

2024
JAPAN

ASIAN SUDOKU
CHAMPIONSHIP

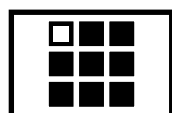
INSTRUCTION BOOKLET

master



SCHEDULE

January 28th

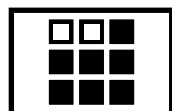


09:00-09:40

Individual
Round 1

Classics (400pts)

.....p. 06

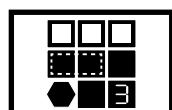


09:50-10:40

Individual
Round 2

Standard (500pts)

.....p. 08



10:50-11:40

Individual
Round 3

Varieties (500pts)

.....p. 13

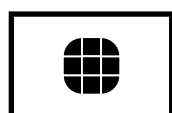


11:50-12:35

Individual
Round 4

Double (500pts)

.....p. 18

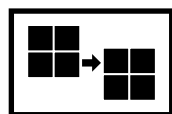


14:00-15:00

Individual
Round 5

Japanese (650pts)

.....p. 25



15:10-16:10

Individual
Round 6

Relay (600pts)

.....p. 33



16:35-17:00

Team
Round 7

Dominoes Complete (1000pts)

.....p. 38



17:10-18:00

Team
Round 8

Mt. Fuji (2100pts)

.....p. 42

Competition Rules

(These rules have been mostly taken from prior World Sudoku Championships with only minor adaptations.)

Individual Competition

The individual competition is based on 6 rounds. The first round features classic sudoku, other rounds feature varying sudoku.

The total sum of scores from the individual rounds will be used to determine the top three competitors in each category at 2024 Asian Sudoku Championship.

In the case of a tie, rankings will be broken based on considering scores in round 5, then 1, 2, 3, 4, 6 with a tie broken by the first round with a different result. If needed, a special tie-breaking puzzle will be used.

Team Competition

Teams of four players will be challenged by a total of two team rounds. These rounds come in multiple styles that will require strong teamwork and sudoku solving skills to do well.

The total sum of scores from the team rounds will be used to determine the top three teams in each category at 2024 Asian Sudoku Championship.

Individual results will not be taken into consideration.

In the case of a tie, rankings will be broken based on considering scores in round 8, then 7 with a tie broken by the first round with a different result.

Marking and Bonus

Points will be awarded only for correctly solved puzzles unless otherwise indicated (the few exceptions are in Individual Round 6.)

In Individual rounds, if a player finishes all puzzles correctly then a bonus of 10 points per minute will be awarded for each full minute saved.

In team rounds, a bonus of 40 points per minute will be awarded to teams for each full minute saved.

If a single "minor" error (as determined by the judges) is present in a round submitted for bonus, 60% of time bonus may still be awarded to the competitor or team.

Competition Hall Rules

1. All competitors have to sit at their pre-allocated desk in individual rounds. Teams have to work at their pre-allocated desk area for team rounds.
2. Prior to the start of each round, 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 have to keep silent, unless declaring completion of a round.
6. During team rounds, team members may talk to each other, but should do this with respect to other teams.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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 or tables in order to cause no unnecessary disruption to fellow competitors.
12. 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).
13. When the signal is given that the round is finished, competitors have to stop solving immediately, 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.
14. 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.
15. 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.
16. 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 which can be used in the competition hall are: pens and pencils (except that no red pens or pencils can be used), 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, so as not to block the aisles.

Marking and Queries

1. When a round has been evaluated, fully marked booklets are returned to each competitor and team with a name tag at a given location in a given time.
2. In case of any query after a booklet has been evaluated and returned to a competitor, the query must be raised to the organizers in the specified time. The schedule for the queries will be published before the competition. The booklet should be left with the organizers for investigation.
3. Puzzles may be photographed during the marking phase in order to prevent subsequent interventions.
4. Any breach of these rules may lead to penalty points, or in severe cases to a competitor or team being disqualified from the round or competition.
5. If there is any inconsistency between this Instruction Booklet and the official puzzle booklets, such as puzzle points, the information in the printed Instruction Booklet given out to competitors in Shizuoka will be considered valid.
7. The decision of the ASC tournament director (Kota Morinishi) is final.

Credits

We would like to thank the many past WSC/SGP(World Sudoku Grand Prix) hosts and Japanese domestic qualifying tournaments by JPF (Japan Puzzle Federation) for some of the rules and structure that inspired our tournament.

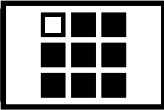
Puzzles for the ASC were created by the following designers in alphabetical order (authors will be listed in the solutions booklet only, not in the competition booklet):

Kazuya Yamamoto, Kota Morinishi, Masatoshi Kengo, Minako Sakai, Nikoli, Shinichi Aoki, Shinya Tamori, Soji Kubota, Takashi Yamazaki, Takemasa Aoki, Tomoya Kimura, Yosuke Imai, Yukari Nishiyama, Yuki Kawabe, Yukio Sugimoto.

Puzzles for the ASC were checked by the following designers in alphabetical order:

David Jones(CAN), Hideaki Jo(JPN), Takuya Sugimoto(JPN), Tiit Vunk(EST), Tom Collyer(GBR).

Puzzles for the ASC were designed by Mitsuhiro Ase.



09:00-09:40

40 minutes

R1. Classics

master

1 Classic	10	7 Classic	50
2 Classic	15	8 Classic	50
3 Classic	15	9 Classic	50
4 Classic	20	10 Classic	70
5 Classic	20	11 Classic	80
6 Classic	20		400 pts.



1 ~ 11

Classic

10,15,15,20,20,20,
50,50,50,70,80

RULE

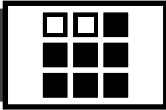
Place a digit from 1-N(N is the size of each grid) in each empty cell in the grid such that each row, column and marked box contains each digit exactly once.

2			1		
	1			2	
			3		
		4			
	5			4	
		6			3

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

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

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



09:50-10:40

50 minutes

R2. Standard

master

1 Diagonal	30	5 Irregular	90
2 Inequality	35	6 Coded -Duplication allowed-	110
3 Consecutive	45	7 Pencilmark	120
4 Quadruple	70		500 pts.



1 Diagonal

30

RULE

Apply Classic Sudoku rules.

Every marked diagonal line contains each digit no more than once.

