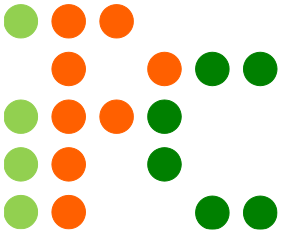
puzzle ramayan

and



Episode – 4
17th – 22nd April 2020

Evergreens
by
Prasanna Seshadri and Priyam Bhushan

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.**

Important Links

Submission Page : http://logicmastersindia.com/PR/202004/

Discussion Thread : http://logicmastersindia.com/t/?tid=2737

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 from the following puzzle types:

- 3* Tents
- 3* Skyscrapers
- 3* Slitherlink
- 3* Anglers
- 3* Hashi
- 3* Magnets
- 2* Skylines
- 2* Magnetic Fields

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 17th April (but on or before 22nd April), 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.

Tents	1, 2, 2
Skyscrapers	1, 3 ,7
Slitherlink	3, 4, 7
Anglers	3, 4, 8
Hashi	2, 4, 10
Magnets	2, 6, 10
Skylines	3, 4
Magnetic Fields	4, 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.

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

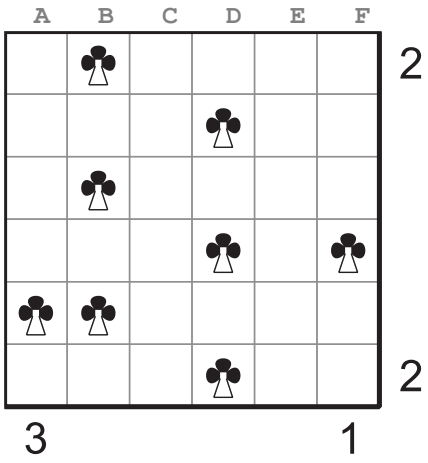
The password protected Puzzle booklet will have 10 pages. We expect you to print and solve on paper, so you would need to have a printer accessible with enough paper.

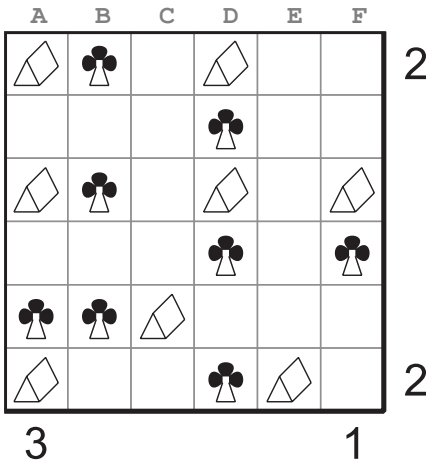
1-3 Tents

1 + 2 + 2 points

Place one tent horizontally or vertically next to each tree. Tents do not touch each other, not even diagonally. The numbers outside the grid indicate the number of tents in that row or column.

Puzzles in the contest will be of grid sizes 9x9, 10x10 and 10x10.
This example is of grid size 6x6.





Answer Key: Enter the column number for the leftmost tent in each row, from top to bottom. Enter X if there are no tents in a row.

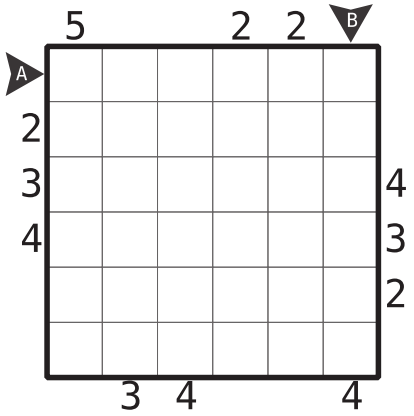
Example: `AXAXCA`

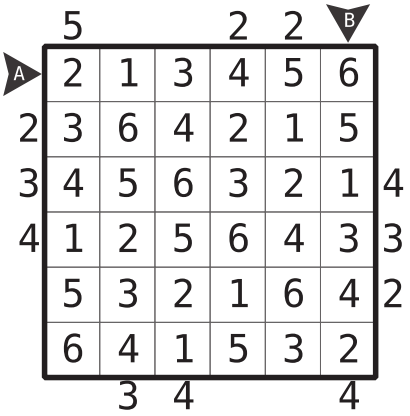
4-6 Skyscrapers

1 + 3 + 7 points

Fill in the grid with digits 1–N where N is the size of the grid. Each row and column contains each digit exactly once. Each number inside the grid represents the height of a building. The clues outside of the grid indicate how many buildings can be seen when looking from that direction. Taller buildings block the view of smaller buildings.

