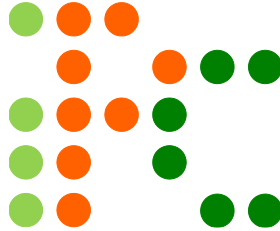# puzzle
Ramayan

and

Episode – 1
24th – 28th January 2020

Classics
by
Rakesh Rai

Puzzle Ramayan rounds will also serve as qualifiers for Indian Puzzle Championship for year 2020. Please check <http://logicmastersindia.com/PR/2020pr.asp> **for details.**

About this Episode

This episode has 22 Puzzles from the following puzzle types:

- 3* Numberlink
- 3* Black and White
- 3* Thermometer
- 3* Hitori
- 3* Kakuro
- 3* Sudoku
- 2* Black and White and Grey
- 2* Kakurodoku

How to participate?

- Understand the rules of different puzzles that will appear in this episode. This Instruction Booklet has rules for each puzzle.
- 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.
- Any time on or after 24th January (but on or before 28th January), login at the submission page using your LMI userid and password. Please check the submission page for exact timing.
- Click on "Start". At this time, password for pdf will be shown and timer will start.
- The puzzle booklet should be downloaded, printed and solved on paper.
- There will not be any interface / applet to solve the puzzles on web browser.
- Most of the puzzles are designed to be solved faster on paper.
- We advise you to have a printer accessible with enough paper.
- Outside 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.
- You are allowed to use writing implements, eraser, blank paper (including commercial graph paper), ruler, scissors, and tape.

If you are participating at LMI for first time, you must check the F.A.Q. at
http://logicmastersindia.com/t/?tid=381.

About answer keys and Submission

- Each puzzle has some answer keys, as described in the instructions.
- 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. You may consider submitting a puzzle as soon as you solve it.
- 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
- If horizontal and vertical keys are needed, first enter the horizontal and then the vertical
- Uppercase or lower case of answer key does not matter
- Characters other than alphabets, numbers and comma will be removed while checking the answer

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.

Numberlink	1, 2, 2
Black and White	2, 4, 6
Thermometer	1, 7, 9
Hitori	1, 5, 6
Kakuro	7, 8, 9
Sudoku	1, 5, 4
Black and White and Grey	1, 2
Kakurodoku	8, 9

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.

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)
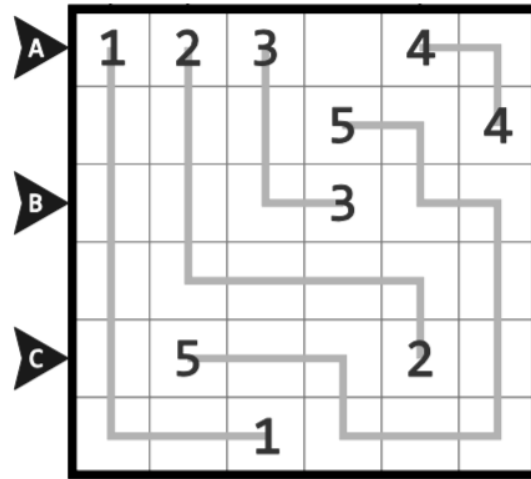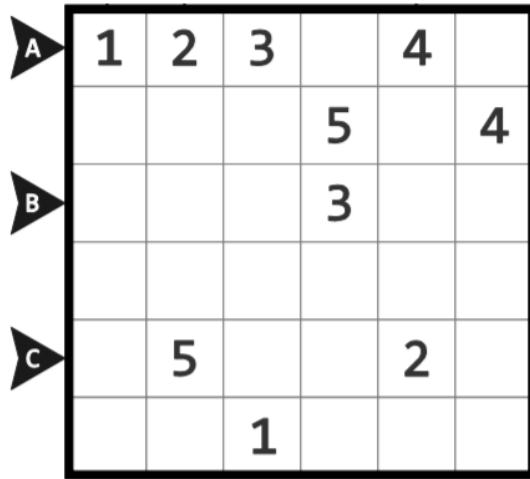
About the Puzzle Booklet

The password protected Puzzle booklet will have X pages. We expect you to print and solve on paper, so you would need to have a printer accessible with enough paper.

1-3 Numberlink

1 + 2 + 2 points

Connect every pair of digits through horizontal/ vertical paths such that no two paths touch or cross each other.
[The puzzles in the contest will be of sizes 6x6, 8x8 and 10x10. This example is 6x6.]

