NAME:	COUNTRY:	POINTS:

13ᵀᴴ 24 HOURS PUZZLE CHAMPIONSHIP

9-11, NOVEMBER, 2012
HOTEL AMADEUS
BUDAPEST

PUZZLES BY:

JAKUB HRAZDIRA & JIŘÍ HRDINA

Skyscrapers with Summed Hints	55 points
Summed Skyscrapers	20 points
Cave	45 points (10 + 35)
Little Latin Killer	80 points (30 + 50)
Twin Snakes	105 points (10 + 20 + 75)
Masyu	30 points (10 + 20)
Divide and Conquer	40 points (10 + 30)
Paint Tetraminoes	20 points
Paint Pentominos	100 points
Number Labyrinth	45 points (20 + 25)
Easy as ABC Skyscrapers	45 points
Yajilin	20 points
Cross Math	40 points (20 + 20)
Letter Fillomino	65 points
Easy as... + Word Search	75 points
Diagonal Sudoku	85 points
Digits Inside or Sum Sudoku	110 points
Skyscrapers in Mirror Labyrinth	10 points
Crossword	10 points
TOTAL	1000 points

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Skyscrapers with Summed Hints   55 points

Solve 4 skyscrapers puzzles. The hints outside the grid are always summed from the two adjacent grids. This applies also to the top and bottom hints and leftmost and rightmost hints. As if the grids are on toroid.

Summed Skyscrapers   20 points

Solve two skyscrapers puzzles. The table between them shows the sums of heights of the buildings at the given position in both grids.

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Cave   10 + 35 points

Draw a single closed loop going along the grid lines which does not touch or cross itself. The area enclosed by the loop represents a cave. All numbers must be inside the cave. Each number indicates how many cells can be seen from that cell to the nearest wall in all four directions (including the cell with the number).

10 points

35 points

Little Latin Killer   30 + 50 points

Fill in the grid with numbers 1-5 resp. 1-7 so that each number is exactly once in each row and column (and main diagonal in second puzzle). The numbers outside the grid indicate the sum of numbers in the diagonal given by the arrow.

30 points

50 points

13ᵀᴴ **24** Hᴏᴜʀs Pᴜᴢᴢʟᴇ Cʜᴀᴍᴘɪᴏɴsʜɪᴘ
9-11, Nᴏᴠᴇᴍʙᴇʀ, 2012
Hᴏᴛᴇʟ Aᴍᴀᴅᴇᴜs,
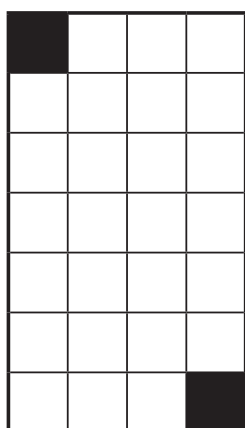Bᴜᴅᴀᴘᴇsᴛ
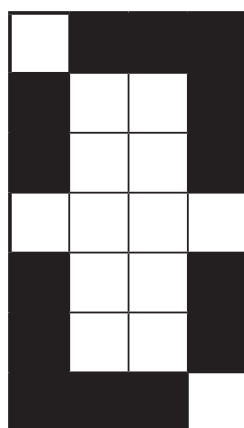
Pᴜᴢᴢʟᴇs ʙʏ
Jᴀᴋᴜʙ Hʀᴀᴢᴅɪʀᴀ & JɪřÍ Hʀᴅɪɴᴀ

Twin Snakes   10 + 20 + 75 points

Draw two snakes of given lengths in the two grids. The heads and tails are already given. Snake is a sequence of orthogonally adjacent cells which does not touch itself, not even diagonally. The third grid represents XOR superposition of both grids with snakes. It means that the cell is black if the corresponding cells in the grids are different (one is black and the other one is white). And the cell is white if the corresponding cell in both grids is the same (either black or white).
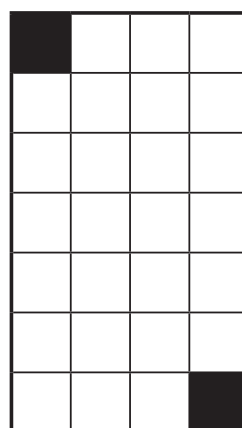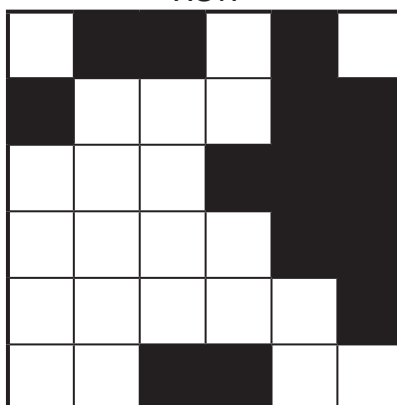
Length 16   XOR   Length 10
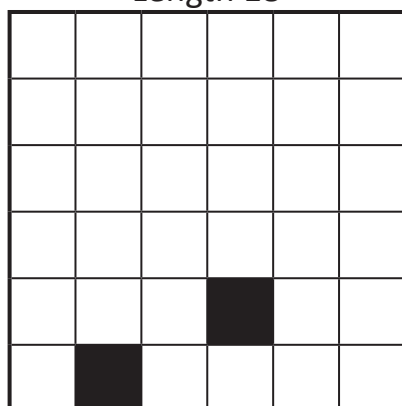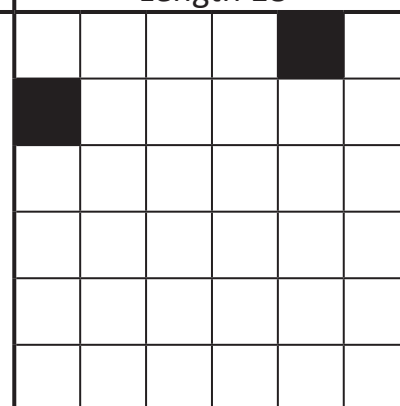
10 points

