ECO316 Exam Review Questions

Question 1: Bargaining (25 points)

After a supplier and a buyer sign a contract, the buyer cheats and takes the entire surplus of a sale that has value 1. The supplier takes the buyer to court (at zero legal cost), and they enter an arbitration process.

At the start of the first day, the buyer proposes a split of the surplus with value 1, and the supplier can accept or reject. At the start of the second day, the supplier makes a proposal, and the players alternate indefinitely.

After any rejection, with probability p, the court ends the process and both players receive a payoff of 0. With probability $1 - p$, bargaining continues. Players do not discount the future.

After 3 subsequent rejections, the court will impose a costly arbitration process and both players will receive a payoff of 0.

(a) (6 points) Suppose the supplier's expected payoff from proposing next round is X. What should the buyer propose in the first period? Will the supplier accept?