WPF
SUDOKU/PUZZLE
GRAND PRIX
2015

WPF PUZZLE GP 2015 COMPETITION BOOKLET

ROUND 8

Puzzle authors:
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Yosuke Imai 今井 洋輔
Ko Okamoto 岡本 広
Minako Sakai 酒井 美奈子
Shinichi Aoki 青木 真一
Yukari Nishiyama 西山 ゆかり

Organized by

World Puzzle Federation

WPF **PUZZLE** GP
ROUND 8

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Points:

1.	**Arukone (Numberlink)**	6
2.	**Arukone (Numberlink)**	8
3.	**Crisscross**	23
4.	**Crisscross**	25
5.	**Skyscrapers**	13
6.	**Skyscrapers**	74
7.	**Snake with Length**	25
8.	**Snake with Length**	34
9.	**Japanese Arrows**	14
10.	**Japanese Arrows**	49
11.	**Japanese Arrows**	54
12.	**Four Winds with Parks**	39
13.	**Four Winds with Parks**	71
14.	**Consecutive Kakuro**	64
15.	**Consecutive Kakuro**	101
TOTAL:		600

General Notes: No special notes for this round.

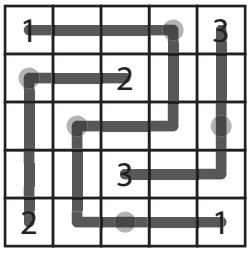
1-2. Arukone [Masayuki Tsunaiguchi 津内口 真之] (6, 8 points)

Some cells in the grid are marked with numbers; each number appears exactly twice and no cell contains more than one number. For each pair of identical numbers, draw a path that connects those two numbers. The paths must go through orthogonally adjacent cells. Each cell may be visited by at most one path, and may be visited at most once by that path. (It is permissible for a cell to not be visited by any path.)

The dots in the diagram are for Answer purposes only.

Answer: Enter one digit for each of the dotted cells, from left to right. If the path does not go through the cell, enter a single digit '0'. Otherwise, enter the number associated with the path that goes through the cell. Use only the last digit for two digit numbers; e.g., use '0' if the dot is on the path that connects 10 and 10.

Example Answer: 21113



		2		●			
						5	
	1		4				●
		●			1	3	
●		5	●		●		
	●				2		
						4	
3						●	

				●				5		
				2	6				3	
	●									
			4				●			●
			●		●			1		
3		7				5			●	
●		●							6	7
		1				●				
								●	4	
							2			

3-4. Crisscross [Yuka Noyama 野山 由香] (23, 25 points)

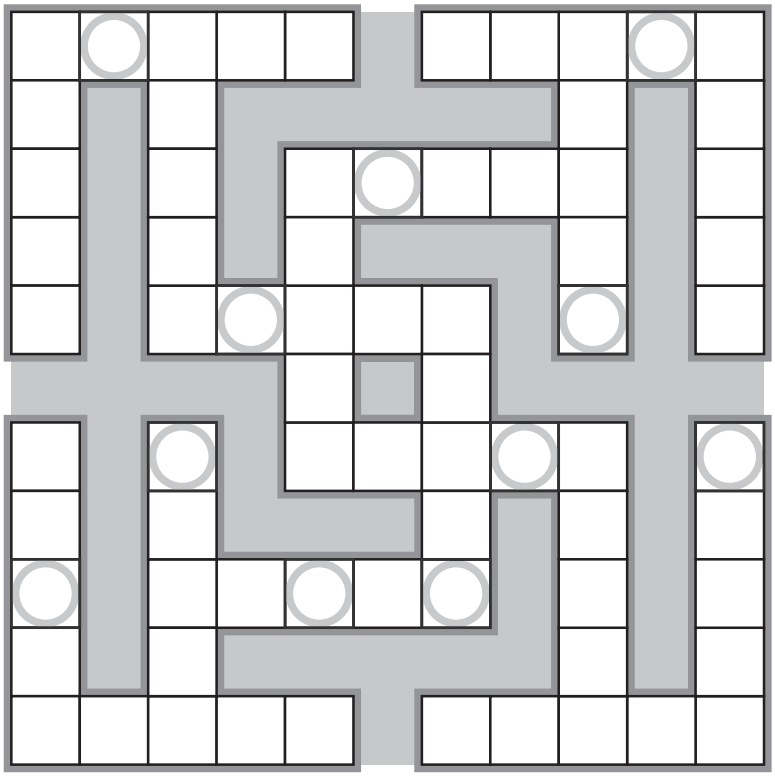
S	T	O	W
W	O	R	E
A		A	S
T	I	L	T

Enter the given words in the grid, one character per cell, to complete the crisscross pattern. Each word is used exactly once, and will either read left-to-right or top-to-bottom.

