

MIT Sudoku Competition 2023

Variants Round I

Name: _____

Division (circle one):

Beginner

Experienced

6x6 Rules: Place the digits 1-6 in the empty squares in the grid, such that every row, column, and marked 2x3 square contains each of the digits exactly once.

Beginner Points:

Antiknights	4
Extra Regions	3
Little Killer	4
Palindrome	3
Prime Sums	5
Ratio	4
Sandwich Sums	5
Difference or Greater	13
Quadruples	20
No 3 in a Row	14
Arrow,	11
Thermo	14
Total	100

Experienced Points:

Difference or Greater, 6x6	14
Quadruples, 6x6	11
No 3 in a Row, 6x6	6
Arrow, 6x6	8
Thermo, 6x6	7
Killer, 6x6	18
Thermo	13
Either/Or	10
X-Sums	13
Total	100

BEGINNER

Antiknight

Normal 6x6 sudoku rules apply. The same digit may not appear a chess knight's move away from itself.

1					
			2	3	
4					3
5					4
	5	4			
					2

BEGINNER

Extra Regions

Normal 6x6 sudoku rules apply. The digits 1-6 must appear exactly once in each shaded region.

1	2				
3					
			4	5	
	5	4			
					2
				3	1

BEGINNER

Palindrome

Normal 6x6 sudoku rules apply. Numbers along shaded lines must be the same forwards and backwards.

	3				5
		1	3		
		2	4		
	5				2

BEGINNER

Little Killer

Normal 6x6 sudoku rules apply. Numbers with arrows indicate the sum of the numbers in that direction.

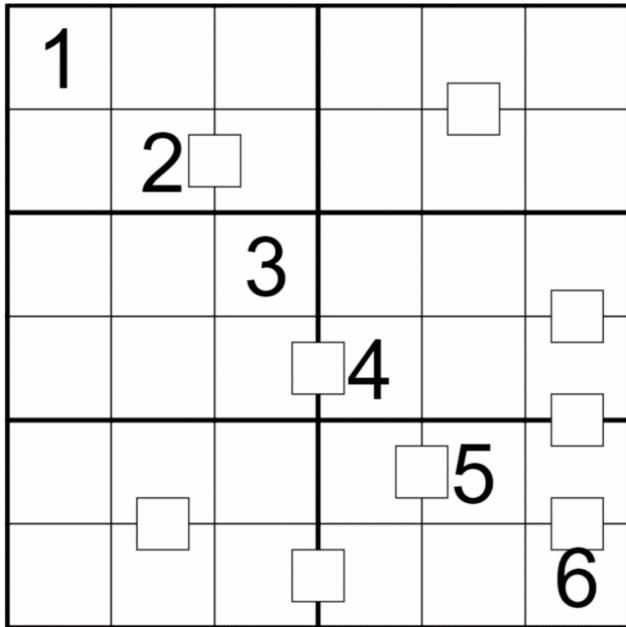
Arrows indicate the sum of the numbers in that direction:

- Top row: 4 (left), 11 (center), 4 (right)
- Left column: 10 (top), 3 (middle), 5 (bottom)
- Right column: 3 (top), 3 (middle), 16 (bottom)
- Bottom row: 8 (left), 11 (center), 2 (right)

BEGINNER

Prime Sums

Normal 6x6 sudoku rules apply. Pairs of numbers marked with boxes must add to a prime number.

