
UK Puzzle Championship 2012

INSTRUCTION BOOKLET

Friday 24th - Monday 27th August 2012

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=29> on Friday 24th August. 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 August**, 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 **24:00 BST (23:00 GMT) on Monday 27th August**; as such it is highly recommended that you retrieve the password and start solving before 21:30 BST (20:30 GMT).
- 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 2012 UK Puzzle Champion!

ENTERING & SUBMITTING ANSWERS

To submit your answers, you will need to go to the answer submission page found at <http://www.ukpuzzles.org/contests.php?contestid=29>. 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.

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If you have any urgent matters arising during the contest, please email me: chairman@ukpuzzles.org UK participants only may call me on 01313390028 in an emergency.

In the event of the web hosting service failing during your participation, email me 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/>

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 1 point for each complete 20-seconds saved (3 points per minute, no partial points), 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. The examples are credited to the appropriate authors, and all rights are reserved by the authors. Note that some of the puzzles in the competition may be by different authors. Instructions will be repeated in the competition booklet, but not the examples.

UK Puzzle Championship 2012 – Instruction Booklet

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

#1 – Easy as Penny Lane #1	5 pts	#13 – Nurikabe	10 pts
#2 – Easy as Penny Lane #2	5 pts	#14 – Magic Minesweepers	20 pts
#3 – Tapa #1	5 pts	#15 – Skyscrapers	15 pts
#4 – Tapa #2	15 pts	#16 – Skyscrapers Either/Or	15 pts
#5 – Tilt Maze	10 pts	#17 – Wittgenstein Briquet	20 pts
#6 – Chain reaction	20 pts	#18 – Tren	20 pts
#7 – C-Note #1	10 pts	#19 – Double Block	20 pts
#8 – C-Note #2	20 pts	#20 – Sigma Snake	30 pts
#9 – Flip Mirror Sums #1	10 pts	#21 – Nobel Prize	30 pts
#10 – Flip Mirror Sums #2	25 pts	#22 – Hayajilin	35 pts
#11 – Yin-Yang Different Neighbours	10 pts	#23 – Crypted Fence	35 pts
#12 – Rock the 90s	25 pts	#24 – Triangle Minesweeper	40 pts
		Total:	450pts

PUZZLE AUTHORS

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

Serkan Yürekli	http://akil-oyunlari.livejournal.com/
Andrey Bogdanov	http://diogen.h1.ru/cgi-bin/contest/start.pl
Andrea Gilbert	http://www.clickmazes.com
Dave Millar	http://thegriddle.net/
Gabriele Simionato	http://www.nonzero.it
Prasanna Seshadri	http://prasannaseshadri.wordpress.com/
Erich Friedmann	http://www2.stetson.edu/~efriedma/puzzle.html
Tawan Sunathvanichkul	

Thank-you.

#1 & #2 - EASY AS PENNY LANE (5+5 PTS)

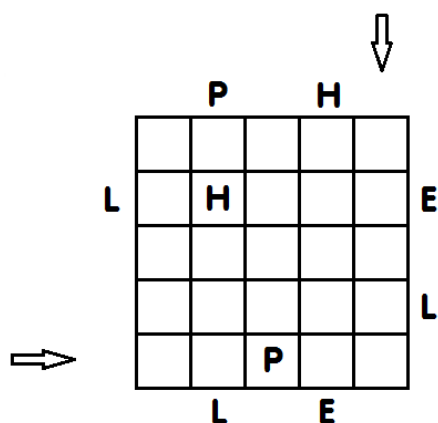
#1 - Fill the grid with letters P,E,N,N,Y. Each cell contains one letter, and each row and column contain all of the listed letters, plus one empty space. **The grid contains the word "PENNY" exactly once, to be read in any direction (regardless of spaces).** #2 - Use the letters L,A,N,E and one empty space in the smaller grid. **The grid contains the word "LANE" exactly once, to be read in any direction (regardless of spaces)**

Example uses the letters H,E,L,P with the word "HELP" contained exactly once.

