Exercise 7.1 (Linear Complementarity Problem, 2+4 points)
The picnic game works as follows: Two players independently decide for one of
five popular picnic places $p_1, \ldots, p_5$. For $i \neq j$ the profile $(p_i, p_j)$ for
the first player has the utility $i$ and for the second player the utility $j$. If, however,
$i = j$, then both players’ utility is 0.

(a) Formalize the picnic game as a strategic game and state its corresponding
Linear Complementarity Problem.

(b) Implement the naïve algorithm to solve LCPs and use it to determine
five different Nash equilibria of the picnic game. Make use of lp_solve
to solve the linear programs that come up during the process. On your
solutions sheet only state the five Nash-equilibria and mail your program
by email to alkhazry@informatik.uni-freiburg.de.

If you want to use another programming language than C++, Java, or
Python, discuss this wish by sending an email to the above mentioned
address before you start. Also, make sure to document your code and give
instructions on how to compile and run it.

Exercise 7.2 (Games and Behavior, 2 points)
Please complete the second set of games that are now activated for one week at
the website:
http://gametheory.tau.ac.il/student/
After logging in with the same account information as before, you will be di-
rected to the new games automatically. As before, we won’t be able to track
your individual answers, but we will access and report on global statistics during
the Thursday tutorial session.
Have fun!