

UK Puzzle  
Championship  
2019

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INSTRUCTION BOOKLET

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Friday 21<sup>st</sup> - Monday 24<sup>th</sup> June, 2019

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## 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=50> on Thursday 20<sup>th</sup> 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 21<sup>st</sup> June** when the password for the pdf will be made available. Upon retrieving the password, you will have **2 ½ hours** to solve the puzzles, and submit your answers via the entry page. The last time to start will be **23:55 BST on Monday 24<sup>th</sup> 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 2019 UK Puzzle Champion and the top two UK participants will be selected for the UK team for the WPC to be held in Kirchheim in Germany 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=50> . 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. Participation is anticipated to be very high and appeals will only be upheld in exceptional circumstances. Therefore, it is VERY IMPORTANT that you check that each answer key submitted is correct.

Urgent matters arising during the contest should be directed towards [chairman@ukpuzzles.org](mailto:chairman@ukpuzzles.org) . In the event of the web hosting service failing during your participation, email your answer keys before your 2 ½ hours are 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.

It is strictly forbidden to discuss any details of the 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. The decisions made by the organisers are final.

## 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 6 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

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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. Instructions will be repeated in the competition booklet, but not the examples.

The competition booklet will not 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. For answer keys that require information about each row then these should be entered as a continuous string without separating commas.

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

Puzzle	Points	Puzzle	Points
#1 Cave	40	#17 Shashashaka	32
#2 Cave	51	#18 Shashashaka	14
#3 Heyawake	28	#19 Slash Pack	11
#4 Heyawake	14	#20 Slash Pack	11
#5 Heyawake	34	#21 Star Battle	6
#6 Hitori	10	#22 Star Battle	26
#7 Kuromasu	19	#23 Straight Hidato	9
#8 Kuromasu	36	#24 Straight Hidato	26
#9 L Fillomino	33	#25 Sujiken	25
#10 Loose Magnets	11	#26 Tapa	5
#11 Loose Magnets	22	#27 Tapa	11
#12 Masyu	45	#28 Tapa	10
#13 Masyu	60	#29 Tapa	16
#14 Norinori	13	#30 TomTom	37
#15 Pentopia	20	#31 Word Search	20
#16 Pentopia	25		
		<b>Total</b>	<b>720</b>

## PUZZLE AUTHORS

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

Ashish Kumar  
Murat Can Tonta

Esra Aydemir  
Nikola Zivanovic

### 1 & 2 Cave (40, 51)

Shade some cells to leave behind a single connected group — the cave. All shaded cells must be connected horizontally or vertically through other shaded cells to an edge of the grid. All numbered cells must be a part of the cave, with each number indicating the total number of cells connected vertically and horizontally to the numbered cell, including the cell itself.

**Answer Key:** Going clockwise from the top left corner enter the area of the groups of cells that are connected to the outside of the grid that are not part of the cave, separated by commas. **NB Enter the full value of the area.**

**Example:** 3,5,1,4

	3			2	
2					3
	3			2	
3					4

	3			2	
2					3
	3			2	
3					4

### 3,4 & 5 Heyawake (28, 14, 34)

Shade some cells to leave a single orthogonally connected unshaded area. Shaded cells cannot touch each other by a side. The unshaded area cannot span over two consecutive bold boundaries in any row or column. Numbers within bold edged regions indicate the number of cells that must be shaded in that region.

**Answer Key:** Enter the number of shaded cells in each row.

**Example:** 11112

1		0		1
0				
	2		1	

1		0		1
0				
	2		1	

### 6 Hitori (10)

Shade some cells so that no number repeats in any row or column. Shaded cells cannot share an edge. All unshaded cells must form a single connected region.

**Answer Key:** Enter the number of shaded cells in each row.

**Example:** 211212

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

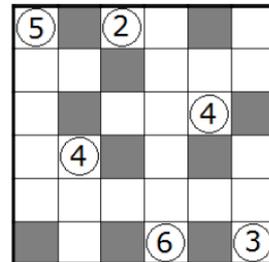
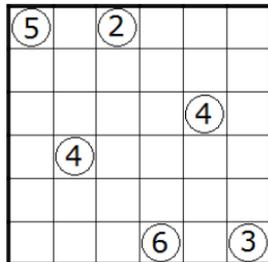
3	5	2	1	4	2
5	3	4	5	2	1
2	4	1	4	3	5
1	4	3	2	4	1
3	2	5	3	1	4
4	1	2	1	5	1

### 7 & 8 Kuromasu (19, 36)

Shade some cells so that the remaining white cells form a single orthogonally connected area. Shaded cells cannot touch each other by a side. Clues in the grid indicate the number of white cells that can be seen from that cell, including the cell itself. Clue cells cannot be shaded.

