CSC 469 Homework #1

These problems are from Chapter 1. They start at page 62.

Problem(s)	Comment
1	This is a protocol design problem, a creative endeavor mostly. List the requests a client (ATM) can make. List the replies a server (bank) can make. Finally, draw two diagrams (ala Figure 1.2) where a customer withdraws money and one where she doesn't have the money to do the withdrawal. Have some fun with it!
2	Packet-switched v. circuit-switched networking
4, 6	Some network delay problems. We'll do some of these in class as well.
13	Let's use traceroute. Cut and paste your results into a text file, using Notepad or Word or something. Instead of the book's parts a-d, try these: a. Use a USA site listed in www.traceroute.org to follow the route of packets from some USA location to www.noctrl.edu b. Now, perform a traceroute starting at a foreign country of which you are particularly fond. c. OK, try the DOS program tracert to trace packets from your PC to the foreign site that you chose in part b. d. Try and identify ISP networks in your output. These are routers with similar names or IP addresses. e. For your foreign country, was there a long delay to cross into the US? What was the longest delay in your route? Please note that some of the traceroute links are bad or old or whatever. If you bump into this, then try a different one. Another site that is fun to play with is www.mapulator.com. I crashed it a few times, but it's uber-cool when it works.
20	Network delays, message segmentation
Ethereal Lab 1	Complete "Ethereal Lab 1" introduced on page 69. I will handout a hardcopy of the lab in class. Also, I hope to have Ethereal installed on all the machines in the first floor lab at Carnegie, as well.