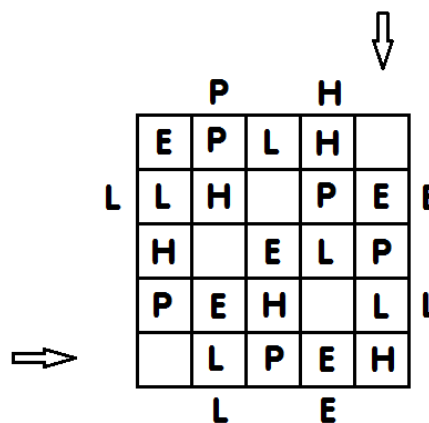
Answer Key: enter the letters on the marked row and column (use "-" for an empty space)

Example: -LPEH,-EPLH

Example:



Solution:



© Gabriele Simionato, 2012

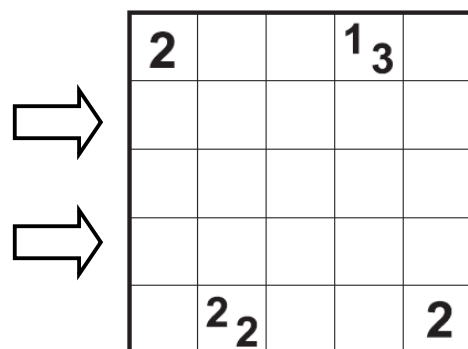
#3 & #4 - TAPA (5+15 PTS)

Paint some cells black to create a continuous wall. Number(s) in a cell indicate the length of contiguous blackened cells in its surrounding cells. If there is more than one number in a cell, there must be at least one white cell between blackened blocks. Painted cells cannot form any 2x2 squares. There are no wall segments on cells containing numbers.

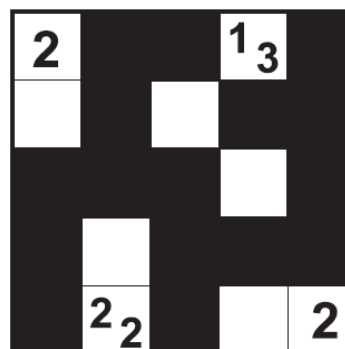
Answer Key: Enter the lengths of blackened blocks of cells in the marked rows.

Example: 12,13

Example:



Solution:



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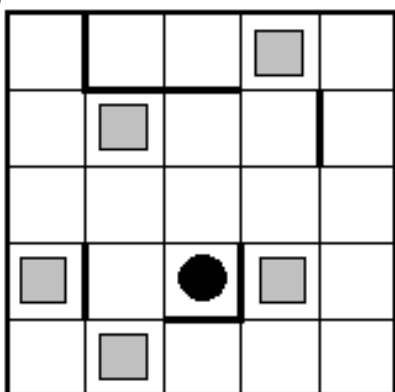
#5 TILT MAZE (10 PTS)

Describe the minimum sequence of tilts (Up/Down/Left/Right) so that the black ball will capture all grey target squares. The black ball always rolls in a straight line, until it hits a wall. You may pass over a grey square more than once.

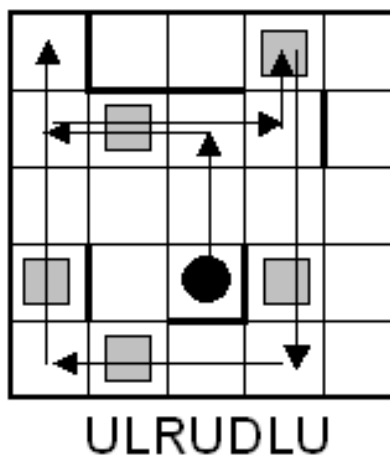
Answer key: Enter the sequence of tilts made.

