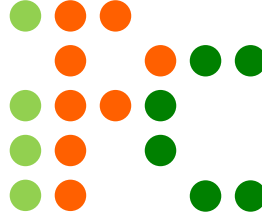


पुज्जल रलवतुव

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Episode – 3
31st October – 2nd November

Evergreens by Amit Sowani

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/201510/>

Discussion Thread : <http://logicmastersindia.com/PR/201510/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.

<ul style="list-style-type: none"> • 4* Hashi • 4* Magnets • 4* Arrows • 4* Anglers • 4* Dominos 	<ul style="list-style-type: none"> • 1* Multi Anglers • 1* Missing Dominos
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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 31st October but before 3rd November (not including 3rd), 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

- In Hashi, Magnets, Dominos: You need to describe the marked rows/columns. Maximum 2 rows/columns will be marked.
 - For Hashi : Use 0 for no bridge, 1 for single bridge, 2 for double bridges
 - For Magnet: Use + for positive plate - for negative plate and X for non-magnetic plate
 - For Dominos: Use H - for horizontal domino and V for vertical domino
- For Arrows, you need to enter the number of horizontal arrows, followed by number of vertical arrows
- For Anglers, you need to enter number of turns in the marked rows/columns. Several rows/columns will be marked for each puzzle. If both rows and columns are marked, first enter the values for rows, then for columns.

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.

Hashi	3, 4, 5, 7
Magnets	2, 3, 8, 9
Arrows	3, 3, 5, 6
Anglers	2, 2, 2, 5
Multi-Anglers	6
Dominos	3, 3, 8, 6
Missing Dominos	5

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 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

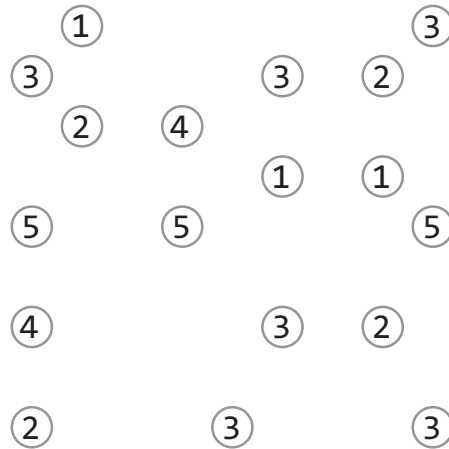
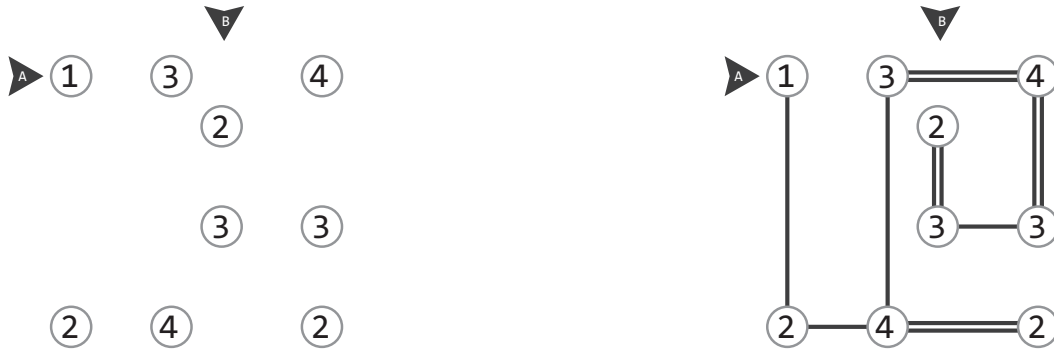
The password protected Puzzle booklet will have **8** pages. We expect you to print and solve on paper, so you would need to have a printer accessible with enough paper.

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

Hashi

- 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.

