

MIT Sudoku Open 2025

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D				M		O		
O		U			I		K	
	K					T		U

Instruction Booklet

Schedule

10:00 – 10:40	Round 1: Classics	500 Points
10:50 – 11:40	Round 2: Variants I	875 Points
12:30 – 13:30	Round 3: Variants II	1250 Points
13:40 – 14:25	Team Round 1: Sudoklear Fusion	1200 Points
14:40 – 15:40	Team Round 2: This and That	1600 Points

Competition Rules

Scoring & Bonuses

Full points will be awarded only for fully and corrected solved puzzles. By graders' discretion, partial credit of 90% and 80% will be given for puzzles with 1 or 2 minor mistakes, respectively.

A bonus of 10 points for every full minute remaining will be awarded to any competitor who correctly solves all puzzles in an individual round. A partial 60% bonus can be awarded if one puzzle is incorrectly solved, under the condition that the puzzle is solved completely or almost completely and the competitor may have believed their solution to be correct. In case of doubt, decision will be made with graders' discretion.

A bonus of 40 points for every full minute remaining will be awarded to any team who correctly solves all puzzles in a round, with the same schematic as the individual bonus system above.

To declare completion of a round, a competitor must close their booklet and clearly state "finished" and raise their arm with the booklet. Same applies with team rounds.

Dishonesty Statement

Please no cheating everyone, you all are literally here on a Saturday doing sudoku for the sake of enjoying puzzles, why would you cheat at this.

Acknowledgements

Thank you to Prasanna Seshadri, Tawan Sunathvanichkul, Sinchai Rungsangrattanakul, Anderson Wang, Can Erturan, Wessel Strijkstra for contributing to this event with their authorship!

Individual Round 1: Classics

40 Minutes - 500 Points

1.1	Classic Sudoku	15 Points
1.2	Classic Sudoku	25 Points
1.3	Classic Sudoku	25 Points
1.4	Classic Sudoku	30 Points
1.5	Classic Sudoku	30 Points
1.6	Classic Sudoku	30 Points
1.7	Classic Sudoku	30 Points
1.8	Classic Sudoku	35 Points
1.9	Classic Sudoku	45 Points
1.10	Classic Sudoku	45 Points
1.11	Classic Sudoku	45 Points
1.12	Classic Sudoku	70 Points
1.13	Classic Sudoku	75 Points

1.1 - 1.13: Classic Sudoku

Rules: Place the digits 1-9 in each empty cell in the grid such that each row, column, and marked 3x3 box contains each digit exactly once. [Online Solving](#)

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

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

Individual Round 2: Variants I

50 Minutes - 875 Points

2.1	1-5-9 Sudoku	40 Points
2.2	Numbered Rooms Sudoku	50 Points
2.3	Basement Skyscraper Sudoku	75 Points
2.4	Killer Sudoku.....	60 Points
2.5	Weighted Killer Sudoku	100 Points
2.6	Cloned Shapes Sudoku.....	50 Points
2.7	Extra Regions Sudoku.....	25 Points
2.8	Clone or Extra Regions Sudoku	50 Points
2.9	Fortress Sudoku.....	70 Points
2.10	Quadruple Sudoku	50 Points
2.11	Consecutive Pairs Sudoku.....	40 Points
2.12	Diagonal Sudoku.....	75 Points
2.13	Renban Sudoku	65 Points
2.14	Thermo Sudoku.....	50 Points
2.15	Thermo Sudoku.....	75 Points

2.1: 1-5-9 Sudoku

Rules: Apply Classic Sudoku rules. Digits in the first column indicate in which column digit 1 is placed in the respective row. Digits in the fifth column indicate in which column digit 5 is placed in the respective row. Digits in the ninth column indicate in which column digit 9 is placed in the respective row. [Online Solving](#)

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

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

2.2: Numbered Rooms Sudoku

Rules: Apply Classic Sudoku rules. Clues outside the grid indicate the digit which has to be placed in the Nth cell in the corresponding direction, where N is the digit placed in the first cell in that direction. [Online Solving](#)

