Indigopuzzles

Puzzles by Alastair Chisholm

LABYRINTH

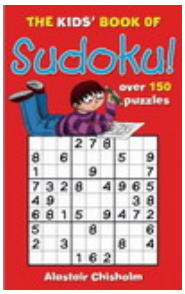
Welcome to the fact sheet on a brand new puzzle from Alastair Chisholm. Combining a logical and spatial challenge, Labyrinth is a unique puzzle that is easy to understand and satisfying to solve, with a design that is ideally suited for magazine or newspaper publication and a 'feel' that works particularly well for pen and paper puzzle solvers.

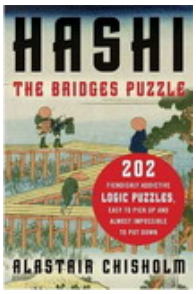
If you are looking for a new challenge for your publication or website then Labyrinth is ideal. We've created this factsheet to tell you a little more about it, and about why we like it, and why we hope that you will too – and if you do, we'd love to hear from you!

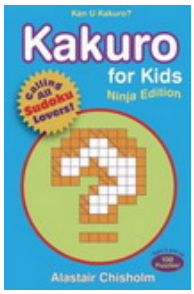
Please feel free to contact us for more information about these or any other puzzles you are interested in; you can reach us at brie@burkemanandclarke.com .

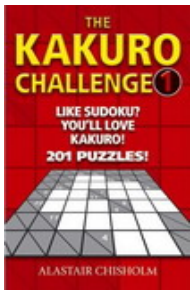
About Indigo Puzzles and Alastair Chisholm

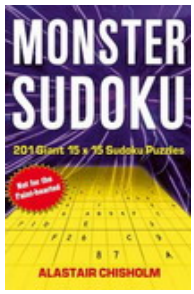
www.indigopuzzles.com is the website of internationally published puzzle creator **Alastair Chisholm**. Alastair has produced books of Sudoku, Kakuro, Hashi and other puzzles for adults and children across over fifteen countries, and his puzzles are played online by thousands of enthusiasts every day.

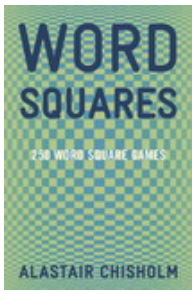




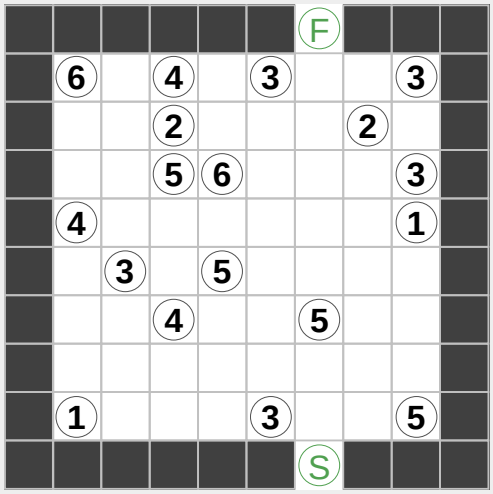




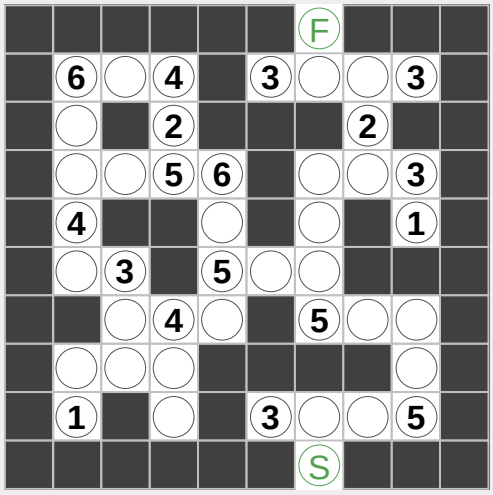




What is Labyrinth?



A Labyrinth puzzle...



...solved!

Labyrinth is a blend of East and West, a logical challenge with a twist – starting from one puzzle, your job is to build another one!

