Pseudo-Random Takneek'16

Greater Than Killer Sudoku

- The objective of Greater Than Killer Sudoku is to fill the grid with the numbers 1 to 9 such that each row, column and nonet (3x3 group of cells) contains each number only once.
- As well as this, a Greater Than Killer Sudoku grid is divided into a number of cages, shown with dashed lines.
- The sum of the numbers in a cage must equal the small number in its top-left corner.
- The same number cannot appear more than once in a cage.
- But not every cage has a sum in its top-left corner. Instead, some cages are linked together with symbols describing whether their sums are less than (<), equal to (=) or greater than (>) each other.

Yashi

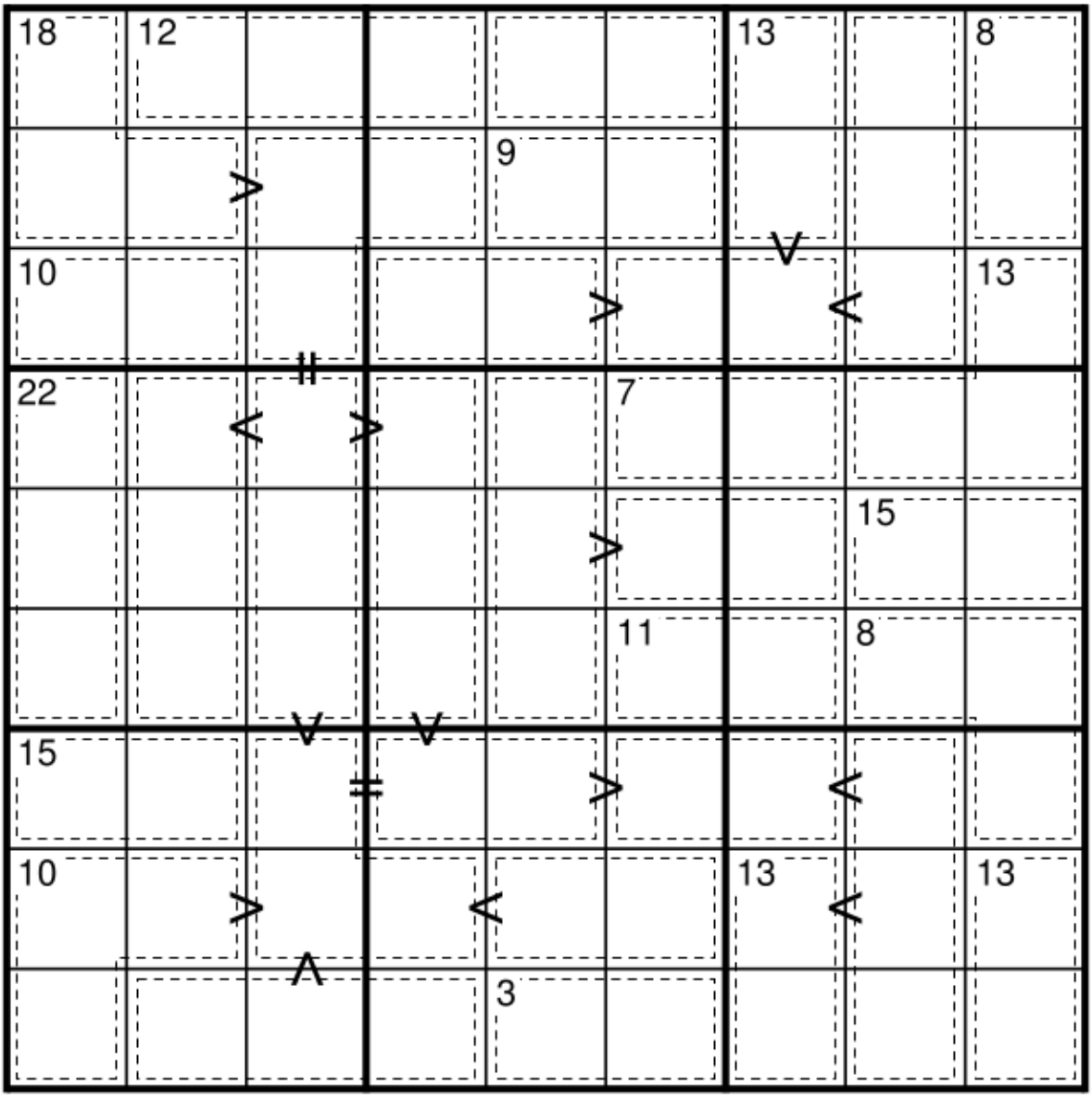
- Connect **all** the dots together by drawing straight horizontal/vertical lines from dot to dot
- Lines may **NOT** cross

