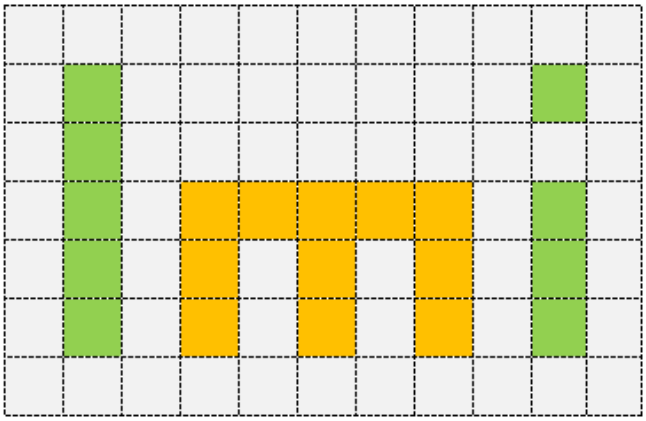
puzzle ramayan &

Episode – 4
28th– 30th November 2015



Regions by Rakesh Rai

Puzzle Ramayan rounds will also serve as qualifiers for Indian Puzzle Championship for year 2016. Please check http://logicmastersindia.com/PR/2015-16pr.asp **for details.**

Important Links

Submission Page : http://logicmastersindia.com/PR/201511/

Discussion Thread : http://logicmastersindia.com/PR/201511/discuss.asp

F. A. Q. : http://logicmastersindia.com/t/?tid=381

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

About this Episode

This episode has 22 puzzles, with 5 base puzzle types and 2 derived puzzles.

• 4* Yin Yang • 4* Spiral Galaxies • 4* Fillomino • 4* Area Division • 4* Shikaku	• 1* No-Rectangles Fillomino • 1* Spiral Galaxies 4/5

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 28th November and on or before 30th November, 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

- YinYang: For each marked row/column, enter the length of continuous white and black circle blocks - from left to right / top to bottom.
- All other puzzles: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom. **For Spiral Galaxies 4/5, ignore the black cells for the answer key.**
- Each row/column will be marked with a letter arrow. Enter the answers accordingly on the submission page.
- The submission page will check sum of digits entered in the answer key, and will flag if it does not match with the number of cells in the row/column.

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.

Yin Yang	1, 2, 4, 7
Spiral Galaxies	2, 4, 6, 10
Fillomino	2, 2, 5, 5
Area Division	1, 1, 4, 8
Shikaku	1, 1, 3, 10
No-Rectangles Fillomino	7
Spiral Galaxies 4/5	14

Instant Grading

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 submission reduces 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, upto seconds (ignoring incorrect submissions)

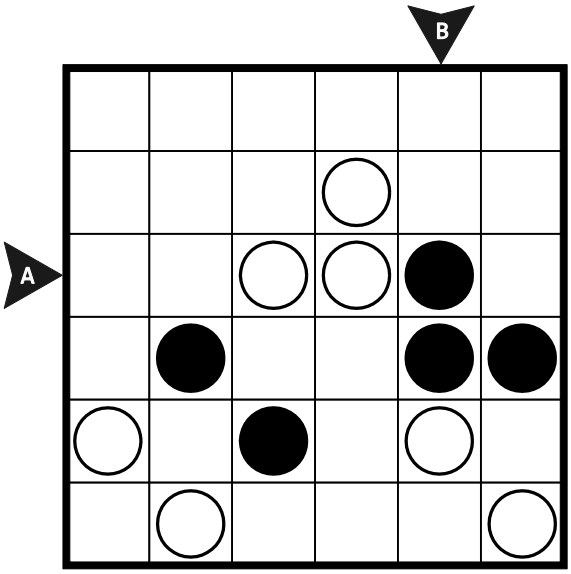
About the Puzzle Booklet

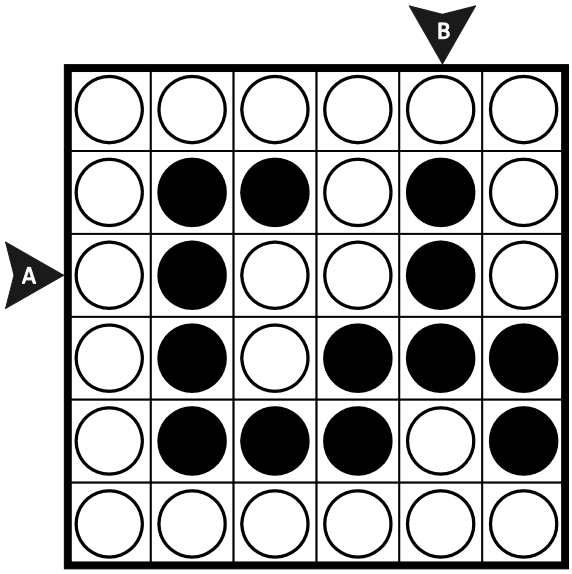
The password protected Puzzle booklet will have 7 pages. We expect you to print and solve on paper, so you would need to have a printer accessible with enough paper.

