

EE 450

Homework 1

Due Monday, September 9, 2013

Work all 10 problems.

K&R = Kurose and Ross.

R_n = Review Question n.

P_n = Problem n.

Note: I typed out the first 3 problems below since you may not have the textbook yet. You will need to get the textbook to see the wording of the other problems.

Problem 1. K&R Ch. 1 R3. Why are standards important for protocols.

Problem 2. K&R Ch. 1 R7. What is the transmission rate of Ethernet LANs?

Problem 3. K&R Ch. 1 R11. Suppose there is exactly one packet switch between a sending host and a receiving host. The transmission rates between the sending host and the switch and between the switch and the receiving host are R_1 and R_2 , respectively. Assuming that the switch uses store-and-forward packet switching, what is the total end-to-end delay to send a packet of length L ? (Ignore queuing, propagation delay and processing delay.)

Problem 4. K&R Ch. 1 R18.

Problem 5. K&R Ch. 1 P2.

Problem 6. K&R Ch. 1 P5.

Problem 7. K&R Ch. 1 P6.

Problem 8. K&R Ch. 1 P7.

Problem 9. K&R Ch. 1 P12.

Problem 10. K&R Ch. 1 P13.