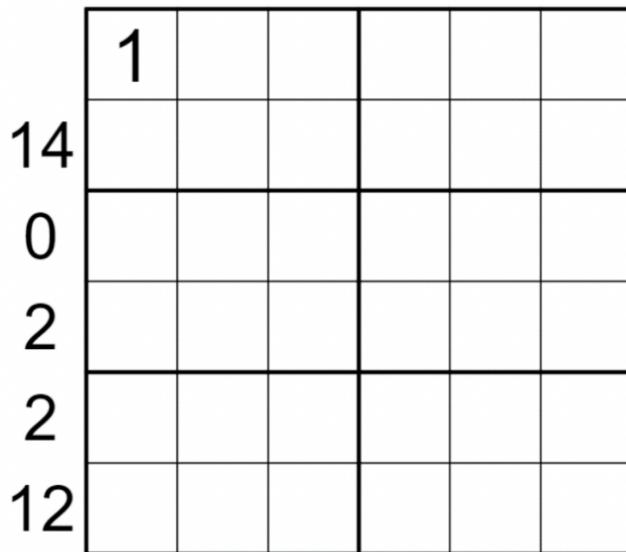


BEGINNER

Sandwich Sums

Normal 6x6 sudoku rules apply. Numbers at ends of rows and columns represent the sum of digits in between 1 and 6 (non-inclusive) in that row or column.

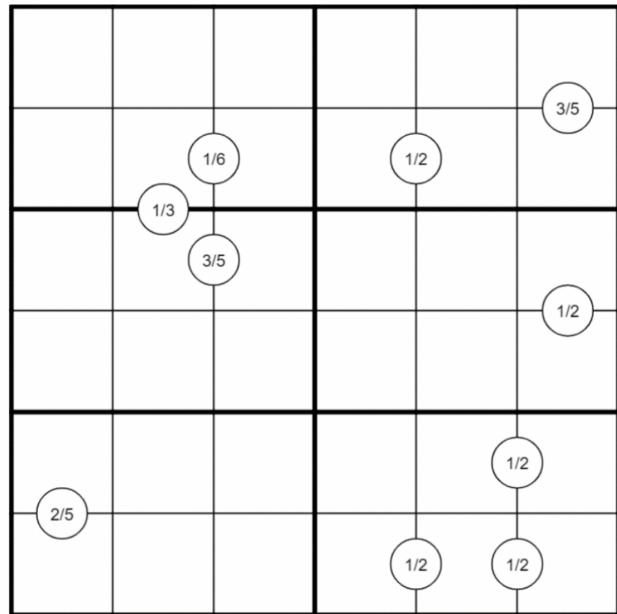
3 2 0 9 12



BEGINNER

Ratio

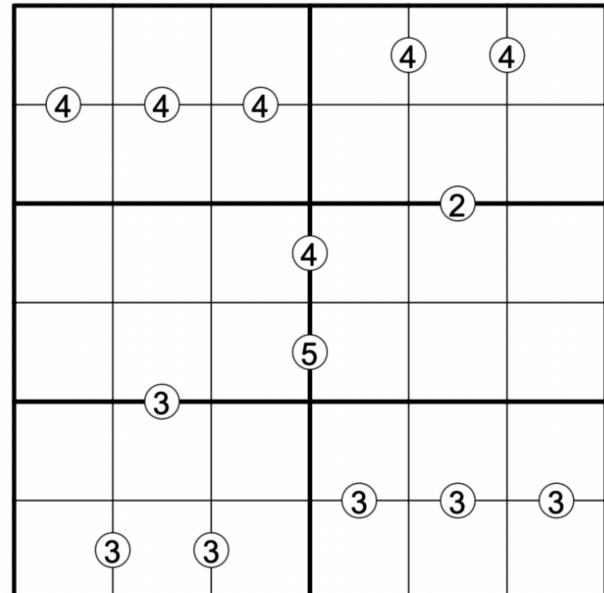
Normal 6x6 sudoku rules apply. Ratios between pairs of numbers (the smaller number over the greater number) are marked.



BEGINNER/EXPERIENCED

Difference or Greater

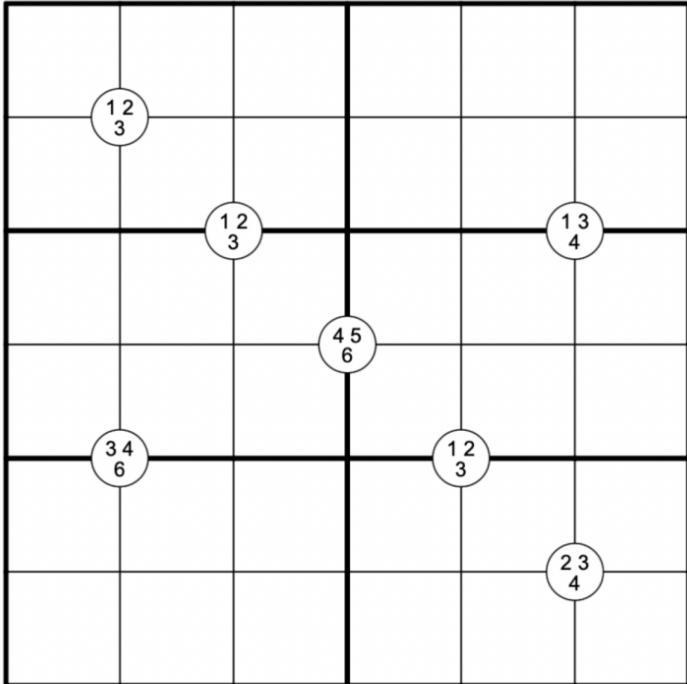
Normal 6x6 sudoku rules apply. Numbers in white circles equal either the difference between the two adjoining digits, or the greater of the two adjoining digits.



BEGINNER/EXPERIENCED

Quadruples

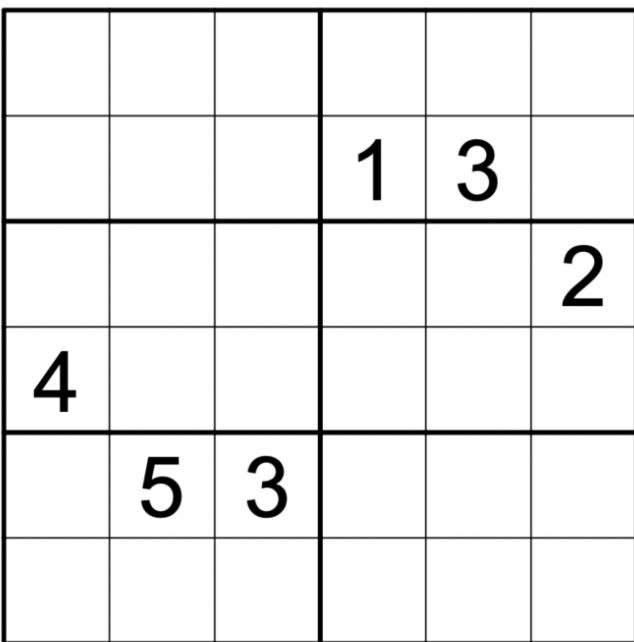
Normal 6x6 sudoku rules apply. Digits in white circles must appear somewhere in the four cells immediately surrounding their circle.



BEGINNER/EXPERIENCED

No 3 in a Row

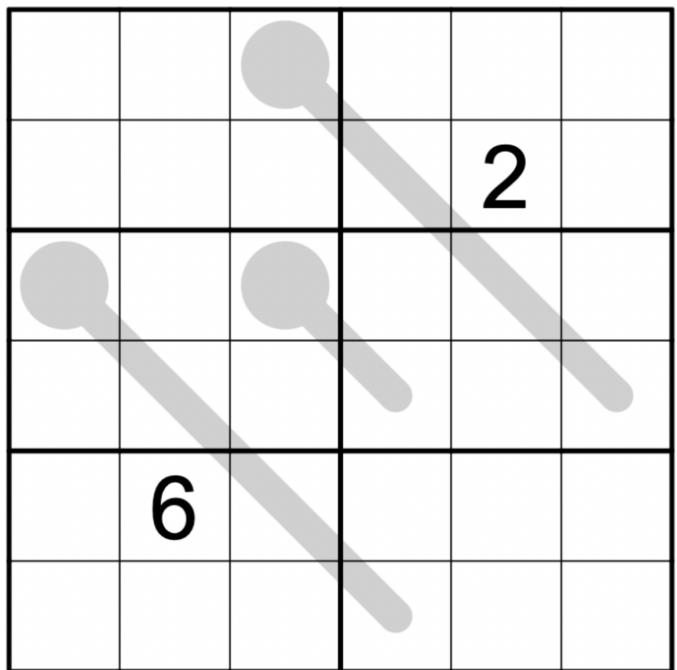
Normal 6x6 sudoku rules apply. No set of 3 adjacent digits in a row or column may be all odd or all even.