The font sizes, cell sizes, colors, borders, shading, margin in the puzzle booklet and instruction booklet will be similar.

Yin Yang 1 + 2 + 4 + 7 points

- Divide the grid into two regions of black and white by placing either a black or a white circle in each empty cell.
- All circles of same color are connected to each other, vertically or horizontally.
- No 2X2 group of cells can contain circles of a single color.

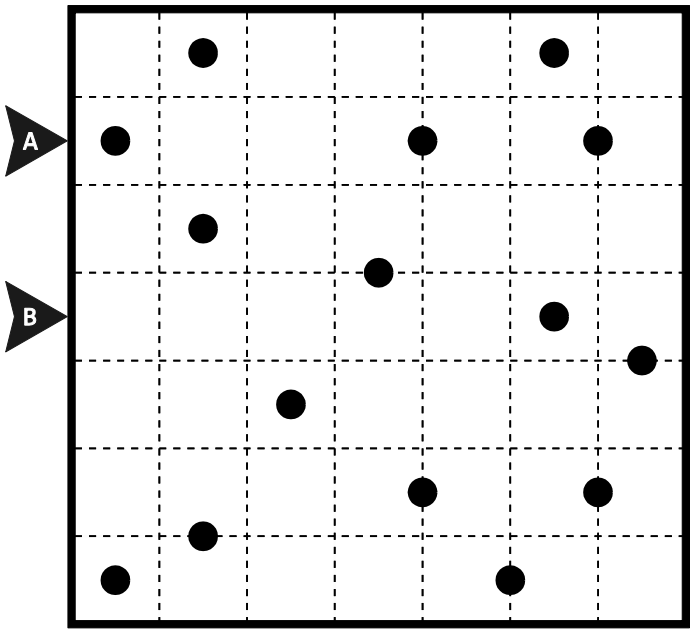


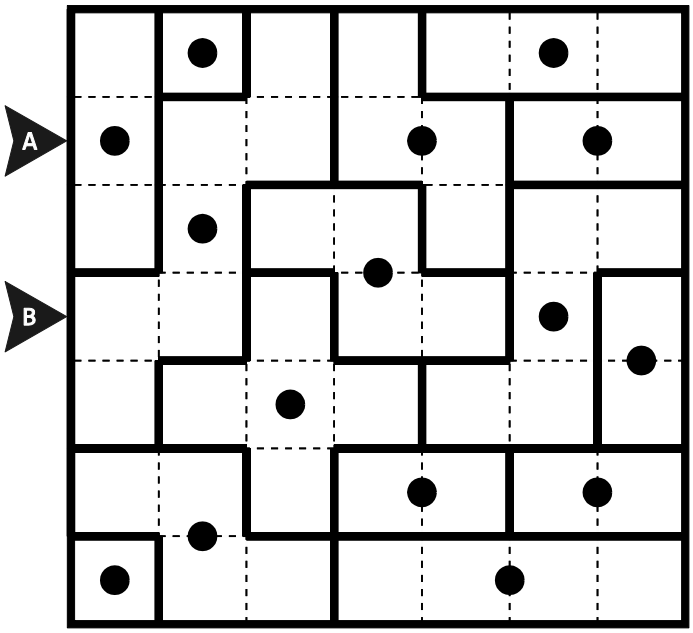


Answer Key: For each marked row/column, enter the length of continuous white and black circle blocks - from left to right / top to bottom. For the example, the answer key will be 11211,132

Spiral Galaxies 2 + 4 + 6 + 10 points

- Divide the grid into 180 degree symmetrical regions along the gridlines, so that each cell is part of only one region.
- Each region must contain exactly one circle, which represents the central symmetry point of the region. All circles are given.
- All cells must be part of a region.