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

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

2 Inequality

35

RULE

Apply Classic Sudoku rules.

If there is an inequality relation marked between two cells then the digits placed in the cells should obey the relation.

			>		>
> 2			<		
			4 >		
	< 3				
	<			5 <	
<		<			

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



3 Consecutive

45

RULE

Apply Classic Sudoku rules.

In all cases where two neighbouring cells contain consecutive digits, a grey bar is placed between those cells.

			2					
	8							
								4
							8	

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

4 Quadruple

70

RULE

Apply Classic Sudoku rules.

Each digit at the intersection of four cells must be present in at least one of those four cells. If a digit is repeated in the clue, it must appear twice in the surrounding cells.

		248	1234			14	68	
		345	468			37	67	
		26	49			246	369	
		49	79			5678	789	

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



5 Irregular

90

RULE

Place a digit from 1-9 in each empty cell in the grid such that each row, column and marked 9-cell region contains each digit exactly once.

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

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

6 Coded -Duplication allowed-

110

RULE

Apply Classic Sudoku rules.
 The same letters correspond to the same digits.
 Multiple letters may correspond to the same digits.

^A	6		^B	2	
3	^C			^D	5
		^B			^D
^C			^E		
5	^E			^B	6
	3	^A		4	^E

^A 1	6	5	^B 3	2	4
3	^C 4	2	6	^D 1	5
2	5	^B 3	4	6	^D 1
^C 4	1	6	^E 2	5	3
5	^E 2	4	1	^B 3	6
6	3	^A 1	5	4	^E 2



7 Pencilmark

120

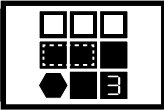
RULE

Apply Classic Sudoku rules.

Also, only numbers that are among the given candidates can be entered in a cell.

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

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



10:50-11:40

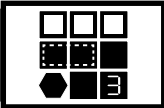
50 minutes

R3. Varieties

master

1 Select Consecutive	20	5 Letter	55
2 Select Killer	35	6 Hex	65
3 Isodoku	45	7 Domino Search	105
4 Odd Pentominoes	50	8 Digital	125

500 pts.



1 Select Consecutive

20

RULE

Apply Consecutive Sudoku (i.e., in Round 2) rules.
 Additionally, exactly 6 numbers from 0 to 9 must be used.

	8				
2		6			
	4				
			5		
		2			8
			4		

4	8	5	6	0	2
2	0	6	4	8	5
5	4	0	8	2	6
8	6	2	0	5	4
0	5	4	2	6	8
6	2	8	5	4	0

2 Select Killer

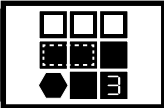
35

RULE

Apply Killer Sudoku (i.e., in Round 5) rules.
 Additionally, exactly 6 numbers from 0 to 9 must be used.

		0			
3				16	
		10			
	8				12
			5		

7	9	0	1	5	2
3	1	2	5	9	16
0	5	10	2	7	9
9	8	7	1	0	12
5	1	9	2	0	7
2	0	7	5	1	9



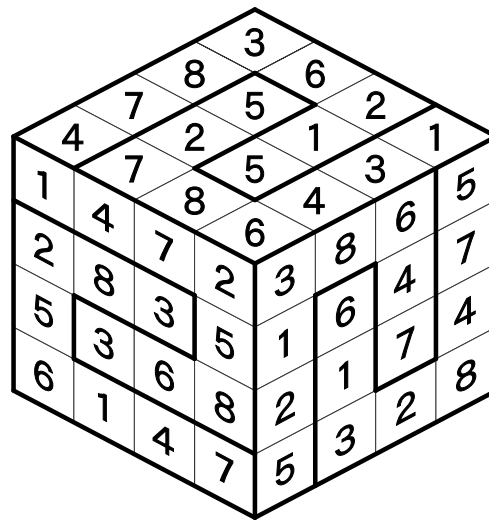
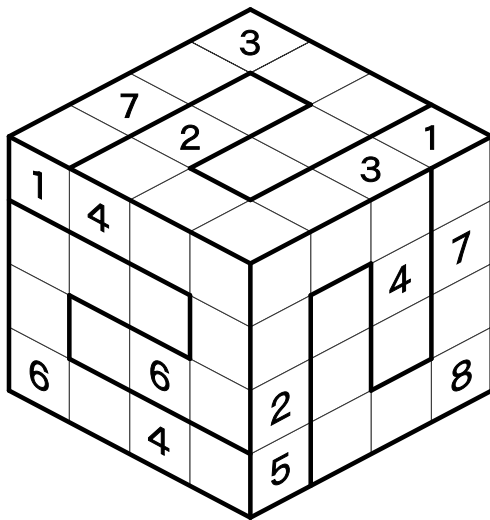
3 Isodoku

45

RULE

Apply classic Sudoku rules.

Rows in Isodoku pass through opposite parallel sides of each quadrilateral; in other words, the rows bend across the surface of the apparent cube(s) to travel in a "straight" line.



4 Odd Pentominoes

50

RULE

Apply Classic Sudoku rules.

All cells with odd digits must be a part of pentominoes consisting of exactly 5 cells with odd digits. The odd pentominoes then may touch each other at the corners, but not at the edges.

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

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



5 Letter

55

RULE

Place a letter in each empty cell in the grid such that each row, column and marked 3x3 box contains the same set of letters. There are no repeated letters in the set.

W				N	F			
	O				D	L		
		N					O	
			D				E	F
O				E				W
L	U				R			
	L					F		
		R	E				U	
			N	O				L

W	R	L	O	N	F	E	D	U
E	O	U	W	R	D	L	F	N
F	D	N	L	U	E	W	O	R
R	N	W	D	L	O	U	E	F
O	F	D	U	E	N	R	L	W
L	U	E	F	W	R	O	N	D
N	L	O	R	D	U	F	W	E
D	W	R	E	F	L	N	U	O
U	E	F	N	O	W	D	R	L

