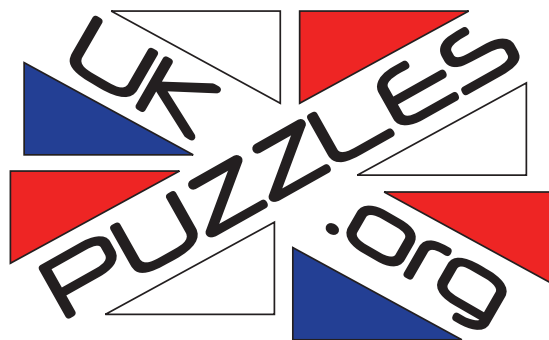




UK Sudoku Championship 2024

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World Sudoku Championship Qualification

INSTRUCTION BOOKLET

Friday 7th June - Monday 10th June

2 hours

Participation is anticipated to be very high and appeals will only be upheld in exceptional circumstances. Therefore it is **VERY IMPORTANT** that you check that each answer key submitted is correct. Upon hitting the submit button, your answers will be sent to the server. You may submit answers as many times as you like, but only the last received keys will be subject to scoring.

Urgent matters arising during the contest should be directed towards chairman@ukpuzzles.org. In the event of the web hosting service failing during your participation, e-mail your answer keys before your 2 hours is completed. Answers submitted this way will only be accepted if a hosting failure, or equivalent, has occurred.

Scoring and Bonuses. Points for successfully solved puzzles will be awarded according to the following table.

Puzzle	Points	Puzzle	Points
Linked 6×6 Sudoku	16	Non-Consecutive Sudoku	27
Deficit Sudoku	35	Extra Regions Sudoku	92
Surplus Sudoku	17	Classic Sudoku	27
Odd-Even-Big-Small Sudoku	25	Clone Sudoku	43
Classic Sudoku	21	Renban Groups Sudoku	88
Diagonal Sudoku	51	Arrow Sudoku	80
Irregular Sudoku	52	Quadruple Sudoku	29
Killer Sudoku	89	Classic Sudoku	28
TOTAL:		720	

Participants who submit correct answer keys for all of the puzzles before the allotted 2 hours are up will be awarded **6 points** for each minute saved, as recorded by the last submission time to the server. Late submissions will not be accepted, so it is recommended that answers are submitted as you solve, rather than waiting until time is running out.

A partial bonus of **2 points** for each minute saved will apply if all but one submitted answer keys are correct.

N.B. Although the points allocated to a particular puzzle are a general indication of its difficulty and the time expected to solve it, it is possible that your individual experience may vary greatly.

Code of Conduct. All participants are expected to solve the puzzles honestly and fairly. You are not permitted to use any external solving aids of any form or receive assistance from any other individual.

It is strictly forbidden to discuss any details of the championship puzzles, or make their contents known to others via any medium whilst the contest is live.

The championship organisers reserve the right to disqualify any participant judged to have acted with improper conduct. The decisions made by the organisers are final.

Acknowledgements. The championship has been organised and coordinated by Tom Collyer. The competition puzzles have been provided by Malcolm Coleman, Tom Collyer and David McNeill. Example puzzles have been provided by Tom Collyer and Gareth Moore. We thank Rebecca Chang, Tyler Chen, Yuhei Kusui, Bram de Laat, Tawan Sunathvanichkul, Tiit Vunk and Jan Zvěřina for helping to test the puzzles.

3. Surplus Sudoku

17 points

Rules: Place a number from 1-7 in each empty cell in the grid such that each row and column contains each number exactly once, and each marked 8-cell region contains each number at least once.

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

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

4. Odd-Even-Big-Small Sudoku

25 points

Rules: Place a number from 1-8 in each empty cell in the grid such that each row, column and marked 8-cell box contains each number exactly once. The clues outside the grid indicate that the first two cells in the corresponding direction must contain numbers matching the description.

Odd = {1, 3, 5, 7}; Even = {2, 4, 6, 8}; Big = {5, 6, 7, 8}; Small = {1, 2, 3, 4}.

	1				8		
小 small		2					
			3				小 small
偶 even				4			
					5		大 big
		7				6	
偶 even	小 small		奇 odd	小 small			

	2	8	3	7	5	6	4
	5	1	4	6	7	8	2
小 small	1	4	2	8	6	3	7
	7	5	6	3	8	4	1
偶 even	8	6	5	2	4	1	3
	3	7	1	4	2	5	8
	4	3	7	5	1	2	6
	6	2	8	1	3	7	5
偶 even	小 small		奇 odd	小 small			

5. Classic Sudoku

21 points

Rules: 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.

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

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

6. Diagonal Sudoku

51 points

Rules: 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. Each marked diagonal must also contain each number from 1-9 exactly once.

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

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

7. Irregular Sudoku

52 points

Rules: 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.

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

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

8. Killer Sudoku

89 points

Rules: 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. The numbers placed in each marked cage must sum to the total given in its top-left. Numbers must not repeat in cages.

20		9		17	9		20	
		22	16		27	18		
8								11
				15				
12						22		
8	30				17			11
	11			19		16		
24							17	
		16			10			

20	6	3	9	2	7	17	9	8	1	5	4	
	4	7	28	16	1	6	27	5	18	3	9	2
8	1	9	5	3	2	4	7	8		11	6	
	7	2	4	6	15	3	9	8	1	5		
12	8	1	3	4	5	2	22	6	7	9		
8	5	30	6	9	8	1	17	7	2	4	11	3
	3	4	6	5	7	1	16	9	2	8		
24	9	8	1	2	4	3	5		17	6	7	
	2	5	7	9	8	6	4	3	1			

9. Non-Consecutive Sudoku

27 points

Rules: 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. Numbers placed in adjacent cells must not be consecutive.

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

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

10. Extra Regions Sudoku

92 points

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

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

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

11. Classic Sudoku

27 points

Rules: 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.

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

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

12. Clone Sudoku

43 points

Rules: 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. In each shaded region of the same shape, the numbers placed in corresponding cells of the regions must be the same. Shapes related by non-trivial rotations or reflections are considered to be different.

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

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

13. Renban Groups Sudoku

88 points

Rules: 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. The numbers placed in each shaded region must form a consecutive, non-repeating set.

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

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

14. Arrow Sudoku

80 points

Rules: 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. A number placed in a cell with a circle must be the sum of the numbers placed in cells the adjoining arrow passes through. Numbers may repeat on arrows.

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

15. Quadruple Sudoku

29 points

Rules: 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. At some of the intersections of two crossing grid lines, a set of up to four numbers is given. These numbers must be placed in the four adjacent cells.

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

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

16. Classic Sudoku

28 points

Rules: 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.

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

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