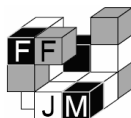


15th WPC
French Qualification

**Part III
Innovative**

September, 3rd 2006
100 minutes
Max. score : 230 + ?? points



Name

Puzzles

- 1 Piecework
- 2 Full House
- 3 Masterpiece
- 4 Broken Loop
- 5 Paint Cross Sums
- 6 Lost Bridges
- 7 Reading Bulgaria
- 8 Pentamino Puddles
- 9 Sudoku Varia
- 10 Diagonals

15	
15	
20	
25	
25	
25	
??	
30	
35	
40	
230 + ??	

Points

Total

Part III
Innovative

Puzzle 1
Points 15

Piecework

Divide the grid into eight regions so that every region contains two numbers, one being its area and the other one being its perimeter.

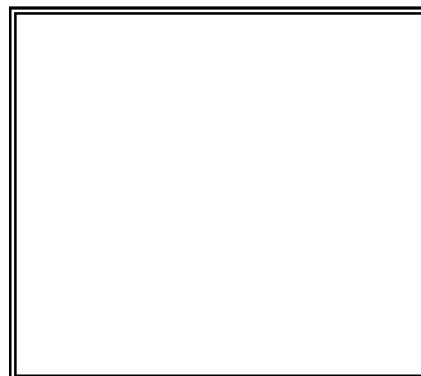
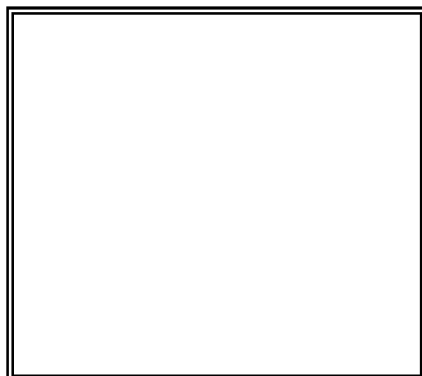
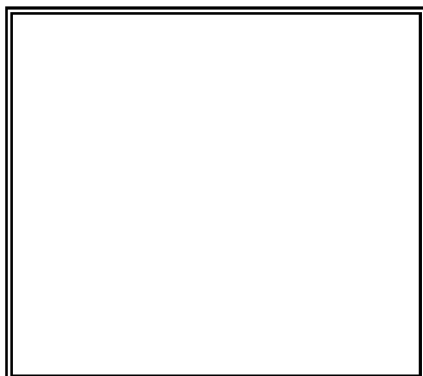
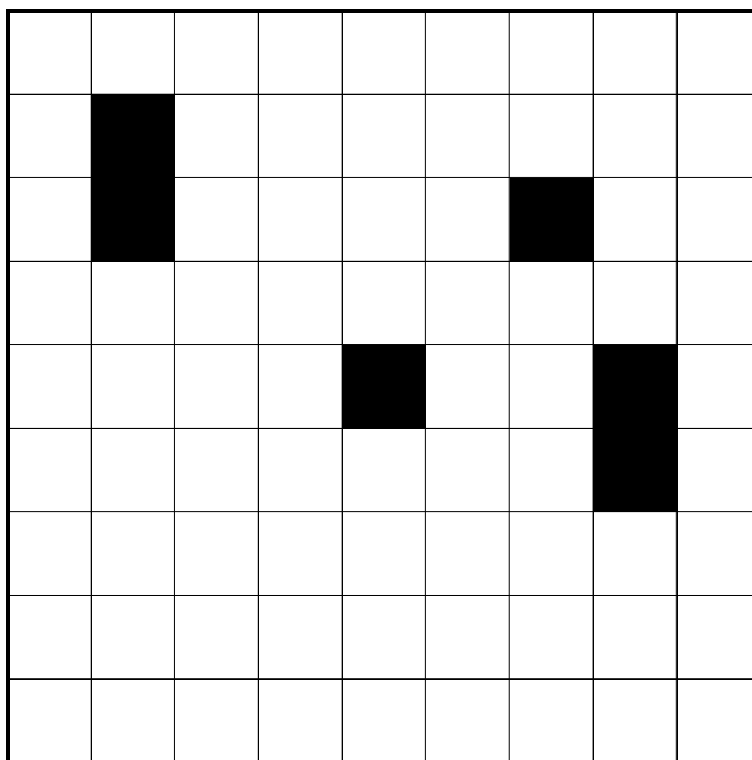
	10				14	12
		6	5			
18				4	8	
			6			8
		14			12	
10			6			
		4			16	