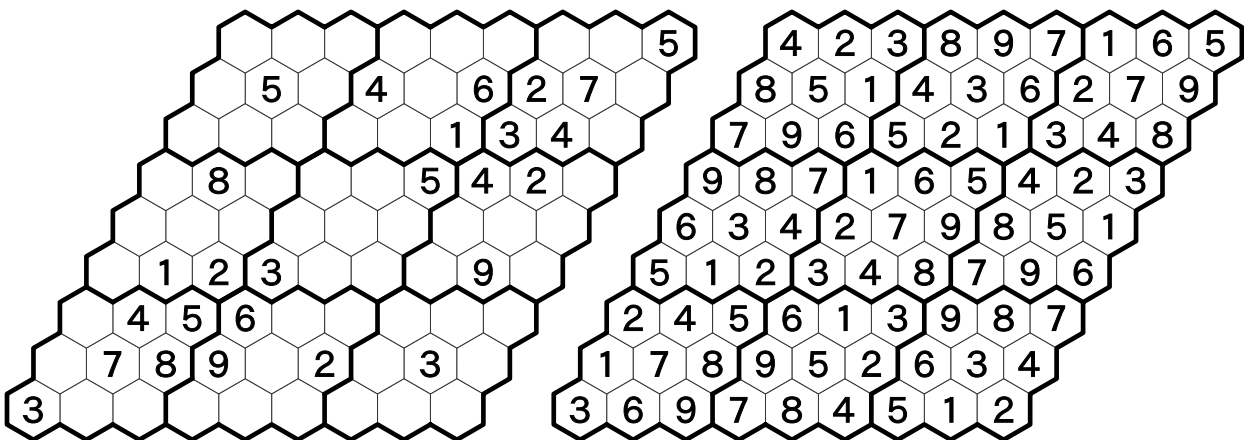
6 Hex

65

RULE

Apply Classic Sudoku rules.

Digits do not repeat along any of the three directions in which the hexagonal cells share edges.





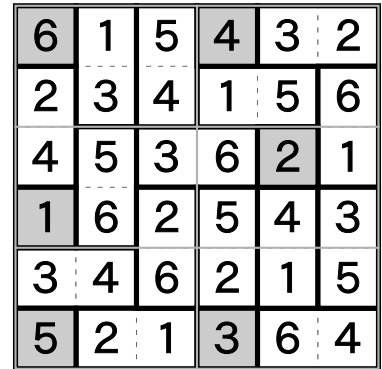
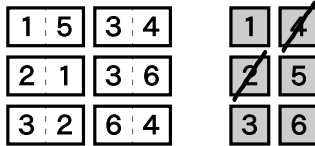
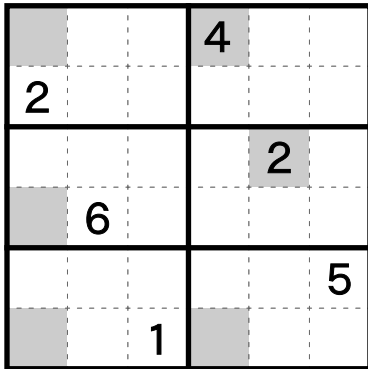
7 Domino Search

105

RULE

Apply Classic Sudoku rules.

All dominoes (2 cells) and all half-dominoes (1 cell) in the list are to fill without rotating, reflection, and overlapping. The gray cells must be filled with half-dominoes.



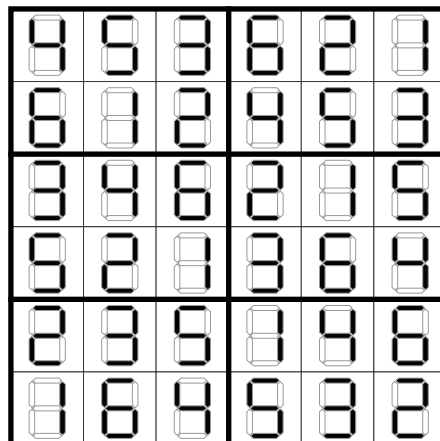
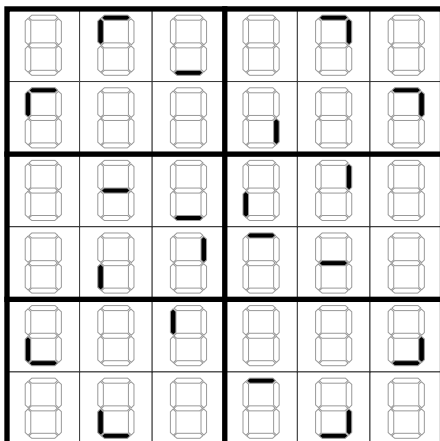
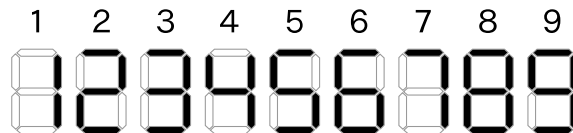
8 Digital

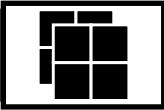
125

RULE

Apply Classic Sudoku rules.

The given segments must be completed to form a number, as displayed in the given string.





11:50-12:35

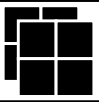
45 minutes

R4. Double

master

1 Double Up	35	6 Overlapping	55
2 Kropki	40	7 Sudoku +2	60
3 Twin Clones	40	8 Hidden Clones	70
4 Extra Large Regions	40	9 Duplicated Killer	110
5 Double Scattered	50		

500 pts.



1 Double Up

35

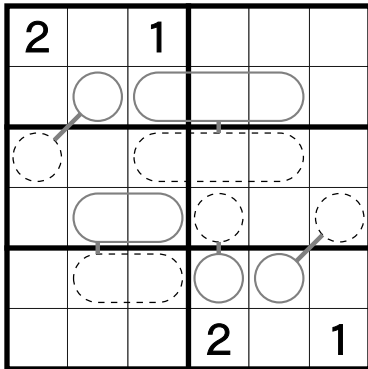
RULE

Apply Classic Sudoku rules.

A solid line cage and a dotted line cage are connected with the grey line.

The number in the solid line cage must be twice as large as the number in the dotted line cage.

All numbers in cages are read from left to right.



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

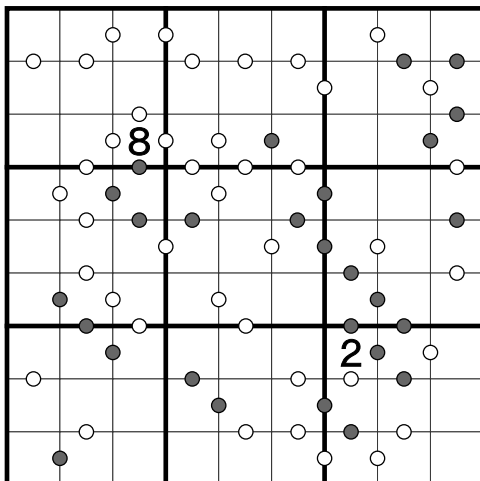
2 Kropki

40

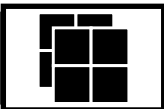
RULE

Apply Classic Sudoku rules.