Sukuru

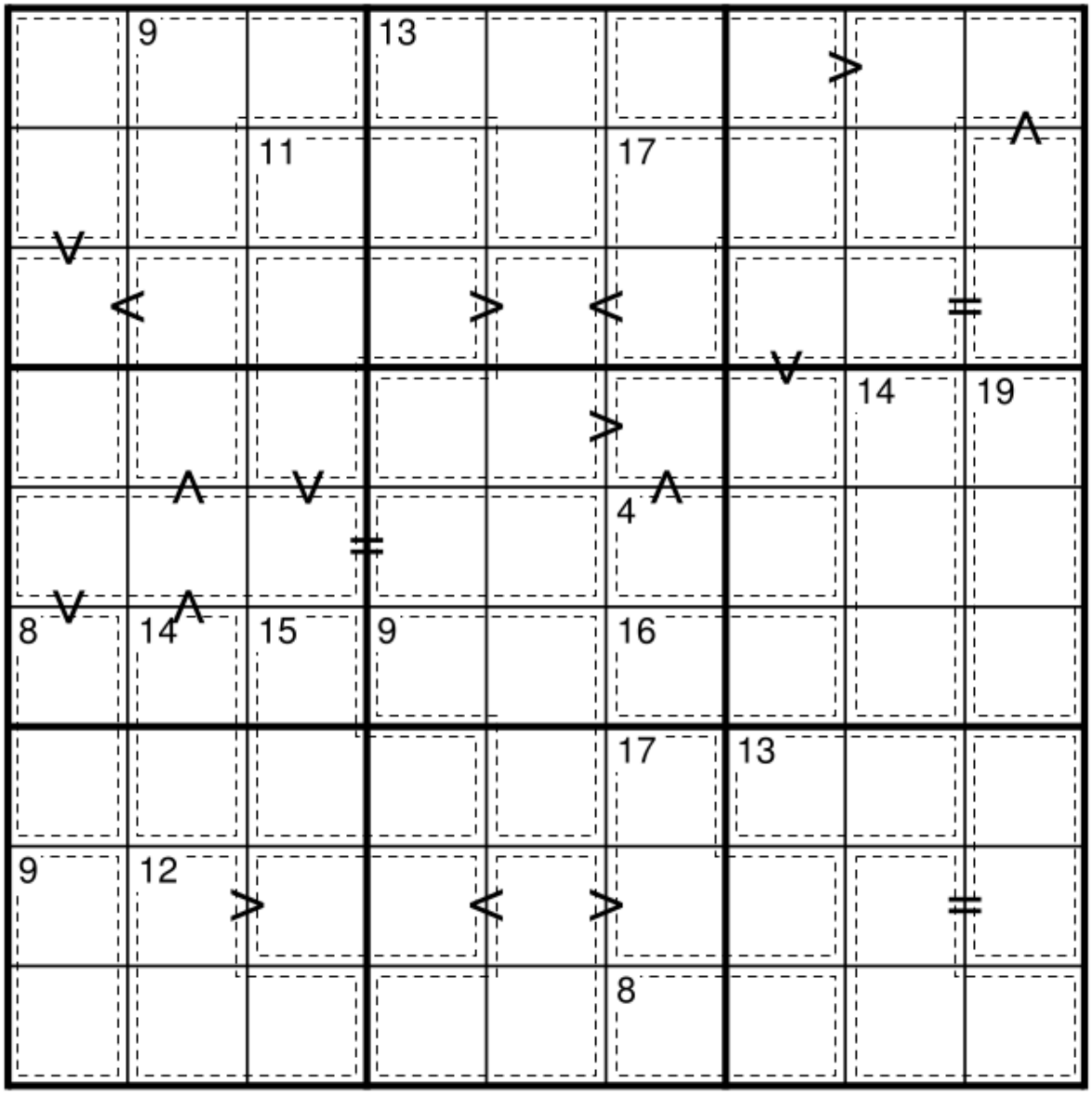
- A grid contains different regions (outlined in bold) from sizes 1 to 5. Your task is to fill the grid so that each cell contains a number
- The only constraint is to put the number depending on the size of the region. For regions of size 1 you put only 1, for regions of size 2 you put 1 and 2, then following the same principle a region of size 5 must be filled by numbers 1,2,3,4 and 5.
- A cell cannot have the same number than any other neighbouring cell touching it (not even diagonally).

Thermometer

- At the beginning you have a grid filled with many empty thermometers your goal is to fill the thermometers with mercury, until that at the end each column and row have quantity of mercury indicated by the numbers outside the grid.
- A thermometer must be filled from the base (round part) to the top.



