ECON 521, Discussion Section 6

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1. Consider the following game (basically Chicken/Hawk-Dove)

G :

	d	c
D	0,0	7,2
C	2,7	6,6

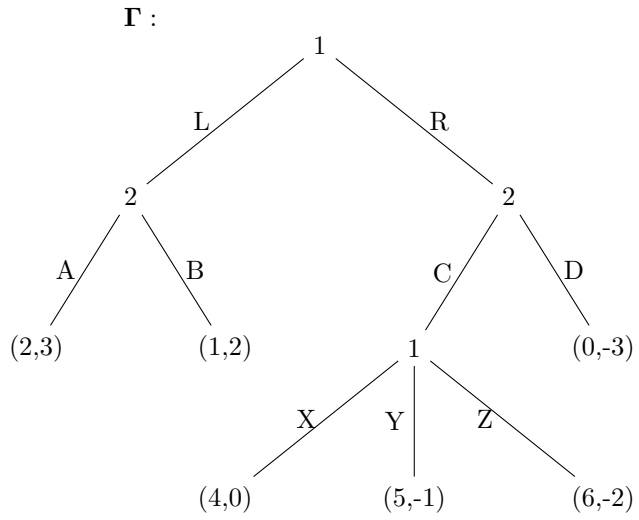
   (a) Find all Nash and Mixed equilibria.

   (b) Suppose you have access to a fair coin and can instruct each player on what action to play conditionally on the outcome of a coin-toss. Players are aware of the method by which you are instructing them, but observe only your instruction to them, not the outcome of the randomization. Construct a correlated equilibrium in which the two players have the same expected payoff and compare the expected payoffs to those of the mixed equilibrium you found in (a).

   (c) Now suppose you have access to a three-sided die instead of the coin. Can you find a correlated equilibrium that gives both players more utility than both the mixed in (a) and the correlated in (b)?

   (d) Finally, replace that three-sided die with a random-number generator that draws uniformly from $[0, 1]$. Find the best possible correlated eqm, i.e. that which maximizes expected payoffs. Restrict your attention to symmetric equilibria, i.e. both players have the same expected payoff.

2. Consider the following game, Γ:



   (a) Find H, Z, $(\bar{A}_i, A_i(\cdot))_{i \in I}$.

   (b) Find the normal form, reduced normal form, and the NE.

   (c) Find the backward induction solution.

   (d) Are there any NE which seem to rely on threats that are not credible?