XOR

Length 18   **20 points**   Length 18

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Length 50

XOR

75 points

Length 50

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Masyu   10 + 20 points

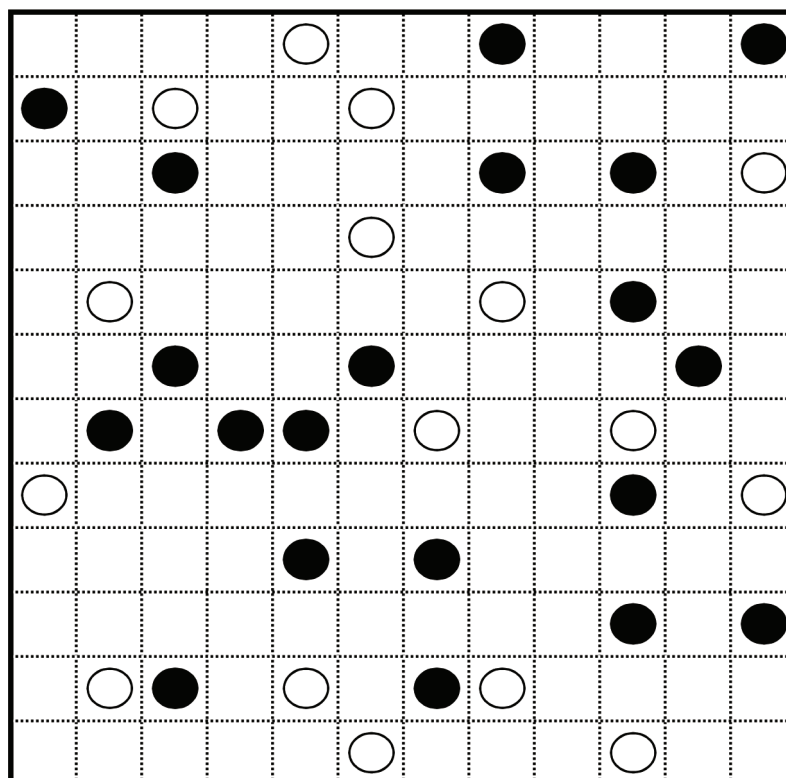Draw a single closed loop going vertically and horizontally. The loop does not touch or cross itself and goes through all the circles. White circles must be traveled straight through, but the loop must turn in the previous and/or next cell in its path. Black circles must be turned upon, but the loop must travel straight through the next and previous cells in its path.

10 points

20 points

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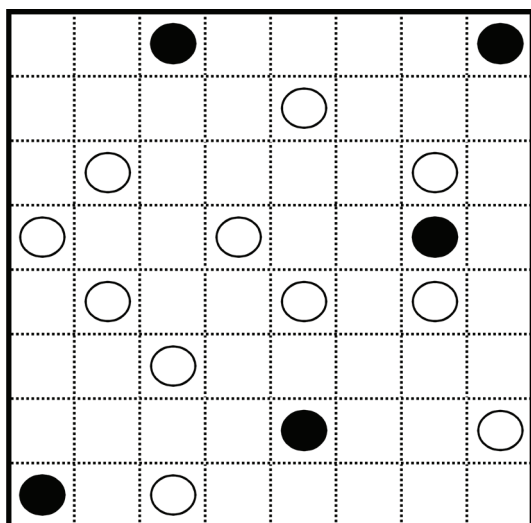
Divide and Conquer   10 + 30 points

Divide the picture along the grid lines into a given number of parts of the same shape and size. The parts may be rotated, but not reflected.

