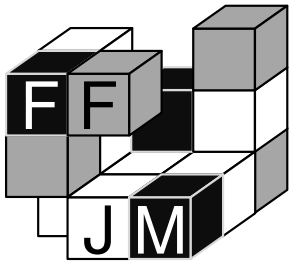
French Puzzle Championship

Finals – Round 1
29 June 2019



Fédération Française des Jeux Mathématiques

Name : _____ **First Name :** _____

Round 1 – Classics – 45 minutes

1.	**Simple Loop**	15
2.	**Masyu**	15
3.	**Tents**	20
4.	**Tapa**	20
5.	**Minesweeper**	30
6.	**Skyscrapers**	30
7.	**ABCDE Partitioner**	30
8.	**Battleships**	40
9.	**Scrabble**	40
10.	**Yajilin**	40
11.	**Hitori**	50
12.	**Kakuro**	50

Total: 380 points + bonus (10 pts/minute)

Author: Denis Auroux

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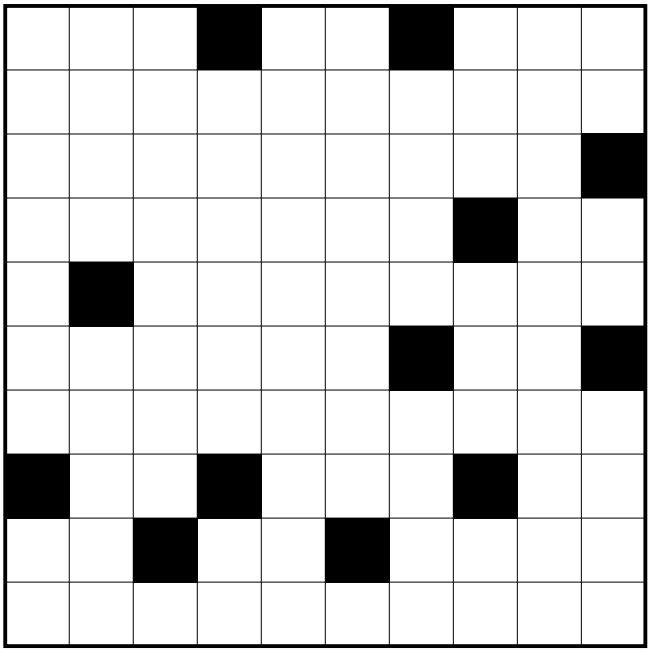
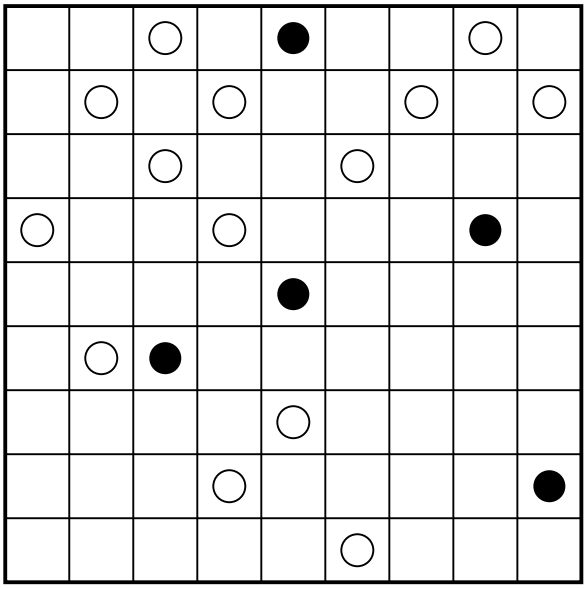
1. Simple Loop (15 points)

Draw a loop consisting of horizontal and vertical line segments connecting the centers of adjacent squares of the grid. The loop must not cross or overlap itself, and it must pass through all white squares of the grid.



2. Masyu (15 points)

Draw a single closed loop passing through the centres of adjacent squares. The path must pass through every circle. When passing through a black circle, the path must make a 90^o turn and extend at least two squares in both directions. When passing through a white circle, the path must go straight and make a 90^o turn in at least one of the adjacent squares.



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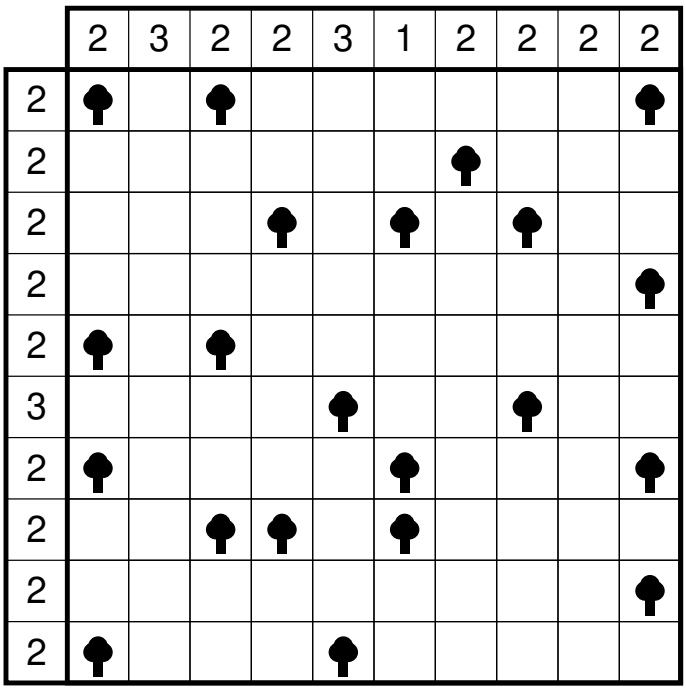
3. Tents (20 points)