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

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

2.3: Basement Skyscraper Sudoku

Rules: Apply Classic Sudoku rules. Each digit represents the height of a building. The clues outside the grid indicate the number of buildings visible from the corresponding direction. A taller building will hide any shorter buildings behind it. Additionally, digits in shaded cells are counted as height 0 and invisible to clue counts. [Online Solving](#)

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

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

2.4: Killer Sudoku

Rules: Apply Classic Sudoku rules. The number at the top-left corner of each cage equals the sum of digits inside the cage. Digits do not repeat inside a cage. [Online Solving](#)

	2			4			3	
6		15			11			1
	9						6	
			9		2			
2		9			10			6
	13		7		4		8	
1		11			14			3
	3			7				9

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

2.5: Weighted Killer Sudoku

Rules: Apply Killer Sudoku rules. Additionally, digits in shaded cells are considered to be doubled in value for clue counts. [Online Solving](#)

26							20	
20							10	
		13			18			
		12		25	20			
		12			18			
		14			10			
19							12	
22							11	

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

2.6: Cloned Shapes Sudoku

Rules: Apply Classic Sudoku rules. Each shape is cloned, including the digits it contains, without rotating and mirroring. The position of the digits inside each shape is fixed – the same digits have to be placed at the same positions inside the identical shapes. A digit may appear more than once in a shape. [Online Solving](#)

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

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

2.7: Extra Regions Sudoku

Rules: Apply Classic sudoku rules. The same-colored shaded cell group(s) contain(s) each digit from 1 to 9. [Online Solving](#)

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

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

2.8: Clone or Extra Region Sudoku

Rules: Apply Classic Sudoku rules. Four 9-cell regions will be shaded. Two of them are clones, and the other two are extra regions. Clones are identical without rotation or reflection. Extra regions contain all of the digits 1-9 once each. A region may or may not qualify as both a clone and an extra region. [Online Solving](#)

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

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

2.9: Fortress Sudoku

Rules: Apply Classic Sudoku rules. A digit placed in a shaded cell must be strictly greater than digits placed in orthogonally adjacent unshaded cells. [Online Solving](#)

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

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

2.10: Quadruples Sudoku

Rules: Apply Classic sudoku rules. Digits in the white circles must appear somewhere in the four cells immediately surrounding their circle. [Online Solving](#)

								1
								7
							5	

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

2.11: Consecutive Pairs Sudoku

Rules: Apply Classic Sudoku rules. If a circle is given between two adjacent cells, then the digits in those cells must be consecutive. Not all circles are given. [Online Solving](#)

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

2.12: Diagonal Sudoku

Rules: Apply Classic Sudoku rules. Each marked diagonal must also contain each digit from 1-9 exactly once. [Online Solving](#)

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

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

2.13: Renban Sudoku

Rules: Apply Classic sudoku rules. Gray lines must contain a set of distinct, consecutive digits in any order. [Online Solving](#)

			2		1			
		9						
6			8				9	
				4				
	4		3					
1								

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

2.14 - 2.15: Thermo Sudoku

Rules: Apply Classic sudoku rules. Some thermometer shapes are placed in the grid. Digits are strictly increasing from the round bulb of each thermometer to each flat end. [Online Solving](#)

1							4
	3					2	
		5					
			1				
					5		
	4					3	
2							1

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

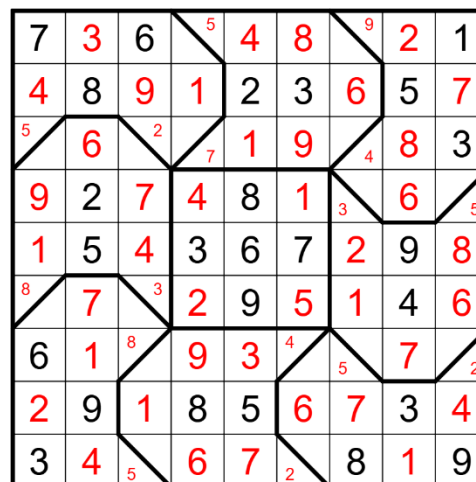
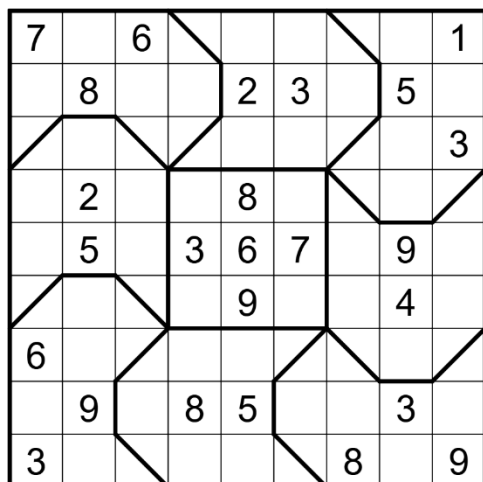
Individual Round 3: Variants II

