Episode – 1
14th – 20th February 2025

Standard & Converse
by
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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=SM202501

Discussion Thread : http://logicmastersindia.com/t/?tid=4167

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 Diagonal Sudoku 6x6 and Diagonal Sudoku 9x9
- 1 each of Thermo Sudoku 6x6 and Thermo Sudoku 9x9
- 1 each of Windoku 6x6 and Windoku 9x9
- 1 each of Disjoint Sudoku 6x6 and Disjoint Sudoku 9x9
- 1 each of Anti-Knight Sudoku 6x6 and Anti-Knight Sudoku 9x9
- 1 each of Big Neighbours Sudoku 6x6 and Big Neighbours 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 14th Feb (but on or before 20th Feb), 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.
- Disjoint 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

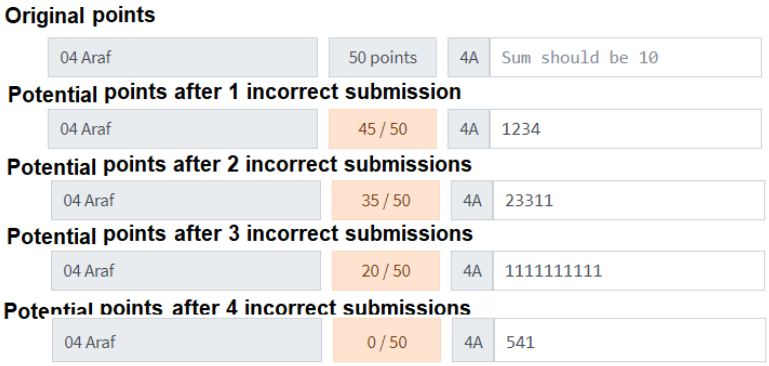
- After solving the puzzle, you need to submit the puzzle using the answer keys.
- You may submit the answer keys anytime during the test duration.
- Answer keys are always to be entered from left to right or top to bottom
- Don't enter any separator unless specified in the answer key
- If one row and 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	6, 5, 10, 8
Diagonal Sudoku 6x6 & 9x9	2, 7
Thermo Sudoku 6x6 & 9x9	5, 7
Windoku 6x6 & 9x9	1, 6
Disjoint Sudoku 6x6 & 9x9	2, 8
Anti-Knight Sudoku 6x6 & 9x9	2, 12
Big Neighbours Sudoku 6x6 & 9x9	3, 13

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

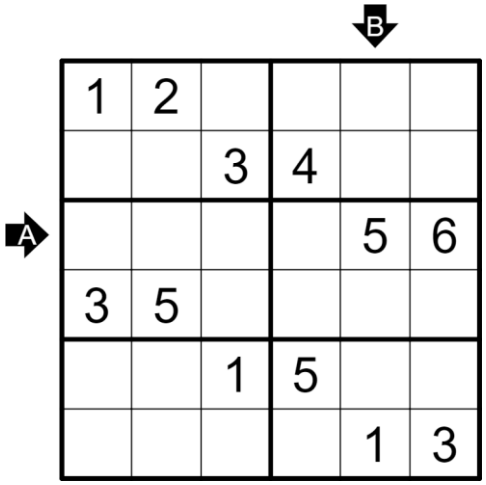
All answer keys are the same for all puzzles – enter the contents of the marked rows/columns, including given digits, along the direction of the arrow.