Answer Key: For each marked row enter the lengths of horizontal segments (number of cells) from left to right. For each marked column enter the lengths of vertical segments (number of cells) from top to bottom.
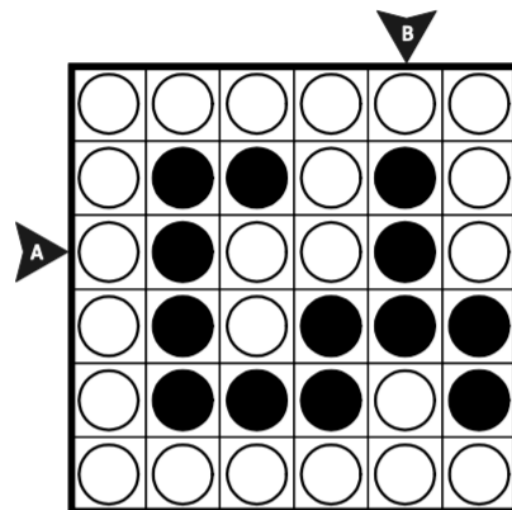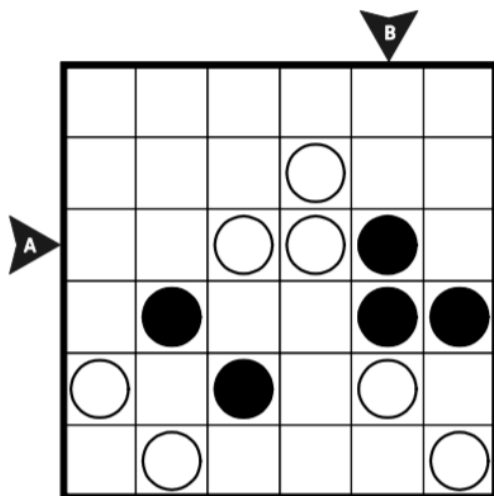Example: 2, 22, 3

4-6 Black and White

2 + 4 + 6 points

Place either a black or a white circle in each empty cell, so that the grid is divided into two areas of black and white. All circles of same colour should be connected to each other, vertically or horizontally. No 2X2 group of cells can contain circles of a single colour.
[The puzzles in the contest will be of sizes 6x6, 8x8 and 10x10. This example is 6x6.]

Answer Key: For each marked row/column, enter the lengths of continuous white and black circle blocks - from left to right / top to bottom
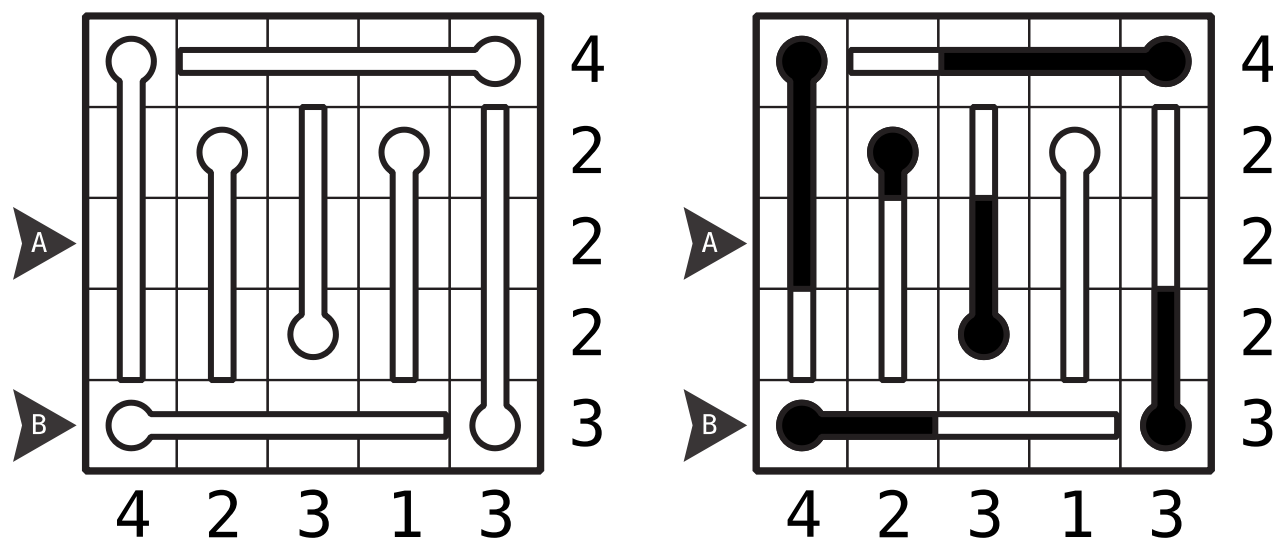Example: 11211, 132

