

# SOLUTION: Dangerous Waters

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The puzzle title, flavor text, and colors clue you in to the fact that this is a minesweeper puzzle but with the added fun of a 3<sup>rd</sup> dimension! With the hints and 0s already given getting started is straightforward though it takes a few iterations to get to the solution. The second to last step is sticky but there is only one solution that works and sometimes, like in the regular 2D minesweeper game, guessing is a very viable option!

Solving this puzzle consists of two steps repeated until every squares are marked as clear or mines:

- 1) Mark any unknown square adjacent to a 0 count square as clear (remember this is in 3D!)
- 2) Find any count where there are an equal number of unknown squares to be mines, mark those as mines, and deduct the counts on adjacent cells accordingly.

The answer is guessable any time after the 5<sup>th</sup> or 6<sup>th</sup> iteration, of course more iterations will make the answer clearer. The puzzle is 100% solvable in 13 iterations and reveals CONTACT, the most common type of naval mine!



**Iteration 1**

0	1	3	5	4	2	0	1	2	4	5	5	3	1	2	4	6	6	6	4	2	2	3	5	4	5	3	2	1	2	5	6	6	3	1	1	2	5	6	6	3	1	1	2	4	5	5	3	1	
1	3	5	5	4	3	1	3	6	7	6	6	5	3	4	6	10	8	9	5	4	3	5	8	7	7	4	3	1	4	8	9	8	4	1	1	4	8	9	7	4	1	1	4	8	8	7	3	1	
2	5	6	7	6	4	2	5	8	12	9	10	6	5	6	8	13	10	13	7	6	4	8	14	12	13	7	4	1	6	11	15	10	5	1	1	6	11	15	11	5	1	1	4	8	8	7	3	1	
3	6	5	3	3	3	3	6	9	11	6	8	6	6	6	6	11	5	11	6	6	3	7	12	12	12	7	3	0	6	9	12	6	3	0	0	6	9	13	7	3	0	0	3	6	5	3	0	0	
2	5	6	7	6	4	2	5	7	11	9	11	7	5	5	5	11	8	11	6	5	3	6	11	11	12	7	3	0	5	9	14	8	4	0	0	5	9	14	9	4	0	0	2	6	6	5	1	0	
1	3	5	5	4	3	1	3	5	6	6	7	6	3	3	3	7	6	8	4	3	2	4	6	6	7	5	2	0	3	5	9	5	3	0	0	3	6	8	5	3	0	0	1	4	4	4	1	0	
0	1	3	5	4	2	0	1	2	4	5	5	3	1	1	2	4	4	4	2	1	1	2	3	3	3	2	1	0	1	3	5	4	2	0	0	1	3	5	4	2	0	0	0	0	2	3	3	1	0

**Iteration 2**

0	1	1	1	0	0	0	0	1	1	1	0	0	0	1	3	4	4	3	2	1	1	2	4	4	4	2	1	1	2	5	6	6	3	1	1	2	5	6	6	3	1	1	2	4	5	5	3	1	
0	2	2	2	0	0	0	0	0	3	2	3	0	0	0	1	4	6	6	4	2	1	1	3	6	6	4	1	1	1	4	8	8	7	3	1	1	4	8	8	6	3	1	1	2	5	6	5	2	1
0	3	2	3	0	0	0	0	0	4	5	5	1	0	0	1	4	7	8	6	2	1	1	5	11	10	8	2	1	1	6	11	13	9	3	1	1	6	11	13	9	3	1	1	4	8	8	7	3	1
0	3	2	3	0	0	0	0	0	4	5	6	2	1	0	0	1	5	5	5	1	0	0	4	3	9	6	1	0	0	6	9	9	4	0	0	0	6	9	10	4	0	0	0	3	6	5	3	0	0
0	3	2	3	0	0	0	0	0	3	4	5	2	1	0	0	1	5	6	4	1	0	0	2	7	8	7	2	0	0	4	7	10	6	2	0	0	4	6	9	5	2	0	0	2	4	4	3	1	0
0	2	2	2	0	0	0	0	0	2	1	3	1	1	0	0	1	3	4	3	1	0	0	1	3	4	4	2	0	0	2	4	6	3	2	0	0	2	3	5	2	2	0	0	1	2	3	2	1	0
0	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	1	2	2	1	0	0	0	0	1	2	2	1	0	0	0	1	3	3	2	0	0	0	0	2	2	2	0	0	0	0	1	1	1	0



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**Iteration 3**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	3	2	3	0	0	0
0	3	2	3	0	0	0
0	3	2	3	0	0	0
0	2	2	2	0	0	0
0	1	1	1	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	4	5	5	1	0	0
0	4	5	6	2	1	0
0	3	4	5	2	1	0
0	2	1	3	1	1	0
0	1	1	1	0	0	0

0	2	3	4	2	1	0
0	3	5	6	3	1	0
0	3	6	8	5	1	0
0	1	5	5	5	1	0
0	1	5	6	4	1	0
0	1	3	4	3	1	0
0	1	2	2	1	0	0

0	1	3	4	3	1	0
0	3	5	6	3	1	0
0	4	10	10	7	1	0
0	4	9	9	6	1	0
0	2	7	8	7	2	0
0	1	3	4	4	2	0
0	0	1	2	2	1	0

0	1	4	6	5	2	0
0	3	7	8	6	2	0
0	5	10	13	8	2	0
0	6	9	9	4	0	0
0	4	7	10	6	2	0
0	2	4	6	3	2	0
0	0	1	3	3	2	0

