

AI for Traditional Games
Winter, 2013
Final Review

Game properties:

Be able to define and explain each of the following types of games:

- Extensive form / Normal form
- Two-player / Multi-player
- Zero-sum / Non-zero sum
- Perfect information / Imperfect information
- Stochastic / Deterministic
- Nash equilibria
- Equilibrium strategy / profile
- Nash equilibria
- And/OR trees

Algorithms:

Be able to simulate each of these algorithms on a sample tree.

- Minimax
- Alpha-Beta Pruning
- Expecti-Minimax
- Maxⁿ
- Maxⁿ shallow/deep pruning
- UCB/UCT, Monte-Carlo Simulations

General Techniques:

Know what these techniques are, and how they are used.

- Transposition Tables
- Opening Book
- Closing Book (Retrograde Analysis)
- Perfect-Information Monte-Carlo Sampling
- Supervised learning

Miscellaneous:

- External Regret
- Linear Regression
- Information Sets