

**Instructions Booklet
U10, U12, U15, U18
Version 2
All Rounds**



**ASIAN
SUDOKU
CHAMPIONSHIP
2025 ♦ CHENNAI**

Event by Logic Masters India



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Notes:

- The changes from the first version include points distribution, schedule, and a note about Answer Keys.
- The Sudoku types are presented together for all age categories, while the index pages show the specific types that will be used for each age category in each round. The types will be ordered by round, so all variants from Round 2 across age categories are displayed before reaching round 3.
- Each participant needs to focus on the category they belong to and note the Sudoku variants and round composition for it accordingly.
- The rules on the links are only meant to serve as reminders, always refer to the document for the most precise and robust versions.
- Please use the ASC 2025 forum for all queries:
<https://logicmastersindia.com/forum/forums/forum-view.asp?fid=65>

Answer Keys:

All Sudokus will have A and B* marked on the outside, and the participants may score for the Sudoku in two ways. Either they can fill all the cells in the main grid, or just fill the cells that will be given to the side of the grid like this:



The answers entered this way should match the overall solution to gain credit.

*In U15 and U18, the Overlapping Sudoku will have A, B and C marked.

Scoring Notes:

- In Round 1, for Linked Classic, the points are given as X+X. This means the higher points will be awarded if one grid is solved, whether that is the top grid or the bottom grid. If both grids are solved, then the total will be awarded.
- In Round 6 and 7, there are points for individual Sudokus. These points will only be awarded if each individual Sudoku matches the overall solution of the puzzle, considering the connecting rules.

Round-wise schedule and Points Distribution:

Under 10			
Round 1 – Classics (45 min) 9:00:00 AM to 9:45:00 AM	Points	Round 2 – Odd Even (45 min) 9:55:00 AM to 10:40:00 AM	Points
Classic 6x6	35	Classic 6x6	25
Classic 6x6	50	Classic 6x6	25
Classic 6x6	40	Odd 6x6	50
Classic 6x6	35	Odd 6x6	35
Classic 6x6	35	Even 6x6	35
Classic 6x6	45	Even 6x6	60
Overlapping 6x6	110	Odd Even 6x6	65
Linked 6x6	100	Odd Even 6x6	55
Total	450	Total	350

Round 3 – Neighbours (40 min) 10:50:00 AM to 11:20:00 AM	Points	Round 4 – Math (40 min) 11:35:00 AM to 12:15:00 PM	Points
Classic 6x6	25	Classic 6x6	30
Classic 6x6	30	Classic 6x6	25
Palindrome 6x6	65	Arrow 6x6	45
Palindrome 6x6	45	Arrow 6x6	55
Renban 6x6	45	Arrow 6x6	55
Renban 6x6	70	Killer 6x6	100
Inequality 6x6	75	Killer 6x6	55
Inequality 6x6	45	Killer 6x6	85
Total	400	Total	450

Round 5 – Almost Classic (40 min) 2:30:00 PM to 3:10:00 PM	Points	Round 6 – Team Round X-Killer (40 min) 3:40:00 PM to 4:20:00 PM	Points
Classic 6x6	25	X-Killer 6x6	440
Classic 6x6	25	X-Killer 6x6	360
Irregular 6x6	65	Total	800
Irregular 6x6	40	Round 7 – Team Round Cross (60 min) 4:40:00 PM to 5:40:00 PM	Points
Extra Regions 6x6	100		
Extra Regions 6x6	45		
Untouch 6x6	45		
Untouch 6x6	55	Cross 6x6	600
Total	400	Cross 6x6	1000
		Total	1600

Under 12			
Round 1 – Classics (45 min) 9:00:00 AM to 9:45:00 AM	Points	Round 2 – Odd Even (45 min) 9:55:00 AM to 10:40:00 AM	Points
Classic 6x6	15	Classic 6x6	20
Classic 6x6	15	Classic 9x9	95
Classic 6x6	20	Odd 6x6	25
Classic 6x6	15	Odd 9x9	80
Classic 9x9	85	Even 6x6	25
Classic 9x9	115	Even 9x9	95
Overlapping 6x6	110	Odd Even 6x6	25
Linked 6x6	125	Odd Even 6x6	35
Total	500	Total	400

Round 3 – Neighbours (40 min) 10:50:00 AM to 11:20:00 AM	Points	Round 4 – Math (40 min) 11:35:00 AM to 12:15:00 PM	Points
Classic 6x6	15	Classic 6x6	15
Classic 9x9	90	Classic 9x9	60
Palindrome 6x6	25	Arrow 6x6	40
Palindrome 9x9	110	Arrow 9x9	95
Renban 6x6	55	Killer 6x6	60
Renban 9x9	125	Killer 9x9	110
Thermo 6x6	40	Frame 6x6	35
Thermo 6x6	40	Frame 6x6	35
Total	500	Total	450

Round 5 – Almost Classic (40 min) 2:30:00 PM to 3:10:00 PM	Points	Round 6 – Team Round X-Killer (40 min) 3:40:00 PM to 4:20:00 PM	Points
Irregular 6x6	55	X-Killer 6x6	520
Irregular 6x6	35	X-Killer 6x6	280
Extra Regions 6x6	25	Total	800
Extra Regions 9x9	120	Round 7 – Team Round Cross (60 min) 4:40:00 PM to 5:40:00 PM	Points
Untouch 6x6	45		
Untouch 9x9	120	Cross 6x6	600
AntiKnight 6x6	30	Cross 9x9	1000
AntiKnight 6x6	20	Total	1600
Total	450		

Under 15			
Round 1 – Classics (45 min) 9:00:00 AM to 9:45:00 AM	Points	Round 2 – Odd Even (45 min) 9:55:00 AM to 10:40:00 AM	Points
Classic 6x6	25	Classic 9x9	55
Classic 6x6	15	Classic 9x9	75
Classic 6x6	50	Odd 6x6	20
Classic 9x9	70	Odd 9x9	75
Classic 9x9	50	Odd-Sum Pairs 6x6	40
Classic 9x9	65	Odd-Sum Pairs 9x9	100
Overlapping 6x6	55	Odd Even 6x6	15
Linked 6x6	70	Odd Even 9x9	70
Total	400	Total	450

Round 3 – Neighbours (40 min) 10:50:00 AM to 11:20:00 AM	Points	Round 4 – Math (40 min) 11:35:00 AM to 12:15:00 PM	Points
Classic 9x9	40	Classic 9x9	55
Classic 9x9	60	Classic 9x9	55
Palindrome 6x6	45	Arrow 6x6	35
Palindrome 9x9	90	Arrow 9x9	110
Renban 6x6	30	Killer 6x6	25
Renban 9x9	85	Killer 9x9	85
Thermo 6x6	45	Frame 6x6	35
Thermo 9x9	105	Frame 9x9	50
Total	500	Total	450

Round 5 – Almost Classic (40 min) 2:30:00 PM to 3:10:00 PM	Points	Round 6 – Team Round X-Killer (40 min) 3:40:00 PM to 4:20:00 PM	Points
Irregular 6x6	20	X-Killer 6x6	300
Irregular 9x9	70	X-Killer 9x9	500
Extra Regions 6x6	25	Total	800
Extra Regions 9x9	100	Round 7 – Team Round Cross (60 min) 4:40:00 PM to 5:40:00 PM	Points
Untouch 6x6	80	Cross 9x9	820
Untouch 9x9	100	Cross 9x9	780
AntiKnight 6x6	65	Total	1600
AntiKnight 9x9	40		
Total	500		

Under 18			
Round 1 – Classics (45 min) 9:00:00 AM to 9:45:00 AM	Points	Round 2 – Odd Even (45 min) 9:55:00 AM to 10:40:00 AM	Points
Classic 6x6	10	Odd Even 9x9	45
Classic 6x6	15	Odd Even 9x9	65
Classic 9x9	50	Odd-Sum Pairs 9x9	55
Classic 9x9	55	Odd-Sum Pairs 9x9	120
Classic 9x9	65	OE Count 6x6	30
Classic 9x9	115	OE Count 9x9	55
Overlapping 6x6	25	Outside Parity 6x6	30
Linked 6x6	65	Outside Parity 9x9	100
Total	400	Total	500

Round 3 – Neighbours (40 min) 10:50:00 AM to 11:20:00 AM	Points	Round 4 – Math (40 min) 11:35:00 AM to 12:15:00 PM	Points
Palindrome 9x9	65	Arrow 9x9	65
Palindrome 9x9	60	Arrow 9x9	70
Renban 6x6	30	Killer 6x6	65
Renban 9x9	90	Killer 9x9	100
Thermo 6x6	15	Frame 6x6	25
Thermo 9x9	135	Frame 9x9	70
Quadruple 6x6	20	Product 6x6	20
Quadruple 9x9	35	Product 9x9	35
Total	450	Total	450

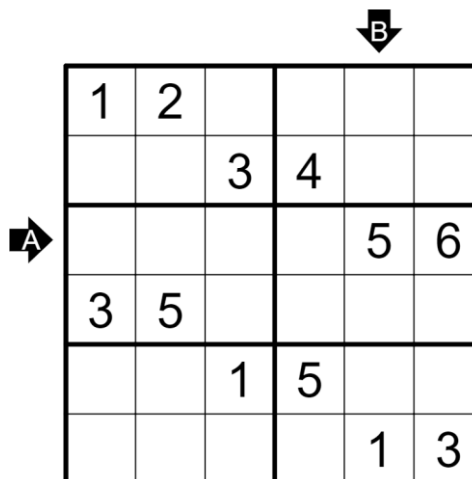
Round 5 – Almost Classic (40 min) 2:30:00 PM to 3:10:00 PM	Points	Round 6 – Team Round X-Killer (40 min) 3:40:00 PM to 4:20:00 PM	Points
Sudokurve 6x6	20	X-Killer 9x9	680
Sudokurve 9x9	80	X-Killer 9x9	920
Irregular 6x6	15	Total	1600
Irregular 9x9	120	Round 7 – Team Round Cross (60 min) 4:40:00 PM to 5:40:00 PM	Points
Extra Regions 9x9	95		
Extra Regions 9x9	65		
Untouch 9x9	55		
AntiKnight 9x9	50		
Total	500	Total	1600