From a grid and a few clues you have to use your logical and spatial skills to fill in the squares and make a maze.

How do you play it?

Labyrinth is played out on a grid of empty squares. Build your maze by filling in those squares to create walls and using circles to mark empty squares.

The numbers are your clues; their squares are empty, and they tell you how many other empty squares you could see from there, up, down, left or right.

When you're finished, every number will see the right amount of empty squares, none of the maze can be cut off from the rest, and there will be *only one route through the maze.*

Why Do We Like It?

Labyrinth is a scribbler's puzzle; we like scribbling, and we think most puzzle lovers do too. Building the walls up as you go along is remarkably satisfying!

The combination of the logical challenge and spatial maze planning means that you are constantly changing tactics and approaches.

Labyrinth puzzles are ideally suited for publication too; they're regular sizes (though we can make them into shapes as well) and can be designed at different levels of difficulty.

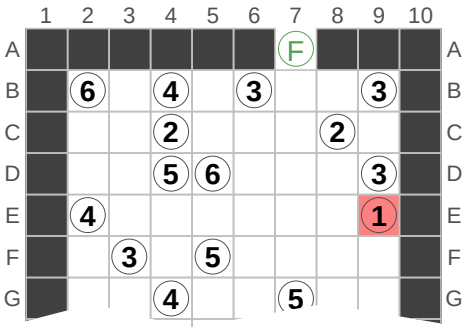
And of course, every Labyrinth puzzle is logically and uniquely solvable, without guesswork, guaranteed.

Solving Labyrinth Puzzles

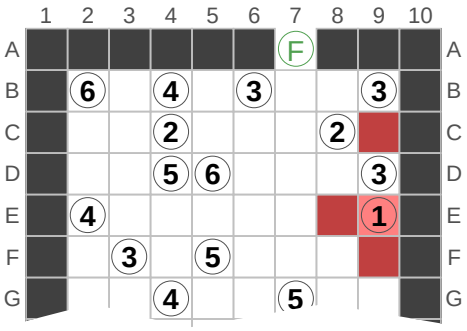
There are many different ways of solving Labyrinths, and we've included a few ideas to get you started. We'll solve the board from the previous page.

Tip #1 – All Squares Seen

Each number shows how many empty squares you can see from that point in the maze.



...leads to...



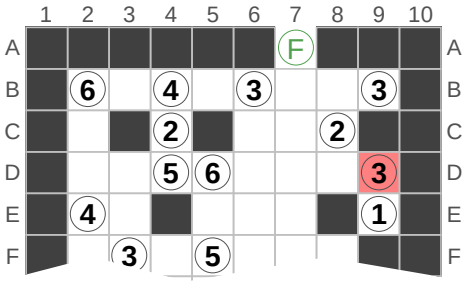
Look at square E9. The '1' means it can see one empty square. Right above it is a '3'. Numbers are always on empty squares, so *this* must be the square our '1' can see.

So, we can fill in all the other squares in E9's line of sight. Three walls down – congratulations!

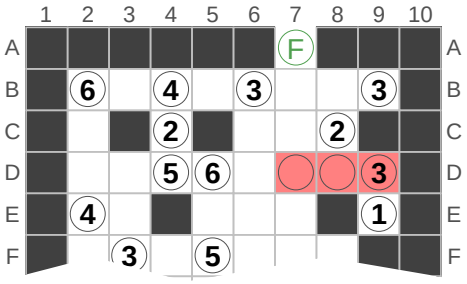
(There's another square here that's All Seen – can you find it?)

Tip #2 – One Way Out

Look at the square D9:

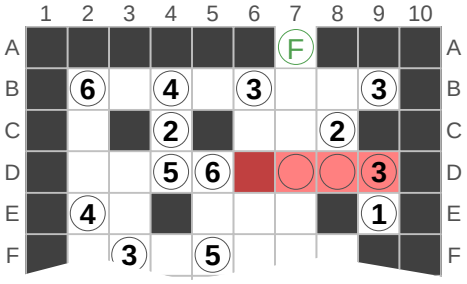


...leads to...



