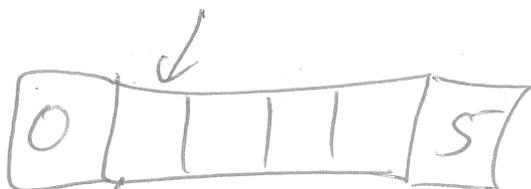
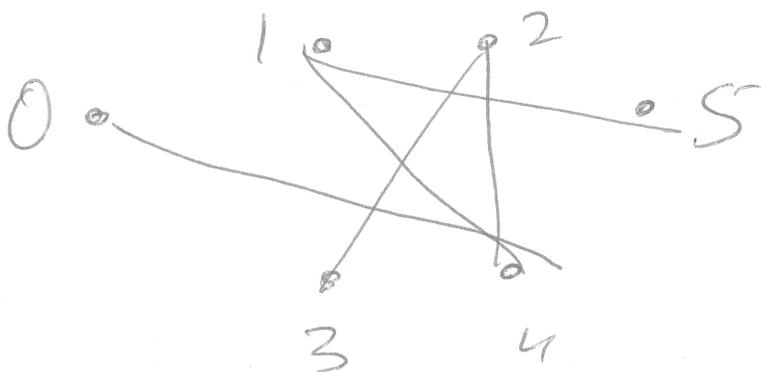


① Backtracking

② Min-Max Trees

→ Backtracking is "smart brute force"



1	2	3	4
---	---	---	---

1 2 4 3

1 3 2 4

1 3 4 2

1 4 2 3

1 4 3 2

} doomed
to
fail!because no edge btw
vertex 0. and vertex 1.if (g[perm[k-1]][~~i~~i] == false)

continue;

→ SKIP OPTIONS DOOMED TO FAIL!

