

Senec - Slovak Republic / 16. 10.-23. 10. 2016

Name: $\qquad$
Team: $\qquad$ Number: $\qquad$

1. Loopfinder .................................................................. 21 points
2. Loopfinder

24 points
3. Skyscrapers ................................................................ 10 points
4. Skyscrapers ................................................................ 103 points
5. Arrows ........................................................................ 27 points
6. Arrows ......................................................................... 28 points
7. Fences ....................................................................... 14 points
8. Fences ........................................................................ 22 points
9. Starbattle ..................................................................... 13 points
10. Starbattle ..................................................................... 28 points
11. Battleships ................................................................... 37 points
12. Battleships ................................................................... 67 points
13. Cave ............................................................................ 56 points
14. Cave ............................................................................ 65 points
15. Fillomino ...................................................................... 56 points
16. Fillomino ....................................................................... 90 points
17. Minesweeper ............................................................... 15 points
18. Minesweeper ............................................................... 31 points
19. Tapa ............................................................................. 58 points
20. Tapa ............................................................................. 55 points
21. Magnets ....................................................................... 32 points
22. Magnets ...................................................................... 85 points
23. LITS ............................................................................. 23 points
24. LITS ............................................................................. 51 points
25. Anglers ......................................................................... 28 points
26. Anglers ......................................................................... 52 points
27. Nurikabe ...................................................................... 32 points
28. Nurikabe ....................................................................... 77 points

TOTAL: 1200 points

|  |  |  |
| :--- | :--- | :--- |

## 1. - 2. LOOPFINDER (21 + 24 points)

Draw a single closed loop that travels horizontally and vertically through all of the white cells. The loop cannot touch or cross itself. Some parts of the loop have already been given.


## 3. - 4. SKYSCRAPERS ( $10+103$ points $)$

Place a number from 1 to 6 ( 1 to 8 in the bigger puzzle) into each cell so that no digit is repeated within any row or column. Each number in the grid represents the height of a skyscraper. The clues outside of the grid indicate how many skyscrapers can be seen when looking from the corresponding direction. Higher skyscrapers block the view of smaller ones.


## 5. - 6. ARROWS ( $27+28$ points)

Place exactly one arrow into each of the cells outside the grid. Numbers inside the grid indicate how many arrows point to the cell in the grid. An empty cell inside the grid means that the number of arrows pointing at it is unknown. Each arrow has to point at at least one gridcell in one of the given eight directions.


## 7. - 8. FENCES (14 + 22 points)

Draw a single continuous loop along the gridlines. A clue in a cell indicates how many edges of that cell are used for the loop. The loop may not touch or cross itself.


## 9. - 10. STARBATTLE ( $13+28$ points)

Place some one-cell size stars into the grid so that each row, column and outlined area contains the given number of stars. The cells containing stars cannot touch each other, not even diagonally. The number of stars will be given in a circle next to the puzzle.


## 11. - 12. BATTLESHIPS ( $37+67$ points)

Locate the given fleet in the grid. The ships cannot touch each other, not even diagonally. The ships may be rotated. The clues outside the grid indicate the number of ship segments in the corresponding row/column. If a cell is marked with $X$, then no segment of any ship can be placed in this cell.


## 13. - 14. CAVE (56 + 65 points)

Shade some cells in the grid to form a single orthogonally connected shape. All unshaded cells must be connected to the edge of the grid through orthogonally adjacent unshaded cells. All given numbers must be a part of the shaded shape. The given numbers indicate the number of cells inside the shape that can be seen from that cell, including the cell itself. Cells do not see past unshaded cells.

| 3 |  | 6 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 4 |  | 4 |  | 6 |  |  |  |
|  |  | 5 |  | 3 |  |  |  |  |
| 6 |  |  |  |  |  |  | 3 |  |
|  | 3 |  | 2 |  | 6 |  |  |  |



| 8 |  |  |  | 3 |  |  |  | 3 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 3 |  |  |  | 7 |  |  |  |  |