**Answer Key:** Enter the number of shaded cells in each row.

**Example:** 212203

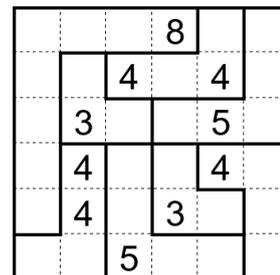
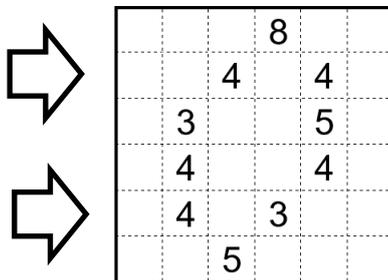


### 9 L Fillomino (33)

Fill each empty cell with a number such that every number in the grid is part of a continuous region of that many cells. A region is continuous whenever two cells share an edge. Two different regions made up of the same number of cells cannot touch each other by an edge. **Additionally**, each region must form an L shape (both legs can be of arbitrary length).

**Answer Key:** Enter the unit contents of the marked rows/columns. i.e for 10 enter 0 etc.

**Example:** 834445,845334

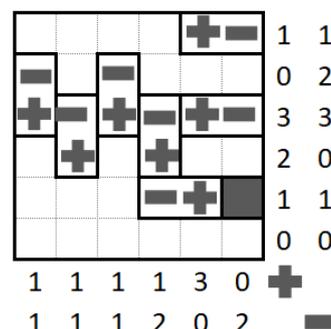
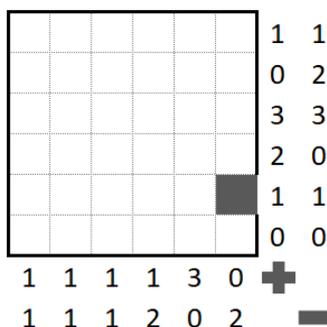


### 10 & 11 Loose Magnets (11, 22)

Place some magnets into the grid so that the number of positive and negative poles in each row and column is equal to the number given outside the corresponding row or column. Each magnet is 1x2 cells in size and consists of one positive and one negative pole. Poles with the same charge cannot touch each other by a side. Some cells will remain empty and shaded cells cannot contain magnets.

**Answer Key:** Enter the number of horizontal magnets in each row

**Example:** 101010

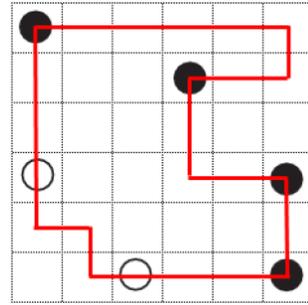
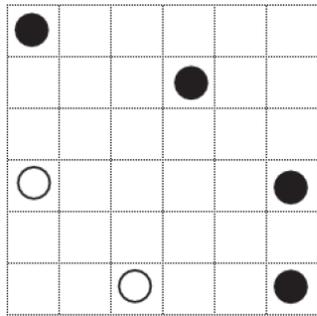


### 12 & 13 Masyu (45, 60)

Draw a single loop using only horizontal and vertical lines between the centres of some cells such that the loop does not visit any cell more than once. At every cell containing a white circle the loop must pass straight through that circle and make a 90 degree turn in at least one of the cells adjacent to the circle. At every cell containing a black circle the loop must make a 90 degree turn and travel straight through both cells adjacent to the circle.

**Answer key:** Enter the **number of cells** contained in the longest line in each row. If there is no horizontal line in a row, then enter 0 for that row. For any two digit number enter the unit digit only i.e. for “10” enter “0”.

