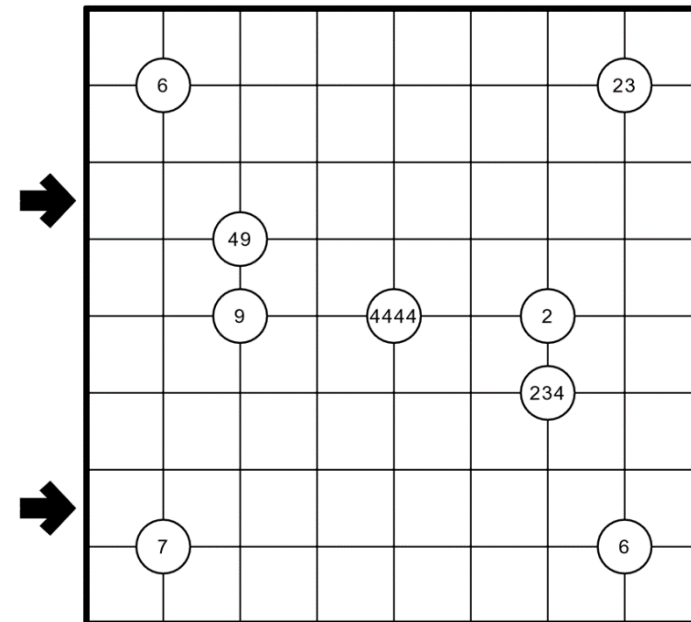
Solution Code: For the two designated rows, write O for shaded cell and X for unshaded cell (including clue). Separate first and second row with – (hyphen symbol)

28 Classic Sudoku [Nusi, 110 Points]

Apply classic sudoku rules.

Solution Code: For the two designated rows, write every digit on cell. Separate first and second row with – (hyphen symbol).

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

(Designated rows marked with arrows: row 1 and row 9.)

29 KPK [Athin, 81 Points]

Put letter K or P on every empty cell. Clues outside the grid on the first row/column show how many letters ordered as KPK can be seen on corresponding row or column. Clues outside the grid on the second row/column show how many letters ordered as PKP can be seen on corresponding row or column.

Solution Code: For the two designated rows, write every letter on cells. Separate first and second row with – (hyphen symbol).
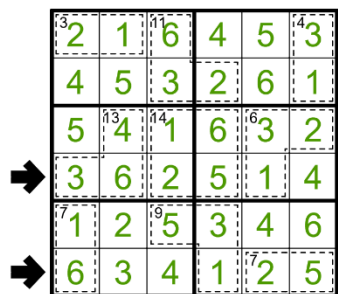
KPK									1	
	PKP	3	3	2	0	3	2	4	3	4
2										
3										
0							K			
0	1			K						
2										
3								K		
0					K					
4										
2										

(Designated rows marked with arrows: the "0" row containing the "1" clue and the bottom "2" row.)

30 Instructionless Puzzle [Athin, 23 Points]

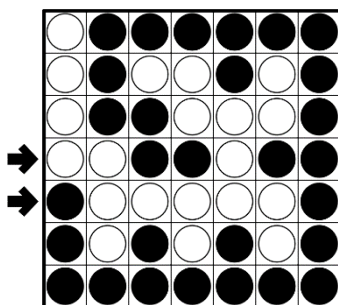Two example puzzles with its unique solution will be given. Guess the rules and solve the given puzzle.
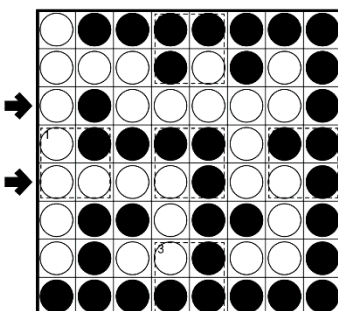
Solution Code: ?
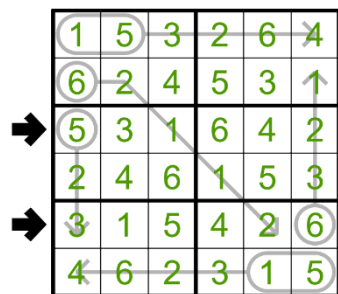
01 Killer Sudoku

