L07 Faster Constraint Satisfaction

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1 Adversarial Games (Brain Power)

1. Zero sum games (Win/Lose)
2. Tic-Tac-Toe
   start with initial game config
   9 possible outcomes.
   8 possible outcomes.
   9! nodes.
3. Steps
   (a) BFS complete tree
   record each terminal node/path
   (b) obtain list of all possible games!
   (c) sort it!
   (d) choose from list a move

1.1 Introduce a utility function that evaluates partial game configurations

1. look at the game tree
2. if a path results in a win increase score
3. choose the best result
4. p1 – maximize uitlity, p2 – minimize utility (Minimax)
5. how to get utilities at nodes?
   for terminal nodes return some + or - value
6. branch factor approx 35 with chess. which is a depth of 100