

BmMT Puzzle Round 2016

The puzzle round is a team round. You will have one hour to complete the twelve puzzles on the round. Calculators and other electronic aids are not permitted.

You are advised to carefully read the descriptions of the puzzles and compare the descriptions with the example puzzle provided with them. This way, you will understand the puzzle types fully.

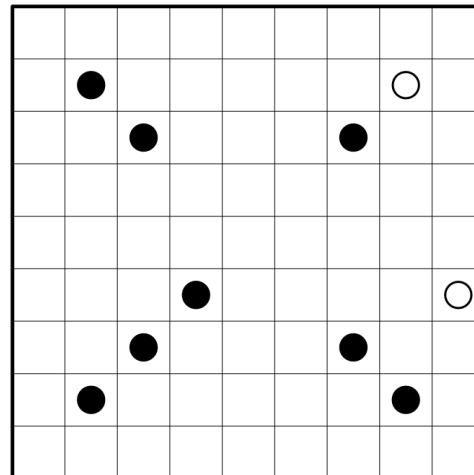
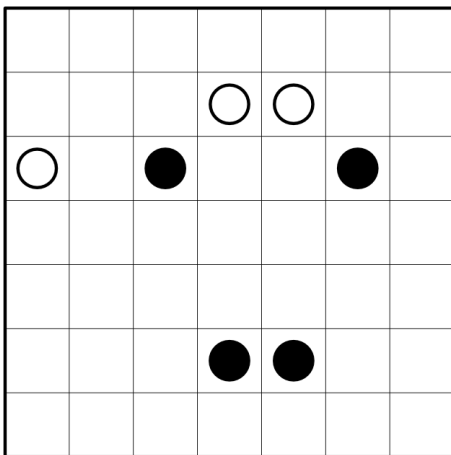
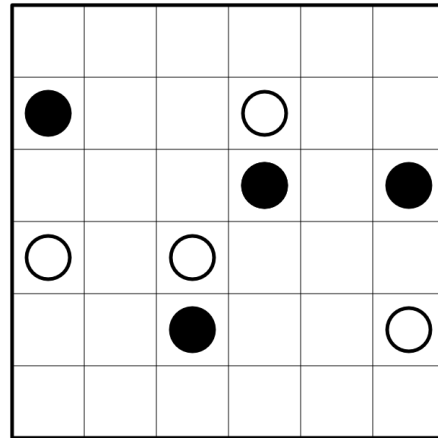
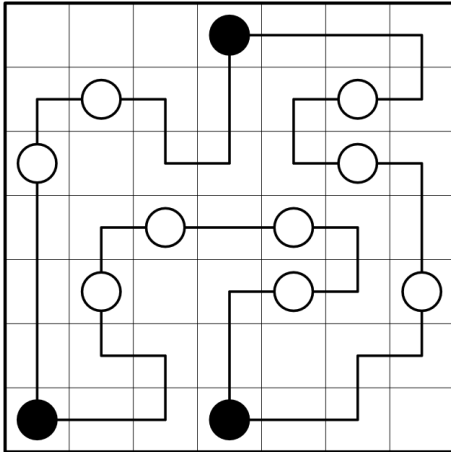
For every one of these puzzles, guessing is not required (and will often lead you astray), i.e., the solution is unique and can be logically deduced.

Use one of your team's tests as an answer sheet. At the end of the exam, turn in only that answer sheet; only it will be graded.

1 Masyu: 3 puzzles, 5 points each

In Masyu puzzles, your goal is to draw a single, closed, non-self-intersecting loop, composed of horizontal and vertical unit line segments. The loop must pass through all squares with circles in them. In squares with a black circle, the loop must turn, and go straight through both squares before and after passing through the black circle. In squares with a white circle, the loop must go straight through, and must turn either in the square before or the square after after (or both) passing through the white circle.

