

Math 4740 - Test 1 Study Guide

Test 1 covers HW 1 and HW 2.

Homework 1:

- Creating a sample space S and probability function P .
Calculating $P(E)$ for events E .
Calculating the union, intersection, and complement of events.
See problems 1, 2, 3, 4.
- Various probability questions using dice.
See problems 5, 6.
- Constructing probability spaces and calculating probabilities using balls in a bag model.
See problems 7, 8.
- Problems 9 and 10 will **NOT** be on test 1. Only do these two if you want to.

Homework 2:

- Counting problems: permutations and combinations.
Problems 1, 2, 3, 4, 5, 6, 9.
- Probabilities with dice.
See problems 8, 10, 11
- Probabilities with coins.
See problems 12, 13.
- Probabilities with cards.
See problem 16.
- CA SuperLotto Plus
See problem 15.
- Other probability questions (random numbers, random seatings of people).
See problem 7, 14.

Homework 2 (Math 151 Winter 2012 handout):

- More probabilities with poker hands, blackjack, dice.
See problems 15, 18, 42.

Homework 2 extra problems:

- Probabilities with cards and dice
See problems 1 and 2.