



Instruction Booklet

Master

Team Competition

7th Asian Sudoku Championship 2026

Bangkok, Thailand

v2.0

Schedule

Round	Type	Time	Duration	Title	Total Score
1	Individual	09:00 – 09:30	30 mins	Direct Current	300
2	Individual	09:40 – 10:25	45 mins	Alternating Current	450
3	Individual	10:35 – 11:20	45 mins	AND	450
4	Individual	11:30 – 12:15	45 mins	OR	450
Lunch					
5	Individual	13:30 – 14:15	45 mins	NOT	450
6	Individual	14:25 – 15:15	50 mins	Circuit Boards	500
7	Team	15:35 – 16:05	30 mins	Loy Krathong	1200
8	Team	16:30 – 17:30	60 mins	Elephant Park	2400
Break					
		19:00 – 20:30		Dinner and closing ceremony	

Competition Rules

Individual Competition

The individual competition is based on 6 rounds. The sum of scores from these rounds will determine the individual ranking of the 7th Asian Sudoku Championship. Points will be awarded only for correctly solved puzzles. If a player finishes all puzzles correctly, a bonus of 10 points per minute will be awarded for each full minute saved. If a single “minor” error (defined as no more than two incorrectly filled cells) is present in a round submitted for bonus, a bonus of 6 points per minute will be awarded for each full minute saved. In case of ties, rankings will be determined by scores in round 2, then 1, 3, 4, 5 and 6.

Team Competition

The team competition is based on 2 rounds. The sum of scores from these rounds will determine the team ranking of the 7th Asian Sudoku Championship. If a player finishes all puzzles correctly, a bonus of 40 points per minute will be awarded for each full minute saved. If a single “minor” error (defined as no more than two incorrectly filled cells) is present in a round submitted for bonus, a bonus of 24 points per minute will be awarded for each full minute saved. In case of ties, rankings will be determined by scores in round 7, then 8.

Competition Hall Rules

1. All competitors in both individual and team competitions have to sit at their pre-allocated desks.
2. Competitors must ensure they are at their desks ready for the start of the round. Late arrivals may not be permitted to enter the competition hall to take part in a round (at the discretion of the organizers).
3. Prior to the start of each round, competitors should clearly write their name and team on the front page of their competition booklet in the allocated space. If this information is not complete, then the organizers reserve the right not to award any points to that competitor for that round.
4. Competitors must not open their booklets before the official start of the round. Only when the signal for the start of the round has been given, competitors may open their booklets and begin solving the puzzles.
5. During each individual round, competitors must keep silent, unless declaring completion of a round.
6. Puzzles can be completed in any order within a round. The point value of a puzzle is an indication of its expected difficulty, although individual solving experience

may differ. The difficulty of an example puzzle does not necessarily reflect the difficulty of the corresponding competition puzzle.

7. The official puzzle booklets will not contain puzzle examples. Competitors are allowed (and encouraged) to bring the Instruction Booklet to their desk as it contains examples for almost every puzzle which will be part of the championship.
8. When a competitor believes that there is a problem with a puzzle, they must clearly state that puzzle is wrong by writing "Wrong puzzle" next to it. The competitor must not notify the organizers during the round. This will be investigated upon completion of the round.
9. To declare a round complete, a competitor must close their booklet, clearly state "finished" and raise their arm with the booklet. The competitor's arm must be raised until the booklet is collected. The same rules apply for the team competition.
10. Competitors or teams who complete a round with more than five minutes in advance, are allowed to leave the competition hall quietly. However, competitors or teams who complete a round with five minutes or less left are not allowed to leave their desks as to not disrupt fellow competitors.
11. If a competitor leaves the competition hall for any reason, they may not be allowed to continue in that round (at the discretion of the organizers).
12. When the signal is given that the round is finished, competitors must immediately stop solving, close their booklets, put their pens or pencils down and remain seated until all booklets have been collected. The signal to get up and leave will be given by the supervisor.
13. Mobile phones and electronic devices are not permitted to use in the competition hall. The devices have to be turned off and must not be placed on the competitor's desk.
14. Only official observers and guests equipped with a name tag are allowed to enter the competition hall while either individual or team rounds are taking place. Other non-competing participants may enter the competition hall at the discretion of the organizers.
15. Competitors may not use cameras or other recording devices during rounds. Only official observers and guests may do so, at the discretion of the organizers. They have to respect the competitors and not use flash photography or cameras with excessive sounds.

