

Step 0: Start

Initial puzzle & candidates.

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

Step 1: Naked Single

R1C2 = 9 (naked single).

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

Step 2: Naked Single

R3C8 = 1 (naked single).

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

Step 3: Naked Single

R3C9 = 9 (naked single).

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

Step 4: Naked Single

R3C7 = 3 (naked single).

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

Step 5: Naked Single

R3C4 = 7 (naked single).

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

Step 6: Hidden Single

R1C5 = 1 (hidden single in its unit).

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

Step 7: Hidden Single

R2C9 = 2 (hidden single in its unit).

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

Step 8: Locked Candidates (Pointing)

In box 3, digit 8 sits only in row 1 → remove 8 from row 1 outside the box.

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

Step 9: Naked Triple

Naked Triple [6, 7, 8] in Unit at cells [R7C2, R7C3, R8C2] → eliminate [6, 7, 8] from: R8C1: -{6,7}, R9C1: -{6,7}, R9C3: -{7,8}.

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

Step 10: Locked Candidates (Pointing)

In box 7, digit 6 sits only in column 2 → remove 6 from column 2 outside the box.

4 ³	9	2	3 ⁶	1	3 ^{5 6}	4 ^{5 8}	7	5 ⁸
4 ³	1	4 ³	3 ^{8 9}	5 ⁹	5 ⁸	6	4 ⁵	2
8	5	6	7	2	4	3	1	9
4 ^{5 6}	3	4 ⁵	2 ⁶	4 ^{5 6}	2 ^{5 6}	1 ²	5 ⁶	1 ^{5 6}
7 ⁹		7 ^{8 9}	8 ⁷	7 ^{5 6}	7 ⁸	7 ⁹		7 ^{5 6}
1	2 ⁷	5 ⁷	2 ³	3 ^{5 6}	9	2 ⁵	8	4
4 ^{5 6}	2 ^{7 8}	4 ⁵	1	4 ^{5 6}	2 ^{5 6}	2 ⁵	3	5 ⁶
7 ⁹	7 ⁸	7 ^{8 9}	7 ^{5 6}	7 ⁸	7 ⁹	7 ⁹	7 ^{5 6}	7 ^{5 6}
2	6 ^{7 8}	7 ⁸	5	4 ⁶	1	4 ^{7 8}	9	3
3 ⁵	6 ⁷	1	2 ³	4 ⁶	2 ³	4 ⁵	4 ^{5 6}	5 ⁶
9 ⁷			9 ⁷	8	7 ⁶	7 ⁵		7 ^{5 6}
3 ⁵	4	3 ⁵	3 ⁶	3 ⁶	3 ⁶	1 ⁵	2	1 ^{5 6}
9 ⁷		9 ⁷	9 ⁷	9 ⁷	7 ⁸	7 ⁸		7 ⁸

Step 11: Locked Candidates (Pointing)

In box 7, digit 8 sits only in row 7 → remove 8 from row 7 outside the box.

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

Step 12: Locked Candidates (Claiming)

In row 5, all candidates 6 lie in one box → remove 6 from the rest of that box.

4 ³	9	2	3 ⁶	1	3 ^{5 6}	4 ^{5 8}	7	5 ⁸
4 ³	1	4 ³	3 ^{8 9}	5 ⁹	5 ⁸	6	4 ⁵	2
8	5	6	7	2	4	3	1	9
4 ^{5 6}	3	4 ⁵	2 ⁴	4 ⁵	2 ⁵	1 ²	5 ⁶	1 ^{5 6}
7 ⁹		7 ^{8 9}	4 ⁸	7 ⁶	7 ⁸	7 ⁹		7 ⁶
1	2 ⁷	5 ⁷	2 ³	3 ^{5 6}	9	2 ⁵	8	4
4 ^{5 6}	2 ^{7 8}	4 ⁵	1	4 ⁵	2 ⁵	2 ⁵	3	5 ⁶
7 ⁹	7 ⁸	7 ^{8 9}		7 ⁶	7 ⁸	7 ⁹		7 ⁶
2	6 ^{7 8}	7 ⁸	5	4 ⁶	1	4 ⁷	9	3
3 ⁵	6 ⁷	1	2 ³	6 ⁹	2 ³	4 ⁵	4 ^{5 6}	5 ⁶
9 ⁷			4 ⁹	8	7 ⁶	7 ⁷		7 ⁶
3 ⁵	4	3 ⁵	3 ⁶	3 ⁶	3 ⁶	1 ⁵	2	1 ^{5 6}
9 ⁷		9 ⁷	9 ⁷	9 ⁷	9 ⁷	7 ⁸		7 ⁸