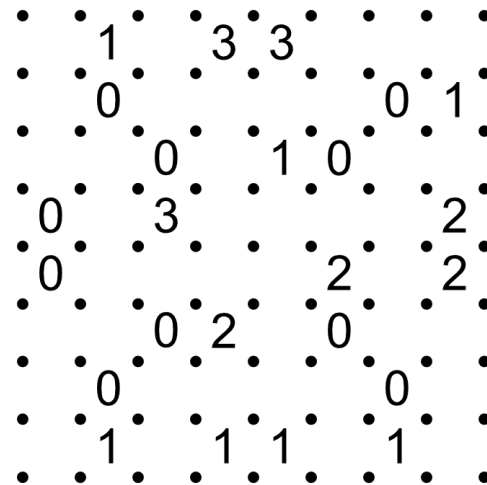
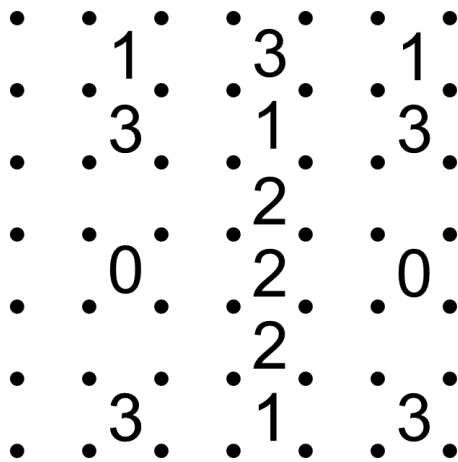
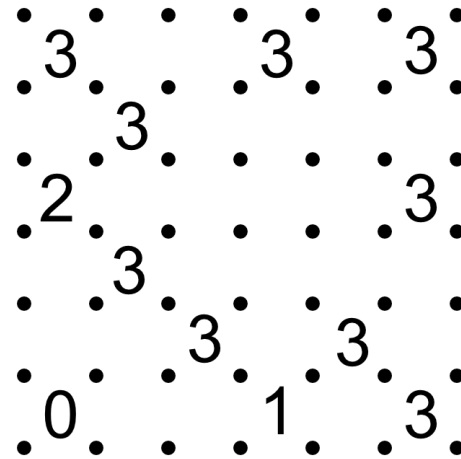
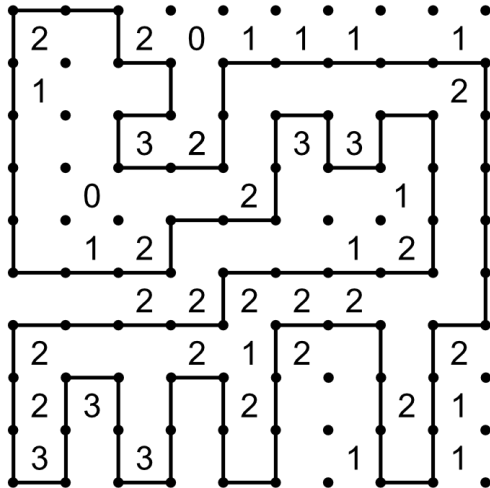
In order to further clarify the rules, an example solved Masyu is provided.



2 Slitherlink: 3 puzzles, 5 points each

In Slitherlink puzzles, our goal is to draw a single, closed, non-self-intersecting loop, which is composed of line horizontal and vertical line segments between the grid points. In each square with a number in it, the number indicates how many of the four possible grid segments surrounding it are used in the loop. There is exactly one solution to each puzzle. While solving, you may find it useful to mark (traditionally with a small x) segments which must not be part of the loop.

