

Game Theory, Fall 2022

Problem Set 1

Due on Sep 19 before class

1. ST Exercise 3.2.¹
2. ST Exercise 3.3.
3. ST Exercise 3.4.
4. Consider the first/second price auction environment we covered in class. Instead of 2 bidders, assume there are n bidders with value v_1, \dots, v_n .
 - (a) Extend the first price auction to this case. As usual, if more than one bidder bid the same highest price, a winning bidder is randomly drawn from them with equal probabilities. (Use this tie breaking rule also for the next question).
 - (b) Extend the second price auction to this case.
5. ST Exercise 4.3.
6. ST Exercise 4.5.

¹“ST” refers to our textbook: *Game Theory: An Introduction* by Steven Tadelis.