Episode – 3
21st – 27th March 2025

Odd Even & Irregular
by
James Peter

Sudoku Mahabharat rounds will also serve as qualifiers for Indian Sudoku Championship for year 2025. Please check http://logicmastersindia.com/SM/2025sm.asp **for details.**

Important Links

Submission Page : http://logicmastersindia.com/live?contest=SM202503

Discussion Thread : http://logicmastersindia.com/t/?tid=4196

F. A. Q. : http://logicmastersindia.com/t/?tid=2773

Registration, if required : http://logicmastersindia.com/register.asp

About this Episode

This episode has 18 Sudokus with the following breakdown:

- 2* Classic Sudoku 6x6 and 4* Classic Sudoku 9x9
- 1 each of Odd-Sum Pair Sudoku 6x6 and Odd-Sum Pair Sudoku 9x9
- 1 each of Odd Even Sudoku 6x6 and Odd Even Sudoku 9x9
- 1 each of Battenburg Sudoku 6x6 and Battenburg Sudoku 9x9
- 1 each of Irregular Sudoku 6x6 and Irregular Sudoku 9x9
- 1 each of Scattered Sudoku 6x6 and Scattered Sudoku 9x9
- 1 each of Instructionless Sudoku 6x6 and Instructionless Sudoku 9x9

How to participate?

- Understand the rules of different variants that will appear in this episode. This Instruction Booklet has rules for each of them.
- Any time on or after 21st Mar (but on or before 27th Mar), login at the submission page using your LMI user-id and password. Please check the submission page for exact timing.
- **If you plan to solve on paper:**
  a) Download the password protected Puzzle booklet (will be uploaded before the test starts). The Puzzle booklet contains the actual Puzzles to be solved. It is password protected, so you won't be able to open it.
  b) Click on "Start". At this time, password for pdf will be shown and timer will start. **The contest duration is 90 minutes.**
  c) The puzzle booklet can be downloaded, printed and solved on paper.
  d) We advise you to have a printer accessible with enough paper.
  e) You are allowed to use writing implements, eraser, blank paper (including commercial graph paper), ruler, scissors, and tape.
- **If you plan to solve on LMI's Penpa-Integrated Interface:**
  a) Click on this link and understand the instructions - https://logicmastersindia.com/live/faq-online-solving.asp
  b) It is noted on the link too, but we note it here as well to be clear – the participants must still input the answer keys in the boxes below the puzzle and submit them to receive credit as given below.
- Irregular solving help of any kind is not permitted. This includes but is not limited to: assistance of any kind from any other person; prepared notes, books, calculators, computers, or tools other than items explicitly permitted.
- Participants may use both paper solving and online solving, even interchangeably. Eventually our system will only count anything submitted in the submission boxes in either mode.

If you are participating at LMI for first time, it will be useful to check the F.A.Q. at http://logicmastersindia.com/t/?tid=2773.

About answer keys and Submission

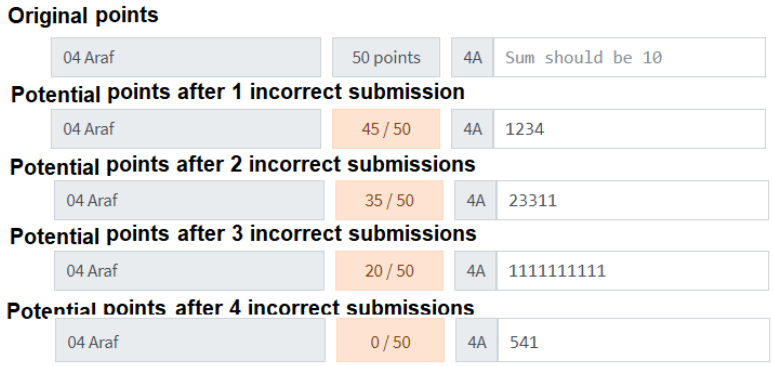
- After solving the puzzle, you need to submit the puzzle using the answer keys.
- You may submit the answer keys anytime during the test duration.
- Answer keys are always to be entered from left to right or top to bottom
- Don't enter any separator unless specified in the answer key
- If one row and one column is marked, enter the row first and then the column
- If multiple rows are marked, enter from top to bottom for marked rows
- If multiple columns are marked, enter from left to right for marked columns