Classic Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Penpa for example:

<https://tinyurl.com/2nvezsrr>



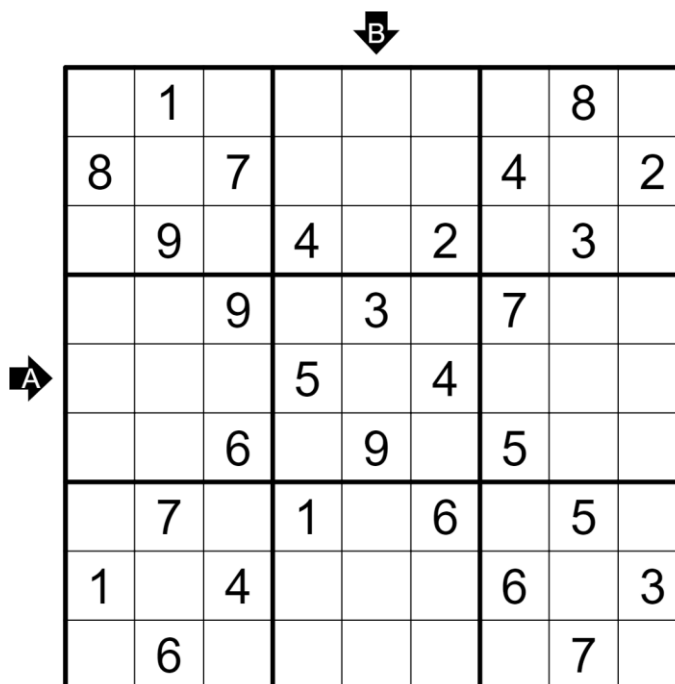
1	2				
		3	4		
				5	6
3	5				
		1	5		
				1	3

Classic Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Penpa for example:

<https://tinyurl.com/333ntt48>



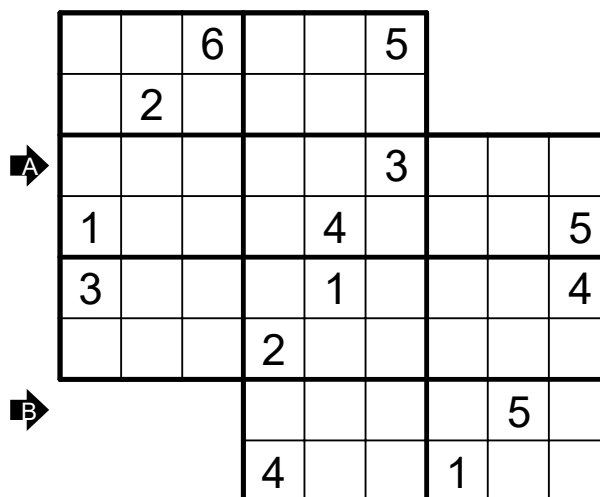
	1					8		
8		7				4		2
	9		4		2		3	
		9		3		7		
			5		4			
		6		9		5		
	7		1		6		5	
1		4				6		3
	6						7	

Overlapping Sudoku 6x6

Two 6x6 Sudokus are overlapping. Separately, they each follow Classic Sudoku rules: Place a digit from 1 to 6 in each empty cell so that each digit appears exactly once in each row, column and 2X3 box.

Penpa for example:

<https://tinyurl.com/27gskccd>



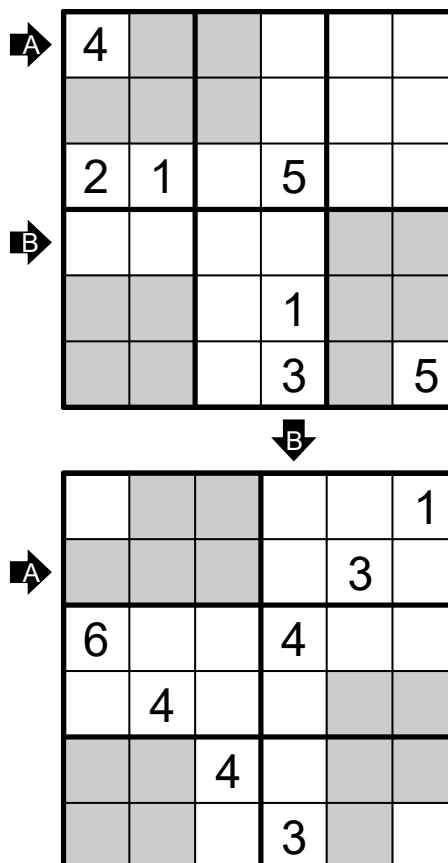
Linked Sudoku 6x6

Apply classic Sudoku rules to each of the grids, i.e. Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

The two grids are linked to each other. The shaded cells must contain the same digit in the same position in both the grids.

Penpa for example:

<https://tinyurl.com/2cgtzy6q>



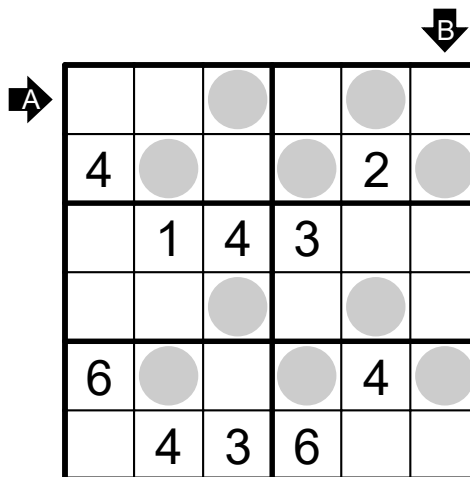
Odd Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Cells with shaded circles contain odd digits.

Penpa for example:

<https://tinyurl.com/2aaabdpt>



		●		●	
4	●		●	2	●
	1	4	3		
		●		●	
6	●		●	4	●
	4	3	6		

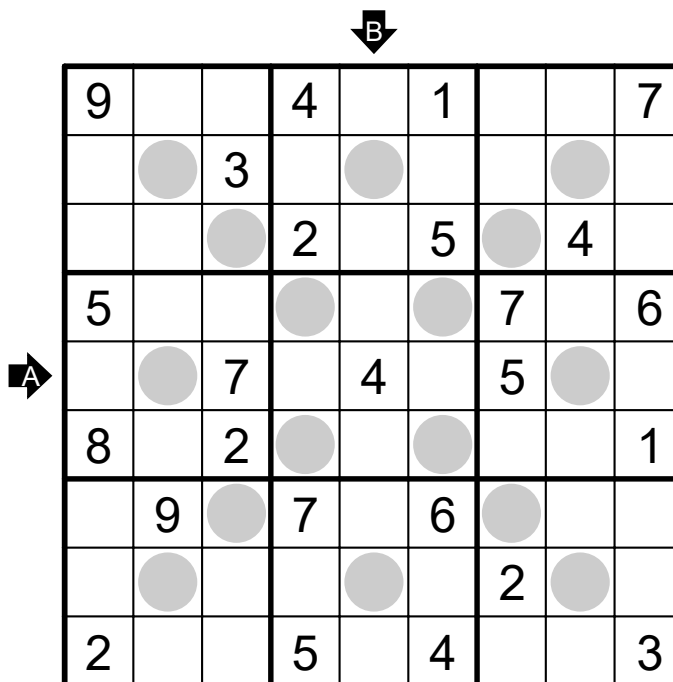
Odd Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Cells with shaded circles contain odd digits.

Penpa for example:

<https://tinyurl.com/2cy7xmmc>



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

Even Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Cells with shaded squares contain even digits.

Penpa for example:

<https://tinyurl.com/2ccacuu2>

➡

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

➡

Even Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Cells with shaded squares contain even digits.

Penpa for example:

<https://tinyurl.com/248hcmmn>

⬇

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

➡

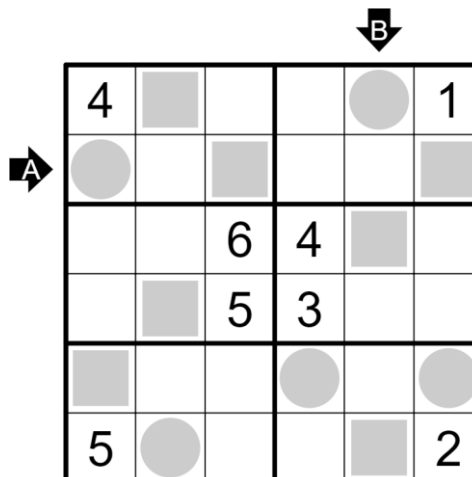
Odd Even Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Cells with shaded squares contain even digits. Cells with shaded circles contain odd digits.

Penpa for example:

<https://tinyurl.com/y9lkr7qx>



4					1
		6	4		
		5	3		
5					2

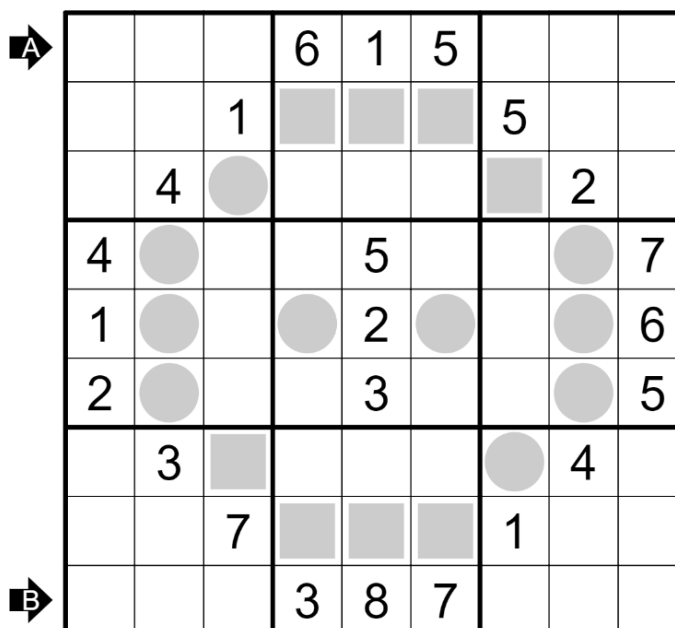
Odd Even Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Cells with shaded squares contain even digits. Cells with shaded circles contain odd digits.

