IEOR 6711: Stochastic Models I

Fall 2003, Professor Whitt

Homework Assignment 12, Tuesday, December 2, 2003

Chapter 9: Stochastic Order

Due before class at 10:00am on Tuesday, December 9.

Problems from Chapter 9 of Stochastic Processes, second edition, by Sheldon Ross. You only need turn in the ones without answers in the back.

Problem 9.1
Problem 9.2
Problem 9.3
Problem 9.4
Problem 9.6
Problem 9.9
Problem 9.10
Problem 9.11
Problem 9.13
Problem 9.18

Extra Problem 1. In the Resource Sharing . . . paper it states that monotone likelihood ratio (MLR) order implies stochastic order for random variables taking nonnegative-integer values. Prove it.

Extra Problem 2. Prove or disprove: For random variables taking values in the nonnegative integers, MLR order is equivalent to stochastic order.