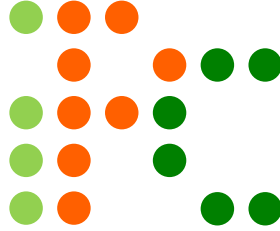


# puzzle Ramayan

and



Episode – 2  
18<sup>th</sup> – 23<sup>rd</sup> March 2022

Casual & Word  
by  
Amit Sowani

Puzzle Ramayan rounds will also serve as qualifiers for Indian Puzzle Championship for year 2022. Please check <http://logicmastersindia.com/PR/2022pr.asp> for details.

## Important Links

Submission Page : <http://logicmastersindia.com/live?contest=PR202202>

Discussion Thread : <http://logicmastersindia.com/t/?tid=3016>

F. A. Q. : <http://logicmastersindia.com/t/?tid=2773>

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

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## About this Episode

This episode has 17 Puzzles from the following puzzle types:

- 2\* No Four In A Row
- 3\* Touching Shapes
- 3\* Mastermind
- 2\* Battleship Pool
- 2\* Alphabet Blocks
- 2\* Boggle
- 3\* Scrabble

## How to participate?

- Understand the rules of different puzzles that will appear in this episode. This Instruction Booklet has rules for each puzzle.
- Any time on or after 18<sup>th</sup> March (but on or before 23<sup>rd</sup> March), login at the submission page using your LMI user-id and password. Please check the submission page for exact timing.
- **If you plan to solve on paper:**
  - a) 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.
  - b) Click on "Start". At this time, password for pdf will be shown and timer will start. **The contest duration is 60 minutes.**
  - c) The puzzle booklet can be downloaded, printed and solved on paper.
  - d) We advise you to have a printer accessible with enough paper.
  - e) You are allowed to use writing implements, eraser, blank paper (including commercial graph paper), ruler, scissors, and tape.
- **If you plan to solve on LMI's Penpa-Integrated Interface:**
  - a) Click on this link and understand the instructions - <https://logicmastersindia.com/live/faq-online-solving.asp>
  - b) It is noted on the link too, but we note it here as well to be clear – the participants must still input the answer keys in the boxes below the puzzle and submit them to receive credit as given below.
- 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.
- Participants may use both paper solving and online solving, even interchangeably. Eventually our system will only count anything submitted in the submission boxes in either mode.

If you are participating at LMI for first time, it will be useful to check the F.A.Q. at <http://logicmastersindia.com/t/?tid=2773>.

## 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
-

- Uppercase or lower case does not matter for answer keys where letters must be entered.
- Characters other than the ones explicitly expected by the answer key will cause the red highlight to appear around the submission box.

## 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.**

No Four In a Row	1, 2
Touching Shapes	1, 2, 5
Mastermind	1, 7, 11
Battleship Pool	1, 5
Alphabet Blocks	7, 15
Boggle	10, 17
Scrabble	2, 5, 8

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. A demonstration for this is shown below.

### Original points

04 Araf	50 points	4A	Sum should be 10
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### Potential points after 1 incorrect submission

04 Araf	45 / 50	4A	1234
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### Potential points after 2 incorrect submissions

04 Araf	35 / 50	4A	23311
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### Potential points after 3 incorrect submissions

04 Araf	20 / 50	4A	111111111
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### Potential points after 4 incorrect submissions

04 Araf	0 / 50	4A	541
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## 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)

## Credits

- **Botaku and Murat Can Tonta** for test solving the puzzles and providing invaluable feedback.
- The original creator **opt-pan** for penpa edit - <https://opt-pan.github.io/penpa-edit/>
- **Swaroop Guggilam** for his recent efforts in adding features to Penpa-edit - <https://swaroopg92.github.io/penpa-edit/> and also working to integrate it with our contest engine.

## About the Puzzle Booklet

The password protected Puzzle booklet will have 9 to 10 pages. This is relevant only for paper solvers.

*Solutions and keys (including the key explanation) to examples are towards the end of the booklet in the Solutions section.*

## 1-2 No Four In A Row

Place an X or an O in each empty cell. There may not exist a run of four consecutive cells with the same letter horizontally, vertically, or diagonally anywhere in the grid.

[The puzzles in the contest will be of sizes 6x7 and 7x8. This example is 5x5.]