5 Points



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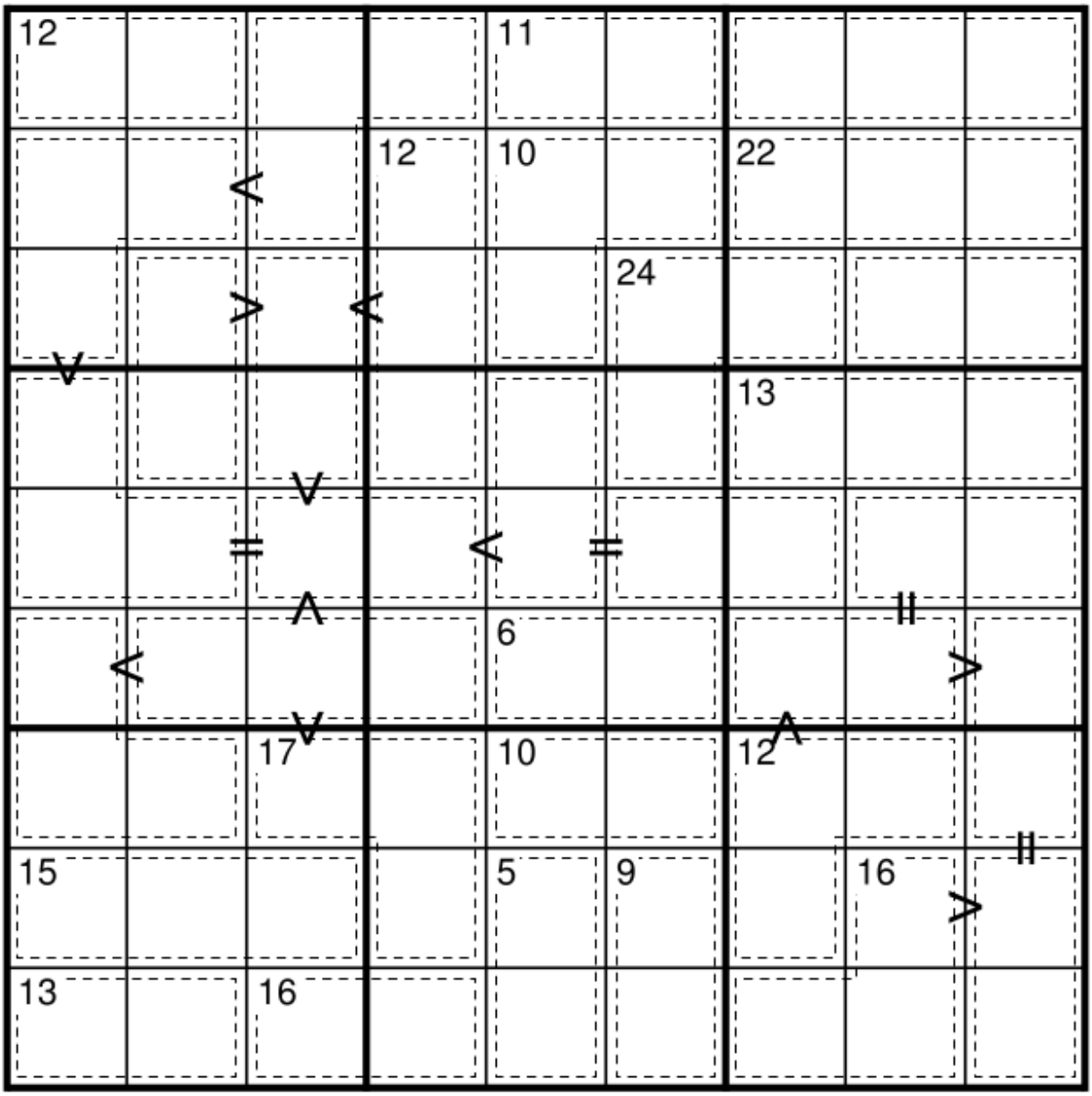

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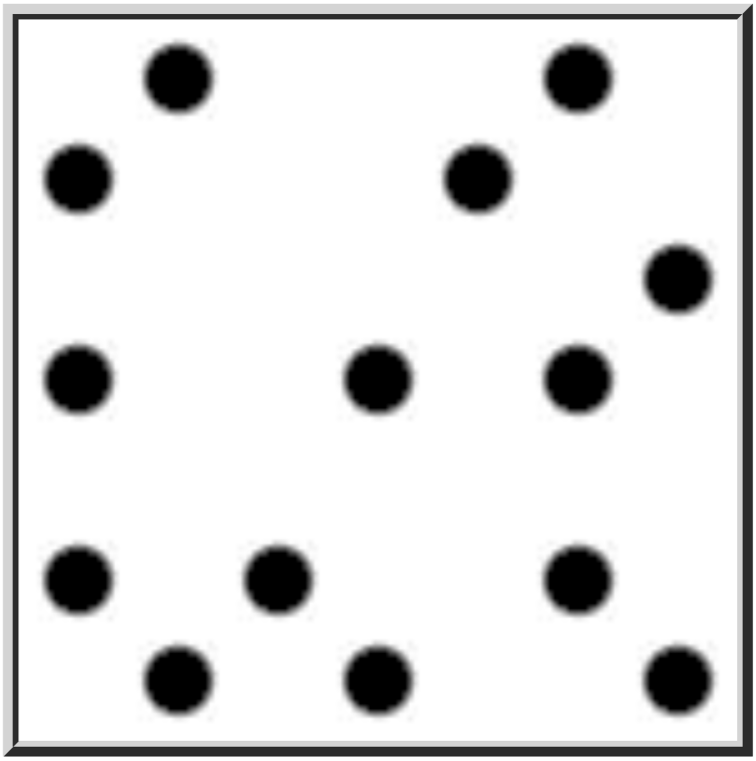

