

WPF PUZZLE GP 2017 COMPETITION BOOKLET

Host Country: India

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Special Notes: No special notes for this round.

A1. Yajinurikabelin (10 points)

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.

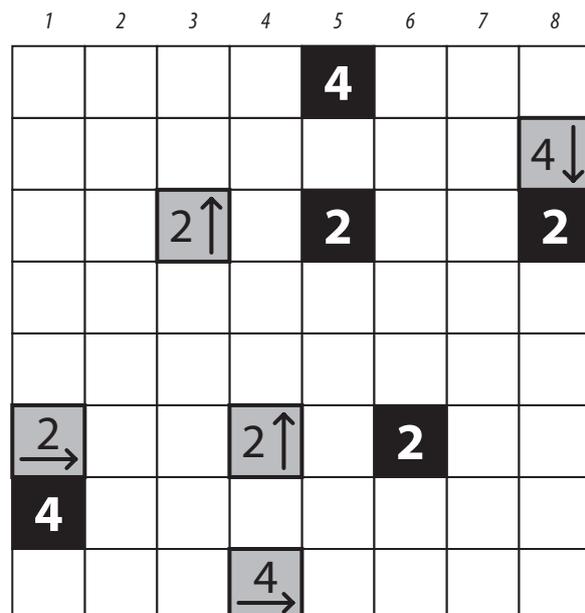
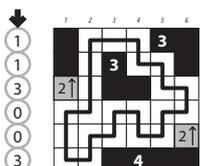
Some cells are in black and cannot be part of the loop. Numbers in such cells must be in a black region that has the same area in cells as that number; cells of the same color are considered in the same region if they are adjacent along edges. No black region may contain more than one numbered cell (although it is possible for a black region to not contain any numbered cells at all).

Some cells are outlined and in gray; they are neither white nor black, and therefore are not part of the loop or part of any black region. Numbered arrows in such cells indicate the total number of blackened cells (possibly including given black 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.

The numbers on top of the diagram are for Answer purposes only.

Answer: For each row from top to bottom, enter the column number of the left-most blackened cell. (Outlined gray cells are not blackened.) Use only the last digit for two digit numbers; e.g., use '0' for column 10. If none of the cells in a row are blackened, enter '0' for that row.

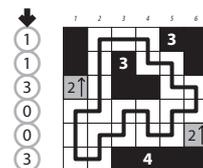
Example Answer: 113003



A2. Yajinurikabelin (29 points)

Answer: For each row from top to bottom, enter the column number of the left-most blackened cell. (Outlined gray cells are not blackened.) Use only the last digit for two digit numbers; e.g., use '0' for column 10. If none of the cells in a row are blackened, enter '0' for that row.

Example Answer: 113003



2

	1	2	3	4	5	6	7	8	9	0
1	5			7 ↓					4 ←	
2										
3			3 →						2	
4								1 ↑		
5			1 ←							
6		2 ↓						3		
7										
8		4					7			5

A3. Mastermind-Nurikabe-Yajilin (45 points)

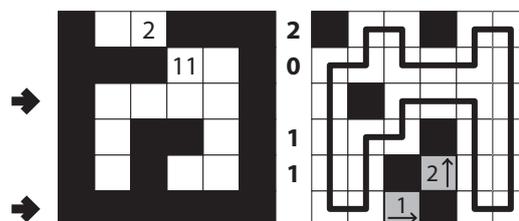
Solve the Nurikabe puzzle on the left and the Yajilin puzzle on the right. The numbers between the grids represent the number of same-positioned cells in that row that are blackened in both grids. (Grey cells are not blackened.) If no number is given, you are not told how many cells are blackened in both grids.

Yajilin Rules: 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 along the direction of the arrow, starting in the arrowed cell and going along a row or column to the edge of the grid.

Nurikabe Rules: Shade some cells black (leaving the other cells white) so that the grid is divided into non-overlapping regions; cells of the same color are considered in the same region if they are adjacent along edges. Each given number must be in a white region that has the same area in cells as that number. Each white region must have exactly one given number. All black cells must be in the same region. No 2x2 group of cells can be entirely shaded black.

Answer: For each designated row, enter its contents from left to right. Use 'x' for a blackened or gray cell, 'o' for a white Nurikabe cell, 'I' for a cell that the path goes straight through, and 'L' for a cell in which the path turns. Ignore the area between the grids.