Example: ULRUDLU

Example:



Solution:



© Alan O'Donnell (example) and Andrea Gilbert (competition), 2012

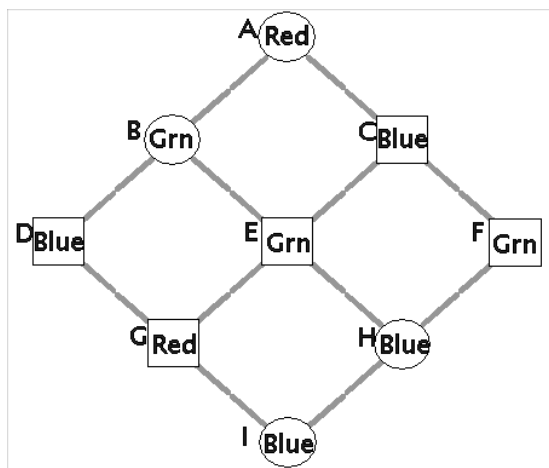
#6 CHAIN REACTION (20 PTS)

Starting from the top atom (labelled 'A') jump to any unvisited atom in line with it, that matches it either in shape or pattern (or both). Each jump must be along a straight line but may leap frog other atoms. Find a route that visits every atom once and once only. Atoms used in the contest puzzle are easily distinguishable monochrome patterns.

Answer key: Enter the letters of the atoms visited in order.

Example: ABHIDGECF.

Example:



[This space intentionally blank]

© Alan O'Donnell (example) and Andrea Gilbert (competition) 2011

#7 & #8 C-NOTE (10+20 PTS)

Add digits before or after some of the digits in the grid so that in the resulting grid, each row and column sums to 100.

Answer key: Enter the digits added to each cell, row by row. Use 0 if no digit was added.

Example: 561,215,933

Example:

3	4	9
6	6	8
3	8	2

Solution:

35	46	19
26	16	58
39	38	23

© Erich Friedman, 2012

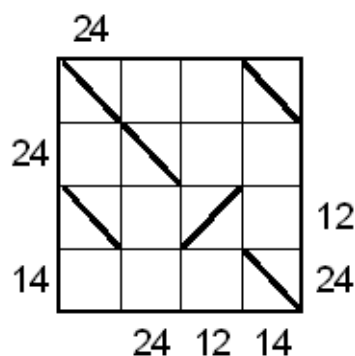
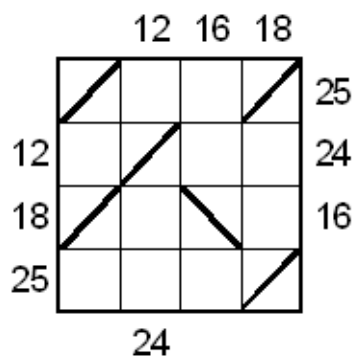
#9 & #10 FLIP MIRROR SUMS (10+25 PTS)

In each grid pair, place numbers 1 to N in the empty cells to create the sums given. The mirrors in the grid reflect the line of sight from positions outside the grid. Each of the grids in a pair will contain the same numbers in the same positions, but have flipped mirrors.

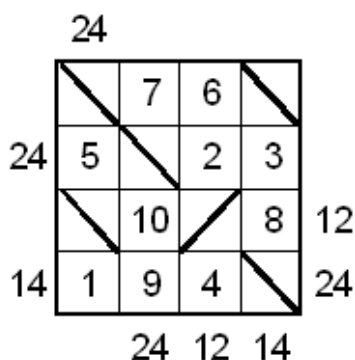
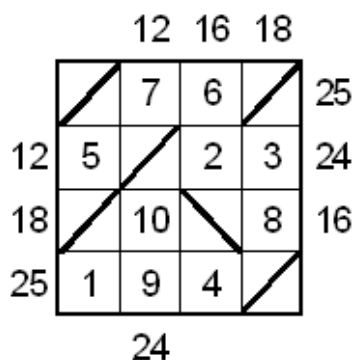
Answer Key: Enter the numbers in the order they appear, without spaces.