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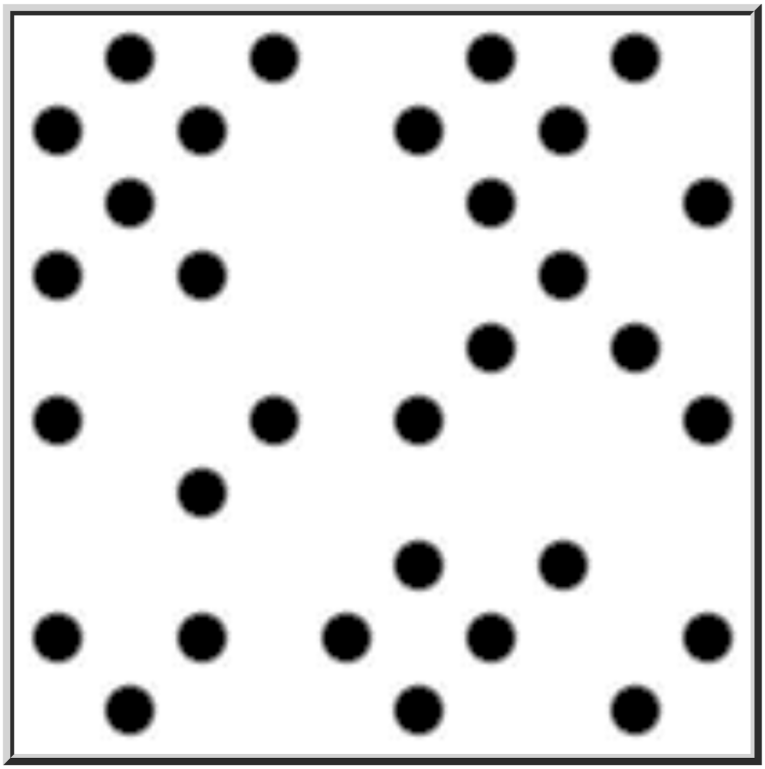

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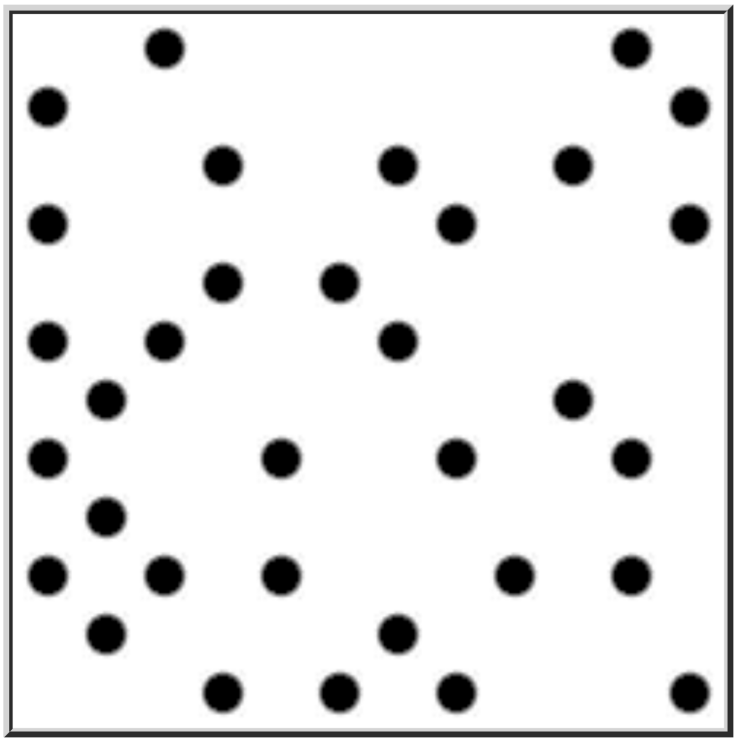