Part III
Innovative

Puzzle 2
Points 15

Full House




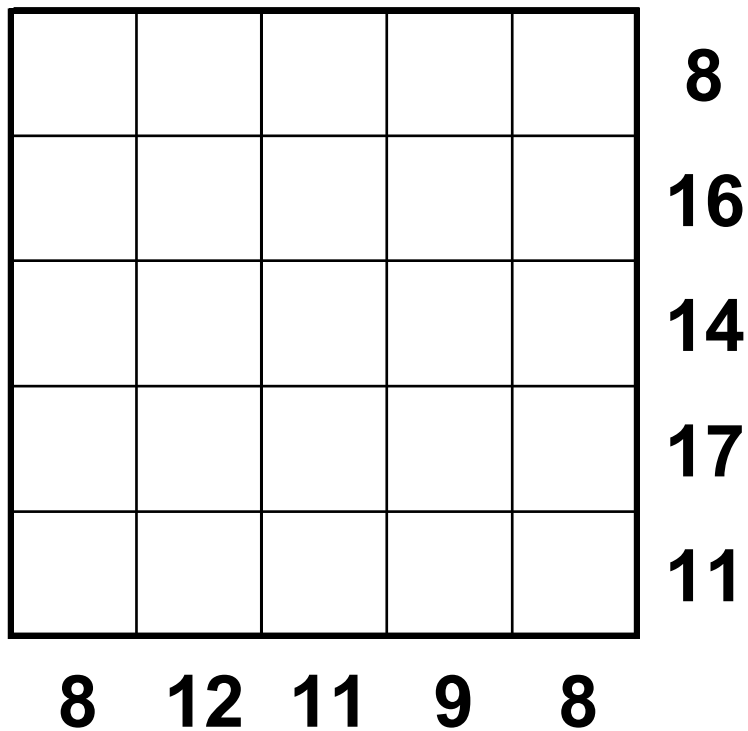
Find a starting white square and draw a path passing through every white square of the grid exactly once. The path connects centers of adjacent white squares and goes as far as possible, changing direction only when blocked by the grid edge, a black square or a white square already visited.



Puzzle 3

Points 20

Divide the grid into dominoes, triominoes and tetraminoes of any shape so that every number shows the sum of the sizes (2, 3 or 4) of pieces appearing in the respective direction.

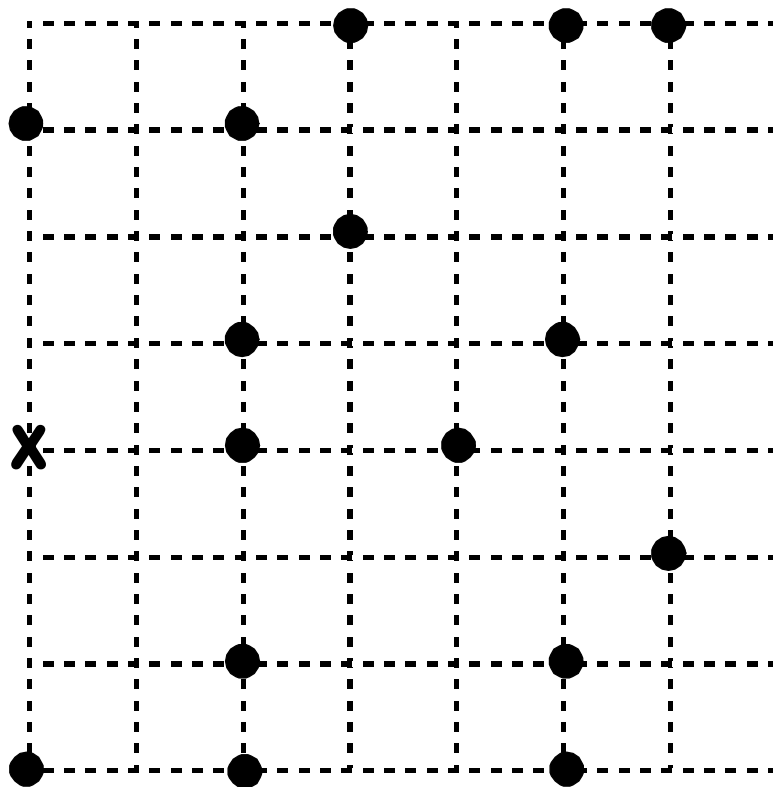


Part III
Innovative

Puzzle 4
Points 25

Broken Loop

Draw a single continuous loop traveling horizontally or vertically and passing through all nodes of the grid exactly once. As you travel along the loop, the dots and Xs alternate, every dot being half way between two consecutive Xs. All dots are given. One X is given. There are exactly two Xs in every row or column of nodes.