Place tents in the grid, so that each tree is connected to exactly one tent, found in a horizontally or vertically adjacent square. Tents do not touch each other, not even diagonally. The numbers outside the grid reveal the total number of tents in the corresponding row or column.



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4. Tapa (20 points)

Paint some empty cells black to form a continuous wall of black cells (connected to each other horizontally or vertically). No 2x2 square can be completely black. The number(s) in a square indicate the lengths of the consecutive blocks of black cells among the adjacent squares (horizontally, vertically or diagonally): each number represents one block of black cells, and when there is more than one number in a square, the black cell blocks must be separated by at least one white cell. The order in which the numbers are given is irrelevant.

1 1						2 1			
		3 1 1							3 1
				2 2 1					
1 1							1 1 1		
			1 1 1 1						
2 1							3 3		
				3 2					
								3	

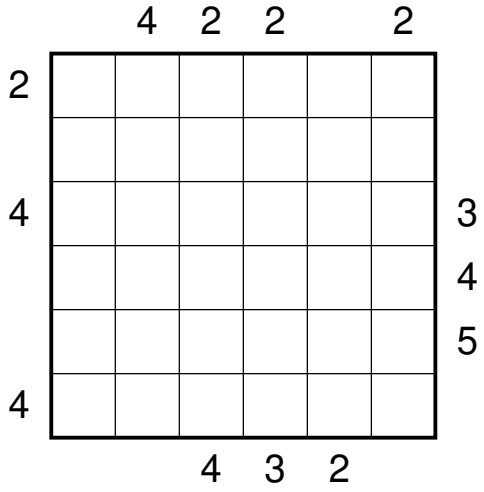
5. Minesweeper (30 points)

Mines are hidden in the diagram, at most one per square. The numbers inside the diagram indicate the number of mines that can be found in the squares immediately adjacent to that square (horizontally, vertically, or diagonally). Squares with a number do not contain mines. Find the mines.

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

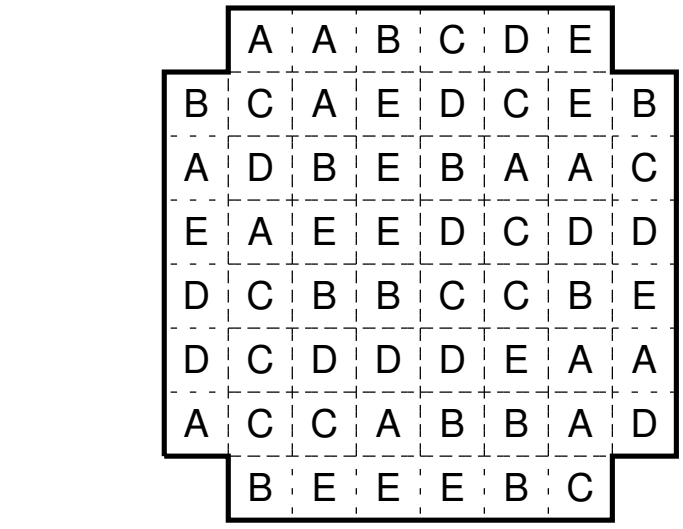
6. Skyscrapers (30 points)

The grid represents a group of skyscrapers. Each row and column contains skyscrapers of different heights from 1 to 6. The numbers outside the grid indicate how many skyscrapers are visible from that direction (a building located behind a taller one in the same row is completely hidden).



