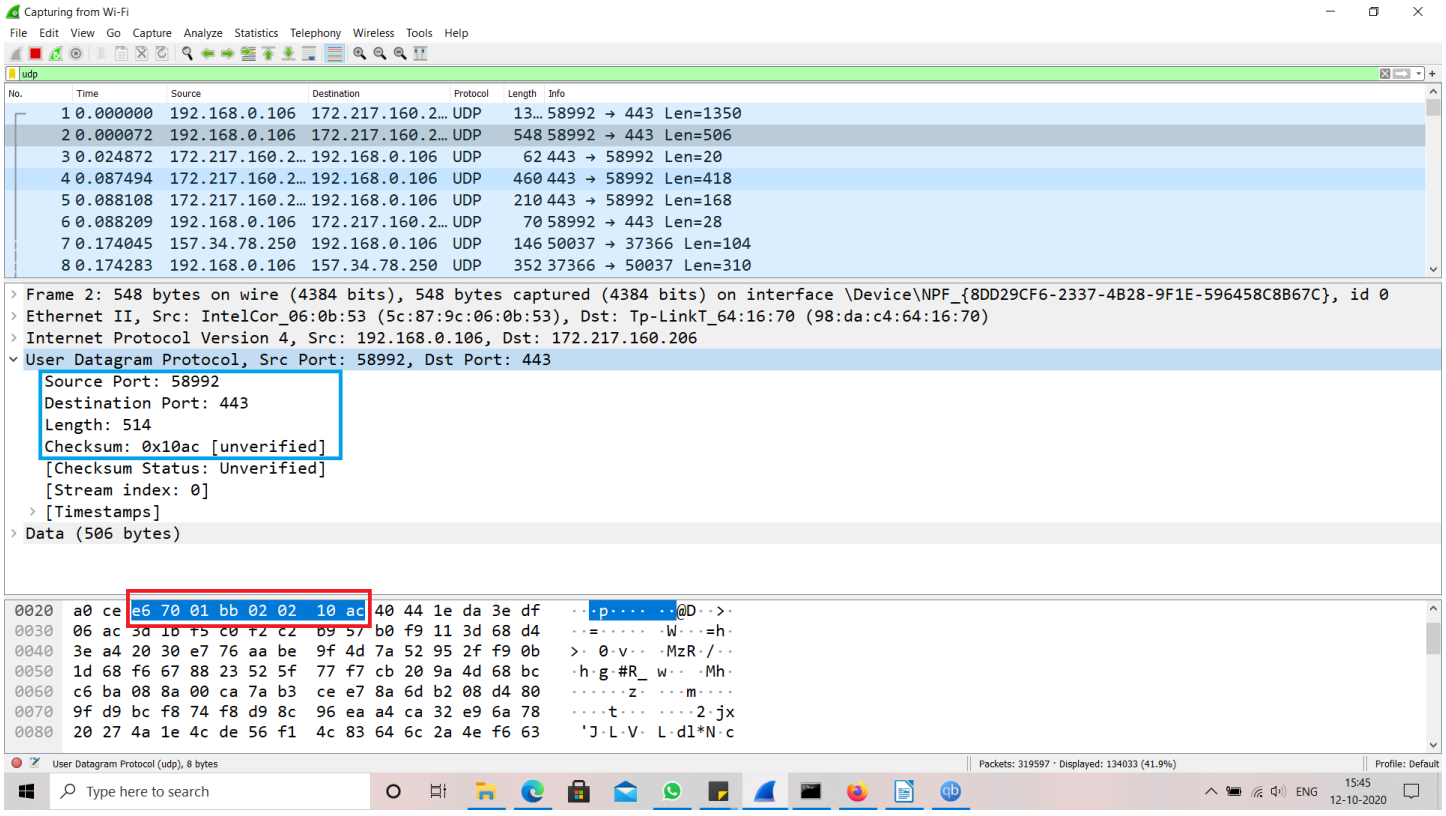
AM.EN.P2CSN20020

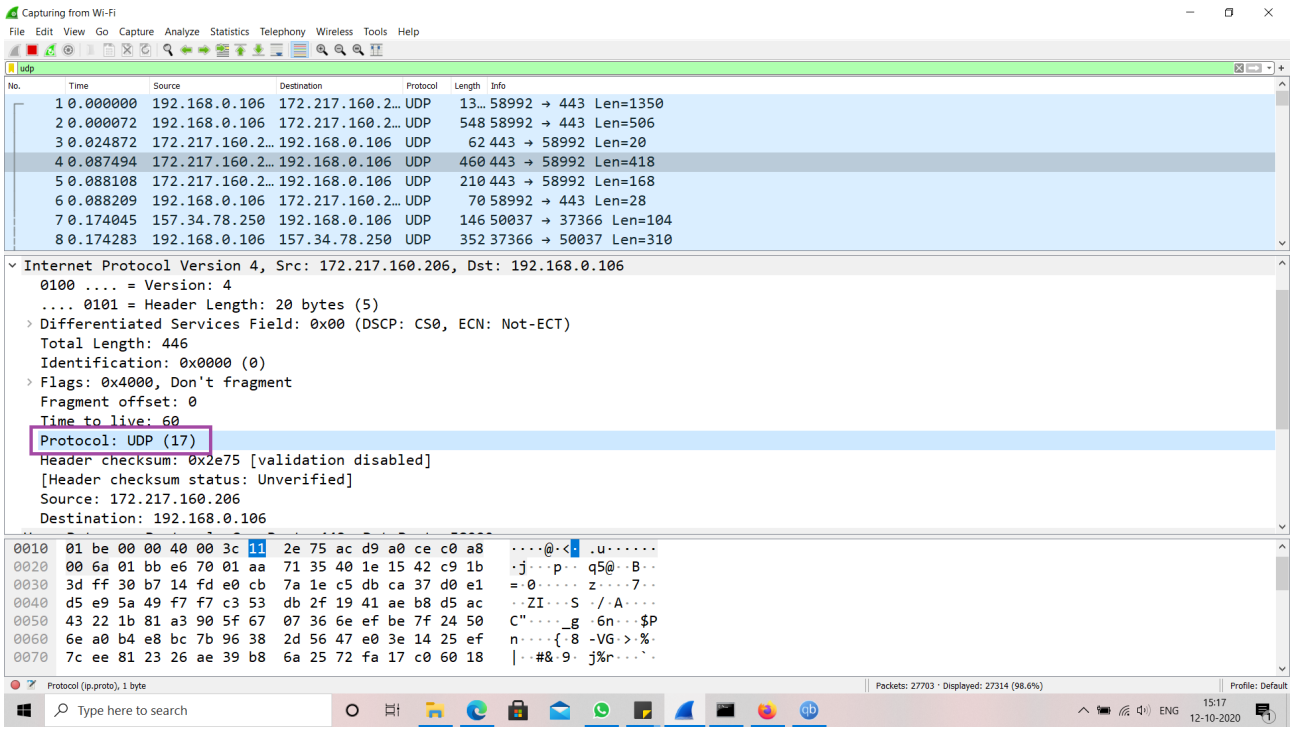
1) Do a transaction using UDP. Verify what all information are present in the header.