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

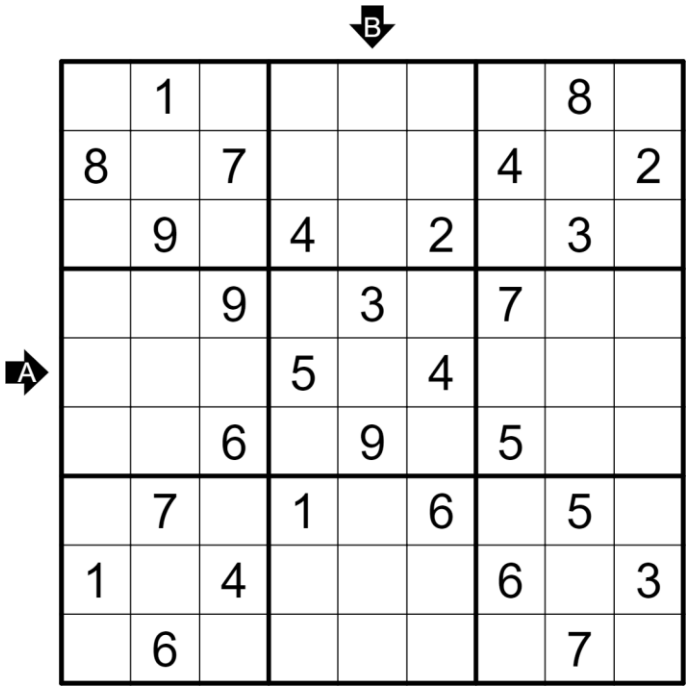


3-6 Classic Sudoku 9x9

6 + 5 + 10 + 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.

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



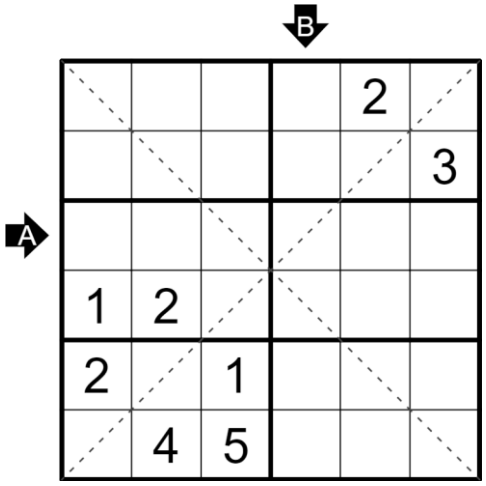
7 Diagonal Sudoku 6x6

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.

Each main diagonal contains each digit from 1 to 6.

Penpa for example:
https://tinyurl.com/yp7datzw



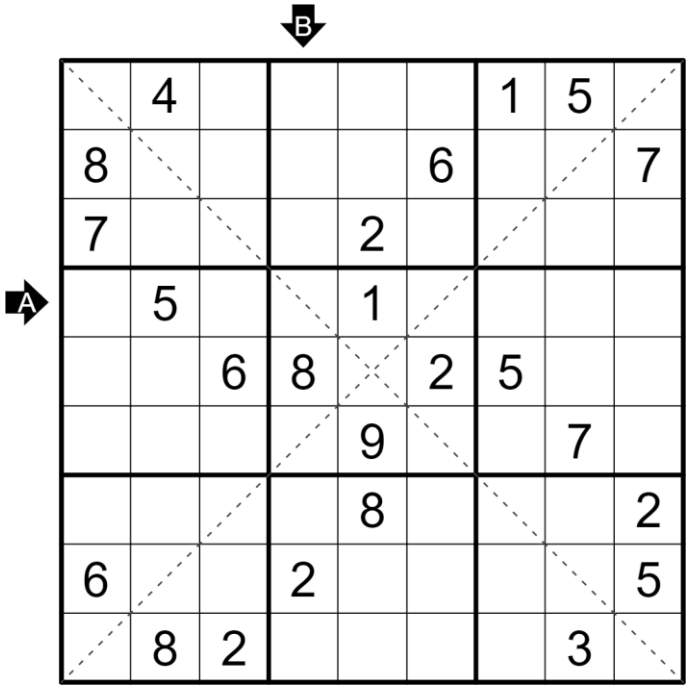
8 Diagonal Sudoku 9x9

7 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 main diagonal contains each digit from 1 to 9.

Penpa for example:
https://tinyurl.com/mtn4768r



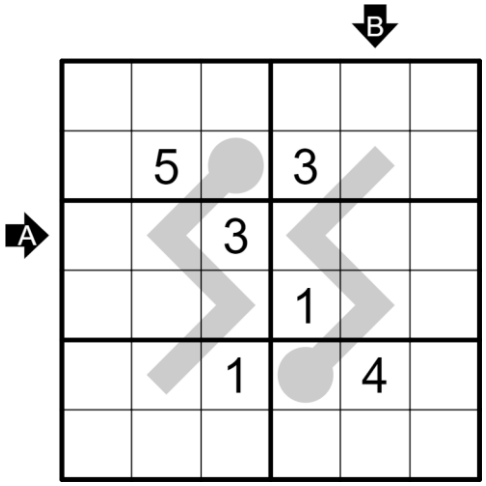
9 Thermo Sudoku 6x6

5 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.

