

UK Puzzle
Championship
2016

INSTRUCTION BOOKLET

Friday 24th – Monday 27th June, 2016

Competition Rules & General Information

REGISTRATION

To participate in the championship, you will need to register online at the UKPA forums – <http://forum.ukpuzzles.org>. During the registration process, you will be required to enter your real name, and your nationality. International participants are welcomed.

PREPARATION

In order to participate in the championship, you will need access to a printer (with sufficient toner/ink!) to print out the puzzle booklet. To solve the puzzles you will need a pen or a pencil, and possibly an eraser.

COMPETITION SCHEDULE

- The password protected puzzle booklet will be made available online at <http://www.ukpuzzles.org/contests.php?contestid=40> on Thursday 23rd June. It is recommended that you download this password-protected pdf before you start the competition.
- The competition will start at **12:00 BST (11:00 GMT) on Friday 24th June** when the password for the pdf will be made available. Upon retrieving the password, you will have **2.5 hours** to solve the puzzles, and submit your answers via the entry page. You will be able to submit answers until **02:00 BST (01:00 GMT) on Tuesday 28th June**; as such it is highly recommended that you should start solving before 23:30 BST (22:30 GMT) on Monday 27th June.
- The results will be publicly announced at <http://www.ukpuzzles.org> a few days after the contest. The highest scoring UK participant will be declared the 2016 UK Puzzle Champion and the top two UK participants will be selected for the UK team for the WPC to be held in Slovakia in October.

ENTERING & SUBMITTING ANSWERS

To submit your answers, you will need to go to the answer submission page found via <http://www.ukpuzzles.org/contests.php?contestid=40> . Here, for each puzzle, you will be required to enter the relevant answer keys into the form on the page. The answer keys for each puzzle are defined as part of the instructions.

Upon hitting the submit button, your answers will be sent to the server. You may submit answers as many times as you like, but only the last received keys will be subject to scoring.

Unless specifically stated otherwise, multiple answer key parts must be entered in the solution box separated by a comma, with no spaces. Malformed entry keys may be credited later in full or part at the judges' discretion.

If you have any urgent matters arising during the contest, please email chairman@ukpuzzles.org . UK participants only may call 07901 648010 in an emergency.

In the event of the web hosting service failing during your participation, email Alan at the above address your answer keys before your 2.5 hours is completed. Answers submitted this way will only be accepted if a hosting failure, or equivalent, has occurred.

CODE OF CONDUCT

All participants are expected to solve the puzzles honestly and fairly. You are not permitted to use any external solving aids of any form or receive assistance from any other individual.

If you have any questions related to this Instruction Booklet, you can and should freely discuss these matters in the competition discussion thread at <http://forum.ukpuzzles.org/viewforum.php?f=5> .

It is strictly forbidden to discuss any details of the live championship puzzles, or make their contents known to others, directly or implicitly, via any medium while the contest is live.

The Championship organisers reserve the right to disqualify any participant judged to have acted with improper conduct.

POINTS & BONUSES

Points will be awarded according to the table on the following page. Participants who submit error free entries to all of the puzzles before the allotted two and a half hours are up will be awarded 3 points per minute, as recorded by the last submission time to the server. Late submissions will not be accepted (as in a WPC environment), so you are advised to submit answers as you solve them, rather than waiting until your time is running out.

N.B. – although the points allocated to a particular puzzle are a general indication of its difficulty and the time expected to solve it, it is possible that your individual experience may vary greatly. Please read the instructions fully and carefully!

Puzzle Examples

The remainder of this instruction booklet gives the instructions as they will appear in the competition booklet, with answer key descriptions, and examples of puzzle types used in the contest. Credits for the puzzles and examples will be given at the end of the competition booklet. Instructions will be repeated in the competition booklet, but not the examples.

The competition booklet will have a cover page.

For answer keys that require the information from some rows/columns these should be entered rows from top to bottom followed by columns from left to right with a comma between each row/column.

The puzzle types and the points attached to them are detailed below.