Points Table and Scoring

Points typically indicate difficulty of the Puzzles and time required to solve them. You will get full points if you enter the correct answer key. While the organizers have made best efforts to match them, **your personal experience and preference may differ.**

Classic Sudoku 6x6	2, 1
Classic Sudoku 9x9	7, 4, 7, 4
Odd-Sum Pair Sudoku 6x6 & 9x9	2, 4
Odd Even Sudoku 6x6 & 9x9	2, 8
Battenburg Sudoku 6x6 & 9x9	3, 9
Irregular Sudoku 6x6 & 9x9	4, 11
Scattered Sudoku 6x6 & 9x9	4, 13
Instructionless Sudoku 6x6 & 9x9	5, 10

This test uses instant grading where a solver can submit any individual Puzzle and receive confirmation that the solution is correct or not. Each incorrect submission reduces the puzzle's potential score. The first, second, third, and fourth incorrect submissions reduce the potential score to 90%, 70%, 40%, and 0% respectively. A demonstration for this is shown below.



Bonus and Ranking

If you submitted all Puzzles correctly, you can have bonus points 1 point per minute saved, computed up to seconds.

Ranking will be based on following rules in order:

1. Most total points
2. Earliest final submission time, up to seconds (ignoring incorrect submissions)

Credits

- **Botaku** and **Wessel Strijkstra** for test solving the puzzles and providing invaluable feedback.
- The original creator **opt-pan** for penpa edit - https://opt-pan.github.io/penpa-edit/
- **Swaroop Guggilam** for his recent efforts in adding features to Penpa-edit - https://swaroopg92.github.io/penpa-edit/ and also working to integrate it with our contest engine.

About the Puzzle Booklet

The password protected Puzzle booklet will have 9 pages. This is relevant only for paper solvers.

Solutions to examples are towards the end of the booklet in the Solutions section.

Rules Powered by Sudokuib - https://github.com/vopani/sudokuib

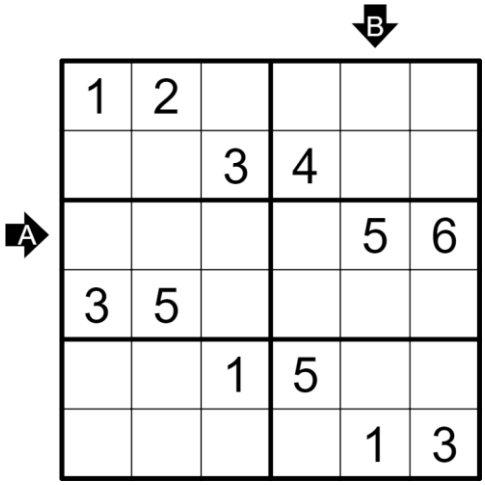
All answer keys are the same for all puzzles – enter the contents of the marked rows/columns, including given digits, along the direction of the arrow.

