

# Homework 3

Math 483 Fall 2019

due: Sept. 10, 2019 by 5pm

## Problems from the Book

Chapter 3: 3, 10, 12 (Uniform and Gamma), 23 (Poisson, Normal)

### Problem A.

Let  $X, Y$  be random variables with the variance 5 each, and correlation coefficient 0.8. Calculate

- a.  $Var(X + 2Y)$
- b.  $Cov(X + 2Y, X - 2Y)$