Permitted Items

1. Permitted items are pens and pencils (except for red pens), pencil sharpeners, erasers, rulers, and instruction booklets annotated with notes regarding puzzle instructions.
2. Drinks and snacks are permitted as long as they do not disturb other competitors with a strong smell or rustling packet.
3. It is strictly forbidden to use electronic devices such as music players and headphones or any type of calculator. Use of such equipment may lead to the disqualification of the competitor.
4. Any other items brought into the hall must be kept in a bag on the floor and placed under the competitor's desk.

Marking and Protest

1. When a round has been evaluated, fully marked booklets are returned to each competitor and teams.
2. In case of protests, after a booklet has been evaluated and returned, the protest must be raised to the organizers in the specified time. The booklet will be left with the organizers for investigation.
3. Papers may be photographed during the marking to prevent subsequent alterations.
4. The decision of the 7th Asian Sudoku Competition director (Sinchai Jaturangkhajit) is final.

Credits

Puzzles and examples of the 7th Asian Sudoku Competition are written by Sakulbuth Ekvittayaniphon, Sinchai Jaturangkhajit, Tawan Sunathvanichkul and Tana Wattanawaroon. We would like to thank the test solvers: Tom Collyer, Tantan Dai, Matúš Demiger and Tiit Vunk.

Some puzzle rules in this Instruction Booklet are borrowed from past World Sudoku Championships.



Round 7: Loy Krathong

15:35–16:05

1200 points

30 mins

7.1	9 × 9 Classic Sudoku	20 points
7.2	9 × 9 Classic Sudoku	40 points
7.3	9 × 9 Killer Sudoku	30 points
7.4	9 × 9 Difference Sudoku	35 points
7.5	9 × 9 Multiplication Table Sudoku	30 points
7.6	9 × 9 Ratio Sudoku	40 points
7.7	9 × 9 Pinocchio Sudoku	25 points
7.8	9 × 9 Disjoint Groups Sudoku	30 points
7.9	9 × 9 Diagonal or Anti-diagonal Sudoku	35 points
7.10	9 × 9 Outside Sudoku	35 points
7.11	9 × 9 One-five-nine Sudoku	40 points
7.12	9 × 9 Anti-renban Sudoku	50 points
7.13	9 × 9 Little Killer Sudoku	50 points
7.14	9 × 9 Kropki Pairs Sudoku	55 points
7.15	9 × 9 Anti-elephant Sudoku	60 points
7.16	9 × 9 Odd Labyrinth + Killer Sudoku	60 points
7.17	9 × 9 Non-consecutive Sudoku	60 points
7.18	9 × 9 Thermo + Pirate Sudoku	65 points
7.19	9 × 9 Arrow Sudoku	80 points
7.20	9 × 9 Thermo Sudoku	90 points
7.21	9 × 9 Windoku (Liar)	120 points
7.22	9 × 9 Partitioned Sums Sudoku	150 points

Loy Krathong is a traditional Thai festival celebrated on the night of the full moon in November. On this night, people float Krathongs on rivers, lakes, or ponds to thank the water goddess and letting go of bad luck. The Krathongs are usually made from banana leaves and flowers, with candles and incense on top.

In this round, teams will float Krathongs of Sudokus to their teammates, but be careful, the river never flow backwards...

