

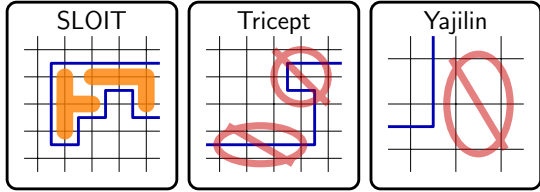
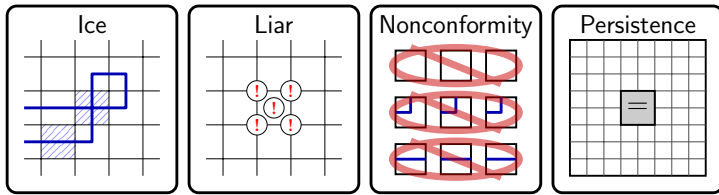
# The Fanotastic Loop Collection

On the next page are seven 8x8 loop puzzles. In each puzzle, draw a single closed loop through the centers of some of the squares. The loop may not revisit a square or cross itself, except as noted below. The seven puzzles and their rules are:

- **Slitherlink:** The circled numbers at the vertices indicate how many of the four gridlines around that vertex are crossed by the loop.
- **Balance Loop:** Loop segments extending from a white box are of equal length, while the loop segments extending from a black box are not. A number indicates the total length of those two loop segments. The loop may or may not turn in the box.
- **Castle Wall:** The loop may not pass through black or white walls. White walls must be inside the loop, and black walls must be outside. (There aren't any white walls.) A number specifies the total length of loop segments in the indicated direction.
- **Myopia:** Some diamonds appear at the vertices. Shaded diamonds point to the closest loop segments, and white diamonds don't.
- **Corral:** All boxed vertices are inside the loop. A number indicates how many vertices can be seen orthogonally, including itself.
- **Masyu:** The loop turns on each black pearl and goes straight through the squares immediately before and after. The loop goes straight through each white pearl and must turn in the square before or after (or both).
- **Tapa-Like Loop:** Clues indicate how many of the neighboring 8 squares the loop passes through consecutively. A clue with multiple numbers indicates multiple visits. Clues may not be visited.

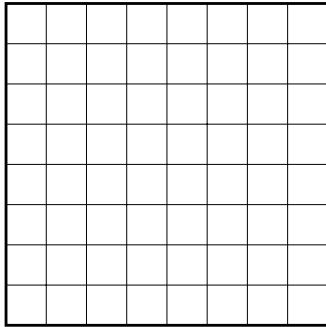
Applied to these puzzles are seven variants. The puzzles and variants form the lines and vertices of a Fano plane. Each puzzle has three variant effects, and each variant applies to three puzzles. The "lines" are represented by the sides, altitudes, and incircle of a triangle, and you must determine which variant corresponds to which line.

- **Hidden Ice:** Some squares of the grid contain ice patches, which you must locate. The loop must visit each of these ice patches and may not turn on those squares. The loop may visit an ice patch twice, crossing itself at a right angle. Ice patches are not adjacent, and are in the same location across all three puzzles with this variant. Ice patches do not occur on the outermost edge of the grid.
  - Because crossings disrupt the notion of "inside" for Castle Wall, Corral, and the SLOIT variant, a vertex should be considered "inside" the loop if there is an odd number of loop segments between it and the edge of the grid.
- **Liar Square:** One square of the grid has been corrupted with lies. All clues in that square or on the vertices of that square must be false. The square is in the same location in all three puzzles with this variant.
  - It must be possible to replace each lying clue with a valid clue. For example, a lying Castle Wall clue might have the wrong color or number, but still can't be visited; a lying Corral clue must still be inside the loop; and a lying Masyu pearl is just the wrong color.
- **Nonconformity:** If each square is labeled by whether the loop turns, is straight (including an ice crossing), or doesn't visit that square, then no square may have the same label across all three puzzles with this variant.
- **Persistence of Centrality:** Across all three puzzles with this variant, the loop must have the same pattern in the central 2x2 square.
- **SLOIT:** You must tile all interior vertices of the loop with tetrominoes. Congruent tetrominoes may not be adjacent.
- **Tricept:** For any three consecutive squares around the loop, they cannot all be turns, and they cannot all be straights.
- **Yajilin:** Cells that are not visited by the loop and do not contain a Castle Wall or Tapa-Like Loop clue may not be adjacent.



