# Instruction Booklet Author: Matej Uher 

## Date: 21.-23. July

Timing: 100 minutes

All the puzzles in this test have a common rule: "Draw a single closed loop..." which means that you have to be the fastest "logiracer", if you wanted to be the best one.

Instant Grading will be enabled for this test. Using Instant Grading, a solver will immediately know if the submitted solution is correct or not. Each wrong submission will earn 5 penalty points.

If you are unsure of Instant Grading, please check the IB (page 2) of Double Decathlon where it was used for the first time at LMI (Link:
http://logicmastersindia.com/lmitests/dl.asp?attachmentid=181\&view=1

This test will consist of 10 puzzle types; each type will be represented by 2 puzzles. Some puzzles are well-know, but some are variants of non-loop puzzles (Star battle, Dotted snake, Tapa and Pentominoes).

## Points table

| Puzzle | Puzzle 1 | Puzzle 2 |
| :---: | :---: | :---: |
| Masyu | 13 | 82 |
| Slitherlink | 25 | 63 |
| Corral | 36 | 68 |
| Dutch loop | 6 | 61 |
| Country road | 55 | 103 |
| Yajilin | 14 | 66 |
| Dotted loop | 8 | 90 |
| Tapa loop | 30 | 51 |
| Border loop | 48 | 108 |
| Comet | 23 | 50 |

Answer key of each puzzle will be some marked rows. For each marked row, enter the number of cells of the longest horizontally connected group of cells or dots (depended on puzzle type) in that row, starting at the top and continuing to the bottom.

Thanks Matúš Demiger and Martin Kollár for test solving.
Thanks Logic Masters India for hosting this contest

## Masyu

Draw a single closed loop passing through all circles in the grid. The loop cannot touch or cross itself. The loop must make a turn at all black circles and go straight for at least two cells in both directions before turning again. The loop must go straight through all white circles and turn immediately before and/or after in the next cell.


Answer key: 315

## Slitherlink

Draw a single closed loop which connects some of the dots horizontally or vertically. The loop cannot touch or cross itself. Numbers indicate how many edges of that cell are used by the loop.


Answer key: 422

## Corral

Draw a single closed loop along the grid lines so that all the numbered cells are inside the loop. The loop cannot touch or cross itself. Additionally, each number equals the count of cells inside the loop that are directly in line (horizontally or vertically) with that number's cell, including the cell itself. Cells marked $X$ are outside loop.


Answer key: 324

## Dutch loop

Draw a single closed loop passing through all cells in the grid. The loop cannot touch or cross itself. It makes turn at black circle and goes straight at every white circle. There are no loop segments on cells marked X.


Answer key: 525

## Country road

Draw a single closed loop passing through some cells in the grid. The loop cannot touch or cross itself. The path may not return to any outlined region it has already visited, and any two adjacent squares that the path does not go through must be in the same room. A number in a room indicates how many squares in that room the path goes through.

NOTE: Nikoli's rules require every room to be visited exactly once. This rule does not apply to the puzzles in this test.


Answer key: 222

## Yajilin

Draw a single closed loop passing through some cells in the grid. The loop cannot touch or cross itself. In addition to the numbered cells, there will be some blackened cells that the loop will not visit. The numbered cells indicate the number of black squares in direction of arrow. Black squares cannot be adjacent to each other. Numbered cell cannot be blackened.


Answer key: 313

## Dotted loop

Draw a single closed loop passing through some cells in the grid. This loop is snake-like, that means the loop cannot touch itself, not even diagonally. Every $3 r d$ square of the loop has a dot on it. Numbers outside the grid reveal how many dots of the loop are in the corresponding row or column. The squares marked $X$ are not part of the snake.


Answer key: 313

## Tapa loop

Blacken some cells to create a continuous wall. Number/s in a cell indicates the length of black cell blocks on its neighbouring cells. If there is more than one number in a cell, there must be at least one white cell between the black cell blocks. Painted cells cannot form a $2 \times 2$ square or larger. There are no wall segments on cells containing numbers. Then draw a single closed loop passing through all blacken cells. The loop cannot touch or cross itself.


Answer key: 334

## Border loop

Place some given pentominoes along the grid lines so these pentominoes can't use any dot or line of edge. Pentominoes cannot touch each other and they may be rotated and/or mirrored. Then draw a single closed loop passing through all cells in the grid. The loop cannot touch or cross itself. You cannot cross placed pentominoes. Some segments of pentominoes should be given. There are no loop segments on cells marked X.


Answer key: 513

## Comet

Place some stars in the grid so there is exactly one star in every row, column and outlined region. Stars cannot touch each other, not even diagonally. Then draw a single closed loop passing through all remaining cells in the grid. The loop cannot touch or cross itself. There are no stars or loop segments on black cells.


Answer key: 222