This round is a semi-relay format. During the round, team members sit at different tables in the same column and face the front of the room. The team member who sits at the back is called the 1st leg, and the next team members, counting towards the front, are called the 2nd leg, the 3rd leg, and the 4th leg, respectively.

At the start of the round, all puzzles, each on a separate sheet of paper, will be handed to the 1st leg. Any member may pass any number of puzzles to the member in the front (1st leg to 2nd leg, 2nd leg to 3rd leg, and 3rd leg to 4th leg) at any time. Those puzzles may have any markings and notes. However, **members cannot pass any material backwards** (from the front to the back).

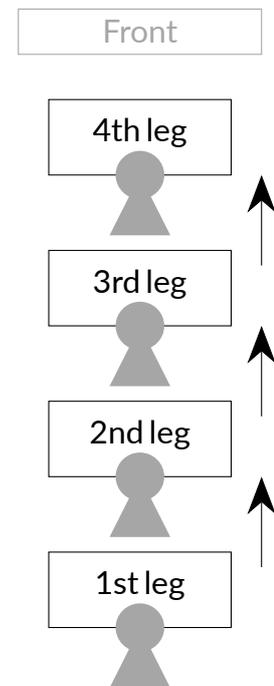
Each member will receive a flag (approximately 50 cm long) that can be used in three ways:

- raising straight up for the team members in the back to see,
- reaching forward to the team member in front (e.g. to signal a puzzle delivery),
- reaching backwards to the team member behind (e.g. to signal a request for more puzzles).

All team members must follow these restrictions:

- Any communication, verbal or physical, besides using the flag (as stated) and writing on puzzle sheets and passing them to the front is prohibited.
- When raising the flag, it should be straight up.
- Members must not devise nor use flag signals.
- Do not turn your head back.
- Do not pass any material backwards.
- Do not show any material (besides the flag) to the members in the back.

To declare a round complete, all puzzles should be passed to the member in the front (4th leg), and that member should call “finished” after receiving all the puzzles. When the round ends, all remaining teams should pass all puzzles to the front (4th leg)—this can be done after the time is up.



7.1 - 7.2 9 × 9 Classic Sudoku

20 + 40 points

Fill each empty cell with numbers from 1 to 9 so that each row, column, and outlined 3 × 3 box contains each number from 1 to 9 exactly once.

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

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

7.3 9 × 9 Killer Sudoku

30 points

9 × 9 Classic Sudoku rules apply. Additionally, the clue in each cage indicates the sum of all numbers in the corresponding cage. Numbers must not repeat within the same cage.

¹³			7	9	1		3	2
							5	4
		¹¹			²²			
6								5
1								8
8		¹⁰			²⁷			3
2	3						²⁸	
7	5		4	1	2			

¹³	5	4	8	7	9	1	6	3	2		
	3	1	7	6	2	8	9	5	4		
	9	6	¹¹	2	5	4	²²	3	8	7	1
	6	2	3	1	8	7	4	9	5		
	1	7	5	9	3	4	2	6	8		
	8	9	¹⁰	4	2	5	²⁷	6	7	1	3
	4	8	1	3	7	9	5	2	6		
	2	3	9	8	6	5	1	²⁸	4	7	
	7	5	6	4	1	2	3	8	9		

7.4 9 × 9 Difference Sudoku

35 points

9 × 9 Classic Sudoku rules apply. Additionally, clues between two orthogonally adjacent cells indicates the difference of the numbers in those cells.

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

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

7.5 9 × 9 Multiplication Table Sudoku

30 points

9 × 9 Classic Sudoku rules apply. Additionally, in each cage, the multiple-digit number (read left-to-right) in the bottom row is the product of all the numbers in the top row. Numbers may repeat in each cage.

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

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

7.6 9 × 9 Ratio Sudoku

40 points

9 × 9 Classic Sudoku rules apply. Additionally, clues between two orthogonally adjacent cells indicates the ratio of the numbers in those cells.

