Reading: Stock & Watson 3.1

1. Make up your own estimator for the population mean that is not the sample average. Why is the sample average better?
2. Describe in your own words the difference between estimators that are unbiased versus consistent.
3. What is an estimator for the population mean that is unbiased but not consistent? Explain in your own words. Do not use an example from the text.
4. What is an estimator for the population mean that is biased but consistent? Explain in your own words.
5. Is the median an unbiased estimate of the population mean? What about a consistent estimator?
6. Suppose I tell you my estimator is efficient. Explain why this statement doesn’t make any sense.
7. What is a BLUE estimator?
8. The sample mean is the best least squares estimator of the population mean. What does this mean?
9. The president of the United States is sure that they will win re-election because he tweeted out a poll that read “Will you vote for me in the coming election?”, and 85% of respondents said yes. The sample size was 1 million people. Is this an unbiased estimate of the percent of voters that would vote for the president in the upcoming election?