A short assignment - due next Thursday

1. In game 1 of Terri's ring game each a fully rational subject, and every level k subject plays the action as each player that is consistent with iterated deletion of dominated strategies when you assume that the level 0 player randomizes equally over each of her actions. Find a randomization by the level 0 subject that breaks this and allows you to identify at least one other player type. Use the jupyterhub to do your calculations and submit your results as a pdf file (export your worksheet to pdf then send it to Anubhav).

2. In the ultimatum game as we discussed in class, write down the first order condition that determines each proposer's optimal offer s. Use it to solve for the proposer's offer as a function of his or her loss aversion parameter λ in the case where G is uniformly distributed on the interval $[1, 3]$. For this exercise you can suppose that r is fixed. Ideally you will do this calculation in the juypter hub using sagemath - it isn't so hard. Otherwise do it by hand. What will the distribution of offers look like in your solution. Compare it to the emprical distribution in the slides from class. Does it give a good fit? Can you suggest a distribution that will fit better than the uniform?