BEGINNER/EXPERIENCED

Thermo

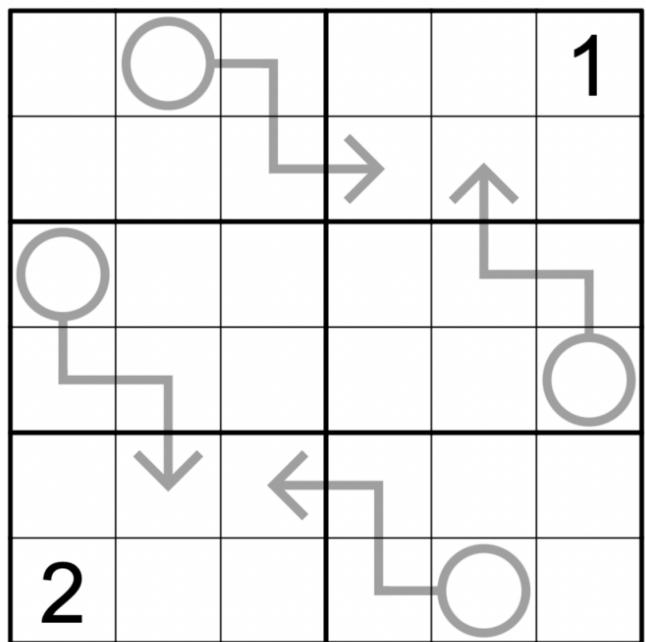
Normal 6x6 sudoku rules apply. Digits along thermometers must strictly increase from the round bulb to the tip.



BEGINNER/EXPERIENCED

Arrow

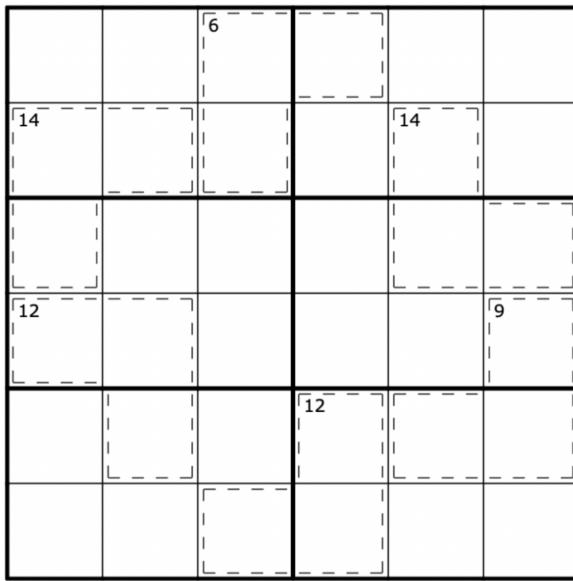
Normal 6x6 sudoku rules apply. Digits along an arrow sum to the value in the adjoining circle. Digits may repeat along an arrow if permitted by Sudoku rules.