5 parts

5 parts
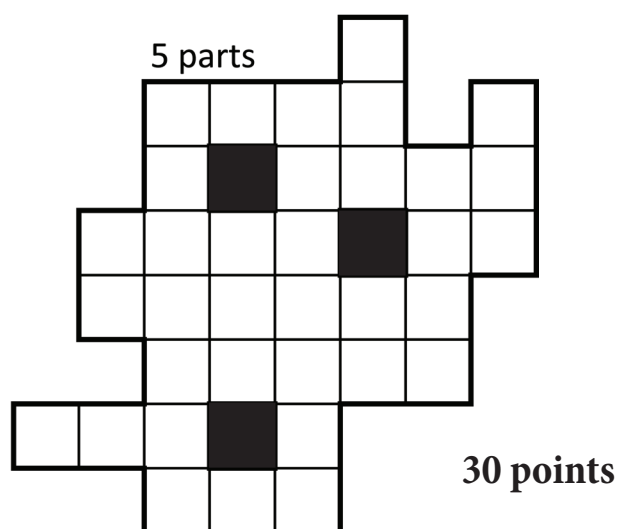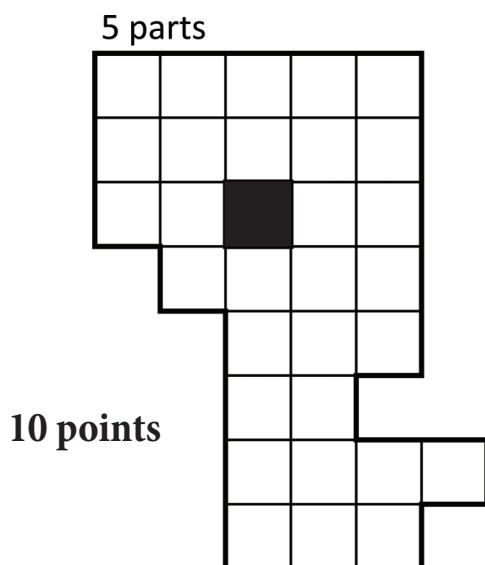
10 points

30 points

Paint Tetraminoes   20 points

Place all the tetraminoes in the grid so that they do not touch each other not even diagonally. The numbers outside the grid show the sequences of black cells in the given row or column but not necessarily in the order in which they appear. Tetraminoes can be rotated, but not reflected.

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Paint Pentominos   100 points

Place all the pentominos in the grid so that they do not touch each other not even diagonally. The numbers outside the grid show the sequences of black cells in the given row or column but not necessarily in the order in which they appear. Pentominos can be rotated and/or reflected.

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Number Labyrinth   20 + 25 points

Each line and each row contain numbers 1-3 resp. 1-4 and two different diagonal mirrors. Numbers outside the grid indicate the sum of numbers the light beam goes through if you send it from that point. If the light goes through a cell twice the number is also calculated twice.

20 points

	4	4	2	4	2	
12						4
0						23
0						4
12						4
3						2
	23	3	6	2	6	

25 points

	7	9	10	9	7	5	
5							17
10							12
10							5
5							12
5							4
10							17
	17	3	5	17	3	4	

## Easy as ABC Skyscrapers   45 points

Fill in the grid with letters A, B and C and numbers 1, 2 and 3 so that each row, column and main diagonal contains 6 different symbols. Numbers in the grid represent skyscrapers and numbers outside the grid indicate how many skyscrapers are visible in the corresponding row/column. Letters outside the grid indicate which letter can be seen first in the corresponding row/column. Letters do not affect the visibility of skyscrapers and vice versa.

	3	C	1	B	1	C	
C							2
3							C
B							1
2							B
B							3
1							B
	A	1	C	2	C	2	

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Yajilin   20 points

Paint some cells black so that each arrow points to the number of black cells given next to the arrow. Black cells can touch only diagonally. Draw a single closed loop which cannot cross or overlap itself by connecting centers of all remaining white cells, going horizontally and vertically. Cells with arrows cannot be part of the loop.
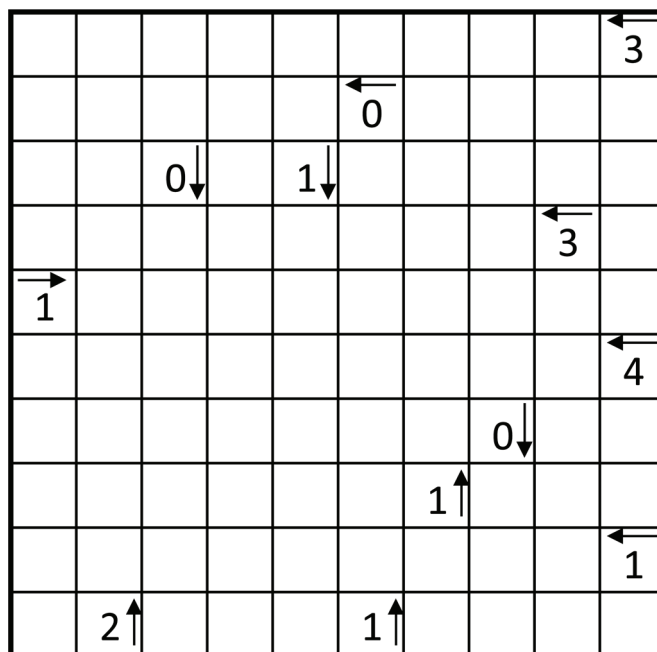
Cross Math   20 + 20 points

