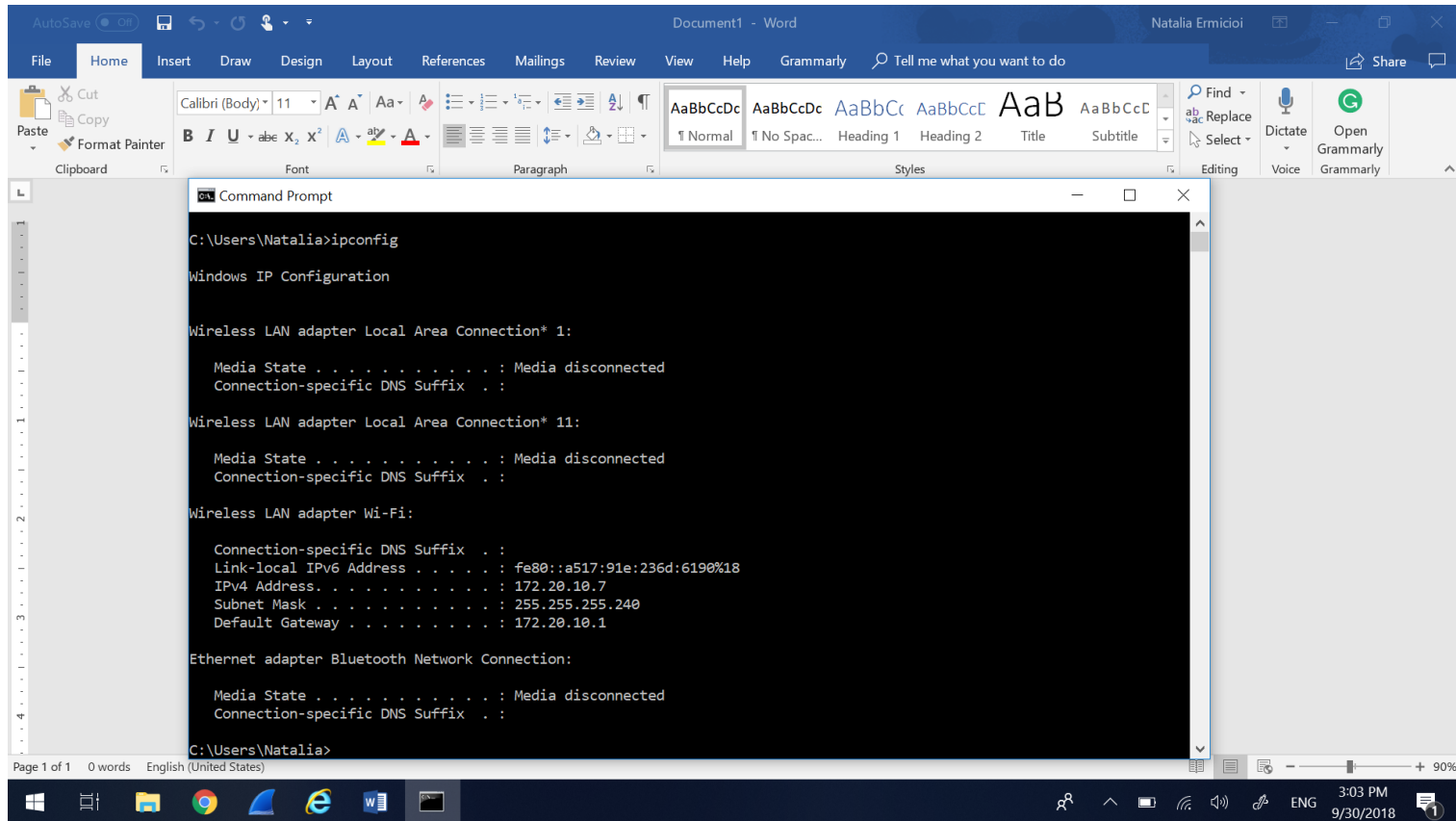


1. What is the IP address of your computer?

Answer: 172.20.10.7 (Personal hotspot from iPhone)



The screenshot shows a Windows 10 desktop. In the background, a Microsoft Word document titled 'Document1 - Word' is open, showing the 'Home' tab of the ribbon. In the foreground, a Command Prompt window is open, displaying the output of the 'ipconfig' command. The output shows the IP configuration for various network adapters, including Wireless LAN adapters and an Ethernet adapter. The IP address 172.20.10.7 is highlighted for the Wi-Fi adapter.

```
C:\Users\Natalia>ipconfig

Windows IP Configuration

Wireless LAN adapter Local Area Connection* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 11:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80::a517:91e:236d:6190%18
    IPv4 Address. . . . . : 172.20.10.7
    Subnet Mask . . . . . : 255.255.255.240
    Default Gateway . . . . . : 172.20.10.1

Ethernet adapter Bluetooth Network Connection:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

C:\Users\Natalia>
```

*Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

http

No.	Time	Source	Destination	Protocol	Length	Info
750	1538334148.630942	204.79.197.203	172.20.10.7	HTTP	1454	Continuation
818	1538334149.013013	172.20.10.7	128.119.245.12	HTTP	395	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
832	1538334149.115783	128.119.245.12	172.20.10.7	HTTP	540	HTTP/1.1 200 OK (text/html)
867	1538334149.420727	172.20.10.7	128.119.245.12	HTTP	287	GET /favicon.ico HTTP/1.1
885	1538334150.286690	128.119.245.12	172.20.10.7	HTTP	539	HTTP/1.1 404 Not Found (text/html)
891	1538334150.287762	128.119.245.12	172.20.10.7	HTTP	539	[TCP Spurious Retransmission] HTTP/1.1 404 Not Found (text/html)
925	1538334152.124020	81.161.59.96	172.20.10.7	HTTP	333	[TCP Previous segment not captured] HTTP/1.1 200 OK (application/json)
927	1538334152.124965	172.20.10.7	81.161.59.96	HTTP	149	[TCP ACKed unseen segment] GET /poll?push_id=18a64e3d-7646-4738-8d86-00a3d08fcf91 H...

> Frame 818: 395 bytes on wire (3160 bits), 395 bytes captured (3160 bits) on interface 0

> Ethernet II, Src: IntelCor_fb:ab:3f (44:03:2c:fb:ab:3f), Dst: 66:70:33:8c:a5:64 (66:70:33:8c:a5:64)

> Internet Protocol Version 4, Src: 172.20.10.7, Dst: 128.119.245.12

> Transmission Control Protocol, Src Port: 59205, Dst Port: 80, Seq: 1, Ack: 1, Len: 341

> Hypertext Transfer Protocol

```

0000 66 70 33 8c a5 64 44 03 2c fb ab 3f 08 00 45 00 fp3...dD...?...E-
0010 01 7d 0d 82 40 00 80 06 c0 59 ac 14 0a 07 80 77 .}.@...Y....w
0020 f5 0c e7 45 00 50 db e5 68 a2 0e 5c 23 6d 50 18 ...E.P..h...\#mP.
0030 04 00 99 67 00 00 47 45 54 20 2f 77 69 72 65 73 ...g..GE T /wires
0040 68 61 72 6b 2d 6c 61 62 73 2f 48 54 54 50 2d 77 hark-lab s/HTTP-w
0050 69 72 65 73 68 61 72 6b 2d 66 69 6c 65 31 2e 68 ireshark -file1.h
0060 74 6d 6c 20 48 54 54 50 2f 31 2e 31 0d 0a 41 63 tml HTTP /1.1..Ac
0070 63 65 70 74 3a 20 74 65 78 74 2f 68 74 6d 6c 2c cept: te xt/html,
0080 20 61 70 70 70 6c 69 63 61 74 69 6f 6e 2f 78 68 74 applica tion/xht

```

Hypertext Transfer Protocol: Protocol

Packets: 971 · Displayed: 74 (7.6%) · Dropped: 0 (0.0%)

Profile: Default

3:04 PM 9/30/2018

2. What is the total length of the datagram?

Answer: 381

Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

http

No.	Time	Source	Destination	Protocol	Length	Info
513	1538334146.722438	172.56.131.73	172.20.10.7	HTTP	1454	Continuation
570	1538334147.687521	81.161.59.128	172.20.10.7	HTTP	333	[TCP Previous segment not captured] HTTP/1.1 200 OK (application/json)
578	1538334147.690111	172.20.10.7	81.161.59.128	HTTP	149	[TCP ACKed unseen segment] GET /poll?push_id=54548892-f0c1-41d1-b633-2edcdb9cc42d H...
641	1538334147.799877	192.229.211.36	172.20.10.7	HTTP	92	HTTP/1.1 200 OK (application/javascript)
749	1538334148.630940	204.79.197.203	172.20.10.7	HTTP	1454	[TCP Previous segment not captured] Continuation
750	1538334148.630942	204.79.197.203	172.20.10.7	HTTP	1454	Continuation
818	1538334149.013013	172.20.10.7	128.119.245.12	HTTP	395	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
832	1538334149.115783	128.119.245.12	172.20.10.7	HTTP	540	HTTP/1.1 200 OK (text/html)

> Frame 818: 395 bytes on wire (3160 bits), 395 bytes captured (3160 bits) on interface 0

> Ethernet II, Src: IntelCor_fb:ab:3f (44:03:2c:fb:ab:3f), Dst: 66:70:33:8c:a5:64 (66:70:33:8c:a5:64)

Internet Protocol Version 4, Src: 172.20.10.7, Dst: 128.119.245.12

0100 = Version: 4

.... 0101 = Header Length: 20 bytes (5)

> Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)

Total Length: 381

Identification: 0x0d82 (3458)

> Flags: 0x4000, Don't fragment

Time to live: 128

Protocol: TCP (6)

