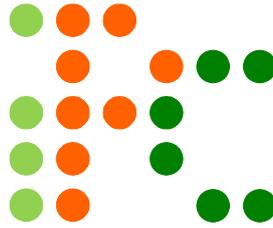


puzzle रामायण

and



Episode – 4
13th – 16th April 2018

Evergreens
by
Swaroop Guggilam

Puzzle Ramayan rounds will also serve as qualifiers for Indian Puzzle Championship for year 2018. Please check <http://logicmastersindia.com/PR/2018pr.asp> for details.

Important Links

Submission Page : <http://logicmastersindia.com/PR/201804/>

Discussion Thread : <http://logicmastersindia.com/t/?tid=1759>

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* Arrows
- 3* Minesweeper
- 3* Dominos
- 3* Mastermind
- 3* Easy as ABC
- 3* Magnets
- 2* Easy as ABC No Touch
- 2* 2D Mastermind

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 13th April (but on or before 16th 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.

Arrows	12, 3, 4
Minesweeper	10, 3, 4
Dominos	3, 5, 3
Mastermind	3, 7, 2
Easy as ABC	1, 1, 2
Magnets	5, 6, 6
Easy as ABC No Touch	2, 12
2D Mastermind	1, 5

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)

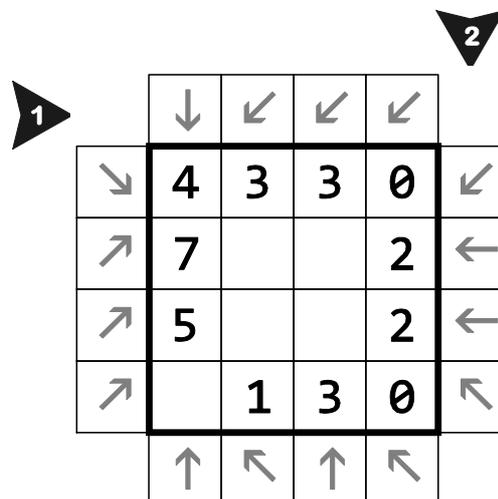
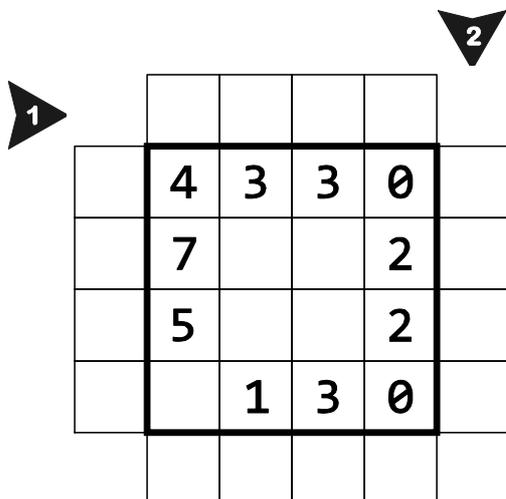
About the Puzzle Booklet

The password protected Puzzle booklet will have 9 pages. We expect you to print and solve on paper, so you would need to have a printer accessible with enough paper.

1-3 Arrows

12 + 3 + 4 points

Draw arrows in the cells around the boldly outlined grid, one arrow per cell. Each arrow points to at least one cell in the grid. The numbers inside the grid show the total number of arrows pointing towards them.



A: ↘ ↖

B: ↓ ← ↑ →

C: ↙ ↗

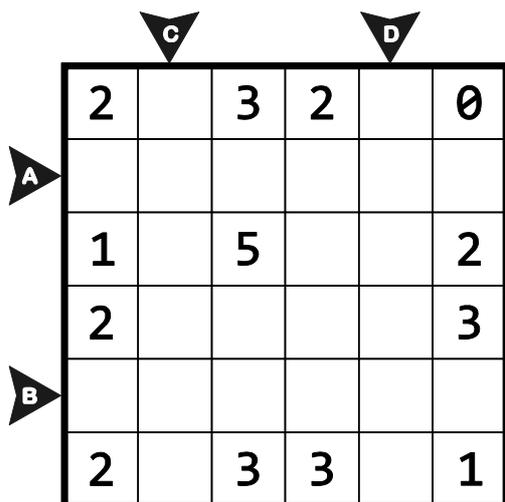
Answer key: Enter the contents of marked rows/columns. Use A, B or C for arrows, as indicated below each puzzle.