Penpa for example:

<https://tinyurl.com/ycdl98wf>

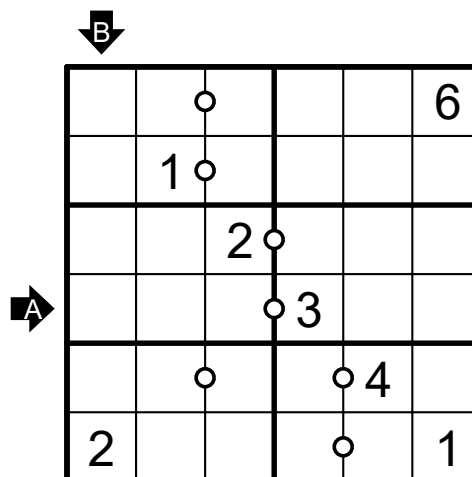


			6	1	5			
		1				5		
	4						2	
4				5				7
1				2				6
2				3				5
	3							4
		7				1		
			3	8	7			

Odd-Sum Pairs Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Adjacent cells marked by a circle contain digits whose sum is odd. Not all possible circles are marked.



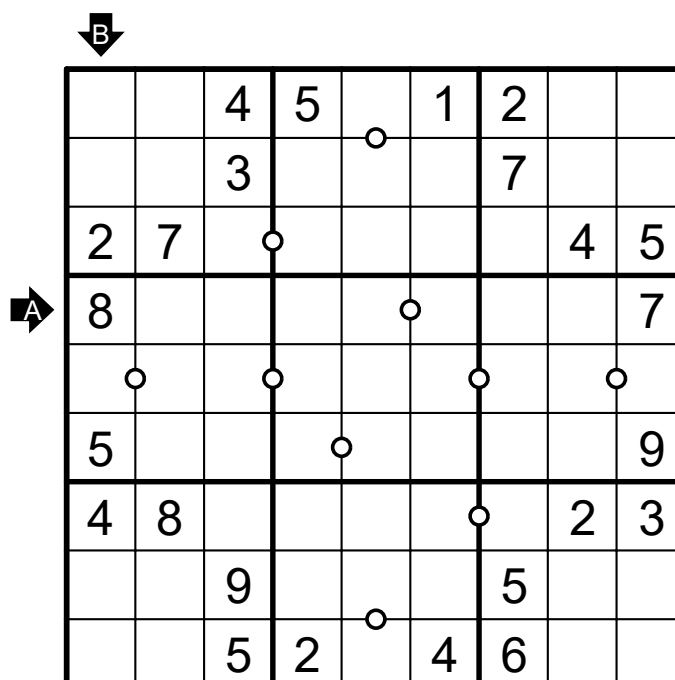
Penpa for example:

<https://tinyurl.com/2xuzoojp>

Odd-Sum Pairs Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Adjacent cells marked by a circle contain digits whose sum is odd. Not all possible circles are marked.



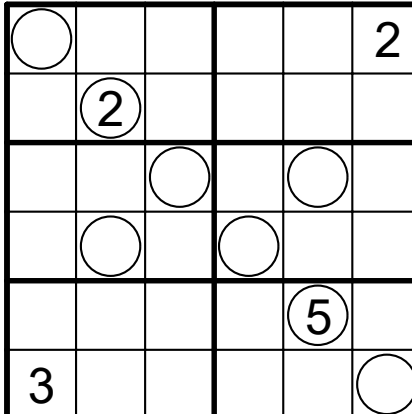
Penpa for example:

<https://tinyurl.com/2xrlcanf>

Odd Even Count Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

If a circled cell has an odd digit, it indicates the number of odd digits in the 8 surrounding cells. If a circled cell has an even digit, it indicates the number of even digits in the 8 surrounding cells.



A 6x6 grid with 2x3 boxes. Clues: (1,6)=2, (2,2)=2, (4,5)=5, (5,1)=3. Circled cells: (1,1), (2,3), (3,4), (3,5), (5,6). Arrows: 'A' points to (3,2), 'B' points to (1,3).

○					2
	2				
		○		○	
	○		○		
				5	
3					○

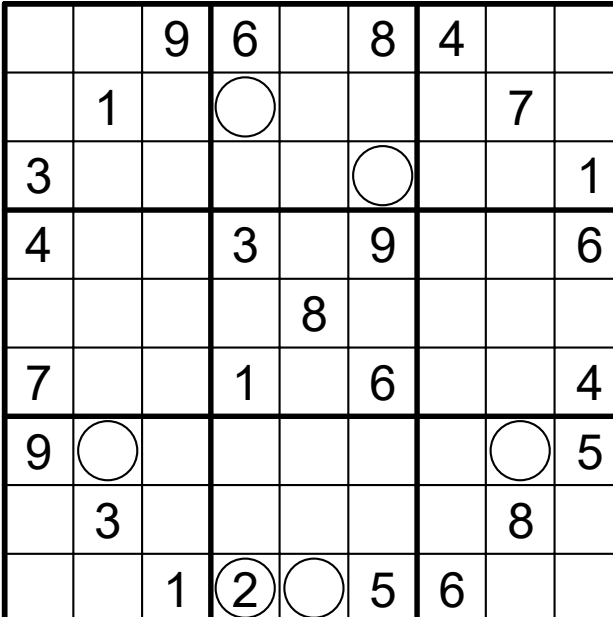
Penpa for example:

<https://tinyurl.com/2j9ehhg6>

Odd Even Count Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

If a circled cell has an odd digit, it indicates the number of odd digits in the 8 surrounding cells. If a circled cell has an even digit, it indicates the number of even digits in the 8 surrounding cells.



A 9x9 grid with 3x3 boxes. Clues: (1,3)=9, (1,4)=6, (1,5)=8, (1,6)=4, (2,2)=1, (2,7)=7, (3,1)=3, (3,8)=1, (4,1)=4, (4,3)=3, (4,5)=9, (4,9)=6, (5,4)=8, (6,1)=7, (6,3)=1, (6,5)=6, (6,9)=4, (7,1)=9, (7,2)=○, (7,8)=○, (7,9)=5, (8,2)=3, (8,8)=8, (9,3)=1, (9,4)=2, (9,5)=○, (9,6)=5, (9,7)=6. Arrows: 'A' points to (5,2), 'B' points to (1,4).

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

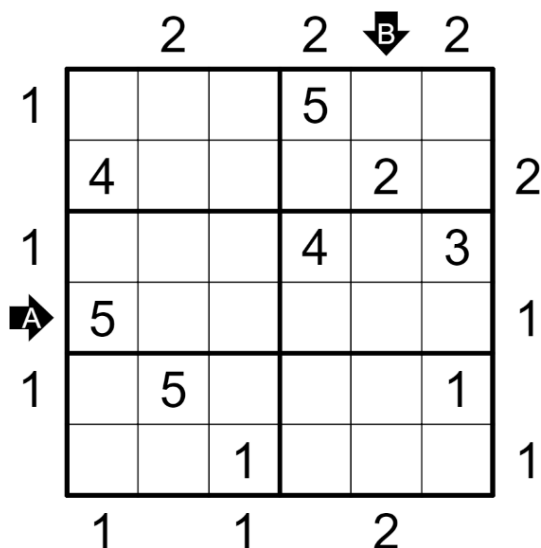
Penpa for example:

<https://tinyurl.com/2gb9o4hh>

Outside Parity Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Each number 'N' outside the grid indicates that the first N digits from the corresponding direction have the same parity (all odd or all even) and the N+1th digit has the opposite parity.



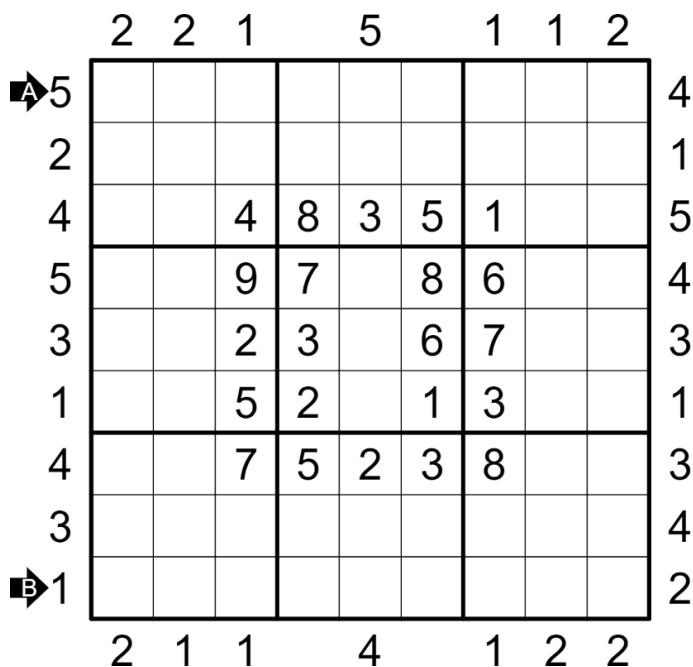
Penpa for example:

<https://tinyurl.com/yd2te9ya>

Outside Parity Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Each number 'N' outside the grid indicates that the first N digits from the corresponding direction have the same parity (all odd or all even) and the N+1th digit has the opposite parity.



Penpa for example:

<https://tinyurl.com/ycbqtntre>

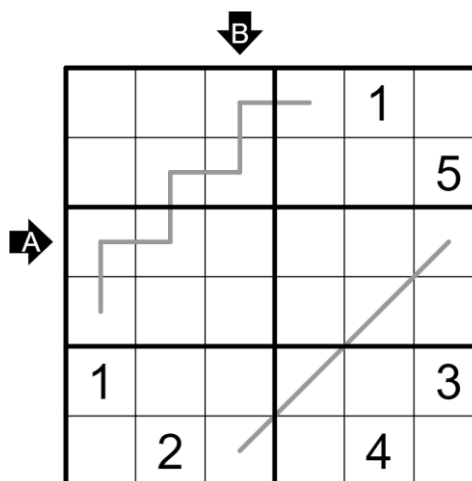
Palindrome Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Digits along each line are a palindrome, they read the same from both directions.