Puzzles in the contest will be of grid sizes 5x5, 6x6 and 7x7.
This example is of grid size 6x6.





Answer Key: Enter the contents of the marked rows/columns.

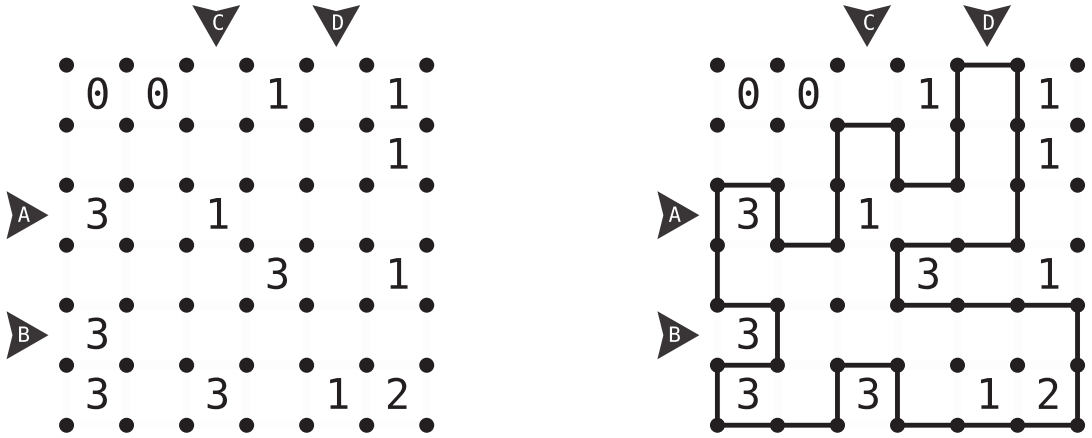
Example: `213456, 651342`

7-9 Slitherlink

3 + 4 + 7 points

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.

Puzzles in the contest will be of grid sizes 9x9, 11x11 and 11x11.
This example is of grid size 6x6.



Answer Key: Enter the number of cells 'inside' the loop for each block inside the loop for marked rows (columns). Enter 0 for a row/column, if there are no cells inside the loop.

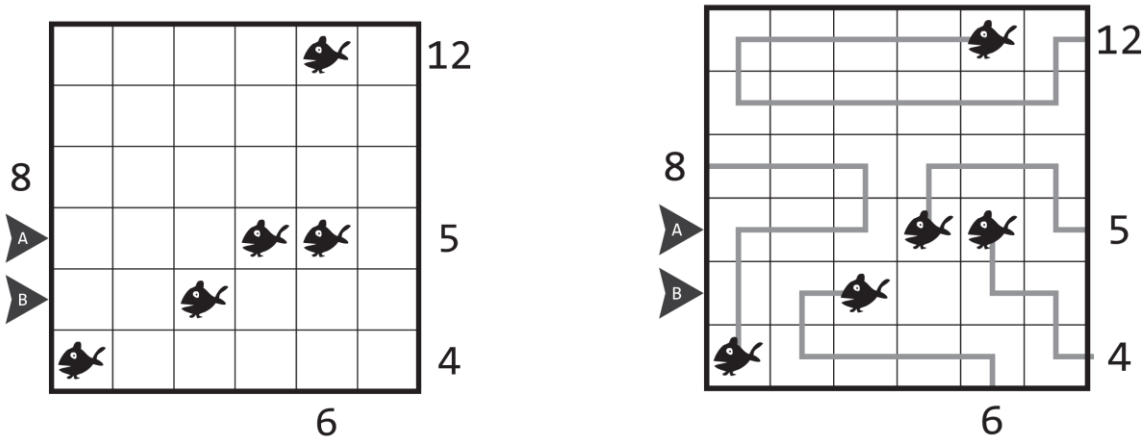
Example: 13, 5, 4, 32

10-12 Anglers

3 + 4 + 8 points

The grid represents a lake and the numbers on the periphery represent anglers (fishermen). The fishes shown in the lake are such that every angler gets exactly one fish. The numbers indicate the length of the fish lines which are composed of horizontal and vertical line segments. Draw the fish lines starting from grid border such that no two of them cross or overlap each other.