1-2 Classic Sudoku 6x6

2 + 1 points

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

Penpa for example:
https://tinyurl.com/2nvezsrr

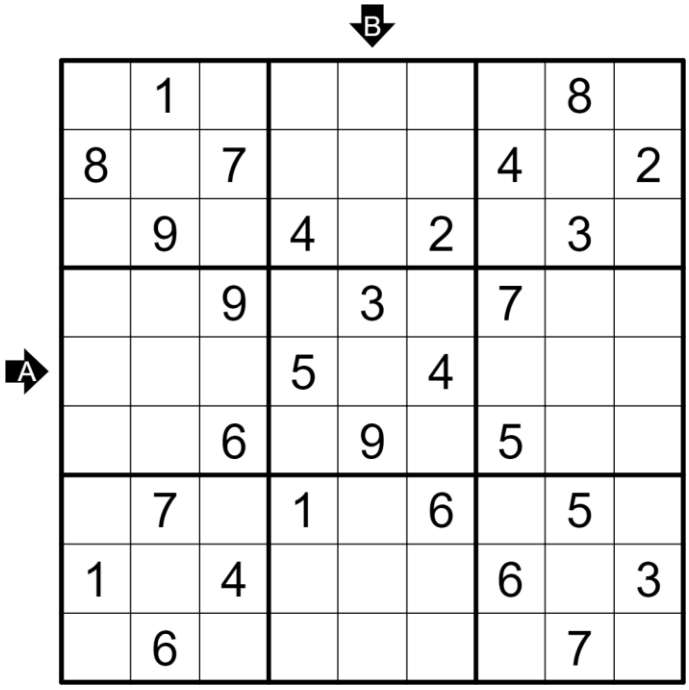


3-6 Classic Sudoku 9x9

7 + 4 + 7 + 4 points

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

Penpa for example:
https://tinyurl.com/333ntt48



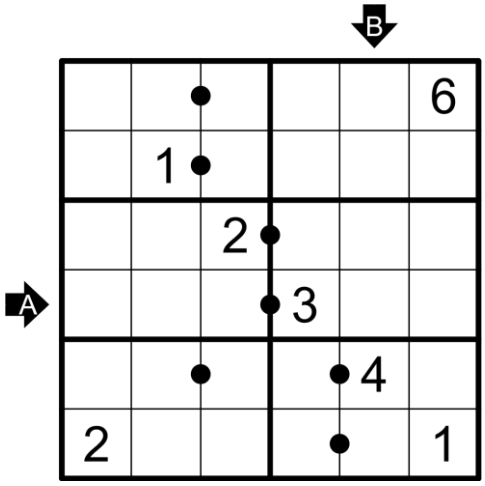
7 Odd-Sum Pair Sudoku 6x6

2 points

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

Adjacent cells marked by a circle contain digits whose sum is odd. Not all possible circles are marked.

Penpa for example:
https://tinyurl.com/2az8y2ba



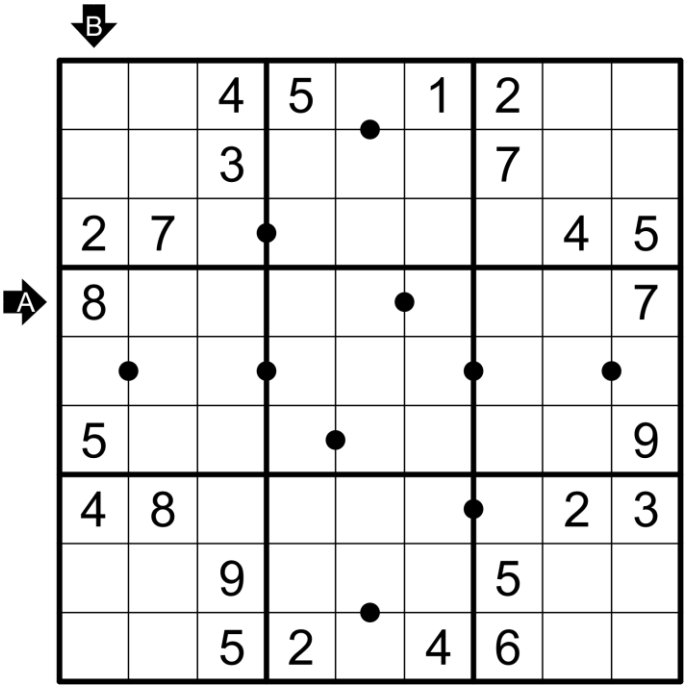
8 Odd-Sum Pair Sudoku 9x9

4 points

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

Adjacent cells marked by a circle contain digits whose sum is odd. Not all possible circles are marked.

Penpa for example:
https://tinyurl.com/23ha9gt8



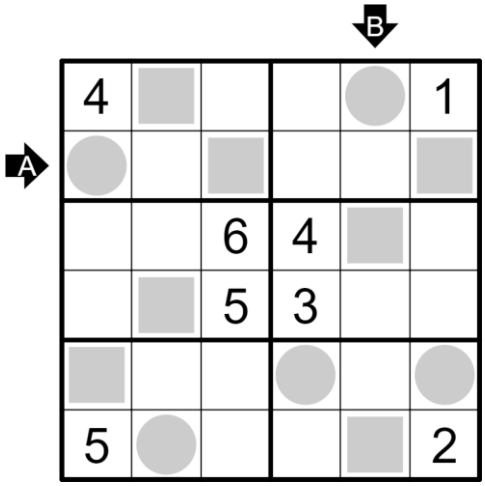
9 Odd Even Sudoku 6x6

2 points

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

Cells with shaded squares contain even digits. Cells with shaded circles contain odd digits.