It needs to see three empty spaces, and the '1' at E9 counts as one already. There's only one way it can go for the other two squares – they must be to the left, so you can empty the squares at D7 and D8 by marking them with circles.

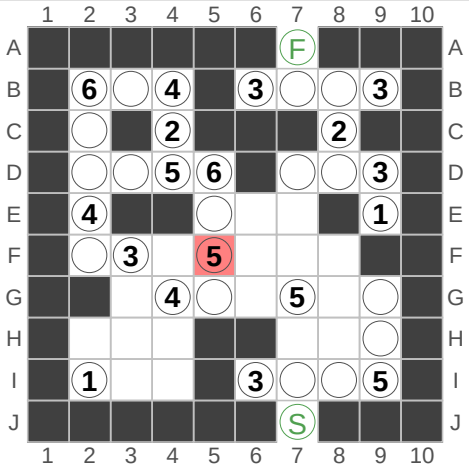
Now, D9 can see one square downwards and two to the left, and that means it's complete – so we can fill in the far wall at D6, like this:



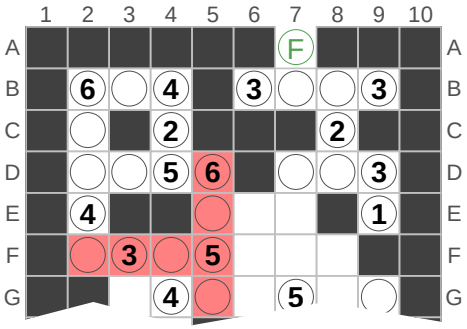
Our board is starting to shape up. There's another One Way Out on this board; can you find it?

Tip #3 – Too Many Squares

In our tutorial puzzle you can get quite far with just the first two tips, in fact your board could look like this:



Look at the '5' at F5. It can already see three empty squares at D5, E5 and F5… What would happen if you emptied the square at F4?

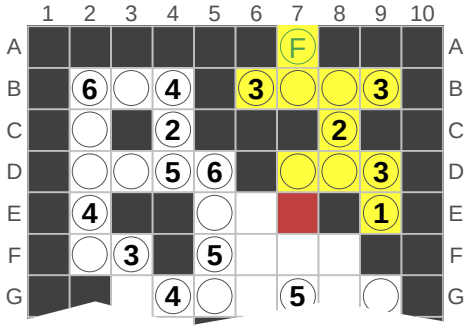


If F4 was empty, then the guard '5' in the middle would be able to see *six* squares – one down, two up and three left. Too many! So F4 can't be empty – fill in a wall and carry on.

Tip #4 – Isolation

So far, our tips have all been about the Numbers; but of course you've also got a maze to build, and very soon you'll need to start using the maze to help you…

Look at E7 on our maze on the right. We don't know yet if it's empty or full, but what would happen if we *did* fill it?

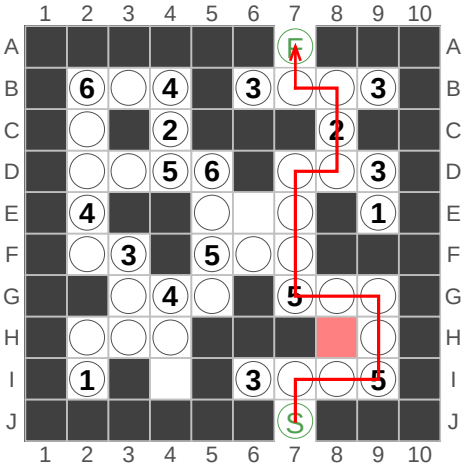


If we filled E7, all the squares in the top-right corner would be cut off from the rest of the board (in fact in this case there'd be no way to solve the maze!). They would be *isolated*.

So we can say that E7 must be empty to prevent *isolation*.

