HW 13

STAT 346, Spring 2010

I'll make each homework assignment worth 10 points, so that when I count your best 10 of 13 assignment scores, your overall homework score will be out of 100 points possible. For this assignment, some of the problems to be turned in will be selected for grading.

1) Do Exercise 17 on p. 448 of the text.

2) Do Exercise 1 on p. 454 of the text.

3) Consider Exercise 3 on p. 454 of the text and determine the correlation indicated. (Instead of "these pieces" it should state *of the lengths of these two pieces.*)

4) Do Exercise 5 on p. 454 of the text.

5) Consider Exercise 15 on p. 491 of the text and obtain the value of $E(X)$.

6) Do part (a) of Exercise 18 on p. 492 of the text.

7) Do part (d) of Exercise 18 on p. 492 of the text.

8) Consider Exercise 4 on p. 491 of the text. Obtain the indicated mgf for the case of $t \neq 0$. (The mgf equals 1 if $t = 0$.)

9) Do Problem 8 on p. 478 of the text. (You can use results from Problem 3 of HW 10 (Exercise 3 on p. 343 of the text) to help obtain your answer for this one.)

10) Do Exercise 12 on p. 479 of the text, except instead of the parts (a) and (b) given in the text, obtain each of the following:
(a) the marginal pdf of X,
(b) the mean of X,
(c) the variance of X,
(d) the marginal pdf of Y,
(e) the mean of Y,
(f) the variance of Y,
(g) the mean of XY,
(h) the covariance of X and Y,
(i) the correlation between X and Y.
Be sure to use (a) through (i) to label each of the parts indicated above, and draw a box around (or highlight) each requested item.

Turn in solutions for Problems 7 through 10, but not the others.