Penpa for example:
https://tinyurl.com/y9lkr7qx



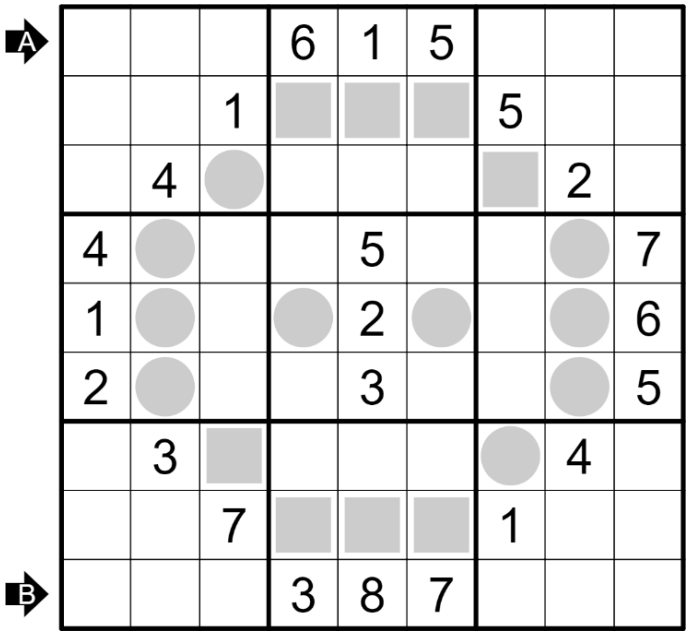
10 Odd Even Sudoku 9x9

8 points

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

Cells with shaded squares contain even digits. Cells with shaded circles contain odd digits.

Penpa for example:
https://tinyurl.com/ycdl98wf



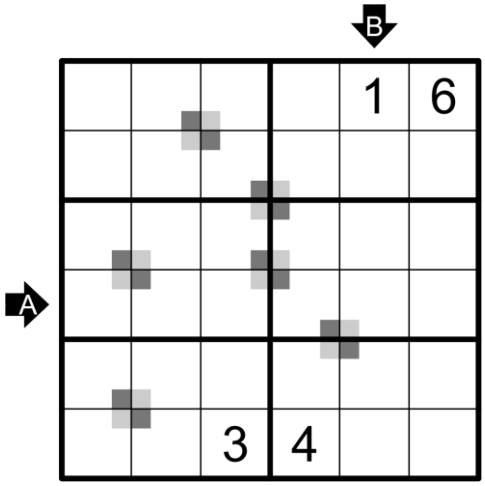
11 Battenburg Sudoku 6x6

3 points

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

Each 2x2 area with two odd digits and two even digits forming a checkerboard pattern is marked with a battenburg symbol. All such 2x2 areas are marked.

