

# MIT Sudoku Open 2024

## Individual Round 2: Variants I

**50 Minutes – 1000 Points**

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2.1 Antiknight Sudoku .....	20 Points	✓	1	2	X
2.2 Antiknight Sudoku .....	130 Points	✓	1	2	X
2.3 Consecutive Pairs Sudoku.....	50 Points	✓	1	2	X
2.4 Consecutive Pairs Sudoku.....	100 Points	✓	1	2	X
2.5 Irregular Sudoku.....	20 Points	✓	1	2	X
2.6 Irregular Sudoku.....	80 Points	✓	1	2	X
2.7 Killer Sudoku.....	16 Points	✓	1	2	X
2.8 Killer Sudoku.....	130 Points	✓	1	2	X
2.9 Kropki Lines Sudoku.....	28 Points	✓	1	2	X
2.10 Kropki Lines Sudoku.....	100 Points	✓	1	2	X
2.11 Odd/Even Sudoku .....	20 Points	✓	1	2	X
2.12 Odd/Even Sudoku .....	60 Points	✓	1	2	X
2.13 Renban Sudoku .....	20 Points	✓	1	2	X
2.14 Renban Sudoku .....	140 Points	✓	1	2	X
2.15 X-Sums Sudoku.....	36 Points	✓	1	2	X
2.16 X-Sums Sudoku.....	50 Points	✓	1	2	X

Total

Name: \_\_\_\_\_

Division:

Beginner

Experienced

## 2.1: Antiknight Sudoku

20 Points

Rules: Apply Classic Sudoku rules. Cells that can be reached by a knight step (chess) cannot contain the same digit.

	1				
2					
		3			
			4		
				5	6

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## 2.2: Antiknight Sudoku

130 Points

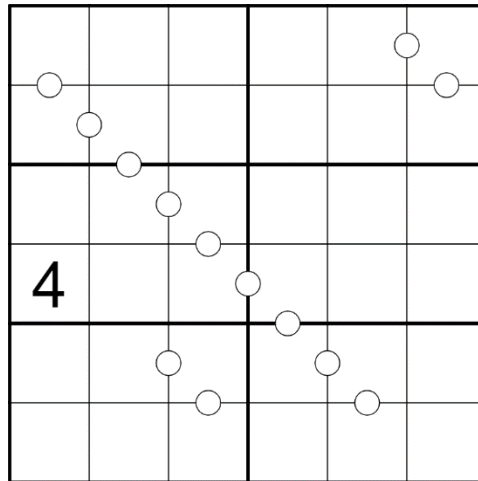
Rules: Apply Classic Sudoku rules. Cells that can be reached by a knight step (chess) cannot contain the same digit.

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

### 2.3: Consecutive Pairs Sudoku

50 Points

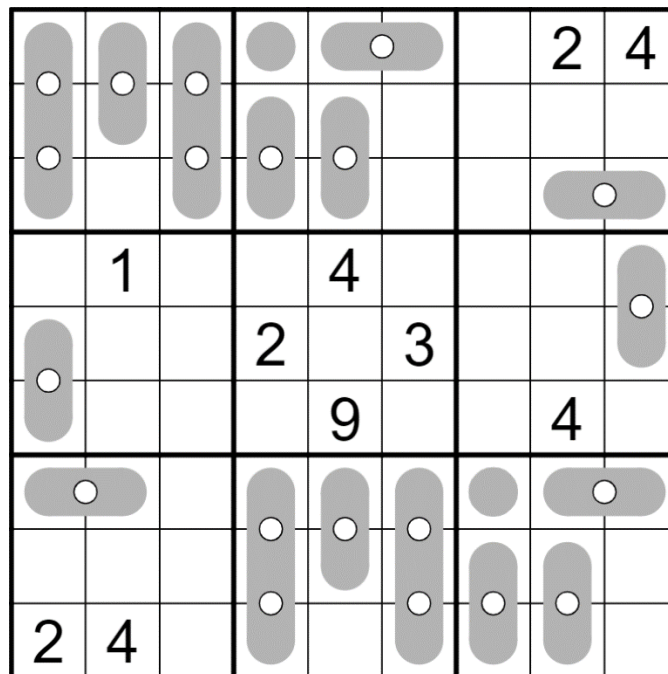
Rules: Apply Classic Sudoku rules. If a circle is given between two adjacent cells, then the digits in those cells must be consecutive. Not all circles are given.



### 2.4: Consecutive Pairs Sudoku

100 Points

Rules: Apply Classic Sudoku rules. If a circle is given between two adjacent cells, then the digits in those cells must be consecutive. Not all circles are given. \*Note, grey lines are only present for aesthetic purposes.



