

Review Questions 9

Your Name:

Please print out this form (two-sided, if you can) and write your answers *legibly* in the spaces provided. If you can't write legibly, type.

1. In the RDT 2.1 protocol, why was it necessary to include sequence numbers in the data packet? Do the ACKs and NACKs need sequence numbers? Why or why not?

As shown in the slides, without a sequence number in packets, the receiver could deliver duplicate data to the application.

ACKs and NACKs don't really need sequence numbers as there is only one data packet outstanding at the time, so that when an ACK or NACK is correctly received, it can only apply to one packet.

3. Consider the operation of RDT 3.0 between a sender A and a receiver B. Suppose A wants to send packets *x* and *y* to B and that *x* is lost, the ACK of *y* is lost and its first retransmission of *y* is lost. Draw a space-time diagram similar to those in K&R figure 3.16 that illustrates this scenario.