Penpa for example:

<https://tinyurl.com/mry64cbc>



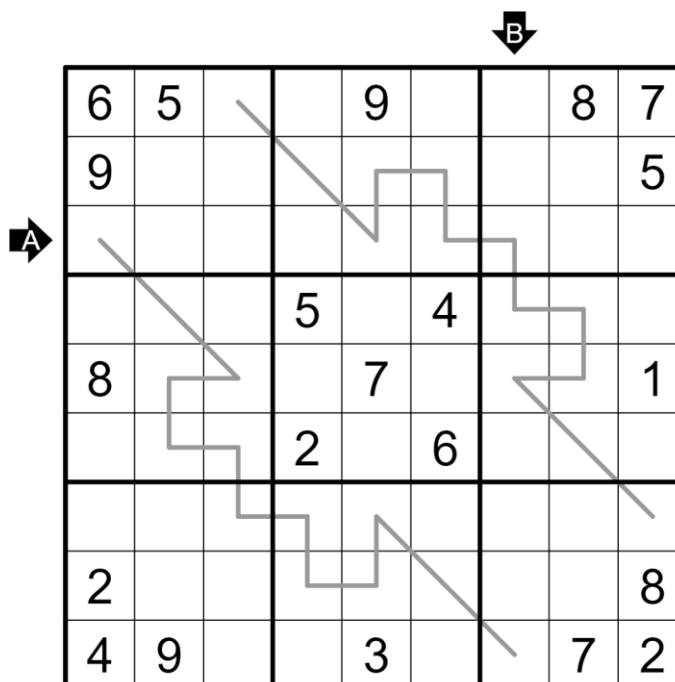
Palindrome Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Digits along each line are a palindrome, they read the same from both directions.

Penpa for example:

<https://tinyurl.com/5n74bry7>



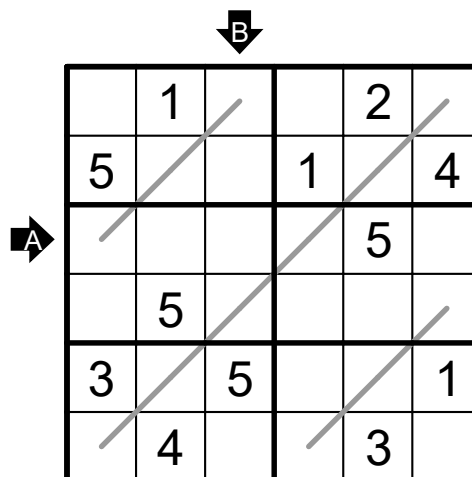
Renban Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Each marked line contains a set of consecutive digits, in any order. Digits do not repeat within a line.

Penpa for example:

<https://tinyurl.com/23688rq4>



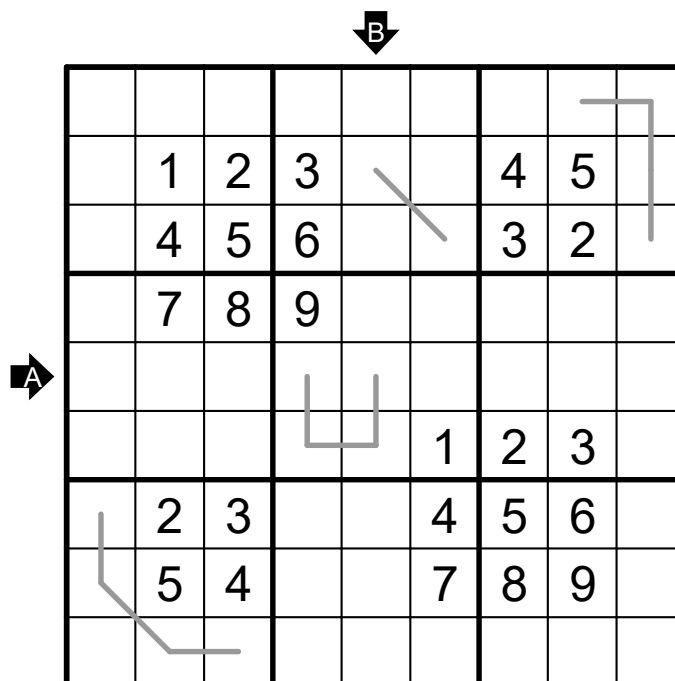
Renban Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Each marked line contains a set of consecutive digits, in any order. Digits do not repeat within a line.

Penpa for example:

<https://tinyurl.com/2a7tcq2z>



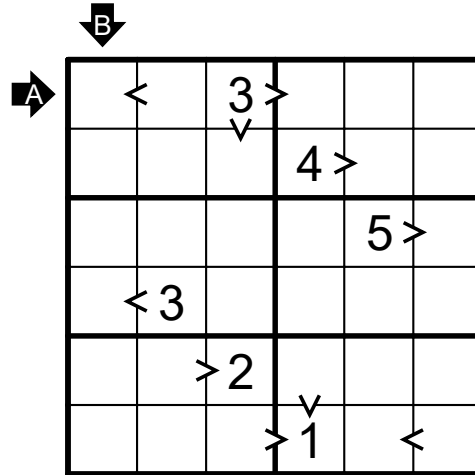
Inequality Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Each inequality sign ('<' or '>') between adjacent cells indicates the larger of the two digits is on the open side of the sign.

Penpa for example:

<https://tinyurl.com/24fsv2m6>



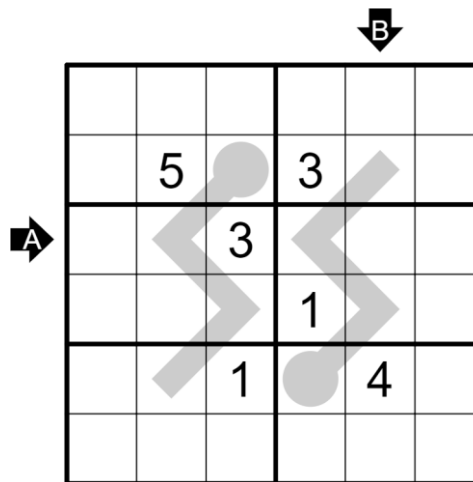
Thermo Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Digits along each thermometer are strictly increasing from its bulb to each of its ends.

Penpa for example:

<https://tinyurl.com/yajncdnz>



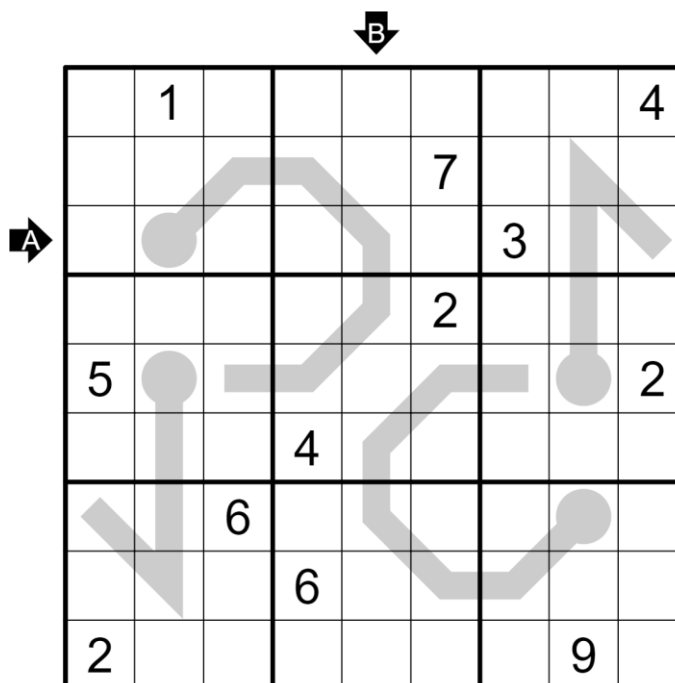
Thermo Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Digits along each thermometer are strictly increasing from its bulb to each of its ends.

Penpa for example:

<https://tinyurl.com/y78bk4bp>



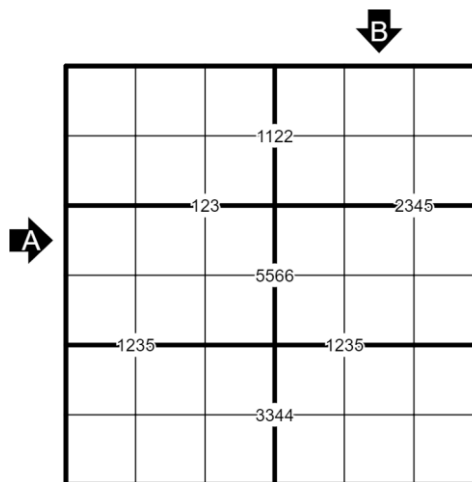
Quadruple Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

The digits at the intersection of four cells must be present in those four cells at least as many times as it appears in the intersections.

Penpa for example:

<https://tinyurl.com/y84uz7d6>



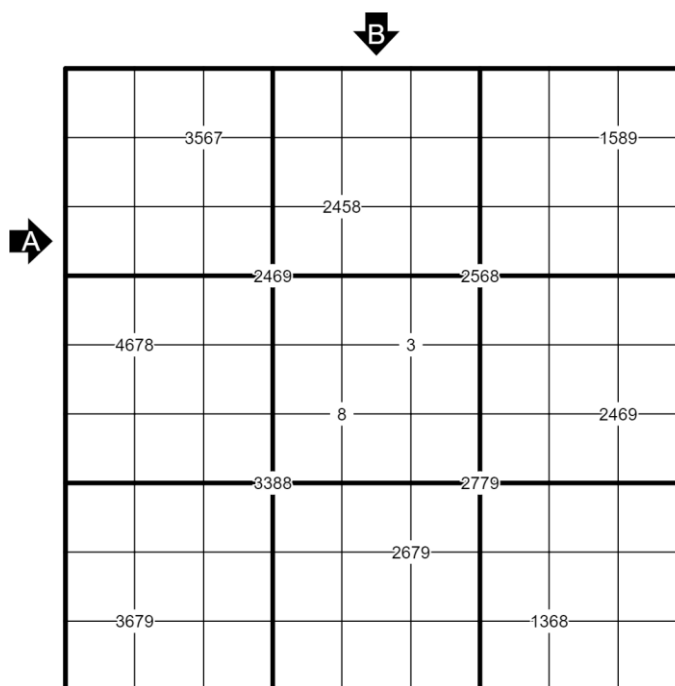
Quadruple Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

The digits at the intersection of four cells must be present in those four cells at least as many times as it appears in the intersections.