The circles in the diagram are for Answer purposes only.

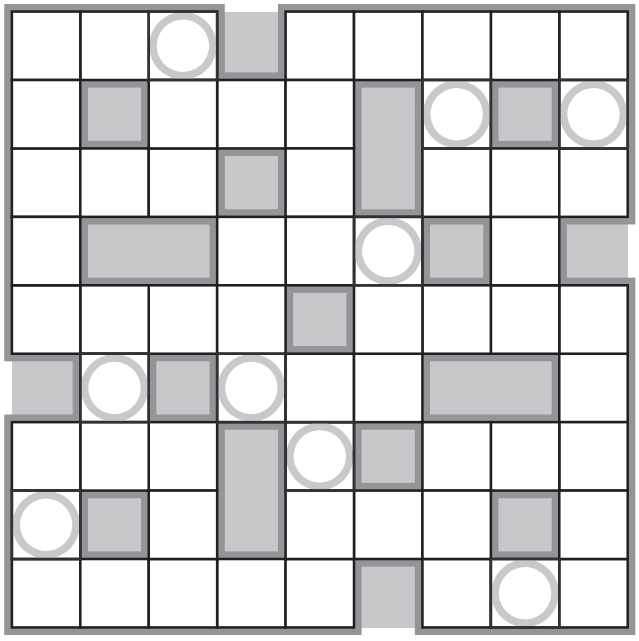
Answer: Enter the characters in each of the circled cells, from left to right. (Ignore the row each circle is in. The characters will not necessarily spell anything meaningful.)

Example Answer: WOOT



ATLAS
BELOW
CHAOS
DEBUG
DELTA
DRILL
GROUP
GULCH
GUTSY

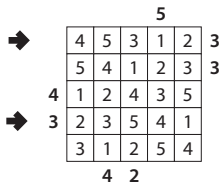
LOGIC
OKAPI
OUTER
RESET
SHEEP
SKATE
SPITZ
THUMB
WALTZ



113
125
145
155
246
341
345
350
513
520
521
525
533
536

553
621
625
655
723
724
3074
3504
5332
5612
13164
14723
21050
51612

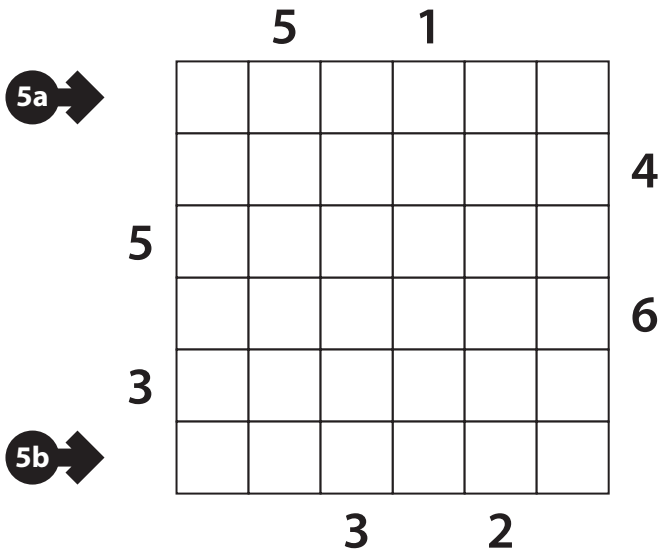
5-6. Skyscrapers [Yosuke Imai 今井 洋輔] (13, 74 points)

