

Homework 3

Chapter 4:

4.1: 4, 8, 18, 28

4.3: 2

Problem 6: Dan has one dollar. Dan finds a blackjack game with no minimum bet, accepting arbitrarily small fractions of a dollar. By card counting, he increases his chance of winning each game to 0.51; if he stakes $\$a$, his return is $\$2a$ with probability .51. Show that if the casino lets him play long enough, he will eventually own the casino if he varies his bet correctly.