Example: 76523108194

Example:



Solution:



© David Millar, 2012

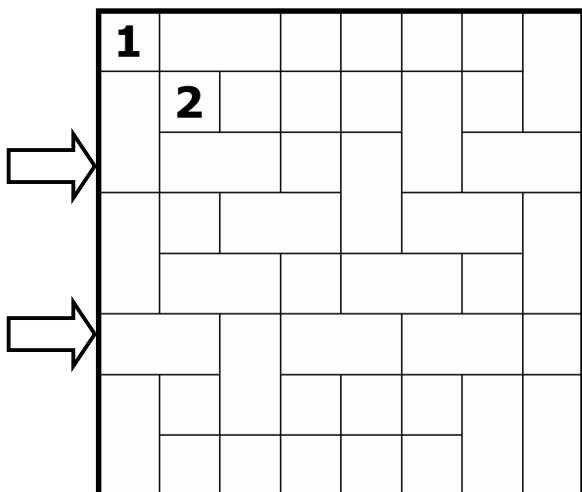
#11 YIN-YANG DIFFERENT NEIGHBOURS (10 PTS)

Fill in all cells with digits 1,2,3 or 4. Two cells with the same digit cannot touch, not even diagonally. All cells with odd digits should form a continuous area without any 2x2 areas. Likewise for all cells with even digits.

Answer key: Enter the digits that appear in the marked rows.

Example: 342414,32134

Example:



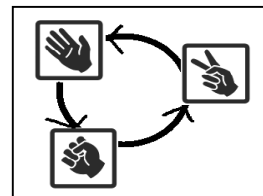
Solution:

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

© Andrey Bogdanov, 2012

#12 ROCK THE 90S (25 PTS)

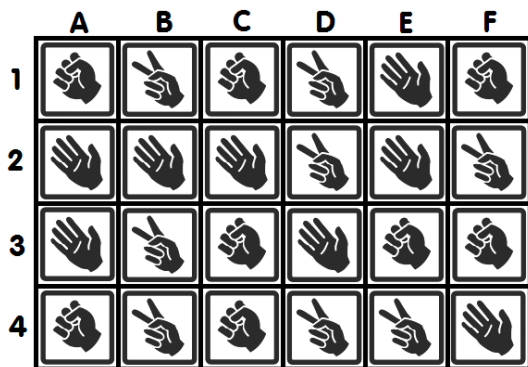
Start from any card, and move directly to a neighbouring card you can beat following SCISSORS-PAPER-ROCK rules. Every card is used exactly once. When you are in a "ROCK" card, you must turn 90 degrees, unless you are on the first or last card of the path. SCISSORS and PAPER don't have such limitation.



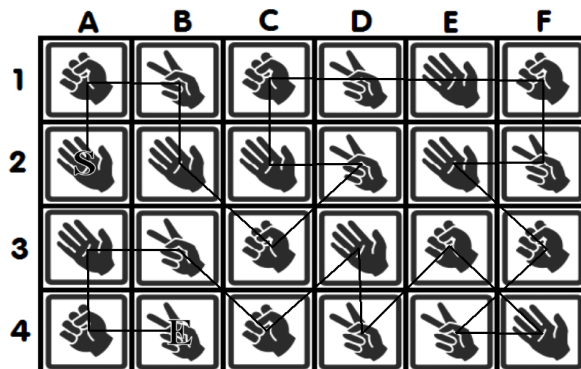
Answer key: Enter the co-ordinates of the START cell, followed by the END cell.

Example: A2,B4

Example:



Solution:



© Gabriele Simionato, 2012

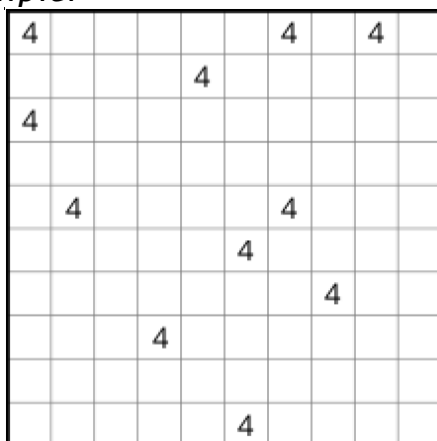
#13 NURIKABE (10 PTS)