Puzzle		Points	Puzzle		Points
#1	Banknotes	5	#19	Hidoku	25
#2 & #3	Last Digit	10 & 10	#20	Kakuro	30
#4	Skeleton Crossword	15	#21	Sum Snake	30
#5 & #6	Paint it Black Railway	15 & 15	#22	Pearl Areas	40
#7 & #8	Magnets	15 & 25	#23	Filled Pentominos	40
#9 & #10	Arrows	10 & 30	#24	Sumpix	40
#11	Star Battle	15	#25	Killer Sudoku	40
#12	Battle Star	15	#26	Hashi	50
#13 #14	Clouds	10 & 45	#27	Suguru	50
#15	Tapa	20	#28	Slitherlink	55
#16	Dissected Tapa	30	#29	Sum Fillomino	55
#17 & #18	Sum Skyscrapers	20 & 40			
			Total		800

PUZZLE AUTHORS

We are indebted to the following authors for designing the puzzles used in this contest:

Andrey Bogdanov
 Fatih Kamer Anda
 Nikola Zivanovic

Puzzler Media
 Serkan Yürekli
 Tawan Sunathvanichkul

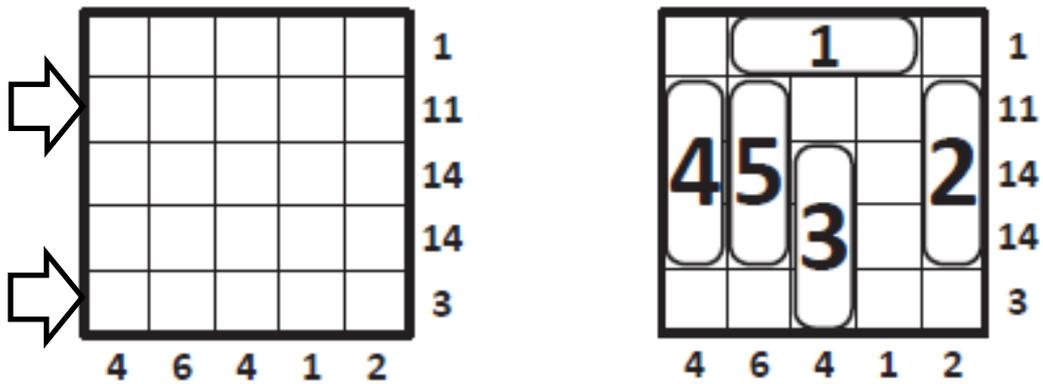
Many thanks also to David McNeill, Fatih Kamer Anda and Nikola Zivanovic for test solving.

1 Banknotes (5)

Locate five 1x3 banknotes in the grid, without overlapping each other. Banknotes have different values from 1 to 5. Clues outside the grid indicate the sum of all banknotes in the corresponding row/column.

Answer Key: Enter the value of the banknotes in each cell in the marked rows/columns. For empty cells enter 0.

Example: 45002,00300

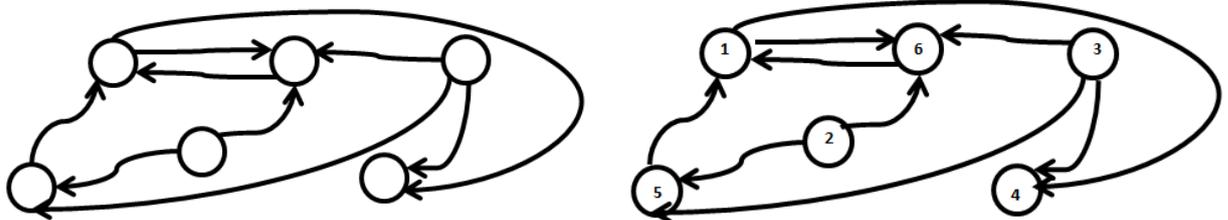


2 & 3 Last Digit (10 & 10)

Fill the circles with numbers 1...N (each used once). Any number is equal to the last digit of the sum of all the other numbers with arrows pointing to the circle.

Answer Key: Enter each number from left to right.