Puzzles in the contest will be of grid sizes 8x8, 9x9 and 10x10.
This example is of grid size 6x6.



Answer Key: Enter the length of the fish line to which each cell belongs, for the marked rows (columns). Use X for empty cells. Use only the last digit for 2-digit numbers.

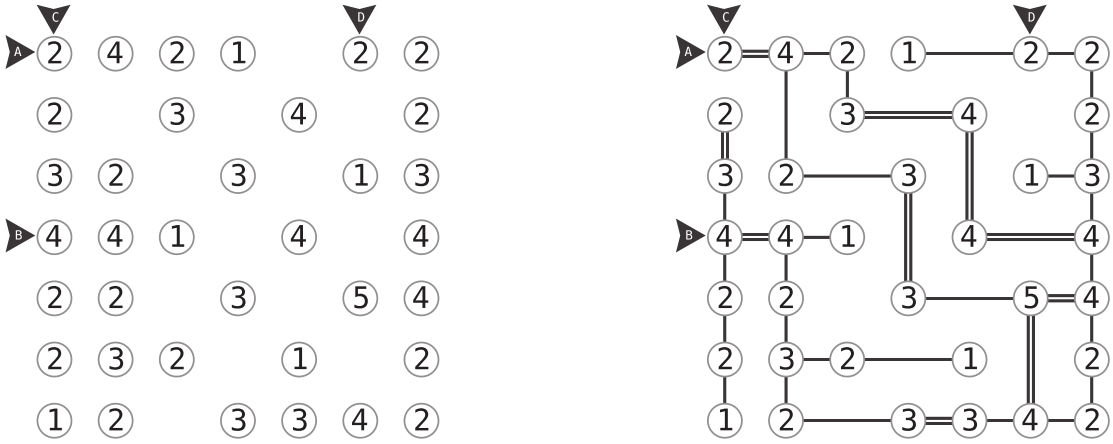
Example: `888545, 866X44`

13-15 Hashi

2 + 4 + 10 points

Connect each of the numbered islands in the grid via horizontal and vertical bridges. Bridges are not allowed to cross each other. Each numbered island has that many bridges leading away from it, and at most two bridges are allowed to connect a pair of islands. There must be a sequence of bridges that links one given island to any other.

Puzzles in the contest will have grid sizes 5x5, 7x7, and 12x12.
The example below has grid size 7x7.



Answer Key: Enter contents of marked row/column (use 0 for no bridge, 1 for one bridge and 2 for two bridges).

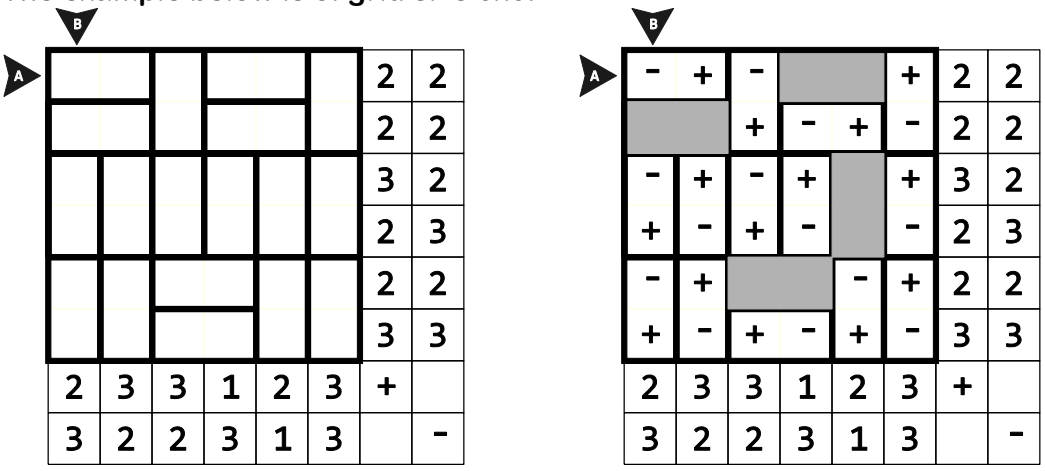
Example: `21011, 2102, 021111, 002`

16-18 Magnets

2 + 6 + 10 points

The grid is made up of magnetic and non-magnetic plates. Each magnetic plate has 2 halves: positive (+) and negative (-). Halves with the same polarity cannot touch each other vertically / horizontally. The clues outside the grid indicate the number of magnetic halves with a particular polarity in each row/column. Not all outside clues may be given.