7-9 Thermometer

1 + 7 + 9 points

Fill the thermometers with mercury, such that the numbers outside the grid indicate how many cells in each row and column are filled. Mercury always starts filling from the base (circular part) of a thermometer towards the top.
[The puzzles in the contest will be of sizes 6x6, 8x8 and 10x10. This example is 5x5]

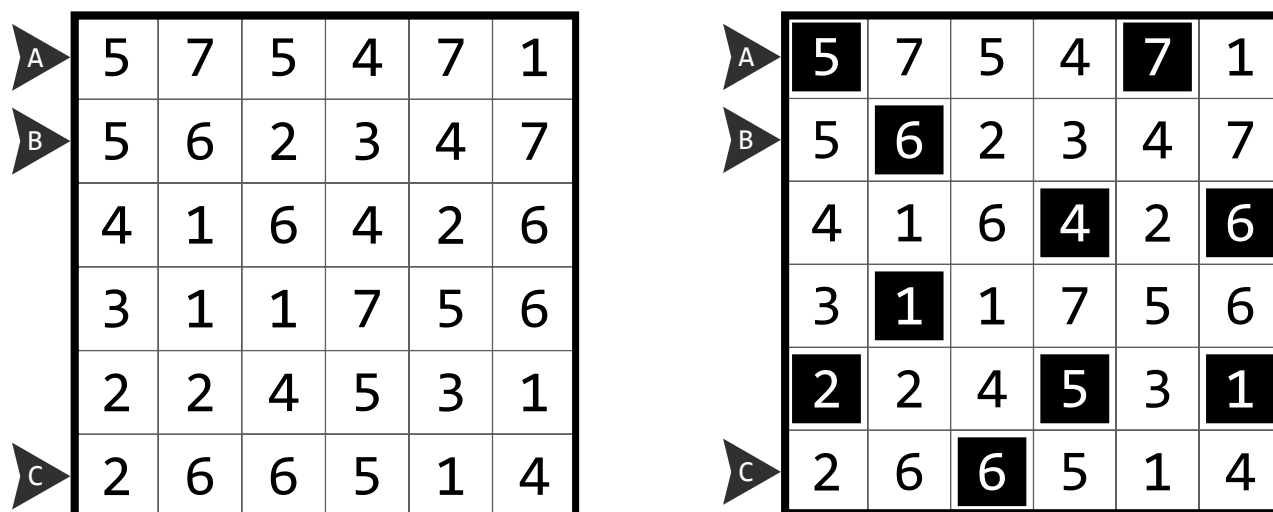**Answer Key: Enter the length of continuous areas of filled and unfilled cells in the marked rows/columns.**
Example: 1112, 221

10-12 Hitori

1 + 5 + 6 points

Shade cells such that digits do not repeat in rows and columns. Shaded cells cannot be orthogonally adjacent to each other and all unshaded cells must be orthogonally connected.
[The puzzles in the contest will be of sizes 6x6, 8x8 and 10x10. This example is 6x6.]

Answer Key: Enter the length of continuous areas of shaded and unshaded cells in the marked rows/columns.
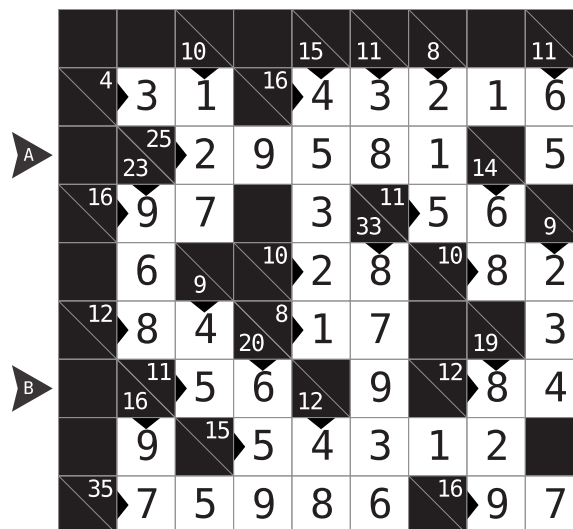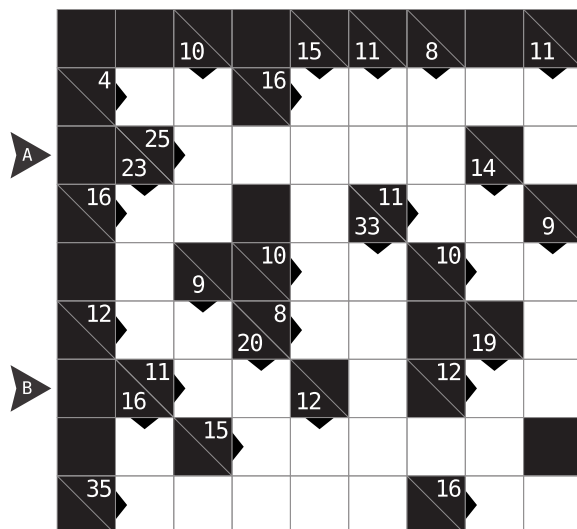**Example: 1311, 114, 213**

