



WPF
SUDOKU/PUZZLE
GRAND PRIX
2017

WPF SUDOKU GP 2017
INSTRUCTION **BOOKLET**

ROUND 6

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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>

Version:

This is version 1 of the instruction booklet.

Points:

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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



1-5 Classic Sudoku

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

6 Cloned Shapes Sudoku

Apply classic sudoku rules. Each shape is cloned, including the digits it contains, without rotating or mirroring. The position of the digits inside each shape is fixed - the same digits have to be placed at the same positions inside the identical shapes. The digit may appear more than once in a shape.

Example

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

Solution

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



7 Ratio Sudoku

Apply classic sudoku rules. Numbers placed in adjacent cells must satisfy the given ratios.

Example

								$2/3$		
		$4/9$								
$1/3$					$1/4$					
							$8/9$			
			$5/7$						$5/8$	
	$2/3$				$3/7$					
		$5/8$							$2/9$	
				$2/9$						$1/2$
	$3/4$						$1/2$			
			$1/8$							
					$1/3$					$5/8$
								$3/4$		
	$2/3$									

Solution

8	7	4	6	1	5	$2^{2/3}$	3	9
6	5	9	3	$8^{1/4}$	2	7	4	1
$2^{1/3}$	1	3	7	4	9	$8^{8/9}$	5	6
9	$2^{2/3}$	6	2	$5^{5/7}$	$7^{3/7}$	3	1	$8^{5/8}$
3	$8^{5/8}$	5	4	6	1	$9^{2/9}$	2	7
1	4	7	$2^{2/9}$	9	8	5	$6^{1/2}$	3
7	3	$8^{1/8}$	1	2	4	6	9	5
5	2	1	$9^{1/3}$	3	6	4	7	$8^{5/8}$
4	$9^{2/3}$	6	8	5	7	$3^{3/4}$	1	2

8 X-Sums Sudoku

Apply classic sudoku rules. The clues outside the grid indicate the sum of the first X numbers placed in the corresponding direction, where X is equal to the first number placed in that direction.

Example

	1	9	12	26	39	41	21	45	19	
1										26
42										11
29										30
37										23
20										40
45										9
17										31
10										1
14										45
	9	21	33	38	1	13	40	6	45	

Solution

	1	9	12	26	39	41	21	45	19	
1	1	2	3	6	7	8	5	9	4	26
42	8	7	4	1	9	5	2	6	3	11
29	6	9	5	2	4	3	1	8	7	30
37	7	6	1	8	2	9	4	3	5	23
20	5	3	2	4	6	7	9	1	8	40
45	9	4	8	5	3	1	6	7	2	9
17	4	1	9	3	8	2	7	5	6	31
10	2	8	7	9	5	6	3	4	1	1
14	3	5	6	7	1	4	8	2	9	45
	9	21	33	38	1	13	40	6	45	



9 Sum Nine Sudoku

Apply classic sudoku rules. Adjacent cells containing numbers with the sum 9 are marked with a rhombus. Adjacent cells with no marking must not contain numbers with the sum 9.

