

Asian Sudoku Championship 2021

U10 Instruction Booklet

For competitors born between Jan. 1st, 2011 and Dec. 31st, 2012

U10 组：2011 年 1 月 1 日-2012 年 12 月 31 日出生



Website/网站地址：<http://puzzlerace.org>

January 30th, 2021(Sat)/2021 年 1 月 30 日（周六）

Round 轮次	Available During 开放时间	Duration 时长	Score 分值
Individual Round 1 个人第 1 轮	(GMT+8) 10:30-11:10 北京时间 10:30-11:10	30 min 30 分钟	200 points 200 分
Individual Round 2 个人第 2 轮	(GMT+8) 13:30-14:45 北京时间 13:30-14:45	60 min 60 分钟	400 points 400 分
Individual Round 3 个人第 3 轮	(GMT+8) 15:00-16:15 北京时间 15:00-16:15	60 min 60 分钟	400 points 400 分

*Take individual round 1 as an example: this round will go live at 10:30(GMT+8) and close at 11:10(GMT+8). Once you click "Start" button, you'll have 30 minutes to complete it. You can start at any time between 10:30 and 11:10, but if you start later than 10:40, the round will close at 11:10 automatically, giving you fewer than 30 minutes to finish.

*以第 1 轮为例，10:40 之后选手仍可开始答题，但系统将在 11:10 自动结束计时，导致实际有效做题时间无法达到 30 分钟。由此造成的成绩损失由选手本人承担。

General Answer Format/答案提交格式:

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.

每道题目会有两个被标记出的行或列。你需要按从左到右、从上到下的顺序提交这两行/列内的全部数字。

In the example, the two answer keys are:

在这道例题中，两串需要提交的数字为：

A: 964158327

B: 692847135

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

A ⇨

B ↓

Scoring and Bonus/分值和加分:

-Points will be awarded only when both the 2 answer keys of a puzzle are correct.

There will be no partial points.

-当某道题目的两个指定行列数字全部提交正确时，该题得全部分数，否则不得分。

-The bonus points for each round will be awarded to any competitor who correctly submits all the answer keys in the round.

-在每轮个人赛中，只有全部题目答案均提交正确的选手才能获得该轮的加分。

-In each round, the bonus will be 6 points for each full remaining minute and then 0.1 point for each extra second.

-每轮比赛中，全部作答正确的选手每提前 1 分钟提交加 6 分，不满 1 分钟的部分每秒加 0.1 分。

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U10 Round 1- 200 Points, 30 Minutes/第 1 轮-200 分, 30 分钟

1-6: 6x6 Classic Sudoku 六宫标准数独

Place a digit from 1 to 6 into each of the empty cells so that each digit appears exactly once in each row, column and 2x3 outlined box.

在空格内填入数字 1-6, 使得每行、每列和每个 2x3 的宫内数字均不重复。

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

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

7-10. Classic Sudoku 标准数独

Place a digit from 1 to 9 into each of the empty cells so that each digit appears exactly once in each row, column and 3x3 outlined box.

在空格内填入数字 1-9, 使得每行、每列和每个 3x3 的宫内数字均不重复。

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

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

U10 Round 2- 400 Points, 60 Minutes/第 2 轮-400 分, 60 分钟

1.6×6 Diagonal Sudoku 六宫对角线数独

Place a digit from 1 to 6 into each of the empty cells so that each digit appears exactly once in each row, column, 2x3 outlined box and main diagonal.

在空格内填入数字1-6, 使得每行、每列、每宫及两条对角线内数字不重复。

				2	
3		5			
				4	2
4	1				
			3		6
	3				

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

2. Diagonal Sudoku 对角线数独

Place a digit from 1 to 9 into each of the empty cells so that each digit appears exactly once in each row, column, 3x3 outlined box and main diagonal.

在空格内填入数字1-9, 使得每行、每列、每宫及两条对角线内数字不重复。

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

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

3-4.6x6 Irregular Sudoku 六宫不规则数独

Place a digit from 1 to 6 into each of the empty cells so that each digit appears exactly once in each row, column and bold outlined regions.

