```
> Internet Protocol Version 4, Src: 192.168.1.14, Dst: 162.247.243.147
✓ Transmission Control Protocol, Src Port: 54330, Dst Port: 443, Seq:
      Source Port: 54330
      Destination Port: 443
      [Stream index: 9]
      [TCP Segment Len: 0]
      Sequence Number: 1263    (relative sequence number)
      Sequence Number (raw): 3760033459
      [Next Sequence Number: 1263    (relative sequence number)]
      Acknowledgment Number: 4381    (relative ack number)
      Acknowledgment number (raw): 3596558678
      0101 .... = Header Length: 20 bytes (5)
   >  Flags: 0x010 (ACK)
      Window: 511
      [Calculated window size: 130816]
      [Window size scaling factor: 256]
      Checksum: 0x585c [unverified]
      [Checksum Status: Unverified]
      Urgent Pointer: 0
   >  [SEQ/ACK analysis]
   >  [Timestamps]
```
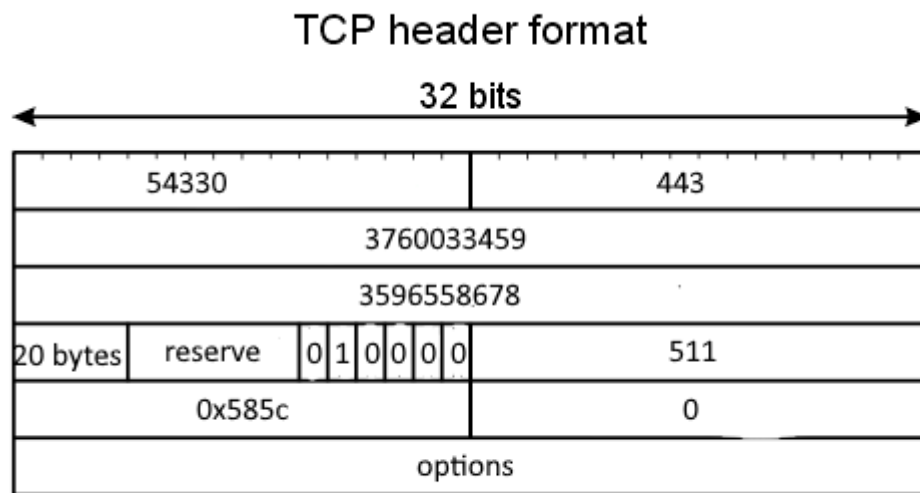
TCP Packet

```
✓ Ethernet 11, Src: 62:c1:48:40:27:d2 (62
> Internet Protocol Version 4, Src: 192.1
✓ User Datagram Protocol, Src Port: 57087
      Source Port: 57087
      Destination Port: 27025
      Length: 92
      Checksum: 0x2966 [unverified]
      [Checksum Status: Unverified]
      [Stream index: 6]
   >  [Timestamps]
      UDP payload (84 bytes)
> Data (84 bytes)
```

UDP Packet

Question 1

TCP header format

32 bits

54330	443
3760033459	
3596558678	

20 bytes	reserve	0 1 0 0 0 0	511

0x585c	0
options	

Question 2

UDP Datagram Header Format							
Bit #	0	7	8	15	16	23	24	31
0	57087				27025			
32	92				0x2966			

Question 3

C0 a8   source IP address

01 0e

----= C1B6

A2 FE   destination IP address

C4 43

---= 6742

67 42   Protocol

00 11

--= 6753

67 53   source port

De ff

--= 5653

56 53   destination port

69 91

--= bee4

Be e4   Length

00 5c

--= bf40

Bf40   checksum

29 66

--= e8a6

E8a6
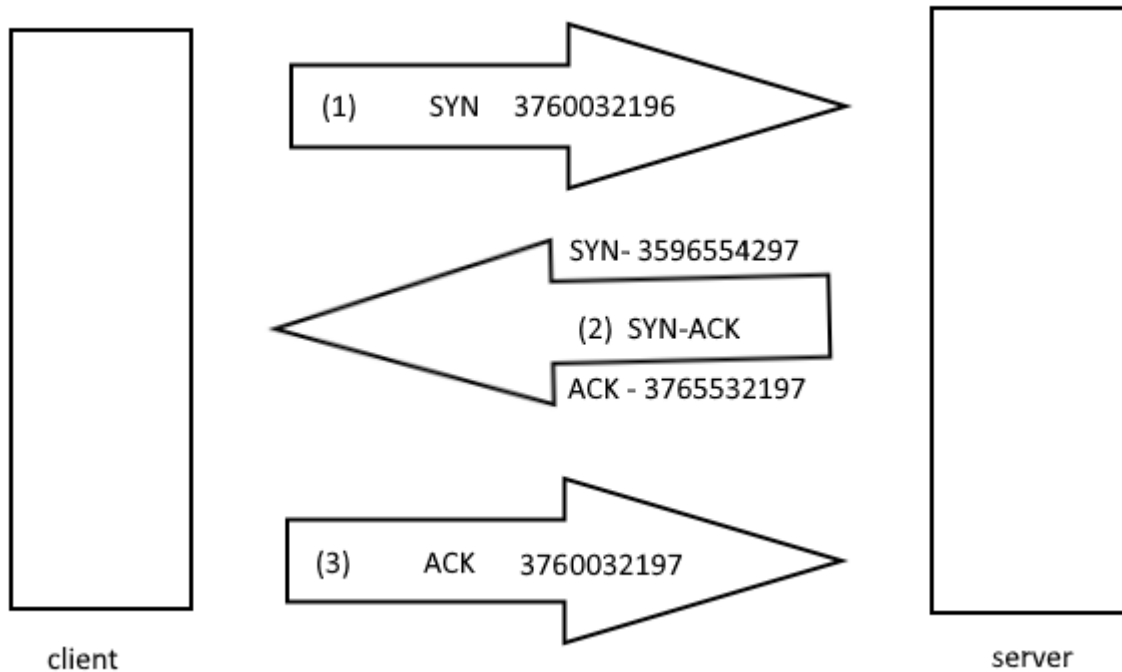
C1b6

--= ba5d

Ones compliment

Ba5d = 1011101001011101

0100010110100010 = 45a2

Question 4

TCP packets were mainly used

Question 5

A 3-way handshake is a three-step process to establish a connection between the client and the server

Question 6

A 4-way Teardown is a process used to terminate TCP connections

client

server

FIN-3856401725
FIN/ACK
ACK-1912697521

1912697522   ACK

FIN-1912697521
FIN/ACK
ACK-3856401726

1270033487   ACK