Step 13: Hidden Pair

Hidden Pair [3, 6] in Unit at cells [R5C5, R5C4] → strip other candidates:

R5C4: $-\{2\}$, R5C5: $-\{5,7\}$.

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

Step 14: Naked Pair

Naked Pair [3, 6] in Unit at cells [R1C4, R5C4] → eliminate [3, 6] from: R2C4:

-{3}, R8C4: -{3,6}, R9C4: -{3,6}.

4	3	9	2	<div>3 6</div>	1	3 5 6	4 5 8	7	5 8
4	3	1	4 3 7		3 5 9	3 5 8	6	4 5	2
8	5	6	7	2	4	3	1	9	
4 5 6 7 9	3	4 5 7 8 9	2 4 8	4 5 7	2 5 7 8	1 2 5 7 9	5 6	1 5 6 7	
1	2 7	5 7	<div>3 6</div>	3 6	9	2 5 7	8	4	
4 5 6 7 9	2 7 8	4 5 7 8 9	1	4 5 7	2 5 7 8	2 5 7 9	3	5 6 7	
2	6 7 8	7 8	5	4 6 7	1	4 7	9	3	
3 5 9	6 7	1	2 4 9	8	2 3 6 7	4 5 7	4 5 6	5 6 7	
3 5 9	4	3 5 9		3 6 9 7	3 6 7	1 5 7 8	2	1 5 6 7 8	

Step 15: Naked Single

R9C4 = 9 (naked single).

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

Step 16: Naked Single

R2C4 = 8 (naked single).

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

Step 17: Hidden Single

R2C5 = 9 (hidden single in its unit).

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

Step 18: Hidden Single

R8C1 = 9 (hidden single in its unit).

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

Step 19: Hidden Single

R8C6 = 3 (hidden single in its unit).

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

Step 20: Naked Single

R2C6 = 5 (naked single).

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

Step 21: Naked Single

R1C6 = 6 (naked single).

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

Step 22: Naked Single

R1C4 = 3 (naked single).

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

Step 23: Naked Single

R1C1 = 4 (naked single).

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

Step 24: Naked Single

R2C8 = 4 (naked single).

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

Step 25: Naked Single

R5C4 = 6 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 8 9</small>	<small>2 4</small>	<small>4 5 7</small>	<small>2 7 8</small>	<small>1 2 5 7 9</small>	<small>5 6</small>	<small>1 5 6 7</small>
1	<small>2 7</small>	<small>5 7</small>	6	<small>3</small>	9	<small>2 5 7</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 8 9</small>	1	<small>4 5 7</small>	<small>2 7 8</small>	<small>2 5 7 9</small>	3	<small>5 6 7</small>
2	<small>6 7 8</small>	<small>7 8</small>	5	<small>4 6 7</small>	1	<small>4 7</small>	9	3
9	<small>6 7</small>	1	<small>2 4</small>	8	3	<small>4 5 7</small>	<small>5 6</small>	<small>5 6 7</small>
<small>3 5</small>	4	<small>3 5</small>	9	<small>6 7</small>	<small>7</small>	<small>1 5 7 8</small>	2	<small>1 5 6 7 8</small>

Step 26: Naked Single

R5C5 = 3 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 8 9</small>	<small>2 4</small>	<small>4 5 7</small>	<small>2 7 8</small>	<small>1 2 5 7 9</small>	<small>5 6 7</small>	<small>1 5 6 7</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5 7</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 8 9</small>	1	<small>4 5 7</small>	<small>2 7 8</small>	<small>2 5 7 9</small>	3	<small>5 6 7</small>
2	<small>6 7 8</small>	<small>7 8</small>	5	<small>4 6 7</small>	1	<small>4 7</small>	9	3
9	<small>6 7</small>	1	<small>2 4</small>	8	3	<small>4 5 7</small>	<small>5 6 7</small>	<small>5 6 7</small>
<small>3 5</small>	4	<small>3 5</small>	9	<small>6 7</small>	<small>7</small>	<small>1 5 7 8</small>	2	<small>1 5 6 7 8</small>

Step 27: Naked Single

R9C6 = 7 (naked single).

