



#### 5. "Creasing" Sudoku

Fill in the grid so that every row, column and outlined box contains the digits 1 through 9 (1 through 6 in the example). Numbers going along grey lines must be in increasing/decreasing order.

*Answer key: write down the content of highlighted main diagonal from top to bottom. For the example the answer would be: 631263.*

○					
	○				
			6		
				○	
	4			○	
					○



6	5	4	3	2	1
1	3	2	4	5	6
4	2	1	6	3	5
5	6	3	2	1	4
3	4	5	1	6	2
2	1	6	5	4	3

1				
				10
		5		
○	○	○	○	○
	24			



1	14	13	12	11
2	15	4	9	10
16	3	5	6	8
17	18	19	20	7
25	24	23	22	21

#### 6. Twenty five again

Fill the table with numbers from 1 to 25, starting from the cell with "1" and writing each next number in one of eight neighbouring cells. None of two numbers in the same row or column can give the sum ending with "0".

*Answer key: write down the content of highlighted row. For the example the answer would be: 17,18,19,20,7.*

#### 7. Snake.BY

Draw in the grid a snake, not touching itself. Each outlined region must contain exactly 3 cells occupied by the snake. The regions that contain the head and the tail of the snake are marked by grey color. Cells with circles belong to the snake.

*Answer key: write down the quantity of cells, occupied by the snake in all rows from top to bottom. For the example the answer would be: 3,5,3,3,5,3,5.*




		○	○	○			
	○	○		○	○	○	
○	○						○
○			○	○			
○	○						○
	○	○					
							○
		○	○	○	○		

	A	B	C	D	E	F	G	H
1								
2								
3		♙				♘		
4								
5					♚			
6								
7			♗					
8								

4



	A	B	C	D	E	F	G	H
1		♙	♙	♙		♘		♙
2						♘		
3	♙	♙		♙		♘		
4	♙					♙	♙	
5					♚			
6		♙		♙		♙		
7			♗					
8	♙	♙		♙	♙	♙		

4

#### 8. Chess battleships

Place in the grid complete set of battleships, so that each chess piece attacks exactly one ship of every kind. Ships cannot touch each other, not even diagonally. Digits outside the grid show the number of cells occupied by ships in corresponding directions.

*Answer key: write down the coordinates of all 1-unit ships, from top to bottom. For the example the answer would be: F1,H1,B6,F6.*



# FOURTH ANNIVERSARY

ONLINE COMPETITION - INSTRUCTIONS

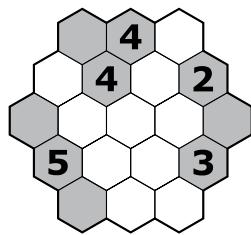
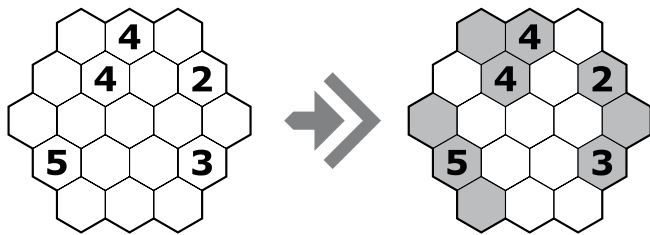
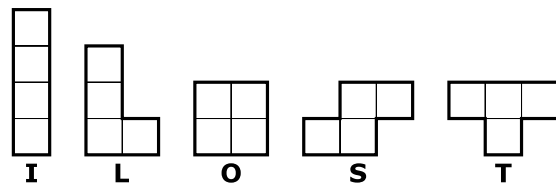
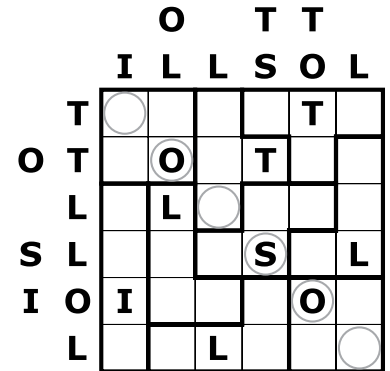
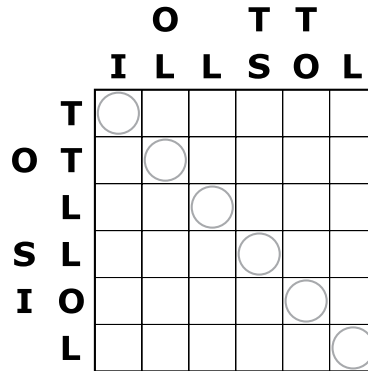
2006, December, 2nd, 16:00 GMT

## 9. Tetracross

Place in the grid the letters I, L, O, S, T, so that in each row and column they appear in the order and amount shown outside the grid. Then divide the grid into tetraminoes, so that each tetramino contains exactly one letter and this letter correctly corresponds to its shape.

Tetraminoes can be rotated and/or mirrored.

*Answer key: write down the content of highlighted main diagonal from top to bottom. For the example the answer would be: OOTSOO.*



## 10. Three/vision

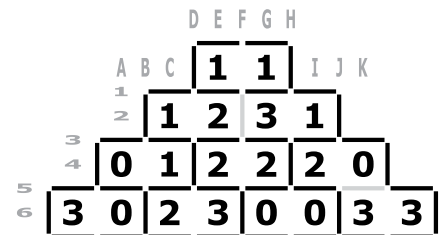
Place in grids some 3-cell figures, not touching one another. Digits in cells show the number of cells occupied by figures in the same row and both diagonals, not counting the cell with the digit itself. All cells with digits belong to the figures.

*Answer key: write down the quantity of cells, occupied by figures in all rows from top to bottom. For the example the answer would be: 2,2,2,2,1.*

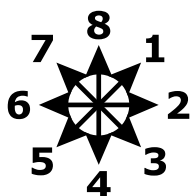
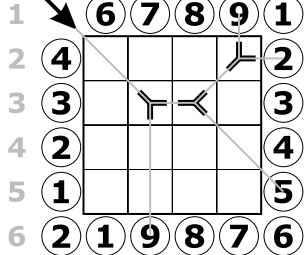
## 11. Domino matches

Remove the minimal number (N) of matches, so that the total of digits in all areas surrounded by matches was different. (Note that you cannot leave the "hanging" matches. For example, if you remove matches I5 and K5 you MUST remove the match J6 as well.)

*Answer key: write down the coordinates of all removed matches. For the example the answer would be: F2, K5.*



## 12. Optimal optical



Replace any digit outside the grid with the light source, oriented inside the grid (all possible directions are shown). Then place in the grid up to three Y-shaped light splitters. See how they work in the example. Each digit that is lightened adds to your total its value decreased by 10% per every cell of the path of light to this digit. Maximize your total (T).

*Answer key: first write down the coordinate of your light source with the number corresponding to its direction. Then write down the coordinates of all light splitters. Optionally you can add to the answer your total. For the example the answer would be: A1-3; E2, C3, D3; 15. (As the path to each lightened digit is 4 cells, the total is (9+2+5+9)x(1-0,4)=15)*