**Example:** 630325

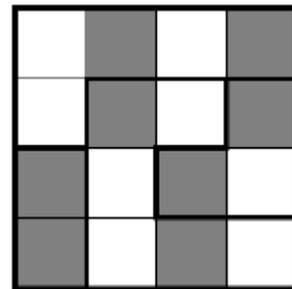
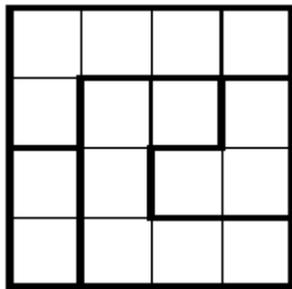


### 14 Norinori (13)

Shade some cells in the grid such that there are two shaded cells in each region and each shaded cell shares a side with exactly one other shaded cell (domino)

**Answer key:** Enter the number of horizontal dominoes in each row.

**Example:** 0000

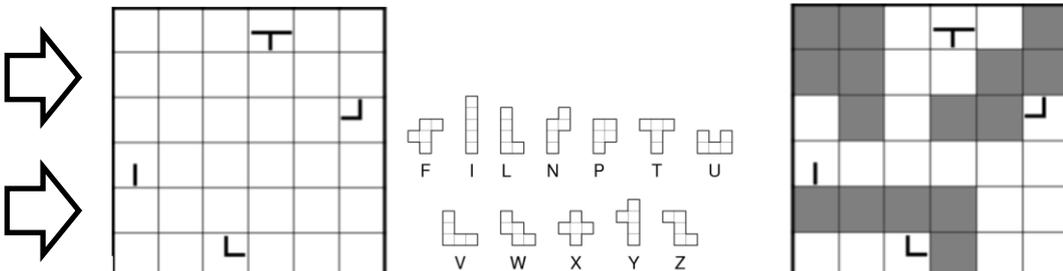


### 15 & 16 Pentopia (20, 25)

Place **the twelve** different pentominoes in the grid so that they don't touch each other, even at a point. Rotations and reflections are considered to be the same shape. Clues in the grid indicate the direction of the closest pentomino(es) when looking from that cell. Pentominoes cannot cover clue cells.

**Answer Key:** Enter the contents of the marked rows/columns using the letters of the pentominoes for shaded cells ignoring empty cells.

**Example:** PPWW,LLLL

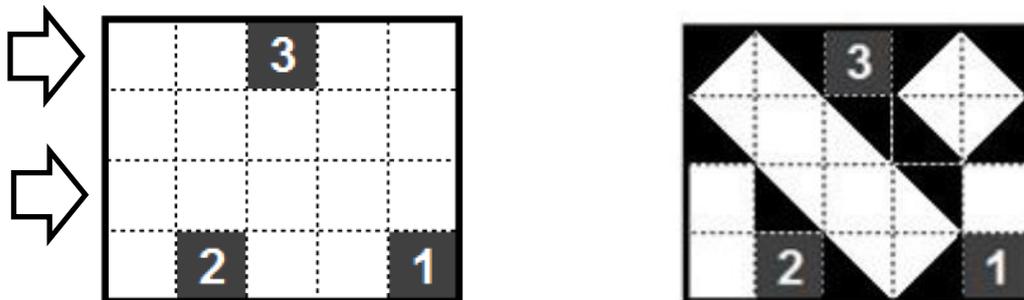


### 17 & 18 Shakashaka (32, 14)

Place a triangle (one of ) in some white cells. A number in a black cell indicates how many black sides of triangles touch this cell. The white halves of triangles – optionally along with some enclosed white cells – must form rectangles rotated by 45°. The remaining white space must form “normal” rectangles (including squares), oriented horizontally or vertically. (These white rectangles cannot touch by an edge.)

**Answer Key:** Enter the area of the rectangles in the marked rows/columns.

**Example:** 62,261



### 19 & 20 Slash Pack (11, 11)

Divide the grid into shapes, using only the diagonals of the squares, without any loose ends. Each shape must contain numbers from 1 to 4 (1 to 3 in the example). Two diagonals cannot cross in one square.