60 Minutes - 1250 Points

3.1	Halved Squares Sudoku (6x6).....	25 Points
3.2	Halved Squares Sudoku (9x9).....	75 Points
3.3	Pinocchio Sudoku (6x6).....	15 Points
3.4	Pinocchio Sudoku (9x9).....	40 Points
3.5	Wheels Sudoku (6x6).....	15 Points
3.6	Wheels Sudoku (9x9).....	60 Points
3.7	Zipperlines Sudoku.....	50 Points
3.8	Instructionless Sudoku 1 (6x6).....	50 Points
3.9	Instructionless Sudoku 1 (9x9).....	100 Points
3.10	Instructionless Sudoku 2 (6x6).....	55 Points
3.11	Instructionless Sudoku 2 (9x9).....	200 Points
3.12	Instructionless Sudoku 3 (6x6).....	100 Points
3.13	Instructionless Sudoku 3 (9x9).....	200 Points
3.14	Instructionless Sudoku 4 (6x6).....	40 Points
3.15	Instructionless Sudoku 4 (9x9).....	225 Points

3.1 - 3.2: Halved Squares Sudoku

Rules: Place the digits 1-9 in each empty cell in the grid such that each row, column, and marked 3x3 box contains each digit exactly once. Some cells are halved by one of the diagonals. For any such cell, exactly one of its two halves shall contain a digit. That digit is considered to belong to the row and column containing its cell, as well as to the region connected to the half cell the digit is in. [Online Solving](#)



3.3 - 3.4: Pinocchio Sudoku

Rules: Apply Classic Sudoku rules. Three digits are written in a different layout. Two of these digits are correct, while the third one is incorrect. **NOTE due to penpa constraints, you won't be able to actually "write" over the incorrect digit in the online solving platform** [Online Solving](#)

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

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

3.5 - 3.6: Wheels Sudoku

Rules: Apply Classic Sudoku rules. The digits on the circles have to be placed in the same circular order in the four cells that are touched by the circle. The circles may have to be rotated to the correct position by 90, 180 or 270 degrees. [Online Solving](#)

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

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

3.7: Zipperlines Sudoku

Rules: Apply Classic Sudoku rules. For each line, the digits in each pair of cells an equal distance away from the central cell of the line sum to the digit in the central cell of the line.

[Online Solving](#)

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

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

3.8 - 3.15: Instructionless Sudoku

Rules: Apply Classic Sudoku rules. For each instructionless variant, an example will be given along with its solution. It is part of solving to determine what the variant instructions are and then solve the Sudoku. It is not required to describe or mark the instructions. When the necessary instructions are applied, the Sudoku will have a unique solution. There are no points for determining the instructions correctly.

All solved example grids will have some form of dressing like internal clues, external clues, shaded cells, regions, lines, cages, letters, dots, arrows, etc., in puzzle and/or solution, so it will be clear where to focus. There won't be Classic-Lookalike type of variant (e.g. Non-consecutive or Antiknight) nor will there be any variant with multiple forms of dressings/clues (alternative colors only for aesthetics).

