

# Problem Solving Homework (Week 4)

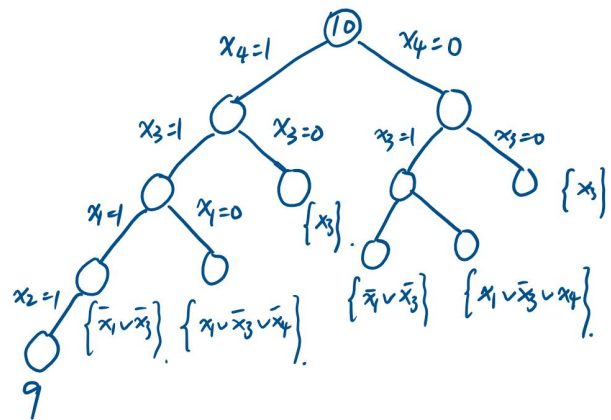
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2018 年 7 月 4 日

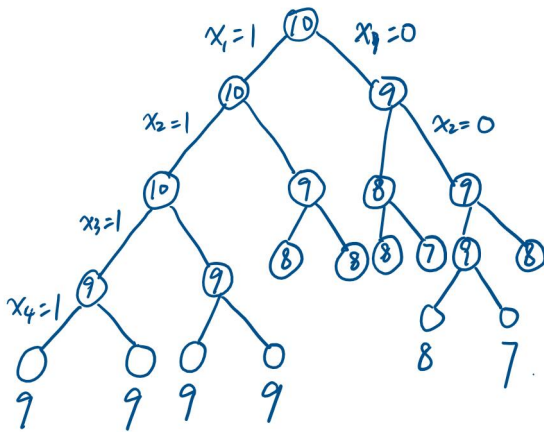
## JH Chapter 3

### 3.4.2.2

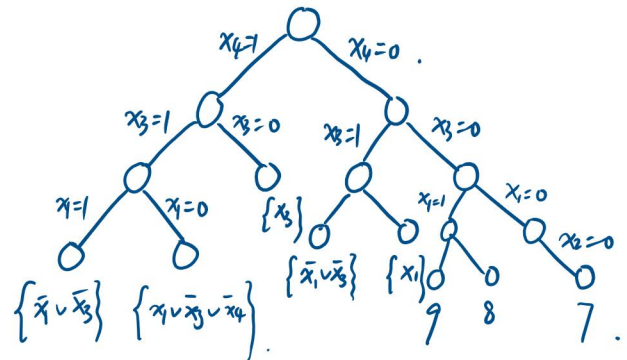
This is right DFS's search tree:



### 3.4.2.1



This is left DFS's search tree:



How to prune? Define  $[a, b]$ : the minimum and maximum possible number of satisfied clauses

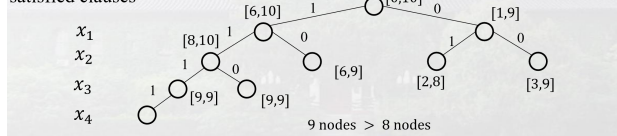


图 1: REVISE

## Knapsack

Sort all items by its cost, in ascending order. The enumerate all possibilities. A favorable instance can be  $\{W, C, b\} = \{2, 3, 4, 1, 2, 3, 4\}$ , and an unfavorable instance can be  $\{W, C, b\} = \{4, 3, 2, 1, 2, 3, 4\}$ .