

WPF PUZZLE GP 2016

INSTRUCTION BOOKLET

Playoff Format:

The Puzzle Grand Prix competitive playoffs will consist of eight puzzles, to be solved in a fixed order. The puzzles contain a selection of puzzles representative of the Puzzle GP series. Each host nation has contributed puzzles to the playoffs; one from each host nation is selected by the tournament director.

The competitors will begin with a staggered start based on the total number of points earned in the qualifying rounds. The 10th-place finisher in the GP will start two minutes after the 1st-place finisher. Other finishers will start at different times proportional to the number of points they are behind the 1st-place finisher.

Competitor (Country):	Position:	Points:	Start Time (m:ss):
Ken Endo (Japan)	1st	5331.4	0:00
Ulrich Voigt (Germany)	2nd	4966.4	0:41
Hideaki Jo (Japan)	3rd	4767.6	1:03
Nikola Živanović (Serbia)	4th	4617.4	1:19
Kota Morinishi (Japan)	5th	4423.9	1:41
Prasanna Seshadri (India)	6th	4415.2	1:42
Will Blatt (USA)	7th	4370.1	1:47
Robert Vollmert (Germany)	8th	4263.4	1:59
Michael Ley (Germany)	10th	4252.9	2:00
Przemysław Dębiak (Poland)	12th	3773.0	2:53

When a competitor completes a puzzle, he can raise his hand to indicate to a proctor that he is done. The entire grid will then be judged over the next minute. After one minute, if the puzzle is correct, the proctor will indicate the competitor can begin the next puzzle. If the puzzle is incorrect, the proctor will return the incorrect puzzle to the competitor but will make no indication of where any mistake is in that grid. The competitor can resubmit a returned puzzle at any time, but another full one minute grading process will follow.

The playoffs will continue until 3 solvers have completed all puzzles correctly. These solvers, in order of finish, will be the top 3 winners for this year's Puzzle Grand Prix for the Competitive section.

Constructor Thanks:

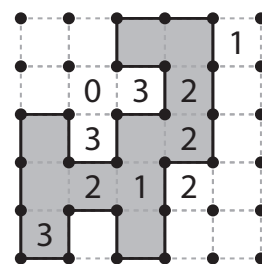
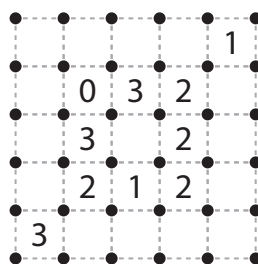
In addition to the constructors credited in the playoff, we would also like to thank the following constructors and contacts for supplying puzzles to the pool that ultimately went unused: Rakesh Rai, Zoltán Horváth, Čedomir Milanović, Nick Baxter.



1. Slitherlink [India - Ashish Kumar]

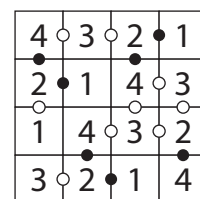
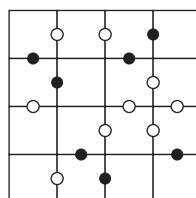
Draw a single, non-intersecting loop that only consists of horizontal and vertical segments between the dots. A number inside a cell indicates how many of the edges of that cell are part of the loop.

You do not need to shade the area inside the loop.



2. Kropki [Slovakia - Matus Demiger]

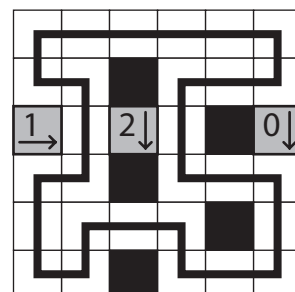
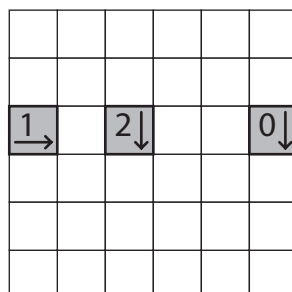
Place a number from 1 to X (integers only) into each cell so that each number appears exactly once in each row and column. (X is the number of cells in each row.) A white dot on the edge of two cells indicates that those two cells must contain consecutive numbers; a black dot on the edge of two cells indicates that a number in one of those cells is double the value of the number in the other cell. If 1 and 2 are in adjacent cells, then the dot between them could be either color. If there is no dot on the edge of two cells, it means neither a black nor a white dot could go there.



3. Yajilin [Germany - Silke Berendes]

Blacken some white cells and then draw a single closed loop (without intersections or crossings) through all remaining white cells. Loop paths must be orthogonal. Blackened cells cannot share an edge with each other. Some cells are outlined and in gray and cannot be part of the loop. Numbered arrows in such cells indicate the total number of blackened cells that exist in that direction in the grid.

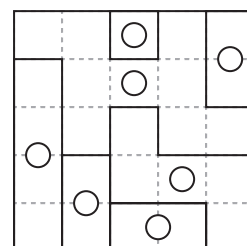
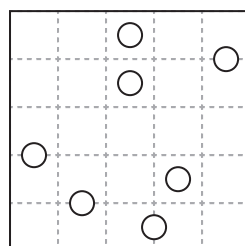
Drawing the loop is sufficient; you do not need to physically blacken all black cells.



