



SWISS
LOGIC PUZZLE
FEDERATION

INSTRUCTION BOOKLET

Swiss Qualification Tournament
for the
13th World Sudoku Championship

May 4 – 8, 2018

Tournament Details

The tournament will take place on the website of Logic Masters, the German representation of the World Puzzle Federation: <http://logic-masters.de/>.

The tournament will be open from **Friday, May 4, 12:00 CEST** to **Monday, May 8, 23:59 CEST**.

To start the tournament, follow the indications on the website. There are two PDF documents involved:

- one is the Instruction Booklet that you are reading now which contains the rules and examples of the different variants of puzzles appearing in the tournament.
- the second document is an encrypted PDF file containing the actual tournament puzzles. This document will be available for download just before the tournament. Starting the tournament will give the player the password to decrypt the PDF file.

Answer codes:

- Once you start the tournament, you will be given **90 minutes** to submit the answer codes. It is therefore recommended to start no later than on Monday May 8 at 22:29 CEST in order to make it before the end of the tournament time window.
- Answer codes consist of rows/columns (left-to-right, top-to-bottom) indicated by arrows outside the puzzles. See the examples of this booklet.
- The answer codes can be changed and/or entered multiple times without penalty during these 90 minutes.

For each correctly solved puzzle you will be awarded the marked points. For a wrong answer you will get 5 points minus. For not solved puzzles you will get no points.

The tournament is destined to evaluate the admission of Swiss players to the World Sudoku Championship 2018. Players from all Nations are kindly welcome to compete, too.

The puzzles in this tournament have been created by Roger Kohler. For **questions**, feel free to contact Roger Kohler (email: ropeko@yahoo.de, phone: +41798134273).

International test solvers helped to make sure the puzzles are valid and to synthesise an adapted number of points per puzzle. The number of points gives an indication of the difficulty of the puzzle in question.

Special thanks to the test solvers:

Henning Karlsgaard Poulsen, Tiit Vunk, Hatice Esra Aydemir, Jaakko Kangasharju, Yuhei Kusui

List of Puzzles

Nr	Puzzle type	Points
1	Classic Sudoku (6x6)	5
2	Classic Sudoku (9x9)	17
3	Classic Sudoku (9x9)	28
4	Classic Sudoku (9x9)	25
5	Classic Sudoku (9x9)	31
6	Classic Sudoku (9x9)	32
7	Classic Sudoku (9x9)	65
8	Diagonal Sudoku (6x6)	12
9	Diagonal Sudoku (9x9)	28
10	No Touch Sudoku (6x6)	8
11	No Touch Sudoku (9x9)	96
12	Antiknight Sudoku (6x6)	13
13	Antiknight Sudoku (9x9)	93
14	Windoku (4x4)	2
15	Windoku (9x9)	88
16	Cheese Sudoku (6x6)	10
17	Cheese Sudoku (9x9)	49
18	Consecutive Fibonacci Sudoku (6x6)	60
19	Consecutive Fibonacci Sudoku (6x6)	24
20	Mountain Sudoku (6x6)	72
21	Mountain Sudoku (9x9)	75
22	Wilhelm Tell Sudoku (6x6)	23
23	Wilhelm Tell Sudoku (9x9)	44
	Total	900

1-7 Classic Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

(First puzzle: numbers 1-6 and 2x3 boxes)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Examples:

1A →

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

→

1A →

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

Answer code: 513624

2B ↓

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

2A →

2A →

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

Answer code:
934816527 943176258

8-9 Diagonal Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

Each marked diagonal must also contain each number from 1-9 exactly once.

(First puzzle: numbers 1-6 and 2x3 boxes)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

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



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

Answer code:

946215378 921853647

10-11 No Touch Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

Equal digits must not touch each other diagonally.

(First puzzle: numbers 1-6 and 2x3 boxes)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

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



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

Answer code:

239714685 681547923

12-13 Antiknight Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

Numbers placed in cells related by a chess Knight's move must be different.

(First puzzle: numbers 1-6 and 2x3 boxes)

Knight's move:

Two squares away horizontally and one square vertically, or two squares vertically and one square horizontally.

		1		

All grey cells can not contain 1.

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

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



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

Answer code:
195274368 497136528

14-15 Windoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

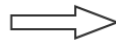
Each of the four shaded 3x3 regions must also contain each number from 1-9 exactly once.

(First puzzle: numbers 1-4, 2x2 boxes and one shaded 2x2 region)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

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



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

Answer code:

671843925 257981436

16-17 Cheese Sudoku

Place a number from 1-7 in empty cells in the grid such that each row, column and marked 3x3 box contains each number exactly once.

Exactly two cells stay empty/black in each row, column and marked 3x3 box. No two empty/black cells are in horizontally or vertically adjacent cells.

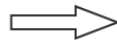
Given black cells are empty cells and can not contain numbers.

(First puzzle: numbers 1-4, 2x3 boxes)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom. Enter 'X' for empty/black cells.

Example:

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



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

Answer code:

X4357162X X126X5743

18-19 Consecutive Fibonacci Sudoku

Place the Fibonacci numbers 1,1,2,3,5,8 in each empty cell in the grid such that each row, column and marked 2x3 box contains each number exactly once (1 twice).

In all cases where two neighbouring cells contain consecutive Fibonacci numbers, a circle is placed between those cells.

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

Answer code:
382511 311285

20-21 Mountain Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

Dotted lines symbolize mountains. The higher to the top of a mountain (top of the grid), the higher is the value. In other words, each side of a mountain has strictly increasing numbers.

(First puzzle: numbers 1-6 and 2x3 boxes)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

Answer code:
746812539 532794186

22-23 Wilhelm Tell Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once.

The sum of the numbers on an arrow are equal to the circle in the direction of the arrow. There is exactly one circle in the direction of an arrow. Numbers on an arrow can repeat.

(First puzzle: numbers 1-6 and 2x3 boxes)

Answer: For each designated row/column, enter the digits from left-to-right/top-to-bottom.

Example:

The diagram illustrates the transformation of a Wilhelm Tell Sudoku puzzle into its solution. The left grid shows the puzzle with numbers 1-6 and 2x3 boxes. The right grid shows the solution with numbers 1-9. Arrows and circles indicate the sum constraints.

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

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

Answer code:
164293875 376521984