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

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

7.7 9 × 9 Pinocchio Sudoku

25 points

9 × 9 Classic Sudoku rules apply. Additionally, three numbers are highlighted. Two of these are correct. However, one highlighted number is **Pinocchio** and needs to be replaced with a different number.

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

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

7.8 9 × 9 Disjoint Groups Sudoku**30 points**

9 × 9 Classic Sudoku rules apply. Additionally, no number can appear in the same cell position in different outlined 3 × 3 boxes.

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

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

7.9 9 × 9 Diagonal or Anti-diagonal Sudoku**35 points**

9 × 9 Classic Sudoku rules apply. Additionally, there are two diagonals, one each of the following types:

- **Diagonal:** The diagonal contains each number from 1 to 9 exactly once.
- **Anti-diagonal:** The diagonal contains exactly **three** distinct numbers.

There must be one diagonal of each type. No diagonal can have more than one type.

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

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

7.12 9 × 9 Anti-renban Sudoku

50 points

9 × 9 Classic Sudoku rules apply. Additionally, all numbers on each marked line must be at least 2 apart from every other number on the same line.

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

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

7.13 9 × 9 Little Killer Sudoku

50 points

9 × 9 Classic Sudoku rules apply. Additionally, each clue outside the grid is the sum of numbers in the direction pointed by its arrow.

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

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

7.14 9 × 9 Kropki Pairs Sudoku

55 points

9 × 9 Classic Sudoku rules apply. Additionally, if a black circle is given between two adjacent cells, then the two numbers must have a ratio of 2; that is, one number must be exactly double the other number. If a white circle is given between two adjacent cells, then the two numbers must be consecutive. The circle between 1 and 2 can be of either colour. It is possible that not all circles are marked.

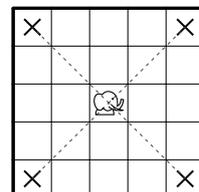
6	1			4			5	7
9	7			6				2
			9	2				
2	9			3			1	6
			6	4				
3				9			2	8
1	6			2			9	5

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

7.15 9 × 9 Anti-elephant Sudoku

60 points

9 × 9 Classic Sudoku rules apply. Additionally, each pair of cells that are a Chinese chess elephant's move away must contain different numbers. An elephant's move is 2 cells on a diagonal.



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

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

7.16 9 × 9 Odd Labyrinth + Killer Sudoku

60 points

9 × 9 Classic Sudoku rules apply. Additionally, the following rules apply.

- **Odd Labyrinth:** There must be at least one path that runs from the left top corner to the right bottom corner over cells that contain odd numbers. This path can only travel horizontally and vertically.
- **Killer:** The clue in each cage indicates the sum of all numbers in the corresponding cage. Numbers must not repeat within the same cage.

①		²¹		4		¹⁰		8
	2						3	
²⁵		3		¹⁶		5	¹¹	
			4					
4		¹¹		5	¹²			6
			¹⁵	6		¹⁷		
¹²		1				7		
	6	²⁵			¹¹		8	
2				6				⑨

①	5	²¹	7	3	4	2	¹⁰	6	9	8	
9	2	6	5	1	8	4	3	7			
²⁵	8	4	3	6	¹⁶	9	7	5	¹¹	2	1
6	7	8	4	2	9	1	5	3			
4	1	¹¹	2	8	5	¹²	3	9	7	6	
5	3	9	1	¹⁵	7	6	8	¹⁷	4	2	
¹²	3	9	1	2	8	4	7	6	5		
7	6	²⁵	5	9	3	¹¹	1	2	8	4	
2	8	4	7	6	5	3	1	⑨			

7.17 9 × 9 Non-consecutive Sudoku

60 points

9 × 9 Classic Sudoku rules apply. Additionally, numbers placed in two cells that share an edge must not be consecutive.

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

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

7.18 9 × 9 Thermo + Pirate Sudoku

65 points

9 × 9 Classic Sudoku rules apply. Additionally, the following rules apply.