Example: 512643

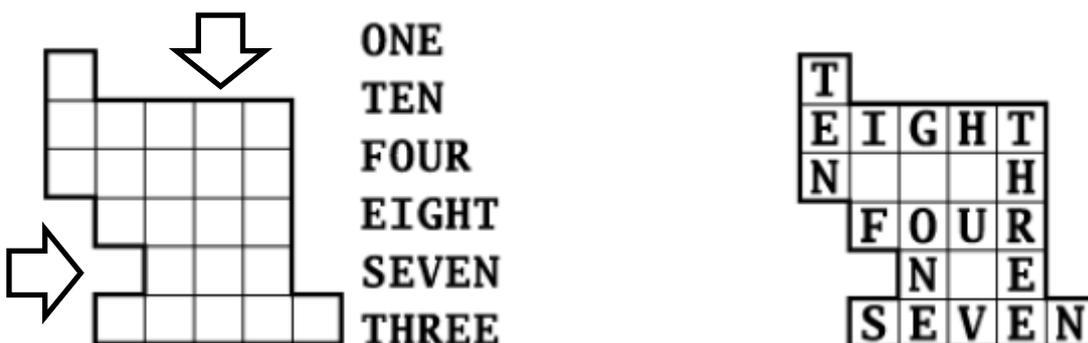


4 Skeleton Crossword (15)

Place the listed words into the grid so that they read either from top to bottom or left to right. No unlisted words may be formed and all words must interconnect. Ignore all spaces and punctuation.

Answer Key: Enter the letters in the marked rows/columns. Ignore any spaces.

Example: NE,HUV



5 & 6 Paint it Black Railway (15 & 15)

Shade some cells such that the numbers outside the grid show the length of blocks of shaded cells in that row/column. If there is more than one number on a row/column then there must be a gap of at least one cell between the shaded blocks. Numbers are given in the order in which the blocks are encountered. Through the remaining cells draw a railway (closed loop). All cells where the loop crosses itself are shown and the loop must pass straight through the numbers (stations) without turning and in order

Answer Key: Enter the number of turns in each row.

Example: 42222

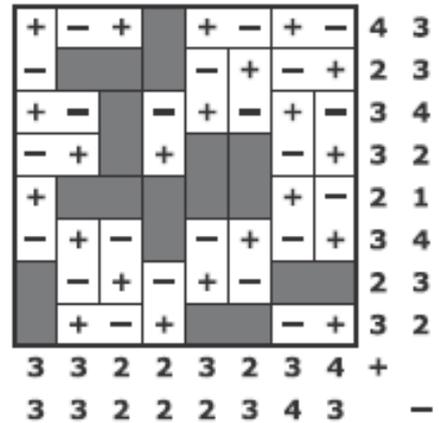
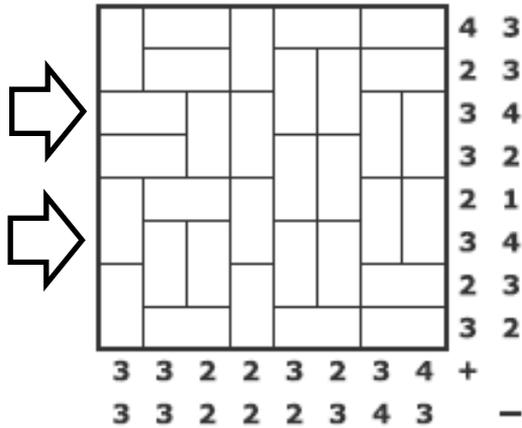


7 & 8 Magnets (15 & 25)

Fill the grid with magnetic and shaded non-magnetic tiles. Each magnetic tile has two poles, + and -, with one on each half. Two halves with the same poles cannot touch horizontally or vertically. The numbers outside the grid indicate how many positive and negative poles appear in that row/column.

Answer Key: Enter the contents of the marked rows/columns using 0 for shaded cells.

Example: +-0-+++, -+-0-+++



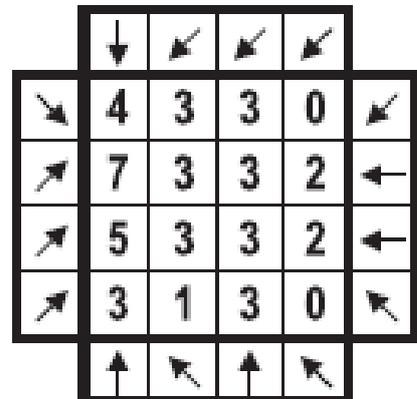
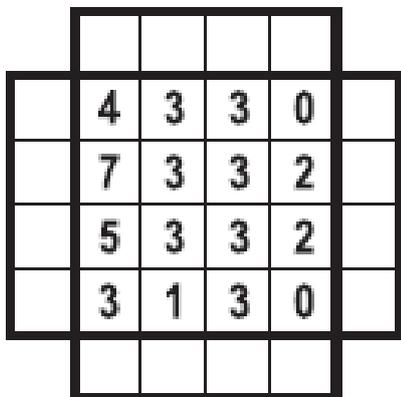
9 & 10 Arrows (10 & 30)

Place arrows into the empty cells around the grid. An arrow may be horizontal, vertical or diagonal. Each number inside the grid is equal to the number of arrows that are pointing towards it.

