## Author's Note (regardless of the universe the author is from) :

This Instruction booklet contains the exact same types but just presented in a different (maybe interesting) way. Consider this as a "Translation" for another Universe. It is the same contest explained and presented in a different way, just for fun. The Puzzle Booklet will contain 18 Puzzles across the 18 sub-types given. The contest is a normal 121 minute contest.


Hello, dear solvers!
After his Sudoku Contest, Parallel Universe, made the Inter-Dimension Puzzle Wizard contact me, I was actually very interested by the overlaps and similarities of our two Universes. So when Prasanna of your universe asked me if I can show him some puzzle types to see if we can do something similar for puzzles, I jumped at the opportunity! Apparently just like you folks have wacky ideas in Sudoku, you have them in Puzzles too! It's weird, I tell you! Anyway, this PDF, like the one in the Sudoku Contest, is meant as a translation of the differences, so that the people of my Universe can make the transition more easily, in case someone here wants to take the test (you'll never believe who topped Parallel Universe I rankings here! He was close to the top in your Universe too, but I can't reveal his name as the Wizard says that will crash the timespace continuum). Anyways, Welcome to Parallel Universe II - Inversion Invasion!

Note : Points table will be released by Thursday.

- The duration of the test is 121 minutes.
- The distribution of points is based on the times needed by test solvers. Therefore, you might experience differences due to your own personal skills and preferences.
- This test uses Instant Grading where a solver can submit any individual puzzle once finished and receive confirmation on whether it's correct or not.
- The first, second, third and fourth incorrect submission reduces the potential score to $90 \%, 70 \%, 40 \%$ and $0 \%$ respectively (and remains at $0 \%$ after this).
- If all solutions are submitted correctly, then the final score is calculated by the formula: Final Score = Total Points / Used Time * 121 minutes.
- The Puzzle Booklet will contain 9 pages.
- Their answer keys are weird! We obviously enter from bottom to top column-wise, but they seem to mark rows and expect a left-right format. Some of the other keys are weird too so please read them very carefully!

Thanks to your Universe's Tiit Vunk and Vladimir Portugalov for testing and valuable feedback. Also thanks to your Universe's Yuhei Kusei for helping your Universe's Prasanna for translating some of our names to make it seem as if they aren't the original (conspiracy!). Our testers were busy preparing for the $-23^{\text {rd }}$ Universe Puzzle Championship.

Good Luck and Enjoy the contest!

| Points Table |  |
| :---: | :---: |
| Wacky Masyu | 40 |
| Masyu | 55 |
| Pata-Like Loop | 55 |
| Tapa-Like Loop | 35 |
| LITS | 65 |
| STILO | 70 |
| Different Eggs | 65 |
| Snake Egg | 65 |
| Star Battle | 40 |
| Star Wars | 65 |
| Heyawake | 100 |
| Akichiwake | 110 |
| Fill-Own-Mino | 45 |
| Fillomino | 110 |
| Myopic Pentominoes | 50 |
| Hypermetropic Pentominoes | 60 |
| Kakuro de Hito-keta | 50 |
| Kakuro | 130 |
| Total | 1210 |

## Base Rules

Draw a single closed loop connecting the centers of cells horizontally and vertically. The loop doesn't touch or cross itself anywhere. The loop runs through all black and white circles.

## Wacky Masyu

The loop turns in every black circle and goes straight through both adjacent squares. The loop goes straight through every white circle and turns in at least one adjacent square.


Masyu
They mixed up the functionalities a bit, but theirs is really similar to our Masyu: The loop turns in every black circle and goes straight through in at least one adjacent square. The loop goes straight through every white circle and turns in both adjacent squares.


Answer Key for both - Enter the maximum length of loop segment in the marked rows. The answer for the examples would be 023 for the Wacky Masyu and 212 for the Masyu

## Base Rules

Draw a single non-intersecting closed loop passing through the centers of cells traveling horizontally and vertically. There is no $2 \times 2$ rule of Tapa in this puzzle.

## Pata-Like Loop

Clues represent the number of neighboring cells visited by a continuous loop segment; if there is more than one number in a cell, each number should be represented with a separate loop segment.


## Tapa-Like Loop

Apparently they call this version Pata like and the other Tapa like! And their Serkan came up with what we call Pata first but called it Tapa just like our Serkan named the original of this puzzle as Tapa! Anyway, as we know, clues represent the number of neighboring cells not
visited by the loop; if there is more than one number in a cell, each number should be represented with a separate empty space, separated by the loop. There is no restriction on number of loop segments around a clue.


Answer Key for both - Enter the maximum length of loop segment in the marked rows. The answer for the examples would be 410 for the Pata-Like Loop and 210 for the Tapa-Like Loop

## Base Rules

All shaded cells are connected with each other. No $2 \times 2$ group of cells can be entirely shaded. When two "shapes" (tetrominoes formed by a group of 4 continuous cells) in adjacent regions share an edge, they must not be of the same type, regardless of rotations or reflections.

## LITS

The shaded cells must form the "shapes" (unshaded cells can too, but are irrelevant to the ruleset) in each region. Therefore, each region must contain exactly 4 continuous shaded cells, in the shape of $\mathrm{L}, \mathrm{I}, \mathrm{T}$ or S (because of the $2 \times 2$ rule, O is not possible).


