1. In the following games all have equilibria that do not give Rose her maximal payoff. For each one say whether Rose could benefit by any of the following strategic moves. (i) seizing the initiative (committing to the first move); (ii) forcing Colin to go first, (iii) making a threat; (iv) making a promise; (v) making both a promise and a threat. In the case of a threat, promise or commitment, show how Rose can make it credible.

	A	B
A	3,2	1,1
B	2,4	4,3

	A	B
A	2,2	4,1
B	1,3	3,4

	A	B
A	2,4	3,3
B	1,2	4,1

2. A kidnapper takes a hostage and demands the hostage pay a ransom. They then play the following sequential game. The hostage may pay the ransom or not. The kidnapper may then kill the hostage or release him. If the hostage is released he may report the kidnapper to the police or not. The kidnapper has utility 5 for getting a reward -2 for being reported, and -1 for killing the hostage. The utilities are additive, so that if the kidnapper gets the reward and is then reported his utility is 5-2=3, The hostage has utilities -10 for being killed, -2 for paying and 1 for reporting.

   (a) Draw the game tree for this game, labeling choosers, choices and payoffs

(b) Find the natural outcome for the game. With your group discuss the dilemma this outcome represents for each player and talk about possible strategic moves that might resolve it.

(c) Suppose the hostage could make a convincing threat or promise what would it be, what is the new outcome, and who benefits? Can you see how the hostage could make this threat credible?

(d) Suppose the kidnapper is convinced by the threat or promise in part (c). The kidnapper can respond by making a threat or promise. What should it be? What is the outcome and who benefits? How can the kidnapper make this strategic move credible?

(e) Suppose the kidnapper is not convinced by the threat or promise in part (c). What threat or promise can the kidnapper make instead? How can he make it credible?