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Many thanks to Ashish Kumar, Rakesh Rai, Stefano Forcolin for testing puzzles.

Tapa Rules: Shade some empty cells black to create a single connected wall. Numbers in a cell indicate the length of consecutive shaded blocks in the neighboring cells. If there is more than one number in a cell, then there must be at least one white (unshaded) cell between the black cell groups. Cells with numbers cannot be shaded, and the shaded cells cannot form a $2 \times 2$ square anywhere in the grid.

## TVC 2021 Scoring System:

i. The best 3 results out of 4 will be considered in the final ratings.
ii. Time bonus will be applied.
iii. Total points of each test will be 1000 points. After each test, the scores will be normalized such as the best player gets 100 points, other players' scores calculated accordingly.

TVC 2021 General Answer Format: Write the lengths of seperate blackened cell blocks in the marked rows and columns.
The answer for the example would be: 111, 3, 111
*If the puzzle has a different answer format, it will be stated on the page.


TVC Structure: The series has a unique structure, the best 3 of 4 , extra time, penalty points, previously on TVC and the poll.
Duration: 75 minutes
Extra time: 5 minutes
Penalty points: When you submit any (right/wrong) answer during extra time, you will be penalized for 5 points per minute.
The poll: After TVC XXII, we will give chance to all participants to select 5 variations for next TVC.
Time bonus: A competitor submitting all puzzles correctly before the duration is up will earn 3 bonus points per remaining minute. Time bonus will be computed only after "Claim Bonus" is clicked.
Best 3 of 4: TVC started with "Best 3 of 4 rule", because in that time we couldn't organize the competitions with time flexibility. So everyone couldn't have a chance to participate in all TVC's regularly in exact time and date. So we ran Best 3 of 4 rule. We know that this is not necessary anymore because LMI has great infrastructure; but as we noticed Best 3 of 4 is a trademark of TVC Series. Therefore it will be applied in 2021 competitions too.
Puzzle file: Puzzle file will not contain examples.
TVC 2021 Schedule:
TVC XXI - 09/14 April 2021
TVC XXII - 25/30 June 2021
TVC XXIII - 06/11 August 2021
TVC XIV - 03/08 September 2021

## 1. Power of Tapa (38)

Standard Tapa rules. Additionally, for each clue cell, take the set of numbers either as separately (hence giving a multi-number clue), or as input values to the exponentiation (hence giving a single-number clue).
Note: $0^{0}$ is undefined and won't be used. Otherwise, $a^{0}=1 ; 1^{b}=1 ; 0^{c}=0 ; d^{1}=d ; e^{f^{9}}=e^{\left(f^{9}\right)}$.
Example:


## 2. Tapa Rundweg (57+51)

Draw a single, non-intersecting loop that only consists of horizontal and vertical segments between the dots. All cells inside the loop count as shaded cells, all cells outside the loop count as unshaded cells. Numbers inside the loop indicate how many of the edges of that cell are part of the loop.
Numbers outside the loop are standard Tapa clues.
Example:


## 3. Mad Max Tapa (7+17)

Rules: Follow regular Tapa rules. Additionally, paint the maximum number of cells black within the restrictions of Tapa rules.

## Example:



## 4. Tapa Pentopool (91)

Follow Tapa rules. Additionally, all unpainted cells of the two grids should form the given pentomino set, six pieces per grid (four for the example). The pentominoes may be rotated and/or mirrored, and cannot touch each other from the sides, but they may touch diagonally. There are no wall or pentomino pieces on cells containing numbers.

## Example:

|L'申ти」a'

|  | $1_{1} 1$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | 1 |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  | 4 |  |  |


|  |  | 2 | 2 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |




## 5. Transparent Tapa (117+62)

Follow regular Tapa rules. Additionally, the clues can also be blackened. This means every clue is valid for all 9 cells including itself, not just the 8 neighbouring cells.

Example:

|  |  |  |  | 4 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $1_{1}{ }^{1}$ |  | $1_{4}$ |  |  | 3 |  |
|  |  |  |  | ${ }_{2}^{2}$ |  |  |  |
|  |  |  |  |  |  | $1_{3}$ |  |
|  | 6 |  |  |  |  |  |  |
|  |  |  | 6 |  |  |  |  |
| 5 |  |  | $1_{3}$ |  | 3 |  |  |
|  |  |  | $1_{2}$ |  |  |  |  |



## 6. Neanderthal Tapa (44+112)

Follow regular Tapa rules. Additionally, Neanderthals know only two kind of numbers: one (1) and many (+).

Example:

|  |  |  | $1_{+}$ |  | + |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1_{+}$ |  |  |  |  |  |  |
|  |  |  |  |  |  | 1 |
|  | $+{ }_{+}$ |  | + |  | + |  |
| $1+$ |  |  |  |  |  |  |
|  |  |  |  |  |  | $1_{+}$ |
|  | 1 |  | + |  |  |  |



## 7. Taca (95)

Standard Tapa rules apply, except that clue cells given inside the grid may be shaded, shaded clue cells give no information. Additionally, an outside clue to the right or bottom of the grid is a Tapa clue which must be placed in the first unshaded cell encountered from that direction (There must be at least one unshaded cell in that direction. It is permissible to have a given clue cell be the first unshaded cell, if it satisfies the outside clue.). An outside clue to the left or top of the grid indicates lengths of separate shaded cell blocks in that row or column, in order.

Example: 2



## 8. Diagonal Tapa (62)

Standard Tapa rules apply. Each number in a clue cell also indicates the amount of shaded cells in one of (up to) four diagonal directions of the clue cell. For multi-number clues, each number must correspond to a different diagonal. Not all diagonals of a clue cell are necessarily represented with the clue numbers.

Example:


## 9. Tapa Islands (76+81)

Standard Tapa rules apply. Also, unshaded cells form separate areas surrounded by the wall. Each separate area may contain at most one clue cell. If there is a clue cell in an area, at least one of the numbers in that clue should give the size of that area in unit squares.

Example:

|  |  |  | $1_{3}$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| ${ }^{2} 2$ |  |  |  |  | 5 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | $1_{4}$ |  |  |  |  | $1_{2}$ |
|  |  |  | 3 |  |  |  |


10. Elimination Tapa (31+59)

Exactly one number must be erased from each clue cell. Standard Tapa rules apply to the resulting grid.

## Example:

|  | ${ }^{2} 3$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | $1_{5}$ |  |
| $1_{3}{ }^{2}$ |  |  |  |  |
|  |  |  |  |  |
| $1_{3}$ |  |  | $2_{3}{ }^{2}$ |  |



Some puzzle ideas are obtained as follows:

1. Power of Tapa: Cihan Altay
2. Tapa Rundweg: Niels Miehe
3. Mad Max Tapa: Cihan Altay
4. Tapa Pentopool: Serkan Yürekli
5. Transparent Tapa: Prasanna Seshadri
6. Neanderthal Tapa: Rauno Parnits
7. Taca: Gomatamago
8. Diagonal Tapa: Rohan Rao
9. Tapa Islands: Jan Mrozowski
10. Elimination Tapa: Rauno Parnits

## GM Puzzles Tapa and Variations Books

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https://shop.gmpuzzles.com/search?q=tapa