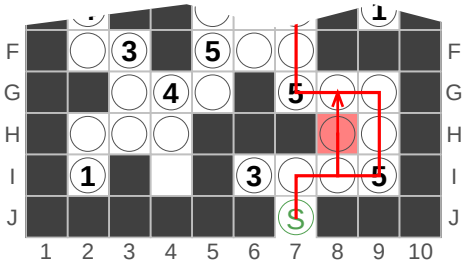
Tip #5 – One Solution

Our maze is looking pretty good:



We've got some walls, lots of paths and a solution (marked out with the red line). But look at the square **H8** – should it be empty or full?

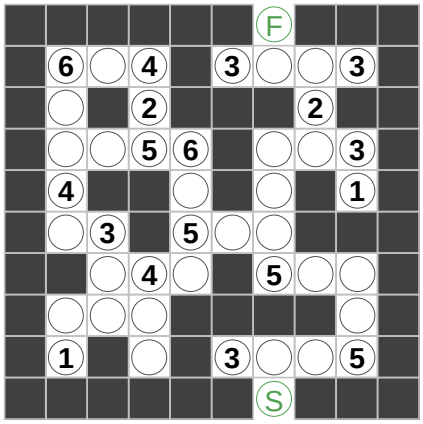
Well, if the square was empty, it would look like this:



The red lines show that there would be *two* routes through the maze – one going through H8 and one going around it – and that's against the rules.

So to make sure there's only one solution, we have to fill in H8. (And the same again at E6 – if it was empty there'd be *lots* of different routes). And now…

…The board is solved! Every square is either empty or full, every Number can see the right number of empty squares and there's exactly one solution to our new maze. Congratulations!



Now you know how, try this puzzle again (it's from the Introduction on page 2) and then head on to some more samples.

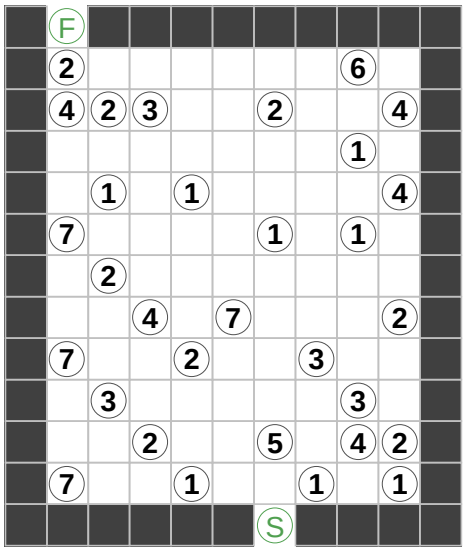
Good luck!

Labyrinth samples

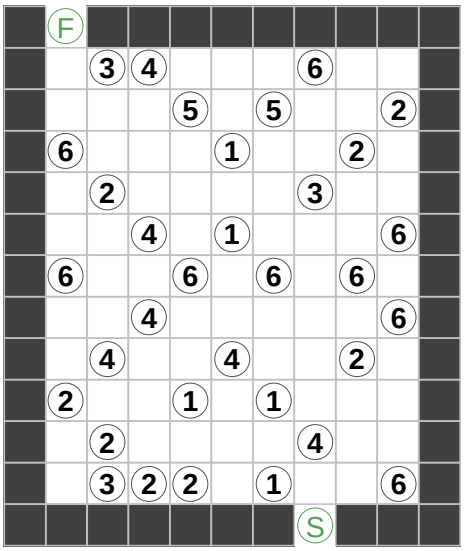
We can make Labyrinth puzzles in virtually any size, and still adjust the difficulty to suit. The samples below have been set to 13x11 – a reasonable size for a newspaper or magazine, and about the same as a crossword.