Penpa for example: <https://tinyurl.com/y7x7mvgr>

1 + 2 points

↓ B

O		O	O	
X	O		O	O
				O
X		X		X
	O	X		O

← A

## 3-5 Touching Shapes

Place each shape from the bank given outside the grid into the grid so that no shapes touch one another orthogonally. Rotating and reflecting shapes is allowed. Every grid point on which two shapes touch diagonally is marked with a dot.

[The puzzles in the contest will be of sizes 5x9, 9x12 and 12x14. This example is 5x5.]

Penpa for example: <https://tinyurl.com/y7j45722>

1 + 2 + 5 points

↓ B

		•		
			•	•

← A

## 6-8 Mastermind

Figure out the secret answer. Some guesses have been given. There are clues next to each guess. A black circle indicates a correct digit in the correct position. A white circle indicates a correct digit in the wrong position. Letters may repeat in the answer key and answer guesses. If a digit appears twice or more in a guess but only once in the answer key, one circle is given. If a digit appears once in the answer guess but more than once in the answer key, one circle is given. In all cases black circles take precedence over white circles.

[There is no size information for this section]

Penpa for example: <https://tinyurl.com/ycodmjpr>

1 + 7 + 11 points

A	E	I	O	U	●	○	○
A	A	E	E	I	●		
O	O	I	U	I	●	●	○
V	O	W	E	L	●	●	●

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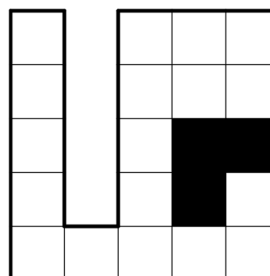
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## 9-10 Battleship Pool

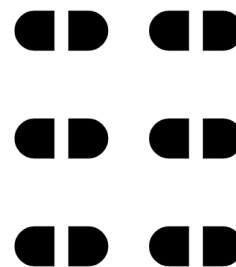
Place the given fleet of ships into the grid so that no two ships are touching, not even diagonally. Rotating ships is permitted. Black cells cannot be occupied by a ship.

[The first puzzle will be of size 7x7. The second puzzle will be on an irregular grid. This example is on an irregular grid.]

Penpa for example: <https://tinyurl.com/ybterq5u>



1 + 5 points



## 11-12 Alphabet Blocks

There are N six-sided blocks (three in example) with letters on them. The given words can be created with these blocks. Figure out the configuration of the blocks.

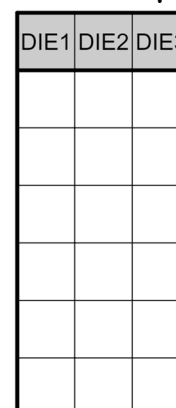
*The two circled letters are for answer key purposes only and are NOT one of the words.*

[The puzzles in the contest will have 3 blocks and 4 blocks respectively.]

Penpa for example: <https://tinyurl.com/ydanw7cd>

AND GYM  
BED PEA  
CAR RIM  
CUT SUN  
DOG TIP  
FIB YES  
FOX (P) (X)

7 + 15 points

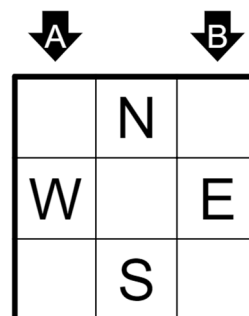


## 13-14 Boggle

Place an alphabet in each empty cell such that all the given words can be found in the grid by travelling horizontally, vertically or diagonally. The same cell cannot be used multiple times within the same word.

[The puzzles in the contest will be of sizes 4x4 and 4x4. This example is 3x3.]

Penpa for example: <https://tinyurl.com/ydfa6y2v>



10 + 17 points

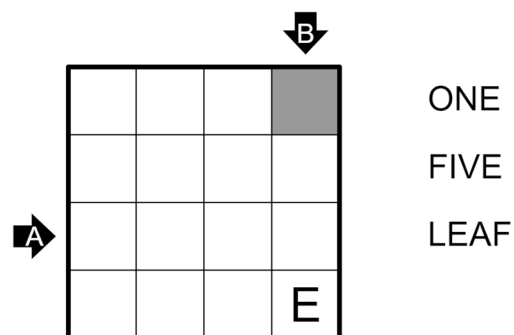
ONE  
TWO  
THREES

## 15-17 Scrabble

2 + 5 + 8 points

Place all the listed words exactly once in the grid going across (left to right) or down (top to bottom). Each word intersects with at least one other word and all words are interconnected. No words of two or more letters can appear anywhere in the grid, except the ones listed. There cannot be any letters in the shaded cells. Some letters are already given.

