Q11: Short Answer: Games

Problem 11: Short Answer: Games

Consider an adversarial game tree where the root node is a maximizer, and the minimax value of the game is v_M. Now, also consider an otherwise identical tree where every minimizer node is replaced with a chance node (with an arbitrary but known probability distribution). The expectimax value of the modified game tree is v_E. Mark each whether the following statements are true or false.

Part 1

2/2 points (ungraded)

v_M is guaranteed to be less than or equal to v_E.

- (•) True ✔
- ( ) False

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✔ Correct (2/2 points)

Part 2

2/2 points (ungraded)

Using the optimal *minimax* policy in the game corresponding to the modified (chance) game tree is guaranteed to result in a payoff of at least v_M.

- [x] True
- [ ] False

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✔ Correct (2/2 points)

Part 3

2/2 points (ungraded)

Using the optimal *minimax* policy in the game corresponding to the modified (chance) game tree is guaranteed to result in a payoff of at least v_E.

- [ ] True
- [x] False

Submit

✔ Correct (2/2 points)