Penpa for example:
https://tinyurl.com/2ybvqmje



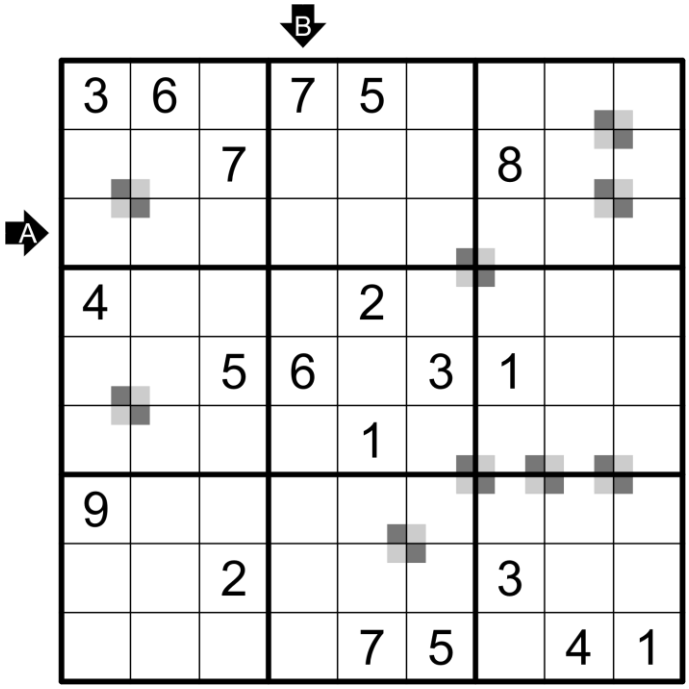
12 Battenburg Sudoku 9x9

9 points

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

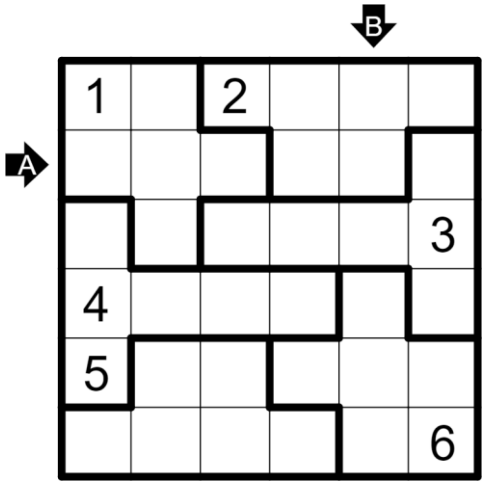
Each 2x2 area with two odd digits and two even digits forming a checkerboard pattern is marked with a battenburg symbol. All such 2x2 areas are marked.

Penpa for example:
https://tinyurl.com/27nhfp6v



13 Irregular Sudoku 6x6

4 points

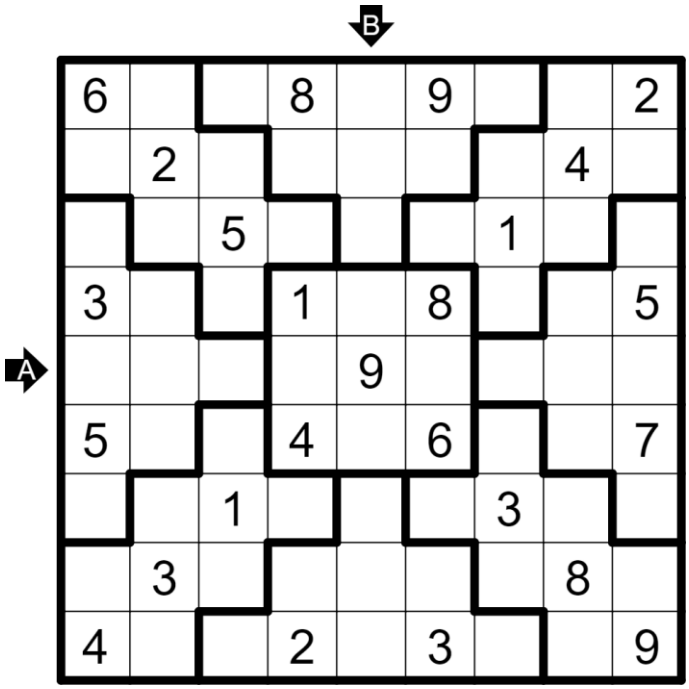


Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column and outlined region.

Penpa for example:
https://tinyurl.com/yxzhpmwc

14 Irregular Sudoku 9x9

11 points

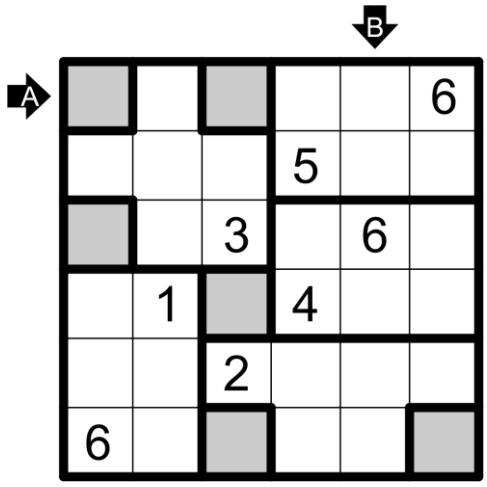


Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column and outlined region.