[The puzzles in the contest will be of sizes 5x8, 13x13 and 14x12. This example is 4x4.]



Penpa for example: <https://tinyurl.com/y967atf2>

## Solutions

For this round, all answer keys will NOT be the same for all puzzles.

The keys are given section by section.

**No Four In A Row** – Enter the contents (X or O) of the marked rows/columns.

**Touching Shapes** – For each marked row/column, enter the number of consecutive cells that are empty/shape-cells in the direction of the arrow. Use unit's digit for double digit values.

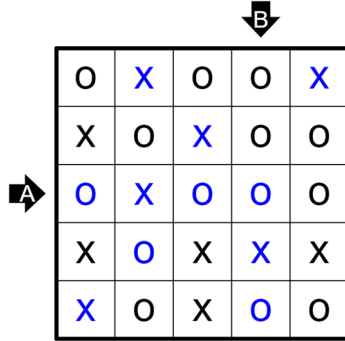
**Mastermind** – Enter the answer.

**Battleship Pool** – For each column from left to right, enter the number of ship segments.

**Alphabet Blocks** – Two circled letters are given after the word list. Enter all six letters of the blocks they belong to, in alphabetical order. If both letters belong to the same block, enter the same set of letters twice.

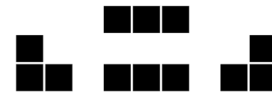
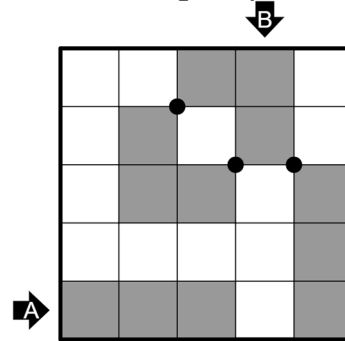
**Boggle, Scrabble** – Enter the letters in the marked rows/columns. Ignore other cells. *(The last sentence is only relevant for Scrabble)*

No Four In A Row



Key: oxooo, oooxo

Touching Shapes



Key: 311, 23

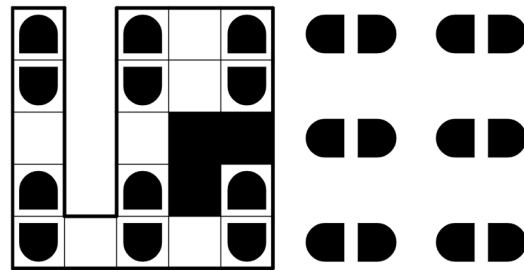
Mastermind

A E I O U ●○○  
 A A E E I ●  
 O O I U I ●●○  
 V O W E L ●●●



Key: OOWEU

Battleship Pool



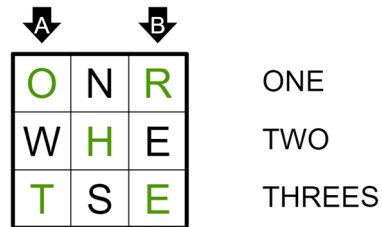
Key: 40404

Alphabet Blocks

		DIE1	DIE2	DIE3
AND	GYM	A	C	D
BED	PEA	B	E	F
CAR	RIM	M	G	P
CUT	SUN	O	I	R
DOG	TIP	S	N	U
FIB	YES	T	X	Y
FOX	(P) (X)			

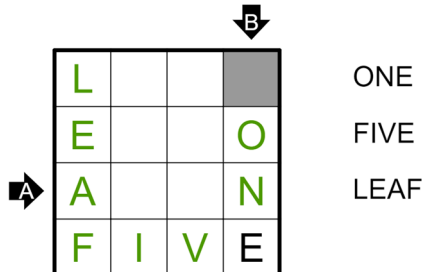
Key: DFPRUY, CEGINX

Boggle



Key: OWT, REE

Scrabble



Key: AN, ONE