Adjacent cells containing digits whose difference is 1 are marked with a white circle. Adjacent cells containing digits whose ratio is 2 are marked with a black circle. Adjacent cells with no marking must not contain digits either whose difference is 1 or whose ratio is 2.



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



3 Twin Clones

40

RULE

Apply Classic Sudoku rules.

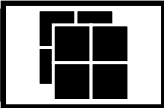
Additionally, the numbers in each shaded region in the first grid must correspond exactly (i.e., be like clone as in Round 5) to another shaded region in the second grid. Regions cannot be rotated or reflected.

		1			
	2				
3					
					4
				5	
			6		

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

		5			
	6				
1					
					3
				2	
			4		

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



4 Extra Large Regions

40

RULE

Apply Classic Sudoku rules.

Every marked region must contain each digit from 1-N exactly twice.

	2				
		3			1
				2	
	1				
5			4		
				3	

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

5 Double Scattered

50

RULE

Place the digits from 1-N in every row, column and bold outlined area and twice in the grey cells.

1					
2					
3					
					3
					4
					5

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



6 Overlapping

55

RULE

Apply Classic Sudoku rules.
Additionally two grids are overlapping.

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

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

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

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



7 Sudoku +2

60

RULE

Apply Classic Sudoku rules.

In all cases where the difference between two neighbouring cells is 2, a bar is placed between those cells.

						2		
						9		
			2					
			8					
		5						
		2						

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

8 Hidden Clones

70

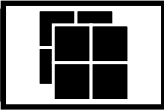
RULE

Apply Classic Sudoku rules.

An exact copy (without reflecting or rotating) of the grey shapes must be placed at least once elsewhere in the grid, including the digits it contains. These cloned shapes may not overlap each other or the original shapes. Digits may repeat within a region.

		4			
	2		6		
3				4	
	6		5		
		6			

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



9

Duplicated Killer

110

RULE

Apply Classic Sudoku rules.

The sum of digits in each cage is equal to the number in the upper left corner of the cage.

Only one type of digits in the cage must be used twice; other digits must not be repeated.

¹⁶		4	¹⁵		
	¹⁷		¹⁴		6

5	2	3	1	4	6
¹⁶ 4	6	⁴ 1	¹⁵ 3	5	2
6	1	2	4	3	5
3	¹⁷ 5	4	¹⁴ 2	6	⁶ 1
2	3	5	6	1	4
1	4	6	5	2	3



14:00-15:00

60 minutes**R5. Japanese****master**

1 Clone	20	8 Descriptive Pairs	55
2 Arrow	25	9 Even Sandwich	60
3 Equal Sums	30	10 Skyscrapers	65
4 Odd-Even Pairs	30	11 Odd Labyrinth	65
5 Killer	35	12 Japanese Sums	85
6 Search 9	40	13 Clock[0-8]	95
7 Round Off	45		
			650 pts.



1 Clone

20

RULE

Apply Classic Sudoku rules.

Digits in the same place in each shaded figure must be identical.

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

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

2 Arrow

25

RULE

Apply Classic Sudoku rules.

Each digit placed in a cell with a circle must be the sum of the digits placed in the cells that the adjoining arrow passes through. Digits may repeat on arrows.

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

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



3 Equal Sums

30

RULE

Apply Classic Sudoku rules.

In the gray 4 grids, the sum of the top-left and bottom-right numbers equals the sum of the top-right numbers and bottom-left.



$$A + D = B + C$$

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

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

4 Odd-Even Pairs

30

RULE

Apply Classic Sudoku rules.

Exactly one odd and one even digit must be placed in each marked pair of adjacent cells.

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

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



5 Killer

35

RULE

Apply Classic Sudoku rules.

The digits placed in each marked cage must sum to the total given in its top-left corner. Digits must not repeat in cages.

		13		11				1
					2			
3		3	15		20			14
						4		
29				5				
	6	7			24			8
						7		
			8	22				
9					4			

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

6 Search 9

40

RULE

Apply Classic Sudoku rules.

Some arrows which point to the digit 9 are marked in the grid. The digit in the cell with the arrow is the distance from this cell to the nearest 9.

			3		←			
	3			5		2		
	↑	7		→		8		
	7		2		8		↓	
8			↖					9
↖			3		6			8
		3			6			
	6	↖	5	↑		7	←	
				7				

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



7 Round Off

45

RULE

Apply Classic Sudoku rules.

Each cage clue indicates the value of rounding off the two-digit number within that cage to the nearest multiple of 10. Numbers ending digits 1-4 are rounded down, while numbers ending in digits 5-9 are rounded up.

20						80		
	7	3			2		6	
6			8			1		
	4	2			6		5	
	60					70		
	8		4			7	3	
		1			9			6
	2		6		30		9	7
80								20

20	2	1	4	9	6	7	5	80	8	3	
	8	7	3	50	5	1	2	4	6	9	
	6	9	5	8	4	3	1	2	7		
	9	4	2	3	7	6	8	5	1		
	3	60	5	7	1	2	8	70	6	9	4
	1	8	6	4	9	5	7	3	2		
	5	3	1	7	8	9	2	4	6		
	4	2	8	6	30	3	1	9	7	5	
80	7	6	9	2	5	4	3	20	1	8	

8 Descriptive Pairs

55

RULE

Apply Classic Sudoku rules.

For every pair of clues (X and Y) outside the grid at least one of the following is true:

- 1) X is in the Yth position in that direction;
- 2) Y is in the Xth position in that direction.