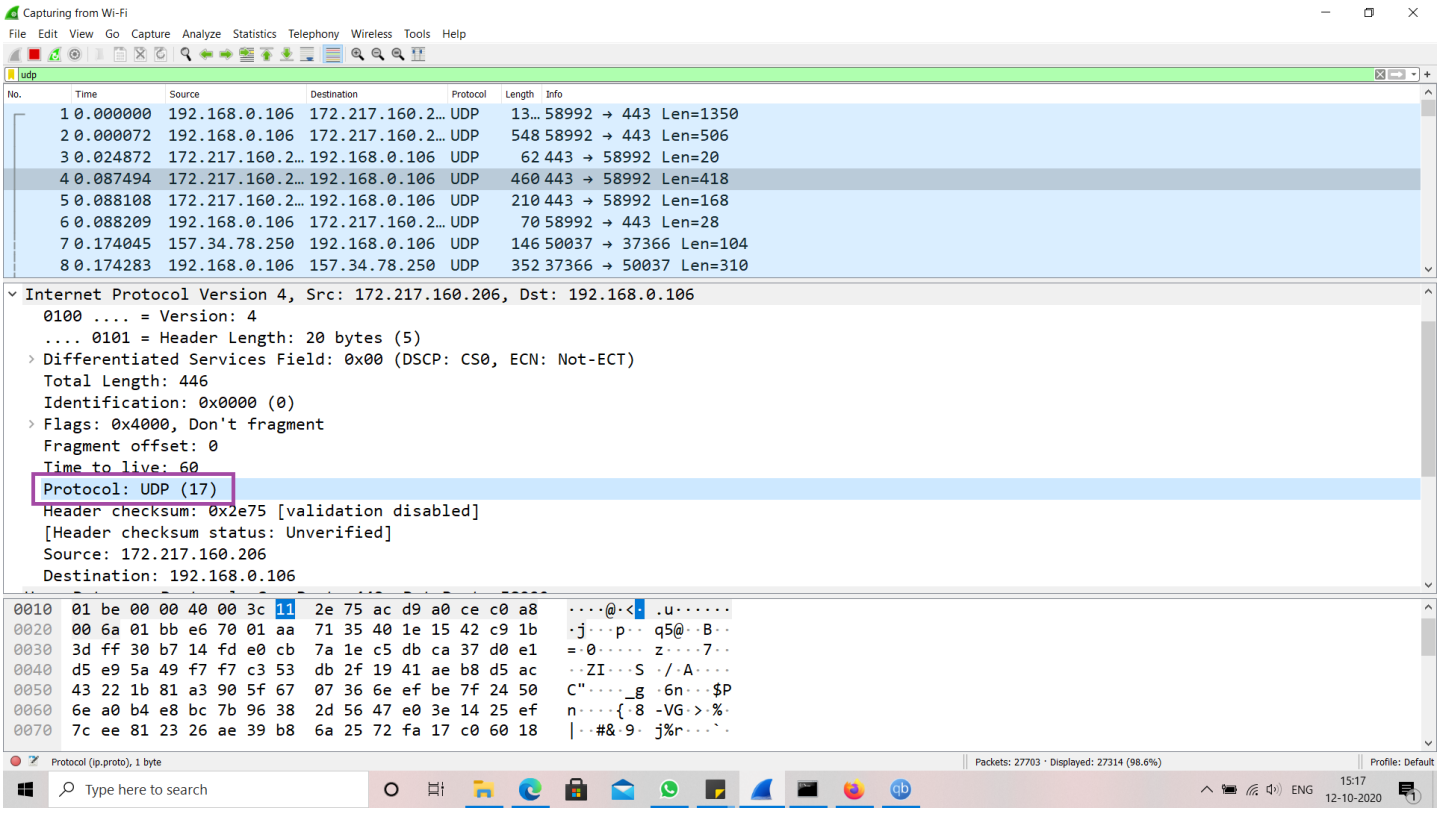
Answer: The UDP protocol contain (A) Source Port (B) Destination Port (C) Length (D) Checksum (Highlighted in blue box)

