Part 1: UDP Traffic

1. Wireshark got 6 packets.

2. If the client is sending a message to the server, then the source port is 3601 and the destination port is 58961. However, if the server is sending a message back to the client, then the source port is 58961 and the destination port is 3601.  
3. The checksum stayed consistent if the same message was sent. For example, when the string “Hello world” was sent twice, the checksum was 0xfb12 both times.

Part 2: TCP Traffic

1. Wireshark got 19 packets

2. The only flag that is set is the Acknowledgment flag. The SEQ number is 384150 and the ACK number is 3877865820.

3. There are dedicated ACK packets are there are some packets that only have the ACK flag set.

4. The raw SEQ and ACK numbers flip when the packet is being sent or being received by the server. Other than that, they stay the same. They are changing because the source and the destinations are switching when the file is being received versus being sent.

5. The checksum is different for every single process.

6. The flags that are set are FIN and ACK. The SEQ and ACK numbers flip again and are 3841507184 and 3877865819.