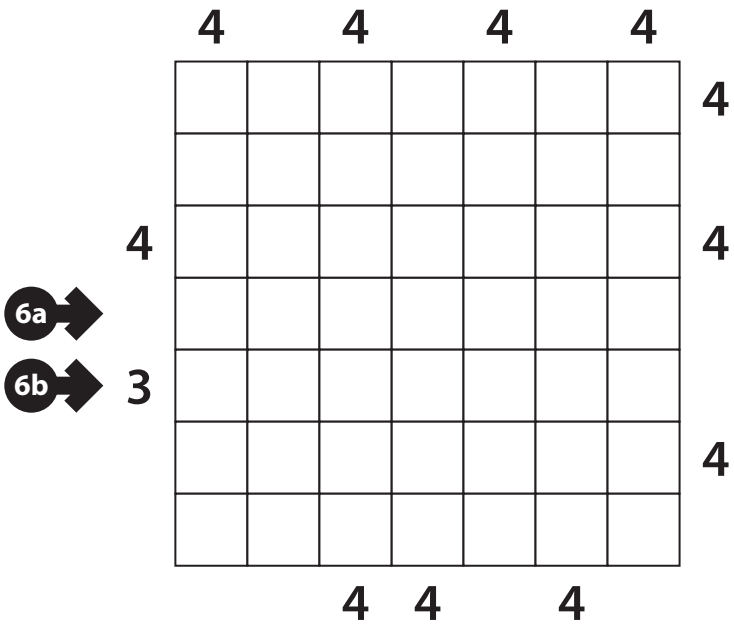


Place a digit from 1 to X into each cell so that each digit appears exactly once in each row and column. (X is the number of cells in each row.) The digits you place inside the grid represent skyscrapers of their respective heights. The numbers outside the grid indicate how many skyscrapers can be seen in the respective row or column from the respective direction (smaller skyscrapers are hidden behind higher ones).

Answer: For each designated row, enter its contents. Do *not* include any numbers outside the grid.

Example Answer: `45312,23541`





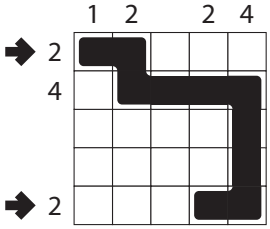
7-8. Snake with Length [Ko Okamoto 岡本 広] (25, 34 points)

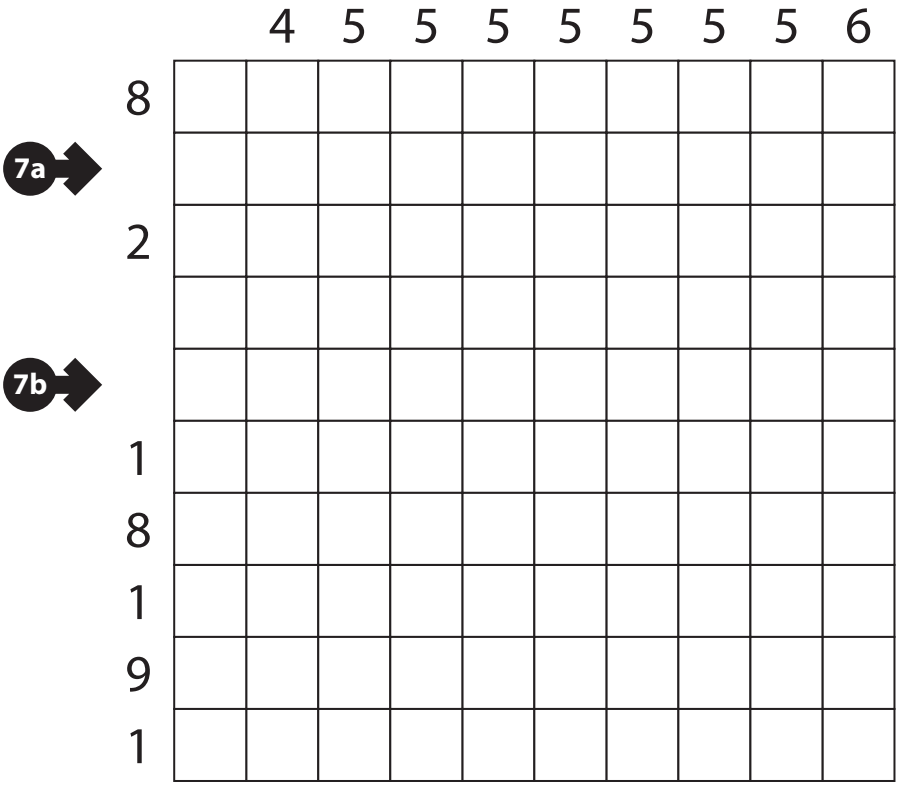
Locate a "snake" in the grid. The snake is a path that starts in a cell, goes through some number of cells orthogonally, and ends in a cell. Each cell is used at most once by the snake. The snake may not touch itself, not even diagonally. (In other words, if two cells in the snake touch orthogonally, 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.) Numbers outside the grid, if given, indicate how many cells in that row or column are occupied by the snake.

