

Homework

1. In the example of Section 5.4.1.3, approximate π by $22/7$ and determine the minimum frame length L_{min} . How much capacity is wasted in this case?
2. In the queueing delay example of Figure 5.27, let all parameters be the same except the propagation delay. Take the speed of light in the fiber to be $2 \cdot 10^8$ m/s. Determine the fiber distance at which the propagation delay in the fiber equals the average system delay \bar{D} when $\rho = 0.5$. (\bar{D} includes all delays except propagation delay.)
3. In the tell-and-go example of Figure 5.38, assume that all packets in transmitting station 4 are destined for receiving station 3.
 - (a) Show how Figure 5.38(b) would look in this case, indicating conflicts and lost packets.
 - (b) Show how the lossless schedule of Figure 5.43 would look in this case.
 - (c) Show a perfect schedule for this case.