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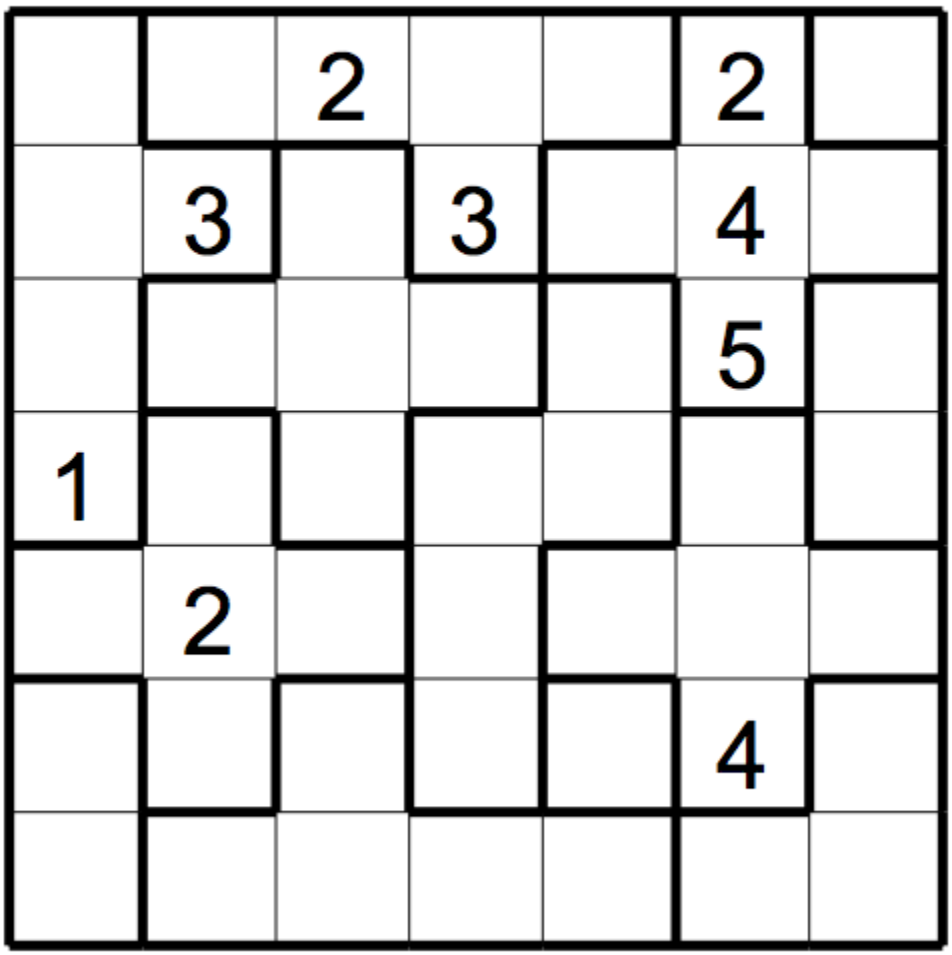

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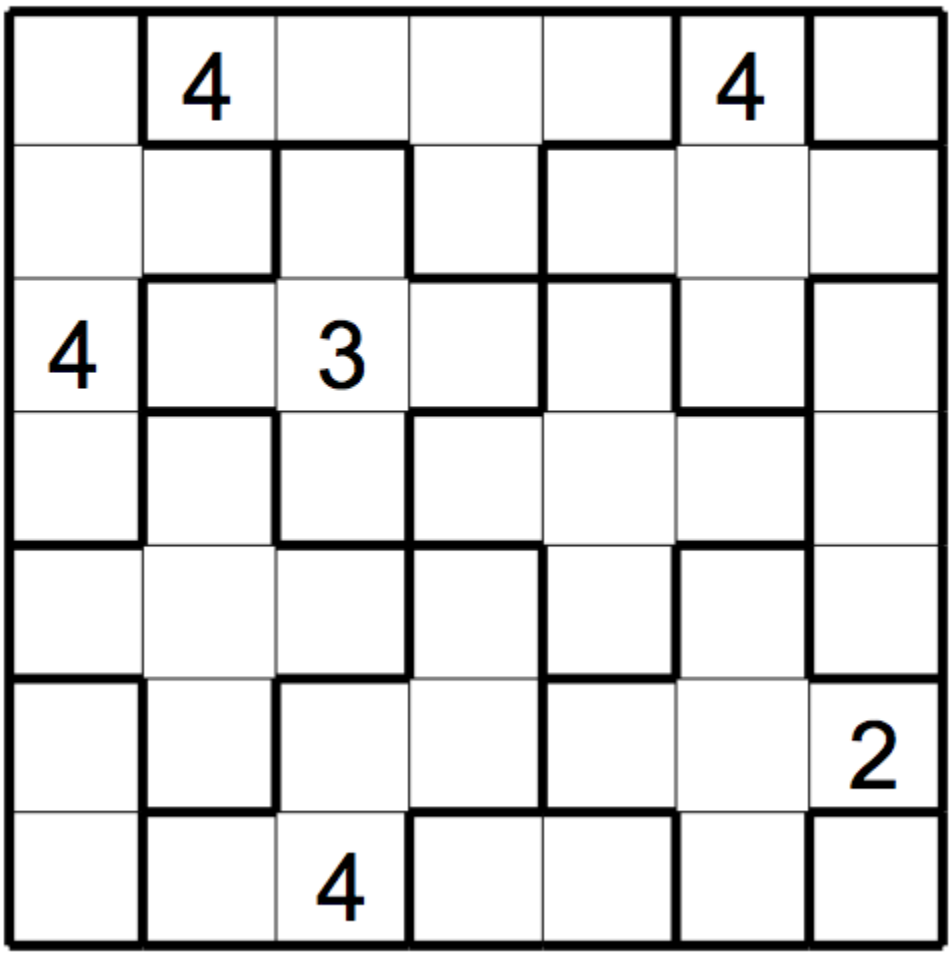

