17th Sudoku Mock Test

Sunday, March 21, 2010

by

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Relay & Matchmaker (60 minutes)

1	Relay Sudoku 1	55	points
2	Relay Sudoku 2	30	points
3	Relay Sudoku 3	40	points
4	Relay Sudoku 4	35	points
5	Match Maker 1	60	points
6	Match Maker 2	80	points
7	Match Maker 3	50	points
8	Match Maker 4	45	points
9	Match Maker 5	70	points
⏱	Times Bonus for solving all the puzzles per each minute saved in the round	5	points
	Total (without Bonus)	465	points

Sudoku Variants (60 minutes)

1	Arrow Sudoku	90	points
2	Pandigital Sudoku	70	points
3	Fortress Sudoku	65	points
4	No Four in a Row Sudoku (Piškvorky)	60	points
5	Outside Killer	75	points
6	No Operations Mathdoku	85	points
7	Loop Sudoku	100	points
⏱	Times Bonus for solving all the puzzles per each minute saved in the round	10	points
	Total (without Bonus)	545	points

Relay

Standard sudoku rules on the numbers of 1 to 9 mean fill in the grid so that every row, column and 3 × 3 box contains all different numbers from 1 to 9.

Moreover, the following transfers hold:

- Transfer one 3x3 box from puzzle 1 to puzzle 2.

- Transfer one column from puzzle 2 to puzzle 3.

- Transfer one row from puzzle 3 to puzzle 4.

Example

Puzzle 1

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

$\xrightarrow{\text{box}}$

Puzzle 2

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

$\swarrow$ column

Puzzle 3

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

$\xrightarrow{\text{row}}$

Puzzle 4

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

Match Maker

There are give five sudoku grids and five instructions of standard sudoku variants: for diagonal, antiknight, untouch, nonconsecutive and quadro. You have to assign each of the instructions to the right sudoku grid and then solve

Instructions for standard sudoku variants:

Diagonal Apply standard sudoku rules for the digits 1 to 9. Moreover, each diagonal contains the digits 1 to 9.

Antiknight Apply standard sudoku rules for the digits 1 to 9. Moreover, the same digits are not chess-knight move connected.

Untouch Apply standard sudoku rules for the digits 1 to 9. Moreover, cells with the same digits could not touch even diagonally.

Nonconsecutive Apply standard sudoku rules for the digits 1 to 9. Moreover, cells with consecutive digits (two digits differ by 1) could not touch by the side.

Quadro Apply standard sudoku rules for the digits 1 to 9. Moreover, there cannnot be all odd or even digits in any 2×2 square.

For example of Match Maker see
http://www.forsmarts.com/pdf/onlinesudoku2010-instructions.pdf.
For practice of each variant see **http://www.fed-sudoku.eu**.

Arrow sudoku

Apply standard sudoku rules for the digits 1 to 9. Digits in the circled cells represent the sum of all digits along the path that the arrow travels. Digits can repeat within a sum.

For example see **http://motris.livejournal.com/92412.html**.

Pandigital sudoku

Apply standard sudoku rules for the digits 1 to 9. For each group of shaded areas use this rule: First two rows of add up to the number formed on the third row. In these areas numbers can be repeated.

Example

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

Fortress Sudoku

Apply standard sudoku rules for the digits 1 to 9. There is a fortress on the playground formed by shaded cells. The shaded cells have to be greater than the horizontally or vertically adjacent white cells.

For example see **http://www.fed-sudoku.eu/sudokuplay/0009en.swf** or **http://www.sachsentext.de/en/fortress_sudoku2.htm**.

No Four in a Row Sudoku – Piškvorky Sudoku

Apply standard sudoku rules for the digits 1 to 9. Moreover, there cannot be four odd or four even digits in a line of four consecutive cells in a horizontal, vertical, and diagonal direction.

Example

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

Outside killer

Apply standard sudoku rules for the digits 1 to 9. Moreover, numbers outside the rows/columns indicate that there is at least one couple of neighbouring cells in that row/column of which sum is equal to this number.

Example

	12		11		4		9	9	9
							3		1
17			8						
				2	9		6		
14	8						9		
	1				7				
17						2			
15	2	7			1				
10		3			4			6	
6						6		5	

No Operations Mathdoku

Apply standard sudoku rules for the digits 1 to 9. Moreover, the number in the upper-left of each outlined cage represents the value of some mathematical operation $(+, -, \times, /)$ applied to the digits in those cells (but the operation is not given). For subtraction and division, the smaller numbers are always subtracted or divided from the largest overall value in any order (for example digits 2, 4, 8: subtraction $(8 - 4) - 2 = 2$, division $(8/4)/2 = 1$). Digits can be repeated within cages.

For example see **http://www.fed-sudoku.eu/sudokuplay/0177.swf** or **http://www.stanford.edu/ tsnyder/NotSudoku.pdf**.

Loop Sudoku

Apply standard sudoku rules for the digits 0 to 8. Moreover, there is one continuous loop inside the sudoku grid. All the digits 0, 1, 2, 3 are used as clues for the Loop puzzle (these digits gives the number of cell sides used for loop). And all digits 8 are always inside the loop. Some sides of the loop are marked.

For example of a loop puzzle see
http://www.kwontomloop.com/tutorial.php?step=1.

Example