Shade some cells in the grid so that the shaded cells form a connected area via horizontal and vertical paths, and so that there are no 2x2 area of shaded cells. The remaining unshaded cells should form several connected islands. Each island should contain exactly one given number in the grid, and this number represents the number of cells in its corresponding island

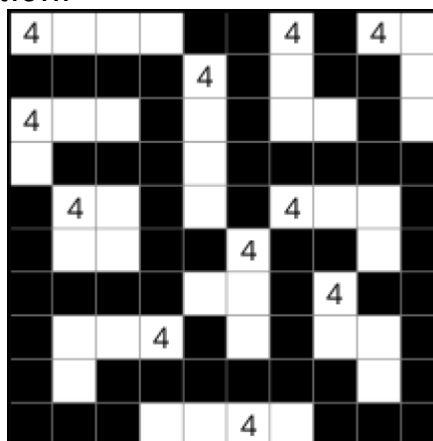
Answer key: Enter the contents of the cells on the two main diagonals from top to bottom, using 1 for a shaded cell and 0 for an unshaded cell. (TL to BR, followed by TR to BL)

Example: 0101001001,0101111001

Example:



Solution:



© Tom Collyer (example) and Tawan Sunathvanichkul (competition), 2012

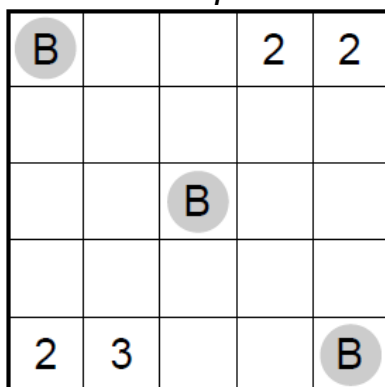
#14 MAGIC MINESWEEPERS (20 PTS)

Locate exactly two mines in every row and column. The numbers in the grid represent the number of mines surrounding that square. Mines are labelled "A" or "B". Each type of mine appears once in each row and column.

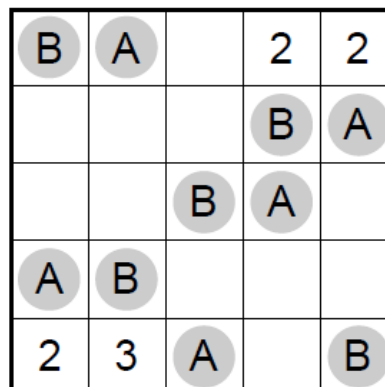
Answer key: Enter the type of mine (A or B) that appears first in each row.

Example: BBBAA

Example:



Solution:



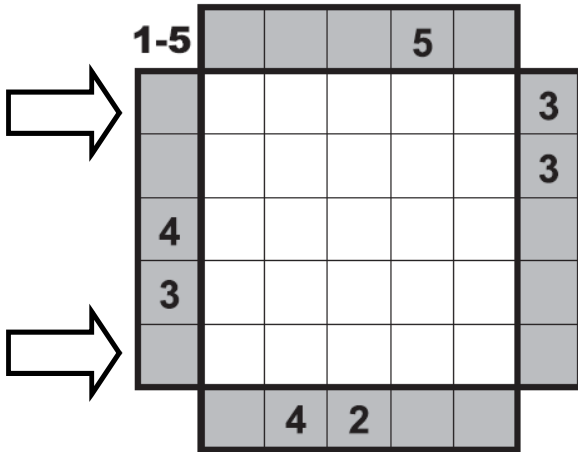
© Tawan Sunathvanichkul, 2012

#15 SKYSCRAPERS (15 PTS)

