Exam 2 breakdown

Contraint Search 50/50 leaning towards Game Search game search

CSP

- 11 MCQs/T/Fs 2 points each
- 1 Multipart Problem

Most Constrained
" Constraining
Least Const Value
Minesweeper

} 6 part 2 point
12 points

- 1 - CSP multipart - 10 points

Gamesearch

10 MCQs/TF 2 points each

- 1 Gametheoretic Values for states 26 poin
- 1 Alpha beta proning 10 points

not for every single
before or after iterating over children
smaller than h.w

Minesweeper — 6 parts

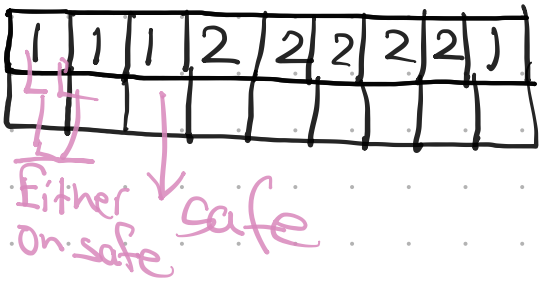
Variables - Cells

Constraint numbers

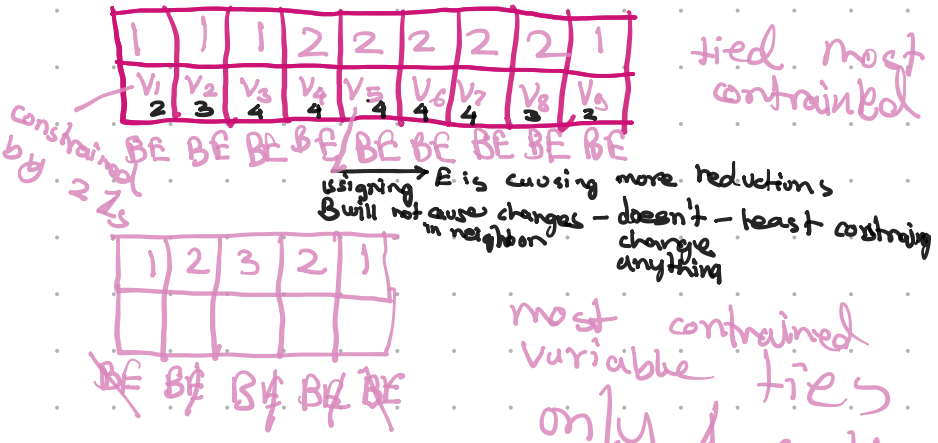
Safe or Not

may or may not

- Most Constra/ing
- Least Constrained V
- Value for 1 assigned, what would constraint propagation would do?



Do not think like a person on the exam



tied most constrained - 2 options each

most constrained variable ties only 1 option

(V_1, V_2) : {(B,E), (E,B)}

(V_1, V_2, V_3) : {(B,E,E), (E,B,E), (E,E,B)}

(V_2, V_3, V_4) : {(B,E,E), (E,B,E), (E,E,B)}

(V_3, V_4, V_5) : {(B,B,E), (E,B,B), (B,E,B)}

H.W

Problem 2 (Alpha Beta Pruning): For the game tree that follows, perform Alpha Beta Pruning. Specifically, do the following:

a. **To the left** of each non-leaf node, write in the alpha and beta values that would be passed to that node during the search (leave these blank for any nodes that would not be reached by the search).

b. **To the right** of each non-leaf node, write in the alpha and beta values at that node but after the search is done recursively evaluating the node's children (note: in some cases the search won't actually evaluate some of the children due to the pruning rule). Just like in part a, leave these blank for any nodes that would not be reached by the search.

c. **Inside** each non-leaf node, write in the value that the search would return from that node once it is finished recursively evaluating the children (leave it blank for any nodes that would not be reached by the search).

d. **Put an X** through all edges that would not be followed by the search due to the pruning rule. If you put an X through an edge, you do not need to put an X through edges at descendants (since you obviously would never see the descendants if you didn't follow the crossed out edge).

e. What is the game-theoretic value for this game? _____