Assignment 4 Derek 2 hang 026225028 Da) True The Monhaltan distance (1x2-x11+1x2-x11) as a heuristic in this case would be appropriate, as it measures the winimom distance to target. Italice algorithm should be botter on average than a random walk as it will trend toward better "traits" over time due to the crossover probability function. a.) Yes, however, this solution is not guarantered to be the best solution. b.) Yes, given that the heuristic function is admissible and the prompt is possible. a.) Terminal payoff is negative total moves taken, so -4. b.) The positions are as follows be All children of this node are just figure (b). C) Yes, as since tp=- | m+ |, and

0 3

4

my only increases as the game continues, to will continuously

d.) Node (>) & (6) do not need expansion, as they will all be less than -4, and as such can

decrease.

be pruned.