Classics

13-15 Kakuro

7 + 8 + 9 points

Fill in the white cells in the grid with digits from 1 to 9. The sum of digits in each horizontal / vertical group of cells is given on its left/top. Digits do not repeat within any set of consecutive white cells.
[The puzzles in the contest will have range 1-6, 1-8 and 1-9. This example uses 1-9.]

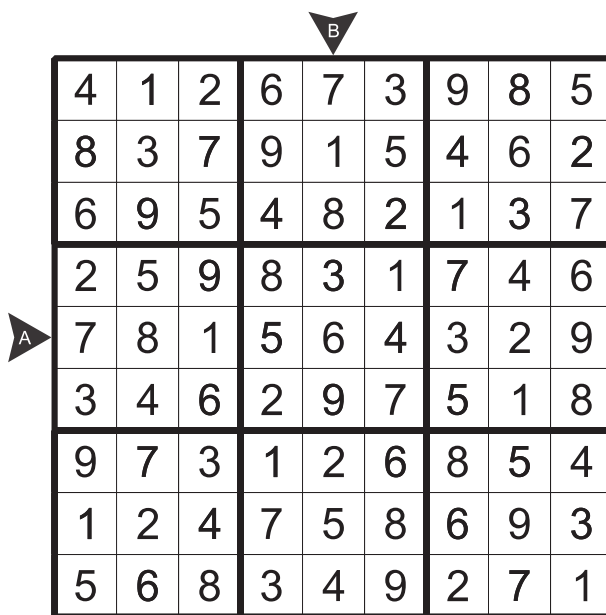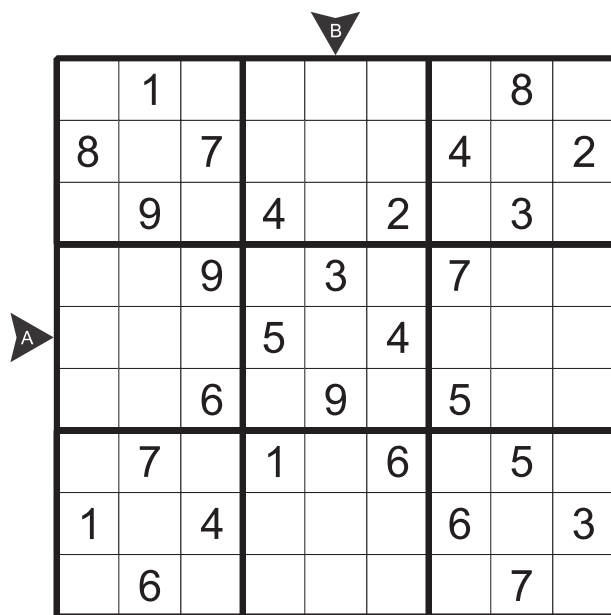**Answer Key: Enter the contents of the marked rows/columns.**
Example: 295815, 56984

16-18 Sudoku

1 + 5 + 4 points

Place a digit from 1 to 9 in each empty cell so that each digit appears exactly once in each row, column and 3X3 box.
[The puzzles in the contest will be of sizes 6x6, 8x8 and 9x9. This example is 9x9.]