将数字1-6填入空格内，使每行、每列及每个不规则形粗线宫内数字不重复。

		6		2	
					5
6			4		
		2			1
5					
	3		1		

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

5-6.6x6 Consecutive Sudoku 六宫连续数独

Apply 6x6 classic Sudoku rules. Adjacent cells marked by a bar contain consecutive digits. All possible bars are marked.

符合六宫标准数独规则。盘面内灰色粗线表示两侧格内数字之差为1，没有灰色粗线的相邻两格内数字之差不能为1。

	4				
			1		
2					
					6
		3			
				1	

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

7-8.6x6 Killer Sudoku 六宫杀手数独

Apply 6x6 classic Sudoku rules. The sum of the cells in the cage must equal the total given in the upper left of the cage. Each digit in the cage must be not same numbers.

符合六宫标准数独规则。虚线框内提示数表示虚线框内数字之和，同一虚线框内数字不能重复。

6			9	11		6
10				9		
		7		12		12
			14			
			8	8		
5					9	

6	2	4	9	1	11	6	3	6	5
10	6	5	3	9	4	2	1		
	1	2	7	5	12	3	4	12	6
	3	6	14	4	1	5	2		
	5	3	8	6	8	2	1	4	
5	4	1	2	5	9	6	3		

9.4x4 Inequality Sudoku 四宫不等号数独

Apply 4x4 classic Sudoku rules. There are 'greater than' (>) and 'less than' (<) signs.

The cell with the open end of the sign should be greater than the cell with the closed end of the sign.

符合四宫标准数独规则。盘面内不等号表示相邻两侧格内数字的大小关系。

			<
	1	2	
	3	4	
>			

2	4	1	<	3	
3	1	2		4	
1	3	4		2	
4	>	2		3	1

10.6x6 Inequality Sudoku 六宫不等号数独

Apply 6x6 classic Sudoku rules. There are 'greater than' (>) and 'less than' (<) signs. The cell with the open end of the sign should be greater than the cell with the closed end of the sign.

符合六宫标准数独规则。盘面内不等号表示相邻两侧格内数字的大小关系。

		5	<	2	
∨	<		>		∧
1		<		∨	4
2		∨	∧	>	6
	∨				>
∨		4	<	3	∧

4	1	5	<	6	2	3		
∨	<	6	2	>	1	4	5	
3	6	2						
1	5	<	6	2	3	4		
2	3	4	∨	∧	5	>	1	6
6	2	3	<	4	5	>	1	
5	4	1	<	3	6	2		

11.6x6 Odd Sudoku 六宫奇数数独

Apply 6x6 classic Sudoku rules. The shaded cells should only contain odd numbers.

符合六宫标准数独规则，灰格内只能填入奇数。

6					
		1			
	5		2		
		4		3	
			4		
					3

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

12. Odd Sudoku 奇数数独

Apply classic Sudoku rules. The shaded cells should only contain odd numbers.

符合标准数独规则，灰格内只能填入奇数。

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

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

U10 Round 3- 400 Points/第 3 轮-400 分, 60 分钟

1.4x4 Skyscrapers Sudoku 四宫摩天楼数独

Apply 4x4 classic Sudoku rules. Each number represents the height of the skyscrapers in each cell. The digits outside the grid indicate the number of skyscrapers seen from the corresponding direction.

符合四宫标准数独规则。盘面内数字表示相应层数的楼房，盘面外提示数表示从该方向观测可以看到楼房数量，层数高的楼房会挡住层数低的楼房。

1				
		3	2	
			1	
				3

1	4	2	3	1
	1	3	2	4
	3	4	1	2
	2	1	4	3
				3

2.6x6 Skyscrapers Sudoku 六宫摩天楼数独

Apply 6x6 classic Sudoku rules. Each number represents the height of the skyscrapers in each cell. The digits outside the grid indicate the number of skyscrapers seen from the corresponding direction.

符合六宫标准数独规则。盘面内数字表示相应层数的楼房，盘面外提示数表示从该方向观测可以看到的楼房数量，层数高的楼房会挡住层数低的楼房。

	2	3	1	2	3	3	
2				2			2
3		4			5		3
2						5	2
3	4						2
1		1			3		4
3			2				1
	2	2	4	3	2	1	

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

3.6x6 Palindrome Sudoku 六宫回文数独

Apply 6x6 classic Sudoku rules. Digits along each line read the same from both directions, like 2-3-6-6-3-2 or 1-5-4-5-1.