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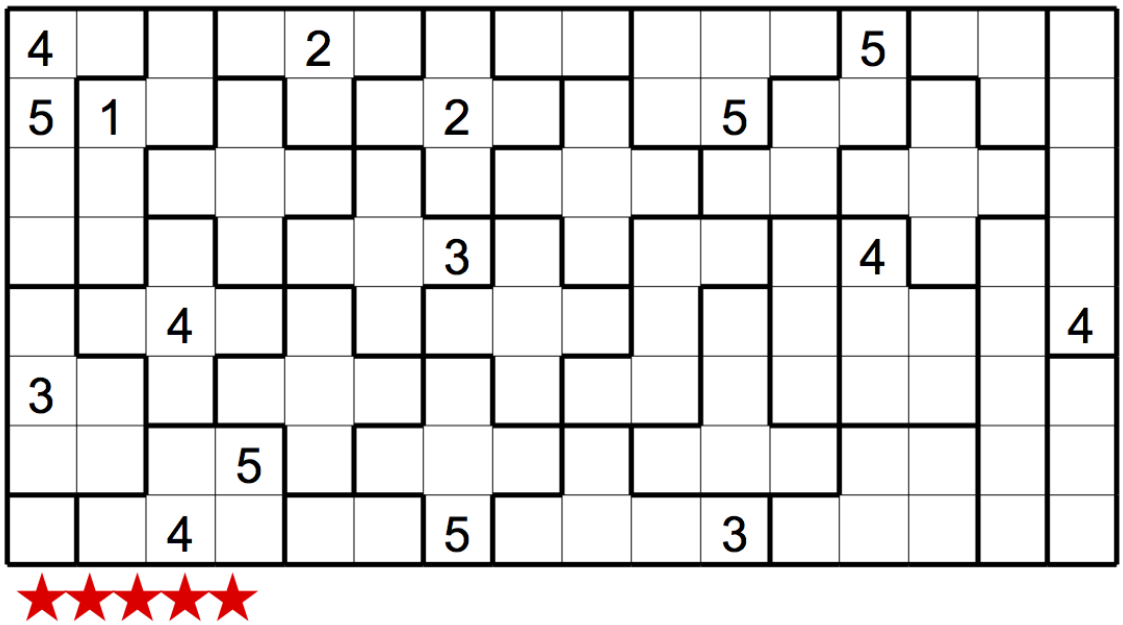

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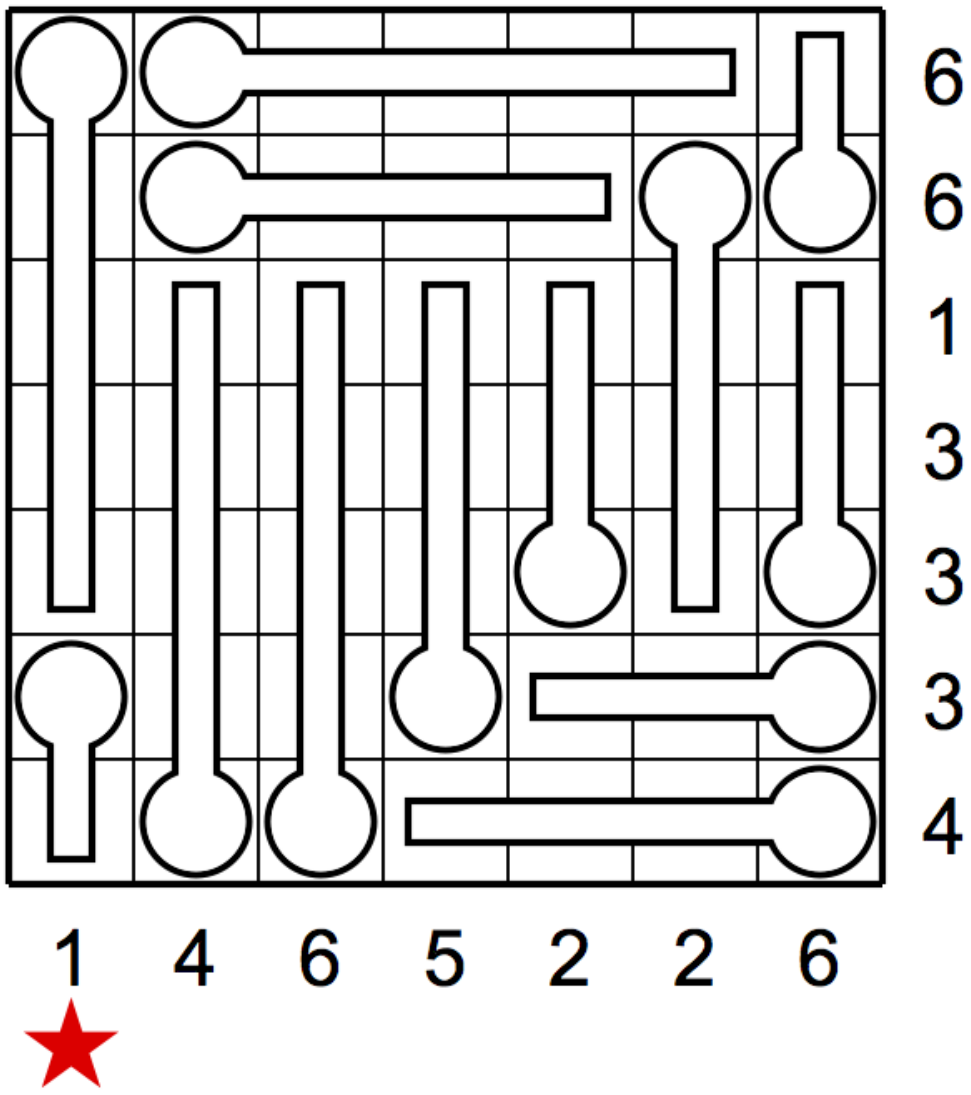