Team Round 1: Sudoklear Fusion

45 Minutes - 1200 Points

4.1	Arrow Sudoku	100 Points
4.2	Consecutive Pairs Sudoku.....	100 Points
4.3	Extra Regions Sudoku.....	100 Points
4.4	Fortress Sudoku.....	100 Points
4.5	Nonconsecutive Sudoku	100 Points
4.6	Palindrome Sudoku.....	100 Points
4.7	Renban Sudoku	100 Points
4.8	Thermo Sudoku.....	100 Points
4.9	Classic Sudoku	400 Points

4.1 - 4.9: Sudoklear Sudoku

400 + 8*100 Points

Arrange the nine given 9x9 Sudoku puzzles given to form a 27x27 grid. Orthogonally adjacent cells separated by a 9x9 grid border must contain identical digits. The puzzle in the middle of the 27x27 grid will be a 9x9 Classic Sudoku. Every other 9x9 Sudoku puzzle belongs to one of the following additional variants

To avoid confusion, the variant that each 9x9 grid contains will be noted on the back side of the grid. 9x9 grids may be rotated in any way desired to reach a valid solution. In the final solution, the orientations of given digits will not necessarily match across different 9x9 grids. The 9x9 Classic Sudoku is worth **400** points. All other 9x9 grids are worth **100** points each. The time bonus for this round is ??? points per every full minute spared.

If a team has completed the round early and exactly one 9x9 grid contains at most 3 incorrect/empty cells, a 40% partial time bonus will be awarded. However, no points will be awarded for the incorrect 9x9 grid.

To receive credit for a completed 9x9 grid, a team must do at least one of the following:

- Make sure that all of the digits in the grid have the exact same orientation.
- For that grid, indicate 6s and 9s with lines. (Six=6, Nine=9)

Variants & Rules

Arrow Sudoku

Rules: Apply Classic Sudoku rules. Cells that can be reached by a knight step (chess) cannot contain the same digit. [Online Solving](#)

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

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

Nonconsecutive Sudoku

Rules: Apply Classic sudoku rules. Any orthogonally adjacent digits must not be consecutive. [Online Solving](#)

				2				
					3			
	1							4
4								
								5
7								
	5							6
					4			
				6				

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

Palindrome Sudoku

Rules: Classic sudoku rules apply. Numbers along shaded lines must be the same forwards and backwards. [Online Solving](#)

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

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

Consecutive Pairs, Extra Regions, Fortress, Renban, Thermo, Classic Sudoku - Refer to previous rules & examples

Team Round 2: This and That

60 Minutes - 1600 Points

4.1a	Antiknight Sudoku	100 Points
4.1b	Antiking Sudoku.....	100 Points
4.2a	Sandwich Sums Sudoku	100 Points
4.2b	X-Sums Sudoku	100 Points
4.3a	Clone Sudoku	100 Points
4.3b	Anti-Regions Sudoku	100 Points
4.4a	Fortress Sudoku.....	100 Points
4.4b	Odd/Even Sudoku	100 Points
4.5a	Thermo (unlabeled) Sudoku.....	100 Points
4.5b	Renban Sudoku	100 Points
4.6a	Outside Sudoku	100 Points
4.6b	Skyscraper Sudoku.....	100 Points
4.7a	German Whispers Sudoku	100 Points
4.7b	Palindrome Sudoku.....	100 Points
4.8a	Consecutive Sudoku	100 Points
4.8b	Multiple Dot Sudoku.....	100 Points

4.1 - 4.8: This or That Sudoku

16 * 100 Points

There are 8 pairs of variants based on similar visual presentation of variants. Each pair of variants consist of two puzzles with the same given digits that will uniquely solve based on the respective variant rules.

Additionally, there is a cyclic ordering of these variant pairs, in which overlapping digits between the final solutions of the 2 puzzles in a variant pair is passed onto the next variant pair's grids, including the initial given values. Additionally, overlapping digits can only be passed forward once. In other words, overlapping digits amongst grids within the same variant pair either came from the variant pair that immediately preceded, or originates organically from solving/was an original given, and thus would be passed to the next set of variants.