## 2.5: Irregular Sudoku

20 Points

Rules: Each row, column, and outlined region must include the digits 1-6 once, with no repeats.

1					
2	3				
	4	5			
		6			

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## 2.6: Irregular Sudoku

80 Points

Rules: Each row, column, and outlined region must include the digits 1-9 once, with no repeats.

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

## 2.7: Killer Sudoku

16 Points

Rules: Classic sudoku rules apply. The number at the top-left corner of each cage equals the sum of digits inside the cage. Digits do not repeat inside a cage.

				2	
<sup>9</sup>	<sup>8</sup>				4
		<sup>10</sup>			
					<sup>9</sup>
2			<sup>7</sup>		
	4				

## 2.8: Killer Sudoku

130 Points

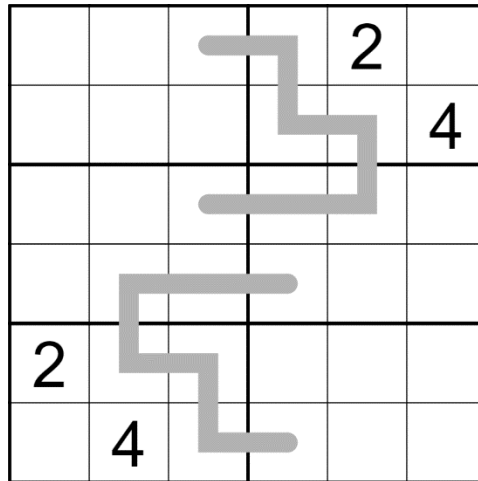
Rules: Classic sudoku rules apply. The number at the top-left corner of each cage equals the sum of digits inside the cage. Digits do not repeat inside a cage.

<sup>9</sup>	<sup>8</sup>	<sup>21</sup>	<sup>9</sup>	<sup>12</sup>			2	
			<sup>7</sup>	<sup>8</sup>				4
							<sup>28</sup>	
			2					
<sup>26</sup>					4			
			<sup>14</sup>	<sup>7</sup>	<sup>16</sup>	<sup>9</sup>	<sup>7</sup>	
2						<sup>7</sup>	<sup>12</sup>	
	4							

## 2.9: Kropki Lines Sudoku

28 Points

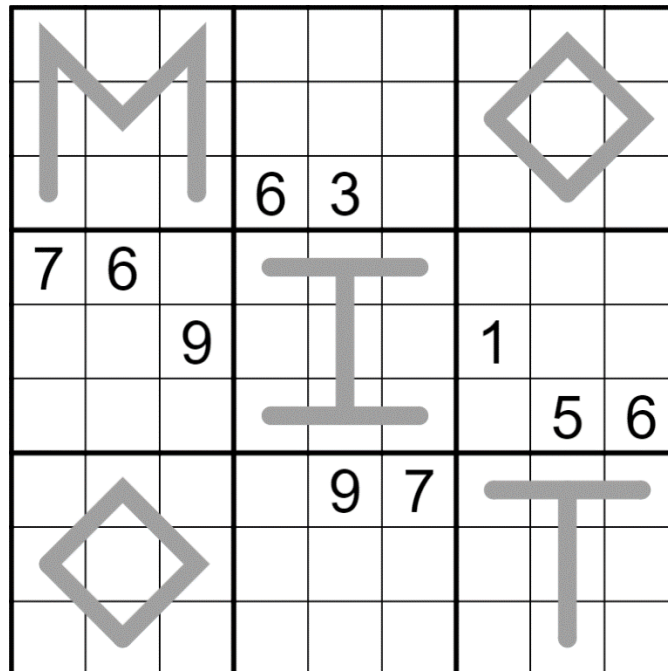
Rules: Classic sudoku rules apply. Adjacent digits on grey lines either differ by 1, or form a 1:2 ratio. Not all possible lines are drawn.



## 2.10: Kropki Lines Sudoku

100 Points

Rules: Classic sudoku rules apply. Adjacent digits on grey lines either differ by 1, or form a 1:2 ratio. Not all possible lines are drawn.



### 2.11: Odd/Even Sudoku

20 Points

Rules: Classic sudoku rules apply. Digits in circles must be odd and digits in squares must be even.