2) Determine the length(in bytes) of each of UDP header fields(use the packet content field)

These 4 header fields are 2 bytes long, each. (highlighted in red in the above figure)

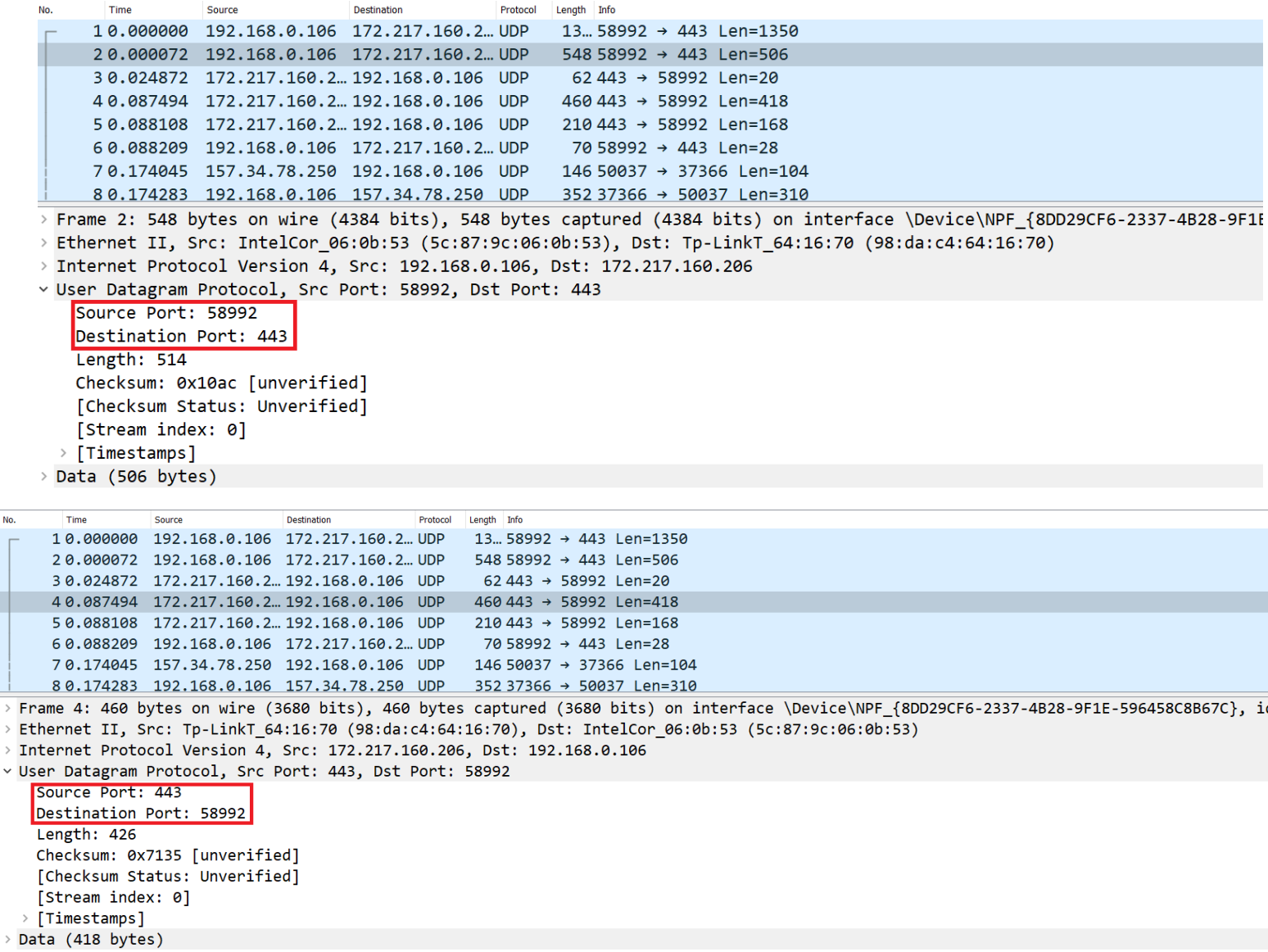


3) What is the protocol number for UDP? (You will get this from the IP protocol field)



Answer: Protocol number for UDP is 17 and its hex value is ‘11’. (Highlighted in purple in the above figure)

4) Select a request/response pair for a UDP transaction. How can you see that they are related? Mark your observations and explain



No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.0.106	172.217.160.2…	UDP	13…	58992 → 443 Len=1350
2	0.000072	192.168.0.106	172.217.160.2…	UDP	548	58992 → 443 Len=506
3	0.024872	172.217.160.2…	192.168.0.106	UDP	62	443 → 58992 Len=20
4	0.087494	172.217.160.2…	192.168.0.106	UDP	460	443 → 58992 Len=418
5	0.088108	172.217.160.2…	192.168.0.106	UDP	210	443 → 58992 Len=168
6	0.088209	192.168.0.106	172.217.160.2…	UDP	70	58992 → 443 Len=28
7	0.174045	157.34.78.250	192.168.0.106	UDP	146	50037 → 37366 Len=104
8	0.174283	192.168.0.106	157.34.78.250	UDP	352	37366 → 50037 Len=310

```
> Frame 2: 548 bytes on wire (4384 bits), 548 bytes captured (4384 bits) on interface \Device\NPF_{8DD29CF6-2337-4B28-9F1E
> Ethernet II, Src: IntelCor_06:0b:53 (5c:87:9c:06:0b:53), Dst: Tp-LinkT_64:16:70 (98:da:c4:64:16:70)
> Internet Protocol Version 4, Src: 192.168.0.106, Dst: 172.217.160.206
v User Datagram Protocol, Src Port: 58992, Dst Port: 443
    Source Port: 58992
