# 14th 24HPC

## 14th 24 Hours Puzzle Championship

21-23rd March 2014  
Hotel Amadeus, Budapest  
Hungary

### PUZZLES BY:

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<table>
<thead>
<tr>
<th>Puzzle</th>
<th>Points</th>
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<tbody>
<tr>
<td>Twins</td>
<td>45 points</td>
</tr>
<tr>
<td>Navigation Sudoku</td>
<td>55 points</td>
</tr>
<tr>
<td>Number Link</td>
<td>25 points</td>
</tr>
<tr>
<td>Minesweepers</td>
<td>30 points</td>
</tr>
<tr>
<td>Encrypted Mines</td>
<td>40 points</td>
</tr>
<tr>
<td>Water and Fire</td>
<td>70 points (30+40)</td>
</tr>
<tr>
<td>Digital Sudoku</td>
<td>30 points</td>
</tr>
<tr>
<td>Scrabble</td>
<td>70 points</td>
</tr>
<tr>
<td>Tetrascope</td>
<td>45 points</td>
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<tr>
<td>The Persistence of Memory</td>
<td>85 points (35+50)</td>
</tr>
<tr>
<td>Spy Battleships</td>
<td>110 points</td>
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<tr>
<td>Kuromasu</td>
<td>75 points (45+30)</td>
</tr>
<tr>
<td>Domino Kakuro</td>
<td>65 points</td>
</tr>
<tr>
<td>Hakoiri</td>
<td>90 points (20+30+40)</td>
</tr>
<tr>
<td>Little Killer Sudoku</td>
<td>90 points</td>
</tr>
<tr>
<td>Voyage for Fine Wine</td>
<td>75 points (75-15)</td>
</tr>
</tbody>
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Total: 1000 points

### PUZZLE IDEAS WERE OBTAINED AS FOLLOWS:

- Navigation Sudoku: Brands 2013 Sudoku
- Encrypted Mines: Erich Friedman
- The Persistence of Memory: Serkan Yurekli
- Spy Battleships: Diogen
- Hakoiri, Number Link, Kuromasu: Nikoli
- Domino Kakuro: Tim Peeters
1. **TWINS**  
**45 POINTS**  
Ignoring their rotations, find the 2 pictures that forms a match. Differences are reasonably visible and will not be based on colours.

![TWINS Image](image)

2. **NAVIGATION SUDOKU**  
**55 POINTS**  
Fill in numbers from 1-9 so that no numbers repeat in each row, column and bolded 3x3 region. The numbers in the 2nd and 4th column indicates the nth column that the number 2 and 4 appear in that row respectively.

```
1 5 8
6 5
7 2
8 1
```

![Sudoku Grid](image)

3. **NUMBER LINK**  
**25 POINTS**  
Draw straight lines connecting adjacent cells from one number to its identical partner. No lines may overlap or cross diagonally.

![Number Link Grid](image)

4. **MINESWEEPERS**  
**30 POINTS**  
Locate a number of mines in the grid. Numbers in the grid represent the amount of mines surrounding that square. There can only be one mine in each cell. Mines cannot occupy cells with numbers in them.

![Minesweepers Grid](image)
5. ENCRYPTED MINES  
40 POINTS
Locate a number of mines in the grid. Letters in the grid stand for different numbers. Each number can only be represented by one letter, all possible numbers are given. Numbers in the grid represent the amount of mines surrounding that square. Mines cannot occupy cells with letters in them.

6. WATER AND FIRE  
30 + 40 POINTS
Divide the grid into regions of orthogonally adjacent cells. All regions will contain letters that spell out either WATER or FIRE.

7. DIGITAL SUDOKU  
30 POINTS
Fill in the grid with numbers from 1-6 in digital form so that no digit repeats in any row, column or 3x2 bolded region. Some fragments of the digital forms are already given. Example taken from Cihan Altay in USPC 2005

8. SCRABBLE  
70 POINTS
Fill in the grid with 24 listed words reading left-right and top-bottom. No unlisted word may be formed. All words must link. All As are given. Only 8 words shown in the example.
9. TETRASCOPE 45 POINTS
Locate a set of tetrominioes in the grid. Pieces may be rotated but not reflected. Numbers in the centre of four cells represent how many of that four cells are occupied by tetromino pieces. Pieces may not touch each other, not even diagonally.

10. THE PERSISTENCE OF MEMORY 35 + 50 POINTS
Locate a snake, travelling vertically and horizontally, in the grid. The snake will pass through all grey regions. The path that the snake makes in a region will be repeated in other identical regions (without rotation or reflection). The snake may not touch itself, even at a point. The head and tail is given. Example taken from Serkan Yurekli’s “Puzzle Robot”

11. SPY BATTLESHIPS 110 POINTS
Locate the fleet of battleships in the grid. No ships touch each other, not even diagonally. All you have is 4 satellite photos of the completed grid. Photos can be rotated but not reflected. Photos do not overlap. You don’t have to show where each photos are. Ships may not occupy cells with waves.

12. KUROMASU 45 + 30 POINTS
Shade in some empty cells so that each number represents the number of cells that can be seen horizontally and vertically from that cell, including the cell itself. Black squares cannot be orthogonally adjacent to each other. In the end, all white cells must interconnect. Example taken from Nikoli
13. DOMINO KAKURO  65 POINTS
Place the given domino set into the grid so that the sum in each consecutive rows and columns match their corresponding value. Numbers may not repeat in the same sum. Once all numbers are filled in, mark the locations of the dominoes. Each domino is used exactly once.

14. HAKOIRI  
20 + 30 + 40 POINTS
Place one of each shapes (circle, square and triangle) in each region so that all cells containing a shape are orthogonally connected. Identical shapes may not touch each other, not even diagonally. 
*Example taken from Otto Janko’s “Ratsel und Puzzles”*

15. LITTLE KILLER SUDOKU  
90 POINTS
Fill in the grid with numbers from 1-9 so that no digit repeats in any row, column, 3x3 bolded region and the two main diagonals. Numbers that appear outside the grid indicate the sum of all numbers in that diagonal. 1-6 is used in the example.

16. VOYAGE FOR FINE WINE  75 POINTS
Find all the listed words, they can go in any straight direction (horizontally, vertically or diagonally). You get 75 points minus 15 for every word you don’t find. There will be no negative points.