

Problem Set 7

1. Imagine there are two subjects, one of them can be nice or mean. The tables are as follows:

The probability of Player 2 being mean is equal to 0.5.

		Nice		Mean	
		D	C	D	C
D		(0,-2)	(-10,-1)	D	(0,-2) (-10,-7)
C		(-1,-10)	(-5,-5)	C	(-1,-10) (-5,-11)

a) What are the strategies of the players?

b) Find the BNE.

2. Consider the classical entry game. The entrant (Firm 1) may be Strong or Weak with probabilities ($p=0.5$) each. If F1 decides not to enter, the Entrant and Incumbent (Firm 2) get (0,2) as payoffs. If Firm 1 decides to enter, then Firm 2 can Fight or Acquiesce. If F2 decides to fight, and F1 is Strong, then the payoffs are (-1,-1), while if F2 decides to acquiesce they get (1,1). On the other hand, if F1 is weak, then fighting gives payoffs (-2,0) and acquiescing leads to (-1,1).

a) Draw the game tree.

b) Find the BNE.