Example: BCCC,CBBA

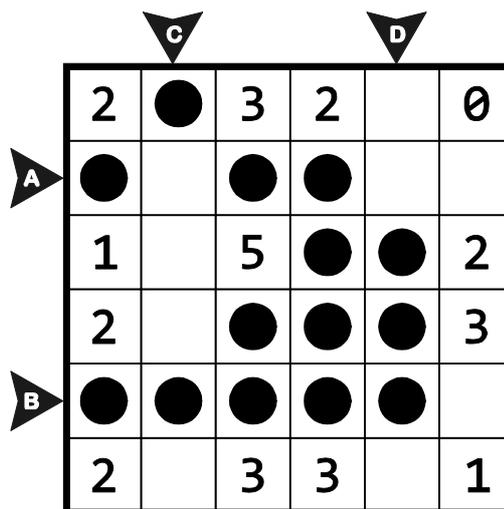
4-6 Minesweeper

10 + 3 + 4 points

Place mines into empty cells in the grid such that the numbers in the grid represent the number of mines in the eight neighbouring cells, including diagonal ones. In some of the puzzles, total number of mines is given.



(14 mines)



Answer Key: Enter the number of mines for marked rows/columns.

Example: 3523

7-9 Dominos

3 + 5 + 3 points

The grid contains a set of dominos from the domino set displayed on the right of the grid. The layout is shown with domino edges removed. Reconstruct the missing edges.

0	0	4	2	2	3
0	1	2	3	4	4
1	2	1	3	2	1
3	0	0	2	3	4
0	3	1	1	4	4

0 0	1 1	2 3
0 1	1 2	2 4
0 2	1 3	3 3
0 3	1 4	3 4
0 4	2 2	4 4

0	0	4	2	2	3
0	1	2	3	4	4
1	2	1	3	2	1
3	0	0	2	3	4
0	3	1	1	4	4

Answer Key: Enter the number of horizontal dominos for each row, from top to bottom.

Example: 21013

10-12 Mastermind

3 + 7 + 2 points

Find out the correct series of digits with the help of the information given by the black and white dots. Black dots imply correct digits in the correct position while white dots imply correct digits in the wrong position. Digits are not repeated and range of digits is 1-9.

If a digit is repeated in the clue, it will have at most one dot in the information provided.

6	6	7	8	9	
5	3	4	1	3	○ ○ ○ ○
8	4	3	6	7	● ○
2	5	1	5	4	○ ○ ○ ○
6	4	5	2	1	○ ○ ○ ○
<hr/>					○ ○ ○ ○ ○ ● ● ● ● ●

6	6	7	8	9	
5	3	4	1	3	○ ○ ○ ○
8	4	3	6	7	● ○
2	5	1	5	4	○ ○ ○ ○
6	4	5	2	1	○ ○ ○ ○
<hr/>					1 2 3 4 5 ● ● ● ● ●

