

# Homework 10 Answers

BSTA 550

## Non-textbook problems

- #1:

## Textbook problems

There are answers at the back of the book!! Selected answers (or hints) not provided at the end the book:

- Chapter 37
  - # 2: 0.8869
  - # 4: 0.0023
  - # 20: 0.3936
  - # 24: 0.4562
  - # 30: (b) 0.0022      (c)  $478.696 \approx 479$
- Chapter 43
  - NTB 3: (a)  $\text{Poisson}(\sum_{i=1}^n \lambda_i)$       (b)  $\text{Poisson}(3\lambda)$       (c)  $M_{3X}(t) = e\lambda(e^{3t} - 1)$  This is not an mgf of a common probability distribution.      (d) In (b) we are adding independent r.v.'s  $X_i$ , while in (c) we are adding dependent r.v.'s ( $3X = X + X + X$ ;  $X$  is dependent with itself).