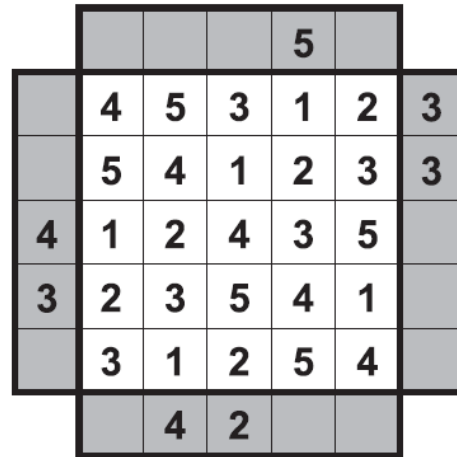
Fill in each cell of the grid with digits 1-6 (1-5 in the example) so that each digit appears exactly once in each row and column. Digits inside the grid represent a building with a height of that value. Numbers outside the grid indicate the number of buildings that can be seen along that row/column. A building will be visible if all buildings in front of it are shorter than itself.

Answer key: Enter grid contents of marked rows.
Example: 45312,31254

Example:



Solution:



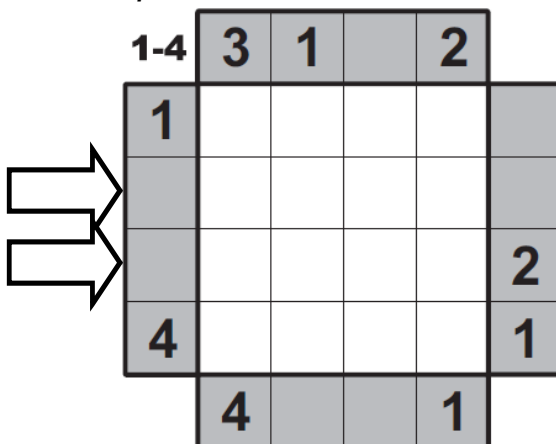
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#16 SKYSCRAPERS EITHER/OR (15 PTS)

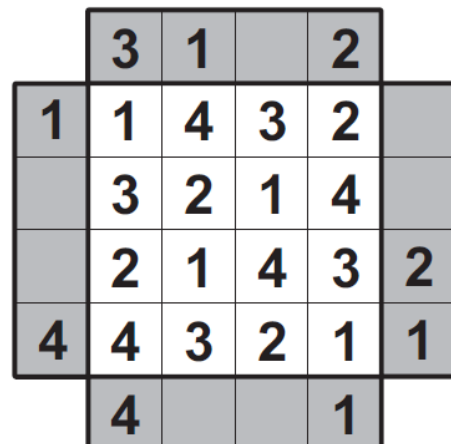
As for skyscrapers (above), using digits 1-6 (1-4 for the example) except: Numbers outside the grid indicate EITHER, or BOTH of (a) the number of buildings visible; (b) the height of the first building visible in that row/column.

Answer key: Enter grid contents of marked rows.
Example: 3214,2143

Example:



Solution:



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#17 WITTGENSTEIN BRIQUET (20 PTS)

Locate some 1x3 blocks in the grid without overlapping each other, or the numbers. Numbers in the grid indicate the number of blocks orthogonally adjacent to itself. All cells that are not part of any block must form a contiguously connected area.

Answer key: Enter the number of horizontal blocks, followed by the number of vertical blocks.
Example: 1,3

Example:

	1			
	0		2	
				1
	2			

Solution:

	1			
	0		2	
				1
	2			

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#18 TREN (20 PTS)

Locate some blocks in the grid, having size either 1x2 or 1x3. Each number in the grid must be part of a block, indicating how much length-wise movement that block can make.

Answer key: Enter the number of horizontal 1x2 blocks, followed by the number of vertical 1x2 blocks.
Example: 4,5

Example:

				0	
1		3			1
	0				1
1			3		
0		1			

Solution:

				0	
1		3			1
	0				1
1			3		
0		1			

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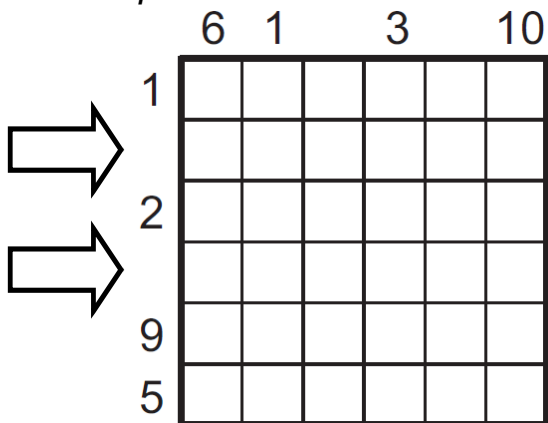
#19 DOUBLE BLOCK (20 PTS)