Penpa for example:
https://tinyurl.com/yxhb8q9n

15 Scattered Sudoku 6x6

4 points

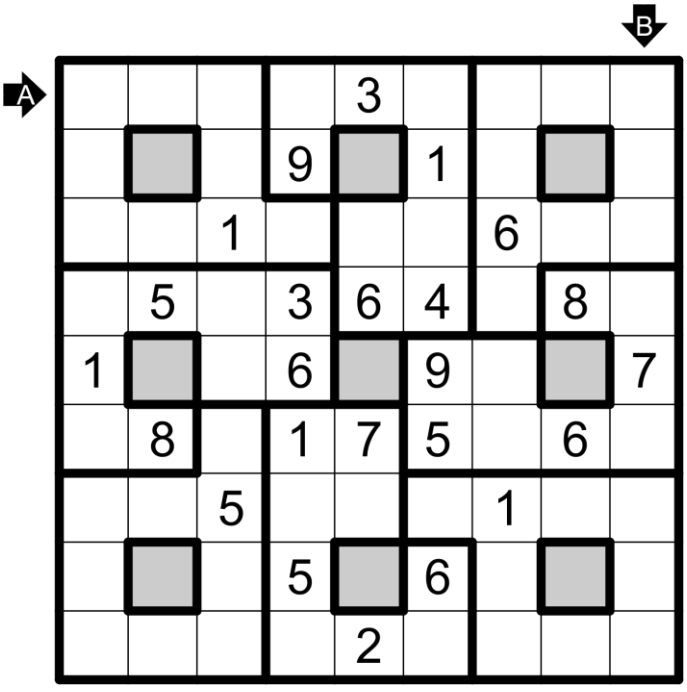


Place a digit from 1 to 6 into each empty cell in the grid so that each digit appears exactly once in each row, column, outlined region and the set of shaded cells.

Penpa for example:
https://tinyurl.com/2ykccqlx

16 Scattered Sudoku 9x9

13 points



Place a digit from 1 to 9 into each empty cell in the grid so that each digit appears exactly once in each row, column, outlined region and the set of shaded cells.

Penpa for example:
https://tinyurl.com/27l22z37

17 Instructionless Sudoku
6x6 & 9x9

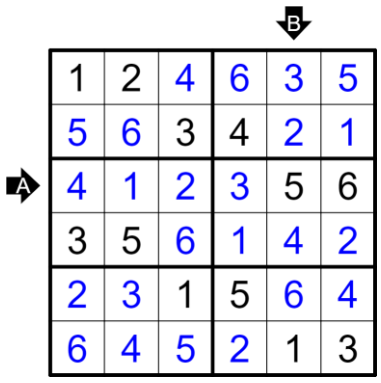
5 + 10 points

This section has no written instructions. In the competition, there will be a 6x6 iteration and a 9x9 iteration of the variant. Before both of these, there will be a 4x4 iteration of the variant, with the solution given next to it. The rules of the variant must be deduced from this 4x4 iteration and solution. The variant may or may not be something that has appeared in contests before.

Note: For online solving, the 'Rules' section of the two Instructionless Sudokus will have a link to the example. It is suggested that this be copy-pasted on the address bar in a new tab to get to the example and use it to deduce the rules. Alternately, the Puzzle Booklet can be kept open by online solvers too, and the example can be referred to from there.