Note: All arrows point to at least one number.

Answer Key: Enter the number of horizontal arrows, then the number of vertical arrows.

Example: 2,3

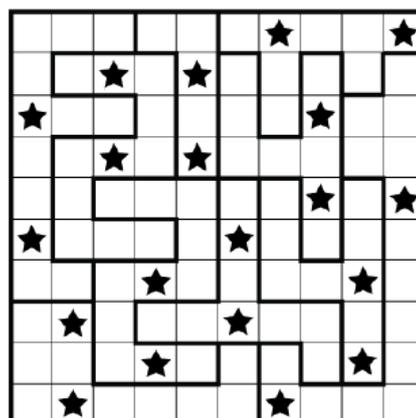
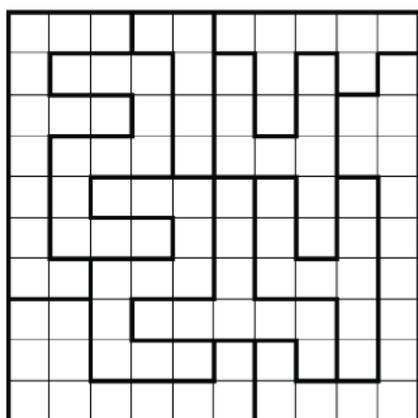


11 Star Battle (15)

Place stars in some cells so that each row, column and outlined region has exactly two stars. Cells containing stars cannot touch each other, not even diagonally.

Answer Key: Enter the unit digit of the column number of the first star in each row.

Example: 7313814242

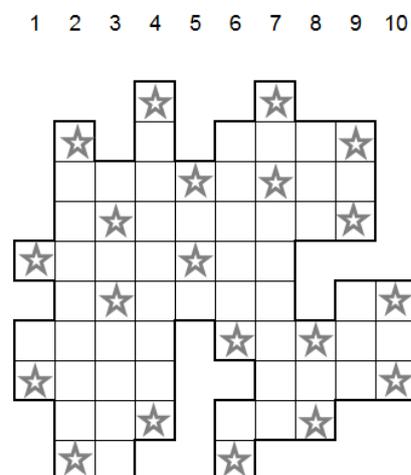
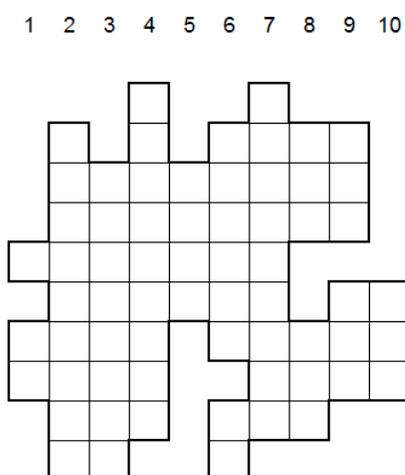


12 Battle Star (15)

Place stars in some cells so that each row and column contains two stars. Cells containing stars cannot touch each other, not even diagonally.

Answer Key: Enter the unit digit of the column number of the first star in each row.

Example: 4253136142

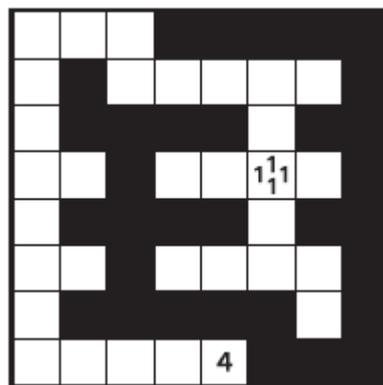
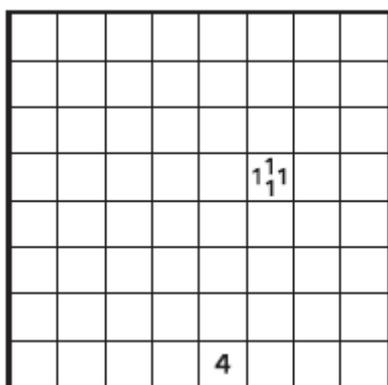


