Math 36
Homework 06

Game Theory: Two-Player Zero-Sum Games (Part II)

1. Consider the game with payoff matrix:

	b_1	b_2	b_3	b_4
a_1	-6	-1	20	-2
a_2	12	10	-4	6

   Simplify this game by eliminating dominated columns (if possible), and find an optimal strategy for Alice and her guaranteed minimum winnings on average when she plays this strategy.

2. Consider the basic poker endgame discussed in class. Determine the optimal strategies and value of the game when Alice's chance of drawing a winning card is $\frac{1}{3}$, and when it is $\frac{1}{2}$.