Fill the grid with numbers 1-5 (1-4 in the example). Exactly 2 squares in each row and column should be blackened. Numbers outside the grid indicate the sum of values between the blackened cells in the corresponding row/column

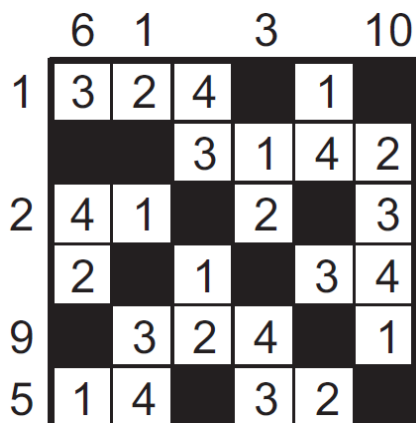
Answer Key: Enter the contents of the marked rows. Use '-' for blackened cells.

Example: --3142,2-1-34

Example:



Solution:



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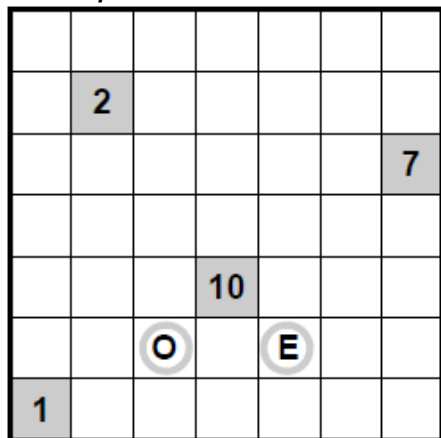
#20 SIGMA SNAKE (30 PTS)

Locate a lettered-snake in the grid. The snake does not touch itself, not even diagonally. The letters on the snake reads from head to tail as a consecutive string of worded numbers. The snake cannot pass through numbered cells, which represent the sum of all worded numbers surrounding that cell. The head and tail of the snake are given as circled letters, though you have to determine the head and the tail, and the order which the words appear. All words are used exactly once.

Answer key: Enter the order in which the numbers appear along the snake from head to tail.

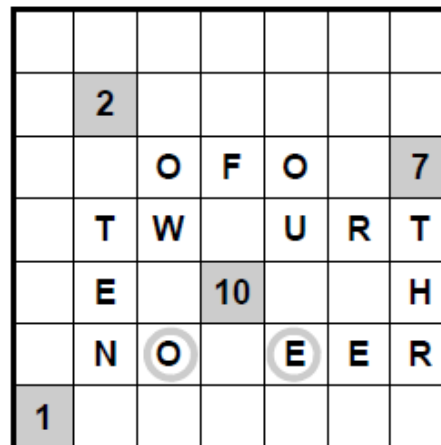
Example: 1243

Example:



- 1- ONE
- 2- TWO
- 3- THREE
- 4- FOUR

Solution:



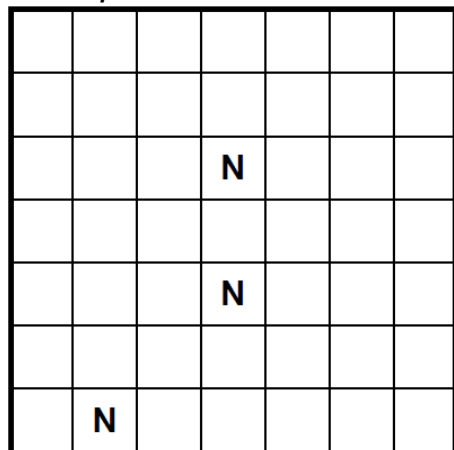
© Tawan Sunathvanichkul, 2012

#21 NOBEL PRIZE IN LITERATURE (30 PTS)

