Math 36
Homework 09

Game Theory: Two-Player General-Sum Noncooperative Games

For this assignment you will model the natural selection of strategies over multiple generations by iterating the prisoner's dilemma. You will need to use the program discussed in class, which is available at the URL

$$\text{http://math.dartmouth.edu/}\sim\text{m36w05/10vs10.phtml}$$

For the initial individual profiles, use:

- two Cautious profiles

- two Random profiles

- four different pure strategy profiles from the set discussed in class, blurified (1 replaced by 0.9 and 0 replaced by 0.1)

- two randomized profiles, each generated as follows: for each of the seven entries, flip a coin; enter 0.9 on heads and 0.1 on tails

Record or print the members of the population after each of three generations of interation (eliminating and reproducing strategies as directed). Interpret the results.