16 Dissected Tapa (30)

Shade some cells to create a continuous wall. Numbers in a cell indicate the length of shaded cell blocks in its neighbouring cells. If there is more than one number in a cell there must be at least one unshaded cell between the shaded cell blocks. In addition, the shaded and unshaded areas form two congruent figures. Shaded or unshaded cells cannot form a 2x2 square or larger. Cells with clue numbers are considered unshaded.

Answer Key: Enter the unit length of the longest continuous block of shaded cells in each row. If no shaded cells in a row enter 0 for that row.

Example: 51414153

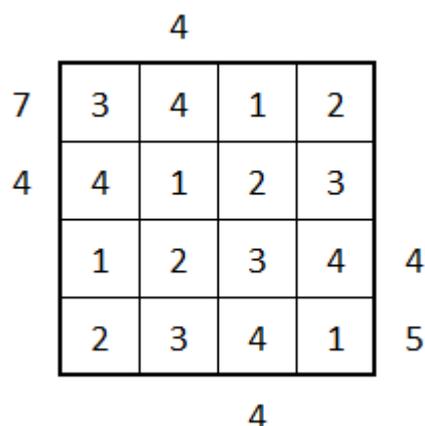
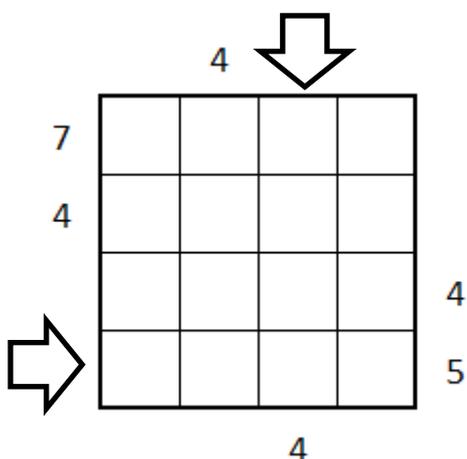


17 & 18 Sum Skyscrapers (20 & 40)

Place a digit from 1 to N once each into every row and column inside the grid (where N is the number of cells in each row/column). Each digit represents a skyscraper with a height equal to the digit. Numbers outside the outlined area represent the sum of the heights of the skyscrapers that are visible from that side. Taller skyscrapers hide shorter skyscrapers.

Answer Key: Enter the contents of the marked rows/columns.

Example: 2341,1234



19 Hidoku (25)

Enter the numbers from 1 to N (where N is the number of cells in the grid) to make a chain of consecutive numbers from 1 to N through adjacent cells (can be horizontal, vertical or diagonal).

Answer Key: Enter the unit value of each of the cells in the marked rows/columns (for 14 enter 4 etc.)

Example: 41353,43668

The diagram illustrates the Hidoku puzzle. On the left, a 5x5 grid is shown with some numbers: 13, 24, 4, 11, 1, 8, 18. An arrow points to the right, where the same grid is shown with a blue path tracing the numbers 1 through 25 in a continuous sequence of adjacent cells.

20 Kakuro (30)

Place a digit from 1 to 9 into each white cell. Each horizontal run of white cells adds up to the total above the diagonal line to the left of the run, and each vertical run of white cells adds up to the total below the diagonal line above the run. No digit can be used more than once in any run.

Answer Key: Enter the value of the numbers in the circled cells from left to right.