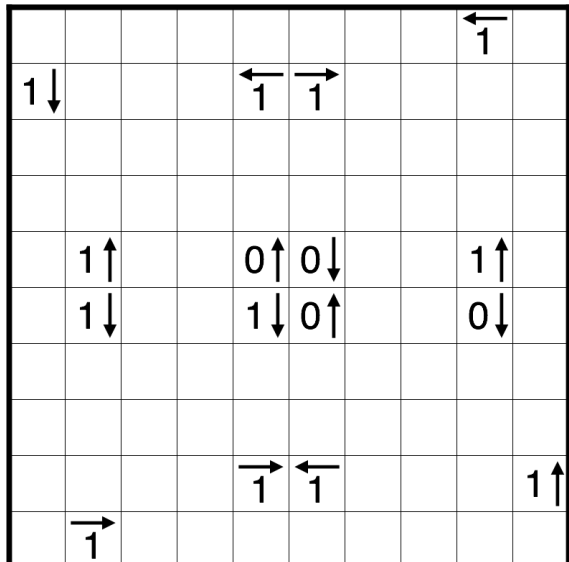
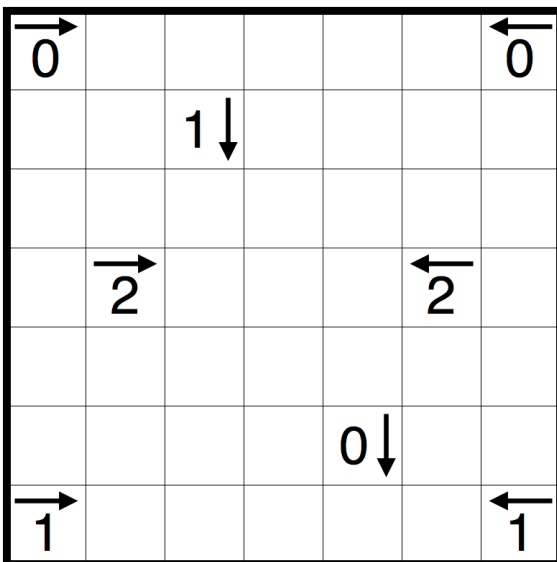
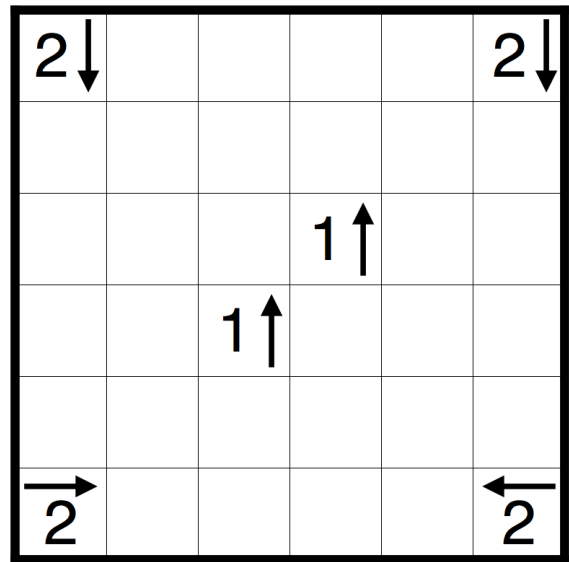
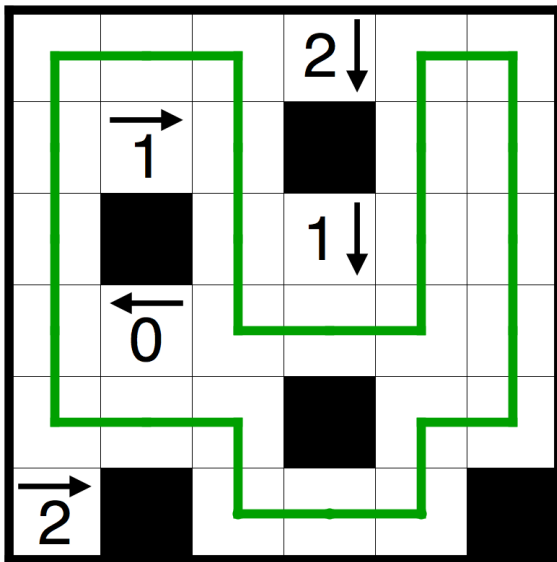
In order to further clarify the rules, an example solved Slitherlink is provided.



3 Yajilin: 3 puzzles, 5 points each

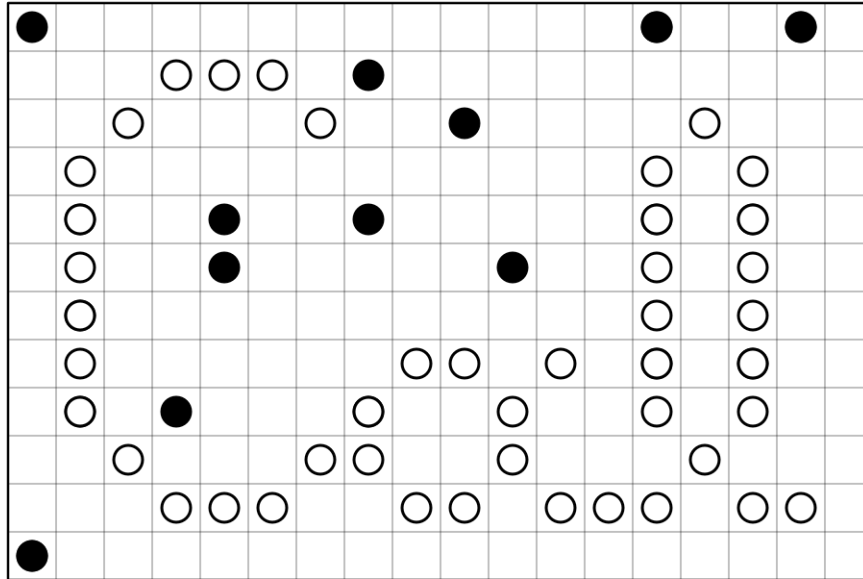
In Yajilin puzzles, your goal is twofold.

1. You should fill in some squares. Each clue (number and arrow) shows how many filled squares are in the ray starting at square point in the pointed direction. No two filled squares may share a side.
2. Draw a single, closed, non-self-intersecting loop, composed of horizontal and vertical unit line segments. The loop should pass through every square which is both unclued and unfilled.



4 Larger puzzles: 3 puzzles, 5 points each

This section contains three puzzles. Beware: they are significantly more difficult than the earlier ones. The first is a Masyu; the second is a Slitherlink; the last is a Yajilin.



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.1.1.1.2.1.1.2.1.1.
.3.3.3.2.1.
.3.3.3.3.2.1.
.2.2.2.2.2.2.2.1.
.2.2.2.2.2.2.2.1.
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.2.2.2.2.2.2.
.3.3.3.3.3.3.
.3.0.0.0.0.3.
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