# DON'T WORRY, 

BE HAPPY;-)

## Instruction Booklet

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After many puzzle tests at LMI in recent months (and WPC of course), we go back to "Classic puzzles" in this test. It means that there will be plenty of classic puzzles (like Star battle, LITS, Slitherlink, Masyu, Tapa etc.) in this test which are very well known in our puzzle community. So take it easy and singing "Don't worry, be happy ..."

Some notes about the test

- This test consists of 15 puzzle types; each type is represented by one puzzle. Two types (Rectangles ? and Untouch Yajilin) have minor rule changes compared to their classic versions.

| Fillomino | 43 |
| :---: | :---: |
| Snake | 27 |
| Kakuro | 110 |
| Akari | 7 |
| LITS | 29 |
| Battleships | 62 |
| Masyu | 20 |
| Slitherlink | 23 |


| Rectangles ? | 49 |
| :---: | :---: |
| Tapa ? | 30 |
| Star battle | 55 |
| Different neighbours | 95 |
| Tents | 48 |
| Untouch Yajilin | 74 |
| Hamle | 78 |
| Total | $\mathbf{7 5 0}$ |

- Instant Grading will be enabled for this test. Using Instant Grading, a solver will immediately know if the submitted solution is correct or not.
- Each wrong submission will be penalized, with $25 \%$ of the puzzle value. So the puzzle becomes 0 points after the $3^{\text {rd }}$ wrong submission.
- Players submitting all puzzles correctly will get 10 points bonus per minute saved (computed upto seconds)


## Acknowledgements

- Thanks to Matúš Demiger (greenhorn) and Fred Coughlin (connect4) for test-solving
- Thanks to Logic Masters India for hosting this contest


## Fillomino

Place a number in each cell of the grid, so that each number is contained in a polyomino of that size. Polyominoes of the same size must not be adjacent via a common cell-edge.

Answer key: For marked rows write the numbers in cells.
For example: 34447, 34447


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

## Snake

Locate a snake in the grid, whose head and tail are given. The snake does not touch itself even at a point. Numbers outside the grid indicate number of snake segments in the corresponding direction. Cells with $X$ should be considered as empty.

Answer key: Enter the lengths of "painted" and "unpainted" blocks in the marked rows.
For example: 41, 14


## Kakuro

Place a digit from 1-9 in each white cell in the grid so that the sum of each horizontal/vertical group of cells equals the number given on its left/top. Digits must not repeat within any sum.

Answer key: For marked columns write the digits used in cells (ignore black cells).
For example: 5897, 123


## Akari

Place light bulbs in some white cells in the grid so that every white cell in the grid is lit. A cell is illuminated by a light bulb if they are in the same row or column, and if there are no black cells between them. No light bulb may illuminate another light bulb. A number in a black cell indicates the number of light bulbs sharing an edge with that cell.

Answer key: For every row write the column number of left most bulb. If no bulb, enter X.
For example: 34521


## LITS

Place one of the four tetrominoes ( $\mathrm{L}, \mathrm{I}, \mathrm{T}$ and S ) in each marked region of the grid. Tetrominoes of the same shape, including both rotations and reflections, must not be adjacent via a common cell-edge. The resulting shaded cells in the grid must form a connected area via horizontal or vertical paths, and there must not be any $2 \times 2$ area of completely shaded cells.

Answer key: Enter the lengths of "painted" and "unpainted" blocks in the marked rows.
For example: 212, 131


## Battleships

Locate the position of the given fleet in the grid. The numbers outside the grid indicate the number of cells occupied by ships in that direction. Ships cannot touch each other, not even diagonally. Cells with $X$ should be considered as water. Some parts of ships are given in advance.

Answer key: For every row write the column number of left most ship segment. If no ship, enter $X$.
For example: X2X2X

2


2


## Masyu

Draw a single closed loop passing through all circles in the grid. The loop cannot touch or cross itself. The loop must make a turn at all black circles and go straight for at least two cells in both directions before turning again. The loop must go straight through all white circles and turn immediately before and/or after in the next cell.

Answer key: For marked rows write the longest horizontal line segment. If no horizontal line, enter 0.
For example: 0, 1


## Slitherlink

Draw a single closed loop which connects some of the dots horizontally or vertically. The loop cannot touch or cross itself. Numbers indicate how many edges of that cell are used by the loop.

Answer key: For marked rows write the longest horizontal line segment. If no horizontal line, enter 0.
For example: 1, 1


## Rectangles ?

Divide the grid into rectangles so that each rectangle contains exactly one number, and so that each number represents the number of cells of its corresponding rectangle. Some non-zero numbers are replaced by ? mark.

Answer key: For marked rows write the number of rectangles.
For example: 3, 3


## Tapa ?

Paint some empty cells black to create a continuous wall. Number/s in a cell indicates the length of black blocks on its neighbouring cells. If a cell has more than one number, there must be at least one white cell between the black blocks. No 2X2 square can contain only painted cells. Some non-zero numbers are replaced by ? mark

Answer key: Enter the lengths of "painted" and "unpainted" blocks in the marked rows.
For example: 14,122


## Star battle

Place 2 stars (1 in the example) in every row, every column and every outlined region. Stars don't touch each other orthogonally or diagonally.

Answer key: For every row write the column number of the left most star.
For example: 24135


## Different neighbours

Fill the grid with numbers 1 to 4 , so that cells with the same numbers don't touch each other, not even diagonally. Some cells are merged, but they contain only 1 digit.

Answer key: For marked rows write the digits used in cells.
For example: 3234, 4121


| 1 | 4 |  | 1 |
| :--- | :---: | :---: | :---: |
| 3 | 2 |  |  |
| 3 | 2 |  |  |
|  | 3 | 4 |  |
| 4 | 1 | 4 |  |
|  |  | 2 | 1 |
| 2 | 3 | 4 | 3 |

## Tents

Place one tent horizontally or vertically next to each tree. Tents do not touch, not even diagonally. The numbers outside the grid indicate the number of tents in that row or column.

Answer key: For every row write the column number of left most tent. If no tent, enter X.
For example: 3X1X3
2

2


## Untouch Yajilin

Draw a single closed loop passing through some cells in the grid. The loop cannot touch or cross itself. In addition to the numbered cells, there will be some blackened cells that the loop will not visit. The numbered cells indicate the number of black squares in direction of arrow. Black squares cannot touch each other, even diagonally. Numbered cell cannot be blackened.

Answer key: For marked rows write the longest horizontal line segment. If no horizontal line, enter 0.
For example: 1, 2


## Hamle

Move every numbered cell in one of the four directions, so that numbers indicate the length of the move. When all moves are done, all white cells should be interconnected and cells with numbers should not touch each other by sides. For this puzzle, an empty grid will be available for better solving.

Answer key: For every row write the number of cells with number.
For example: 12202

|  |  | 1 |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | 2 |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| 3 | 2 | 1 | 2 | 4 |