Digits along each thermometer are strictly increasing from its bulb to each of its ends.

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



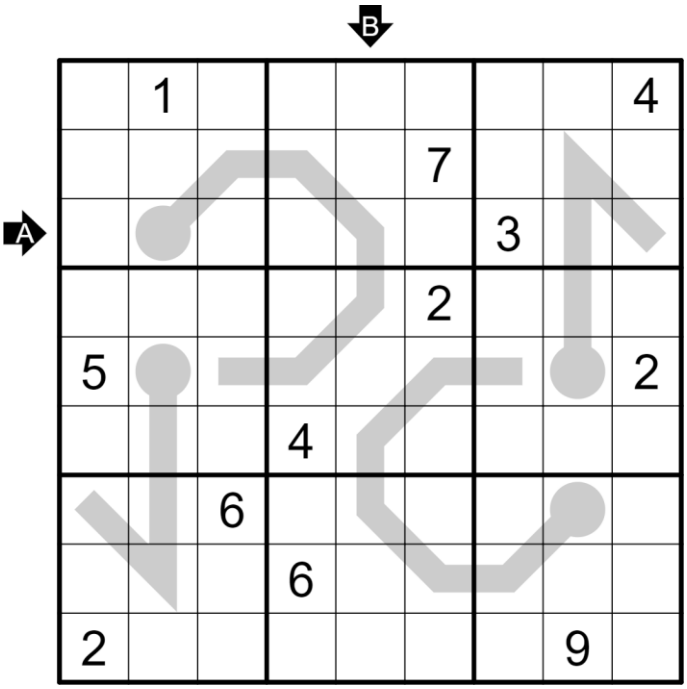
10 Thermo Sudoku 9x9

7 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.

Digits along each thermometer are strictly increasing from its bulb to each of its ends.

Penpa for example:
https://tinyurl.com/y78bk4bp



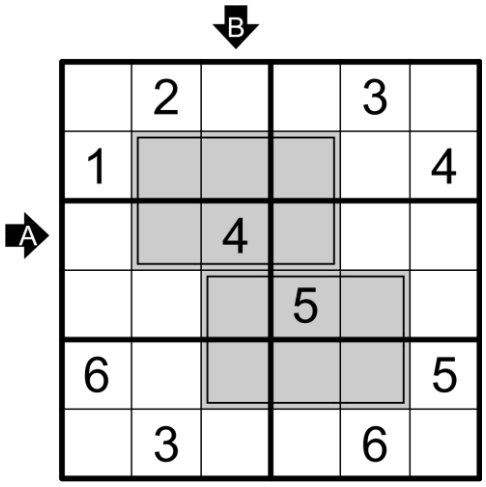
11 Windoku 6x6

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.

Each marked 2x3 region contains each digit from 1 to 6.

Penpa for example:
http://tinyurl.com/2688l8q3



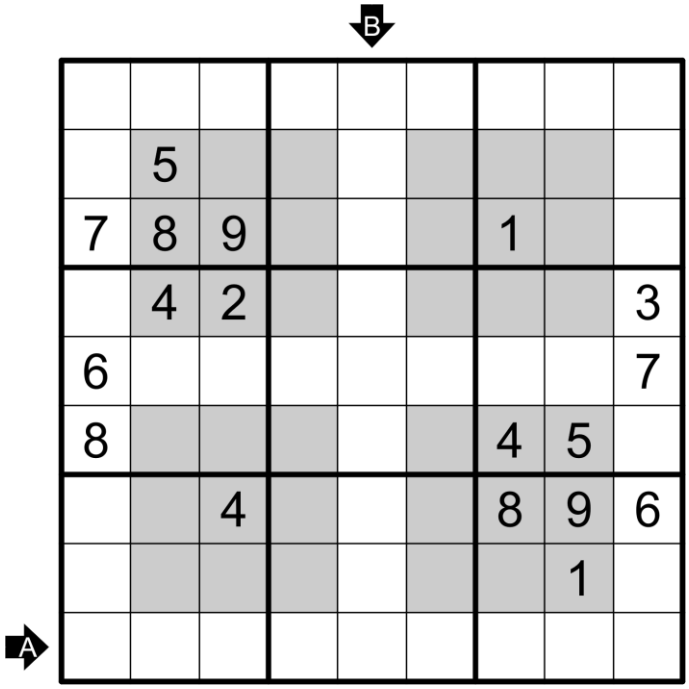
12 Windoku 9x9

6 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 marked 3x3 region contains each digit from 1 to 9.

