ECON 107
Quiz 8
This quiz will last 10 minutes.

1. *(5 points)* **Honor Statement:** Please read and sign the following statement:

   I promise that my answers to this test are based on my own work without reference to any notes, books, or the assistance of any other person. I will also neither help others nor use a calculator or other electronic aid for calculation.

   Name and Surname: _
   Student ID: _
   Signature:

   _

2. *(12 points total)* In the game below, player 1 chooses which row will be selected, and player 2 chooses which column will be. In each square we write the utility of player 1, then a semi-column, then the utility of player 2.

   Remark 1 *I will use a 1 in the upper right hand corner if it is a best response for player 1 and a 2 for player 2. Below I will write the answers for the first game below, but obviously NE are squares with both a 1 and 2 in them.*

	L	R
U	$0;0$	$10;10^{12}$
D	$1;2^{12}$	$0;0$

	α	β
A	$2;1^{12}$	$0;0$
B	$0;0$	$12;12^{12}$

	α	β
A	$0;0$	$3;2^{12}$
B	$14;14^{12}$	$0;0$

	L	R
U	$11;11^{12}$	$0;0$
D	$0;0$	$2;1^{12}$

   (a) *(4 points)* Find the best responses of each player and write them below.

   Solution 2 *In the game:*

	L	R
U	$0;0$	$10;10^{12}$
D	$1;2^{12}$	$0;0$

A perfect answer is $BR(L) = D$, $BR(R) = U$, $BR(U) = R$, $BR(D) = L$. However we cannot be sure that they will use proper notation. In this game they could write down (U, R) and (D, L) and that would not be ambiguous. I would always mark down any notation that could be ambiguous. Oh, and they might write down the payoffs instead of the strategies, that is very *bad but probably you should give them a point or two.*

(b) *(4 points)* Find the Nash equilibria.

Solution 3 *In the game:*

	L	R
U	*0;0*	*10;10*[12]
D	*1;2*[12]	*0;0*

They are (D, L) and (U, R). Writing down the Pareto Efficient symmetric Nash equilibrium is worth one point, the other one is worth three.

If they use payoffs instead of strategies, well that's bad, but you should mark them down only a point or two.

(c) *(4 points)* For one of the Nash equilibria explain why it is a Nash equilibrium.

Solution 4 *There is a range of answers that would be fine here.*

It is the intersections of best responses

It is a stable social convention, if everyone expects this to occur it will occur.

It is a strategy pair where everyone is best responding.

Of course any answer that appeals to welfare is absolutely wrong (i.e. it is Pareto efficient).

3. *(3 points)* Standard feedback questions:

(a) Out of ten, my level of comprehension of the material covered this week is:

(b) My favorite topic of the week was:

(c) The topic I understood the least this week was: