

1. Capture a TCP connection and identify SYN, SYN-ACK, and ACK.

Questions:

- Which packets are SYN, SYN-ACK, and ACK?
- What are the source and destination ports?
- What is the initial sequence number?

2. Find the size of TCP segments carrying application data.

Questions:

- What is the payload length of the first 5 data packets?
- Identify any large payload segments.

3. Detects retransmitted segments in a capture.

Questions:

- Which packet(s) were retransmitted?
- What is the RTT for the retransmission?

4. Identify duplicate ACKs in TCP.

Questions:

- How many duplicate ACKs were observed?
- What sequence number do they acknowledge?

5. Understand flow control in TCP.

Questions:

- What is the advertised window size?
- How does window scaling affect throughput?

6. Measure RTT of TCP segments and estimate using TCP formula.

Questions:

- What is the RTT of the first 5 segments?
- Compute Estimated RTT after each ACK.

7. Detects packets received out-of-order.

Questions:

- Which packets arrived out-of-order?
- How did TCP handle them?