Variants & Rules

4.1a: Antiknight Sudoku

Rules: Apply Classic sudoku rules. Digits placed in cells connected by a chess Knight's move must be different. [Online Solving](#)

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

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

4.1b: Antiking Sudoku

Rules: Apply Classic sudoku rules. Digits placed in cells connected by a chess King's move must be different. [Online Solving](#)

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

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

4.2a: Sandwich Sums Sudoku

Rules: Apply Classic sudoku rules. Numbers at ends of rows and columns represent the sum of digits in between 1 and 9, non-inclusive, in that row or column. [Online Solving](#)

	20	20	0	22	14	22	20	30	2
8									
29		1						9	
35									
7									
28									
7									
5									
21		9						1	
2									

	20	20	0	22	14	22	20	30	2
8	3	7	4	1	8	9	5	2	6
29	2	1	8	3	6	5	7	9	4
35	9	5	6	2	7	4	3	8	1
7	8	6	3	4	9	7	1	5	2
28	5	2	1	8	3	6	4	7	9
7	7	4	9	5	2	1	8	6	3
5	1	3	2	9	5	8	6	4	7
21	6	9	5	7	4	3	2	1	8
2	4	8	7	6	1	2	9	3	5

4.2b: X-Sums Sudoku

Rules: Classic sudoku rules apply. Each number outside the grid is the sum of the first X numbers placed in the corresponding direction, where X is equal to the first number placed in that direction. [Online Solving](#)

	1	9	12	26	39	41	21	45	19	
1										26
42										11
29										30
37										23
20										40
45										9
17										31
10										1
14										45
	9	21	33	38	1	13	40	6	45	

	1	9	12	26	39	41	21	45	19	
1	1	2	3	6	7	8	5	9	4	26
42	8	7	4	1	9	5	2	6	3	11
29	6	9	5	2	4	3	1	8	7	30
37	7	6	1	8	2	9	4	3	5	23
20	5	3	2	4	6	7	9	1	8	40
45	9	4	8	5	3	1	6	7	2	9
17	4	1	9	3	8	2	7	5	6	31
10	2	8	7	9	5	6	3	4	1	1
14	3	5	6	7	1	4	8	2	9	45
	9	21	33	38	1	13	40	6	45	

4.3a: Clone Sudoku – Refer to previous rules

4.3b: Anti-Regions Sudoku

Rules: Apply Classic sudoku rules. Digits in the same-colored shaded cell group(s) must not repeat. [Online Solving](#)

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

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

4.4a: Fortress Sudoku – Refer to previous rules

4.4b: Odd/Even Sudoku

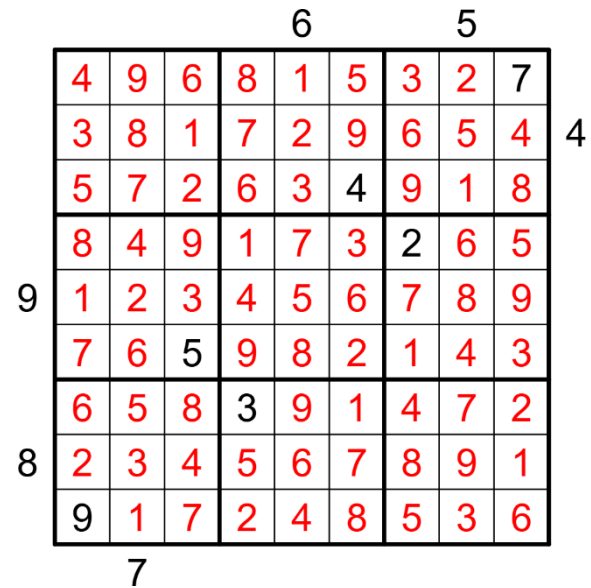
Rules: Apply Classic sudoku rules. Digits in circles must be odd and digits in squares must be even. [Online Solving](#)

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

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

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

Rules: Apply Classic sudoku rules. Each digit represents the height of a building. The clues outside the grid indicate the number of buildings visible from the corresponding direction. A taller building will hide any shorter buildings behind it. [Online Solving](#)



Rules: Apply Classic sudoku rules. Adjacent digits along the line(s) must have a difference of at least 5. [Online Solving](#)



4.8a: Consecutive Sudoku

Rules: Apply Classic sudoku rules. Additionally, the dots in the grid indicate all adjacent pairs of consecutive digits. [Online Solving](#)

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

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

4.8b: Multiple Dot Sudoku

Rules: Apply Classic sudoku rules. Additionally, the dots in the grid indicate all adjacent pairs of digits where one digit is a multiple of the other.