## The Twelve Days of Sudoku 8th Day of Lessons and Puzzles

1		5		2		4	
	3				6		
4		2		7		1	
	7	8	4	1	3		
5 2	9	8		8	7	2	
2						2 5	

A Study in Scarlet

**Puzzle notes:** Written in late 2024 after re-exploring one of the "All for One and One for All" puzzles to get something for New Year's Day with some purposeful randomness after the start. Used computational tools to complete an initially hand-set seed, and then I joined an alchemist to gather to watch the magic unfold below me in the water.

## Author's Note:

I expect most people won't fully understand or expect the title. This potentially references:

- the continued study of this puzzle geometry
- the angry face looking like the color scarlet (anger usually means red colors)
- The '25 new year's theme parts being appropriate for the first work from the Arthur Conan Doyle series with a particular famous detective who is important to me and many others.
- The second steps being very random (either a 1 or a 4) and one of them being much more useful than the other.

So I ask you if you are of 1 mind or are you 4 all of us to claim the right to be unhappy?

The beginning steps of this puzzle (in blue above) are formed by the digits 25 giving two hidden singles and then as many as six pair cells marked 25, perfect for '25. Then the

symmetry of the puzzle sets up a random coin toss, and it is this random coin toss that combines this puzzle with the Doyle source material best. In Sherlock Holmes' first story, the villain offers their victims a choice of two pills, one a placebo and one a poison causing death. Nothing in this grid directly forces the upper-left 4 or the upper-right 1 before the other, and they are equally likely by scanning. But only the 4 is useful for another step right afterwards because of where it sits elsewhere in the grid, it is the "placebo" in this grid that is far more useful to the solution. Did you make progress on the left or the right first after the 25 start? Will there be 10 more weeks until spring or only 10 more weeks of winter? Chance can be astounding.