

Solving CSPs: Sudoku

All 3x3 boxes, rows, columns, **must contain all digits 1..9.**

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

Variables: $V = \{A_1, \dots, A_9, B_1, \dots, B_9, \dots, I_1 \dots I_9\}$, $|V| = 81$.

Domain: $D = \{1, 2, \dots, 9\}$, the filled squares have a single value.

Constraints: 27 constraints

- $\text{Alldiff}(A_1, A_2, A_3, A_4, A_5, A_6, A_7, A_8, A_9)$
...
- $\text{Alldiff}(A_1, B_1, C_1, D_1, E_1, F_1, G_1, H_1, I_1)$
...
- $\text{Alldiff}(A_1, A_2, A_3, B_1, B_2, B_3, C_1, C_2, C_3)$