Place nine different numbers between 1-9 into the empty cells of the table so that all the equations are true. Mathematical operations are done from left to right and top to bottom with no precedence.

20 points

20 points

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Letter Fillomino   65 points

Divide the grid squares into areas, such that each area contains one of the given letters. Areas with same letter cannot share an edge. Each letter represents different size.

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

Easy as... + Word Search   75 points

Fill in the grid with given set of letters (A, B, I, J, K, R, U), so that each row and column contains each letter exactly once + one empty square. Letters outside the grid should appear first in corresponding direction. Two words (JIRKA, JAKUB) can be read somewhere in the grid (forward, backward, and/or diagonally) not interrupted by empty square.

		J		I		R		I	
			K						
J									
A									
K										J
U		R								I
B				U						R
										K
										A
		K	U	B	A				

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Diagonal Sudoku   85 points

Fill the grid with digits 1 to 9, so that each digit appears exactly once in each row, each column, each oulined 3x3 box and in two main diagonals.

Digits Inside or Sum Sudoku   110 points

Fill the grid with digits 1 to 9, so that each digit appears exactly once in each row, each column and each oulined 3x3 box. Numbers cannot be repeated within a cage. For each cage at least one of these rules hold: a) Small number represents sum of all digits in that cage, b) Small number represents digits that have to be inside that cage.

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Skyscrapers in Mirror Labyrinth   10 points

Fill in the empty cells in the grid with numbers 1-4 so that each number is exactly once in each row and column. The numbers inside the grid represent heights of buildings. The marked diagonals are two sided mirrors. Numbers outside the grid indicate the number of buildings visible from that side including the mirrored buildings. Building is visible if it is higher than the buildings in front (bulding of the same height is not visible).
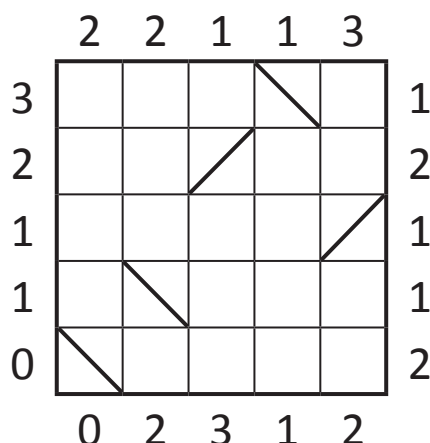
Crossword   10 points

Place the listed words in the grid, horizontally or vertically so that they create a crossword. All the words must be interconnected and no other words of two or more letters may be created. All letters R are given.
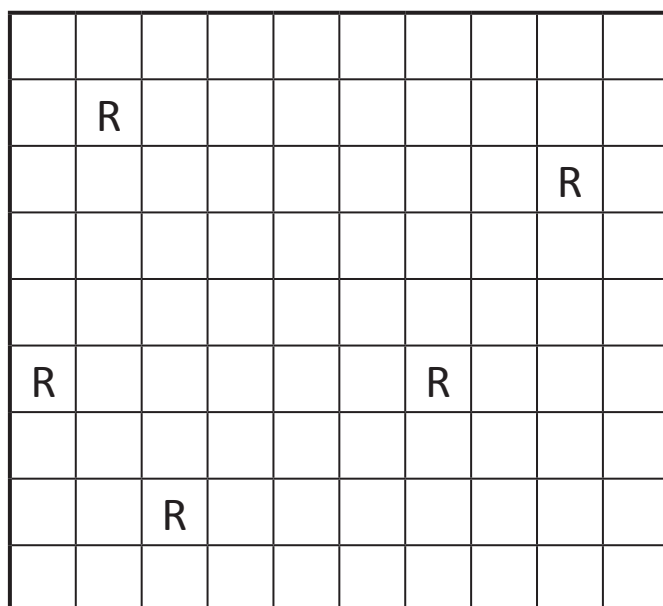
PRAHA
BRNO
OSTRAVA
HLINSKO
KRNOV
OTROKOVICE
SLAPY
ODRY
PARDUBICE