

P1. Suppose Client A initiates a Telnet session with Server S. At about the same time, Client B also initiates a Telnet session with Server S. Provide possible source and destination port numbers for

- a. The segments sent from A to S.
- b. The segments sent from B to S.
- c. The segments sent from S to A.
- d. The segments sent from S to B.
- e. If A and B are different hosts, is it possible that the source port number in the segments from A to S is the same as that from B to S?
- f. How about if they are the same host?

P8. Draw the FSM for the receiver side of protocol `rdt3.0`.

P15. Consider the cross-country example shown in [slide 3-45](#). How big would the window size have to be for the channel utilization to be greater than 98 percent? Suppose that the size of a packet is 1,500 bytes, including both header fields and data.