Statistics 3657a : Suggested Problems Chapter3

Suggested problems up to the first term test

Section 3.8 : 1, 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 23, 24, 25, 42 (a)

From Section 1.8 : 1.8.47. Use this game.

$$X = \begin{cases} 1 & \text{if red chosen from urn 1} \\ 2 & \text{if blue chosen from urn 1} \\ 3 & \text{if green chosen from urn 1} \end{cases}$$
$$Y = \begin{cases} 1 & \text{if red chosen from urn 2} \\ 2 & \text{if blue chosen from urn 2} \\ 3 & \text{if green chosen from urn 2} \end{cases}$$

Find the joint distribution of X, Y and find the marginal distribution of Y.

1.8.57 Try doing this in terms of two random variables, one being an indicator the drawer chosen and the other being an indicator of the coin being gold.

Some additional chapter 3 problems will be added after the first term test.