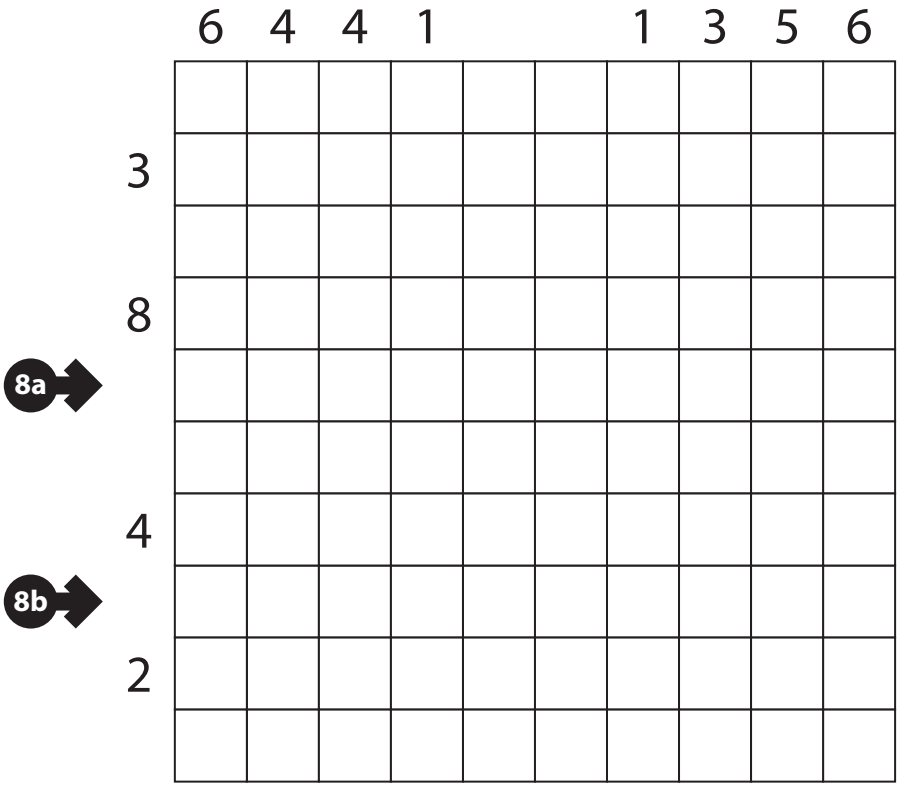
The snake must occupy exactly 45 cells (10 in the example). Unlike standard snake puzzles, the ends of the snake are not given.

Answer: For each designated row, enter its contents. Use O for a cell occupied by the snake and X for a cell not occupied by the snake. (If you wish, you may reverse O and X, but you must be consistent within the same puzzle.)

Example Answer: OOXXX, XXXOO (or XXOOO, OOOXX)







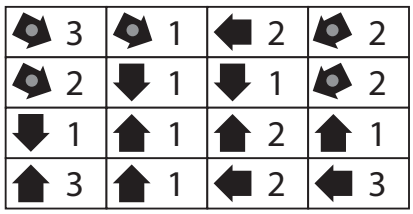
9-11. Japanese Arrows [Minako Sakai 酒井 美奈子] (14, 49, 54 points)