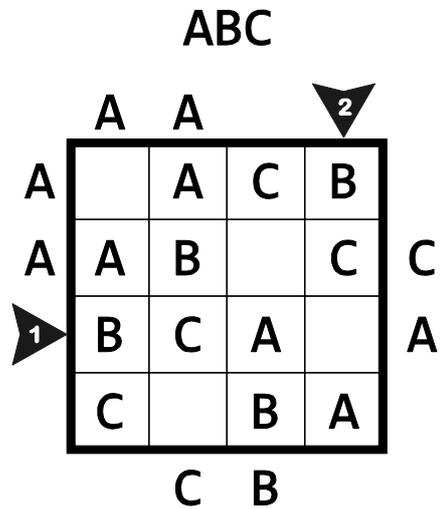
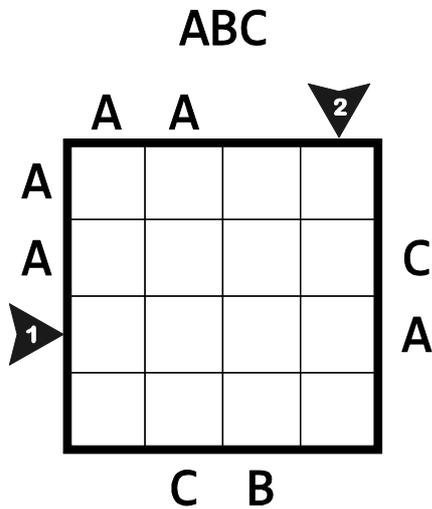
Answer Key: Enter the correct series of digits.

Example: 12345

13-15 Easy as ABC

1 + 1 + 2 points

Enter the given set of letters into the grid such that each letter is exactly once, in all of the rows and columns. One or more cells will remain empty in each row and column, where N is size of the grid. The letters outside the grid show which letter is seen first from that direction.



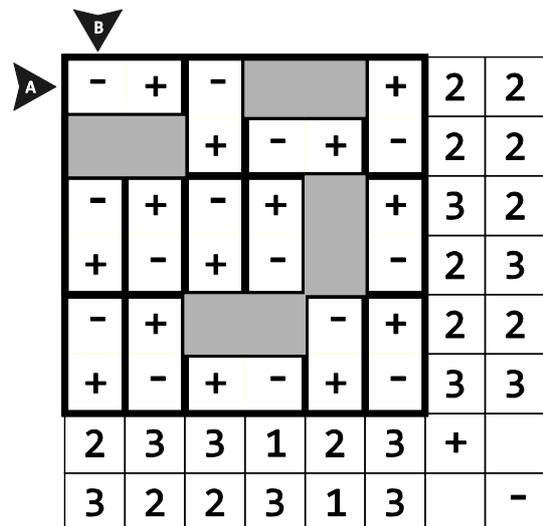
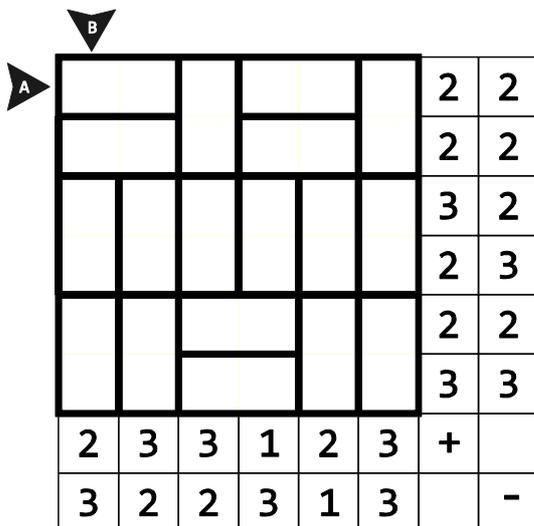
Answer Key: Enter the contents of marked rows/columns. (Use X for empty cells)