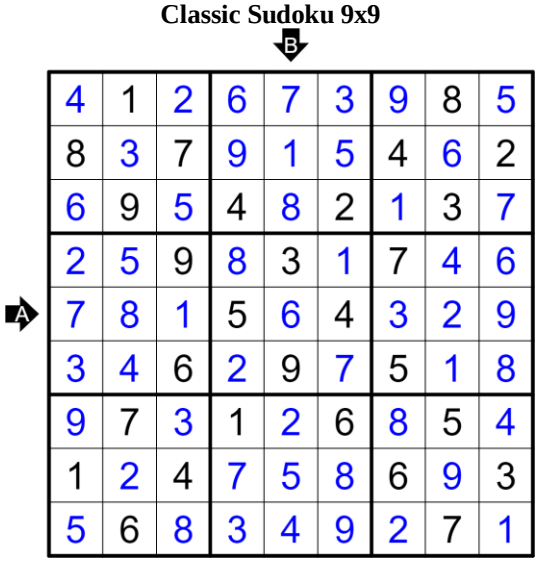
Solutions

Classic Sudoku 6x6



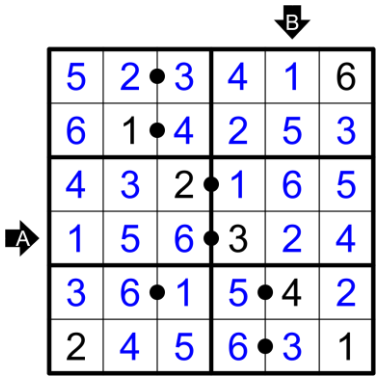
Key: 412356,325461

Classic Sudoku 9x9



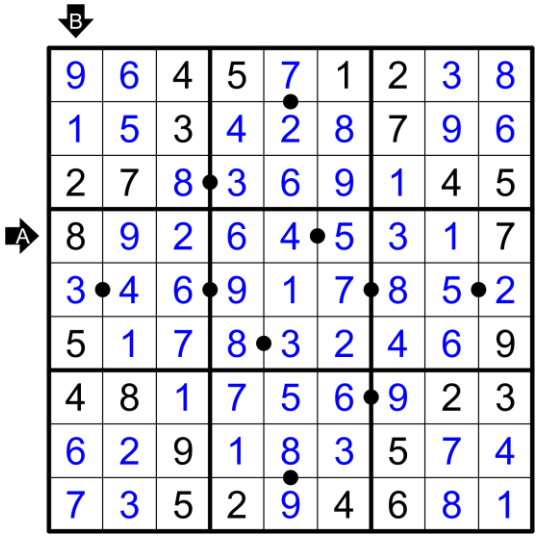
Key: 781564329,718369254

Odd-Sum Pair Sudoku 6x6



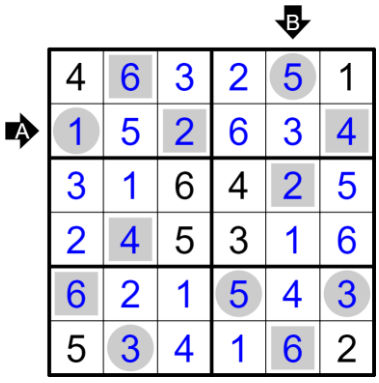
Key: 156324,156243

Odd-Sum Pair Sudoku 9x9



Key: 892645317,912835467

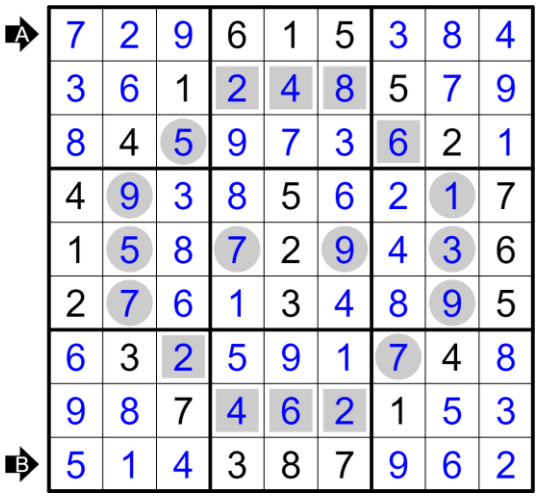
Odd Even Sudoku 6x6



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

Key: 152634,532146

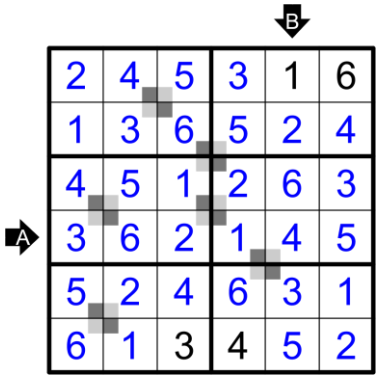
Odd Even Sudoku 9x9



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

Key: 729615384,514387962

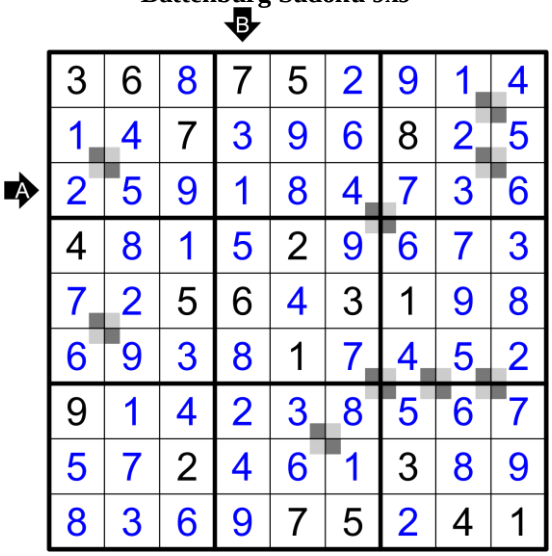