Penpa for example:

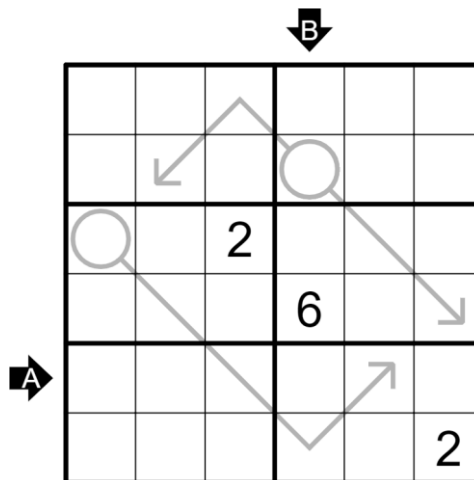
<https://tinyurl.com/y7fq7yp5>



Arrow Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

The digit in each circled cell is the sum of digits along the path of its arrow. Digits can repeat within an arrow shape.



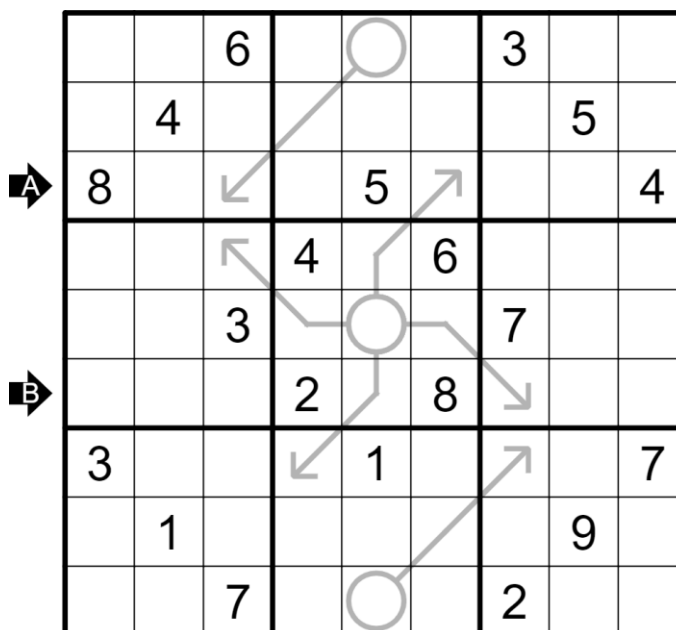
Penpa for example:

<https://tinyurl.com/y5I92sdg>

Arrow Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

The digit in each circled cell is the sum of digits along the path of its arrow. Digits can repeat within an arrow shape.



Penpa for example:

<https://tinyurl.com/yxdcafa2>

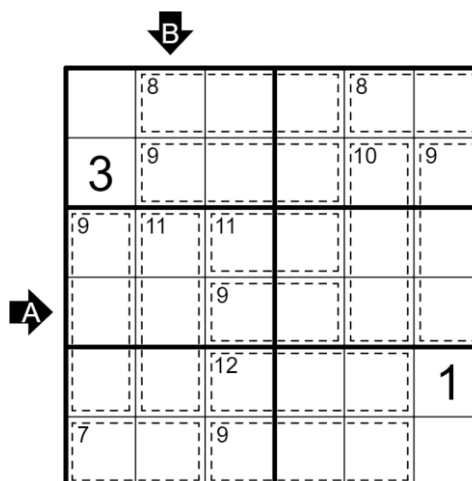
Killer Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

The number at the top-left corner of each cage is the sum of digits inside the cage. Digits do not repeat within a cage.

Penpa for example:

<https://tinyurl.com/yxld64vj>



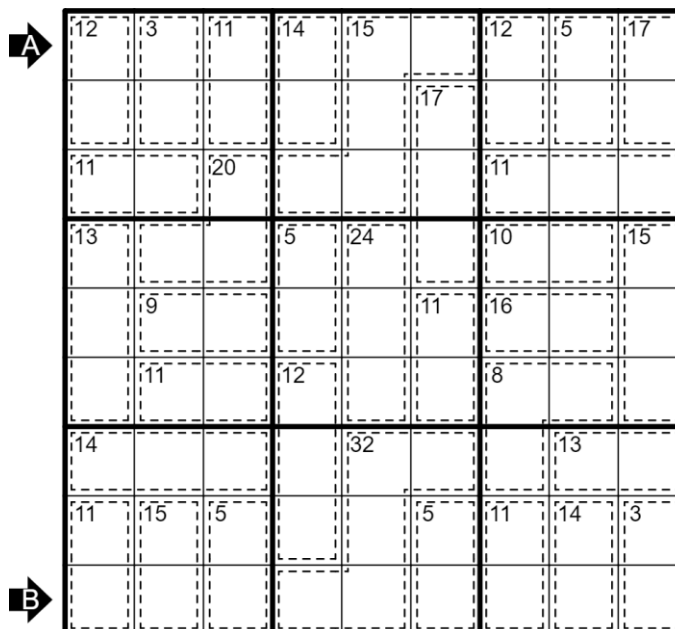
Killer Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

The number at the top-left corner of each cage is the sum of digits inside the cage. Digits do not repeat within a cage.

Penpa for example:

<https://tinyurl.com/yylpz6wn>



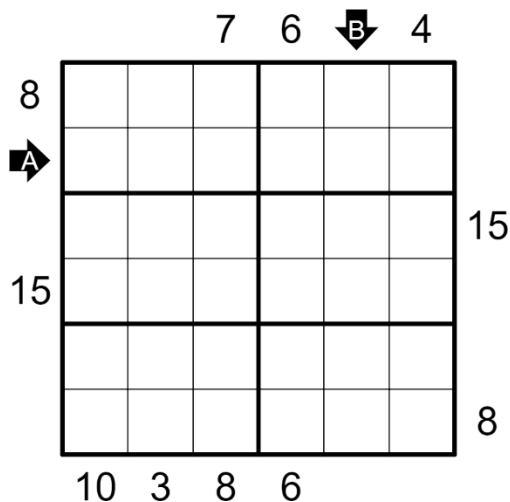
Frame Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Each number outside the grid is the sum of the digits within the first box (Until the thick outline) in the corresponding direction.

Penpa for example:

<https://tinyurl.com/y3q6lz6u>



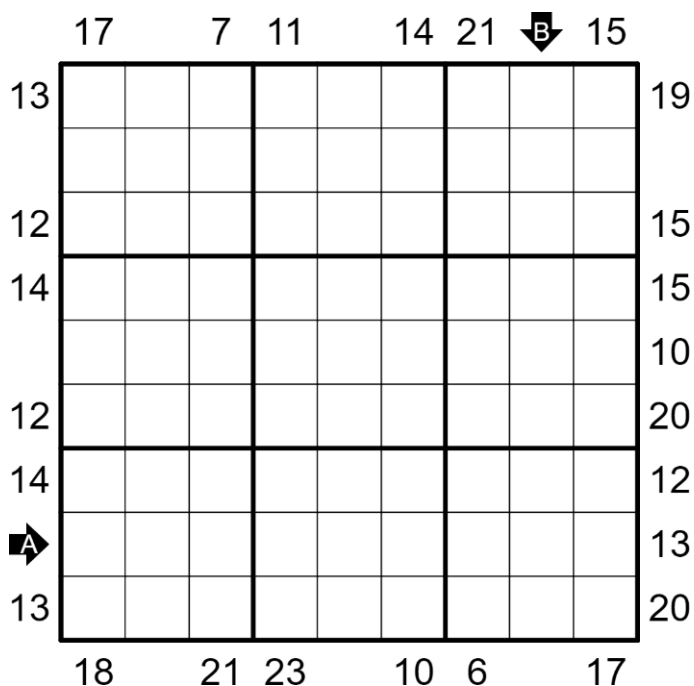
Frame Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Each number outside the grid is the sum of the digits within the first box (Until the thick outline) in the corresponding direction.

Penpa for example:

<https://tinyurl.com/y2bys3lc>



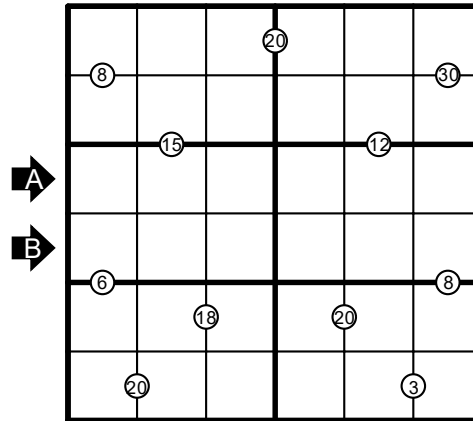
Product Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Each number between adjacent cells is the product of digits in those two cells.

Penpa for example:

<https://tinyurl.com/26rlv54e>



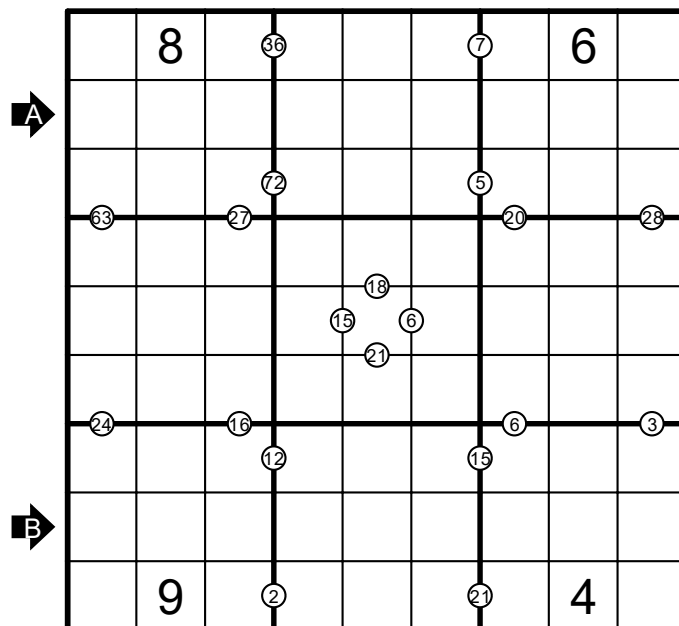
Product Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Each number between adjacent cells is the product of digits in those two cells.

