WPF SUDOKU/PUZZLE GRAND PRIX 2018

WPF SUDOKU GP 2018 INSTRUCTION BOOKLET

ROUND 5

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Organised by

World Puzzle Federation

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

1A →

1B →

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

Version:

This is version 1 of the instruction booklet.

Points:

1	Classic Sudoku	14
2	Classic Sudoku	22
3	Classic Sudoku	24
4	Classic Sudoku	30
5	Classic Sudoku	35
6	Classic Sudoku	65
7	Quadruple Sudoku	29
8	Consecutive Sudoku	42
9	Skyscrapers Sudoku	21
10	Outside Sudoku	51
11	Renban Sudoku	29
12	Touchy Sudoku	32
13	Rank Sudoku	40
14	Killer Sudoku	92
15	Wildcard Sudoku	24
16	Determinant Sudoku	50
TOTAL:		600

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		

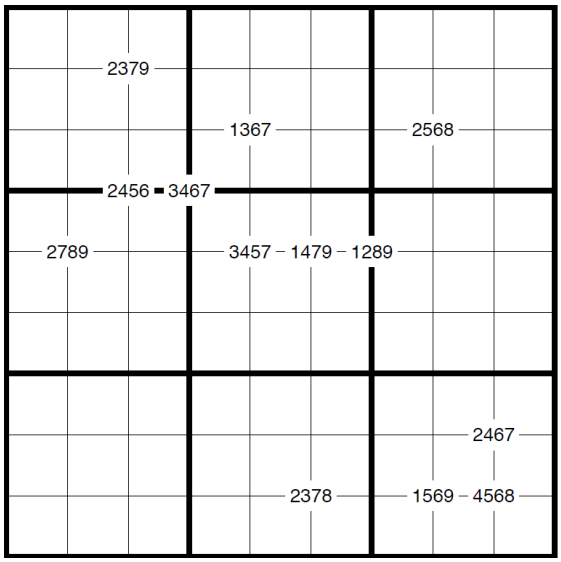
Solution

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 Quadruple Sudoku

Apply classic sudoku rules. At some intersections of two crossing grid lines, a set of four digits is given. These digits must be placed in the four adjacent cells.

Example



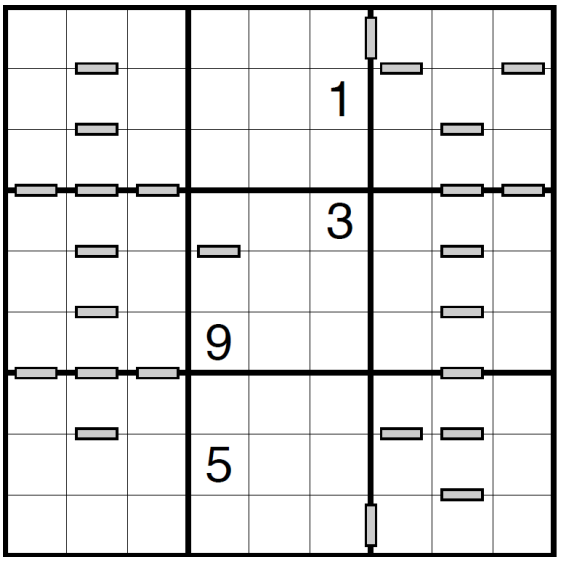
Solution

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

8 Consecutive Sudoku

Apply classic sudoku rules. Adjacent cells containing consecutive digits are marked. Adjacent cells with no marking must not contain consecutive digits.

Example



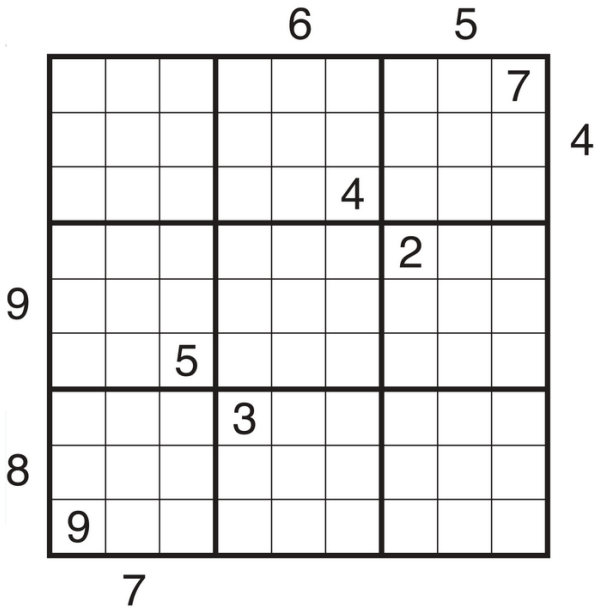
Solution

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

9 Skyscrapers Sudoku

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.

Example



Solution

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

10 Outside Sudoku

Apply classic sudoku rules. The digits outside the grid must appear within the first three cells in the corresponding direction.

Example

	49	13		268		37	5	1	7	
46										3
38										46
										158
1										3
349										68
68										59
579										
										29
4										35
	1	7	9	3		248	1	78	2	

Solution

	49	13		268		37	5	1	7	
46	4	1	6	8	5	9	2	3	7	3
38	8	3	5	2	1	7	9	4	6	46
	9	2	7	6	4	3	5	1	8	158
1	7	5	1	9	8	6	4	2	3	3
349	3	9	4	7	2	5	8	6	1	68
68	2	6	8	4	3	1	7	5	9	59
579	5	7	9	3	6	2	1	8	4	
	1	8	3	5	7	4	6	9	2	29
4	6	4	2	1	9	8	3	7	5	35
	1	7	9	3		248	1	78	2	

11 Renban Sudoku

Apply classic sudoku rules. The digits placed in each shaded region must form a consecutive, non-repeating set.

Example

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

Solution

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

12 Touchy Sudoku

Apply classic sudoku rules. Each digit touches horizontally or vertically at least one consecutive digit.

Example

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

Solution

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

13 Rank Sudoku

Apply classic sudoku rules. A digit 'X' in a circle means that the digit in the cell is the X-th smallest number in the corresponding cage. Digits cannot repeat within a cage.

Example

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

Solution

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

14 Killer Sudoku

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

Example

16				12				17
		29						
23						27		
								2
			4		2			10
2	12							
					10			
9								
		7					14	

Solution

16 7	9	4	3	12 5	6	1	2	17 8
1	3	29 5	7	2	8	6	4	9
23 6	2	8	9	1	4	27 5	7	3
8	4	7	1	3	5	9	6	2
9	5	6	4	8	2	7	3	10 1
2	12 1	3	6	9	7	8	5	4
3	6	2	8	7	10 1	4	9	5
9 4	8	9	5	6	3	2	1	7
5	7	7 1	2	4	9	3	14 8	6

15 Wildcard Sudoku

Apply classic sudoku rules. One digit acts as a wildcard. Cells with '>' symbol contain digits greater than the wildcard. Cells with '<' symbol contain digits lesser than the wildcard. It is part of solving to determine the wildcard.

Example

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

Solution

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

16 Determinant Sudoku

Apply classic sudoku rules. The determinants of 2×2 matrices are given in the center of the four cells. The determinant of a 2×2 matrix is a × d – b × c, where a is the top left, b is the top right, c is bottom left and d is the bottom right element.

Example

1		2		3		4		5
					2			
	6	26				25	3	
					46			
				1				
5	1	4				3		2
				2			-44	
		31						
	5						2	
	41		2			54		
2		3		4		5		6

Solution

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