Noah Tigner
CIS 471

Homework 2

1.1 A = [(1,1), (1,3), (2,2), (2,3)]
B = [(1,3), (2,3)]
C = anywhere
D = [(1,2), (1,3), (2,1), (2,3)]

1.2 A = [(1,3), (2,2), (2,3)]
B = [(1,3), (2,3)]
C = anywhere
D = [(1,2), (1,3), (2,1), (2,3)]

1.3 A = [(1,3), (2,2), (2,3)]
B = [(1,3), (2,3)]
C = [(1,2), (1,3), (2,2), (2,3)]
D = [(1,2), (1,3), (2,1), (2,3)]

1.4 A->C and B->C were added

1.5 A = [(1,3), (2,2), (2,3)]
B = [(1,3), (2,3)]
C = [(1,2), (1,3), (2,2), (2,3)]
D = [(1,2), (1,3), (2,1), (2,3)]

1.6 B gets assigned next, because it has the fewest possible values remaining.

1.7 The least constraining value for B is (2,3).

1.8 A = [(1,3), (2,2)]
B = (2,3)
C = [(1,3), (2,2)]
D = [(1,2), (1,3), (2,1)]

2.1 A = 1
B = 2
C = 3
D = 3

2.2 A = 15
B = 19
C = 8
D = 24
E = 15
F = 8
G = 15

3.1 $x > 8$

3.2 $x > 9$

3.3 There are no values of x such that the minimax value is greater than the expectimax value.

3.4 It is not possible to have a game where the minimax value is strictly greater than the expectimax value. This is because minimax is pessimistic while expectimax is optimistic.

4.1 A = 4
B = 3

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C = 1

D = 4

4.2 Leaf nodes 5, 6, and 1 don’t get visited due to pruning.