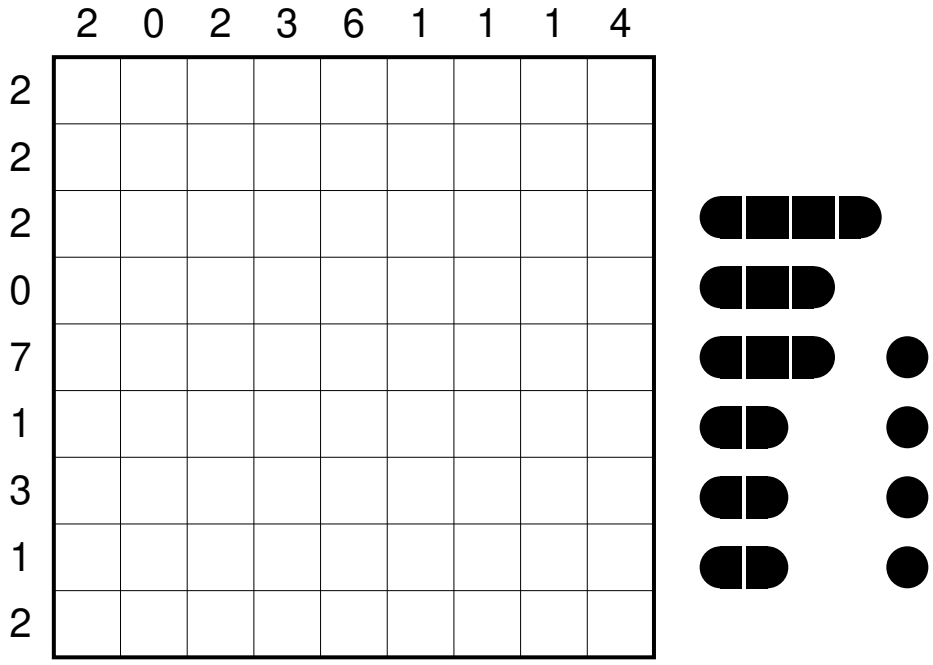
7. ABCDE Partitioner (30 points)

Cut the grid along the dotted lines in order to form the complete pentomino set, in such a way that each pentomino contains each of the letters A, B, C, D and E. Pentominos can be reflected and rotated.



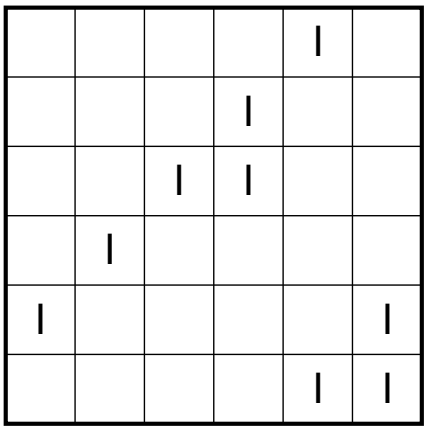
8. Battleships (40 points)

Locate the position of the given fleet (shown in the margin) in the grid. Each segment of a ship occupies a single cell. Ships are oriented either horizontally or vertically, and they do not touch each other, not even diagonally. The numbers outside the grid reveal the total number of ship segments that appear in each respective row or column.



9. Scrabble **(40 points)**

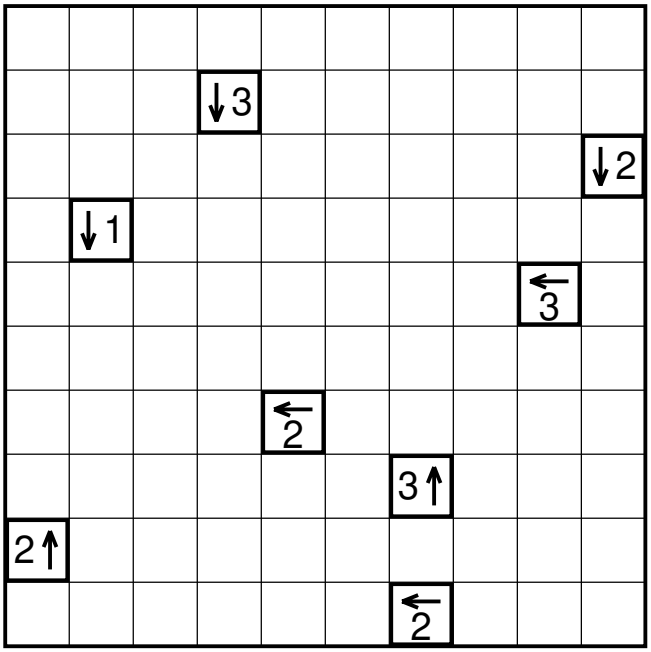
Place the words from the list in the grid (across from left to right or down from top to bottom). All vowels A, E, I, O and U are already placed in the grid. The words are all interconnected, and no word other than those in the list can appear. (Note: the numbers in parentheses are for your information only and not part of the word list).



(4) IV
(6) VI
(7) VII
(11) XI
(15) XV
(16) XVI
(17) XVII
(20) XX
(21) XXI
(22) XXII
(26) XXVI
(31) XXXI
(34) XXXIV
(37) XXXVII
(39) XXXIX

10. Yajilin (40 points)

Shade some cells black, and draw a loop formed by horizontal and vertical segments that passes through all squares of the grid except black cells or cells containing clues.
Each clue indicates the number of black cells in the direction pointed by the arrow; cells with clues cannot be shaded black, and black cells may not touch each other by an edge.



11. Hitori (50 points)

Black out some of the numbers in the grid so that each row and each column contains only different digits. Black squares must not touch horizontally or vertically, and the remaining squares must all be connected to each other.

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

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12. Kakuro (50 points)

Enter a single digit from 1 to 9 into each empty square of the grid, so that the digits in each series of white squares add up to the number given in the gray-colored cell at the top or to the left. A number above a diagonal bar refers to the digits to be filled in to the right of that cell. A number under a diagonal refers to the digits to be filled in below that cell. The digit 0 is not used, and no digit is ever repeated within a group.