Part III
Innovative

Puzzle 5
Points 25

Paint Cross Sums

Paint black some squares. Every number to the left of the grid shows the sum of those digits at the bottom which correspond to black squares in the respective row. Every number at the top of the grid shows the sum of those digits to the right which correspond to black squares in the respective column.

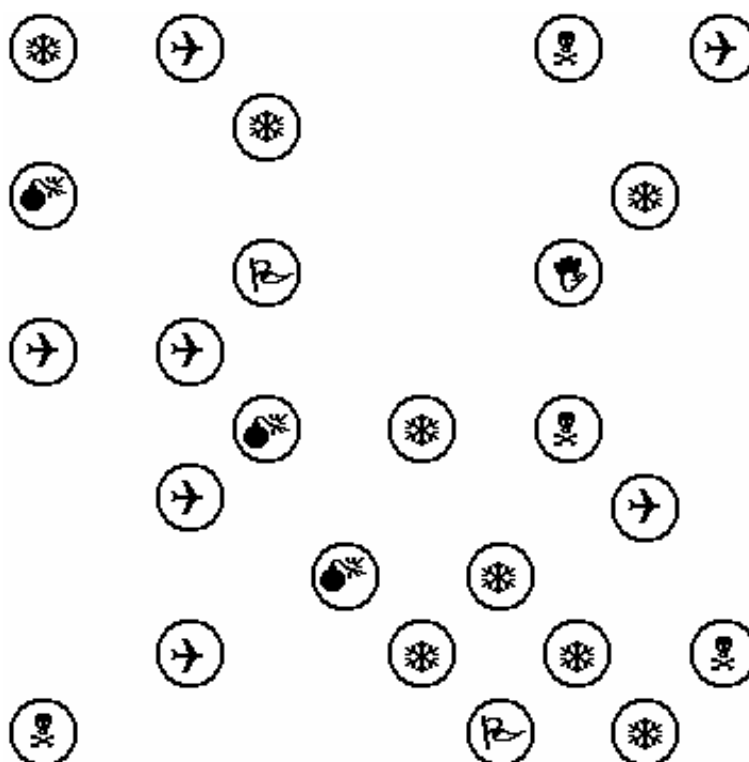
	19	25	19	19	38	23	35	7	23	
19										1
21										2
29										3
9										4
6										5
31										6
38										7
24										8
20										9
	1	2	3	4	5	6	7	8	9	

Part III
Innovative

Puzzle 6
Points 25

Lost Bridges

Connect all islands together with bridges. No bridge crosses another one. Bridges run horizontally or vertically. Bridges may run in parallel between the same two islands. The number of bridges connecting at every island is showed by the respective symbol in that island. Every symbol represents a different digit from 1 to 6.



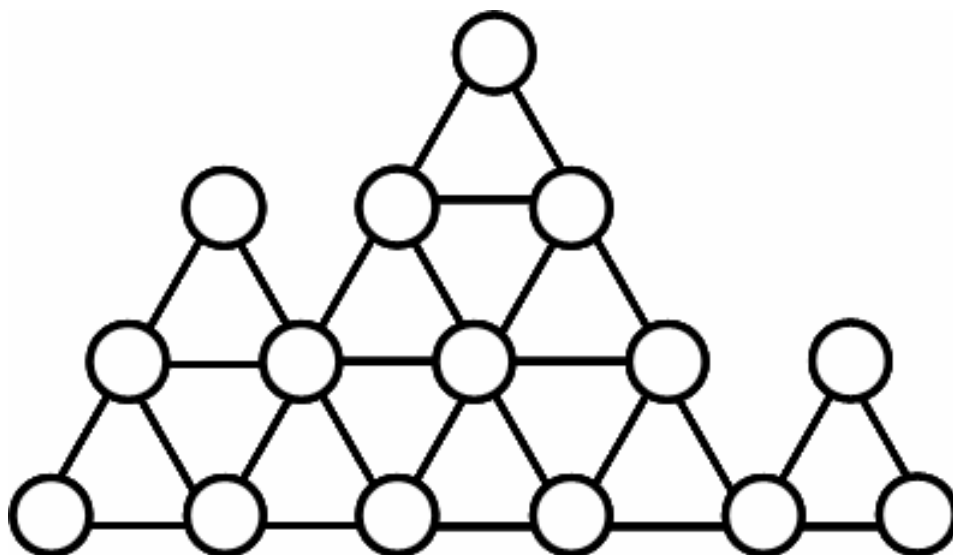
Part III
Innovative

Puzzle 7
Points ??