The rules of Labyrinth can be described briefly like this:

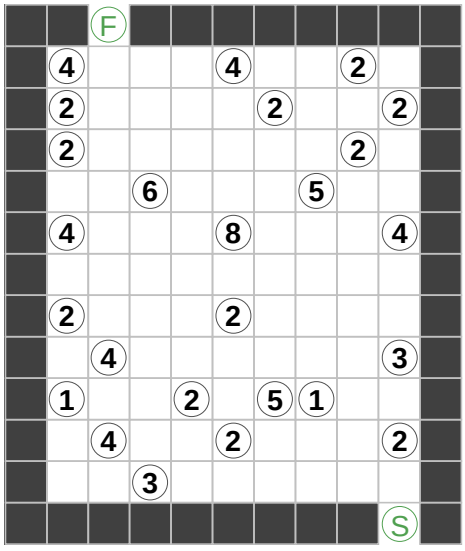
"Fill the squares around the Numbers to build a maze. Each Number shows how many empty squares you can see from there either up, down, left or right (Numbers are always on empty squares). When complete, none of the maze will be unreachable and there will be exactly one route from Start to Finish. Good luck!"



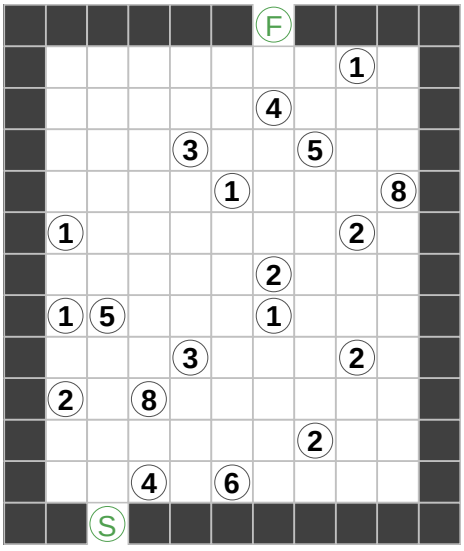
Example 1 - "delicious" (easy)



Example 2 - "delicious" (easy)



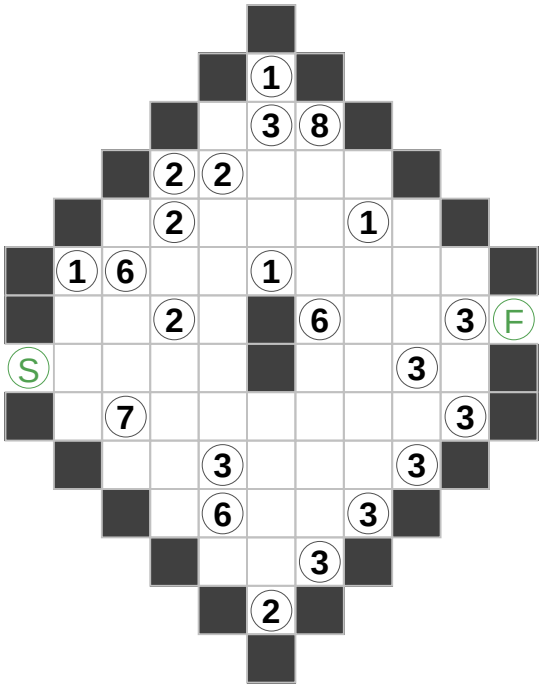
Example 3 - "pernicious" (medium)



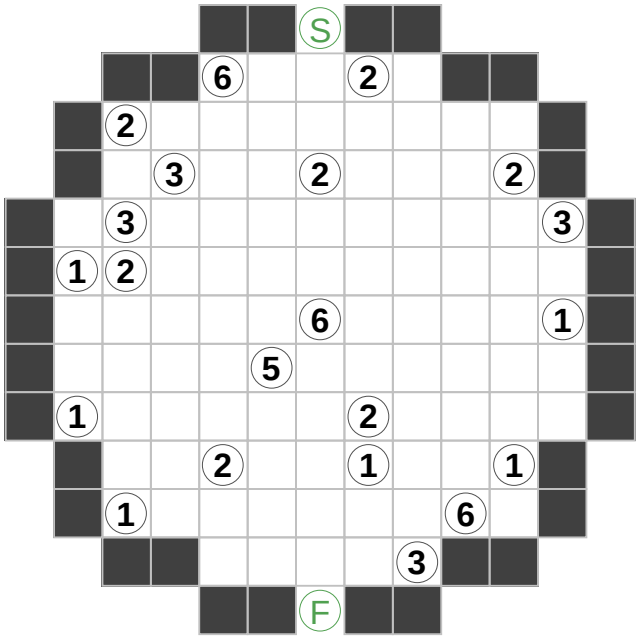
Example 4 - "malicious" (hard)

