

Homework 8(Due on November 14)

November 5, 2012

STA 4442/5440

Problems from the Sheldon Ross book (8th Edition)

Chapter 6: Page 287-288: Problem no. 6.1, 6.2, 6.3, 6.7, 6.24

Problem: Suppose that the number of people that enter a post office on a given day is a Poisson random variable with parameter λ . Show that if each person that enters the post office is a male with probability p and a female with probability $1 - p$, then the number of males and females entering the post office are independent Poisson random variables with respective parameters λp and $\lambda(1 - p)$.