



WPF
SUDOKU/PUZZLE
GRAND PRIX
2020

WPF SUDOKU GP 2020
INSTRUCTION BOOKLET

ROUND 4

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**General Answer Format:**

Each Sudoku has two marked rows or columns. You need to submit all digits in the corresponding directions, from left to right or from top to bottom.

In the example, the two answer keys are:

1A: 367594218

1B: 283749165

All puzzles will use digits 1-9 in the submission.

Submission Page:

<http://gp.worldpuzzle.org/content/sudoku-gp>

Version:

This is version 1 of the instruction booklet.

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TOTAL:

600

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

**1-6 Classic Sudoku**

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

Example

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

Solution

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

7 Parity Sudoku

Apply classic sudoku rules. Digits along the line have the same parity (all odd or all even).

Example

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

Solution

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



8 Tic-Tac-Toe Games Sudoku

Apply classic sudoku rules. Each 3x3 box is also the grid for Tic-Tac-Toe game. You succeed in a game if you place three odd digits or three even digits in a horizontal, vertical, or diagonal row. Each 3x3 box contains exactly one winning combination of Tic-Tac-Toe game and this combination is marked by line.

Example

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

Solution

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

9 One Touch Sudoku

Apply classic sudoku rules. Every digit 1-9 touches itself exactly once in the grid. All these touches are marked by a circle. If there are less than 9 circles in the grid, that means there is at least one marked 2x2 block which contains two kinds of digits.

Example

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

Solution

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

10 Box Sequences Sudoku

Apply classic sudoku rules. If the two neighbouring cells are connected with a grey line, they contain consecutive digits. **All possible sequences** with length of at least 3 are marked **inside each 3x3 box**.

Example

5				9				
								1
								5
1								
2								
		2						8

Solution

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

11 Makodoku

Apply classic sudoku rules. All pairs of adjacent cells with a product less than 10 are marked with a cross sign. All pairs of adjacent cells with a sum less than 10 are marked with a plus sign. If both signs are possible, a cross is drawn. **All possible signs** are given.

Example

				9				
				7				
				8				

Solution

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



12 Clock Faces Sudoku

Apply classic sudoku rules. Four digits around a white circle are placed in an increasing order starting from one of the four cells and going clockwise. Four digits around a black circle are placed in an increasing order starting from one of the four cells and going anticlockwise. **All possible circles** are marked.

Example

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

Solution

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

13 Irregular Sudoku

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.

Example

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

Solution

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

**14 Hashtag Sudoku**

Apply classic sudoku rules. Each of four marked diagonals must also contain each digit from 1-9 exactly once.

Example

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

Solution

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

15 Palindrome Sudoku

Apply classic sudoku rules. Digits along the line form palindrome, i.e. they read same in both directions.

Example

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

Solution

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



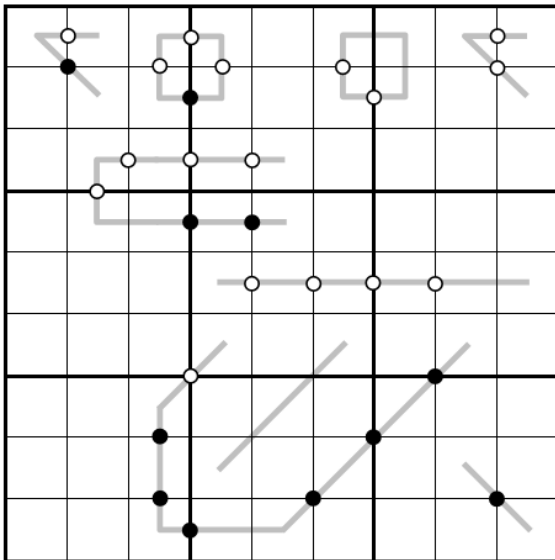
16 Delimited Kropki Sudoku

Apply classic sudoku rules. Kropki dots are placed in the grid. Kropki rules are applied **only** for a pair of cells where the centers of cells are connected (orthogonally or diagonally) with a line.

Kropki 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 containing digits 1 and 2 may be marked by a dot of either colour. Adjacent cells with no marking must not contain digits either whose difference is 1 or whose ratio is 2.

Example



Solution

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