Min-Max

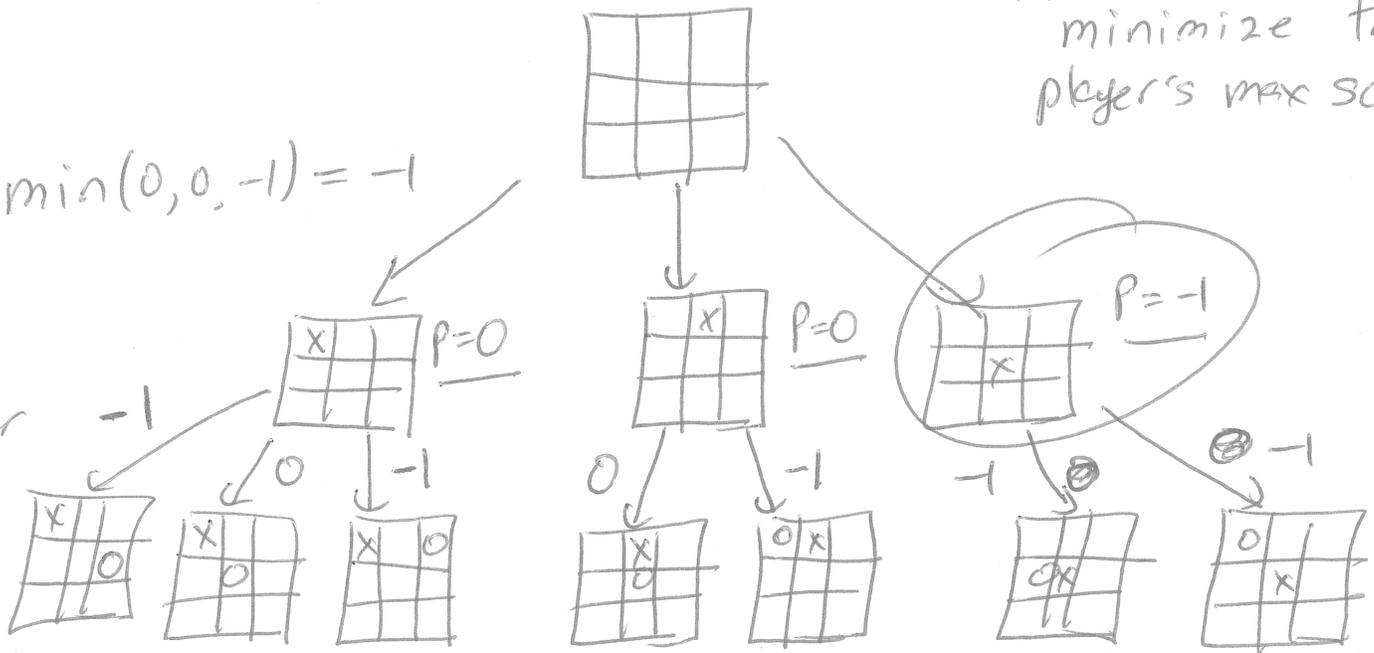
Trees

Computer's Goal

~~max~~ minimize
minimize the
player's max score

$$\min(0, 0, -1) = -1$$

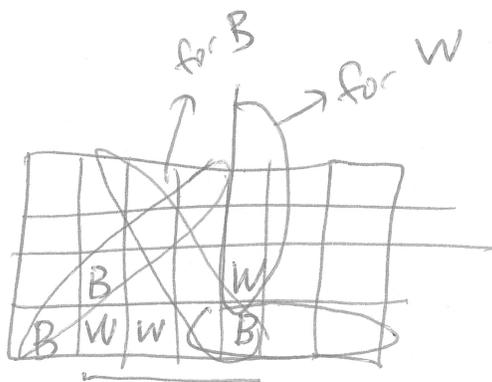
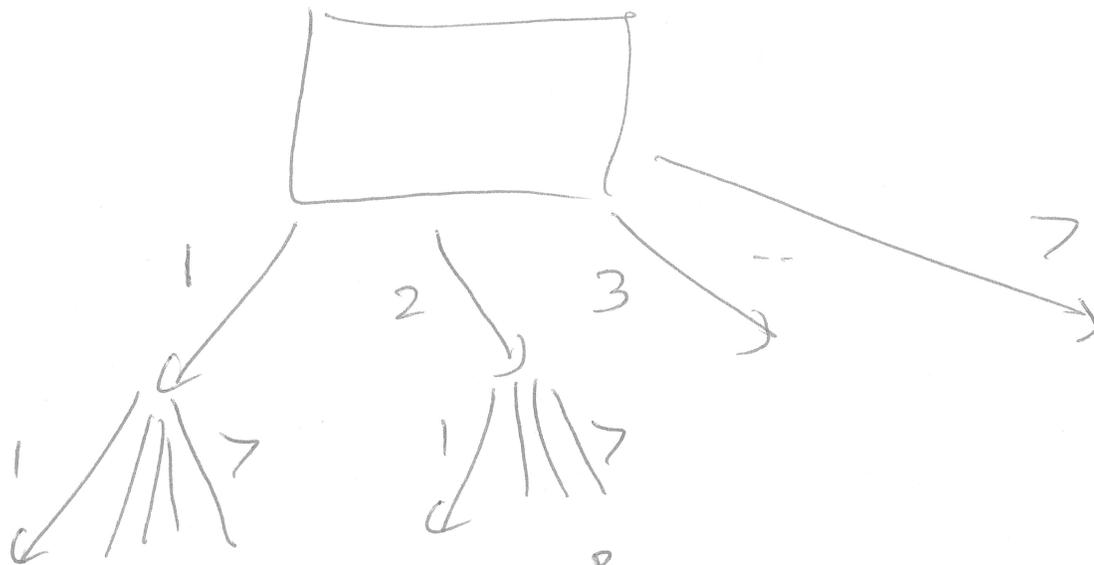
Player
Score



Apply Idea to lots of 2 player games

- 1) Chess
- 2) Checkers
- 3) Connect 4
- 4) Reversi

When you can't compute all computation paths what do you do?



max Depth
ply

4-ply

↓ no recursion
write a function that does
an approximate board eval.

Alpha-Beta Pruning