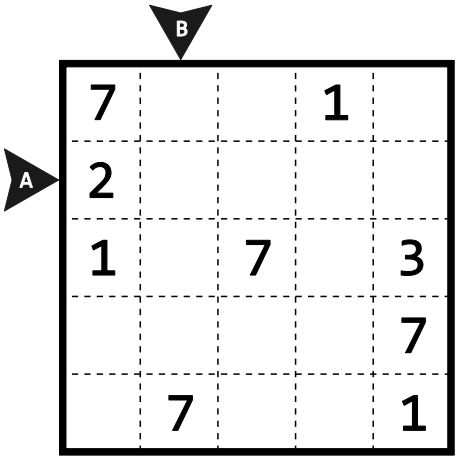


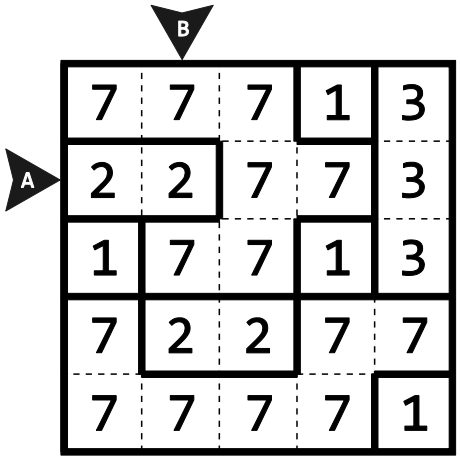


Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom. For the example, the answer key will be 1222,21211

Fillomino 2 + 2 + 5 + 5 points

- Divide the grid into different regions along the gridlines.
- No two regions of the same size (number of cells in the region) can touch each other by a side.
- Numbers in the grid indicate that the cell is part of a region of that size (number of cells in the region).
- A region can contain more than one given number.
- There can be regions without any given numbers also.

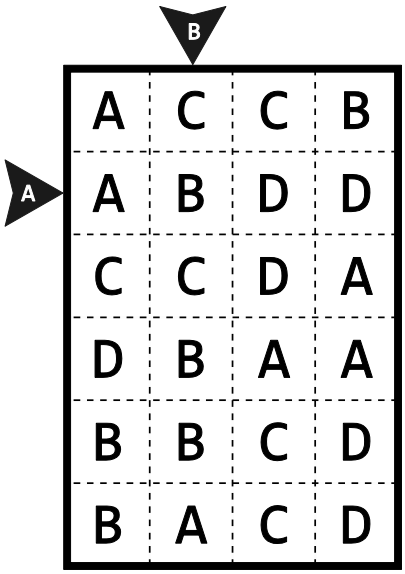




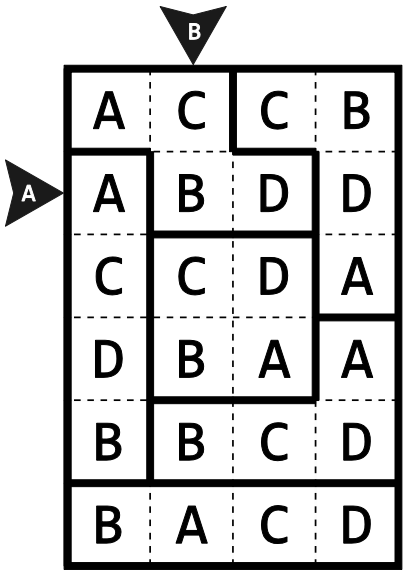
Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom. For the example, the answer key will be 221,11111

Area Division 1 + 1 + 4 + 8 points

- Divide the grid into several regions along the gridlines.
- Each region has ALL the letters of the given range exactly once.
- Each letter must be part of exactly one region.



(Range: ABCD)

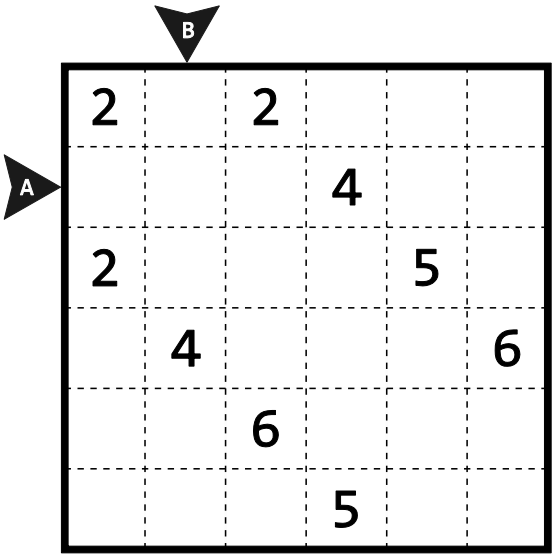


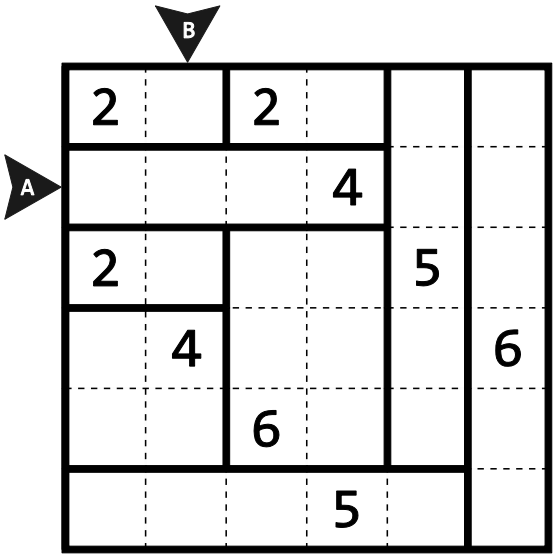
(Range: ABCD)

Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom. For the example, the answer key will be 121,2211

Shikaku 1 + 1 + 3 + 10 points

- Divide the grid into a number of non-overlapping rectangles, including squares, along the grid lines.
- Numbers in the grid indicate the size (number of cells) of the rectangle they are in.
- Each rectangle must contain exactly one given number.

