

# TCP Tutorial Questions

## Question 1

A TCP client sends a block of data 40 bytes long to a TCP server, split into two 20-byte segments. They both use port 9090. The client sets the initial sequence number to be 25. The segments are all received successfully. The server has a buffer size of 100 bytes, initially empty, and does not process any of the data until the whole message is received. No data is pushed or marked as urgent and no TCP options are used. No message data is simultaneously transferred in the other direction (from server to client).

Give the sequence of messages which could occur, from synchronisation to finalisation. For each TCP header fields (excluding Checksum), give the values of that field for each of the messages.

## Question 2

Why might the use of the pseudo-header be said to violate the layering principles of the Internet reference model?