符合六宫标准数独规则。盘面内每条灰线从首尾两头开始阅读的结果都相同，例如2-3-6-6-3-2或1-5-4-5-1。

				1	
	1				5
		2			
			3		
2				4	
	4				

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

4.6x6 Nonconsecutive Sudoku 六宫不连续数独

Apply 6x6 classic Sudoku rules. Digits in adjacent cells cannot be consecutive.

符合六宫标准数独规则。相邻两格内数字之差不能为 1。

		2	5		
	6			5	
	3			2	
		3	6		

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

5.6x6 First 2 Sum Sudoku 六宫首 2 位和数独

Apply 6x6 classic Sudoku rules. Digits outside the grid represent the sum of the first two cells seen from that direction.

符合六宫标准数独规则。盘面外数字表示该方向上前 2 位数字之和。

							9		3	
6										4
9										6
										4
							5		8	

							9		3	
6										4
9										6
										4
							5		8	

6.6x6 Battenburg Sudoku 六宫双色蛋糕数独

Apply 6x6 classic Sudoku rules. Wherever 2 odd and 2 even digits form a 2x2 chessboard pattern, a Battenburg marking is given. If there is no marking, the above pattern is not allowed.

符合六宫标准数独规则。如果 2 个奇数和 2 个偶数组成 2x2 的棋盘形状，则中间以双色蛋糕形状标记。没有标记的地方一定不满足条件。

3					
					3
		3	2		
		5	4		
5					
					4

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

7.6x6 Disjoint Sudoku 六宫同位数独

Apply 6x6 classic Sudoku rules. Digits in each relative position in a 2x3 box are distinct.

符合六宫标准数独规则。每个宫内同样位置的 6 个格子里数字也不重复。

	1				5
		2			
2			3		
		4			6
			5		
3				6	

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

8.6x6 Clock Sudoku 六宫电子表数独

Apply 6x6 classic Sudoku rules. Some digital clocks are shown. When the puzzle is completed, all clocks should display a valid time in 24-hour format (HH:MM); i.e. a clock can't display 43:65.

符合六宫标准数独规则。每个框内的数字可以组成一个 24 小时制法 (xx 时 xx 分) 的有效时间。例如，电子表上的时间不会显示 43:65。

		4		5	
			:		
		3	6		1
2		1	4		
	:				
	4		5		

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

9.6x6 No Touch Sudoku 六宫无缘数独

Apply 6x6 classic Sudoku rules. Same numbers cannot touch each other, even diagonally.

符合六宫标准数独规则。对角相邻的格子内数字也不能相同。

	2		4		5
6					
					3
2					
					1
1		3		2	

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

10. No Touch Sudoku 无缘数独

Apply classic Sudoku rules. Same numbers cannot touch each other, even diagonally.
符合标准数独规则。对角相邻的格子内数字也不能相同。

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

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

11. 6x6 Product Sudoku 六宫乘积数独

Apply 6x6 classic Sudoku rules. A number given on the border between two adjacent cells is the product of the digits in the two cells.
符合六宫标准数独规则。相邻两格之间的提示数代表两格内数字的乘积。

				5	
		2			
			6		
			6		
					15
		3			

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

12.Product Sudoku 乘积数独

Apply classic Sudoku rules. A number given on the border between two adjacent cells is the product of the digits in the two cells.

符合标准数独规则。相邻两格之间的提示数代表两格内数字的乘积。

8			15					
	30						56	
				2				
								30
	32							
		5					27	
	35			28				32
16								
		8						
	9						8	
			16					3

4 ⁸	2	7	6	5 ¹⁵	3	1	8	9
1	6 ³⁰	5	2	9	8	3	7 ⁵⁶	4
3	8	9	7	4	1 ²	2	5	6
6	4 ³²	8	1	3	2	7	9	5 ³⁰
9	7	1	5 ⁵	8	4	6	3 ²⁷	2
2	5 ³⁵	3	9	6	7 ²⁸	8 ³²	4	1
8 ¹⁶	3	2 ⁸	4	1	5	9	6	7
5	1	6	3	7	9	4 ⁸	2	8
7	9 ⁹	4	8 ¹⁶	2	6	5	1 ³	3