Composite Puzzles

Group 3: City of Circles *(Hausigel)*

This is the third group in our series about Composite Puzzles. It is given in the form of one large grid which encloses six smaller puzzles.

Global Instructions: Locate six smaller puzzles inside the large grid. Each given circle must lie inside one of the puzzles. The puzzle types are: **Battleships**, **Corridors**, **Galaxies**, **Masyu**, **Statue Park**, **Yin and Yang**. Each of these puzzle types must appear exactly once.

The individual puzzle grids may touch each other at will, but they cannot overlap. The six grids must be rectangular, not necessarily quadratic. The numbers outside the grid indicate how many cells in the respective row/column are part of the six puzzles.

Furthermore, draw a single closed loop through the cells which are not part of any of the six puzzles. The loop runs only horizontally and vertically, and it must pass through each unused cell exactly once.

Instructions for Battleships: Place the small standard fleet (one ship of size 3, two ships of size 2 and three ships of size 1) into the grid, so that they do not touch each other, not even diagonally. Ships can be rotated. *This puzzle can only contain black circles, which represent ships of size 1.*

Solution code: For each row from top to bottom, enter the number of cells occupied by ship segments.

Instructions for Corridors: Divide the grid into regions of equal size, so that each region contains exactly one black circle and one white circle. No 2×2 square can be located completely within one region.

Solution code: For each row from top to bottom, enter the number of regions with at least one cell in the respective row.

Instructions for Galaxies: Divide the grid along the grid lines into regions, so that each region contains exactly one circle. Each region must have rotational symmetry, and the circle must be located in the center of rotation. *This puzzle can only contain white circles.*

Solution code: For each row from top to bottom, enter the number of regions with at least one cell in the respective row.

Instructions for Masyu: Draw a closed loop into the grid that runs horizontally and vertically and passes through each cell at most once. The loop must go through all cells with circles. In a cell with a black circle, the loop must make a turn and pass straight through both cells before and after the circle. In a cell with a white circle, the loop must pass straight through and make a turn in a cell before or after the circle (or both).

Solution code: For each row from top to bottom, enter the number of cells which are not used by the loop.

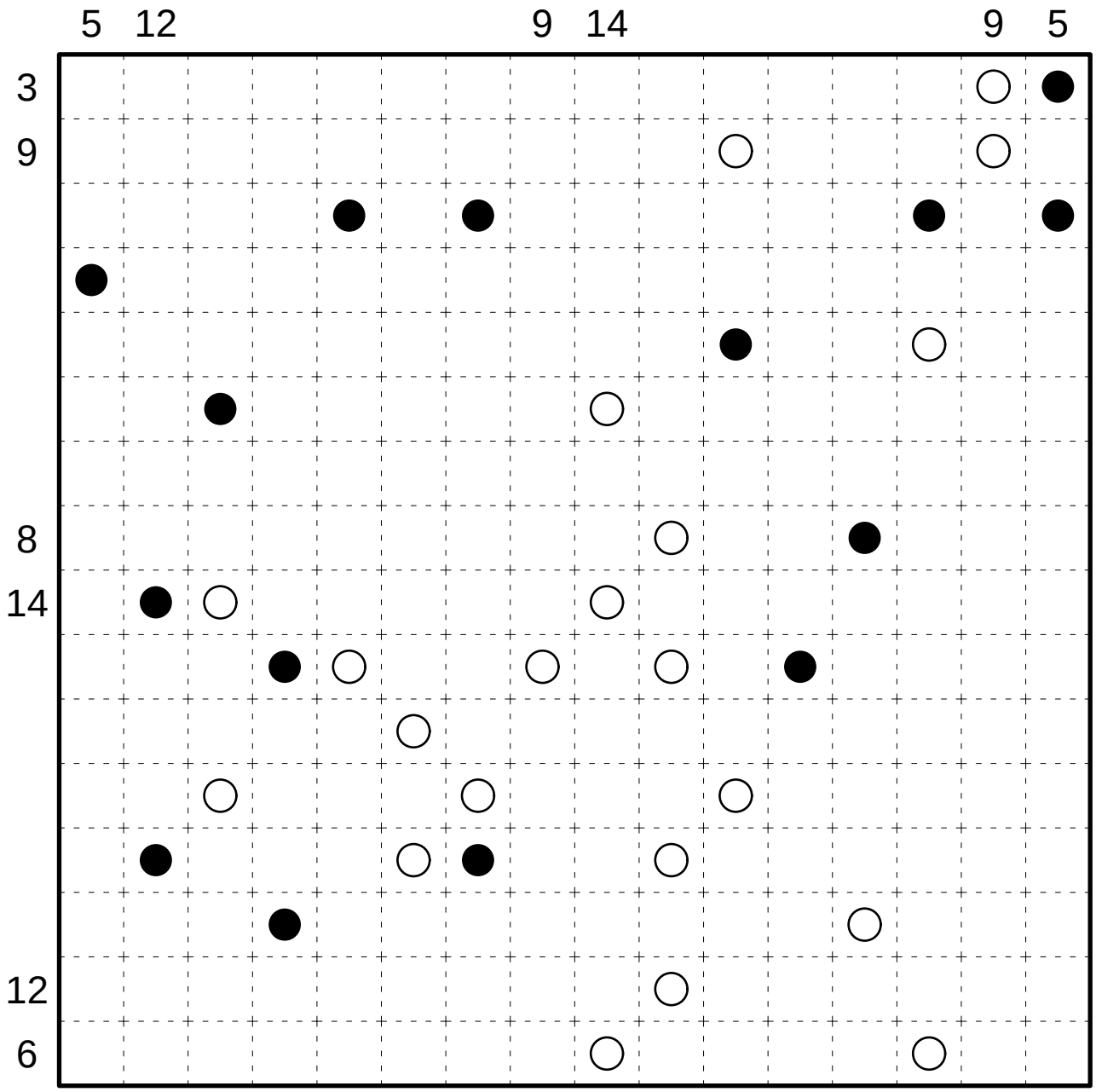
Instructions for Statue Park: Place the five tetromino shapes into the grid, so that they do not share an edge (they may touch diagonally). The shapes can be rotated and reflected, and each shape must be used exactly once. Cells with black circles must be covered by one of the shapes, cells with white circles cannot be covered by any of the shapes. All cells that are not occupied by any shape, including those with white circles, must be connected.

Solution code: For each row from top to bottom, enter the number of cells occupied by the tetrominoes.

Instructions for Yin and Yang: Draw a white or black circle into each empty cell, so that all white circles are connected and all black circles are connected. No 2×2 square can contain four circles of the same colour.

Solution code: For each row from top to bottom, enter the number of contiguous groups of cells containing circles of the same color.

Note regarding syntax: For this group, the *PuzzleCheck* tool will ignore all characters except digits, hence spaces and separators (such as commas) can be entered at will.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