- **Thermo:** Some thermometer shapes are in the grid. Numbers must be strictly increasing from the bulb to the flat end.
- **Pirate:** The number 5 must not be orthogonally adjacent to any number 6 to 9.

		7		9				
				6		9		
			7				2	
6		8				7		9
	4			6				
		4		7				
			8		6			

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

7.19 9 × 9 Arrow Sudoku

80 points

9 × 9 Classic Sudoku rules apply. Additionally, some arrow shapes are in the grid. The sum of the numbers along the path of each arrow must equal the number in the circled cell. Numbers can repeat within an arrow shape.

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

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

7.20 9 × 9 Thermo Sudoku

90 points

9 × 9 Classic Sudoku rules apply. Additionally, some thermometer shapes are in the grid. Numbers must be strictly increasing from the bulb to the flat end.

	1					5		
8								7
			4					
9								1
	7						2	

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

7.21 9 × 9 Windoku (Liar)

120 points

9 × 9 Classic Sudoku rules apply. Additionally, four 3 × 3 regions are marked. Three marked region contains each number from 1 to 9 exactly once. **However**, one marked region is a **liar** and contains at least one repeated number.

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

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

7.22 9 × 9 Partitioned Sums Sudoku

150 points

9 × 9 Classic Sudoku rules apply. Additionally, clues outside the grid indicates the sum of the number(s) in the respective row or column, when the row or column is partitioned at certain points (not given), in the correct order. Clues are either given for the entire row or column, or not given at all.

			23			9			30			12
			7			13			5			13
			15			23			10			20

7	8	14	16			3				9		
					2						8	
				1								7
							7					
7	14	8	16					8				
									9			
				4								1
					5						2	
8	16	7	14			6				3		

			23			9			30			12
			7			13			5			13
			15			23			10			20

7	8	14	16	7	4	3	1	6	8	9	5	2
				6	2	9	5	4	7	1	8	3
				1	8	5	3	9	2	6	4	7
				9	6	8	7	5	1	2	3	4
7	14	8	16	2	1	4	6	8	3	5	7	9
				5	3	7	4	2	9	8	1	6
				4	9	2	8	3	5	7	6	1
				3	5	1	9	7	6	4	2	8
8	16	7	14	8	7	6	2	1	4	3	9	5



Round 8: Elephant Park

16:30–17:30

2400 points

60 mins

8.1	9 × 9 Anti-knight Sudoku	160 points
8.2	9 × 9 Argyle Sudoku	160 points
8.3	9 × 9 Battenburg Sudoku	160 points
8.4	9 × 9 Coded Sudoku	160 points
8.5	9 × 9 Diagonal Sudoku	160 points
8.6	9 × 9 Even Sandwich Sudoku	160 points
8.7	9 × 9 Greater Than Sudoku	160 points
8.8	9 × 9 “Hexagon” (Straightened) Sudoku	160 points
8.9	9 × 9 Irregular Sudoku	160 points
8.10	9 × 9 Killer Sudoku	160 points
8.11	9 × 9 Next-to-9 Sudoku	160 points
8.12	9 × 9 Odd/Even Sudoku	160 points
8.13	9 × 9 Outside Sudoku	160 points
8.14	9 × 9 Quadruple (Incomplete) Sudoku	160 points
8.15	9 × 9 XV Sudoku	160 points

The elephant is the national animal of Thailand. Elephants were once the powerful tanks of the Thai military, carrying kings into battle. Later, they worked in the logging industry, using their strength to move heavy timber through forests. Nowadays, they serve as Thai cultural icons, focusing on tourism and conservation.

In the action movie Tom Yum Goong, the protagonist Tony Jaa aggressively shouts “chang gu yu nai!?” (where is my elephant!?)” before diving into many of his fight scenes. In this round, teams will have to identify elephants hidden in the Sudoku grids.

