

# Fifth Homework Assignment for Math 308

**Due: Thursday, March 20th.**

All section references are to the Strayer text.

Problems to hand in:

Chapter 5 exercises 7, 8, 10.

For 7 c. please set up the game matrix  $A$ , but do *not* continue to find the optimal mixed strategies.

Chapter 6 exercises 1 b. and c., 2, 5.

Formulate the payoff for matrix for the “guess hitter” game discussed in class given that the players begin with a 1-1 count. That is, assume that one player (the pitcher) can throw either a “ball” or a “strike”. The other player (the batter) reacts slowly, and thus must decide to either “swing” or “take” before he can identify the type of pitch. If the batter swings at a strike, he will get a hit, with a payoff of +3. Otherwise, the result is ruled a “strike” if the batter swings at a ball or takes a strike, and the result is ruled a “ball” if the batter takes a ball. If the batter gets to 2 strikes or 3 balls without a hit, the payoffs will be -1 and +2 respectively (remember, we started with a 1-1 count).

Some other problems you should try:

The remaining problems in Chapter 5 are good practice.

Reading for the next two weeks:

For Tuesday, March 11th, through Section 6.0.

For Thursday, March 13th, Section 6.1 and 6.2.

For Tuesday, March 18th, Sections 6.3 and 6.4.

For Thursday, March 20th, Section 6.5.