Penpa for example:
http://tinyurl.com/25lb89o2



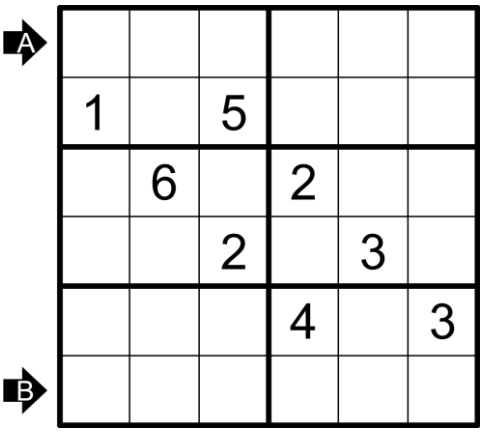
13 Disjoint Sudoku 6x6

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.

No digit can appear in the same cell position in different 2x3 outlined boxes.

Penpa for example:
https://tinyurl.com/25u3x6b5



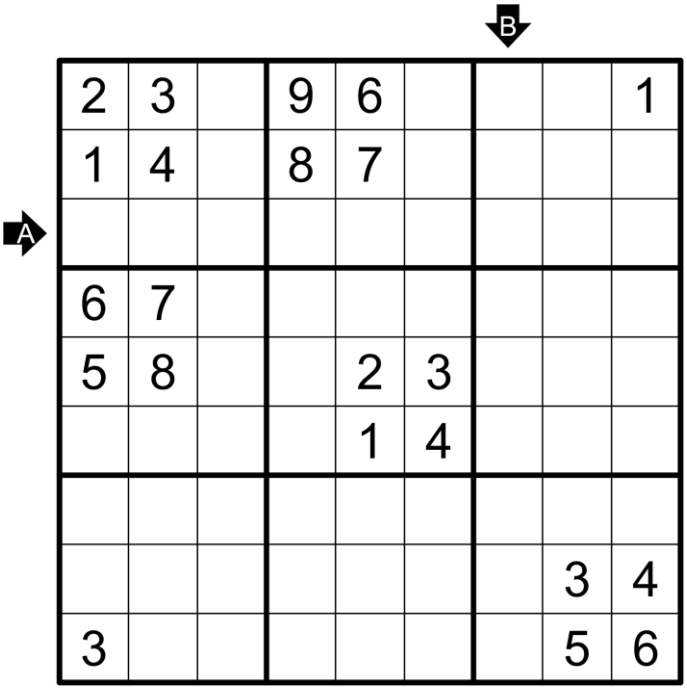
14 Disjoint Sudoku 9x9

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.

No digit can appear in the same cell position in different 3x3 outlined boxes.

Penpa for example:
https://tinyurl.com/22h3yjwz



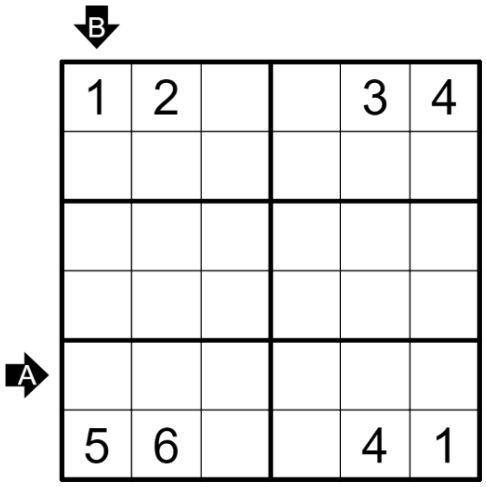
15 Anti-Knight Sudoku 6x6

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 outlined region.

No cell that is a knight-step away can contain the same digit. A knight's move is 2 in a line and 1 to the side, as in chess.

