INSTRUCTION BOOKLET

Swiss Qualification Tournament
for the
15th World Sudoku Championship

April 23 – 26, 2021

Version 2

Tournament Details

The tournament will take place on the website of Logic Masters:
https://logic-masters.de/Wettbewerbe/CE/wettbewerb.php?id=133

The tournament will be open from **Friday, April 23, 12:00 CEST** to **Monday, April 26, 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 of 10 pages 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 **120 minutes** to submit the answer codes. It is therefore recommended to start not later than on Monday April 26 at 21:59 CEST in order to make it before the end of the tournament time window.

- Answer codes differ between the puzzle types. They are explained next to each puzzle type. It is recommended to study the answer codes carefully before starting the competition.

- If several rows or columns of a puzzle are marked for the answer code, first enter the answer codes of the rows from top to bottom, followed by the answer codes of the columns from left to right.

- The answer codes can be changed and/or entered multiple times without penalty during these 120 minutes.

For each correctly solved puzzle you will be awarded the marked points.

The answers are only stored when clicking the submit button. They are **not** submitted automatically when the time is over. You can submit as often as wished in the time limit.

No solving programs or calculators are allowed.

The tournament is destined to evaluate the admission of Swiss players to the World Sudoku Championship 2021. Players from all nations are kindly welcome to compete, too.
Meanwhile, the World Sudoku Championship (WSC) 2021 has been canceled. Nevertheless, this contest counts already as Swiss qualification, but for 2022. The best two persons, who are willing to participate at the WSC 2022, are directly qualified.

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 synthesize an adapted number of points per puzzle. The number of points gives an indication of the difficulty of the puzzle.

Special thanks to the website Logic-Masters.de by making the online qualification possible, to the test solvers Tiit Vunk, Hatice Esra Aydemir, Fatih Kamer Anda, Silke Berendes and to

Swaroop Guggilam for his recent efforts in adding features to Penpa-edit to simplify digitization of logic puzzles.

Changes of Instruction Booklet Version 2:

- Tournament Details: cancelation of WSC 2021, updates to Swiss qualification (both in red)
- List of Puzzles: Added points for each puzzle
- Extra Regions: fixed wrong number in row 8, column 9 of example

List of Puzzles

Nr	Puzzle type	Points
1	Classic Sudoku (6x6)	5
2	Classic Sudoku	20
3	Classic Sudoku	25
4	Classic Sudoku	25
5	Classic Sudoku	35
6	Classic Sudoku	40
7	Classic Sudoku	50
8	Classic Sudoku	80
9	Diagonal Sudoku	110
10	No Touch Sudoku	35
11	Non-Consecutive Sudoku	65
12	Antiknight Sudoku	50
13	Extra Regions Sudoku	70
14	Irregular Sudoku	75
15	Battenburg Sudoku	110
16	Sandwich Sudoku	90
17	Thermo Sudoku	75
18	Killer Sudoku	90
19	Star Product Sudoku	60
20	Wilhelm Tell Sudoku	90
	Total	**1200**

1 Classic Sudoku (6x6) – 5 Points

Place a digit from 1-6 in each empty cell in the grid such that each row, column and marked 2x3 box contains each digit exactly once.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code:
513624 451236

2-8 Classic Sudoku – 20/25/25/35/40/50/80 Points

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

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 251734986 872359164

9 Diagonal Sudoku – 110 Points

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

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

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 213768945 921853647

10 No Touch Sudoku – 35 Points

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

Digits placed in cells that meet diagonally at a point must be different.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 329714685 681547923

11 Non-Consecutive Sudoku – 65 Points

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

Digits placed in adjacent cells must not be consecutive.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

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

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

Answer code: 963714825 741825936

12 Antiknight Sudoku – 50 Points

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

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

Chess 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 its content, from left to right (or top to bottom).

Example:

Answer code: 195274368 497136528

13 Extra Regions Sudoku – 70 Points

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

Each of the shaded regions must also contain each digit from 1-9 exactly once.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 795123486 349512867

14 Irregular Sudoku – 75 Points

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

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 985372461 619283547

15 Battenburg Sudoku – 110 Points

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

Everywhere 2 odd and 2 even digits form a 2x2 chessboard pattern, a Battenburg marking is given. If there is no marking, the above pattern is not allowed.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 263915847 265347819

16 Sandwich Sudoku – 90 Points

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

Clues outside the grid indicate the sum of the digit(s) placed between the digits 1 and 9 in the respective row or column.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom). Ignore clues outside of the grid.

Example:

Answer code: 529416873 237184956

17 Thermo Sudoku – 75 Points

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

Starting at the "bulb", digits placed along each marked thermometer must form a strictly increasing sequence.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 795638124 917546283

18 Killer Sudoku – 90 Points

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

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

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 967532148 564873219

19 Star Product Sudoku – 60 Points

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

Additionally, the clues outside the grid indicate the product of the digits placed in the cells containing stars in the corresponding row or column.

Answer: For each designated row/column, enter its content, from left to right (or top to bottom). Ignore clues outside of the grid.

Example:

Answer code: 543819267 528647391

20 Wilhelm Tell Sudoku – 90 Points

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

Answer: For each designated row/column, enter its content, from left to right (or top to bottom).

Example:

Answer code: 164293875 376521984