MA 327/ECO 327
Homework #7 and Final Exam Part I

Homework #7 Questions Due Wednesday, November 28

1. Chapter 8, #8.

   (a) Represent this game in matrix form.

   (b) Use the graphical method we did in class (it's not in the book) to find the optimal equilibrium d.

   (c) Use the graphical method to confirm that the equilibrium is stable.

   (d) Use Definition 8.14 to reconfirm that the equilibrium is stable.

2. Chapter 8, #15b.

3. Chapter 9, #4a. Use method on page 204. Note: $p = 1/3$, $1 - p = 2/3$, and $q = 1/3$, $1 - q = 2/3$.

4. Chapter 10, #1a.

5. Chapter 10, #5.

6. Chapter 10, #8.

Final Exam Part I Questions Due Monday, December 3

1. Use the graphical method to construct a 2×2 evolutionary biology game with an equilibrium $d = (\frac{1}{3}, \frac{2}{3})$ that is not stable. Present your game in matrix form also.

2. Solve the Cournot triopoly problem by extending the duopoly problem in the "obvious" way and finding a symmetric solution (Q, Q, Q).

3. Chapter 8, #16.

4. Chapter 9, #4b. Use method on page 204. Note: $p = 1/2$, $1 - p = 1/2$, and $q = 1/4$, $1 - q = 3/4$.

5. Chapter 10, #3.

6. Chapter 10, #7.

7. **EXTRA CREDIT.** State and solve the Cournot n-opoly problem. Also, what happens as $n \to \infty$?