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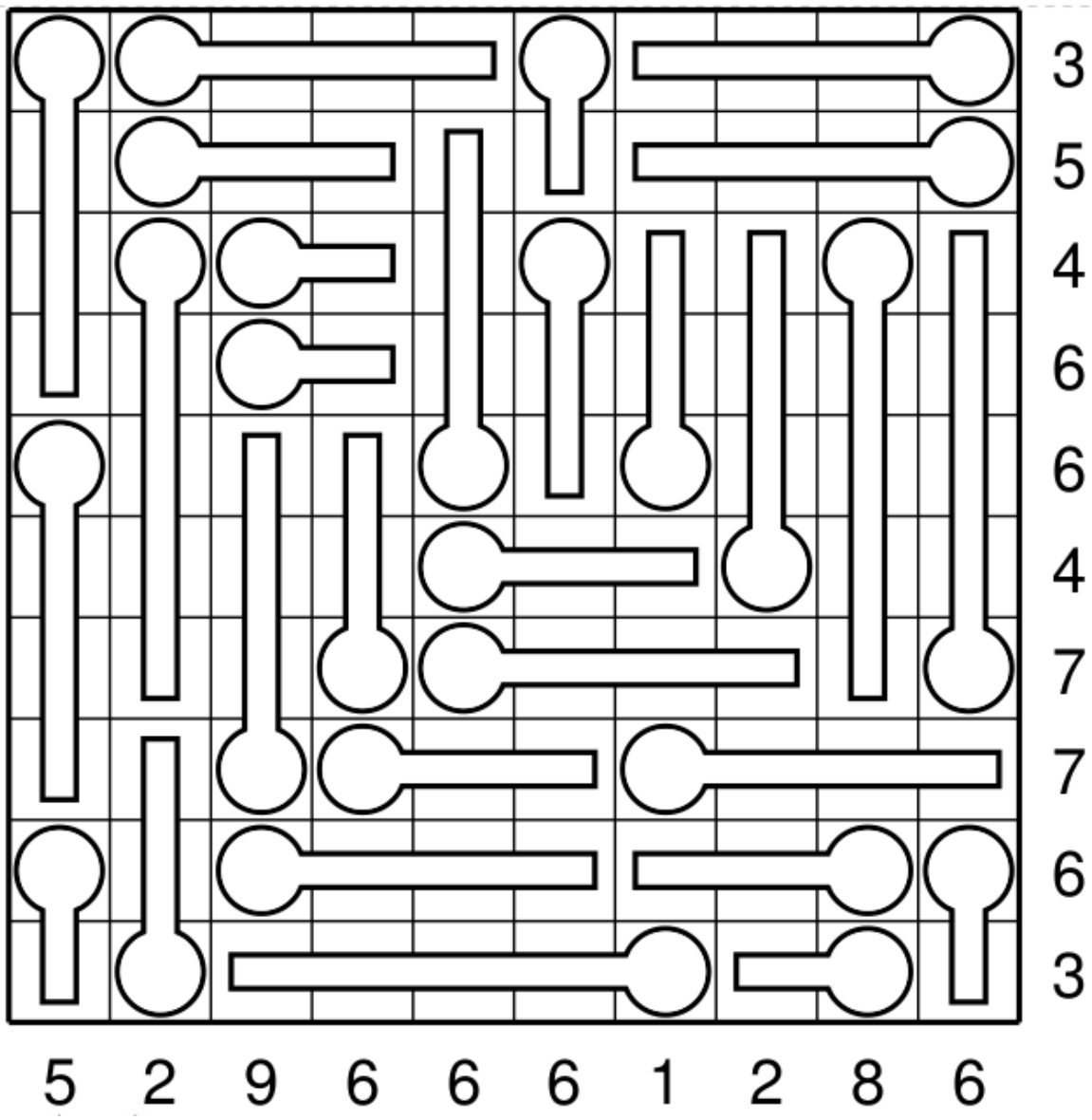

