CS 372 Introduction to Computer Networks
Self-Check Exercises: Lecture 22

1) What are the two major approaches to network congestion control?

2) In basic terms, how is congestion control implemented in TCP? What is this method called?

3) What is an MSS?

4) Describe TCP's "Slow Start" mode. What is its purpose?

5) Describe TCP's "Fast Retransmit" technique. What is its purpose? What affect does this have on congestion control?

6) A host has started a TCP transmission with MSS = 1460 bytes. It uses “slow-start”, with a limit of 11680 bytes.
   a. What is the congestion window size after sending 15 packets? Assume all packets have length = MSS. Show your work.

   b. Suppose that after sending packet #8, we get 3 duplicate ACK’s. What is the new congestion window size?

   c. Suppose that after sending packet #7, we get a timeout on packet #4. What is the new congestion window size?