## STILO

At least they call these the same names we do, but again, apparently they had LITS before STILO! I mean how could you have the one using just 4 shapes before the one with all 5 shapes... The unshaded cells must form the "shapes" (shaded cells can too, but are irrelevant to the ruleset) in each region. Therefore, each region must contain exactly 4 continuous unshaded cells, in the shape of $\mathrm{S}, \mathrm{T}, \mathrm{I}, \mathrm{L}$ or O .


Answer Key for both - Enter the longest shaded group in the marked rows. The answer for the examples would be 251 for the LITS and 210 for the STILO

## Base Rules

Locate a snake, passing through empty cells and black circles. The snake cannot touch itself orthogonally, but can touch itself diagonally. The remaining cells form islands.

## Different Eggs

There are exactly 2 black circles, which are the head and tail. The islands must all be of different sizes, ranging from 1-12 (1-9 in the example). The numbers indicate size of the island they're a part of.


## Snake Egg

Ok, here, their version seems simpler, I'll give them that. Kudos! Anyway, there are multiple black circles, any two of which will be the head and tail (it is up to the solver to determine). The snake must pass through all other black circles too. The islands must all be of the same size, and it is up to the solver to determine the size. Each island can contain 0 or 1 white circle, and all white circles must be part of islands.


Answer Key for both - Enter the total number of cells visited by the snake in the marked rows. The answer for the examples would be 5, 4, 8 for Different Eggs and 3, 3, 0 for Snake Egg. Enter the digit in the units place in case of double digit numbers.(e.g. " 1 " in case of " 11 ")

## Base Rules

Place 2 (1 in the example) stars in every row and column. Stars cannot touch each other, even diagonally.

## Star Battle

There are 2 (1 in the example) stars in each thickly outlined region.


Star Wars
I feel theirs has more claim to be the original here too, but still like ours more! What shocked me is, apparently they have a movie series called Star Wars, where the story would seem like a blatant rip-off of our Star Battle series, but it came out around the same time!
There can be any number of stars except 2 (except 1 in the example) in each thickly outlined region, including 0.


Answer Key for both - In each row, enter the column number of the first star from the left. The answers for the examples would be 524613 for Star Battle and 524613 for Star Wars

## Base Rules

Shade some cells. Shaded cells are not allowed to touch each other orthogonally. The remaining white area has to be connected. The white area can't span over two consecutive boundaries in a single row or column.

Heyawake
The numbers indicate number of shaded cells in a region.


## Akichiwake

Instead of providing information on vacant spaces, which is what Akichi means, they directly give the number of black cells in the original. This is just STILO-LITS all over again! The numbers indicate the maximum possible continuous white area within a region. There need not be an area equal to this value, the only restriction is there can be no area larger than the value connected within the region.


Answer Key for both - In the marked rows, enter the number of shaded cells. The answers for the examples would be 221 for Heyawake and 213 for Akichiwake

## Base Rules

Divide the grid along the dotted lines into regions called polyominoes so that no two polyominoes with the same area share an edge.

Fill-Own-Mino
Each number must represent the area of the polyomino it belongs to. A polyomino may contain zero, one, or more of the given numbers.


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

Fillomino
We haven't even thought of this normal filling thing they have above yet! What's wrong with us?
This will help attract beginners to our contests. Thank you, other Universe!
The numbers in a cell represent the sizes of all different polyominoes orthogonally touching that cell (it can be touched multiple times by a same polyomino, but will still count just once in the clue). The clue itself can belong to a polyomino of any size as long as it follows base rules. A polyomino may contain 0 or 1 clue cell.


Answer Key for both - In marked rows, enter the number of cells occupied by each separate region that's a part of that row (if a region appears in the same row in different instances, enter the number each instance). The answers for the examples would be 21111, 21111, 2211 for Fill-Own-Mino and 11112, 1311 for Fillomino

## Base Rules

Place pentominoes (not necessarily all 12, the listing is for letter reference) in the grid without repeating any shape. Rotations and reflections are considered the same shape. The pentominoes are not allowed to touch, not even at the corners.


## Myopic Pentominoes

The lines in the grid indicate the direction(s) in which the pentominoes is/are closest when looking from that square.


Hypermetropic Pentominoes
In other words, what we call Pentopia. Apparently they call the above Pentopia, and instead of the loop type Hypermetropia, they have Myopia!
The lines in the grid indicate the direction(s) in which the pentominoes is/are furthest away when looking from that square (which could be adjacent cells too). The other directions will either have pentominoes that are closer or no pentominoes at all.


Answer Key for both - In marked rows, enter the letter of the first 2 shapes appearing, in order of appearance from left to right. Use '-' to fill in inadequate keys. The answers for the examples would be W-, VW for Myopic Pentominoes and L-, F- for Hypermetropic Pentominoes

## Base Rules

Place the digits 1-9 (1-5 in the examples) in the white cells. The clues give sums for the direction of the arrow, either across or down. Digits cannot repeat within a row/column of continuous white cells (uninterrupted by a black cell/grid edge).

## Kakuro de Hito-keta

The sums count each cell as an individual digit.


Kakuro
I still can't believe they have a Kakuro with just single digit numbers instead of double figures, which is what Ni-keta means! So I made the above Hito-keta (single figure) to make the distinction clear to us.
For any area with more than 2 cells, some cells can be grouped together as 2-digit numbers while reading the sum. The 2-digit numbers must be read across or down only (e.g. 81 cannot count as 18 for its sum).


Answer Key for both - There are some circles marked in the grid. Enter the number appearing in the circles column-wise from left to right. The answers for the examples would be 211 for Kakuro de Hito-keta and 1242 for Kakuro