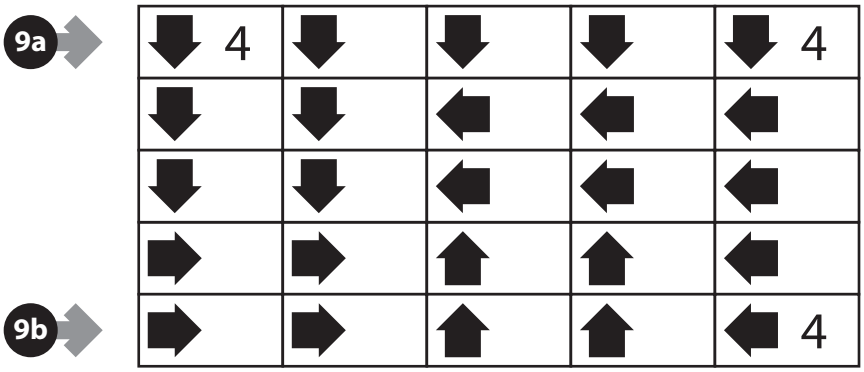
Put a number in each cell without a number so that the number and arrow in each cell indicates how many different numbers exist in the direction the cell is pointing at (not including itself).

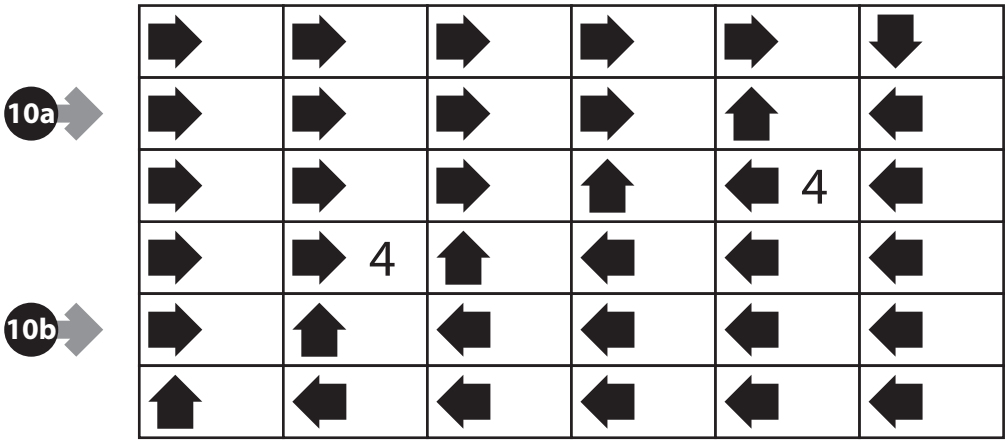
(Diagonal arrows, if present, should be considered to point along cells that touch diagonally; the actual angle is not precise. They will be labeled with a gray dot, which is only used to help you notice them.)

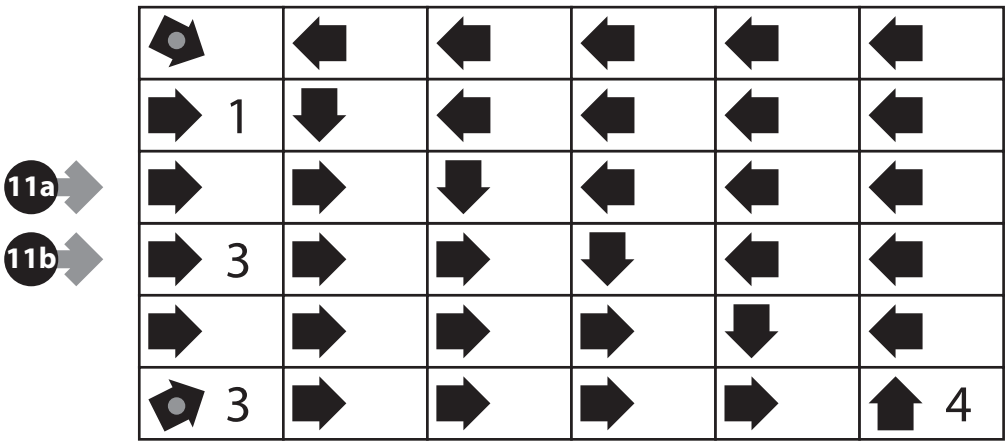
Answer: For each designated row, enter its contents (just the numbers).

