

# WPF SUDOKU GP 2016 INSTRUCTION BOOKLET



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Organised by









#### **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.

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

## **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







#### 1-6 Classic Sudoku

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked  $3\times3$  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

## **7 Consecutive Clone Sudoku**

Apply classic sudoku rules. Additionally, in each shaded region of the same shape, the numbers placed in corresponding cells of the regions must be consecutive.

# Example

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

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







## 8 Anti-Knight Sudoku

Apply classic sudoku rules. Additionally, numbers placed in cells related by a chess Knight's move (see the diagram) must be different.

	×		×	
×				×
		1		
×				×
	×		×	

### Example

	թ.с							
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

## 9 Non-Consecutive Sudoku

Apply classic sudoku rules. Additionally, numbers placed in adjacent cells must not be consecutive.

# **Example**

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

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







#### **10 Killer Sudoku**

Apply classic sudoku rules. Additionally, the numbers placed in each marked cage must sum to the total given in its top-left. Numbers must not repeat in cages.

Exar	nple							
16				12				17
*		29		·				
23						27		***************************************
								2
			4		2			10
2	12							
					10			
9								
		7					14	

Solu	tion							
<sup>16</sup> 7	9	4	3	15	6	1	2	¹8
1	3	<sup>2</sup> 5	7	2	8	6	4	9
<sup>2</sup> 6	2	8	9	1	4	<sup>2</sup> 5	7	3
8	4	7	1	3	5	9	6	2
9	5	6	4	8	2	7	3	<sup>10</sup> 1
2	<sup>12</sup>	3	6	9	7	8	5	4
3	6	2	8	7	<sup>10</sup> <b>1</b>	4	9	5
<sup>9</sup> 4	8	9	5	6	3	2	1	7
5	7	<sup>7</sup> <b>1</b>	2	4	9	3	18	6

#### 11 Sum Sandwich Sudoku

Apply classic sudoku rules. Additionally, the clues outside the grid indicate all numbers placed in the corresponding direction that are the sum of the numbers placed in the two neighbouring cells in that direction, e.g. 132. If a number is not clued outside the grid, then it must not be the sum of its two neighbours in that direction.

	Exan	nple							
	8	6	7	-	9	8	-	-	-
-						9			
3		9					2		
4 5				6				9	
5			2			4			8
6					7				
7	1			9			5		
8		5				6			
9			3					5	
-				2					

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







#### **12 Palindrome Sudoku**

Apply classic sudoku rules. Additionally, numbers placed along marked lines must form a palindromic sequence, e.g. 12344321.

Exa	m	pl	le

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

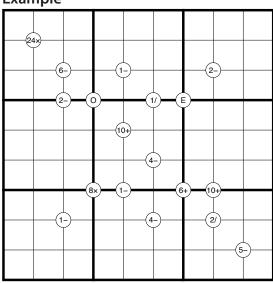
Solution

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

#### 13 Mathrax Sudoku

Apply classic sudoku rules. Additionally, some clues are marked at the intersection of a  $2\times2$  block of cells. Where a number and an operator  $(+, \times, -, /)$  are given, the number must be the result of applying the operator to the numbers placed in both pairs of diagonally opposite cells. Where an "E" or "O" is given, the cells must contain respectively even or odd numbers.

Example



8	6	2	7	5	1	9	3	4
4	1×)—	7	<u>'</u>		-			4
4	<b>3</b>		9	2	6	5	8	I
5	1	9	3	8	4	6	7	2
9	7	3	1	4	8	2	5	6
2	4	5	6	9	ည	7	1	8
6	8	1	2	7	[5]	4	9	3
7	9	4	8	3	2	$\begin{bmatrix} 1 \end{bmatrix}$	6	5
1	5	8	4	6	7	3	2	9
3	2	6	5	1	9	8	4	7







#### 14 Scattered Sudoku

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. The 9 shaded cells form an additional 9-cell region.

## Example

թ.с							
	1	2	3	4	5		
4						1	
3						2	
3 5 7						2 3 6	
7						6	
9						7	
	5	6	7	8	9		

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