Each puzzle has one shaded shape, the **elephant**, which is identical across all 15 puzzles, without rotation or reflection. There is one way to separate the puzzles into 5 groups containing 1, 2, 3, 4, and 5 puzzles, respectively, so that each group can be solved while applying the following rule:

- **Group Clone:** all elephant shapes in puzzles in the same group have the same numbers in the corresponding cells.

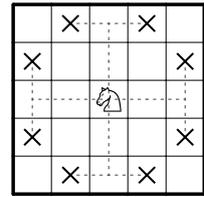
There is no restriction on shapes across different groups.

At the start of the round, teams will receive all puzzles, each on a separate sheet of paper, and one extra sheet of paper with 15 blank copies of the elephant shape. Only the puzzle sheets are graded; the extra sheet is only intended to be used as solving aid. There are no points given specifically for identifying the groups.

8.1 9 × 9 Anti-knight Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, each pair of cells that are a chess knight's move away must contain different numbers. A knight's move is 2 in a line and 1 to the side.



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

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

8.2 9 × 9 Argyle Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, numbers must not repeat in any of the marked diagonals.

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

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

8.3 9 × 9 Battenburg Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, each 2 × 2 area with two odd numbers and two even numbers forming a checkerboard pattern is marked with a battenburg symbol. All such 2 × 2 areas are marked.

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

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

8.4 9 × 9 Coded Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, some cells contain letters. All cells with the same letter must have the same number placed, and all cells with different letters must have different numbers placed.

	6			^B	2			
					^o	9		
		4	^o			^x	5	
^x	7	2			3			
				1				
			5			4	3	^x
8	^B				^o	7		
	4	^o						
		9	^x				5	

1	6	3	9	8	^B 5	2	7	4
5	8	7	2	6	4	^o 1	9	3
2	9	4	^o 1	3	7	8	^x 6	5
^x 6	7	2	4	9	3	5	1	8
4	3	5	8	1	6	9	2	7
9	1	8	5	7	2	4	3	^x 6
8	^B 5	6	3	2	^o 1	7	4	9
3	4	^o 1	7	5	9	6	8	2
7	2	9	^x 6	4	8	3	5	1

8.5 9 × 9 Diagonal Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, each number appears exactly once in the each of the two main diagonals.

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

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

8.6 9 × 9 Even Sandwich Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, clues outside the grid indicate all numbers in that row or column surrounded by even numbers on both sides ("sandwiched"). Clues can be given in any order, and all such numbers are given. If a clue is a '-', then no values in that row or column are sandwiched between two even numbers.

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

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

8.7 9 × 9 Greater Than Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, numbers must follow the given inequality signs.

	<			4			1	2
v	^						4	3
			<		3	9		
			>		9	3		
6								5
		5	6					
		4	7		v	^		
8	1							<
5	7			1			v	>

3	<	5	9	8	4	7	6	1	2	
v	^	2	6	8	1	9	5	7	4	3
7	4	1	<	2	6	3	9	5	8	
1	8	7	>	4	5	9	3	2	6	
6	9	2	3	7	1	4	8	5		
4	3	5	6	2	8	1	9	7		
9	2	4	7	8	6	>	5	3	1	
8	1	6	5	3	4	2	7	<	9	
5	7	3	9	1	2	8	6	>	4	

8.8 9 × 9 “Hexagon” (Straightened) Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, numbers must not repeat in any of the marked diagonals.

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

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

Elephants do not like bees much.

8.9 9 × 9 Irregular Sudoku**160 points**

Fill each empty cell with numbers from 1 to 9 so that each row, column, and outlined region contains each number from 1 to 9 exactly once.

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

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

8.10 9 × 9 Killer Sudoku**160 points**

9×9 Classic Sudoku rules apply. Additionally, the clue in each cage indicates the sum of all numbers in the corresponding cage. Numbers must not repeat within the same cage.

See example in Round 7.

