Tutorial 1

Question 1

List several types of end system.

Question 2

Name one home access technology, one enterprise access technology, and one wireless access technology.

Question 3

What access technologies would be most suitable for providing Internet access in rural areas?

Question 4

What are some of the physical media that Ethernet can run over?

Question 5

DSL, HFC and FTTH are all used for residential access. For each of these access technologies, provide a range of transmission rates and comment on whether the transmission rate is shared or dedicated.

Question 6

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 and send a packet of length L?

Question 7

Derive the formula for the end-to-end delay of sending P packets of length L over N links of transmission rate R.