	11	22	46	25	12	66	35	45	58	
34										36
16										24
45										58
44										24
13										49
13										58
23										37
47										18
56										13
	25	33	18	46	27	15	78	28	36	

	11	22	46	25	12	66	35	45	58	
34	1	6	4	3	2	8	5	9	7	36
16	8	2	7	5	9	1	6	4	3	24
45	9	5	3	6	4	7	8	1	2	58
44	7	8	6	4	3	2	9	5	1	24
13	2	4	1	7	5	9	3	6	8	49
13	3	9	5	1	8	6	2	7	4	58
23	5	3	9	8	1	4	7	2	6	37
47	6	1	2	9	7	3	4	8	5	18
56	4	7	8	2	6	5	1	3	9	13
	25	33	18	46	27	15	78	28	36	



9

Even Sandwich

60

RULE

Apply Classic Sudoku rules.

The clues outside the grid indicate all digits (not necessarily in the given order) which have two even digits as immediate neighbours in the corresponding row and column. If a Hyphen is clued outside the grid, then its two immediate neighbours in that row or column must not both be even.

1
3 5 3
6 5 5 7 7 - 4 - 1

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

1
3 5 3
6 5 5 7 7 - 4 - 1

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

10

Skyscrapers

65

RULE

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.

4 4 3 2 2 1 4 2 2

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

4 4 3 2 2 1 4 2 2

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



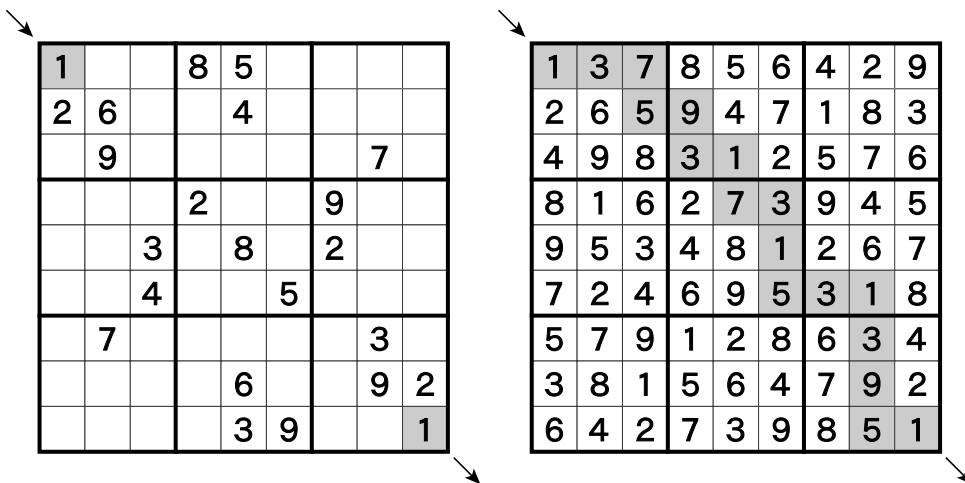
11 Odd Labyrinth

65

RULE

Apply Classic Sudoku rules.

Additionally, there must be at least one path from the top left cell to the bottom right cell which passes orthogonally through only odd digits.



12 Japanese Sums

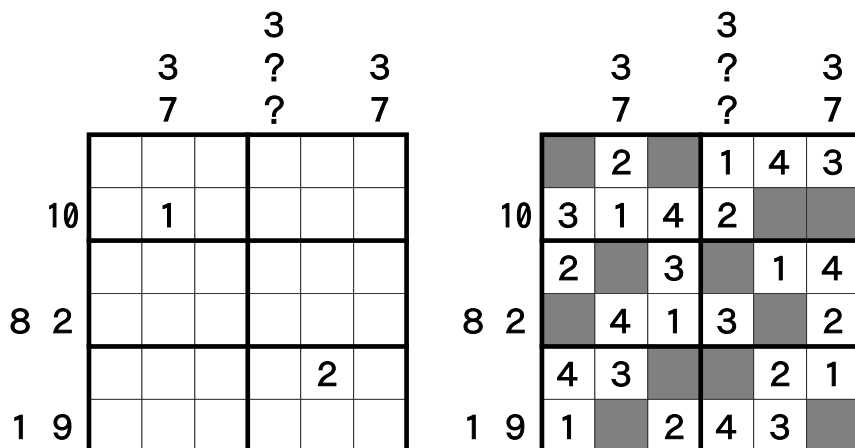
85

RULE

Each row and column and blocks fills the digits from 1 to N-2 and 2 shaded cells.

Shade some cells such that clues outside the grid indicate the sums of digits in contiguous sets of unshaded cells in the corresponding row or column, where each question mark represents a number (1-28).

The individual sets of unshaded cells have to be separated by at least one shaded cell.





13 Clock[0-8]

95

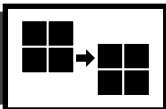
RULE

Apply Classic Sudoku rules with using digits 0-8.

Some digital clocks are shown. When the puzzle is completed, all clocks should display a valid time in 24-hour format (HH:MM, 00:00-23:59)

	0				6	
8		1				3
			2			
	8					
3		5			1	4
						5
				4		
4					3	7
	6					8

5	0	2	3	4	7	8	6	1
8	4	1	0	6	5	2	7	3
6	3	7	2	1	8	5	4	0
0	8	6	4	5	1	7	3	2
3	7	5	6	8	2	1	0	4
1	2	4	7	0	3	6	5	8
7	1	8	5	3	4	0	2	6
4	5	0	8	2	6	3	1	7
2	6	3	1	7	0	4	8	5



15:10-16:10

60 minutes

R6. Relay

master

1 Irregular Relay	40	5 Outside Relay	100
2 Unequal Relay	40	6 Arrow Relay	110
3 Unordered Relay	50	7 N-Consecutive Relay	170
4 Odd/Even Relay	90		

600 pts.

Whole Rule

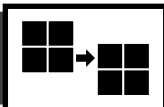
All puzzles are the relays of some grids and you can solve by the order of the relay.

In all puzzles except Unequal Relay, some clues are given from the previous grid.

Scoring Rule

Partial points will be given for correctly solved individual grids that are part of the overall solution.

50% will be given if all grids except one grid are correct.



1 Irregular Relay

40

RULE

Place a digit from 1-N(N is the size of each grid) in each empty cell in the grid such that each row, column and marked N-cell region contains each digit exactly once.