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

Step 28: Naked Single

R9C5 = 6 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 8 9</small>	<small>2 4</small>	<small>4 5 7</small>	<small>2 8</small>	<small>1 2 5 7 9</small>	<small>5 6</small>	<small>1 5 6 7</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5 7</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 8 9</small>	1	<small>4 5 7</small>	<small>2 8</small>	<small>2 5 7 9</small>	3	<small>5 6 7</small>
2	<small>6 7 8</small>	<small>7 8</small>	5	<small>4</small>	1	<small>4 7</small>	9	3
9	<small>6 7</small>	1	<small>2 4</small>	8	3	<small>4 5 7</small>	<small>5 6</small>	<small>5 6 7</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 29: Naked Single

R7C5 = 4 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 8 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 5 7 9</small>	<small>5 6 7</small>	<small>1 5 6</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5 7</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 8 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 5 7 9</small>	3	<small>5 6 7</small>
2	<small>6 7 8</small>	<small>7 8</small>	5	4	1	<small>7</small>	9	3
9	<small>6 7</small>	1	<small>2</small>	8	3	<small>4 5 7</small>	<small>5 6 7</small>	<small>5 6 7</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 30: Naked Single

R7C7 = 7 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 8 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 5 9</small>	<small>5 6 7</small>	<small>1 5 6</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 8 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 5 9</small>	3	<small>5 6 7</small>
2	<small>6 8</small>	<small>8</small>	5	4	1	7	9	3
9	<small>6 7</small>	1	<small>2</small>	8	3	<small>4 5</small>	<small>5 6</small>	<small>5 6</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 31: Naked Single

R7C3 = 8 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 5 9</small>	<small>5 6 7</small>	<small>1 5 6</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 5 9</small>	3	<small>5 6 7</small>
2	<small>6</small>	8	5	4	1	7	9	3
9	<small>6 7</small>	1	<small>2</small>	8	3	<small>4 5</small>	<small>5 6</small>	<small>5 6</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 32: Naked Single

R7C2 = 6 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 5 9</small>	<small>5 6 7</small>	<small>1 5 6</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5</small>	8	4
<small>5 6 7</small>	<small>2 7 8</small>	<small>4 5 7 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 5 9</small>	3	<small>5 6 7</small>
2	6	8	5	4	1	7	9	3
9	<small>7</small>	1	<small>2</small>	8	3	<small>4 5</small>	<small>5 6</small>	<small>5 6</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 33: Naked Single

R8C2 = 7 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 5 9</small>	<small>5 6 7</small>	<small>1 5 6</small>
1	<small>2 7</small>	<small>5 7</small>	6	3	9	<small>2 5</small>	8	4
<small>5 6 7</small>	<small>2 8</small>	<small>4 5 7 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 5 9</small>	3	<small>5 6 7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4 5</small>	<small>5 6</small>	<small>5 6</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 34: Naked Single

R5C2 = 2 (naked single).

4	9	2	3	1	6	<small>5 8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 5 9</small>	<small>5 6 7</small>	<small>1 5 6</small>
1	2	<small>5 7</small>	6	3	9	<small>5</small>	8	4
<small>5 6 7</small>	<small>8</small>	<small>4 5 7 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 5 9</small>	3	<small>5 6 7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4 5</small>	<small>5 6</small>	<small>5 6</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 5 8</small>	2	<small>1 5 8</small>

Step 35: Naked Single

R5C7 = 5 (naked single).

