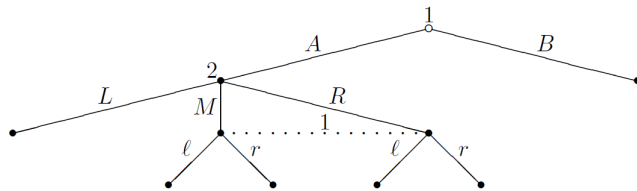
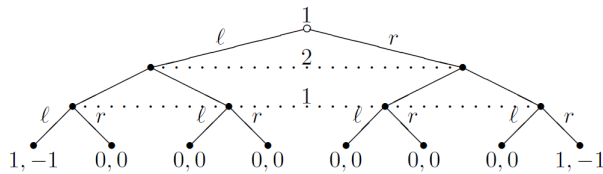


Homework 11



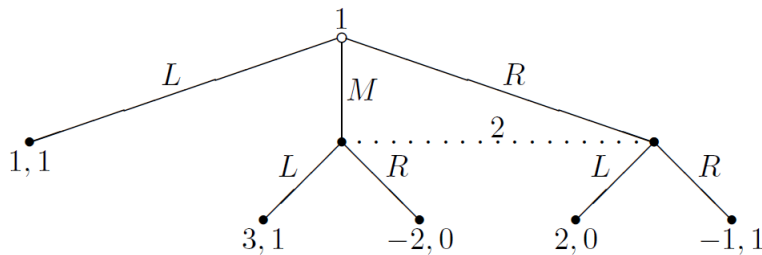
1. For this question, use the extensive form game shown above. Find the behavioral strategy of player 1 that is equivalent to her mixed strategy in which she plays (B, r) with probability 0.4, (B, l) with probability 0.1, and (A, l) with probability 0.5. Show formally that the mixed strategy and the behavioral strategy that you found are equivalent, i.e. that they induce the same probability distribution on Z for any general strategy of player 2.



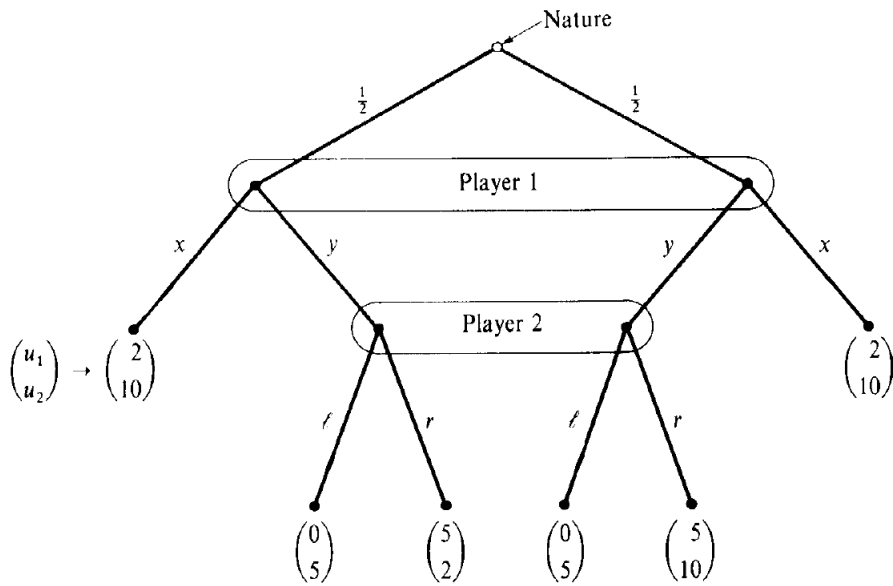
2. For this question, use the extensive form game shown above. Show that the highest expected payoff player 1 can guarantee with a behavioral strategy is $1/4$, while there is a mixed strategy that guarantees him an expected payoff of $1/2$.

3. Prove formally that any game satisfying perfect recall is linear.

4. Finish the argument started in class that a subgame perfect Nash equilibrium exists in any extensive form game of perfect recall.



4. Find all the sequential equilibria of the game above.



5. Find all the sequential equilibria of the game above.