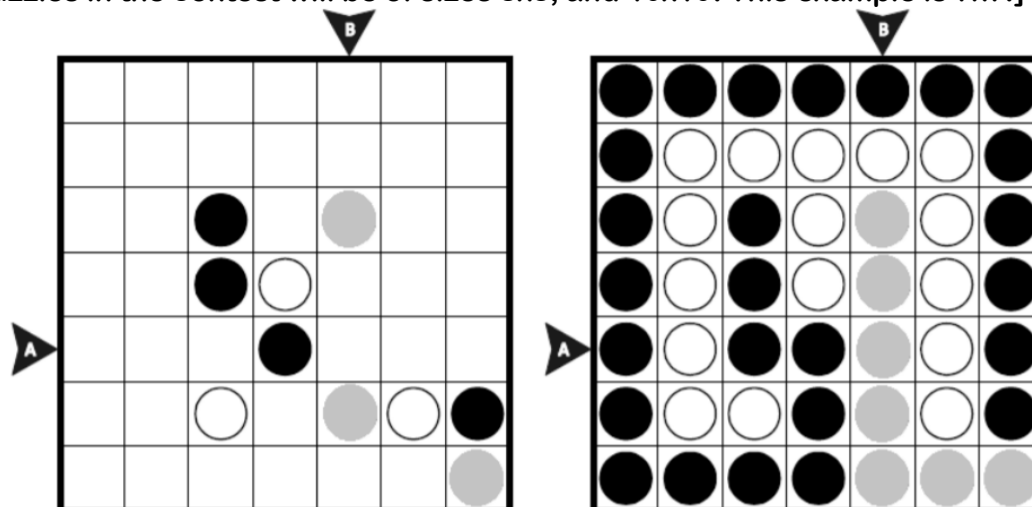**Answer Key: Enter the numbers in the marked rows/columns.**
Example: 781564329, 718369254

19-20 Black and White and Grey

1 + 2 points

Place either a black or white or grey circle in each empty cell, so that the grid is divided into three areas of black, white and grey. All circles of same colour should be connected to each other, vertically or horizontally. No 2X2 group of cells can contain circles of a single colour.
[The puzzles in the contest will be of sizes 8x8, and 10x10. This example is 7x7.]

Answer Key: For each marked row/column, enter the lengths of continuous black or white or grey circle blocks - from left to right / top to bottom
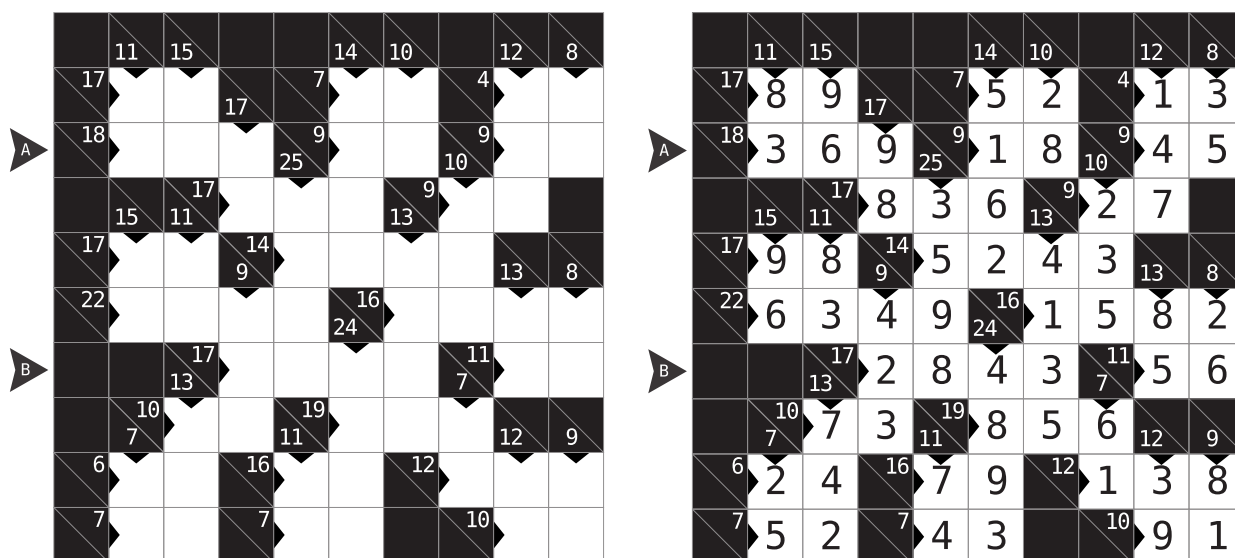Example: 112111,115

21-22 Kakurodoku

8 + 9 points

Fill in the white cells in the grid with digits from 1 to 9. The sum of digits in each horizontal / vertical group of cells is given on its left/top. Digits do not repeat in any row or column.
[The puzzles in the contest will have range 1-8 and 1-9. This example uses 1-9.]

Answer Key: Enter the contents of the marked rows/columns.
Example: 3691845, 284356