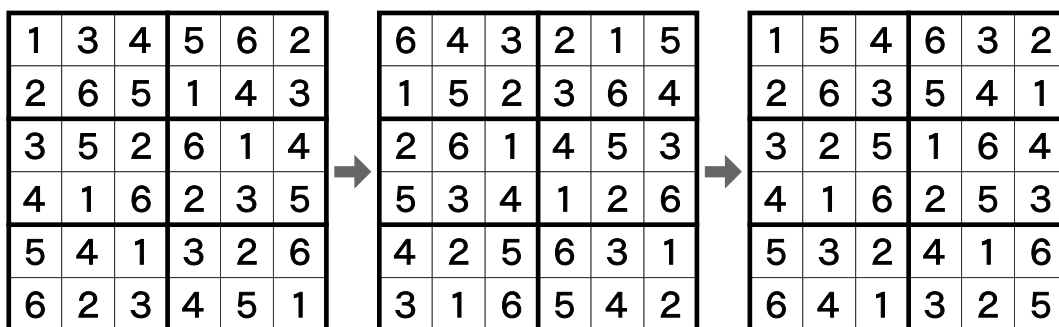
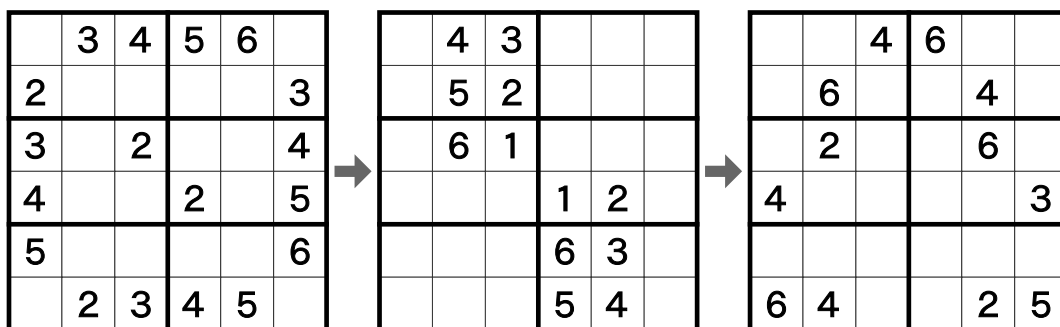
2 Unequal Relay

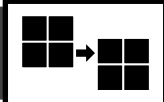
40

RULE

Apply Classic Sudoku Rules.

All digits are different from the digits in the same position on the previous grid.





3 Unordered Relay

50

RULE

Apply Classic Sudoku Rules.

The order of the relay is not cleared except the first and last ones.

In the gray cells, the digits at the same positions of the previous grid are filled.

No. 1 START

		1			
		2			4
	3				6
4				3	
5			6		
			5		

No. ?

		3			
	2				1
4				5	
			3		

No. 1 START

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

No. 3

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

No. ?

		4			2
6					
					3
3			5		

No. 4 FINISH

		5			
2					
	1				
				6	
					4
			3		

No. 2

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

No. 4 FINISH

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

4 Odd/Even Relay

90

RULE

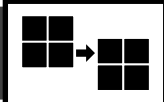
Apply Classic Sudoku rules.

Digits in circles must be odd and digits in squares must be even.

This example is Odd/Even Sudoku.

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

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



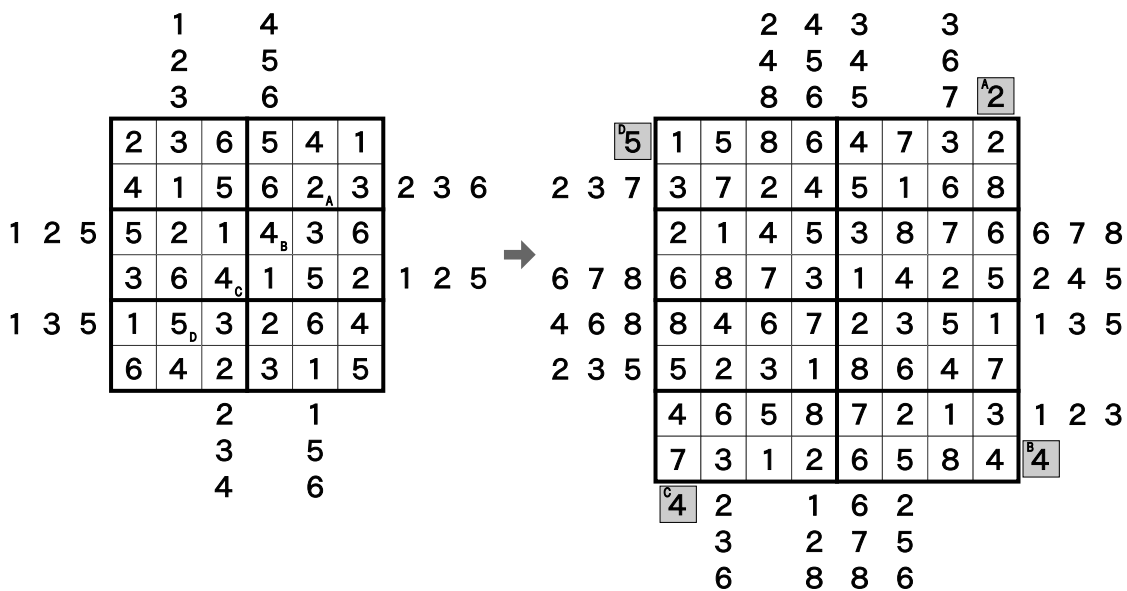
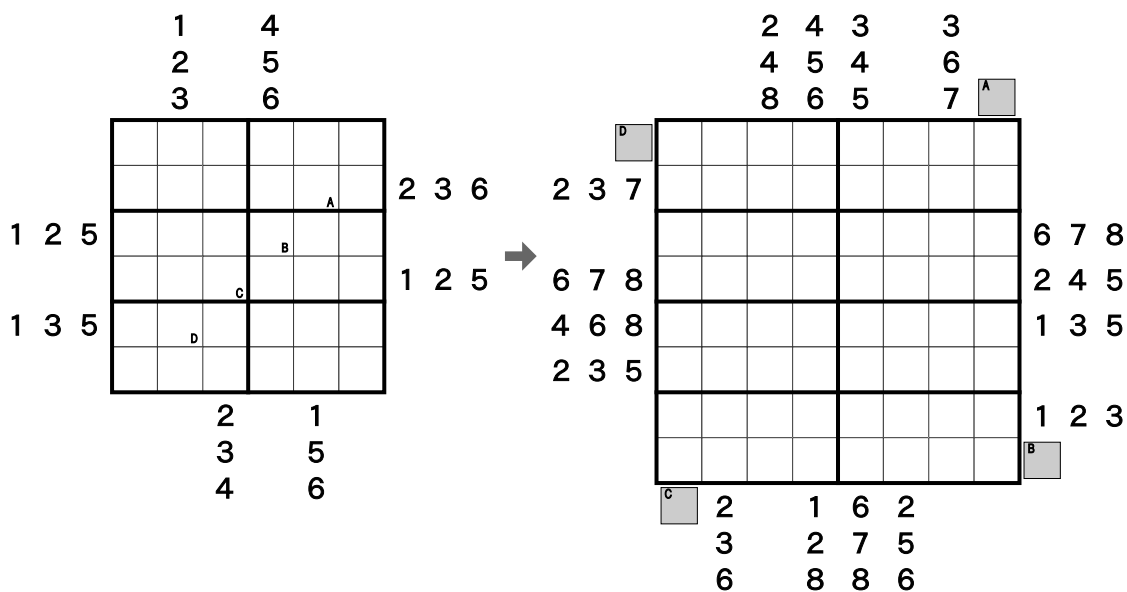
5 Outside Relay