1	2	5	6	6	3	1
1	4	8	8	6	3	1
1	6	11	13	9	3	1
0	6	9	10	4	0	0
0	4	6	9	5	2	0
0	2	3	5	2	2	0
0	0	0	2	2	2	0

1	2	4	5	5	3	1
1	2	5	6	5	2	1
1	4	8	8	7	3	1
0	3	6	5	3	0	0
0	2	4	4	3	1	0
0	1	2	3	2	1	0
0	0	0	1	1	1	0

**Iteration 4**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	3	2	3	0	0	0
0	3	2	3	0	0	0
0	3	2	3	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	4	4	4	0	0	0
0	4	4	4	0	0	0
0	2	2	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	4	4	1	0	0
0	3	4	5	2	0	0
0	1	4	4	3	0	0
0	0	2	2	2	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0

0	1	2	2	1	0	0
0	3	4	5	2	0	0
0	4	8	7	4	0	0
0	4	8	7	4	0	0
0	2	5	4	3	0	0
0	1	2	2	1	0	0
0	0	0	0	0	0	0

0	1	3	4	3	1	0
0	3	6	6	4	1	0
0	5	9	11	6	1	0
0	6	9	9	4	0	0
0	4	6	8	4	1	0
0	2	3	4	2	1	0
0	0	0	1	1	1	0

1	2	5	6	6	3	1
1	4	8	8	6	3	1
1	6	11	13	9	3	1
0	6	9	10	4	0	0
0	4	6	8	4	1	0
0	2	3	4	1	1	0
0	0	0	1	1	1	0

1	2	4	5	5	3	1
1	2	5	6	5	2	1
1	4	8	8	7	3	1
0	3	6	5	3	0	0
0	2	4	4	3	1	0
0	1	2	3	2	1	0
0	0	0	1	1	1	0

**Iteration 5**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	3	2	3	0	0	0
0	3	2	3	0	0	0
0	3	2	3	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	4	4	4	0	0	0
0	4	4	4	0	0	0
0	2	2	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	3	3	0	0	0
0	3	3	4	1	0	0
0	1	3	3	2	0	0
0	0	2	2	2	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0

0	1	2	2	1	0	0
0	3	3	4	1	0	0
0	4	7	7	3	0	0
0	4	7	6	3	0	0
0	2	5	4	3	0	0
0	1	2	2	1	0	0
0	0	0	0	0	0	0

0	1	3	3	2	0	0
0	3	5	4	2	0	0
0	5	8	9	4	0	0
0	6	8	8	3	0	0
0	4	6	7	3	0	0
0	2	3	3	1	0	0
0	0	0	0	0	0	0

0	1	4	4	3	0	0
0	3	7	6	4	0	0
0	5	10	11	6	0	0
0	6	9	10	4	0	0
0	4	6	7	3	0	0
0	2	3	3	1	0	0
0	0	0	0	0	0	0

0	1	3	3	2	0	0
0	2	4	4	3	0	0
0	3	7	6	4	0	0
0	3	7	6	4	0	0
0	3	6	5	3	0	0
0	2	4	3	2	0	0
0	1	2	2	1	0	0
0	0	0	0	0	0	0

**Iteration 6**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	2	1	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	3	3	0	0	0
0	3	2	3	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	4	4	1	0	0
0	2	3	3	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	3	3	0	0	0
0	4	4	5	1	0	0
0	4	5	4	1	0	0
0	2	3	3	1	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	4	4	1	0	0
0	4	6	7	3	0	0
0	4	7	8	4	0	0
0	2	4	5	3	0	0
0	1	2	2	1	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	2	2	3	1	0	0
0	3	5	4	2	0	0
0	3	6	5	3	0	0
0	2	4	3	2	0	0
0	1	2	2	1	0	0
0	0	0	0	0	0	0



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**Iteration 7**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	3	3	0	0	0
0	3	2	3	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	4	4	1	0	0
0	2	3	3	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	3	3	0	0	0
0	3	3	4	1	0	0
0	2	3	2	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	2	2	3	1	0	0
0	2	4	3	2	0	0
0	1	4	3	3	0	0
0	0	2	1	2	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0

**Iteration 8**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	3	3	0	0	0
0	3	2	3	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	3	3	0	0	0
0	3	3	4	1	0	0
0	2	3	2	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	2	1	2	0	0	0
0	2	3	3	1	0	0
0	1	2	1	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

**Iteration 9**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	3	3	0	0	0
0	3	2	3	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	3	3	0	0	0
0	3	3	4	1	0	0
0	2	3	3	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	2	1	2	0	0	0
0	2	3	3	1	0	0
0	1	2	1	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

**Iteration 10**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	2	2	2	0	0	0
0	3	3	3	0	0	0
0	3	2	3	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	2	3	0	0	0
0	3	3	3	0	0	0
0	2	2	2	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	3	3	3	0	0	0
0	3	3	4	1	0	0
0	2	3	3	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

0	1	1	1	0	0	0
0	2	1	2	0	0	0
0	2	3	3	1	0	0
0	1	2	1	1	0	0
0	0	1	1	1	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0



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**Iteration 11**

0	1	1	1	0	0	0
0	2	2	2	0	0	0
0	2	1	2	0	0	0
0	1	1	1	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

		?	X	X		
		?				
		X				
		X				
		X				
			X	X		

**Iteration 12**

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

		C	X	X		
		M				
		X				
		X				
		X				
			X	X		

**Iteration 13**

0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

			X	X		
		X				
		X				
		X				
		X				
			X	X		

