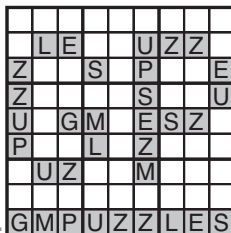


# Colossal Cave Collection Sampler

by  
Roger Barkan

GRANDMASTER PUZZLES



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# Rules

**Notes:**

This sampler contains 5 (out of 100) puzzles from the full title, as well as the hints and solutions for these puzzles.

Puzzles are ordered by approximate difficulty.

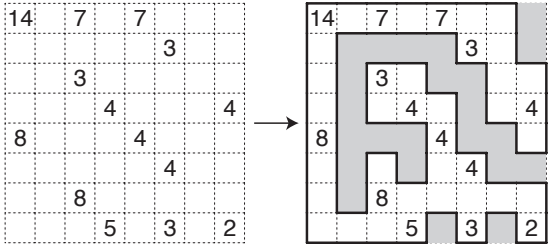
Every puzzle has a unique solution that can be reached by logic alone.

Shade some cells to leave behind a single connected group — the cave — with no enclosed, shaded cells. In other words, all shaded cells must be connected by other shaded cells to an edge of the grid. All numbered cells must be a part of the cave, with each number indicating the total count of cells connected vertically and horizontally to the numbered cell *including the cell itself*.

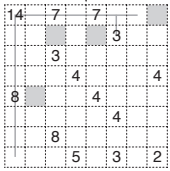
**Colossal Cave Collection Sampler**  
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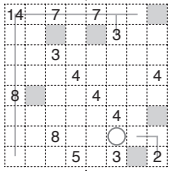
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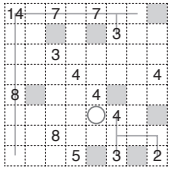
1. Large numbers are a good place to start with Cave puzzles. Here, the 14 can expand just 7 cells in its row (due to surrounding clues) but can fill the whole column of 8 cells. This is exactly 14 cells, so mark this in and shade the unused cells this identifies.



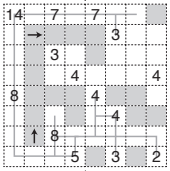
2. Small numbers, particularly 2's, are another good place to start. 2's can only see one additional cell besides the clue cell itself. Here, after shading some cells, this sets up a new clue situation with the circled cell, which cannot be shaded and still leave a valid cave.



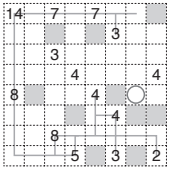
3. To have a connected cave, with no trapped internal cells, you cannot have a checkerboard pattern in any 2x2 region with a shaded, unshaded, shaded, unshaded alternating pattern. So the cell above the 3 in R7C6 must be part of the cave. This sets up another checkerboard pattern in the circled cell R6C5.



6. After shading cells, consider what new cells must be linked inside the cave (and vice-versa). After shading so many cells in step 5 for the escape path, the center is now very easy to mark off. Dealing with the last few clues in the upper-right will finish the puzzle.



5. The 8 in row 7 has seven cells marked, but it can only go up to get the eighth. Then notice that several shaded cells are almost trapped inside the grid. Think about escape paths for these cells to get to a border (following the arrows), and shade cells as needed.



4. As you advance, you should be able to spot checkerboard patterns more naturally; the circled cell here is an example where two cells are already shaded and the circled one must be too. The 5 in the bottom row now has only four other cells to extend to so they are easily marked.

# 4

7					7	
	11		15			
					3	5
	7					
			7		3	
	11	13				
					3	
3	13					
		13			5	
	11					3

# 5

			5	7			5
		8			5	7	7
	5						
	6						
7				5	6		
				7	8		8
							6
							7
		8	8	6			8
	6				6	5	

# 13

		4		7		
	4			7		
4					7	
4		5	2	10		7
				7		
		2				
5		5	7	10		6
	6					6
		5			5	
		6		6		

# 34

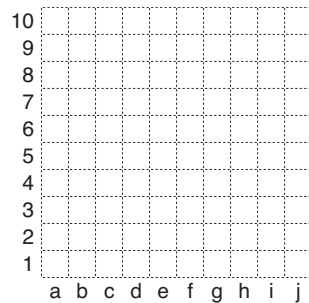
			4	8			4
					8		
		4				4	
	6						
12			8				6
8				8			4
							4
		8				4	
			10				
6				8	8		

# 63

7								7
	5							5
			5			3		
		5					3	
				3	5			
				7	9			
		7					9	
			7			9		
	7							7
5								5

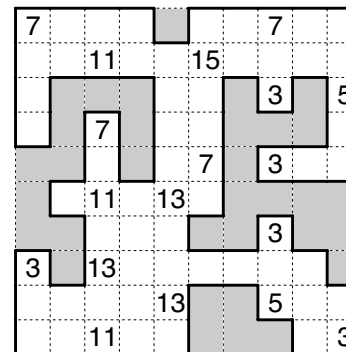
# HINTS AND COMMENTS

In the hints, cells are referred to using a-j to refer to columns from left to right, and 1-10 to refer to rows from bottom to top, as in the diagram to the right.

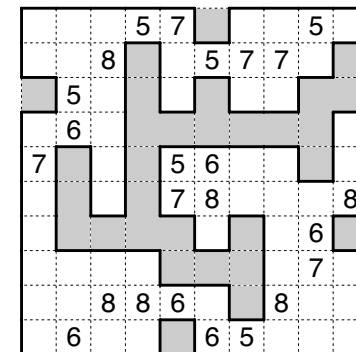


- 4) The large numbers in this puzzle will make it difficult for black squares in row 8 and row 4 to get to the edge.
- 5) Touching but unequal digits often force cells in the orthogonal direction. Here, the 7s in g9 and h9, and the 8s in c2 and d2 can be extended vertically because they must have two more cells than the 5 and 6 in the same row. Is there enough space for the 5 at i10 to be entirely in the top row?
- 13) This puzzle is unusual in that it solves most easily from the middle out. Leave the 4s for last; they will not resolve until everything else is completed.
- 34) With this arrangement of givens, black squares in the middle will not have many options to reach the edge. To begin, force a black square at e8 and make sure that it has a path out.
- 63) The 7 at d3 cannot go both up and right without cutting off the black at e4, so c3 cannot be black. i1 and j2 cannot both be white, affecting the 7 at i2.

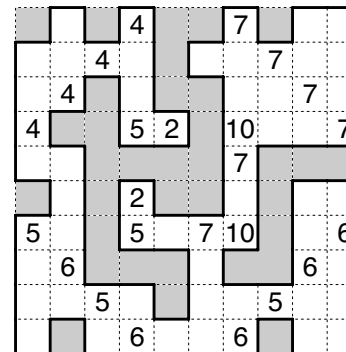
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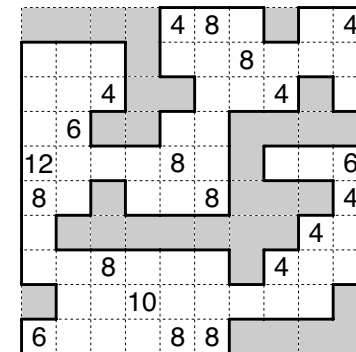
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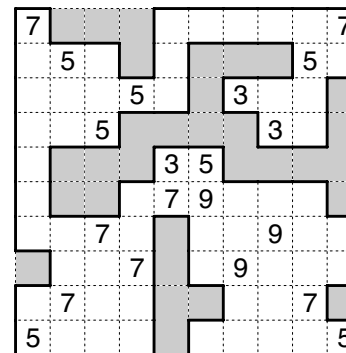
13



34



63



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