## 15. - 16. FILLOMINO (56 + 90 points)

Divide the grid along the given lines into regions so that no two regions with the same area share an edge. Each given number must represent the area of the region it belongs to. A region may contain none, one, or more of the given numbers. Only the solutions that are consistent within the whole grid will be accepted. If all borders are marked it is enough, as well as if all digits are written.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  | 8 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 |  |  |  |  |  |  |  |  | 8 |  |  |
|  | 8 |  | 8 |  |  |  |  | 8 |  |  |  |
| 1 |  | 7 |  |  |  |  | 7 |  |  | 8 | 8 |
|  | 8 |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  | 3 |  |  |
| 1 |  | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |  |

$\square$
$\square$


| 1 | 5 | 6 | 2 | 2 | 6 | 3 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 9 |  |  |  |  |  |  | 4 |
| 5 | 5 | 3 | 4 | 4 | 2 | 2 | 7 |
|  | 2 | 7 | 5 | 4 | 3 | 6 | 3 |
| 9 |  |  |  |  |  |  | 7 |
| 9 | 5 | 4 | 8 | 6 | 6 | 2 | 2 |



## 17. - 18. MINESWEEPER (15 + 31 points)

Place some one-cell sized mines into the grid so that each number in the grid represents the number of mines in the diagonally or orthogonally neighbouring cells. Cells with numbers cannot contain mines and each cell can contain at most one mine.

| 2 | 3 | 1 | 4 | 2 |
| :--- | :--- | :--- | :--- | :--- |
| 2 | 4 | 3 | 2 | 2 |
| 4 | 5 | 3 | 3 | 3 |
| 3 | 6 | 4 | 5 | 1 |
| 2 | 3 | 1 | 3 | 1 |

$\square$
$\square$
$\square$

|  | 3 |  |  |  | 2 |  | 3 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2 |  |  | 3 |  |  | 2 |  |  | 4 |  |



## 19. - 20. TAPA (58 + 55 points)

Shade some cells in the grid to create an orthogonally connected region of shaded cells. Numbers in a cell indicate the lengths of consecutive shaded blocks in the cells neighbouring orthogonally or diagonally. If there is more than one number in a cell, there must be at least one white cell between each two shaded blocks. Shaded cells cannot form a $2 \times 2$ square. Cells containing numbers cannot be shaded.




## 21. - 22. MAGNETS (32 +85 points)

Place some magnets into the given grid so that the number of positive and negative poles in each row or column is equal to the number given outside the corresponding row or column. Each magnet consists of one positive and one negative pole. The poles with the same charge cannot touch each other orthogonally.

$\square$


## 23. - 24. LITS ( $23+51$ points)

Shade 4 cells in each of the outlined regions so that they are orthogonally connectedwithin each region, forming the shape of one of the letters L, I, T or S. Identical pieces may not touch each other orthogonally. The shapes can be rotated and/or mirrored, but they are still considered the same shape. All the shaded cells must be interconnected. Shaded cells cannot form a $2 \times 2$ square.


## 25. - 26. ANGLERS (28 + 52 points)

The grid represents a lake and some squares contain a fish. There are a few anglers sitting around the lake, each of whom have caught a fish. The cords only travel horizontally or vertically and do not cross or overlap themselves or each other. Numbers outside the grid indicate the lengths of the cords that connect the given anglers with their fish, including the cell with the fish. Each cell belongs to exactly one cord. Each fish have been caught by exactly one angler.



4

8

$\begin{array}{llll}6 & 8 & 12 & 14\end{array}$

| 6 | 8 | 12 | 14 |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

## 27. - 28. NURIKABE (32 + 77 points)

Shade some empty cells so that the grid is divided into white areas, each containing exactly one number and with the same area in cells as that number. Two white areas may only touch diagonally. All black cells must be orthogonally connected with each other, but no $2 \times 2$ group of cells can be entirely shaded.

|  |  |  | 2 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | 5 |  |  |  | 6 |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  | 8 |  |  |  | 2 |
|  |  |  |  | 2 |  |  |  |
|  |  | 3 |  |  |  | 5 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  | 5 |  |  |  |



| 1 | 2 | 4 | 2 |  |
| ---: | ---: | ---: | ---: | ---: |
| 2 | 3 |  | 3 | 1 |
| 2 | 7 | 6 | 2 |  |
| 3 |  |  |  |  |