Puzzles in the contest will be of grid sizes 6x6, 8x8 and 10x10.
The example below is of grid size 6x6.



Answer Key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate and X for non-magnetic plate)

Example: `-+-xx+,-x-+-+`

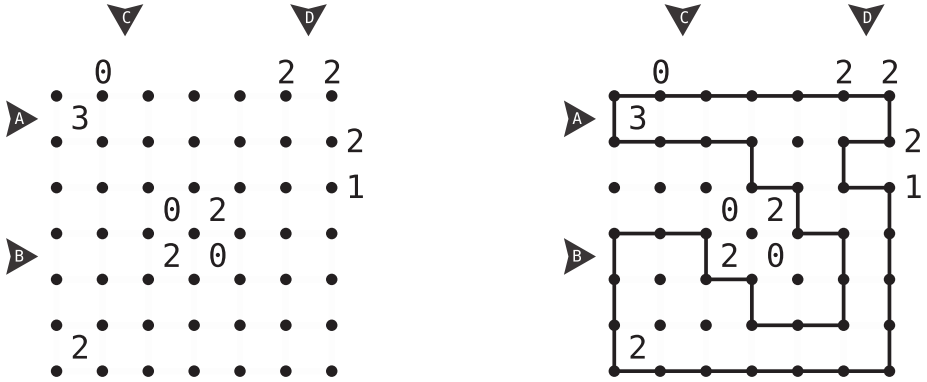
19-20 Skylines

3 + 4 points

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

Loop segment lengths in any direction represent the height of a building. The skyscraper clues outside the grid indicate how many buildings can be seen when looking from that direction. Taller buildings block the view of smaller buildings as well as buildings of the same height. A '0' skyscraper clue means there are no loop segments in that direction.

Puzzles in the contest will be of grid sizes 7x7 and 8x8.
The example below is of grid size 6x6.

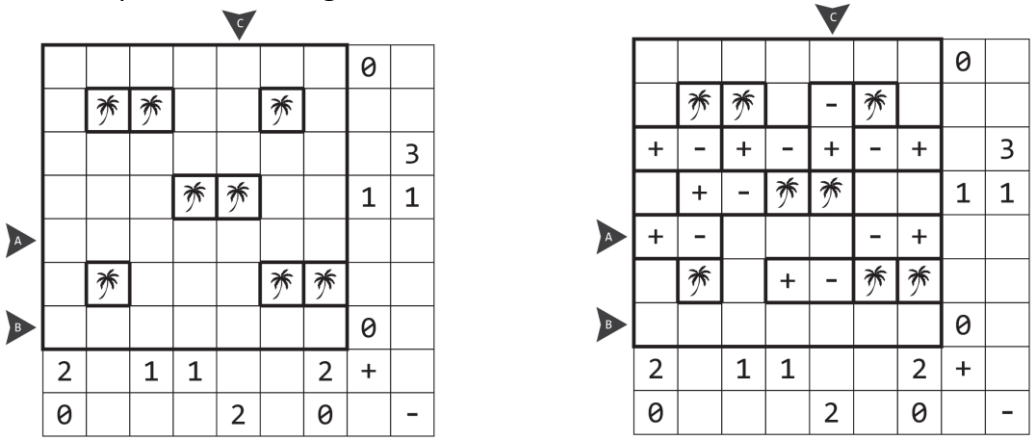


Answer Key: Enter the lengths of inner cells for marked rows (columns) from left to right (top to bottom). Enter 0 for a row (column), if there are no inner cells in that row (column). Inner cells are cells located inside the loop.
Example: `6, 21, 13, 14`

21-22 Magnetic Fields

4 + 10 points

Place one magnetic plate horizontally or vertically next to each tree (orthogonally adjacent). Each magnetic plate has 2 halves: positive (+) and negative (-). Halves with the same polarity cannot touch each other vertically / horizontally. The clues outside the grid indicate the number of magnetic halves with a particular polarity in each row/column. Not all outside clues may be given.
The puzzles in the contest will have grid sizes 6x6 and 8x8.
The example below has grid size 7x7.



Answer Key: Enter the contents of marked rows/columns (use + for positive plate - for negative plate, X for non-magnetic plate or tree)
Example: `+-xxx-+, xxxxxxx, x-+xx-x`