Due Tuesday, 1999 Nov 16, at the beginning of class.

1 Reading

Read Chapter 5 of the textbook.

2 Problems

1. (10 points) Solve Tanenbaum, problem 5.9.
2. (10 points) State two advantages of placing functionality in a device controller, rather than in the kernel. State two disadvantages.
3. (10 points) Describe two circumstances under which blocking I/O should be used. Describe two circumstances under which nonblocking I/O should be used. Why not just implement nonblocking I/O and have processes busy-wait until their device is ready?
4. (10 points) Why is it important to scale up system bus and device speeds as the CPU speed increases?