Penpa for example:
https://tinyurl.com/y2uy3ajd



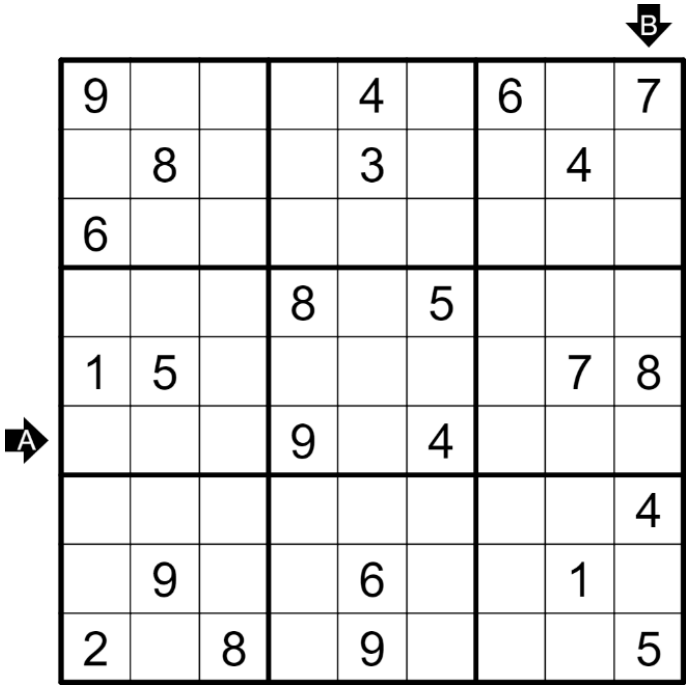
16 Anti-Knight Sudoku 9x9

12 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.

No cell that is a knight-step away can contain the same digit. A knight's move is 2 in a line and 1 to the side, as in chess.

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



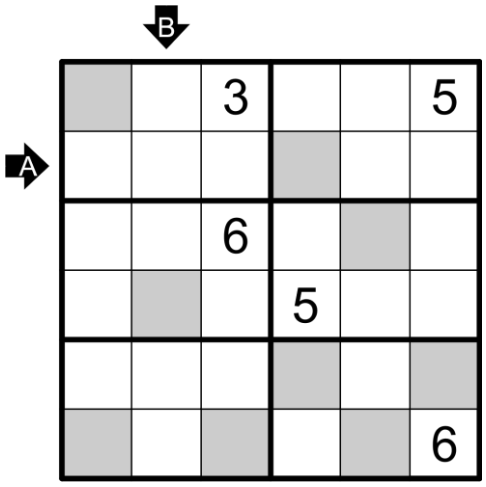
17 Big Neighbours Sudoku 6x6

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.

Digits in shaded cells are smaller than all of their orthogonal neighbours. All shaded cells are given.

Penpa for example:
https://tinyurl.com/2anln7v9



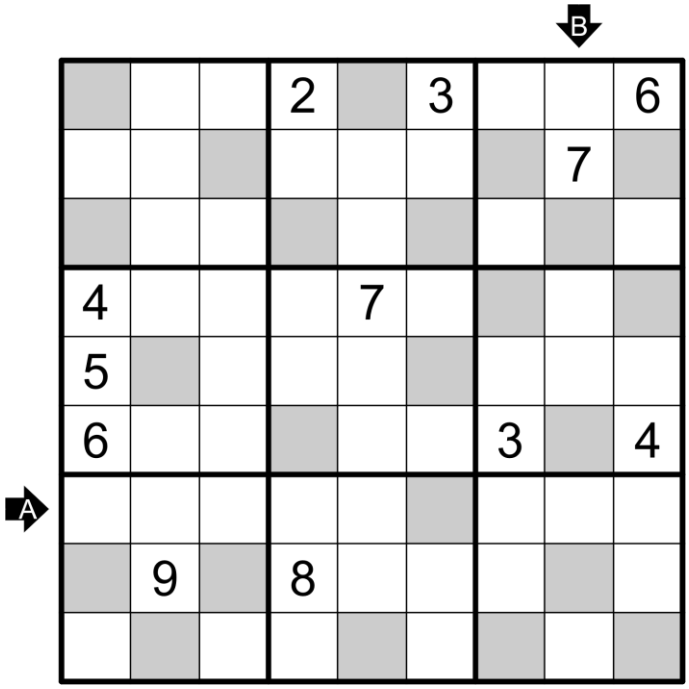
18 Big Neighbours Sudoku 9x9

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 and 3x3 outlined box.

Digits in shaded cells are smaller than all of their orthogonal neighbours. All shaded cells are given.