Example Answer: XOOOXXIXLILIL, XXXXXXLLXXXLL



	8						
3a							1
						7	
3b	1						
7							
						5	

2							
2							
1				0↑			
							0←
	0↓						
1				0→			
2							
2							

A7-8. Snake Pit (28, 73 points)

Divide the grid along the dotted lines into snakes so that no two snakes with the same area share an edge. A snake is a series of at least two cells that touch orthogonally in sequence. A snake may not touch itself, not even diagonally. (In other words, if two cells in the snake touch orthogonally, then they must be exactly one cell apart along the path of the snake, and if two cells in the snake touch diagonally, then they must be exactly two cells apart along the path of the snake.)

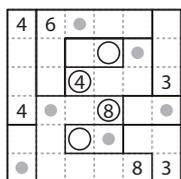
Inside some cells are numbers; each number must equal the area of the snake it belongs to. A snake may contain zero, one, or more of the given numbers. (It is possible to have a "hidden" snake: a snake without any of the given numbers. "Hidden" snakes may have any area, including a value not present in the starting grid, such as a 6 in a puzzle with only clues numbered 1-5.)

Some cells contain circles; a circled cell must be either the head or the tail of a snake. A snake may contain zero, one, or two circles.

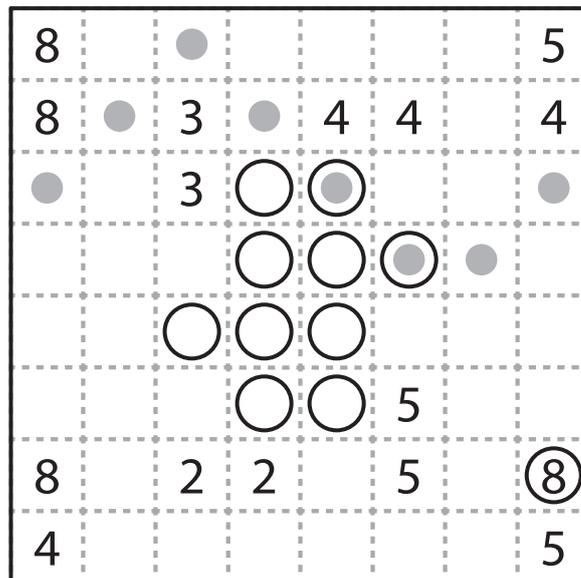
The dots in cells are only used for entering your answers.

Answer: Enter the area of the snake each dot is in, reading the dots from left to right. (Ignore which row the dots are in.) Use only the last digit for two-digit numbers; e.g., use '0' for a snake of size 10.

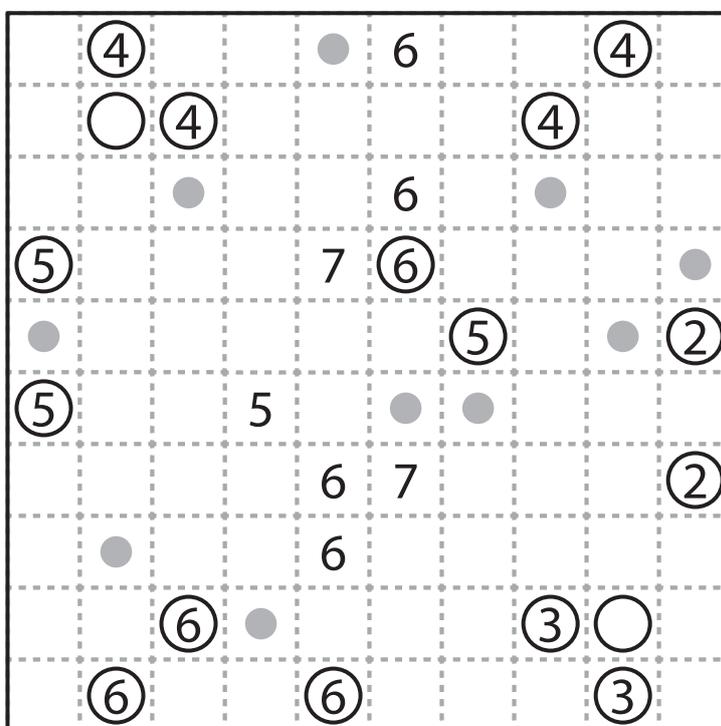
Example Answer: 286242



→ 2 8 6 2 4 2



7 →



8 →