Example: 19399

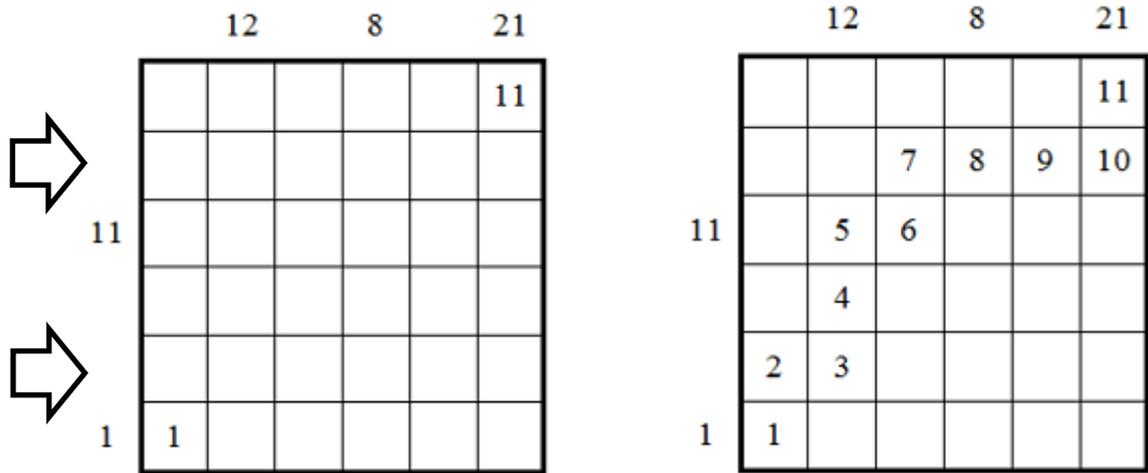
The diagram illustrates the Kakuro puzzle. On the left, a 5x5 grid is shown with some numbers and clues. On the right, the same grid is shown with the numbers 1, 9, 3, 9, 9 in the circled cells. Below the right grid are five circles containing the numbers 1, 9, 3, 9, 9.

21 Sum Snake (30)

Locate a 45 (11 in the example) cell long snake in the grid such that the snake does not touch itself not even diagonally. The head of the snake is given as cell 1 and the tail as cell 45 with numbers increasing by 1 along the length of the snake. Numbers outside the grid give the sum of the cells of the snake in that row/column.

Answer Key: Enter the unit contents of the cells in the marked rows/columns. Ignore empty cells.

Example: 7890,23

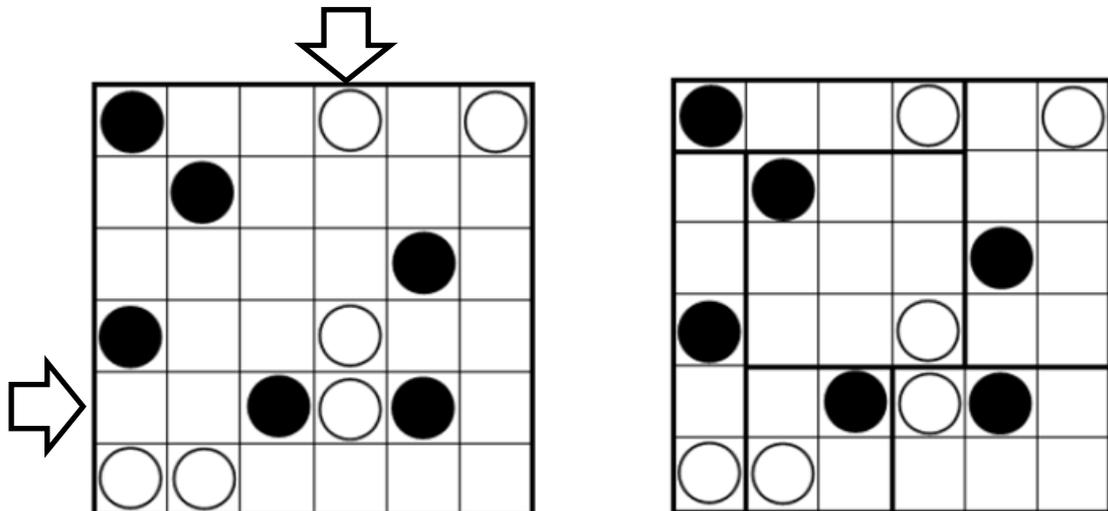


22 Pearl Areas (40)

Divide the grid into different rectangular areas along the grid lines. Each area must contain one black and one white pearl. Rotation is considered as the same area. Note that the areas 2x2 and 1x4 are considered different areas etc.

Answer Key: Enter the unit digits of the sizes of the areas in the marked rows/columns.

