Workshop Questions

1. **Warmup**
   For each of the following games eliminate any dominated strategies and then check for saddle points in the reduced payoff matrix. If there are no saddle points find the optimum mixed strategy for each of the players. Find the value of the game.

(a)

	A	B	C
A	8	4	3
B	2	7	5

(b)

	A	B	C	D
A	-3	1	4	-5
B	0	-4	0	6
C	-2	1	5	-5
D	-1	-4	-3	4

2. **Two-Finger Mora**
   In Two-Finger Mora, two players simultaneously put out one or two fingers (with neither player able to react to the other's choice). If the total number of fingers is even, the first player wins. If the total number of fingers is odd, the second player wins. The player who wins receives an amount in dollars equal to the number of fingers showing.

   (a) Play this game 10 times as player 1 and 10 times as player 2. Record your winnings.

(b) Set up the payoff matrix.

(c) What should player 1 do if the second player chooses one finger with probability $\frac{3}{5}$.

(d) Find the player's optimal mixed strategies.

(e) Find the value of the game.

3. **Stripped Down Poker**
Last time you played stripped down poker. (refer to last worksheet)

(a) Write down the payoff matrix corresponding to the two choices for Colin (Call and Fold) and the four choices for Rose (bet regardless of the card she has (All-B), fold regardless of which card she has (All-F), bet with a king but fold with a two (BKFT), and finally fold with a king, but bet with a two (FKBT)).

(b) Once you have your payoff matrix, eliminate any dominated strategies.

(c) Find the optimal mixed strategy for each player, and the value of the game.