

AI (Fall 2019) – Assignment 1
Search and game tree search

Due: 11:59pm, Wednesday, Sept. 25, 2019

1. Consider travel in Romania from Arad to Bucharest. Trace the operation of uniform-cost search with cycle-checking: draw the search tree.
2. The missionaries and cannibals problem (see the lecture notes): Consider the case of $M = 5$ and $K = 3$. Use the heuristic function $h(n) = M + C - 2B$. Trace the operation of A^* with cycle checking: Draw the search tree; for each node, mark its g and h values.
3. Perform alpha beta pruning on the following game tree and compute the utility value of the root.

