

Math 477, Homework 2, due 2/2/06

Radoš Radoičić

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You are required to hand in any 10 of the following problems.

At least two have to be theoretical exercises.

The solutions should be clearly written explanations, not just numbers.

Problems 1 – 16 from the book:

Chapter 2 – Problems: 3, 4, 13, 16, 20, 27, 33, 38, 42, 46, 50, 55.

Chapter 1 – Theoretical Exercises: 6, 7, 10, 16, 19.

Problem 18: (two problems worth) There are four 6-sided dice U , V , W , Z , with sides labeled as follows:

$$U(1, 1, 1, 5, 5, 5), V(2, 2, 2, 2, 6, 6), W(3, 3, 3, 3, 3, 3), Z(0, 0, 4, 4, 4, 4).$$

Two players, A and B , play the following game: First, player A chooses one of the dice, then player B chooses one of the remaining dice. Each player rolls his die. Whoever rolls a bigger number wins a beer. Which player is more likely to win?

Problem 19: (two problems worth) Try to solve problem 26 from the textbook (page 58).