

Homework Assignment #5

H. Krieger, Mathematics 157, Harvey Mudd College

Fall, 2008

Instructions: This assignment is due in class on Wednesday, October 8th. You are encouraged to work together on the problems but the final write-up that you submit must be done individually.

1. In your text, *Introduction to Stochastic Processes*, by Hoel, Port, and Stone, read Sections 1.7-1.9, read the handout on More Properties of Generating Functions, and solve the following exercises in Chapter 1:
 - (a) Exercise 26
 - (b) Exercise 29
 - (c) Exercise 33
 - (d) Exercise 37
 - (e) Exercise 38

2. In your text, *Introduction to Stochastic Processes*, by Hoel, Port, and Stone, read Sections 2.1-2.5, read the handout Converses to the Strong Law of Large Numbers, and solve the following exercises in Chapter 2:
 - (a) Exercise 10
 - (b) Exercise 11
 - (c) Exercise 12
 - (d) Exercise 13
 - (e) Exercise 14