Example: 546,496



23 Filled Pentominos (40)

Place the given pentominos in the grid so that they do not touch each other, not even diagonally. Pentominos can be rotated and/or reflected. Each pentomino needs to be filled with the numbers 1 to 5 (one per cell) which must be placed in order from top to bottom and from left to right.

Answer Key: Enter the numbers in the given rows/column, ignoring empty cells.

Example: 34345,4

The diagram illustrates the 'Filled Pentominos' puzzle. On the left, a 5x5 grid has the top-left cell (1,1) containing '1' and the top-right cell (1,5) containing '2'. The cell (4,4) contains '3' and (4,3) contains '4'. Two arrows point to the first and second columns. In the center, three pentomino shapes are shown: a 2x3 shape, a 1x5 shape, and a 3x2 shape. On the right, the same 5x5 grid is shown with the pentominos placed and numbered. The numbers in the grid are: Row 1: 1, 2, 1, 2; Row 2: 3, 4, 3, 4, 5; Row 3: 5, 1, 2, 3; Row 4: 4; Row 5: 5.

24 Sumpix (40)

Numbers to the top and left of the grid give the value of the cells in that row/column. Shade some cells such that the value of the shaded cells in the row/column is given by the first number outside the grid to the right and below. The second number outside the grid to the right and below gives the number of blocks of shaded cells in that row/column. There must be at least one empty cell between the shaded blocks.

Answer Key: Enter the contents of the marked rows/columns using 1 for shaded cells and 0 for empty cells.

Example: 10101,10111

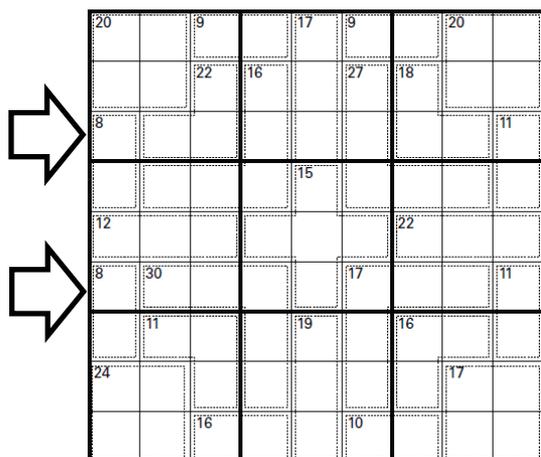
The diagram illustrates the 'Sumpix' puzzle. On the left, a 5x5 grid has numbers 1, 2, 3, 4, 5 above each column and 1, 2, 3, 4, 5 to the left of each row. A large arrow points down to the grid. To the right, the same 5x5 grid is shown with some cells shaded. The shaded cells are at (1,2), (1,3), (1,4), (2,1), (3,1), (3,3), (3,5), (4,3), (5,3), and (5,4). Below the grid, the numbers from the example are listed: 5 1 13 6 3 and 1 1 2 2 1.

25 Killer Sudoku (40)

Place a number from 1-9 in each empty cell in the grid such that each row, column and marked 3x3 box contains each number exactly once. The numbers placed in each marked cage must sum to the total given in its top-left. Numbers must not repeat in cages.

Answer Key: Enter the contents of the marked rows/columns.

Example: 195324786,569817243



20		9		17	9		20		
		22	16		27	18			
8									11
			15						
12					22				
8	30			17					11
	11		19	16					
24							17		
		16		10					

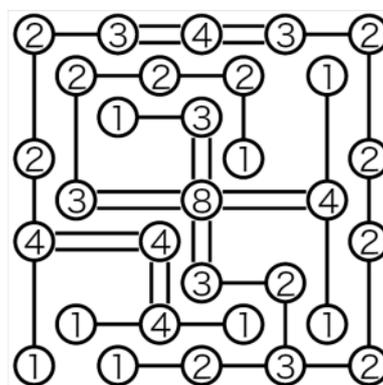
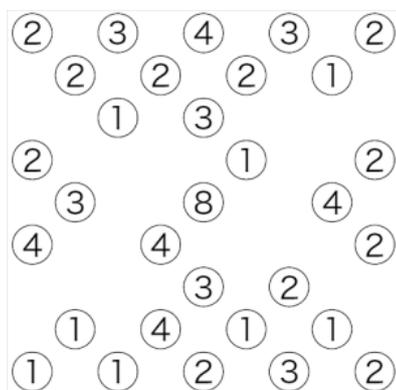
20	6	3	2	7	9	8	1	5	4
	4	7	8	1	6	5	3	9	2
8	1	9	5	3	2	4	7	8	6
	7	2	4	6	3	9	8	1	5
12	8	1	3	4	5	2	6	7	9
8	5	6	9	8	1	7	2	4	3
	3	4	6	5	7	1	9	2	8
24	9	8	1	2	4	3	5	6	7
	2	5	7	9	8	6	4	3	1