8.11 9 × 9 Next-to-9 Sudoku**160 points**

9×9 Classic Sudoku rules apply. Additionally, clues outside the grid indicate all numbers that sit next to 9 in that row or column. Clues can be given in any order.

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

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

8.12 9 × 9 Odd/Even Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, the numbers in cells marked with circles are odd, and the numbers in cells marked with squares are even.

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

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

8.13 9 × 9 Outside Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, clues outside the grid must appear within the first 3 cells in the corresponding direction.

See example in Round 7.

8.14 9 × 9 Quadruple (Incomplete) Sudoku

160 points

9 × 9 Classic Sudoku rules apply. Additionally, numbers in the each clue at the intersection of four cells must appear in those cells at least as many times as they do in the clue.

				1			3	2
○ ₄₇ ○ ₈₉							4	5
				4	7			
		○ ₃₅ ○ ₉₂		6	5			
9								8
		1	2					
		4	3		○ ₇₈ ○ ₈			
1	7							○ ₄₅ ○ ₆₇
3	5			6				

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

8.15 9 × 9 XV Sudoku

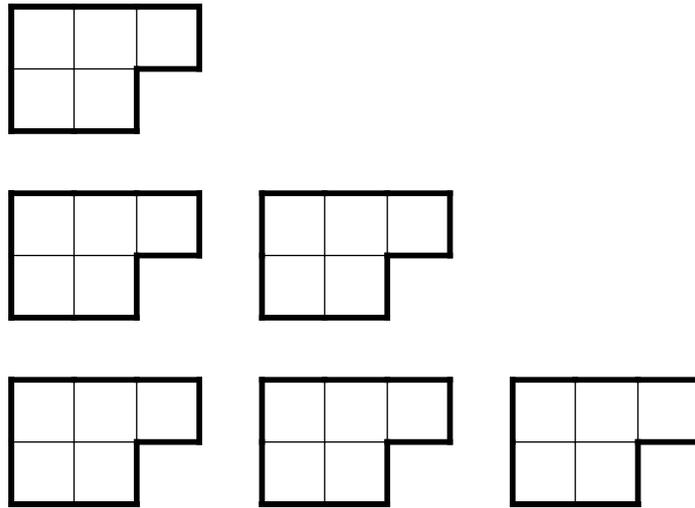
160 points

9 × 9 Classic Sudoku rules apply. Additionally, orthogonally adjacent cells with numbers summing to 5 are marked by V. Orthogonally adjacent cells with numbers summing to 10 are marked by X. All possible V and X are marked; that is, orthogonally adjacent cells without such marks sum to a number other than 5 and 10.

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

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

The example is a smaller set of puzzles, consisting of 6 puzzles to be separated into 3 groups containing 1, 2, and 3 puzzles, respectively. The elephant shape in this example may be identical or different from the elephant shape in the actual round.



9 × 9 Greater Than Sudoku

					2	7
	>	>	>	<		6
^				^		1
^				v		5
^	<	<	>		4	3
						7
3			2			6
	2	5	1		3	
5	7		3		1	4

9 × 9 XV Sudoku

v						
	v		x			v
	x		x	v		x
v					v	x
					x	v
	x		v	x	x	x
x	v		x	x	v	x
		v		x		
	x					x

9 × 9 Classic Sudoku

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

9 × 9 Anti-knight Sudoku

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

9 × 9 Diagonal Sudoku

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

9 × 9 Odd/Even Sudoku

5			4			8		
		3			9			6
	2			7		1	3	
1			3			9		8
		8		●	■	●	■	●
	4			■	■	■	■	■
6		4	7	●	□	○	■	●
		7		■	●	■	●	3
	8		5				2	

9 × 9 Greater Than Sudoku

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

9 × 9 XV Sudoku

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

9 × 9 Classic Sudoku

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

9 × 9 Anti-knight Sudoku

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

9 × 9 Diagonal Sudoku

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

9 × 9 Odd/Even Sudoku

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