4	9	2	3	1	6	<small>8</small>	7	<small>5 8</small>
<small>3 7</small>	1	<small>3 7</small>	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5 6 7</small>	3	<small>4 5 7 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 9</small>	<small>6 7</small>	<small>1 6</small>
1	2	<small>7</small>	6	3	9	5	8	4
<small>5 6 7</small>	<small>8</small>	<small>4 5 7 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 9</small>	3	<small>6 7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5 6</small>	<small>5 6</small>
<small>3 5</small>	4	<small>3 5</small>	9	6	7	<small>1 8</small>	2	<small>1 5 8</small>

Step 36: Naked Single

R1C7 = 8 (naked single).

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

Step 37: Naked Single

R1C9 = 5 (naked single).

4	9	2	3	1	6	8	7	5
³ ₇	1	³ ₇	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
^{5 6} ₇	3	^{4 5} _{7 9}	² ₄	⁵ ₇	² ₈	^{1 2} ₉	⁶ ₇	¹ ₆
1	2	₇	6	3	9	5	8	4
^{5 6} ₇	₈	^{4 5} _{7 9}	1	⁵ ₇	² ₈	² ₉	3	⁶ ₇
2	6	8	5	4	1	7	9	3
9	7	1	²	8	3	₄	^{5 6}	₆
³ ₅	4	³ ₅	9	6	7	₁	2	₁ ₈

Step 38: Naked Single

R4C8 = 6 (naked single).

4	9	2	3	1	6	8	7	5
³ ₇	1	³ ₇	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
⁵ ₇	3	^{4 5} _{7 9}	² ₄	⁵ ₇	² ₈	^{1 2} ₉	6	¹ ₇
1	2	₇	6	3	9	5	8	4
^{5 6} ₇	₈	^{4 5} _{7 9}	1	⁵ ₇	² ₈	² ₉	3	₇
2	6	8	5	4	1	7	9	3
9	7	1	²	8	3	₄	₅	₆
³ ₅	4	³ ₅	9	6	7	₁	2	¹ ₈

Step 39: Naked Single

R5C3 = 7 (naked single).

4	9	2	3	1	6	8	7	5
³ ₇	1	³	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
⁵	3	^{4 5} ₉	² ₄	⁵ ₇	² ₈	^{1 2} ₉	6	¹ ₇
1	2	7	6	3	9	5	8	4
^{5 6} ₈		^{4 5} ₉	1	⁵ ₇	² ₈	² ₉	3	₇
2	6	8	5	4	1	7	9	3
9	7	1	²	8	3	₄	₅	₆
³ ₅	4	³ ₅	9	6	7	₁	2	₁ ₈

Step 40: Naked Single

R2C3 = 3 (naked single).

4	9	2	3	1	6	8	7	5
<small>7</small>	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
<small>5</small>	3	<small>4 5 9</small>	<small>2 4</small>	<small>5 7</small>	<small>2 8</small>	<small>1 2 9</small>	6	<small>1 7</small>
1	2	7	6	3	9	5	8	4
<small>5 6</small>	<small>8</small>	<small>4 5 9</small>	1	<small>5 7</small>	<small>2 8</small>	<small>2 9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3 5</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>1 8</small>

Step 41: Naked Single

R2C1 = 7 (naked single).

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

Step 42: Naked Single

R4C1 = 5 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<div>4 9</div>	<div>2 4 7</div>	<div>2 8</div>	<div>1 2 9</div>	6	<div>1 7</div>	
1	2	7	6	3	9	5	8	4
<div>6 8 9</div>	<div>4 9</div>	1	<div>5 7</div>	<div>2 8</div>	<div>2 9</div>	3	<div>7</div>	
2	6	8	5	4	1	7	9	3
9	7	1	<div>2</div>	8	3	<div>4</div>	<div>5</div>	<div>6</div>
<div>3</div>	4	<div>5</div>	9	6	7	<div>1</div>	2	<div>1 8</div>