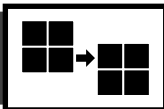
100

RULE

Apply Classic Sudoku rules.

Digits outside the grid must appear within the first three cells in the corresponding direction.





6 Arrow Relay

110

RULE

Apply Classic Sudoku rules.

Each digit placed in a cell with a circle must be the sum of the digits placed in the cells that the adjoining arrow passes through. Digits may repeat on arrows.

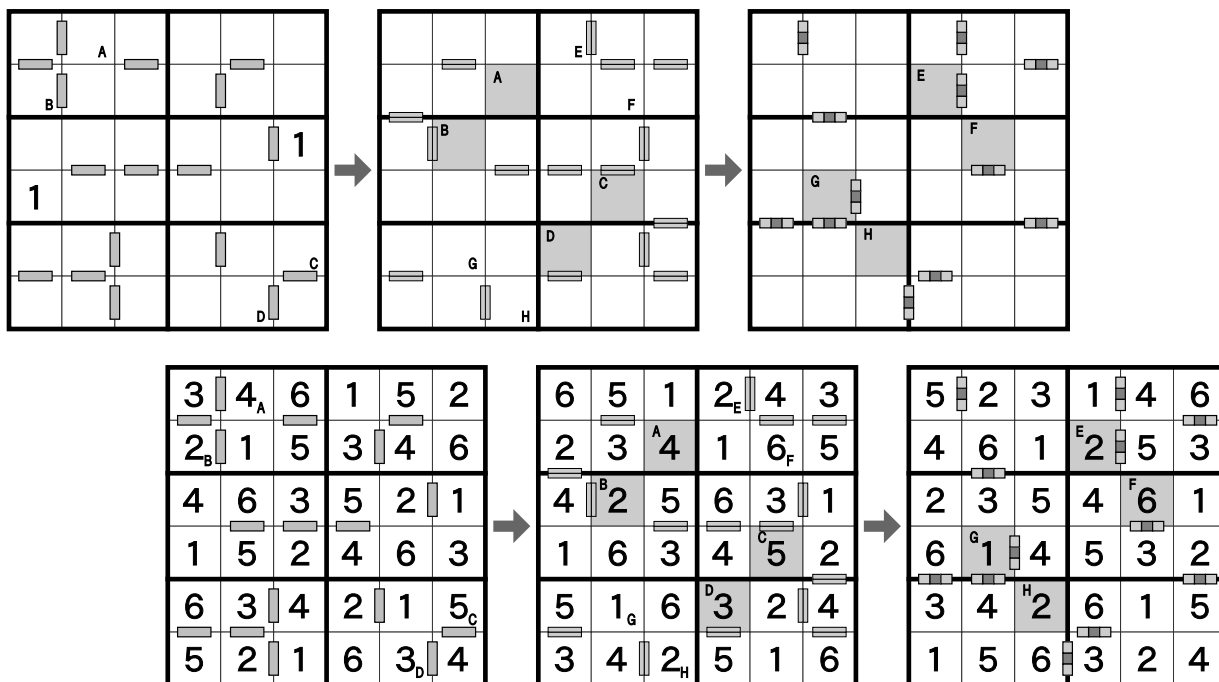
7 N-Consecutive Relay

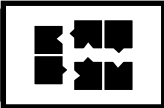
170

RULE

Apply Classic Sudoku rules.

In all cases where the difference of two neighbouring cells equals to N, a grey bar is placed between those cells. N is 1 at the first grid, / 2 at the second grid, / 3 at the third grid.





16:35-17:00

25 minutes

R7. Dominoes Complete **master**

A	All Odd or Even	200
B	All Odd or Even	200
C	All Odd or Even	200

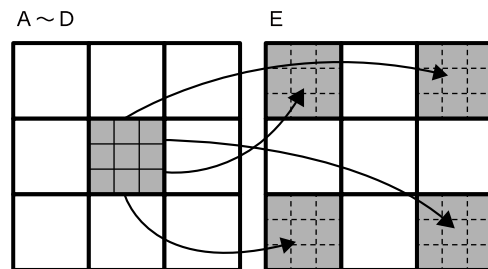
D	All Odd or Even	200
E	Domino Search	200

1000 pts.

Whole Rule

This round consists of 4 "All Odd or Even Sudokus" and 1 "Domino Search Sudoku".

Each CENTER 3x3 box of 4 "All Odd or Even Sudoku" completely matches each 4 corners (upper-left, upper-right, lower-left and lower-right) boxes of 1 "Domino Search Sudoku".





A ~ D All Odd or Even

200 × 4

RULE

Apply Classic Sudoku rules.

Each cage includes only Odd or Even digits.

