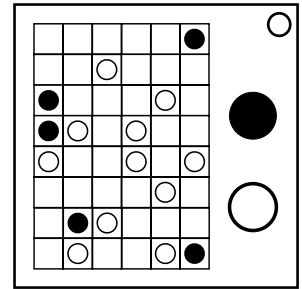# On the Subject of Masyu

Just some dots and lines, really.

Masyu is a simple, aesthetic logic puzzle played on a grid.
Each puzzle contains black and white dots. The objective is
to create a single loop that passes through every dot,
abiding by the following two rules:

- The loop must turn in a black dot, and it must pass straight through **both** of the following cells on each end.
- The loop must pass straight through a white dot, and it must turn in either **one or both** of the following cells on each end.

Using these two rules and some logic, the puzzle's unique solution can be found.

To form the loop, click on a segment in the grid. The loop cannot go outside of the grid, so the segments around the edge of the grid cannot be clicked. To remove a created line, click on it a second time.

Once the final loop is complete, click the black button to submit the solution. If it is incorrect, a strike will be registered, but the module will **not** reset.

To start over, press and hold the white button until all of the lines clear. The circles will **not** change, i.e. it is still the same puzzle.
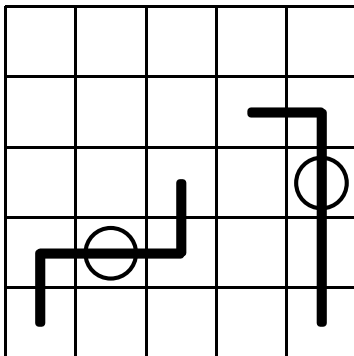
Reference:

Here are some tips and suggestions, for those who are new to this puzzle:

- Avoid guesswork; only place lines when you know that they are correct.
- When stuck, look back at the circles in the puzzle; you should be able to complete many of them using the two rules.
- Since the loop cannot go outside of the grid, circles on the edges of the grid are easiest to solve.
- All ends must connect to other ends; avoid trapping an end on its own!
- Use negations; if forming a line would break a rule, it usually guarantees that another line should be formed instead. For example, if a black circle cannot have a line heading north, then it must have a line heading south.
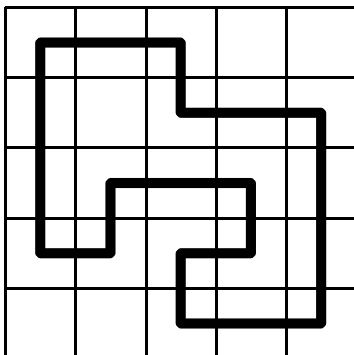- Refer to the chart on the next page for visual examples of the rules:

Allowed | Not Allowed
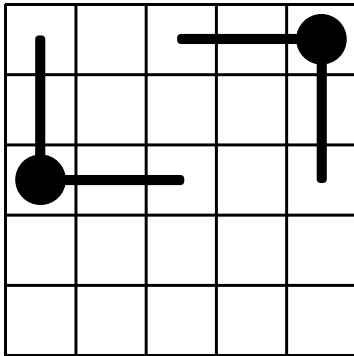
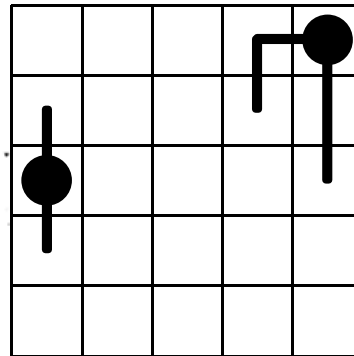**Turn in black circles, and pass straight through both cells on either end.**

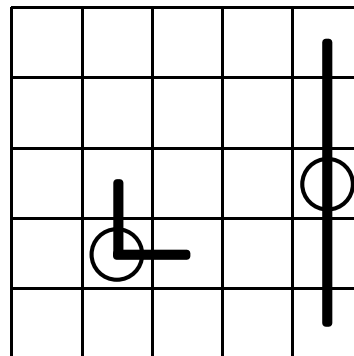**No passing straight through black circles or turning in the cells on either end.**

Pass straight through white circles, and turn in one or both cells on either end.

No turning in white circles or passing straight through both cells on either end.

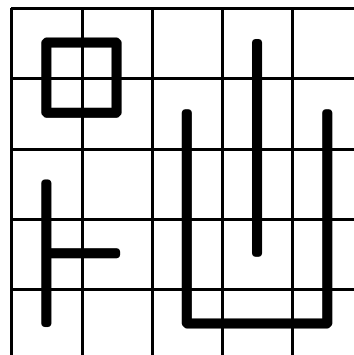**The path must be a single, continuous loop that passes through all of the circles.**

No small loops (top left), spurrs (bottom left), or trapped ends (right).