**Answer Key:** Enter the number of forward slashes (/) per row.

**Example:** 11121

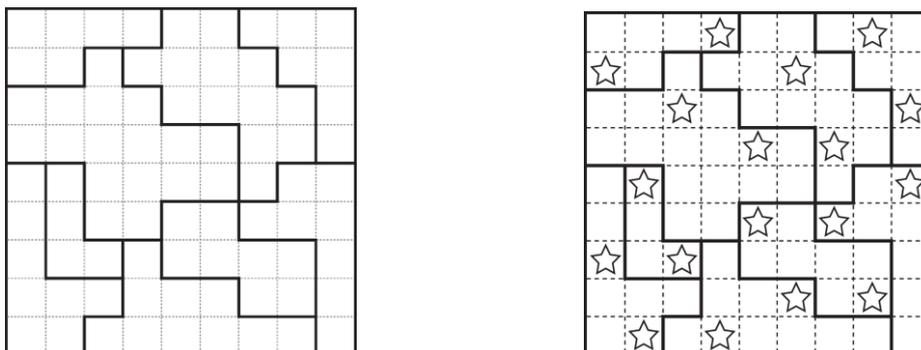


### 21 & 22 Star Battle (6, 26)

Place two stars in every row, column and bold edged region. Cells with stars in are not allowed to touch each other, even at a point.

**Answer Key:** Enter the number of cells between the stars in each row.

**Example:** 345161111



## 23 & 24 Straight Hidato (9, 26)

Enter the numbers 1 to X (where X is the number of cells in the grid) one per cell such that consecutive numbers are placed in cells that share a side.

**Answer Key:** Enter the unit contents of the marked rows/columns. i.e for 10 enter 0 etc.

**Example:** 012543,387610

9					4
	21			34	
		23	36		
		24	25		
	18			31	
14					29

9	8	7	6	5	4
10	21	22	35	34	3
11	20	23	36	33	2
12	19	24	25	32	1
13	18	17	26	31	30
14	15	16	27	28	29

## 25 Sujiken (25)

Place numbers 1-9 in the grid such that no number occurs twice in any row, column or diagonal line. No number occurs twice in any of the bold outlined regions.

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

**Example:** 3487,71589634

8		3						
	4	8						
	7		9	8				
			5	4				
4					5	1		
7	1			9	6			
2	8	6				9		

6								
1	9							
8	2	3						
3	4	8	7					
5	7	2	9	8				
9	6	1	5	4	2			
4	3	9	2	7	5	1		
7	1	5	8	9	6	3	4	
2	8	6	1	3	4	9	7	5

## 26, 27, 28 & 29 Tapa (5, 11, 10, 16)

Shade some cells to form a single connected wall. The wall cannot occupy a 2 by 2 area anywhere. Clues in the grid indicate how many consecutive cells must be shaded round the clue cell. If there is more than one number in a cell these blocks must be separated by at least one empty cell. Clue cells cannot be part of the wall.

**Answer Key:** Enter the length of the longest group of shaded cells in each row.

**Example:** 312323

	1 <sub>2</sub>			
			1 <sub>2</sub> <sup>2</sup>	
	7			
			1 <sub>2</sub>	

	1 <sub>2</sub>			
			1 <sub>2</sub> <sup>2</sup>	
	7			
			1 <sub>2</sub>	

### 30 TomTom (37)

Place a number from 1-6 (1-5 in the example) into each cell so that no number repeats in any row or column. The number in the upper left corner of each bold cage indicates the value of a mathematical operation (addition, subtraction, multiplication or division) applied successively to all the numbers in the cage, starting with the largest for subtraction and division. The operation may or may not be given in the cage, but one of the four operations must apply. Numbers can repeat within a cage.

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

**Example:** 12354,54132

### 31 Word Search (20)

Place a letter into each of the blank cells to enable all the given words to be located in the grid, running in one of the eight possible directions horizontally, vertically or diagonally.

**NOTE:** The competition puzzle will use letters from the Turkish alphabet - including (Ç, Ş, Ğ, İ, İ, Ö, Ü). These are required to solve the puzzle, but when submitting the answer, the English alphabet equivalent should be used – i.e. C, S, G, I, I, O, U.

**Answer Key:** Enter the contents of the missing cells from each row from top to bottom.

**Example:** ON,WU

F	I	V	E	B	N
D			E	T	I
C			F	V	O
V	T	H	R	E	E

ONE  
TWO  
THREE  
FOUR  
FIVE

F	I	V	E	B	N
D	O	N	E	T	I
C	W	U	F	V	O
V	T	H	R	E	E