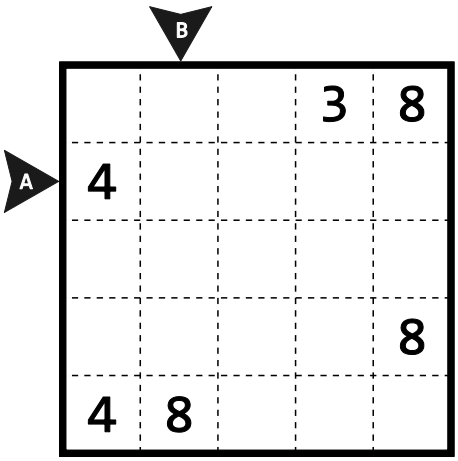


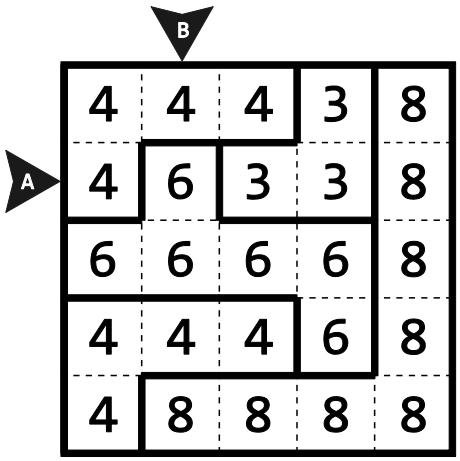


Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom. For the example, the answer key will be 411,11121

No-Rectangles Fillomino 7 points

- Apply rules of Fillomino.
- However, none of the regions can form a rectangle.

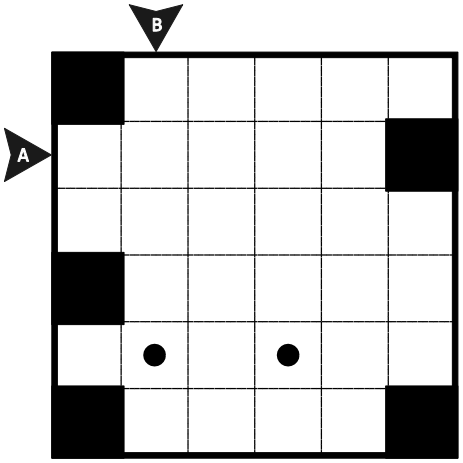


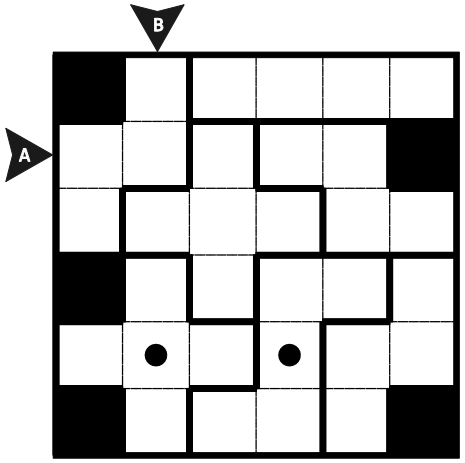


Answer Key: For each marked row/column, write the number of cells that belong to different regions - from left to right / top to bottom. For the example, the answer key will be 1121,1211

Spiral Galaxies 4/5 — 14 points

- Divide the grid into several regions along the gridlines such that each region has exactly 4 or 5 cells.
- Each region must be 180 degree symmetrical.
- If a region contains a black circle, then it is the point of symmetry.
- Regions may not be 2x2 squares.





Answer Key: For each marked row/column, write the number of cells that belong to different regions from left to right / top to bottom. ***Ignore the black cells for the answer key****. For the example, the answer key will be 212, 213*

Example Credits
Yin Yang: http://logicmastersindia.com/lmitests/?test=B2014052 (Beginners' Puzzle Contest)
Spiral Galaxies: http://logicmastersindia.com/lmitests/?test=B2014031 (Beginners' Puzzle Contest)
Area Division: http://rohanrao.blogspot.com
No-rectangles Fillomino: http://logicmastersindia.com/lmitests/?test=FF2 (Fillomino Filia 2)