

## Background

This is a follow up contest for the Puzzle Ramayan Loops episode. We thought the types used in the episode might work well in a large connected puzzle, and have decided to have a fun contest with the resultant puzzle. The puzzle contains all the main types present in the PR episode, and to make up the numbers, one of the variations as well. As in the other recent fun contest, there will be no time limit. We are looking to continue where the PR episode left off in encouraging beginners to explore Loops even further.

If you have not participated in the Loops episode, we recommend you to have a look at the puzzles (http://logicmastersindia.com/PR/201602/) before participating in this one.

## Rule of the puzzle

Draw a single closed loop visiting each of the six 10X10 (4X4 in the example) sub-grids. The loop follows a different rule in each sub-grid.

A - LineSweeper Variation - Numbers in the grid show the number of cells used by the loop in the 3X3 area, with the cell in the middle of it. The loop can pass through cells with numbers.
B - LineSweeper - Numbers in the grid show the number of cells used by the loop in the surrounding 8cell area. The loop cannot pass through cells with numbers.
C - Simple Loop - Loop passes through all white cells. Some parts of the loop may be drawn.
D - Maxi Loop - The numbers in the boldly marked regions indicate the highest amount of cells that the loop goes through consecutively (i.e. without exiting to another region) in that area. Loop passes through all cells.
E - Railroad Tracks - The loop can cross itself with a given ' + '. The loop must pass straight through numbered cells, and must travel in order from 1 to 2 and so on till 10 and then back to 1 . Loop passes through all cells.
F - Masyu - The loop turns in every black circle and goes straight through both adjacent squares. The loop goes straight through every white circle and turns in at least one or both adjacent squares.

Answer Key : For each of the sub-grid (in order $A, B, C, D, E, F$ ), enter the number of time the loop enters or exits the sub-grid. For 2 digit answers, enter the unit (right most) digit only. [ Your final answer will be a six digit number.]

For the example, the answer key is 446666