Example: BCAX,BCXA

16-18 Magnets

5 + 6 + 6 points

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



Answer Key: Enter the contents of marked rows/columns

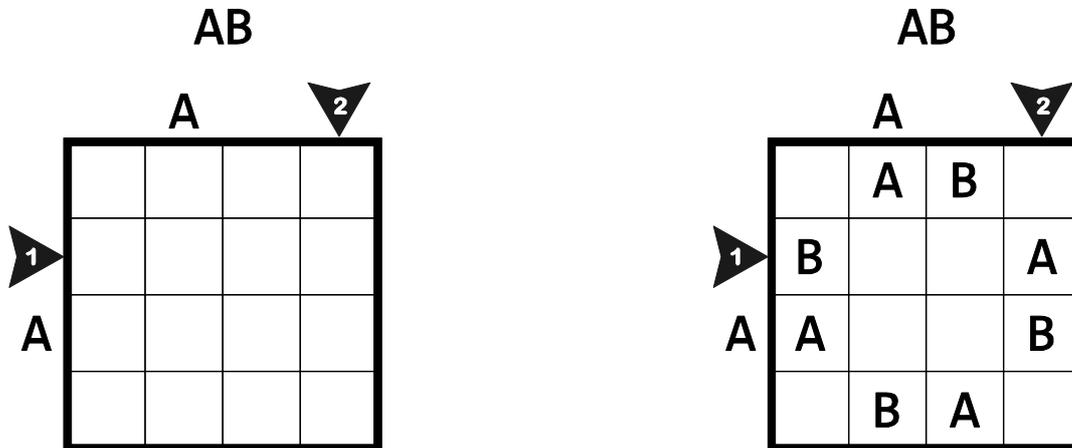
(Use + for positive plate, - for negative plate and X for non-magnetic plate)

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

19-20 Easy as ABC No Touch

2 + 12 points

Enter the given set of letters into the grid such that each letter is exactly once, in all of the rows and columns. One or more cells will remain empty in each row and column, where N is size of the grid. The letters outside the grid show which letter is seen first from that direction. Additionally, same letters are not allowed to touch each other diagonally.



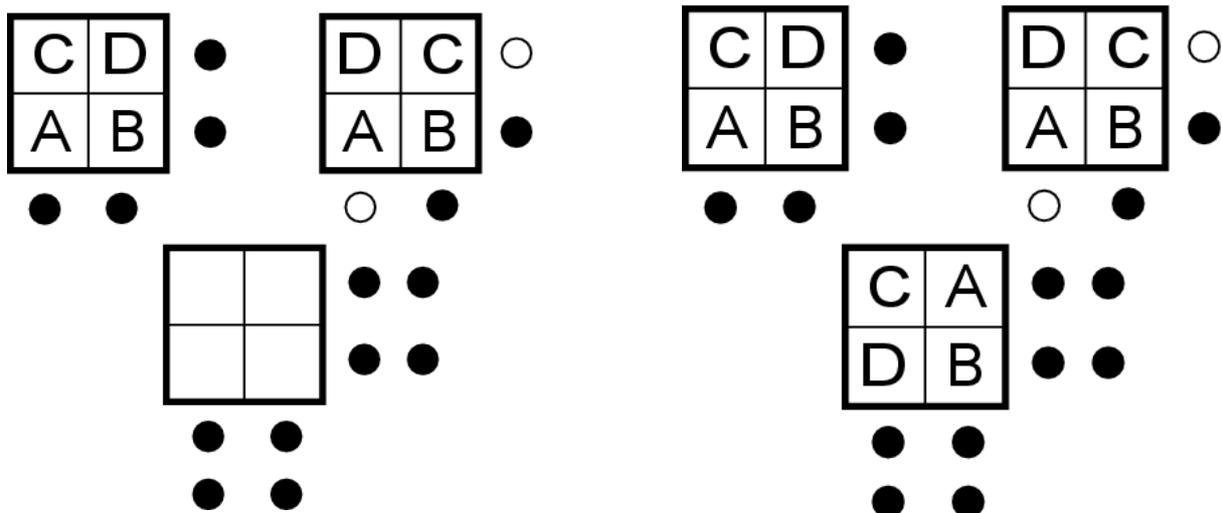
Answer Key: Enter the contents of marked rows/columns. (Use X for empty cells)

Example: BXXA,XABX

21-22 2D Mastermind

1 + 5 points

The solution grid contains all letters in the range given exactly once. Locate each letter using the information given by the black and white markers. Black markers indicate correct letters in the right position, while white ones mark correct letters in the wrong place within the corresponding row or column. The clues are given on right and bottom sides of the grid.



Answer Key: Enter all the letters in the solution grid row-by-row from top to bottom. Within a row, enter the letters from left to right.

Example: CADB