04b Sample Examination Problems Chapter 7

1. Why do we work out a confidence interval for the difference between the means of two populations rather than comparing the separate intervals for each population mean?

2. A random sample of 10 observations from a normal distribution with mean μ and variance σ^2 gives a sample mean of 1.2. An independent random sample of size 20 from the same population has sample variance 3.6. Find a 90% confidence interval for μ.

Parts of the sample examination questions in Chapter 8 are also covered in this chapter, but it may be better to read Chapter 8 before trying them.