

WPC French Pre-qualification

May 2004 – Booklet

1 Round 1 – WPC Classics – 120 minutes

1.1 Crack it on – 10 points

Enter all the given words into the two grids in such a way that each area exactly contains one letter. The words should read across and down in every row and column of each grid.

1.2 Fences – 10 points

Draw a single continuous loop by connecting neighboring dots horizontally or vertically (but not diagonally). A numbered square indicates exactly how many of its four edges are used in the loop.

1.3 Trisquares – 15 points

Place the numbers 1 to 15 into the grid, in order, so that each number is in the same row or column as the number preceding it. The resulting path may cross or double-back on itself, and successive numbers need not be adjacent. There must be exactly three numbers placed in each row and column. The numbers outside the grid reveal the sum of the numbers in the corresponding row or column.

1.4 Domino Hunt – 20 points

A complete domino set (28 dominos from 0-0 to 6-6) has been placed in the grid. The sides of the dominoes have been erased and the spots have been replaced by numbers. Draw the edges of the dominoes in the grid.

1.5 Balancing Art – 20 points

(5 points if you solve one puzzle).

Assign the values 1 to 10 (1 to 12 in the second puzzle) to the weights in the diagram so that everything balances as shown. Each value will be used exactly once.

1.6 Mastermind – 20 points

(5 points for the solution to one puzzle, 10 points for two puzzles)

Find out the correct configuration of digits. The number of black dots of a row shows the number of digits of that row that are in the correct position; the number of white dots shows how many other digits are correct, but in the wrong position. The same digit (1-9) can occur more than once.

1.7 Battleships – 20 points

The grid represents a part of the ocean in which a fleet of ten ships is hiding (one ship of length 4, two ships of length 3, three ships of length 2, four ships of length 1). The ships may be oriented horizontally or vertically, and no two ships can occupy adjacent cells, not even diagonally. The digits indicate the number of cells in the corresponding rows and columns that are occupied by parts of ships.

1.8 Word Search – 25 points

Enter the missing letters into the grid so that 30 of the 31 given words can be found in it (reading horizontally, vertically or diagonally, forward or backwards). Which word is left over?

Both the missing letters and the discarded word should be pointed out to get the points.

1.9 Paint it Black – 25 points

The numbers outside the grid indicate the sizes of all maximal blocks of consecutive black squares in the corresponding rows or columns, in the order in which they occur. Rebuild the picture.

1.10 Number Crossword – 40 points

Enter digits in the grid (one per square) so that the digits in each series of white squares add up to the number given in the grey-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 under that cell. The digit 0 is not used, and no digit is ever repeated in a group.

1.11 Skyscrapers – 50 points

The grid symbolizes a group of skyscrapers. Each row and column contains skyscrapers of different heights (1-6). 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).

1.12 Magic Square – 50 points

Fill digits 1-9 into the grid in such a way that every digit appears once in each row, each column, and each black-edged 3x3 region.

2 Round 2 – Sprint – 30 minutes

Number of solved puzzles	Score	
1	5	
2	10	
3	15	
4	20	
5	30	Time bonus : $\left\{ \begin{array}{l} 1^{st}: +25 \\ 2^{nd}: +20 \\ 3^{rd}: +15 \\ 4^{th}: +10 \\ 5^{th}: +5 \end{array} \right.$
6	40	
7	50	
8	60	
9	80	
10	100	

2.1 Square Routes

Draw a single closed loop in the grid, crossing each square exactly once. The loop runs either horizontally or vertically and must not intersect or overlap itself anywhere. The path must make a turn on the circles and make a straight line on the crosses.

2.2 Tents

Locate the tents in the grid. 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.

2.3 Black and White

Fill each square with either a black or a white circle. All the squares containing black circles must be connected to each other horizontally or vertically. Similarly, all the squares containing white circles must be connected to each other horizontally or vertically. No 2x2 region can contain four circles of the same colour.

2.4 Sum Battleships

Place the fleet in the diagram (9 ships: 2 of length 3, 3 of length 2, 4 of length 1). Ships do not touch each other, even diagonally. The numbers give the sum of the digits in the squares occupied by parts of a ship in the corresponding row or column.

2.5 All Alone

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.

2.6 Alternate Corners

Draw a continuous loop in such a way that every second corner point should be in a square containing a circle. The loop crosses each square exactly once and must not intersect or overlap itself anywhere. The loop must turn when it passes through a square containing a circle.

2.7 Spy Hole

The floor indicated by the grid is divided in 49 rooms, all interconnected by doors. Some doors are opened, the others are closed. Each room displays a number which indicates how many rooms (including itself) can be seen from it. Draw the closed doors.

2.8 Hiroimono

Beginning at the intersection numbered 1, enter consecutive numbers into all the vacant intersections (), moving inside the diagram such that: between two consecutive numbers, you must move in a straight line either horizontally or vertically along the edges of the diagram; you can change directions after entering a number, but you cannot make a U-turn; you must enter numbers in all the vacant intersections that you encounter.

2.9 Skyscrapers

The grid symbolizes a group of skyscrapers. Each row and column contains skyscrapers of different heights (1-5). 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).

2.10 Hexagonal Fences

Draw a single continuous closed loop along the dotted lines of the diagram. A numbered cell indicates exactly how many of its six edges are used by the path.

3 Part III – WPC Less Classics – 45 minutes

3.1 Mirrors – 10 points

Place some diagonal two-faced mirrors (each the size of a square) in the grid, in such a way that the trajectory of a ray of light emitted straight into the diagram from anywhere on its boundary passes through a number of squares equal to the given value.

3.2 Cuts – 10 points

(0 points for one solved puzzle ; 5 points for two solved puzzles)

Cut the given shapes into three (four in the last puzzle) identical pieces. The pieces may be rotated and/or reflected. All cuts must be made along the dotted lines.

3.3 Triangles – 15 points

How many triangles are drawn in the figure?

3.4 Hex Paint – 15 points

(5 points if you solve one puzzle)

Paint some of the cells in the diagram in black so that the number in each cell indicates how many black cells can be found among that cell and its immediate neighbors.

3.5 Crossword Substitution – 25 points

Each letter of the alphabet has been replaced by a different value between 1 and 26. The total values of the words in the grid are indicated next to them. What is the total value of “A WPC PUZZLE” ?

3.6 Arrow Maze – 35 points

Find a path through the diagram, starting in the upper-left corner (1) and ending in the lower-right corner (36), passing through each square exactly once. The positions of steps 9 and 17 are already given. At every step you

must jump in the direction indicated by the arrow, but you may jump over as many squares as you wish (for example 18 may be entered anywhere in the left-most column).

3.7 Alignments – 40 points

Fill the circles with the numbers from 1 to 15 in such a way that the sum of the values appearing in each alignment is always the same. One number has already been entered.