26 Hashi (50)

Each circle containing a number represents an island. Connect each island with vertical or horizontal bridges so that the number of bridges equals the number inside the island and there must be a continuous path connecting all the islands. There can be up to two bridges between two islands. Bridges cannot cross islands or other bridges.

Answer Key: Enter the number of horizontal double bridges followed by the number of vertical double bridges.

Example: 5,3

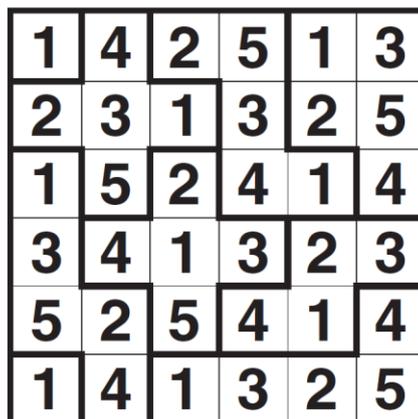
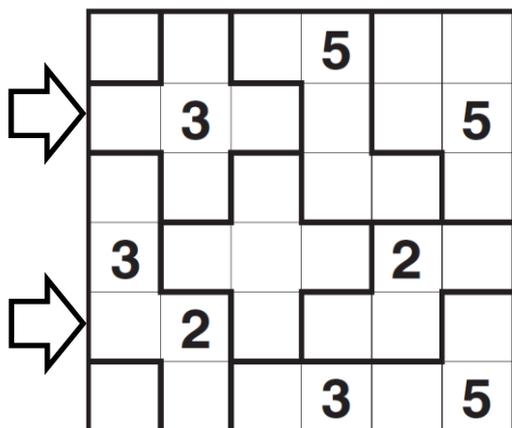


27 Suguru (50)

Place a number into every cell. Each bold-outlined region must contain each number from 1 to the number of cells in that region. Identical digits cannot touch, not even diagonally.

Answer Key: Enter the contents of the marked rows/columns.

Example: 231325,525414

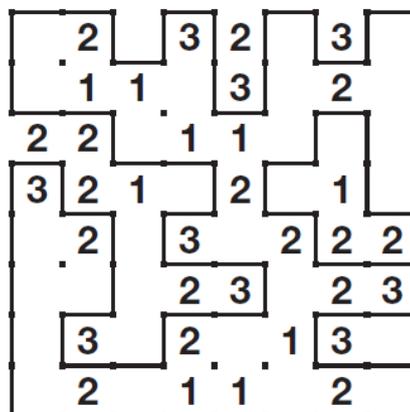
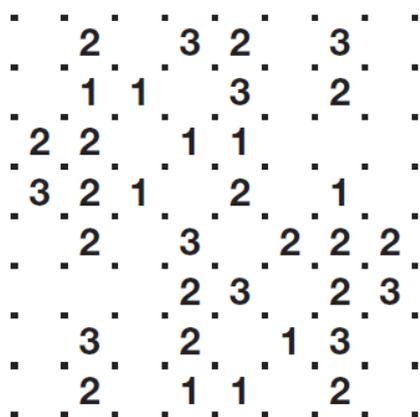


28 Slitherlink (55)

Draw a single loop by connecting together some dots so that each numbered cell has the specified number of adjacent line segments. Dots can only be joined by straight horizontal or vertical lines. The loop cannot touch, cross or overlap itself in any way.

Answer Key: Starting at the top left corner and travelling clockwise enter the unit digits of the size of the regions that are outside the loop.

Example: 121521



29 Sum Fillomino (55)

Fill in numbers into the grid so that the connected cells with the same number form a region of that size. Same-sized regions cannot be adjacent to each other. Numbers in the outlined grey boxes must add up to the corresponding value.

Answer Key: Enter the unit contents of the marked rows/columns.

Example: 12254,22332

