Exercise 7

Asymptotically Linearity of an Estimator

1. Define an asymptotically linear estimator and its influence function in words and using notation.

> Considering your answer from above, what property does the remainder term need to have for it to be considered negligible?

2. What are the implications of asymptotic linearity?

3. The influence curve is a function of _____ but the function itself is unknown,

depending on _____.

4. How can the influence curve be used in robustness analysis?

5. List a difference between a traditional confidence interval and a simultaneous confidence interval?