Homework 4

Due 4/20/2016

1. (4 points): **Question 13.8**
2. (4 points): **Question 13.17** There is a bug in this question – $P(B|X,Z)$ should be $P(Y|X,Z)$ i.e., B should be replaced with Y. So your goal is to prove that $P(X,Y|Z) = P(X|Z)P(Y|Z)$ is equivalent to each of $P(X|Y,Z) = P(X|Z)$ and $P(Y|X,Z) = P(Y|Z)$.
3. (10 points): **Question 14.6** Parts **a** through **d**.
4. (3 points): **Question 14.14** Part **a**.
5. (9 points): **Question 14.15** Parts **a,b,c**.