Microeconomics 2, a.a. 2021/2022

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Exercise 1 *Two people simultaneously choose whether to show Heads or Tails of a coin. If they show the same side, person 2 pays person 1 a dollar, if they show different sides, person 1 pays person 2 a dollar. Each person cares only about the amount of money she receives, and prefers to receive more than less.*

1. *Find each player's set of actions.*
2. *Represent this interaction as a strategic game with the related bi-matrix.*

Exercise 2 *Consider the situation represented in the following bi-matrix:*

		Player 2		
		L	M	R
Player 1	U	*(3,2)*	*(4,2)*	*(-1, 1)*
	D	*(3,3)*	*(-1,0)*	*(4,3)*

1. *Identify the main elements of this strategic-form game.*
2. *Has any player any strictly dominated action? and weakly dominated one?*
3. *Which profiles of decisions survive the iterated elimination of weakly dominated actions? What can you conclude?*

Exercise 3 *Consider the situation represented in the following bi-matrix:*

		Player 2		
		L	C	R
Player 1	T	*(3,1)*	*(2,2)*	*(5,3)*
	M	*(4,5)*	*(2,3)*	*(3,4)*
	B	*(2,4)*	*(1,3)*	*(4,1)*

1. *Identify whether any player has strictly dominated actions.*
2. *Which profiles of decisions survive the iterated elimination of strictly dominated actions?*
3. *Construct the best reply function of each player and identify the (pure strategy) Nash Equilibria of the game.* ***[NO]***

Exercise 4 *Consider the following situation: one euro should be divided between two players, P1 and P2. P1 makes an offer, the offer specifies the portion of the euro he is willing to give to P2. P2, without observing P1's offer, chooses the minimum amount she is willing to accept. Each player may choose with increments of 25 cents, meaning admissible offers are:* 0, 0.25, 0.50, 0.75 *and* 1 *euro. If P1 offers at least the amount P2 is willing to accept, then an agreement is achieved and the euro is divided according to the split proposed by P1. Otherwise, no agreement is achieved and both players get nothing.*

1. *Provide the strategic-form representation of this game.*
2. *Construct the best reply function of each player and identify the (pure strategy) Nash Equilibria of the game.* ***[NO]***