

Game Playing

Economics

our main goal is to win the game against all opponents.

Find/Search best possible solution

Perform look ahead in a game tree

Game Playing as a Game Tree

# Searching in Game Trees

↳ OR Tree — Two types of node

Min Node

- Selects Min Cost Successor

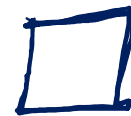
- Opponents move

Terminal Nodes

↳ Winning nodes / Losing nodes  
↳ often unfeasible

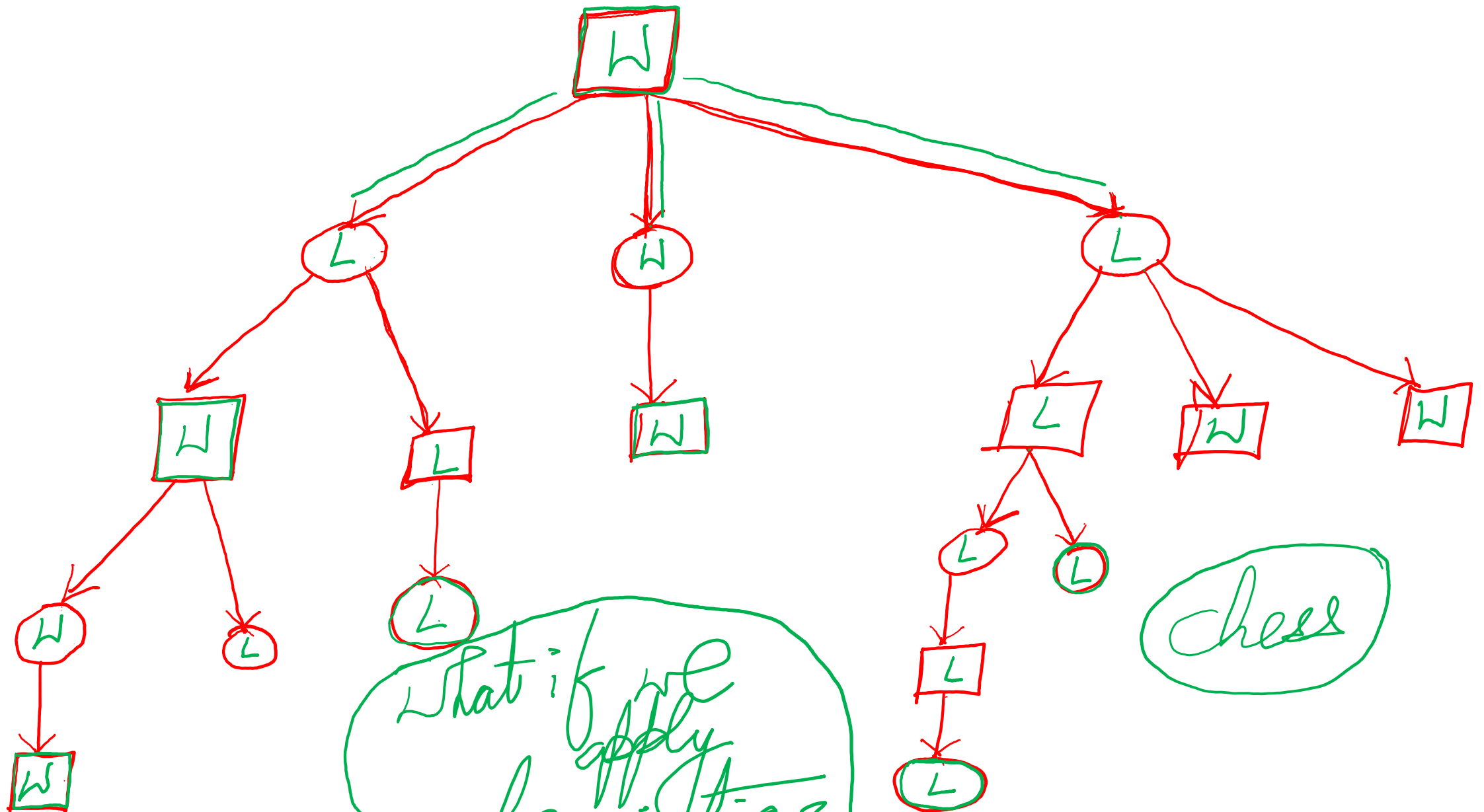
Max Node

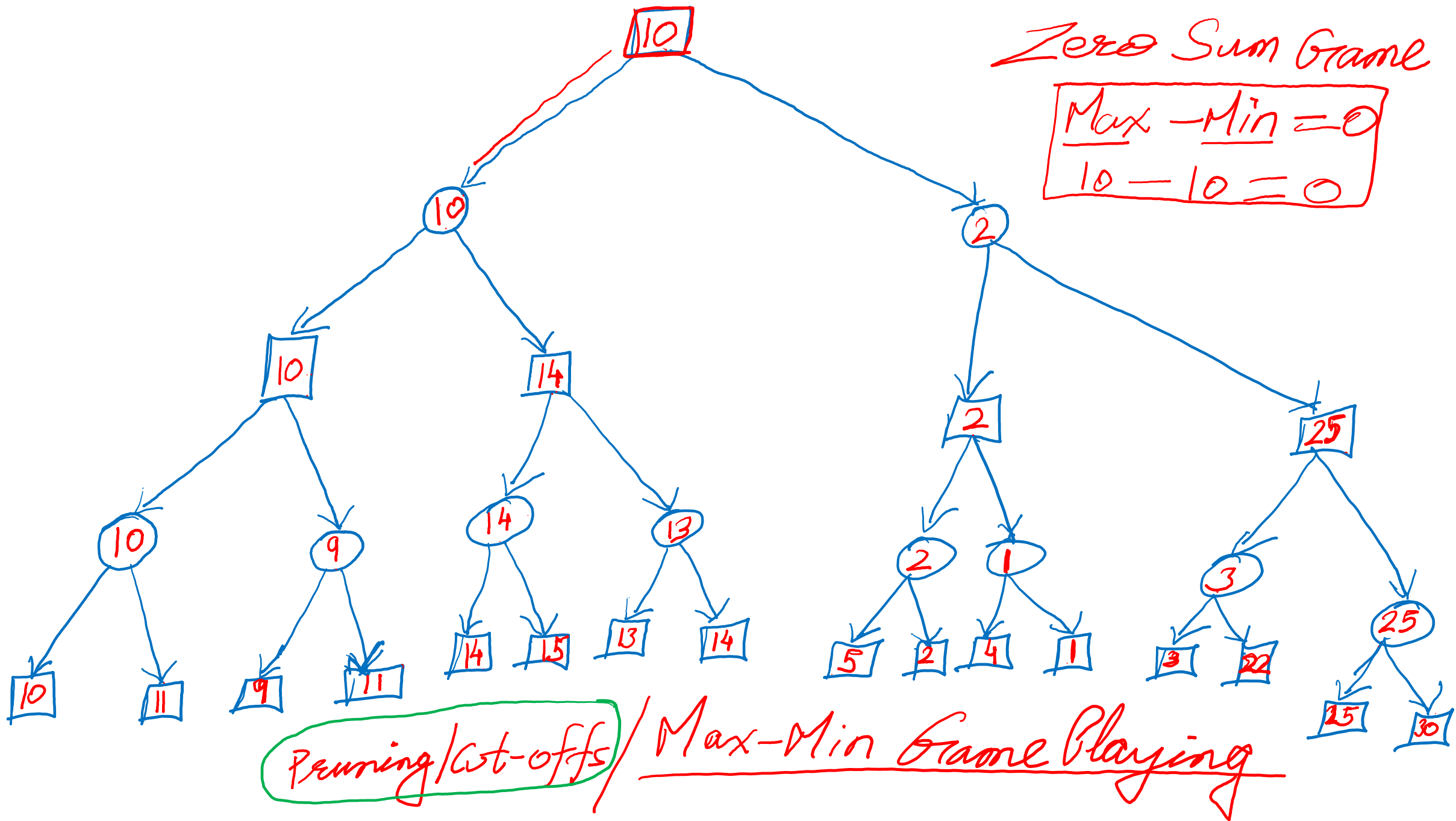
- Selects Max Cost Successor