Example Answer: `3122,2112`









12-13. Four Winds with Parks [Shinichi Aoki 青木 真一] (39, 71 points)

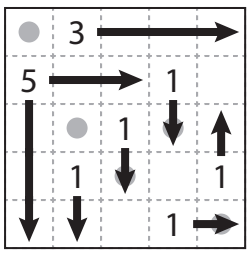
Draw arrows in the empty cells in the grid. Arrows can only point in the four directions indicated on the compass rose and must begin at the edge of a cell with a number. Each empty cell must be covered by at most one arrow. Each number indicates the total length of all the arrows that begin at an edge next to that number's cell.

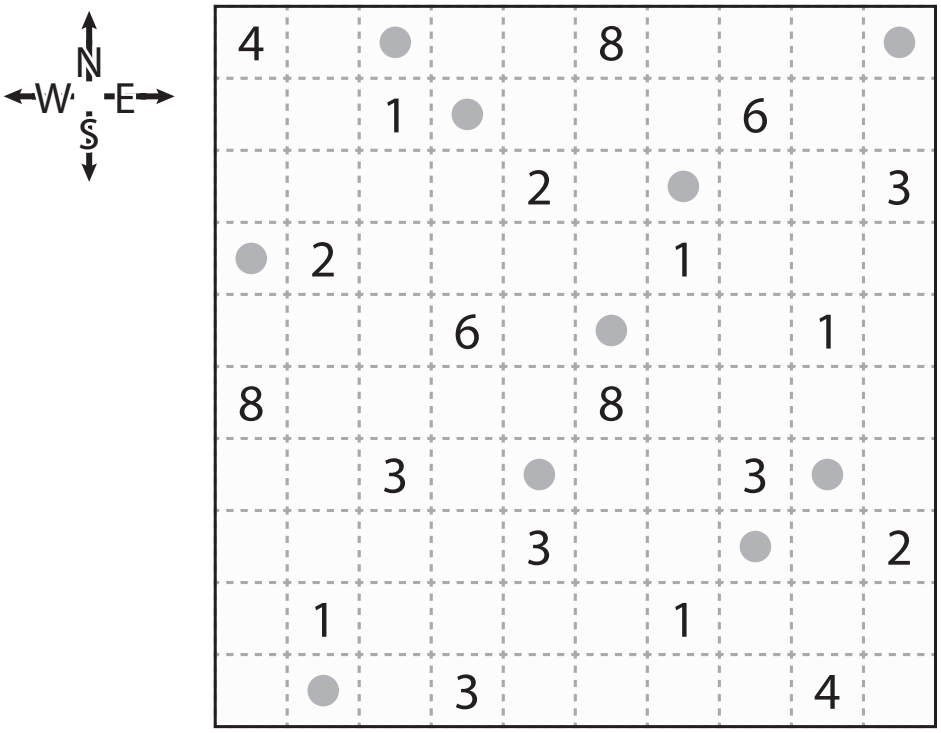
In each row and column, exactly one cell must remain empty.

The compass rose and dotted cells are only used for entering your answers.

Answer: For each dotted cell, from left-to-right, enter the direction of the arrow that goes through that cell as aligned with the compass rose. (Ignore which row the dots are in.) Use 'N'/'S'/'E'/'W' for an arrow pointing north/south/east/west, respectively. Use 'X' for a cell that remains empty.

Example Answer: XXSSE





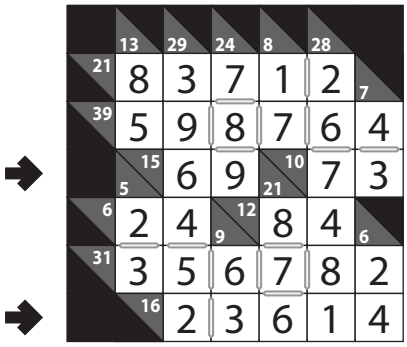
14-15. Consecutive Kakuro [Yukari Nishiyama 西山 ゆかり] (64, 101 points)

Place a digit from 1 to 9 into each white cell. The numbers in grey cells indicate the sum of digits in the adjacent "word" across or down. (Across "words" are to the right of their sums, Down "words" are below their sums.) Digits may not repeat within a "word."

