Dominosa

The domino puzzle I most often see in books or online is called either Dominosa or Domino Solitaire. It was invented by O.S. Adler in 1874, and each problem starts with a grid of numbers. You have to lay out the dominoes so they match the numbers, without duplicated or missing dominoes.

One thing I find interesting about this puzzle is that it's easier to solve with pencil and paper than with a set of dominoes. I created this separate file for you to print out, if you don't want to write in the book. It doesn't include the strategy hints or the solutions from the book.

Example

Here's a small problem to start with.



Every problem uses a complete set of dominoes up to the highest number you see. In this small problem, the highest number is one, so there are three dominoes:



When you start solving, most dominoes will usually have more than one place they could go. For example, the blank/one domino could go in a few different places, including these three:





However, some dominoes will only have one possible place, like the double blank:



Once you've placed a domino, check to see if it forces any other dominoes. In this case, the top right corner only has one space it can connect to:



That makes the final domino obvious, and the solution looks like this:



I took a long time to add this puzzle to the collection, because I found it tedious to keep searching for unique numbers. After some research, though, I learned that people have found many other techniques for solving that aren't as tedious. Try to work out your own techniques as you solve these problems, then read my techniques in the book. Let me know if you find any new ones. Even with all those tricks, it's not trivial to solve. (In computer science, it's called NP-hard.)

If you like this style of puzzle, Reiner Knizia published some puzzles called Domino Knobelspass that are very similar to Dominosa.

Problem 1



Problem 2





Problem 4









Problem 8





Problem 10











Problem 15







Problem 18







Contributing

Found some interesting problems to solve? Ideas to share? Get in touch at https://donkirkby.github.io/donimoes.

These problems for O.S. Adler's Dominosa were designed by Don Kirkby.

