## WPF puZZLE GP 2018 INSTRUCTION BOOKLET

## Playoff Format:

The Puzzle Grand Prix 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 1 st-place finisher.

| Competitor (Country): | Position: | Points: | Start Time (m:ss): |
| :--- | :--- | :--- | :--- |
| Ken Endo (Japan) | 1st | 5181.2 | $0: 00$ |
| Bram de Laat (Netherlands) | 3rd | 4180.5 | $1: 18$ |
| Walker Anderson (USA) | 4th | 4173.6 | $1: 19$ |
| Kota Morinishi (Japan) | 5 th | 4049.2 | $1: 28$ |
| Michael Ley (Germany) | 7th | 3953.3 | $1: 36$ |
| Yuki Kawabe (Japan) | 8th | 3844.0 | $1: 44$ |
| Robert Vollmert (Germany) | 9th | 3778.2 | $1: 50$ |
| Nikola Zivanovic (Serbia) | 11th | 3621.7 | $2: 02$ |
| Neil Zussman (UK) | 12th | 3585.0 | $2: 05$ |
| Tiit Vunk (Estonia) | 13th | 3469.2 | $2: 14$ |

When a competitor completes a puzzle, they can raise their hand to indicate to a proctor that they are 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.

## 1. Tapa [Turkey - Serkan Yürekli]

Shade some empty cells black; cells with numbers cannot be shaded. All black cells connect along edges to create a single connected region. (It is permissible for the region to touch itself at a corner, but touching at a corner does not connect the region.) No $2 \times 2$ group of squares can be entirely shaded black.

Numbers in a cell indicate the lengths of contiguous black cell groups along the "ring" of 8 cells touching that cell (fewer for cells along the
 outside edge). If there is more than one number in a cell, then there must be at least one white (unshaded) cell between the black cell groups. The numbers are given in no particular order. As a special case, if the number given in a cell is a zero ( 0 ), it means that none of the cells around that cell may be shaded black.

## 2. Fillomino [India - Ashish Kumar]

Divide the grid along the dotted lines into regions (called polyominoes) so that no two polyominoes with the same area share an edge. Inside some cells are numbers; each number must equal the area of the polyomino it belongs to. A polyomino may contain zero, one, or more of the given numbers. (It is possible to have a "hidden" polyomino: a polyomino without any of the given numbers. "Hidden" polyominoes may have any area, including a value not present in the starting grid, such as a 6 in a puzzle with only clues numbered 1-5.)


## 3. Tic-Tac-Logic [Switzerland - Markus Roth]

Place a circle or a cross into each empty cell, one symbol per cell, such that each row and column has an equal number of circles and crosses and no row or column has three consecutive cells with the same symbol. (It is permissible for three cells along a diagonal to have the same symbol.) Additionally, all rows must have a different pattern of symbols and all columns must have a different pattern of symbols (it is permissible for a row to have the same pattern as a column). Some cells have already been filled
 for you.

## 4. Letter Weights [Netherlands - Richard Stolk]

Write a number under each letter (in each cell) so that the numbers corresponding to the letters in each given word have the given sum. Different letters must have different numbers. The list of allowed numbers is given in a row underneath the cells.


## 5. Antidomino Snaky Loop [Bulgaria - Deyan Razsadov]

Locate a "snaky loop" composed of a full set of dominoes (without doubles) in the grid; it goes through some number of cells orthogonally and comes back to itself. Each cell is used at most once by the loop. The loop may not touch itself, not even diagonally. (In other words, if two cells in the loop touch orthogonally, then they must be exactly one cell apart along the path of the loop, and if two cells in the loop touch diagonally, then they must be exactly two cells apart along the path of the loop.)

Each cell in the loop must contain half of a domino, and each domino half must be part of the loop. Domino halves that contain the same number may not be in the same row nor the same column. They also may not touch at a corner. Numbers are always right-side-up regardless of the orientation of its domino. A full set of dominoes will be provided for your convenience; the smallest and largest numbers on the dominoes may be different than in the example.

The outer clue for each row (or column), when given, tells you the number of cells in that row (or column) that are part of the loop. The inner clue, when given, tells you the sum of the numbers of all domino halves in that row (or column). The contents of some cells may have been given to you.

You do not need to draw all the domino boundaries in your solution.


## 6. Pyramid Climbers [Czech Republic - Petr Lichý]

Each cell at the bottom of the pyramid has a "climber" associated with it. Each climber climbs up a path of adjacent cells, each containing a different letter. (Climbers do not climb sideways.) Each cell is reached by exactly one climber. Determine the paths of all climbers.


## 7. Walls [Slovakia - Matej Uher]

Draw lines ("walls") along the edges of cells. There must be an orthogonal path between any two cells that does not go through any walls (that is, the walls must not divide the grid into separate regions). Two cells can "see" each other if they are in the same row or column without any walls between them. Each number indicates the total number of cells that can be seen from the numbered cell, including the cell itself.


## 8. Trid [Serbia - Zoran Tanasic]

Place a number from 1 to $X$ (integers only) into each circled cell so that the numbers along each line are all different. ( X is the number of cells along the longest line.) The numbers inside the grid indicate the sum of the three numbers in the adjacent circled cells. Some cells may already be filled in for you.


