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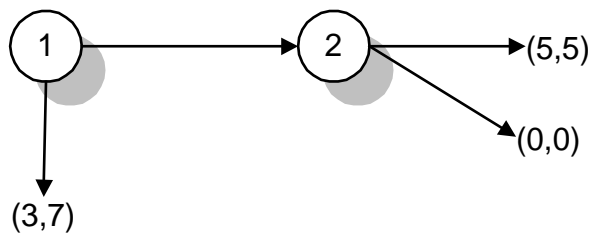
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Economics 201B - Midterm Exam

Do both questions. You have two hours. Good luck.

Game Theory

In the following game find 1) the normal form 2) all dominant strategy equilibria 3) apply iterated weak dominance 4) all pure and mixed Nash equilibria 5) which Nash equilibria are trembling hand perfect and why? 6) all subgame perfect equilibria 7) all heterogeneous self-confirming equilibria 8) a correlated equilibrium that is not a public randomization over Nash equilibria, or indicate why there is none.



An "Auction"

Consider the following auction problem: a risk neutral seller has a single item for sale worth nothing to him and a single buyer. The seller sets a single take it or leave it offer for the buyer. Buyers receive zero utility if they do not get the item and one of two different utilities if they get and pay for the item. The high value type has utility function $\log(11 - p)$ where p is the price paid, and the low value type who has utility $4 - p$. Both types have equal probability. What is the optimal take it or leave it price? Suppose the seller can offer the buyer a lottery rather than a fixed price. Find a pair of take it or leave it lotteries that yield the seller higher expected revenue than the optimal take-it or leave-it price.