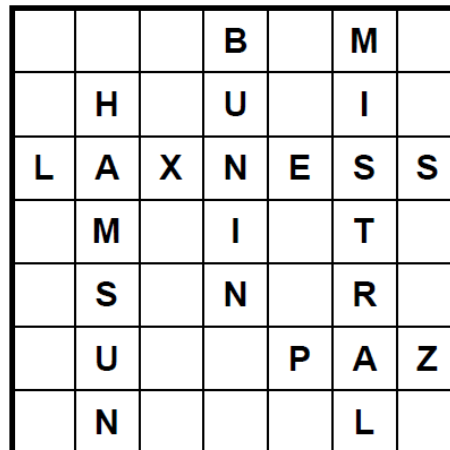
Place the listed Literature Nobelists into the grid, reading from left-right and top-bottom only. All formed words are listed so no unlisted words can be formed. Every word must interconnect. All N's are given.

Answer key: Enter the letters that appear in the marked rows, ignoring any spaces.
Example: HUI,UPAZ

Example:



Solution:



BUNIN
HAMSUN
LAXNESS
MISTRAL
PAZ

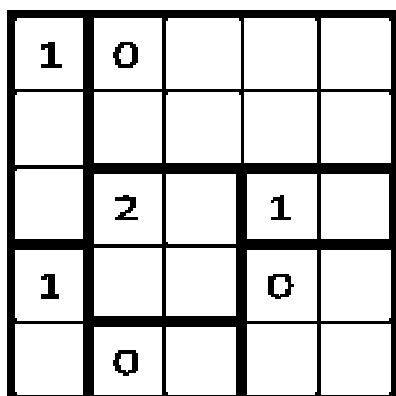
© Tawan Sunathvanichkul, 2012

#22 HEYAJILIN (35 PTS)

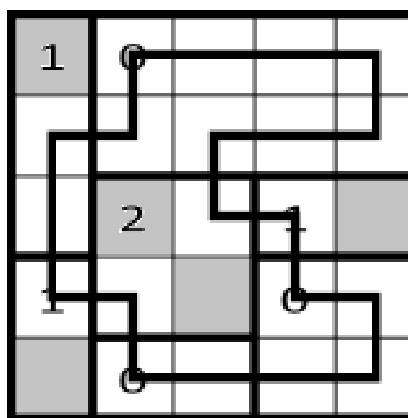
Shade some squares, so that a single closed loop can be drawn through all remaining cells. The loop runs horizontally and vertically through the centres of the cells. It cannot touch or cross itself. No two black cells can share a border. The grid is split up into different regions. A number indicates the number of cells in that region that need to be shaded.

Answer key: Enter the number of shaded cells in each row (no comma separators)
Example: 10211

Example:



Solution:



© Prasanna Seshadri, 2012

#23 CRYPTED FENCE (35 PTS)

Replace letters with digits (the same letters means the same digits, different letters - different digits) and then solve a standard fence puzzle: Draw a single continuous loop going along grid lines. Any digit in a cell shows the number of the cell's edges which are part of the loop.

Answer key: Enter the number of cells that are inside the loop for each row (separated by commas)
Example: 1,2,3,3,5

Example:

A			B	B
	A	A		B
		C	D	D
D			C	
	D			C

Solution:

A			B	B
	A	A		B
		C	D	D
D			C	
	D			C

© Andrey Bogdanov, 2012

#24 TRIANGLE MINESWEEPER (40 PTS)

Place 15 mines into the grid. Each mine is a triangle occupying exactly half of a cell. Mines cannot touch each other even by a point. Clues show the number of mines touching the cell with clue, even by a point.

Answer key: Enter the number of mines where: the Top Left half is shaded; Top Right is shaded; Bottom Right is shaded; and finally the number if mines where the Bottom Left is shaded.
Example: 3,3,4,5

Example:

15 mines

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

Solution:

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

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