Penpa for example:

<https://tinyurl.com/2dyv8cbw>

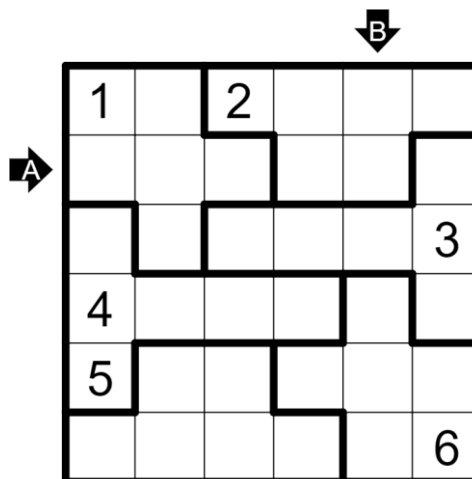


Irregular Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and outlined region.

Penpa for example:

<https://tinyurl.com/yxzhpmwc>

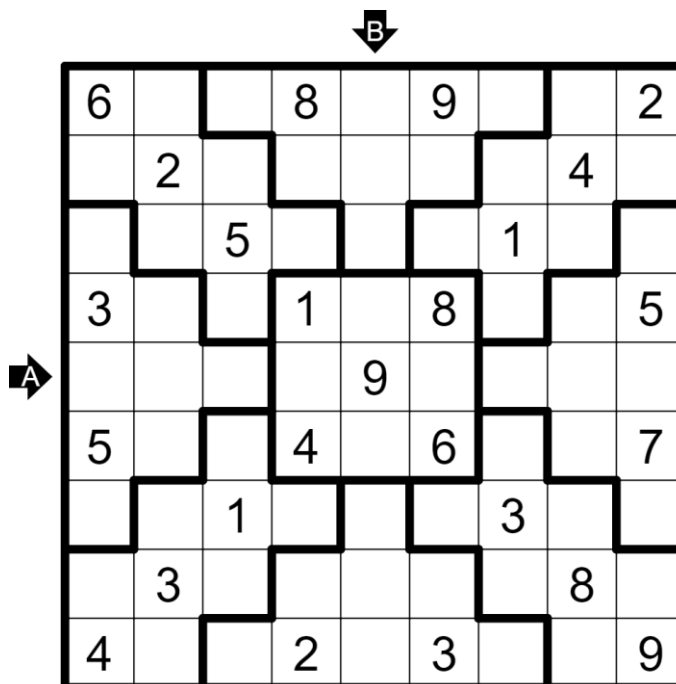


Irregular Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and outlined region.

Penpa for example:

<https://tinyurl.com/yxhb8q9n>



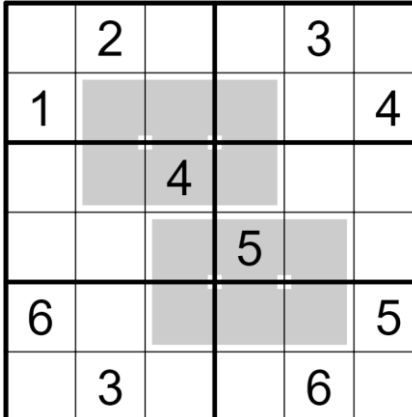
Extra Regions Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Each grey shaded region contains each digit from 1 to 6.

Penpa for example:

<https://tinyurl.com/4vsbx4p4>



A 6x6 grid with shaded regions and pre-filled numbers. Row 1: (1,2)=2, (1,5)=3. Row 2: (2,1)=1, (2,6)=4. Row 3: (3,3)=4. Row 4: (4,4)=5. Row 5: (5,1)=6, (5,6)=5. Row 6: (6,2)=3, (6,5)=6. Shaded regions are 2x3 boxes: (2,2)-(3,4), (3,2)-(4,4), (4,3)-(5,5), (5,2)-(6,4).

	2			3	
1					4
		4			
			5		
6					5
	3			6	

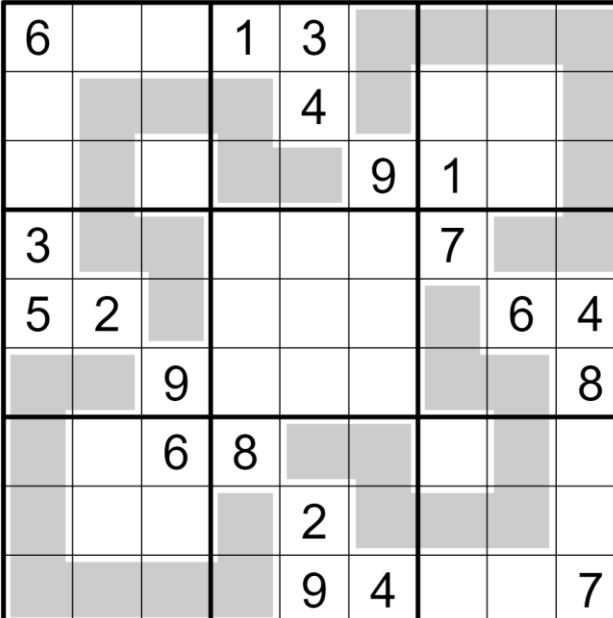
Extra Regions Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Each grey shaded region contains each digit from 1 to 9.

Penpa for example:

<https://tinyurl.com/yckcps5s>



A 9x9 grid with shaded regions and pre-filled numbers. Row 1: (1,1)=6, (1,4)=1, (1,5)=3. Row 2: (2,4)=4. Row 3: (3,5)=9, (3,6)=1. Row 4: (4,1)=3, (4,6)=7. Row 5: (5,1)=5, (5,2)=2, (5,7)=6, (5,8)=4. Row 6: (6,3)=9, (6,8)=8. Row 7: (7,3)=6, (7,4)=8. Row 8: (8,5)=2. Row 9: (9,4)=9, (9,5)=4, (9,8)=7. Shaded regions are 3x3 boxes: (1,2)-(3,4), (1,6)-(3,8), (4,2)-(6,4), (4,6)-(6,8), (7,1)-(9,3), (7,5)-(9,7), (8,1)-(9,3), (8,5)-(9,7).

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

Untouch Sudoku 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Diagonally touching cells must not contain the same digit.

Penpa for example:

<https://tinyurl.com/vy5rch5b>

↓ B

	1			4	
		2	3		
	3	1	6	5	

← A

Untouch Sudoku 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Diagonally touching cells must not contain the same digit.

Penpa for example:

<https://tinyurl.com/y352qvm1>

↓ B

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

← A

AntiKnight Sudoku

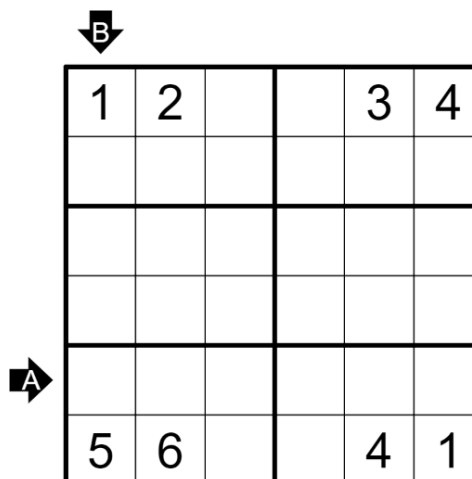
6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

No cell that is a knight-step away can contain the same digit. A knight's move is 2 in a line and 1 to the side, as in chess.

Penpa for example:

<https://tinyurl.com/y2uy3ajd>



1	2			3	4
5	6			4	1

AntiKnight Sudoku

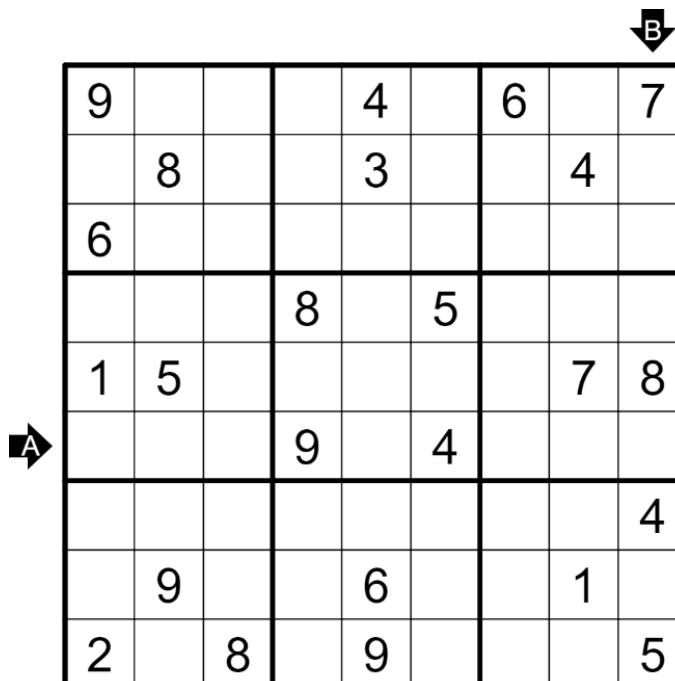
9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

No cell that is a knight-step away can contain the same digit. A knight's move is 2 in a line and 1 to the side, as in chess.

