

Math 167: Mathematical Game Theory – Homework 9

Due: March 10, 2017

Exercise 1.

Understand why in *Rock-Paper-Scissors* the unique Nash equilibrium is not evolutionary stable. This kind of phenomenon can happen in the nature as well, such as in the case of *California lizard*. For this, read pages 139-140 on this subject from the book of Karlin and Peres

Exercise 2.

- (1) Understand Example 7.1.4 from the book of Karlin and Peres (page 141), then solve Exercise 7.a on the same page.
- (2) Read and understand the interesting example (Example 7.1.5.) on sex ratios in the book of Karlin and Peres (page 141).

Exercise 3.

Exercise 7.1. from the book of Karlin and Peres (page 146).

Exercise 4.

Exercise 7.3. from the book of Karlin and Peres (page 147).

Exercise 5.

Exercise 7.4. from the book of Karlin and Peres (page 147).