4. Spiral Galaxies [Hungary - Zoltán Németh]

Divide the grid into polyomino-shaped regions such that each cell is in exactly one region. You may only draw on the grid, as indicated by the dotted lines. Each region must be rotationally symmetric and contain exactly one dot at the point of symmetry.

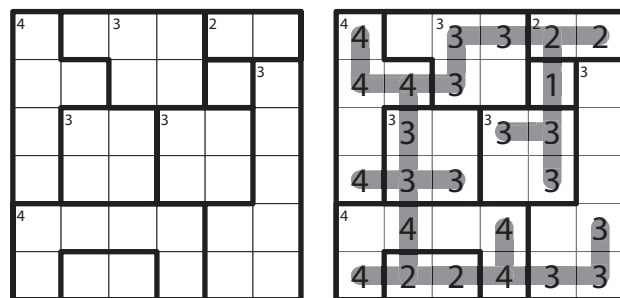
You must draw all region borders to receive credit.





5. Nanro (Signpost) [USA - Thomas Snyder]

Label some cells with numbers such that each bold region contains at least one labeled cell. Each number (including any given numbers) must equal the total count of labeled cells in that region; for some regions, that number is given to you in the upper-left cell of the region (but not which cells are labeled). When two labeled cells from different regions are connected orthogonally, they must contain different numbers. All labeled cells are connected orthogonally. No 2x2 group of cells can be entirely labeled.

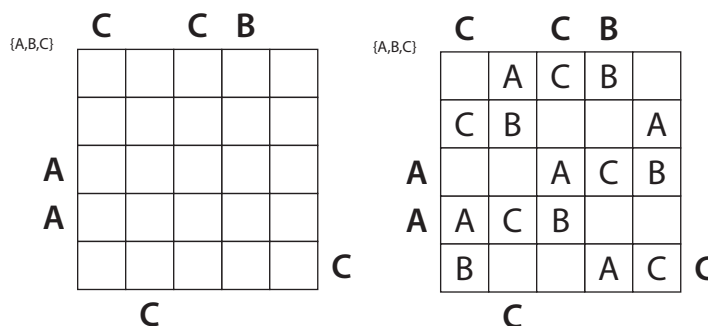


You do not need to write in all the numbers. Identifying which cells are labeled (drawing the connected group of numbered cells) is sufficient. However, any numbers that are written must be correct.

6. Easy as... (No Touch) [Serbia - Branko Ćeranić]

Place letters of the specified list into some cells, no more than one letter per cell, so that each letter appears exactly once in each row and column. The letters outside the grid indicate the first letter that can be seen in the respective row or column from the respective direction.

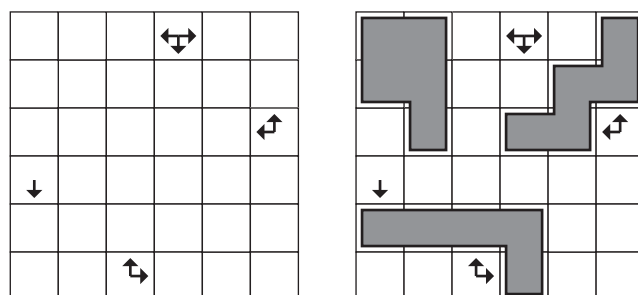
Cells that touch diagonally may never share the same letter. Some letters may already be filled in the grid for you.



7. Pentopia [Netherlands - Bram de Laat]

Shade some empty cells black so that the black cells form the shapes of different pentominoes. Each pentomino shape is used at most once, but can be rotated or reflected. Pentominoes cannot touch along edges or corners. Arrows in a cell indicate *all* closest shaded cell(s) to that cell along the four orthogonal directions (if there are multiple cells of the same closest distance to the cell, there will be multiple arrows).

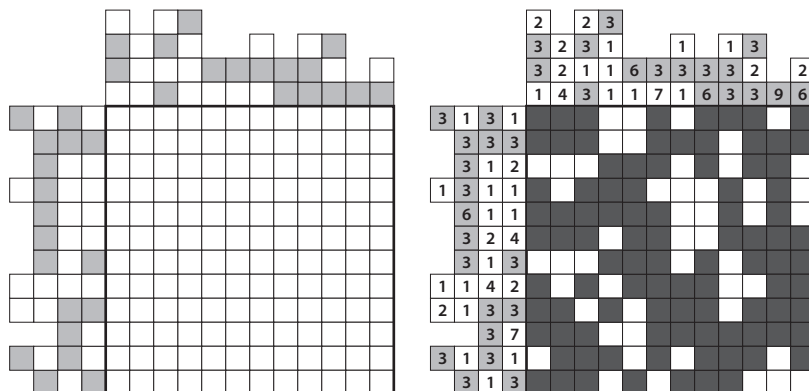
Clearly indicating the location of the pentominoes is sufficient; you do not need to label the pentominoes with letters or fully blacken in all pentomino cells.



8. Paint by Threes [Russia - Andrey Bogdanov]

Fill in each cell to the left of (and above) the main grid with a number, such that each shaded cell contains a number divisible by 3 and each unshaded cell contains a number not divisible by 3. No cell will contain a zero (0).

Then, blacken some cells in the grid such that the numbers to the left (and top) of the main grid represent the lengths of contiguous blackened cell blocks in the corresponding row (or column). The lengths are given in order from left to right (or top to bottom), and cell blocks must contain at least one unblackened cell between them.



Determining the blackened cells is sufficient. You do not need to physically fill in any numbers.