Penpa for example:

<https://tinyurl.com/yxhdxclf>



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



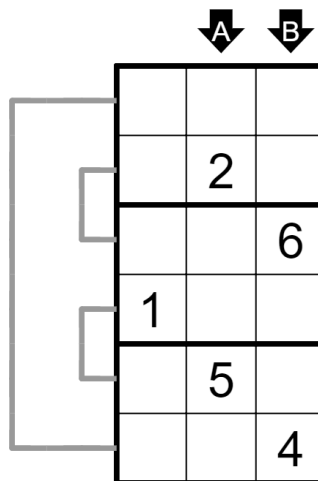
Sudokurve 6x6

Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and 2x3 outlined box.

Some rows and columns are bent, marked by curved lines.

Penpa for example:

<https://tinyurl.com/y4xaxa42>



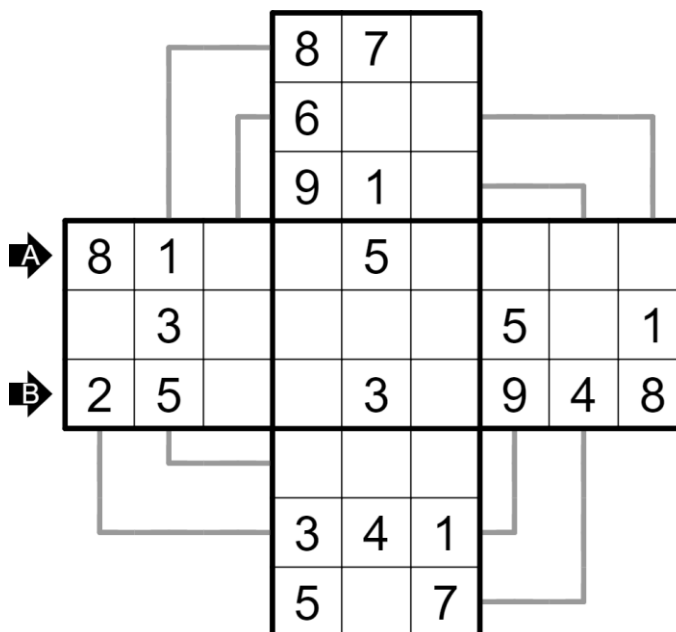
Sudokurve 9x9

Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and 3x3 outlined box.

Some rows and columns are bent, marked by curved lines.

Penpa for example:

<https://tinyurl.com/y4pkboxa>



Classic 6x6

↓ B

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

→ A

Classic 9x9

↓ B

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

→ A

Overlapping 6x6

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

→ A

↓ B

Linked 6x6

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

→ A

↓ B

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

→ A

Odd 6x6

↓ B

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

→ A

Odd 9x9

↓ B

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

→ A

Even 6x6

➡

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

➡

Odd Even 6x6

➡

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

➡

Odd-Sum Pairs 6x6

➡

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

➡

Even 9x9

➡

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

➡

Odd Even 9x9

➡

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

➡

Odd-Sum Pairs 9x9

➡

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

➡

OE Count 6x6

↓ B

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

→ A

Outside Parity 6x6

	2		2	↓ B	2	
1	6	1	2	5	3	4
	4	3	5	1	2	6
1	1	2	6	4	5	3
→ A	5	4	3	6	1	2
1	2	5	4	3	6	1
	3	6	1	2	4	5
	1		1		2	

Palindrome 6x6

↓ B

5	3	4	6	1	2	
2	6	1	4	3	5	
→ A	4	1	2	3	5	6
	6	5	3	1	2	4
	1	4	5	2	6	3
	3	2	6	5	4	1

OE Count 9x9

↓ B

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

Outside Parity 9x9

	2	2	1		5		1	1	2	
→ A	5	5	3	1	9	7	2	4	6	8
2	9	7	8	6	1	4	5	3	2	1
4	6	2	4	8	3	5	1	9	7	5
5	3	1	9	7	5	8	6	2	4	4
3	4	8	2	3	9	6	7	1	5	3
1	7	6	5	2	4	1	3	8	9	1
4	1	9	7	5	2	3	8	4	6	3
3	2	4	6	1	8	7	9	5	3	4
→ B	1	8	5	3	4	6	9	2	7	1
	2	1	1		4		1	2	2	

Palindrome 9x9

↓ B

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



Renban 6x6

↓ B

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

→ A

Renban 9x9

↓ B

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

→ A

Inequality 6x6

↓ B

4 < 6	3 > 2	1	5	
5	2	1	4 > 3	6
6	1	4	3	5 > 2
2 < 3	5	6	4	1
1	4 > 2	5	6	3
3	5	6 > 1	2 < 4	

→ A

Thermo 6x6

↓ B

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

→ A

Thermo 9x9

↓ B

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

→ A

Quadruple 6x6

↓ B

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

→ A

Arrow 6x6

↓ B

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

→ A

Killer 6x6

↓ B

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

→ A

Quadruple 9x9

↓ B

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

→ A

Arrow 9x9

↓ B

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

→ A

Killer 9x9

↓ B

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

→ A

Frame 6x6

		7	6	↓B	4	
8	2	5	1	4	6	3
→A	3	4	6	2	5	1
	1	3	2	6	4	5
15	5	6	4	3	1	2
	4	1	3	5	2	6
	6	2	5	1	3	4
	10	3	8	6		

Frame 9x9

	17	7	11	14	21	↓B	15	
13	5	6	2	4	8	1	9	3
	9	7	4	5	3	6	8	1
12	3	8	1	2	9	7	4	5
14	2	9	3	7	5	4	6	8
	7	4	8	1	6	9	5	2
12	1	5	6	3	2	8	7	4
14	8	1	5	9	7	3	2	6
→A	6	3	9	8	4	2	1	7
13	4	2	7	6	1	5	3	9
	18	21	23	10	6		17	

Product 6x6

	2	1	5	4	3	6
⊙8	4	3	6	1	2	5
→A	3	5	4	2	6	1
→B	6	2	1	3	5	4
⊙6	1	6	3	5	4	2
	5	4	2	6	1	3

Product 9x9

	3	8	4	9	5	7	1	6
→A	2	1	5	3	4	6	8	7
	7	6	9	8	2	1	5	3
⊙3	9	2	3	1	6	8	4	5
	1	4	7	5	3	2	6	9
⊙6	6	5	8	4	7	9	2	1
→B	4	7	2	6	9	5	3	8
	8	3	6	7	1	4	9	2
	5	9	1	2	8	3	7	4

Irregular 6x6

	1	3	2	4	6	5
→A	6	2	5	1	3	4
	2	4	6	5	1	3
	4	1	3	6	5	2
	5	6	4	3	2	1
	3	5	1	2	4	6

Irregular 9x9

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



Extra Regions 6x6

↓ B

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

→ A

Untouch 6x6

↓ B

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

→ A

AntiKnight 6x6

↓ B

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

→ A

Extra Regions 9x9

↓ B

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

→ A

Untouch 9x9

↓ B

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

→ A

AntiKnight 9x9

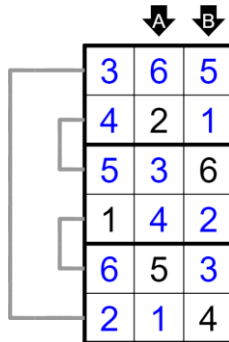
↓ B

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

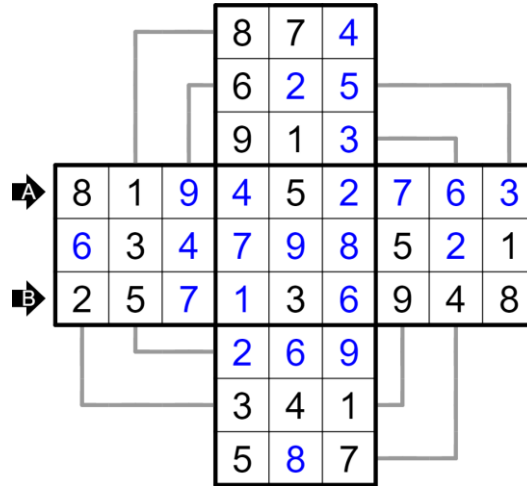
→ A



Sudokurve 6x6



Sudokurve 9x9



Round 6 – Team Round A – X-Killer

This round is a replication of an LMI Contest by the same name (which was itself a practice puzzle for WSC 2015) which can be used for practice -

<https://logicmastersindia.com/lmitests/?test=M201511S>

This round has Classic Sudokus connected by letters that must achieve a given sum. The breakdown for each age category is given below, followed by the rules and an example puzzle. The example puzzle is 6x6 and is taken from the 2015 WSC IB. The 9x9 sets will follow the same concept.

U10: 2 sets each containing 4 6x6 Sudokus

U12: 2 sets each containing 4 6x6 Sudokus

U15: 1 set containing 4 6x6 Sudokus, 1 set containing 4 9x9 Sudokus.

U18: 2 sets each containing 4 9x9 Sudokus

Rules: There will be four Classic Sudokus*. Each of them will have some clues, but not enough to solve the Sudoku. Some cells will be marked with letters. The same letter may appear on 2, 3, or 4 different grids. Digits marked with the same letter must be different and sum up to the provided total. Although every separate grid may have many solutions, there's only one solution where all grids are solved and sum up to the clues. Only solved grids that are a part of the overall solution will be scored.

***Rules of Classic Sudoku:** Place a number from 1-9 (1-9) in each empty cell in the grid such that each row, column and marked 2x3 (3x3) box contains each number exactly once.

Note: In the competition, each set will be on an A3 sheet. Two of the grids will be rotated so that all grids are facing outward for the four participants seated at the table.