A

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

B

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

C

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

D

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



Domino Search

200

RULE

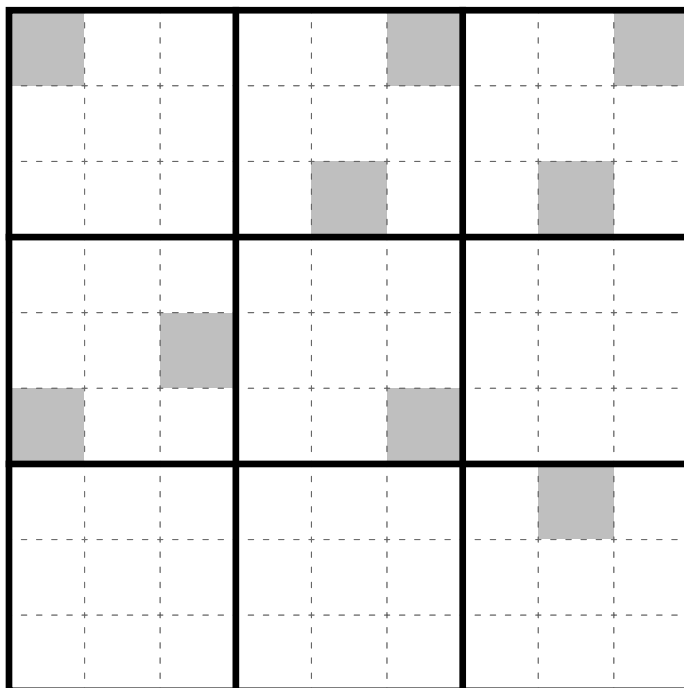
Apply Classic Sudoku rules.

All dominoes (2 cells) and all half-dominoes (1 cell) in the list are to fill without rotating, flipping over, or overlapping.

The gray cells must be filled with half-dominoes.

Note:

As long as all digits are filled completely, the grid will be regarded as the right answer.



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

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

1	4	7
2	5	8
3	6	9



A

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

B

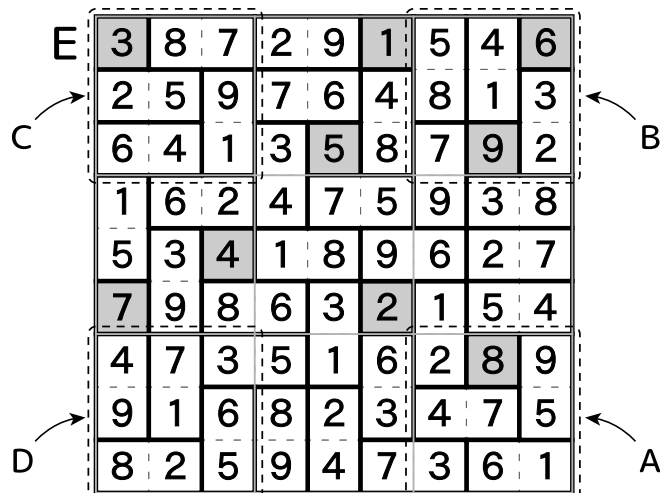
6	3	9	1	2	8	5	4	7
1	4	5	6	7	9	3	2	8
7	8	2	3	5	4	6	1	9
8	1	7	5	4	6	2	9	3
2	9	4	8	1	3	7	6	5
5	6	3	7	9	2	4	8	1
4	2	1	9	3	5	8	7	6
3	7	8	4	6	1	9	5	2
9	5	6	2	8	7	1	3	4

C

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

D

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





17:10-18:00

50 minutes

R8. Mt.Fuji

master

3-digit calculation	150	Irregular	150
Arrow	150	Killer	150
Clock	150	Odd/Even	150
Clone	150	Odd-Even Pairs	150
Consecutive	150	Quadruple	150
Diagonal	150	Thermo	150
Inequality	150	Vortex	150

2100 pts.



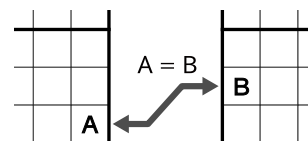
Mt. Fuji

150 × 14

RULE

The grids in the overlapping areas satisfy basic rules and the respective variations rules, and all cells are filled without contradiction.

The cells connected by arrows are filled with the same digits.



3-digit calculation

Apply Classic Sudoku rules.

In addition, the formula in each cage must be correct.

Arrow

Apply Classic Sudoku rules.

Each digit placed in a cell with a circle must be the sum of the digits placed in the cells that the adjoining arrow passes through. Digits may repeat on arrows.

Clock

Apply Classic Sudoku rules.

Some digital clocks are shown. When the puzzle is completed, all clocks should display a valid time in 24-hour format (HH:MM, 00:00–23:59).

Clone

Apply Classic Sudoku rules.

Digits in the same place in each shaded figure must be identical.

Consecutive

Apply Classic Sudoku rules.

In all cases where two neighbouring cells contain consecutive digits, a grey bar is placed between those cells.

Diagonal

Apply Classic Sudoku rules.

Every marked diagonal line contains each digit no more than once.

Inequality

Apply Classic Sudoku rules.

If there is an inequality relation marked between two cells then the digits placed in the cells should obey the relation.

Irregular

Place a digit from 1–9 in each empty cell in the grid such that each row, column and marked 9-cell region contains each digit exactly once.

Killer

Apply Classic Sudoku rules.

The digits placed in each marked cage must sum to the total given in its top-left corner. Digits must not repeat in cages.

Odd/Even

Apply Classic Sudoku rules.

Digits in circles must be odd and digits in squares must be even.

Odd-Even Pairs

Apply Classic Sudoku rules.

Exactly one odd and one even digit must be placed in each marked pair of adjacent cells.

Quadruple

Apply Classic Sudoku rules.

Each digit at the intersection of four cells must be present in at least one of those four cells. If a digit is repeated in the clue, it must appear twice in the surrounding cells.

Thermo

Apply Classic Sudoku rules.

Some thermometer shapes are in the grid; numbers must be strictly increasing from the round bulb to the flat end.

Vortex

Apply Classic Sudoku rules.

The 4 digits around each vortex must be strictly increasing clockwise or counterclockwise. The 4 digits around each vortex are all different.



3-digit calculation

Apply Classic Sudoku rules.

In addition, the formula in each cage must be correct.

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

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

Thermo

Apply Classic Sudoku rules.

Some thermometer shapes are in the grid; numbers must be strictly increasing from the round bulb to the flat end.

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

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

Vortex

Apply Classic Sudoku rules.

The 4 digits around each vortex must be strictly increasing clockwise or counterclockwise. The 4 digits around each vortex are all different.

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

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