*Answer key: Enter contents of marked row/column (use 0 for no bridge, 1 for 1 bridge and 2 for 2 bridges)
For the example, the answer is 02,2*



Magnets

- 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)

For the example, the answer key is --xx+, -x-+-+

						2	2
						2	2
						3	2
						2	3
						2	2
						3	3
2	3	3	1	2	3	+	
3	2	2	3	1	3		-

						-	+	-		+	2	2
							+	-	+	-	2	2
-	+	-	+		+						3	2
+	-	+	-		-						2	3
-	+				-	+					2	2
+	-	+	-	+	-						3	3
2	3	3	1	2	3	+						
3	2	2	3	1	3							-

									2	3	
									5	3	
									3	4	
									2	2	
									3	4	
									4	3	
									4	3	
									2	3	
									2	3	
									2	1	
3	4	3	2	4	2	4	2	1	4	+	
3	3	4	1	4	3	4	2	2	3		-

Arrows

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

Answer key: Enter the number of horizontal arrows, followed by the number of vertical arrows. For the example, the answer key is 2,3

	4	3	3	0	
	7	3	3	2	
	5	3	3	2	
	3	1	3	0	

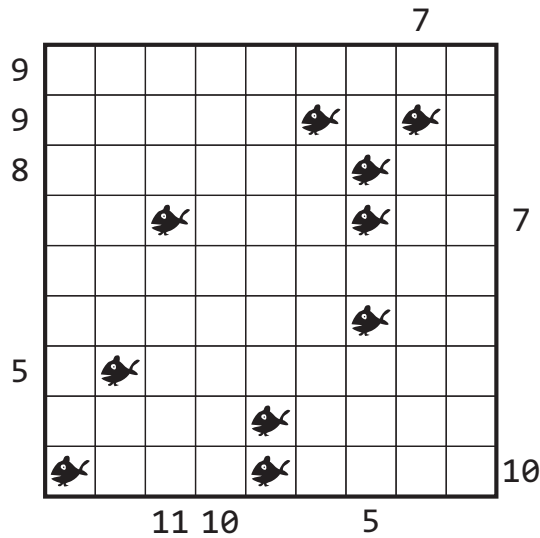
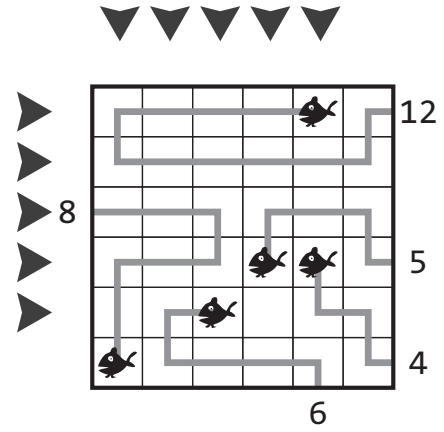
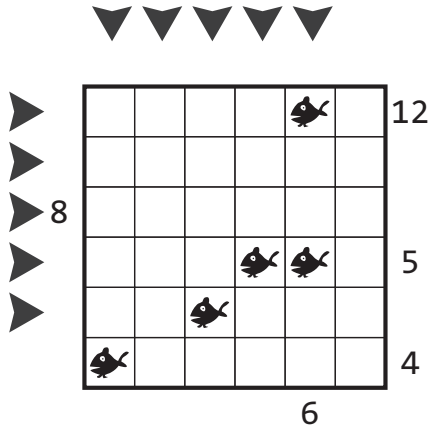
	↓	↙	↙	↙	
↘	4	3	3	0	↙
↗	7	3	3	2	←
↗	5	3	3	2	←
↗	3	1	3	0	↖
	↑	↖	↑	↖	

	5	2	3	2	1	4	2	
	5	2	3	1	2	2	4	
	4	3	2	2	1	3	2	
	3	1	4	1	2	2	3	
	6	2	3	4	2	4	3	
	4	4	3	2	4	3	5	
	4	1	4	1	1	5	3	

Anglers

- 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 fishlines which are composed of horizontal and vertical line segments.
- Draw the fishlines starting from grid border such that no two of them cross or overlap each other.

