

Problem set 5

- 1) Find all mixed strategy Nash equilibrium of the following game (you have to use the property of the Nash equilibrium in mixed strategies)

		Player 2		
		L	M	R
Player 1	T	2, 2	0, 3	1, 3
	B	3, 2	1, 1	0, 2

- 2) Each of two firms has a job opening. The firms offer different wages: firm i offers wage w_i where $0.5 \cdot w_1 < w_2 < 2 \cdot w_1$.

There are two workers that want to apply for a job. Each of whom can apply to only one firm. The workers simultaneously decide whether apply to firm 1 or to firm 2.

If only one worker applies to a given firm, that worker gets the job. If both workers apply to one firm, the firm hires one worker at random and the other worker remains unemployed.

- Represent this game using the normal form
- Solve for the Nash equilibria (in pure and mixed strategies)

- 3) Find all Nash equilibria (in pure and mixed strategies) of the following game

		Player 2			
		LL	L	M	R
Player 1	U	100, 2	-100, 1	0, 0	-100, -100
	D	-100, -100	100, -49	1, 0	100, 2