Reading Bulgaria

Place one letter at every node of the grid so that “BULGARIA” can be read as many times as possible. Every word is a path of nodes connected in any direction. The same “A” can be used twice in a single word.

If one can read “BULGARIA” n times in a grid, then the points will be $n-35$, rounded to the multiple of 5 immediatly before $n-35$.



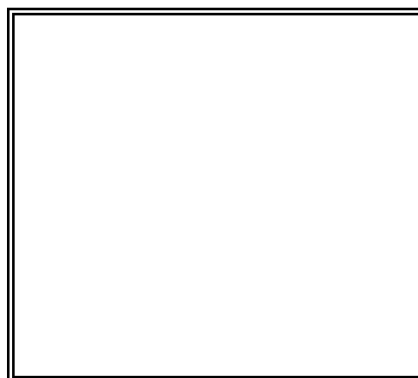
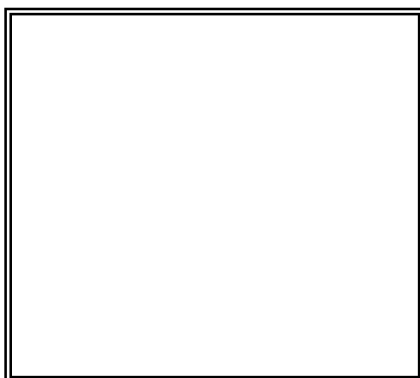
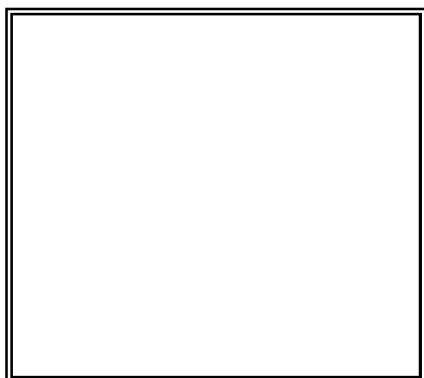
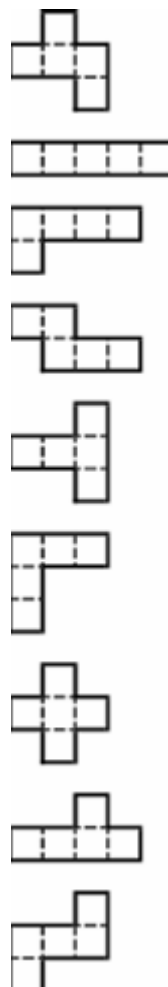
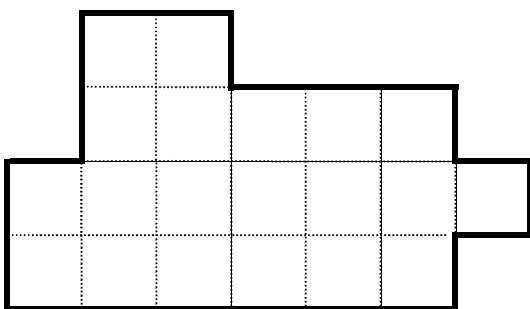
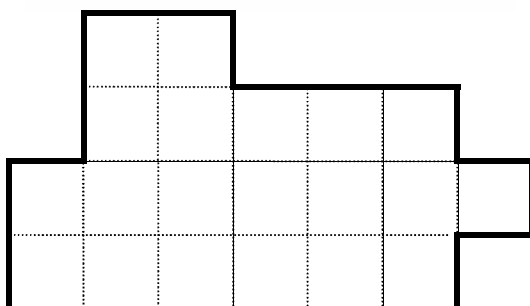
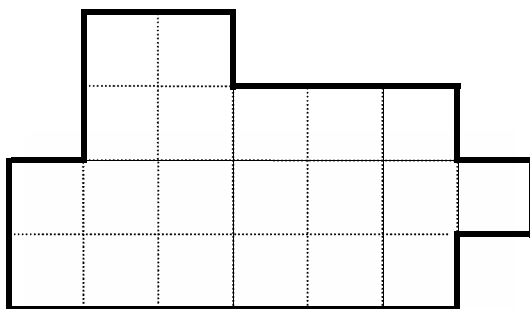
times “BULGARIA”