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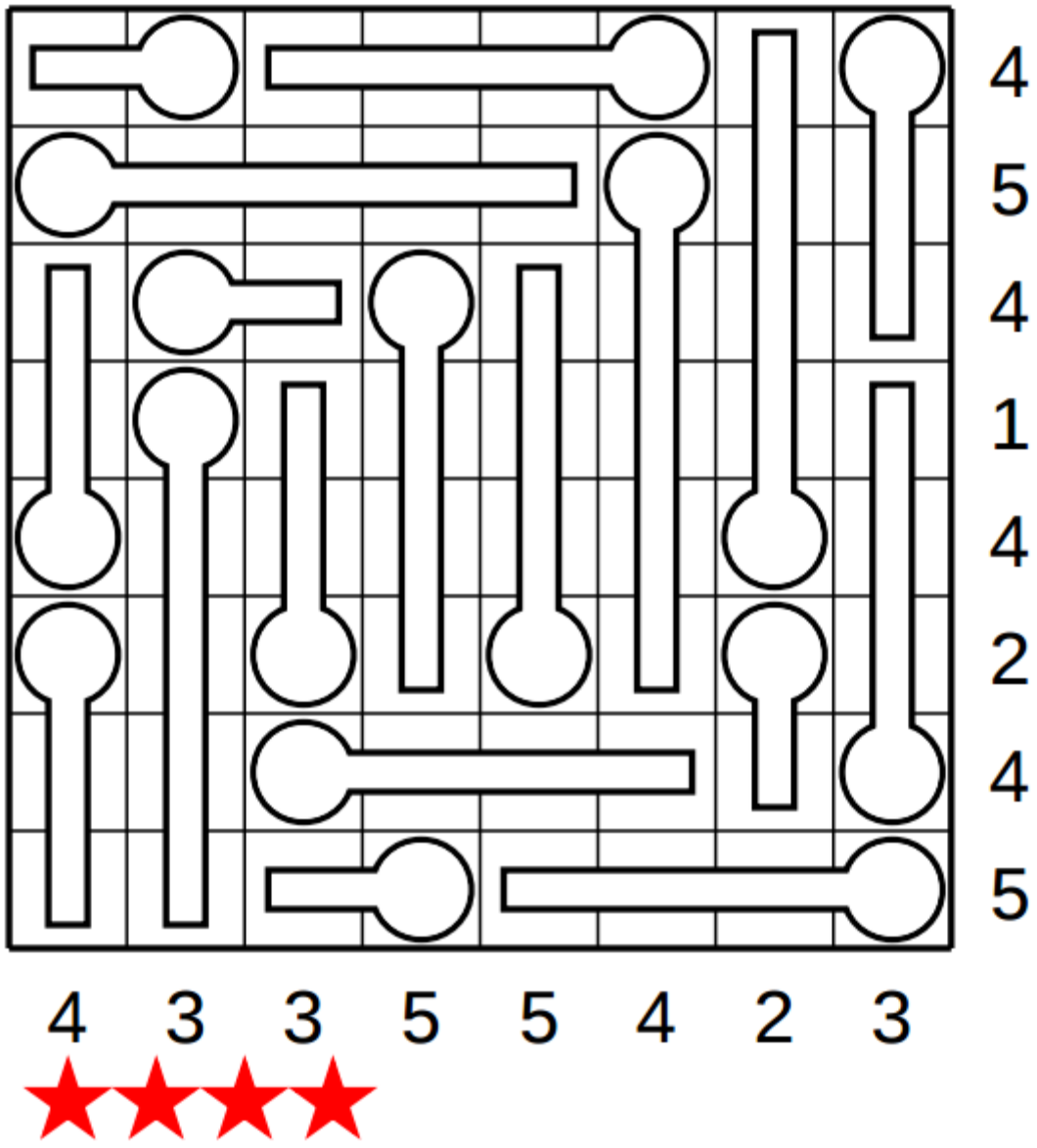

20 Points

Matrix

Consider the 3x3 matrix below.

All nine digits are used exactly once.

1 9 2
3 8 4
5 7 6

Notice that "384" is twice the number in the first row, and that "576" is three times the number in the first row.

Questions:
1. Enumerate all other ways(=N) of arranging the number to produce the same result using each digit only once and the same rules?
Remember, the second row must be twice the first. The third row must be 3 times the first row.

$5\square\,\square(\square! = 0) + 30\square(\square = 0)$ Points