Shapes

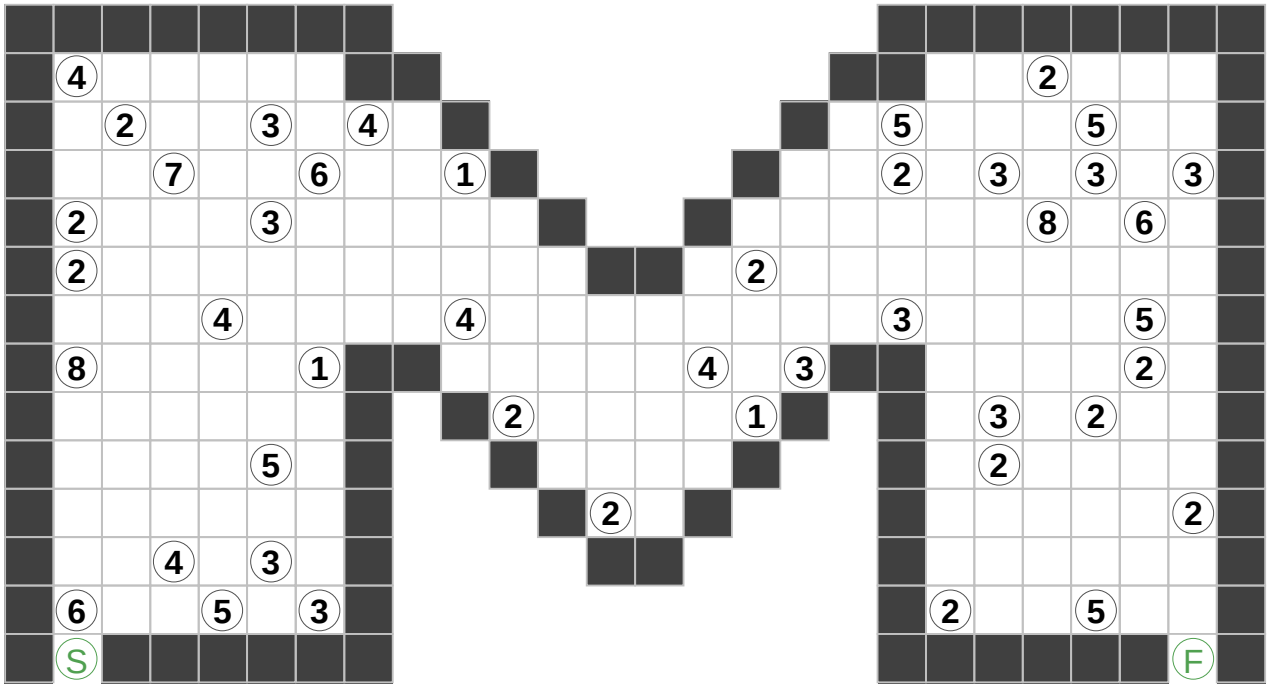
Labyrinth puzzles are very flexible – they don't have to be squares at all. We can generate Labyrinths in almost any shape and still control the difficulty levels to suit.



Diamond - "Delicious" (easy)



Circle - "Malicious" (hard)



Big M "Atrocious" (very hard!)

Find out More

If you are interested in these Labyrinth puzzles – or any other puzzles from Indigo Puzzles or Alastair Chisholm – then we'd love to hear from you.

All our puzzles are of high quality; created to order, guaranteed uniquely solvable and never requiring guesswork. In addition, we strive to make our puzzles *fun to play*. We can adjust the size and difficulty levels to suit, and we concentrate on creating puzzles that feel satisfying to solve, that lead players on a trail and show them new ideas and techniques along the way.

