

Draft Solutions

Adversarial Search

1. Move to B (for a maximum value of 4).
2. You can prune nodes F and G.
3. The horizon effect is caused by the depth bounds on search (b).
4. The singular extension heuristic: extend the best line of play a couple of ply to make sure that the move is a good one. (Other answers are possible here.)

State Space Search:

1. **Best-First Search:** A B D J.
2. **Iterative Deepening:** if initial depth cutoff, c , is 0, then A A B C A B D E F C G H A B D J.
3. **A* search:** A C H G O R.

First-Order Logic and Resolution Theorem Proving

No solution provided.

Heuristic Search and CSP:

No solution provided — there are a variety of acceptable answers.