COMP9334 Revision Questions for Week 6A

Question 1

We conducted five independent replications of the discrete event simulation of a queueing system and recorded the response time of the first 20,000 jobs in each replication. You can find these simulation results in 5 separate files `trace*` where $* = 1,2, ..., 5$.

(a) Program the transient removal procedure in Law and Kelton, Section 9.5.1 and find what the value of w should be. (A scanned copy of Section 9.5.1 can be found on the course web site.)

(b) After removing the transient, compute the steady state mean response time obtained from these independent replications. Calculate also the 90% confidence interval.

Question 2

You performed 6 independent replications for a simulation. The mean response times from the 6 replications are: 4.56, 5.23, 5.12, 6.15, 5.57 and 5.34. Answer the following questions.

(a) Determine the 90% confidence interval.

(b) Determine the 95% confidence interval.

(c) Which confidence interval is wider? Why?