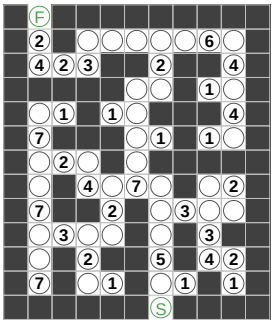
All our puzzles can be delivered in a variety of electronic formats, including EPS, and delivery methods including FTP, Web download and E-mail.

If you'd like to get in touch, we'd love to hear from you. Visit our website at www.indigopuzzles.com, or drop us a line at brie@burkemanandclarke.com .

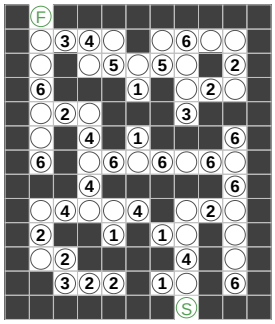
Thanks!

The Indigo Puzzles team

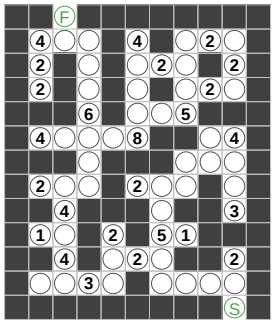
Sample solutions



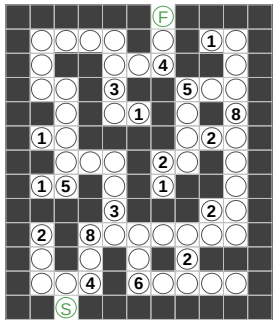
"delicious"



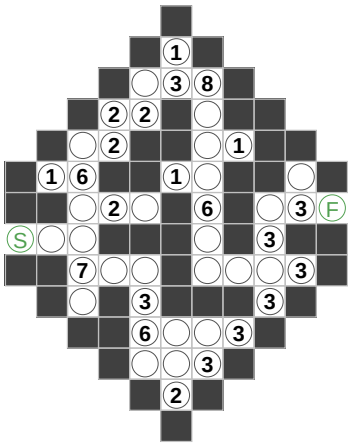
"delicious"



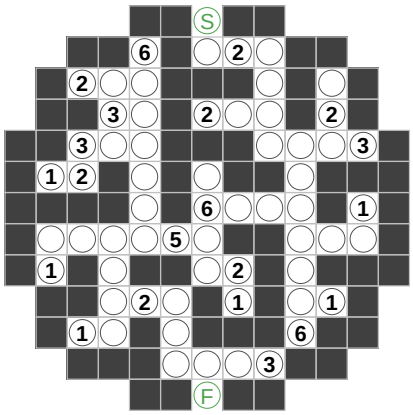
"pernicious"



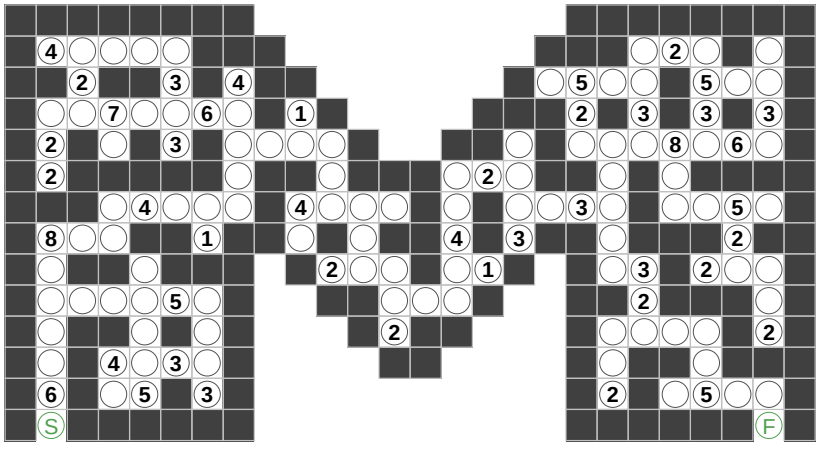
"malicious"



"Diamond"



"Circle"



"Big M"