# 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

0.0/2.0 points (ungraded)

\(v_M\) is guaranteed to be less than or equal to \(v_E\).

- (•) True ✔
- ( ) False

Submit You have used 0 of 1 attempt

Answers are displayed within the problem

### Part 2

0.0/2.0 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 \(v_M\).

- (•) True ✔
- ( ) False

Submit You have used 0 of 1 attempt

ℹ Answers are displayed within the problem

## Part 3

0.0/2.0 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
- (•) False ✔

Submit You have used 0 of 1 attempt

ℹ Answers are displayed within the problem