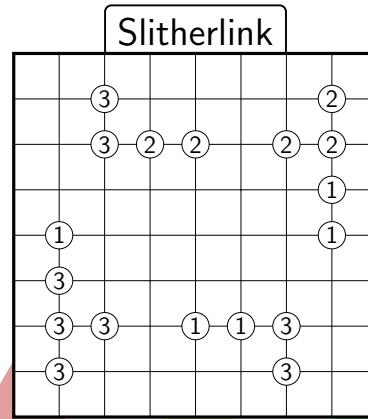
Above are reminders for the variants.

Below is a spare grid you can use to keep track of Nonconformity.

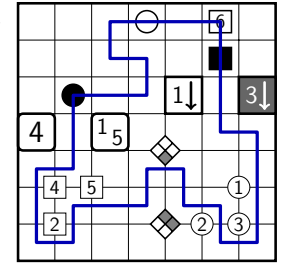


Merry solving!

By Jonah Ostroff



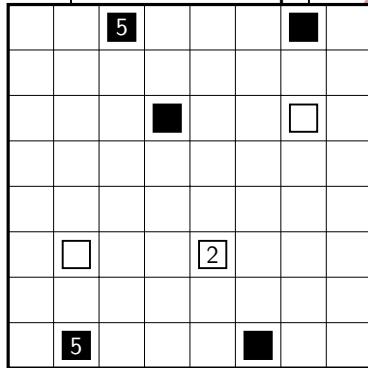
Here's a picture of how the seven puzzle types work:



Variant:

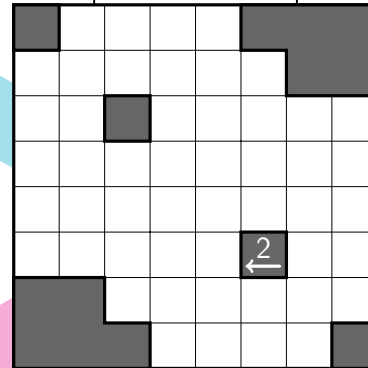
Variant:

Balance Loop



Variant:

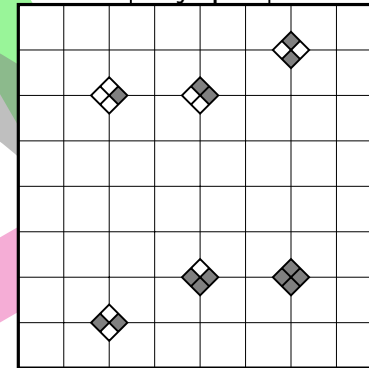
Castle Wall



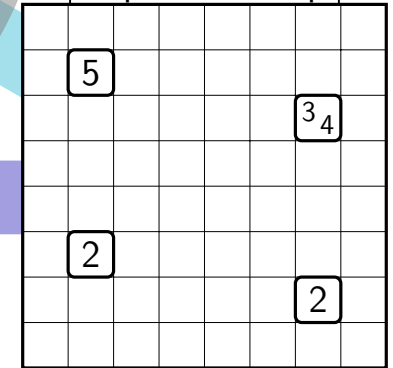
Variant:

Variant:

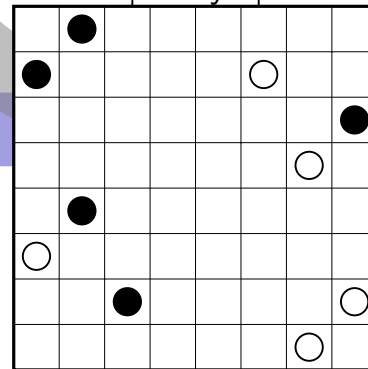
Myopia



Tapa-Like Loop



Masyu



Variant:

Variant:

Corral

