

Episode-1<br>$5^{\text {th }}-7^{\text {th }}$ September

## Classics by Rohan Rao

Puzzle Ramayan rounds will also serve as qualifiers for Indian Puzzle Championship for year 2016. Please check http://logicmastersindia.com/PR/201516pr.asp for details.

Important Links
Submission Page: http://logicmastersindia.com/PR/201509/ Discussion Thread : http://logicmastersindia.com/t/?tid=1044
F. A. Q. : http://logicmastersindia.com/t/?tid=381

## About this Episode

This episode has 22 Puzzles from the following five puzzle types:

- $4^{*}$ Numberlink
- $4^{*}$ Star Battle
- $4^{*}$ Fence
- $4^{*}$ Hitori (+ 1* Hitori Blocks) $^{\text {* }}$
- $4^{*}$ Four Winds (+ ${ }^{*}$ Walls)


## 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 after $5^{\text {th }}$ September (but before $8^{\text {th }}$ September (not including $8^{\text {th }}$ ), 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 1 or 2 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 6X6, 7X7, 8X8, 10X10 | $1,2,3,5$ |
| :--- | :--- |
| Star Battle 8X8, 9X9, 9X9, 10X10 | $4,7,6,3$ |
| Fence 6X6, 7X7, 8X8, 10X10 | $1,3,5,6$ |
| Hitori 6X6, 7X7, 8X8, 10X10 | $3,5,6,7$ |
| Hitori Blocks 10X10 | 12 |
| Four Winds 6X6, 7X7, 8X8, 10X10 | $2,3,5,5$ |
| Walls 10X10 | 6 |

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 upto 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 10 pages. We expect you to print and solve on page, so you would need to have a printer accessible with enough paper.

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

Connect every pair of digits through horizontal/vertical paths such that no two paths touch or cross each other.


Answer Key: Enter length of largest line segment in marked row/column. Enter ' 0 ' if there are no line segments along the marked direction.
Example: 212, 531

## Star Battle

Place stars in the grid such that every row, column and thick-outlined region contains two stars. Stars cannot touch each other, not even diagonally.


Answer Key: Enter column of left-most star of each row from top to bottom.
Example: BFBFAEAE

Draw a single closed loop that does not touch or cross itself. Digits in the grid indicate the amount of line segments of that cell used by the loop .


Answer Key: Enter length of largest line segment in marked row/column.
Example: 113, 212

## Hitori

Shade cells such that digits do not repeat in rows and columns. Shaded cells cannot be adjacent to each other and all unshaded cells must be orthogonally connected.

| 5 | 7 | 5 | 4 | 7 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 6 | 2 | 3 | 4 | 7 |
| 4 | 1 | 6 | 4 | 2 | 6 |
| 3 | 1 | 1 | 7 | 5 | 6 |
| 2 | 2 | 4 | 5 | 3 | 1 |
| 2 | 6 | 6 | 5 | 1 | 4 |


| 5 | 7 | 5 | 4 | 7 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 6 | 2 | 3 | 4 | 7 |
| 4 | 1 | 6 | 4 | 2 | 6 |
| 3 | 1 | 1 | 7 | 5 | 6 |
| 2 | 2 | 4 | 5 | 3 | 1 |
| 2 | 6 | 6 | 5 | 1 | 4 |

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

Draw one or more horizontal or vertical lines from each numbered clue so that all blank cells are connected to exactly one of the numbers. Lines cannot enter other numbered squares or intersect with other lines. Each number represents the total number of blank cells occupied by the lines from that number.


Answer Key: Enter length of largest line segment in marked row/column. Enter ' 0 ' if there are no line segments along the marked direction.
Example: 004, 422

## Hitori Blocks

Shade blocks of size $2 \times 1$ such that digits do not repeat in rows and columns. Shaded blocks cannot be adjacent to each other and all unshaded cells must be orthogonally connected

| 5 | 6 | 2 | 1 | 3 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 4 | 6 | 2 | 4 | 1 |
| 2 | 1 | 4 | 3 | 2 | 2 |
| 2 | 3 | 5 | 4 | 3 | 1 |
| 1 | 3 | 4 | 5 | 1 | 2 |
| 2 | 4 | 1 | 6 | 5 | 3 |


| 5 | 6 | 2 | 1 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 4 | 6 | 2 | 4 | 1 |
| 2 | 1 | 4 | 3 | 2 | 2 |
| 2 | 3 | 5 | 4 | 3 | 1 |
| 1 | 3 | 4 | 5 | 1 | 2 |
| 2 | 4 | 1 | 6 | 5 | 3 |

Answer Key: Enter the length of continuous areas of shaded and unshaded cells in the marked rows/columns.
Example: 6, 1221, 6

## Walls

Place a horizontal or a vertical line in every blank cell. A number indicates the total length of the segments connected to that square.


Answer Key: Enter length of largest line segment in marked row/column. Enter ' 0 ' if there are no line segments along the marked direction.
Example: 212, 211