    Destination Port: 443
    Length: 514
    Checksum: 0x10ac [unverified]
    [Checksum Status: Unverified]
    [Stream index: 0]
  > [Timestamps]
> Data (506 bytes)
```

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.0.106	172.217.160.2…	UDP	13…	58992 → 443 Len=1350
2	0.000072	192.168.0.106	172.217.160.2…	UDP	548	58992 → 443 Len=506
3	0.024872	172.217.160.2…	192.168.0.106	UDP	62	443 → 58992 Len=20
4	0.087494	172.217.160.2…	192.168.0.106	UDP	460	443 → 58992 Len=418
5	0.088108	172.217.160.2…	192.168.0.106	UDP	210	443 → 58992 Len=168
6	0.088209	192.168.0.106	172.217.160.2…	UDP	70	58992 → 443 Len=28
7	0.174045	157.34.78.250	192.168.0.106	UDP	146	50037 → 37366 Len=104
8	0.174283	192.168.0.106	157.34.78.250	UDP	352	37366 → 50037 Len=310

```
> Frame 4: 460 bytes on wire (3680 bits), 460 bytes captured (3680 bits) on interface \Device\NPF_{8DD29CF6-2337-4B28-9F1E-596458C8B67C}, id 0
> Ethernet II, Src: Tp-LinkT_64:16:70 (98:da:c4:64:16:70), Dst: IntelCor_06:0b:53 (5c:87:9c:06:0b:53)
> Internet Protocol Version 4, Src: 172.217.160.206, Dst: 192.168.0.106
v User Datagram Protocol, Src Port: 443, Dst Port: 58992
    Source Port: 443
    Destination Port: 58992
    Length: 426
    Checksum: 0x7135 [unverified]
    [Checksum Status: Unverified]
    [Stream index: 0]
  > [Timestamps]
> Data (418 bytes)
```

Answer: The source port of the request is same as that of the destination port of response query also the destination port of the request is same as that of the source port of response query.