Example

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

Solution

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

10 Antiknight Sudoku

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

Example

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

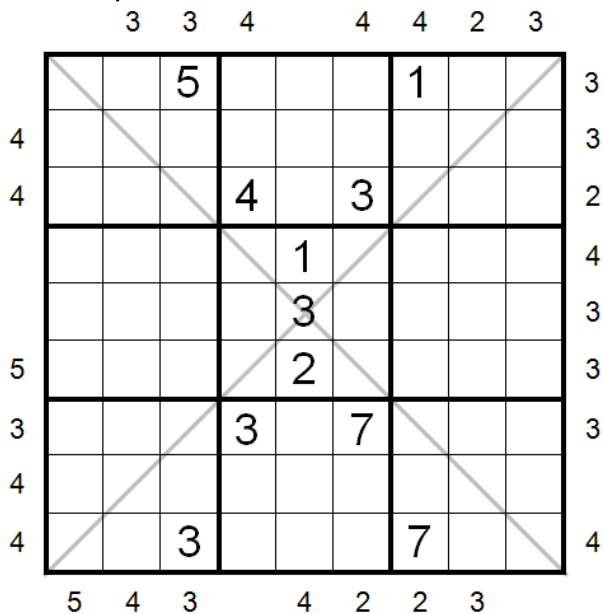
Solution

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

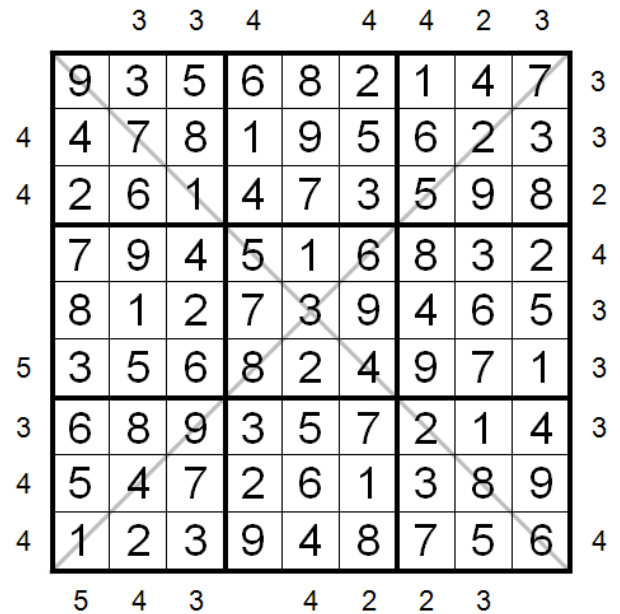
11 Diagonal Skyscrapers Sudoku

Apply classic sudoku rules. Each number represents the height of a building. The clues outside the grid indicate the number of buildings visible from the corresponding direction. A higher building will hide any lower buildings behind it. Each marked diagonal must also contain each number from 1-9 exactly once.

Example



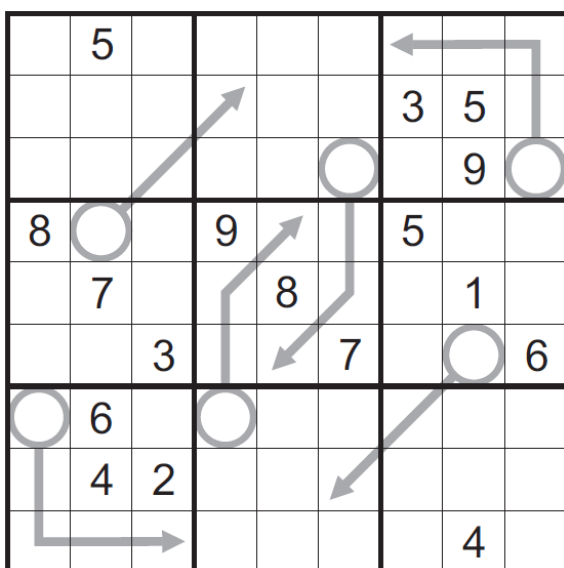
Solution



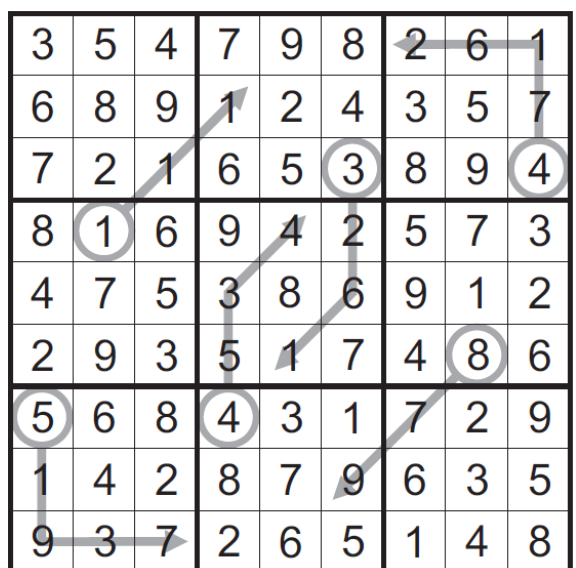
12 Average Arrows Sudoku

Apply classic sudoku rules. The number placed in a cell with a circle must be the arithmetic mean of the digits along the path of each arrow. Numbers may repeat on an arrow (including the circle).

Example



Solution





13 Dead or Alive Arrows Sudoku

Apply classic sudoku rules. There are some white and grey arrows in the grid. The digit placed in the cell with white arrow must not repeat in the direction of the arrow. The digit placed in the cell with grey arrow is repeated at least once in the direction of the arrow.

Example

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

Solution

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