Penpa for Example: <https://tinyurl.com/2yhre8tc>



S1	⇨	S2	⇨																																																																																														
<table border="1" style="border-collapse: collapse; width: 100%; height: 100%;"> <tr><td>1</td><td></td><td>L</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>G</td><td></td><td></td><td>5</td><td></td><td></td><td></td></tr> <tr><td></td><td>3</td><td></td><td>B</td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td>2</td><td>K</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>F</td><td>6</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>E</td><td></td><td>4</td></tr> </table>	1		L							G			5					3		B								2	K									F	6							E		4	<table border="1" style="border-collapse: collapse; width: 100%; height: 100%;"> <tr><td>2</td><td></td><td>L</td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td>G</td><td></td><td></td><td>3</td><td></td><td></td><td></td></tr> <tr><td></td><td>1</td><td></td><td>B</td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td>4</td><td>K</td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>F</td><td>5</td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>E</td><td></td><td>6</td></tr> </table>	2		L							G			3					1		B								4	K									F	5							E		6
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A	-	-	-	-	-	-	-	-	9
B	-	-	-	-	-	-	-	-	4
C	-	-	-	-	-	-	-	-	3
D	-	-	-	-	-	-	-	-	4
E	-	-	-	-	-	-	-	-	10
F	-	-	-	-	-	-	-	-	11
G	-	-	-	-	-	-	-	-	12
H	-	-	-	-	-	-	-	-	14
K	-	-	-	-	-	-	-	-	15
L	-	-	-	-	-	-	-	-	18

Round 7 – Team Round B – Cross

This round has Classic Sudokus that must be assembled to form a Cross shape, as shown on the next page. The breakdown for each age category is given below, followed by the rules and an example puzzle. The example puzzle is 6x6. The 9x9 sets will follow the same concept.

U10: 2 sets each containing 4 6x6 Sudokus

U12: 1 set containing 4 6x6 Sudokus, 1 set containing 4 9x9 Sudokus.

U15: 2 sets each containing 4 9x9 Sudokus

U18: 2 sets each containing 4 9x9 Sudokus. The second set will have variants instead of Classic grids. The variants used will be Odd Even, Palindrome, Arrow and Extra Region. The rules for these can be viewed in the Individual rounds.

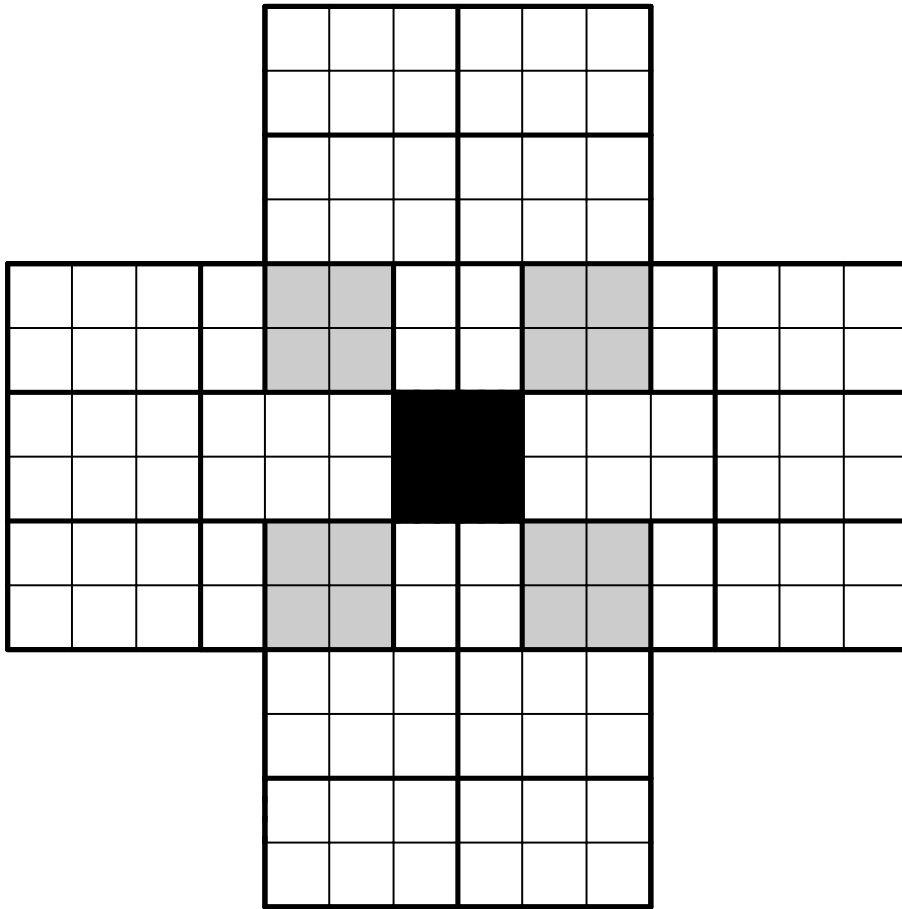
Rules: There will be four Classic* Sudoku**. Each of them will have some clues, but not enough to solve the Sudoku. The Sudokus will eventually fit into the cross shape given, where the 2x2 (3x3 in the 9x9 sets) overlapping areas must contain the same digits in both Sudokus that overlap the area. Although every separate grid may have many solutions, there's only one solution where all grids are solved and fit into the cross with the same digits in the overlapping cells. It is part of solving to determine which portion of the diamond each grid fits into. Only solved grids that are a part of the overall solution will be scored.

***U18 set 2 will be variants as explained above.**

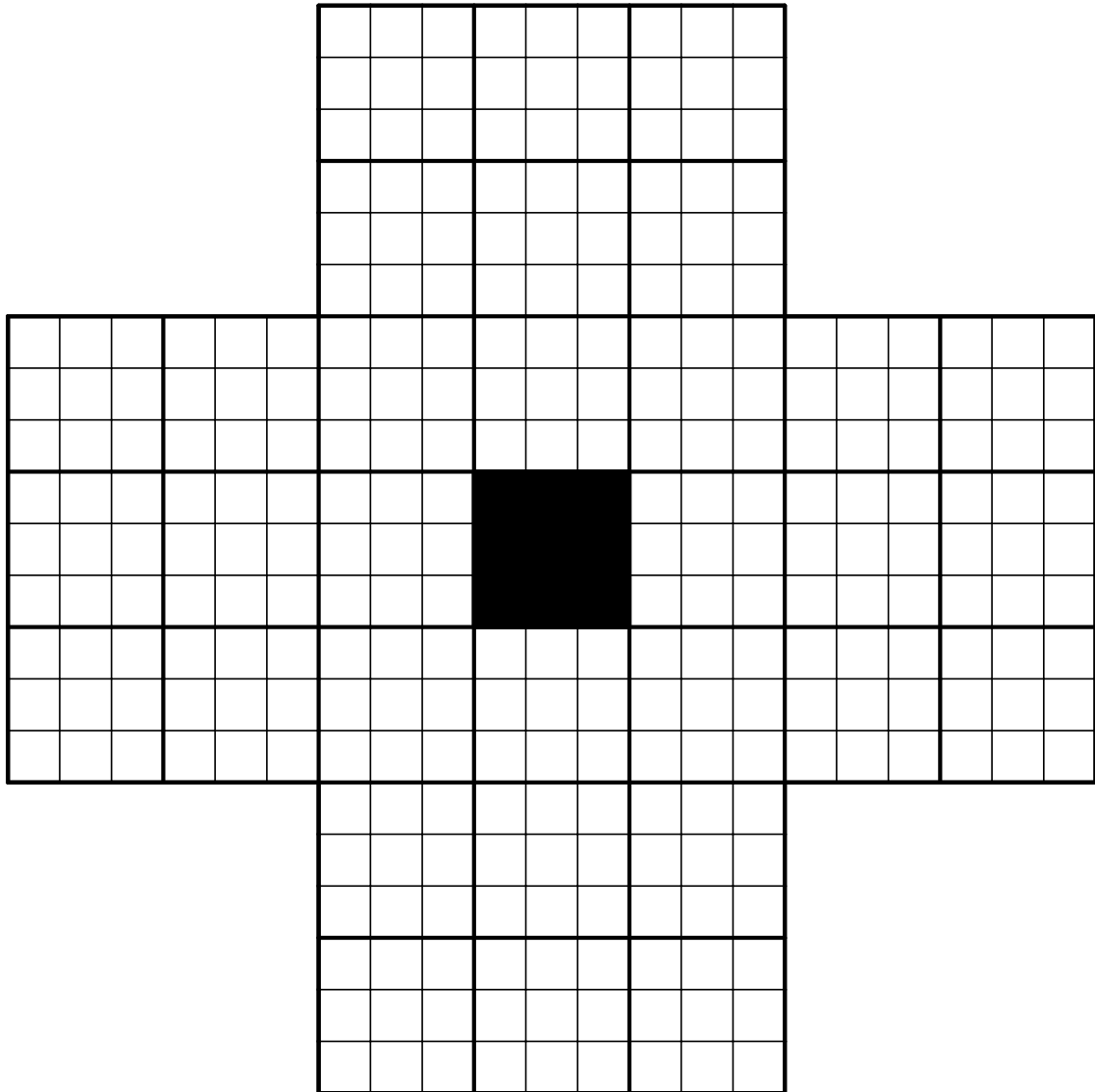
****Rules of Classic Sudoku:** Place a number from 1-6 (1-9) in each empty cell in the grid such that each row, column and marked 2x3 (3x3) box contains each number exactly once.

Note: In the competition, the base of the Cross will be given separately, while each individual grid will be cut and placed into an envelope. For U10, one set will have standing boxes and the other will have sleeping boxes. For U15, one set will have all cells shaded light grey to make it clear to distinguish.

For scoring, participants can either fill in an entire grid on the cross shape or on the grid piece. Both will be accepted, but at least one should be completely filled without blanks.



6x6 Cross Sample



9x9 Cross Sample

	2	3	1		
	3			6	
	4			3	
		1	3	4	

		6	2	4	
	1			6	
	2			3	
	3	4	6		

		5	1	2	
	4			6	
	2			4	
	5	6	2		

	5	6	4		
	2			5	
	1			3	
		3	5	6	

6x6 Example For Solving

Penpa for Example: <https://tinyurl.com/2bxnpjff>

X-Killer Solution

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

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

S1	S2	S3	S4		
A	-	-	5	4	9
B	1	3	-	-	4
C	-	-	1	2	3
D	1	3	-	-	4
E	2	3	1	4	10
F	5	1	3	2	11
G	2	4	1	5	12
H	6	5	2	1	14
K	1	5	6	3	15
L	6	5	4	3	18

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

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

Cross Solution

Solution on the Cross Shape

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

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

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

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

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