Battenburg Sudoku 6x6



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

Key: 362145,126435

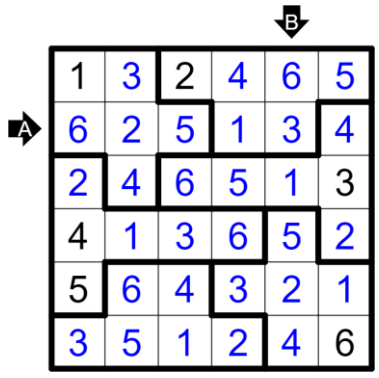
Battenburg Sudoku 9x9



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

Key: 259184736,731568249

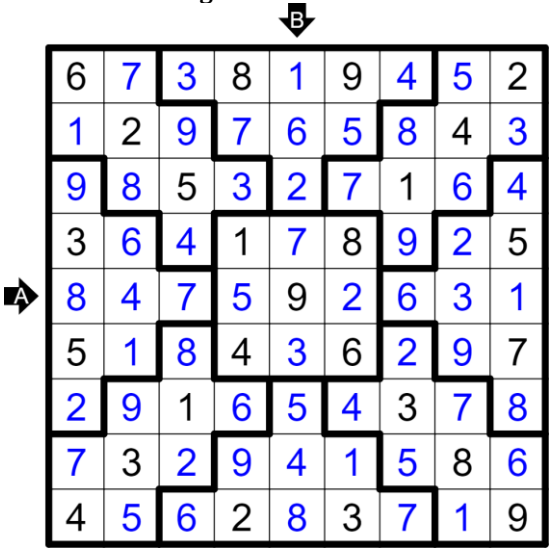
Irregular Sudoku 6x6



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

Key: 625134,631524

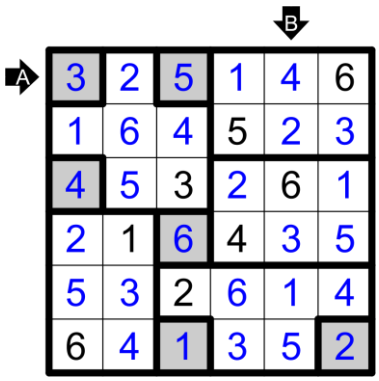
Irregular Sudoku 9x9



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

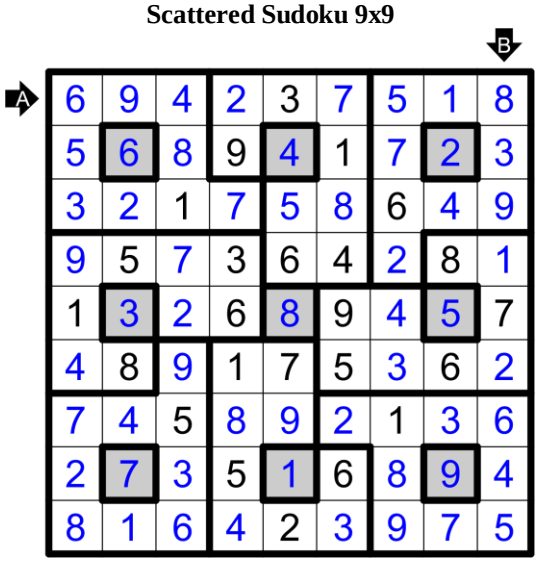
Key: 847592631,162793548

Scattered Sudoku 6x6



Key: 325146,426315

Scattered Sudoku 9x9



Key: 694237518,839172645