

1. Games without saddle points are more complicated than games with saddle points: your opponent may gain an advantage if he/she knows your strategy. One solution is to pursue a randomized strategy.

Working with the game with the following payoff matrix, suppose you (as player A) choose option I with probability θ and option II with probability $1 - \theta$.

		A	
		I	II
B	1	8	-5
	2	2	6

- What is your expected loss if player B picks option 1?
- What is your expected loss if player B picks option 2?
- What value of θ minimizes your expected loss?
- What is your minimum expected loss?