Part III
Innovative

Puzzle 8
Points 30

Pentamino Puddles

Divide each of the three shapes into four pieces so that each of the pentaminoes is used exactly once. "W" is used in the top shape, "P" in the middle one and "C" in the bottom one. The pentaminoes can be rotated and / or reflected.

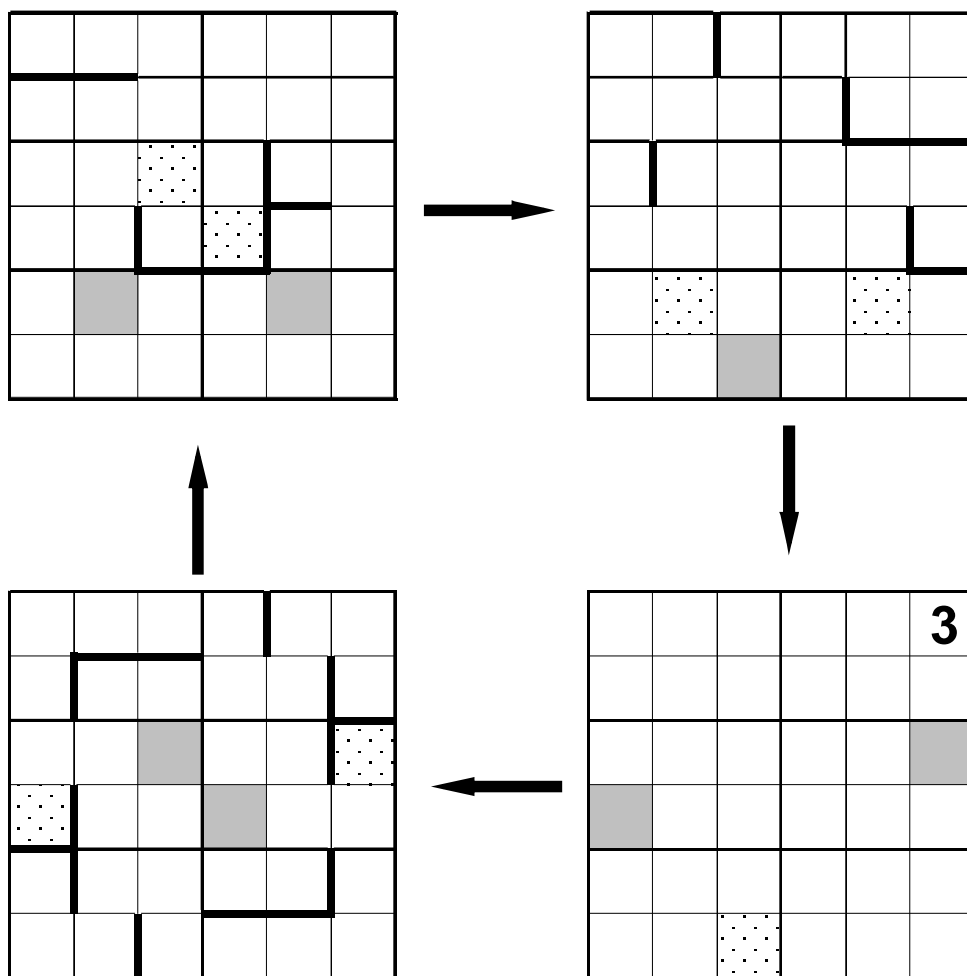


Part III
Innovative

Puzzle 9
Points 35

Sudoku Varia

Each of the four grids is a Sudoku : every digit from 1 to 6 appears once in every row, in every column and in every outlined rectangle. Each edge between adjacent cells is thickened if, and only if, the respective digits are consecutive. When moving in the direction showed by an arrow from any grid to the next one, each digit in a painted dark cell becomes the same in the corresponding dotted cell. One digit is given.



Part III
Innovative

Puzzle 10
Points 40

Diagonals

Draw one diagonal, and one only, in every square of the grid without any closed loop. Each given digit shows the number of diagonals connecting at the respective node.