Code: 362514-634125

02 Yin-Yang

Code: XXOOXOO-OXXXXXO

03 Yin-Yang (Killer)

Code: XOXXXXXO-XXXXOXXO
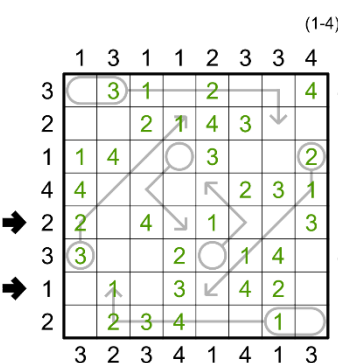
04 Arrow Sudoku

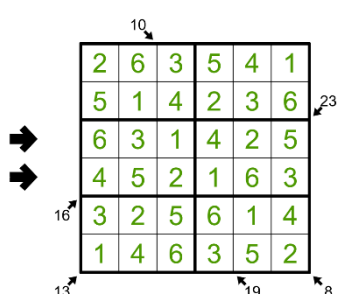**Code:** 531642-315426

05 Easy as …
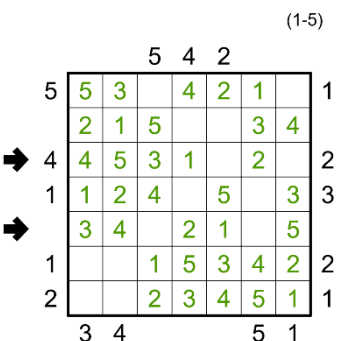
Code: 4531020-3402105

06 Easy as … (Arrow)

Code: 20401003-01030420

07 Little Killer Sudoku

Code: 631425-452163

08 Double Back
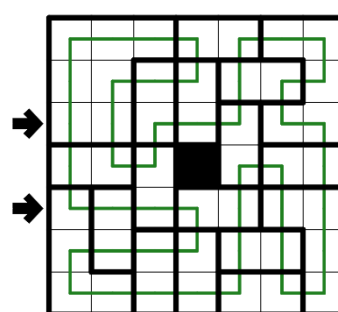
Code: IILILLL-LIILIII

09 Double Back (Little Killer)
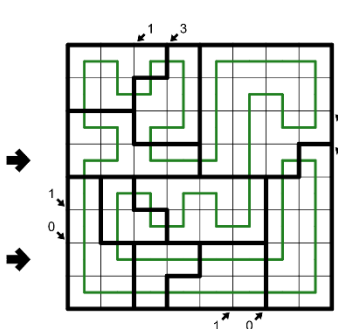
Code: LLLILILL-ILIIIILI

10 Palindrome Sudoku
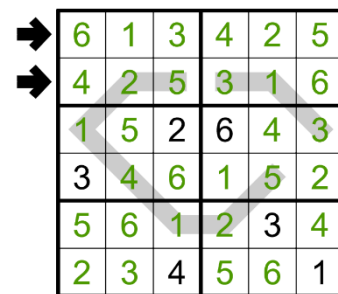
Code: 613425-425316

11 Tapa
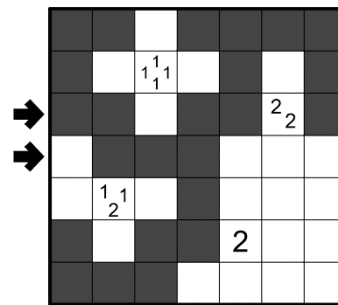
Code: OOXOOXO-XOOOXXX

12 Tapa (Palindrome)
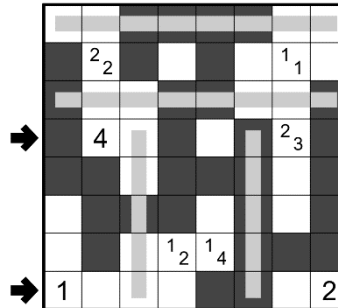
Code: OXXOXOXO-XXXXOOXX

13 Skyscrapers Sudoku

Code: 652431-315642

14 Nanro

Code: 1210200-2012215

15 Nanro (Skyscrapers)
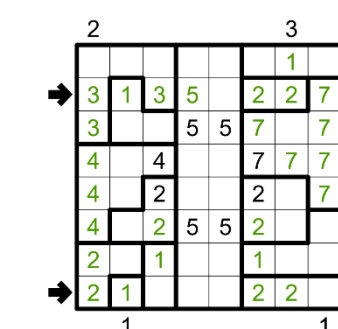
Code: 31350227-21000220

16 Antiknight Sudoku

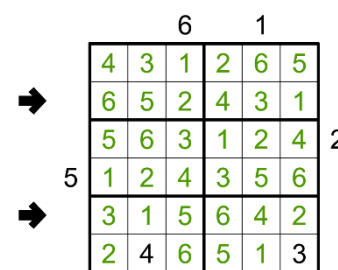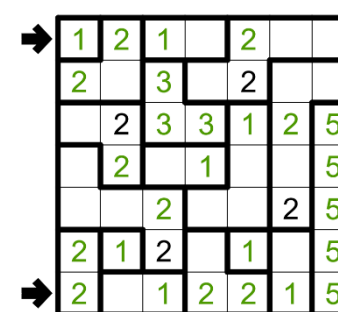| 1	4	6	5	2	3
5	2	3	6	4	1
2	3	1	4	6	5
4	6	5	1	3	2
6	5	2	3	1	4
3	1	4	2	5	6

Code: 231465-652314

17 Minesweeper

Code: XXOOOXX-OOOXXOO