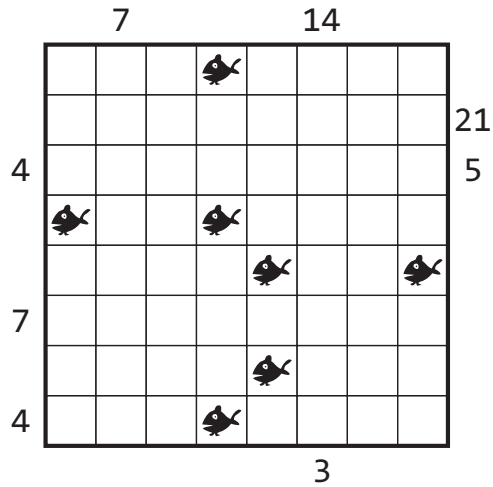
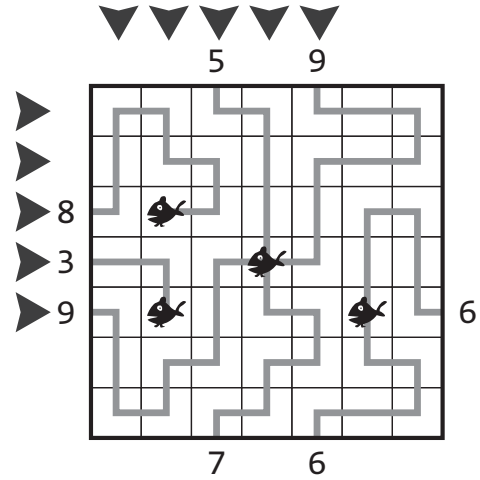
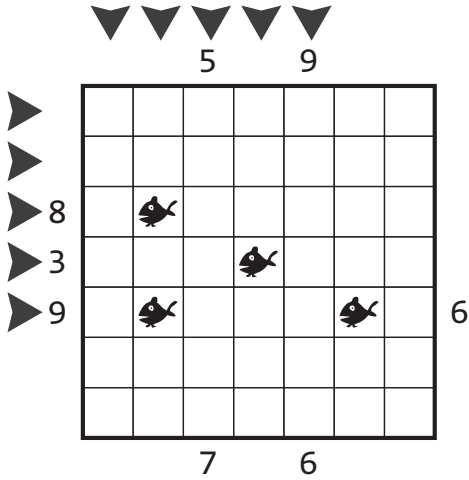
Answer key: Enter the number of turns in marked rows/columns. For the example, the answer key is 22333, 32212



Multi-Anglers

- Apply rules of Anglers.
- However, multiple anglers can get the same fish.
- Each fish is captured by at least one angler

Answer key: Enter the number of turns in marked rows/columns. For the example, the answer key is 64434,45646



Missing Dominos

- Apply rules of Dominos.
- A few dominos from the set will be missing in the grid. It is part of the solving process to identify the missing dominos and recreate the rest within the grid.

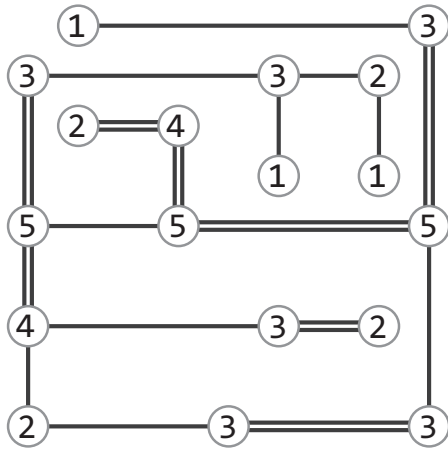
Answer key: Enter the contents of marked rows/columns (use H for horizontal domino and V for vertical domino)
 For the example, the answer key is VHHVV, VVVHH

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

1	3	3				0	3	0
1	1	0	0	4	2	0	3	
5	3	4	0	4	4	4	5	
2	1	1	4	5	3	2	5	
2	4	1	5	1	2	2	5	

0 0	1 2	2 5
0 1	1 3	3 3
0 2	1 4	3 4
0 3	1 5	3 5
0 4	2 2	4 4
0 5	2 3	4 5
1 1	2 4	5 5

Solutions



-	+	-					-	+	2	3		
+	-	+					+	-	+	+	-	5
-	+					-	+	-	-	+	3	4
+	-					+	-	+	-	+	-	2
-			-	+	-	+	-			+	3	4
+			+	-	+	+	-			-	+	4
		+	-	+	-			-	+	+	4	3
		-	+					+	-	-	2	3
+	-					-	-	+	2	3		
						+	-	+			+	-
		3	4	3	2	4	2	4			2	1
3	3	4	1	4	3	4	2	2	3		-	

	↓	↙	↘	↙	↘	↓	↓	
↘	5	2	3	2	1	4	2	←
↗	5	2	3	1	2	2	4	←
→	4	3	2	2	1	3	2	↖
↘	3	1	4	1	2	2	3	←
→	6	2	3	4	2	4	3	←
→	4	4	3	2	4	3	5	←
→	4	1	4	1	1	5	3	↖
	↑	↖	↑	↖	↗	↗	↖	