3				2	1
4		■	●		
	■	●	■	●	
	●	■	●	■	
		●	■		4
1	2				5

### 2.12: Odd/Even Sudoku

60 Points

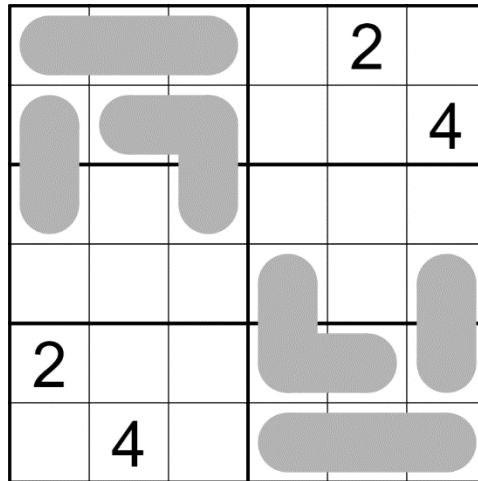
Rules: Classic sudoku rules apply. Digits in circles must be odd and digits in squares must be even.

●								■
	●	9				3	■	
	2	●	6		3	■	5	
		1	●		■	6		
				2				
		2	■		●	8		
	5	■	2		7	●	6	
	■	8				1	●	
■								●

### 2.13: Renban Sudoku

20 Points

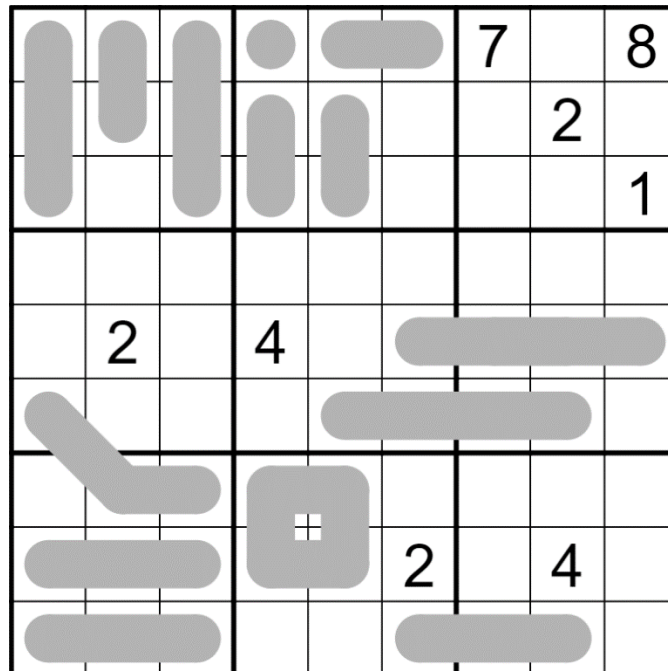
Rules: Classic sudoku rules apply. Gray lines must contain a set of distinct, consecutive digits in any order.



### 2.14: Renban Sudoku

140 Points

Rules: Classic sudoku rules apply. Gray lines must contain a set of distinct, consecutive digits in any order.

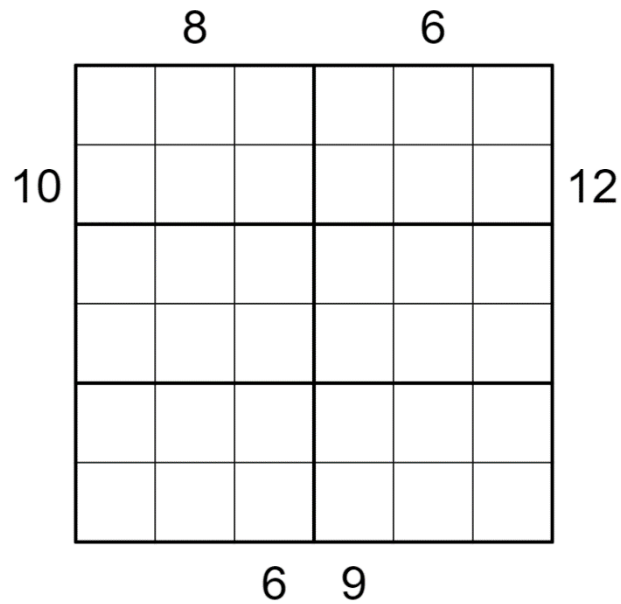




### 2.15: X-Sums Sudoku

36 Points

Rules: Classic sudoku rules apply. Clues outside the grid give the sum of the first N digits in their row/column (counting from the direction of the clue), where N is the first digit in that row/column.



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### 2.16: X-Sums Sudoku

50 Points

Rules: Classic sudoku rules apply. Clues outside the grid give the sum of the first N digits in their row/ column (counting from the direction of the clue), where N is the first digit in that row/ column.