Step 43: Naked Single

R4C5 = 7 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<small>4</small>	<small>2</small> <small>4</small>	7	<small>2</small> <small>8</small>	<small>1 2</small> <small>9</small>	6	<small>1</small>
1	2	7	6	3	9	5	8	4
<small>6</small>	<small>8</small>	<small>4</small> <small>9</small>	1	<small>5</small>	<small>2</small> <small>8</small>	<small>2</small> <small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>1</small> <small>8</small>

Step 44: Naked Single

R4C9 = 1 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<div>4 9</div>	<div>2 4</div>	7	<div>2 8</div>	<div>2 9</div>	6	1
1	2	7	6	3	9	5	8	4
<div>6 8</div>	<div>4 9</div>	1	5	<div>2 8</div>	<div>2 9</div>	3	<div>7</div>	
2	6	8	5	4	1	7	9	3
9	7	1	<div>2</div>	8	3	<div>4</div>	<div>5</div>	<div>6</div>
<div>3</div>	4	<div>5</div>	9	6	7	<div>1</div>	2	<div>8</div>

Step 45: Naked Single

R6C1 = 6 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<small>4</small>	<small>2</small> <small>4</small>	7	<small>2</small> <small>8</small>	<small>2</small> <small>9</small>	6	1
1	2	7	6	3	9	5	8	4
6	<small>8</small>	<small>4</small> <small>9</small>	1	5	<small>2</small> <small>8</small>	<small>2</small> <small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>8</small>

Step 46: Naked Single

R6C2 = 8 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<small>4</small>	<small>2</small> <small>4</small>	7	<small>2</small> <small>8</small>	<small>2</small> <small>9</small>	6	1
1	2	7	6	3	9	5	8	4
6	8	<small>4</small> <small>9</small>	1	<small>5</small>	<small>2</small>	<small>2</small> <small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>8</small>

Step 47: Naked Single

R6C5 = 5 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<small>4</small>	<small>2</small> <small>4</small>	7	<small>2</small> <small>8</small>	<small>2</small> <small>9</small>	6	1
1	2	7	6	3	9	5	8	4
6	8	<small>4</small> <small>9</small>	1	5	<small>2</small>	<small>2</small> <small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>8</small>

Step 48: Naked Single

R6C6 = 2 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<small>4</small>	<small>4</small>	7	<small>8</small>	<small>2</small>	6	1
1	2	7	6	3	9	5	8	4
6	8	<small>4</small>	1	5	2	<small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>8</small>

Step 49: Naked Single

R4C4 = 4 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	<small>9</small>	4	7	<small>8</small>	<small>2</small> <small>9</small>	6	1
1	2	7	6	3	9	5	8	4
6	8	<small>4</small> <small>9</small>	1	5	2	<small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>8</small>

Step 50: Naked Single

R4C3 = 9 (naked single).

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

Step 51: Naked Single

R4C6 = 8 (naked single).

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

Step 52: Naked Single

R4C7 = 2 (naked single).

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

Step 53: Naked Single

R6C3 = 4 (naked single).

4	9	2	3	1	6	8	7	5
7	1	3	8	9	5	6	4	2
8	5	6	7	2	4	3	1	9
5	3	9	4	7	8	2	6	1
1	2	7	6	3	9	5	8	4
6	8	4	1	5	2	<small>9</small>	3	<small>7</small>
2	6	8	5	4	1	7	9	3
9	7	1	<small>2</small>	8	3	<small>4</small>	<small>5</small>	<small>6</small>
<small>3</small>	4	<small>5</small>	9	6	7	<small>1</small>	2	<small>8</small>

Step 54: Naked Single

R6C7 = 9 (naked single).

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

Step 55: Naked Single

R6C9 = 7 (naked single).

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

Step 56: Naked Single

R8C4 = 2 (naked single).

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

Step 57: Naked Single

R8C7 = 4 (naked single).

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

Step 58: Naked Single

R8C8 = 5 (naked single).

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

Step 59: Naked Single

R8C9 = 6 (naked single).

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

Step 60: Naked Single

R9C1 = 3 (naked single).

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

Step 61: Naked Single

R9C3 = 5 (naked single).

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

Step 62: Naked Single

R9C7 = 1 (naked single).

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

8

Step 63: Naked Single

R9C9 = 8 (naked single).

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