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



Solutions

Classic Sudoku 6x6

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

Key: 412356,325461

Classic Sudoku 9x9

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

Key: 781564329,718369254

Diagonal Sudoku 6x6

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

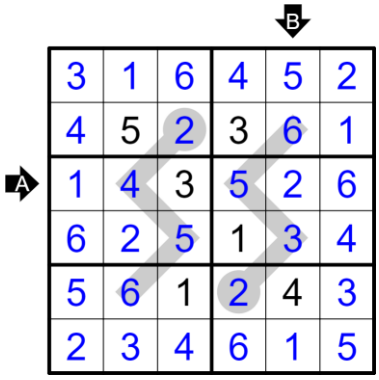
Key: 356214,462351

Diagonal Sudoku 9x9

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

Key: 359617248,943685127

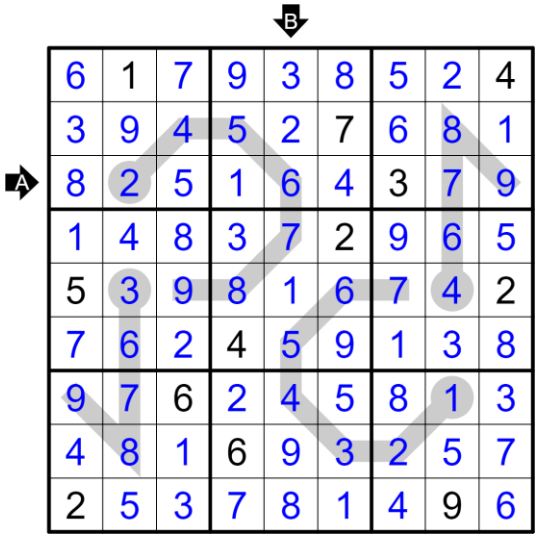
Thermo Sudoku 6x6



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

Key: 143526,562341

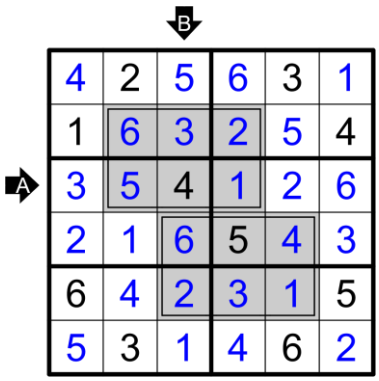
Thermo Sudoku 9x9



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

Key: 825164379,326715498

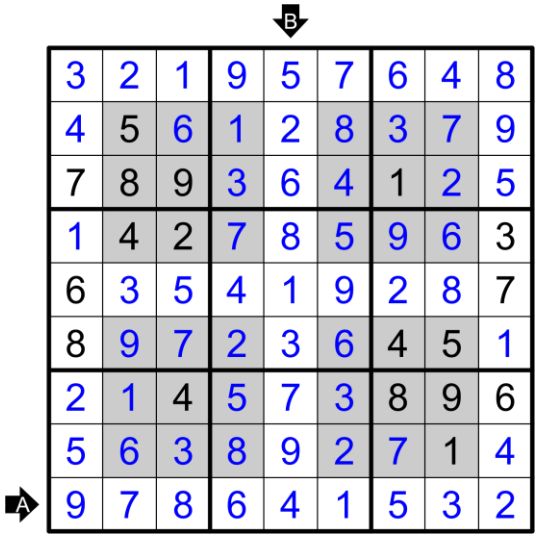
Windoku 6x6



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

Key: 354126,534621

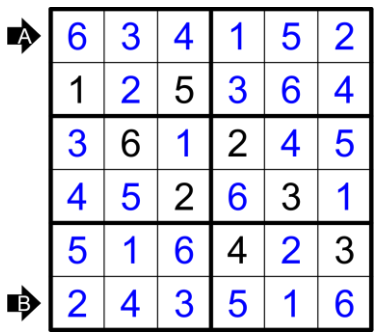