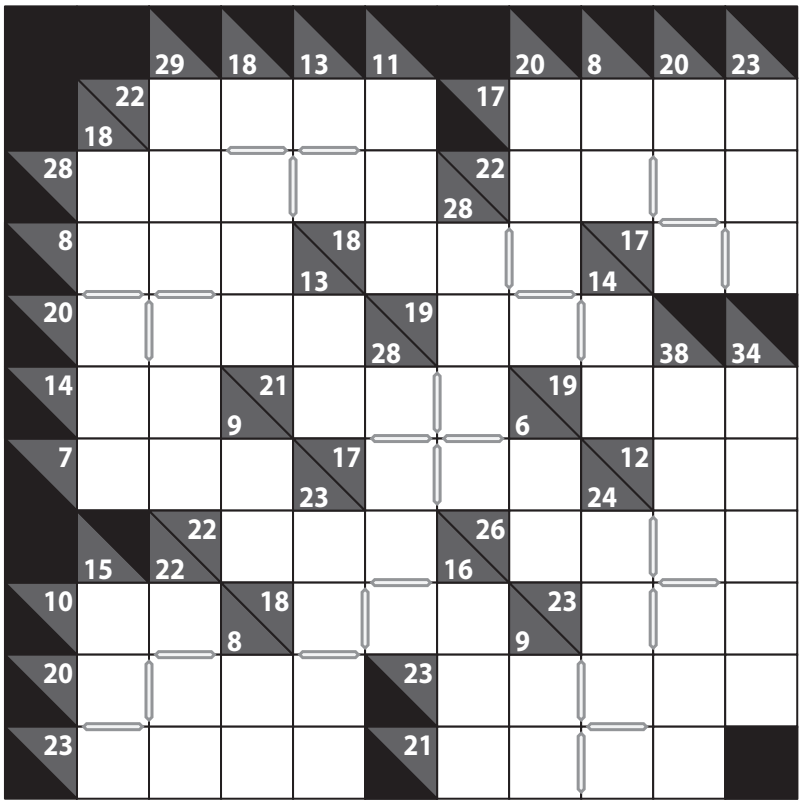
Adjacent white cells with a white bar between them must contain consecutive digits. Adjacent white cells without a white bar between them must not contain consecutive digits.

Answer: For the indicated rows, enter their contents. (Ignore non-white cells when doing so.)

Example Answer: `6973,23614`

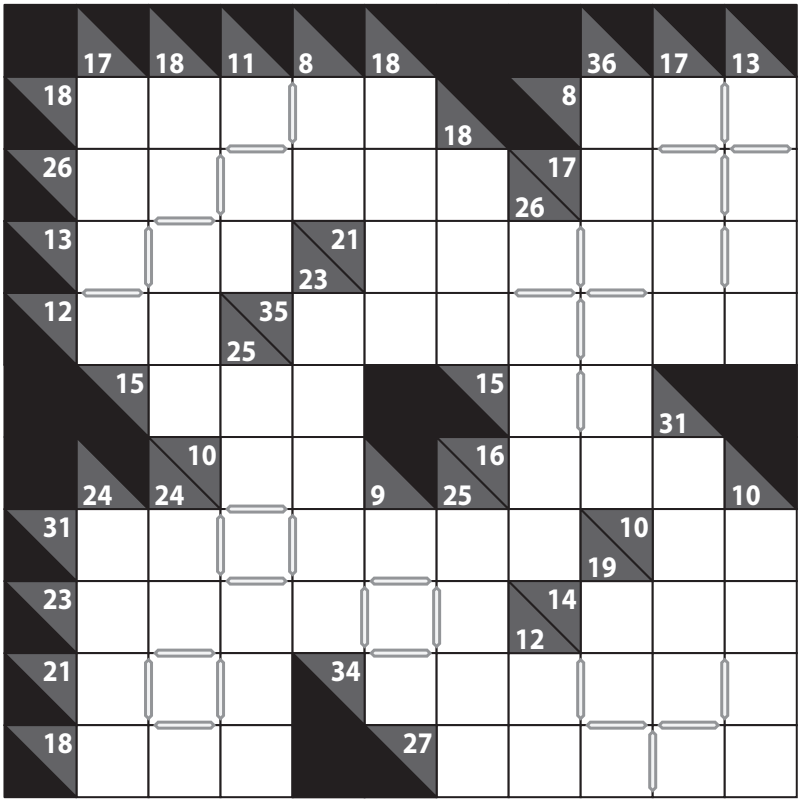


14a



14b

15a



15b