18 Minesweeper (Antiknight)

Code: XOXXOXOX-XXXXXXXO

19 Thermometer Sudoku

2	4	6	5	1	3
1	3	5	4	6	2
6	2	4	3	5	1
5	1	3	2	4	6
4	6	2	1	3	5
3	5	1	6	2	4

Code: 246513-135462

20 Kropki

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

Code: 5312647-6571432

21 Kropki (Thermometer)

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

Code: 43517286-31728465

22 Even/Odd Sudoku

1	6	3	2	5	4
4	5	2	6	1	3
2	1	6	4	3	5
3	4	5	1	6	2
6	3	4	5	2	1
5	2	1	3	4	6

Code: 452613-634521

23 Haisu

Code: LLLIIIL-LILLIII

24 Haisu (Even/Odd)

Code: LLILLILL-ILLLILLL

25 Quadruple Sudoku

3	2	6	1	4	5
4	1	5	2	6	3
2	5	3	4	1	6
6	4	1	5	3	2
1	3	2	6	5	4
5	6	4	3	2	1

Code: 326145-253416

26 Cave

3			6			4
		5		3		
5						4
	5				2	
				5		

Code: XXXXOOX-OXOXXXX

27 Cave (Quadruple)

Code: XXXXOOOO-XXXOOOOO

28 Classic Sudoku

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

Code: 967548123-789265314

29 KPK

KPK								1	
	PKP	3	3	2	0	3	2	4	3	4
2		P	K	P	K	P	K	P	P	P
3		K	P	K	P	K	P	K	K	K
0		P	K	P	P	K	P	P	P	P
0	1	P	P	K	P	P	K	K	K	K
2		P	K	P	K	P	K	P	P	P
3		K	P	K	K	K	P	K	P	K
0		P	K	K	K	P	P	P	K	P
4		K	K	K	P	P	P	K	P	K
2		P	K	P	K	P	K	P	P	P

Code: PKPPPKPPP-PKPKPKPPP

30 Instructionless Puzzle

Code: ?