Windoku 9x9



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

Key: 978641532,526813794

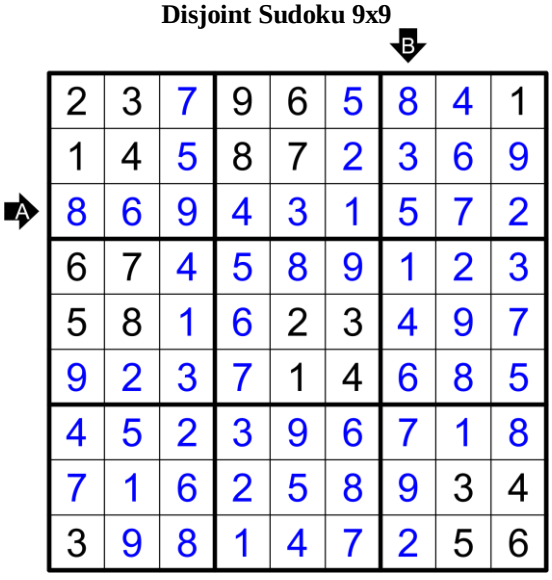
Disjoint Sudoku 6x6



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

Key: 634152,243516

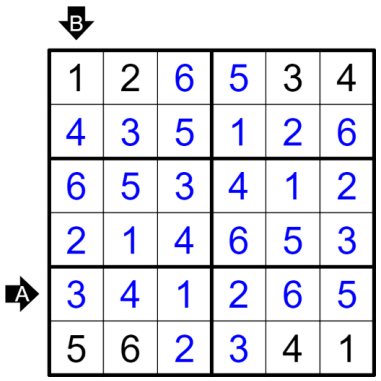
Disjoint Sudoku 9x9



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

Key: 869431572,835146792

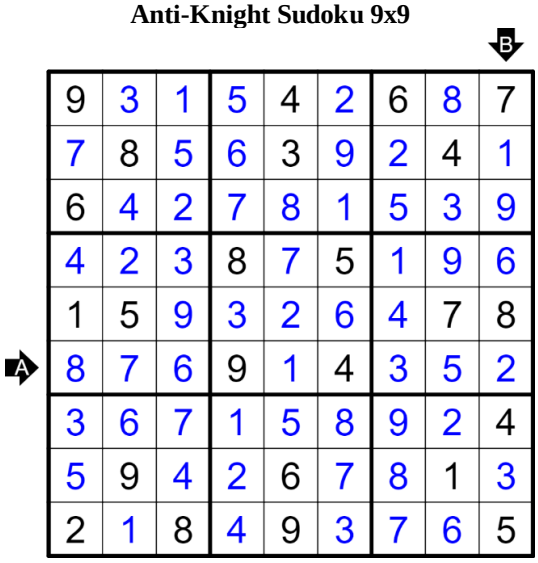
Anti-Knight Sudoku 6x6



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

Key: 341265,146235

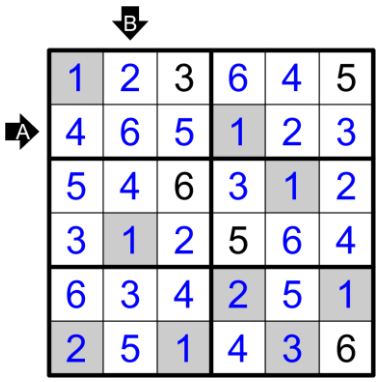
Anti-Knight Sudoku 9x9



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

Key: 876914352,719682435

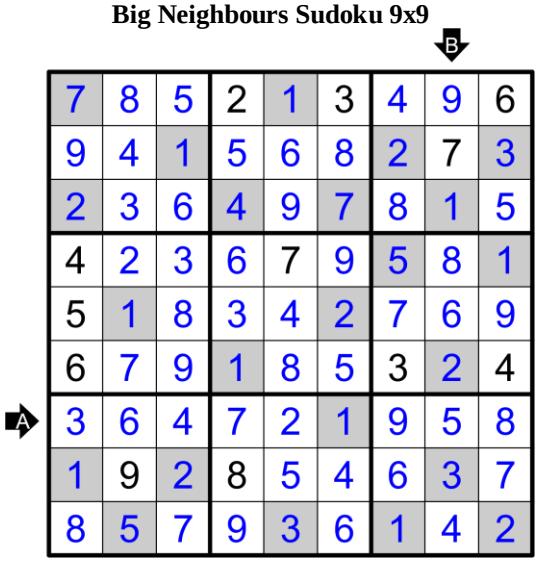
Big Neighbours Sudoku 6x6



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

Key: 465123,264135

Big Neighbours Sudoku 9x9



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

Key: 364721958,971862534