Frame analysis TD - Solution

You must decode the network packet and give all possible fields of layers II, III and IV. Does the given sequence contain data fields?

```
48 45 20 06 06 0d a0 1b   29 7e 4c a6 08 00 45 00
00 34 e9 1a 40 00 39 06   5e 18 5d b8 dc 1d c0 a8
00 13 00 50 c4 cc 43 8f   8a 09 c0 cf 81 54 80 10
01 20 24 eb 00 00 01 01   05 0a c0 cf 81 53 c0 cf
81 54
```

Responses:

Ethernet II, Src: Sagemcom_7e:4c:a6 (a0:1b:29:7e:4c:a6), Dst: IntelCor_06:06:0d (48:45:20:06:06:0d)
  ▷ Destination: IntelCor_06:06:0d (48:45:20:06:06:0d)
  ▷ Source: Sagemcom_7e:4c:a6 (a0:1b:29:7e:4c:a6)
    Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 93.184.220.29, Dst: 192.168.0.19
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
  ▷ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 52
    Identification: 0xe91a (59674)
  ▷ Flags: 0x02 (Don't Fragment)
    Fragment offset: 0
    Time to live: 57
    Protocol: TCP (6)
    Header checksum: 0x5e18 [correct]
    [Header checksum status: Good]
    [Calculated Checksum: 0x5e18]
    Source: 93.184.220.29
    Destination: 192.168.0.19
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]

```
◢ Transmission Control Protocol, Src Port: 80, Dst Port: 50380, Seq: 1, Ack: 2, Len: 0
      Source Port: 80
      Destination Port: 50380
      [Stream index: 7]
      [TCP Segment Len: 0]
      Sequence number: 1    (relative sequence number)
      Acknowledgment number: 2     (relative ack number)
      1000 .... = Header Length: 32 bytes (8)
   ◢ Flags: 0x010 (ACK)
         000. .... .... = Reserved: Not set
         ...0 .... .... = Nonce: Not set
         .... 0... .... = Congestion Window Reduced (CWR): Not set
         .... .0.. .... = ECN-Echo: Not set
         .... ..0. .... = Urgent: Not set
         .... ...1 .... = Acknowledgment: Set
         .... .... 0... = Push: Not set
         .... .... .0.. = Reset: Not set
         .... .... ..0. = Syn: Not set
         .... .... ...0 = Fin: Not set
         [TCP Flags: ·······A····]
      Window size value: 288
      [Calculated window size: 288]
      [Window size scaling factor: -1 (unknown)]
      Checksum: 0x24eb [unverified]
      [Checksum Status: Unverified]
      Urgent pointer: 0
   ◢ Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), SACK
      ▷ TCP Option - No-Operation (NOP)
      ▷ TCP Option - No-Operation (NOP)
      ▷ TCP Option - SACK 1-2
   ◢ [SEQ/ACK analysis]
         [This is an ACK to the segment in frame: 1738]
         [The RTT to ACK the segment was: 0.009965000 seconds]
```