## Solving a sudoku

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## 1 Ideas

Hello world

```
Algorithm 1 SolveSudoku : Main function

Require: Sudoku initial_sudoku
queue := SudokuQueue(initial_sudoku)
while True do
    current_sudoku := queue.pop()
    (success, solution_candidate) := DirectSolve(current_sudoku)
    if success then break
    queue.MakeAChoiceAndAdd(solution_candidate)
end while
return solution_candidate
```

```
Algorithm 2 DirectSolve : Choice free sudoku solver
```

```
Require: sudoku
while True do
if not sudoku.IsolateAndClean() then
return sudoku.isSolved(), sudoku
end if
end while
```

```
Algorithm 3 Sudoku. IsolateAndClean
```

return