

## Sudoku Mock 4

Max Points: 450 + Time Bonus

1. Extra Region (35)
2. Toroidal (25)
3. Classic (30)
4. Even (35)
5. Nonconsecutive (40)
6. Small Neighbors (45)
7. Blackout (50)
8. Wraparound Kropki (55)
9. Touchy (60)
10. Sum Or Product Frame (75)

Time: 90mins

Start Time: 2:00 pm IST, 21 Dec, 2008, Sunday

End Time: 3:30pm IST

Grace Period: 10 mins

Answers received after 3:40pm will NOT be considered.

Time Bonus

The test carries a time bonus of 5 points per minute saved. Time bonus will be awarded only if all sudokus are solved correctly within the allotted time.

Penalties

Answers will be accepted for a grace period of 10 minutes after the end of the stipulated submission time. However, these will be penalized as follows:

- 1 min: 1 point
- 2 min: 3 points
- 3 min: 6 points
- 4 min: 10 points
- 5 min: 15 points
- 6 min: 21 points
- 7 min: 28 points
- 8 min: 36 points
- 9 min: 45 points
- 10 min: 55 points

Answers received after the grace period will NOT be considered.

## Answer Submission

Submit button for each puzzle will be enabled after the specified time for the mock. After solving a puzzle completely, click on the Submit button.

We'll follow a partial marking system for answers. If the answer matches correctly, full marks will be awarded. Else, if all filled cells are correct, following formula will be used to compute the points.

$$\text{Points} = (\text{Number of correctly filled cells}) * (\text{puzzle point}) * .75 / (\text{Total cells} - \text{number of given hints})$$

## Note:

- a) This marking system will change in future mocks
- b) It is possible that for many puzzles, solving on paper and then copying to the flash is faster. For that check the option 'Move as you type'.
- c) Don't refresh / close the browser before submitting.
- d) Certain browsers (e.g. Mozilla firefox) cache old copies of files and don't always get the latest copy from the server. You are advised to use other browsers (e.g. Internet Explorer) or clean your browsers cache if the puzzle does not appear after the specified time.
- e) If you decide to submit using the website, you must familiarize yourself with the flash Sudokus before. Try solving few example puzzles.
- f) "Save Locally" button is provided for each puzzle. The puzzle status (all filled cells) will be saved locally on your computer. The saved puzzle status will be restored in case the browser crashes / closes / refreshes. Note that pencil marks are not saved / restored.

Extra Region 35 points

Fill in the grid from 1 through 9 so that every row, every column, every outlined region and every region of 9 cells having same color contains distinct digits.

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

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

Toroidal 25 points

Fill in the grid from 1 through 6 so that every row, every column and every outlined region contains distinct digits. Some of the outlined regions will wrap between the top and bottom edges, and/or the left and right edges of the grid.

			2	3	5
				5	1
					4

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

Classic 30 points

Fill in the grid from 1 through 9 so that every row, every column and every outlined region contains distinct digits.

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

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

Even 35 points

Fill in the grid from 1 through 8 so that every row, every column and every outlined region contains distinct digits. Shaded cells must contain even digits.

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

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

Nonconsecutive 40 points

Fill in the grid from 1 through 7 so that every row, every column and every outlined region contains distinct digits. All the adjacent cell pairs (sharing an edge) cannot contain digits which are consecutive to each other.

		4				
				4		
	1					4
6						2
		6				
				6		

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

Small Neighbours 45 points

Fill in the grid from 1 through 9 so that every row, every column and every outlined region contains distinct digits. Cells where digits are bigger than all the orthogonal (i.e. sharing an edge) neighbors' digits have been shaded.

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

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

Blackout 50 points

Fill in the grid from 1 through 9 so that every row, every column and every outlined region contains distinct digits. Shaded cells don't contain any digits.

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

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

Wraparound Kropki 55 points

Fill in the grid from 1 through 9 so that every row, every column and every outlined region contains distinct digits. If two consecutive digits appear in two neighboring cells, they are separated by white dot. If digit in a cell is half of digit in the neighboring cell, then they are marked by black dot. The dot between '1' and '2' can be any of the two colors. A dot on the border signifies the relationship between the first cell and last cell of the corresponding row or column.

	●		○		○		○	
○		●		○		●		○
			○	●				○
			○		○			○
	●			○		○		○
○	○	●		○				○
	○	○	○	○				○
○	○	○	○	○				○
○	○	○	○	○				○

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

Touchy 60 points

Fill in the grid from 1 through 9 so that every row, every column and every outlined region contains distinct digits. Each digit has at least one consecutive adjacent (sharing edges) neighbor.

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

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

Sum Or Product Frame 75 points

Fill in the grid from 1 through 9 so that every row, every column and every outlined region contains distinct digits. The numbers outside the grid represent either the sum or product of first 3 digits inside the grid in the corresponding direction.

19										8
15										21
40										17
22										36
10										21
72										13
15										18
48										16
15										11
	48	17	120	17	21	7	18	24	16	

19	9	3	7	8	5	6	1	2	4	8
15	1	6	8	4	2	3	9	5	7	21
40	4	5	2	7	1	9	6	8	3	17
22	5	8	9	1	4	7	2	3	6	36
10	7	2	1	6	3	5	4	9	8	21
72	6	4	3	2	9	8	5	7	1	13
15	2	9	4	3	8	1	7	6	5	18
48	8	1	6	5	7	2	3	4	9	16
15	3	7	5	9	6	4	8	1	2	11
	48	17	120	17	21	7	18	24	16	