EXPERIENCED

Killer

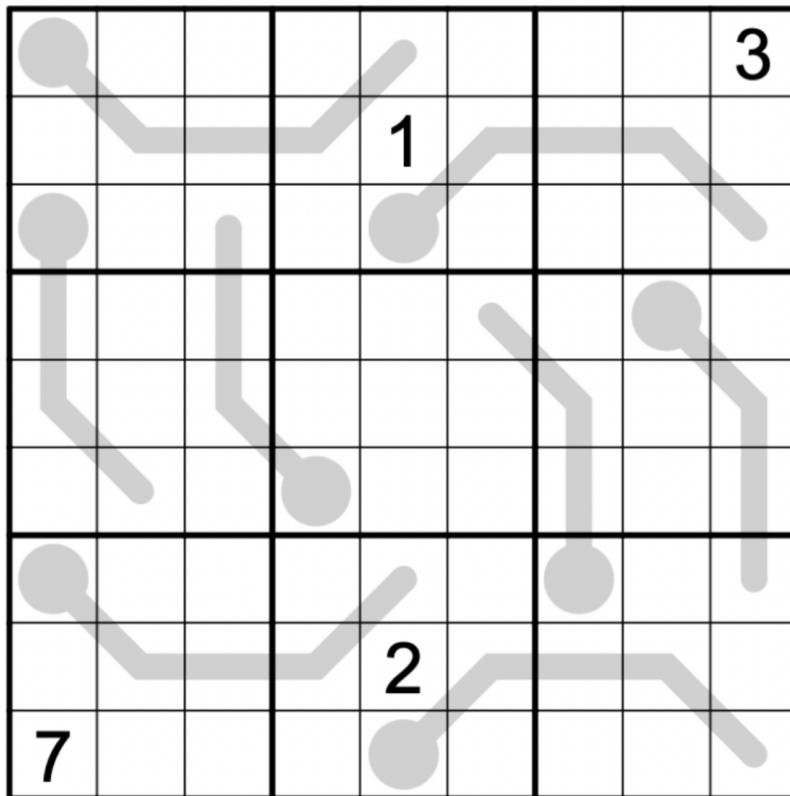
Normal 6x6 sudoku rules apply. Digits in cages may not repeat and must sum to the indicated number.



EXPERIENCED

Thermo

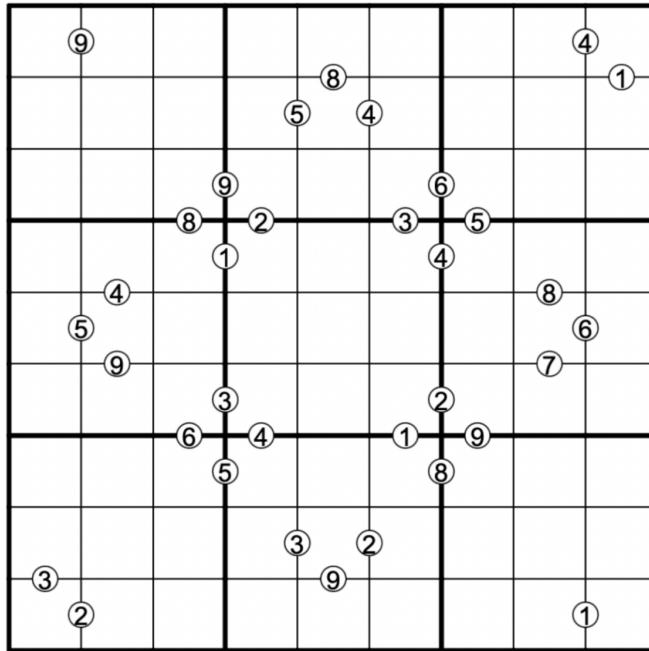
Normal 9x9 sudoku rules apply. Digits along thermometers must strictly increase from the round bulb to the tip.



EXPERIENCED

Either/Or

Normal 9x9 sudoku rules apply. A digit in a white circle must appear in one of the two cells touching that circle.



EXPERIENCED

X-Sums

Normal 9x9 sudoku rules apply. Clues outside of the grid give the sum of the first N digits in their row or column (counting from the direction of the clue), where N is the first digit in that row or column (nearest to the clue)

