

WPF PUZZLE GP 2017 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 1st-place finisher.

Competitor (Country):	Position:	Points:	Start Time (m:ss):
Ken Endo (Japan)	1st	3125.4	0:00
Thomas Snyder (USA)	2nd	2852.7	0:35
Hideaki Jo (Japan)	3rd	2721.5	0:51
Kota Morinishi (Japan)	4th	2480.1	1:22
Yuki Kawabe (Japan)	5th	2380.7	1:34
Tomoya Kimura (Japan)	6th	2345.8	1:39
Walker Anderson (USA)	7th	2339.2	1:39
Will Blatt (USA)	8th	2264.5	1:49
Martin Merker (Germany)	9th	2181.3	1:59
James McGowan (New Zealand)	10th	2177.2	2:00

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.

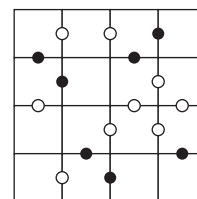
The playoffs will continue until 3 solvers have completed all puzzles correctly. These solvers, in order of finish, will be the top 3 winners for this year's Puzzle Grand Prix.



1. Kropki [Serbia - Zoran Tanasic]

Place a number from 1 to X (integers only) into each cell so that each number appears at most 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.

In the competition puzzle, one cell has already been filled in for you.



4	3	2	1
2	1	4	3
1	4	3	2
3	2	1	4

2. Tapa [Slovakia - Matus Demiger]

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 2x2 group of squares can be entirely shaded black.

Numbers in a cell indicate the lengths of contiguous black cell groups along the "ring" of (up to) 8 cells touching that cell. (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.

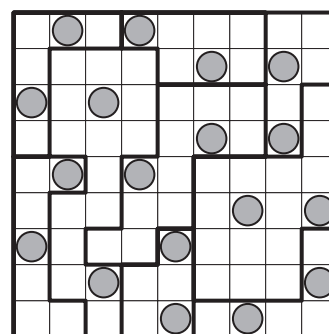
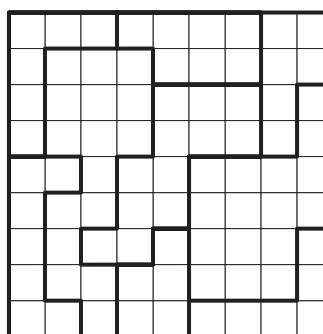
		1 2			
1 1				1 2 1	
		1 1 1			1 3
				2	

		1 2			
1 1				1 2 1	
		1 1 1			1 3
				2	

3. Star Battle [Netherlands - Richard Stolk]

Place stars into some cells in the grid, no more than one star per cell. Each row, each column, and each outlined region must contain exactly two stars. Cells with stars may not touch each other, not even diagonally.

You may use symbols other than stars, as long as it is clear what symbols you are using.



4. TomTom [USA - Serkan Yürekli]

Place a number from 1 to X into each cell so that each number appears exactly once in each row and column. (X is the number of cells in each row.) The number in the upper-left corner of each outlined region indicates the value of one of the four basic operations applied to all numbers in the region, starting with the largest number for subtraction and division (e.g., 1, 2, 4 with division has a clue of $2 \div 4 = 1/2$). The operation may or may not be given in the region, but at least one of the four operations must apply. Numbers may repeat within a region.

{1-5}				
3+	3	33		
	3000x			
	3-		3	
3+				

{1-5}				
3+	3	33		
2	3	5	4	1
1	2	3	5	4
4	5	2	1	3
5	3-	4	1	3
3+	3	1	4	2

Any shading in the regions is for cosmetic purposes only.



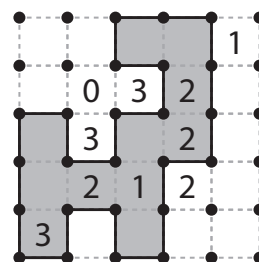
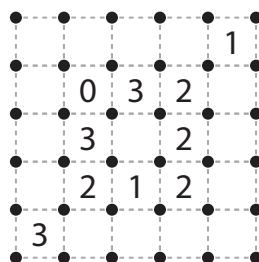
5. Slitherlink [Czech Republic - Jan Novotný]

6. Slitherlink [Turkey - Fatih Kamer Anda]

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

You may only draw on the grid along the dotted lines.

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

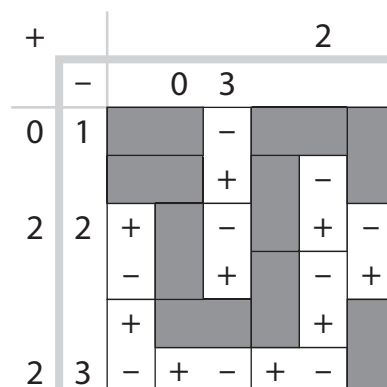
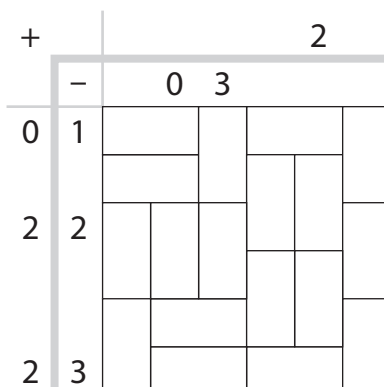


7. Magnets [Bulgaria - Deyan Razsadov]

The grid is partitioned into regions of two square cells each (note that only region borders are drawn). Put "positive" (+) and "negative" (−) symbols into some cells, at most one symbol per cell, such that each region either has two symbols or no symbols at all. Adjacent cells (even within a region) cannot contain the same symbol.

The numbers above and to the left of the grid indicate the exact number of symbols of the specified type that must be placed in each column or row, respectively. If a number is not given, there might be any number of symbols of the specified type.

You do not need to shade the regions with no symbols.



8. Yajilin-Shapes [India - Prasanna Seshadri]

Blacken some cells so that they form some or all of the given shapes into the grid. The shapes may be rotated and/or reflected, but no shape may appear more than once. Shapes cannot cover grey cells. Shapes cannot touch each other (not even diagonally). Blackened cells must not form shapes other than those in the given list.

Then, draw a single closed loop (without intersections or crossings) through all remaining white cells. Loop paths must be orthogonal.

Some cells are outlined and in gray; they are neither white nor black, and therefore are not part of the loop or part of the shapes. Numbered arrows in such cells indicate the total number of shapes (not blackened cells) along the direction of the arrow, starting in the arrowed cell and going along a row or column to the edge of the grid.

You do not need to write letters on your shapes, but you do need to indicate which cells they occupy.