- our move

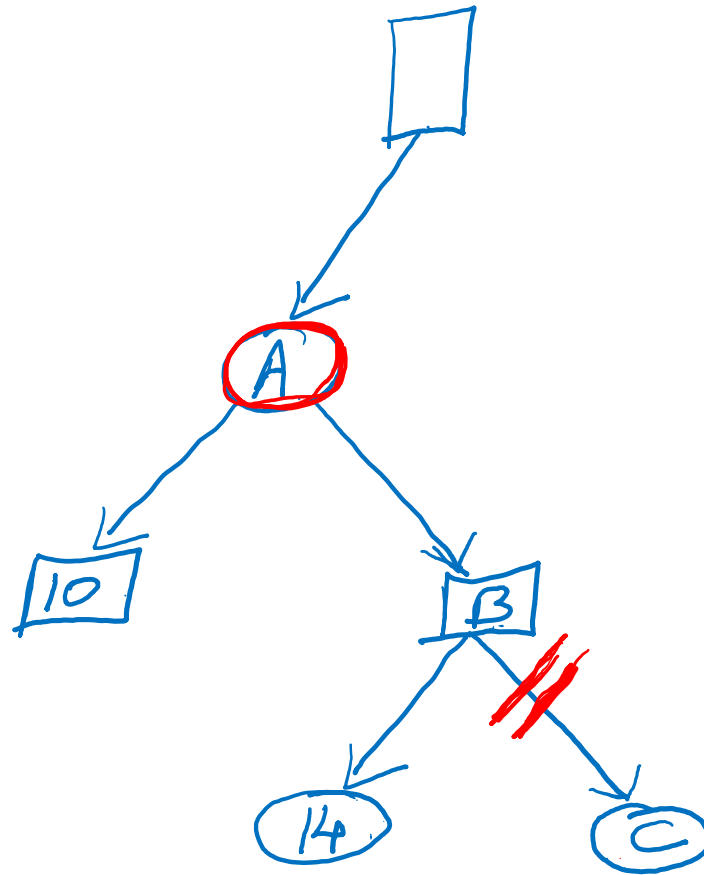
- use heuristic cost to compare non-terminal nodes

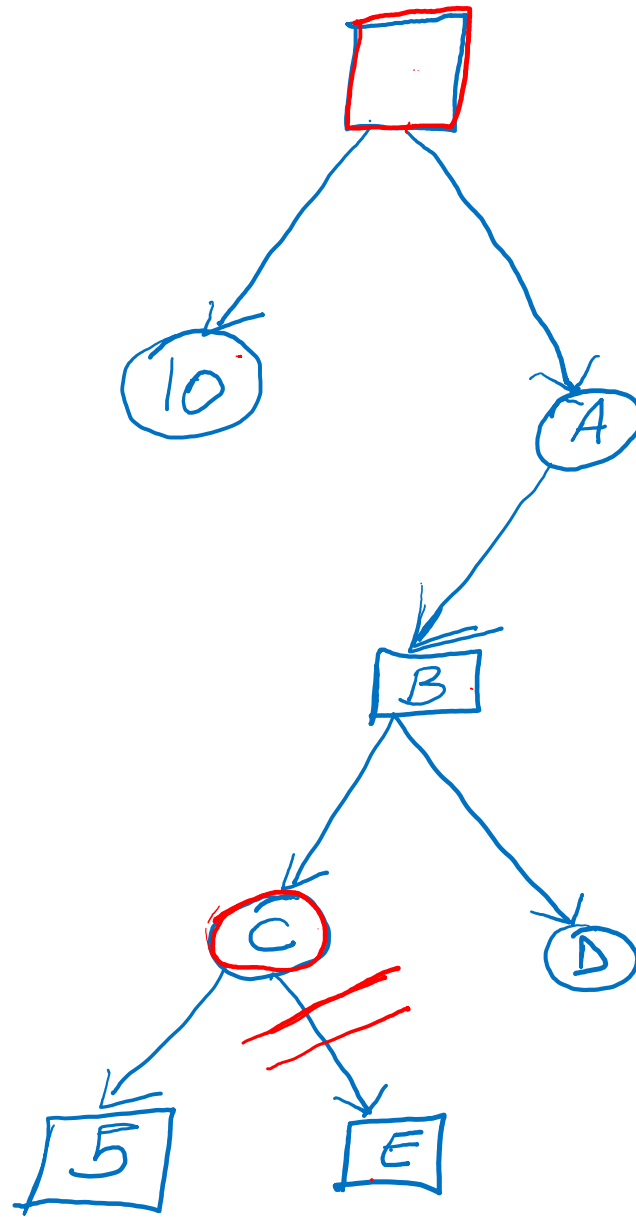




Pruning — Not Exploring subtrees which would eventually have no effect on the game's result

Shallow Pruning





Deep Pruning