## The Puzzlemasters'

 Workshop (Sampler)Sections by<br>Chris Green<br>Murat Can Tonta<br>Palmer Mebane<br>Carl Worth<br>Izak Bulten John Bulten

Edited by
Thomas Snyder

GRANDMASTER PUZZLES


## Notes:

Every puzzle in this sampler has a unique solution that can be reached by logic alone.

There are 54 puzzles in the full book; these 6 samples are all the easiest puzzles in their section.
© 2019 by Grandmaster Puzzles
All rights reserved. No part of this work may be used or reproduced in any manner without written permission from the publisher.

This e-book is licensed for your personal use only. This e-book may not be resold or given away to other people. If you would like to share this e-book with another person, please purchase an additional copy for that person. If you have this e-book but it was not purchased by you or someone else for your personal use, please go to gmpuzzles.com and purchase your own copy.

Thank you for supporting the hard work of the puzzle authors who make titles like this possible.

Grandmaster Puzzles
PO Box 1356
Millbrae, CA 94030
www.gmpuzzles.com

## Inverse LITS

Background: Variation of the shading puzzle LITS, where the usual rules related to shaded tetrominoes in each region are inverted to apply to unshaded tetrominoes in each region. First explored by Bram de Laat in 2012, and now more fully explored by Chris Green.

Rules: Shade some cells black so that in each region there are exactly four unshaded cells that form an L, I, T, S, or O tetromino. When two unshaded tetrominoes share an edge across regions, they must not be the same shape regardless of rotations or reflections. All shaded cells must be connected into a single group, but no $2 \times 2$ group of cells can be entirely shaded black.

## Example by

Thomas
Snyder


1-Rectangles


## Ghost Tren

Background: Variation of the object placement/object movement puzzle Tren, with new rules that allow for unclued "ghost" blocks and require overall connectivity of white cells. This specific variation with both new rules was originally created by Murat Can Tonta in 2012 but explored much more fully here as an extension of the original Tren.

Rules: Locate some train cars in the grid having size $1 \times 2$ or $1 \times 3$. Each number in the grid should be part of a car, indicating the number of unoccupied cells the car can move to by traveling along its longest axis. No more than one number can be in a train car; cars can also be placed without any numbers, with no restrictions on their ability to move. All unused cells must be part of a single connected group.

Example by
Thomas
Snyder

|  |  |  |  |  |  | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  | 2 |  |  | 2 |
|  |  |  |  | 2 |  |  |
|  |  |  | 0 |  |  |  |
|  |  | 5 |  |  |  |  |
| 3 |  |  | 1 |  |  |  |
| 4 |  |  |  |  |  |  |



1


## Triplets

Background: An original number placement puzzle created by Palmer Mebane.
Rules: Fill each cell with a number so that all 27 three-digit numbers with digits 1, 2, or 3 are used exactly once. For each pair of cells sharing a side, the two numbers in those cells must have equal digits in exactly two of the three positions (ones, tens, or hundreds).


## Mirror Universe

Background: Variation of the region division puzzle Spiral Galaxies, with new clues indicating galaxies with mirror symmetry. This variation was created by Carl Worth.

Rules: Divide the grid along the indicated lines into connected regions - "galaxies" - so that every cell is part of one galaxy and every galaxy has one circle clue inside it. If the galaxy contains a plain circle without any lines, the galaxy must be rotationally symmetric with that circle being the center of rotational symmetry. If the galaxy contains a circle with a horizontal, vertical, or diagonal line, the galaxy must have mirror symmetry when reflecting across the line given in the circle.


1-Circle


## Surf

Background: Shading/object placement puzzle style created by Izak Bulten in 2015 and now more fully explored here. Surf was inspired by Nurikabe islands and LITS paths. Along with Turf, which is the next book section, Surf is an exploration of bicolor shading logic that can yield fruitful patterns. (John Bulten, creator of Turf, composed two puzzles for this section.)

Rules: Shade some white cells black so that the grid is divided into white and black regions. Cell with numbers cannot be shaded. Each white region must contain exactly one number and have the same area in cells as that number. Two white or two black regions may only touch diagonally. Each black region must be exactly specified by one shape graph given below the grid, where graph edges represent one-cell-wide straight paths with variable lengths, and graph nodes represent ends, turns, and branch points. Graphs can be rotated and reflected, and, if multiple graphs are given, not all need be used. (In puzzle 8, the O shape can be represented by a $2 \times 2$ square or any larger rectangular shape, using 1 -cell wide paths for each side.)

Example by John Bulten


## 1 - LITS



Shape Library: $\llcorner!!\square$

## Turf

Background: Shading puzzle style created by John Bulten in 2015 and now more fully explored here. Turf draws partially on elements from other styles like Minesweeper, and is inspired by the pseudorandom regions of bicolor tiled floors.

Rules: Shade some white cells black so that one of the grid's clues in each contiguous white or black region indicates the clued region's area. (Each contiguous region must therefore have at least one clue.) Any other clue in the region must indicate how many of the clued cell's immediate neighbors are white (up to 9, including itself).


1 - Happy Face

|  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |
|  |  | 3 | 8 |  |  | 7 | 7 |  |  |
|  |  | 1 | 7 |  |  | 6 | 8 |  |  |
| 7 |  |  |  |  |  |  |  |  | 7 |
| 4 |  |  |  | 2 | 4 |  |  |  | 3 |
|  |  |  |  | 3 | 5 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | 2 |  |  |  |  |  |  | 7 |  |
|  |  | 8 | 5 | 7 | 0 | 1 | 8 |  |  |



Ghost Tren


Mirror Universe


Surf


Turf


