

Lecture 14

February 21, 2015

1. Try 3.6.79
2. Try 3.6.81. Hint for part (d): you can assume that both the mean and the variance of a Poisson rv are μ .
3. Try 3.6.83. Hint $p = 1/200$.
4. Suppose we have a uniform distribution on $[0, 5]$ where the density distribution function is

$$f(x) = \frac{1}{5} \text{ when } 0 \leq x \leq 5.$$

Recall that the probability $P(a \leq X \leq b)$ is the integral

$$\int_a^b f(x) dx.$$

Use this integral definition to find

- (a) $P(3 \leq X \leq 5)$
- (b) $P(X > 2)$
- (c) The chance that $X < 1$ or $X > 3$.