0000 65 70 33 8c a5 64 44 03 2c fb ab 3f 08 00 45 00 fp3...d...?..E

0010 01 7d 0d 82 40 00 00 06 c0 59 ac 14 0a 07 00 77 }..@...Y....w

0020 f5 0c e7 45 00 50 db e5 68 a2 0e 5c 23 6d 50 18 ...E..P..h..#mP

0030 04 00 99 67 00 00 47 45 54 20 2f 77 69 72 65 73 ...g..GE T /wires

0040 68 61 72 6b 2d 6c 61 62 73 2f 48 54 54 50 2d 77 hark-lab s/HTTP-w

0050 69 72 65 73 68 61 72 6b 2d 66 69 6c 65 31 2e 68 ireshark -file1.h

0060 74 6d 6c 20 48 54 54 50 2f 31 2e 31 0d 0a 41 63 tml HTTP /1.1..Ac

0070 63 65 70 74 3a 20 74 65 78 74 2f 68 74 6d 6c 2c cept: te xt/html,

0080 20 61 70 70 6c 69 63 61 74 69 6f 6e 2f 78 68 74 applica tion/xht

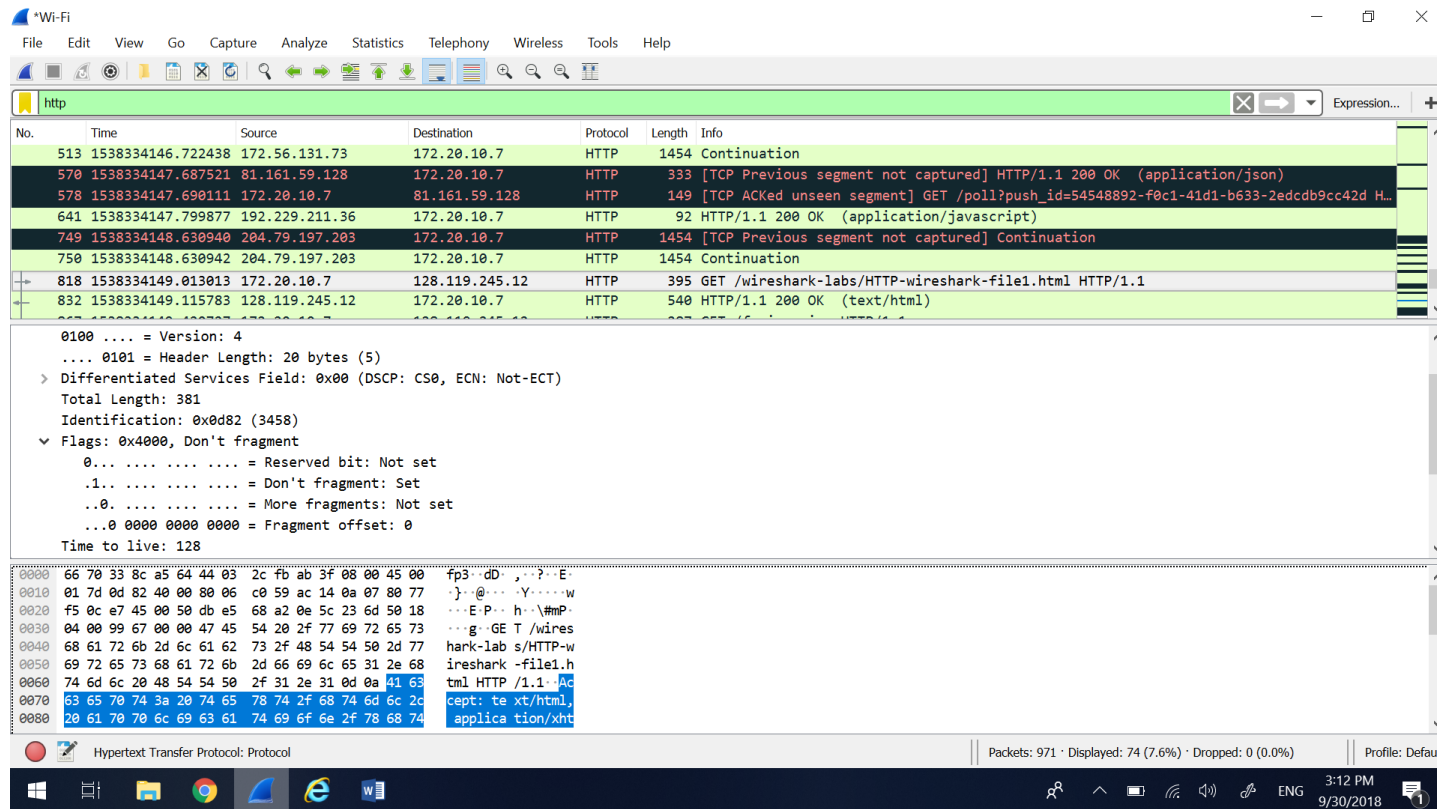
Hypertext Transfer Protocol: Protocol

Packets: 971 · Displayed: 74 (7.6%) · Dropped: 0 (0.0%) Profile: Default

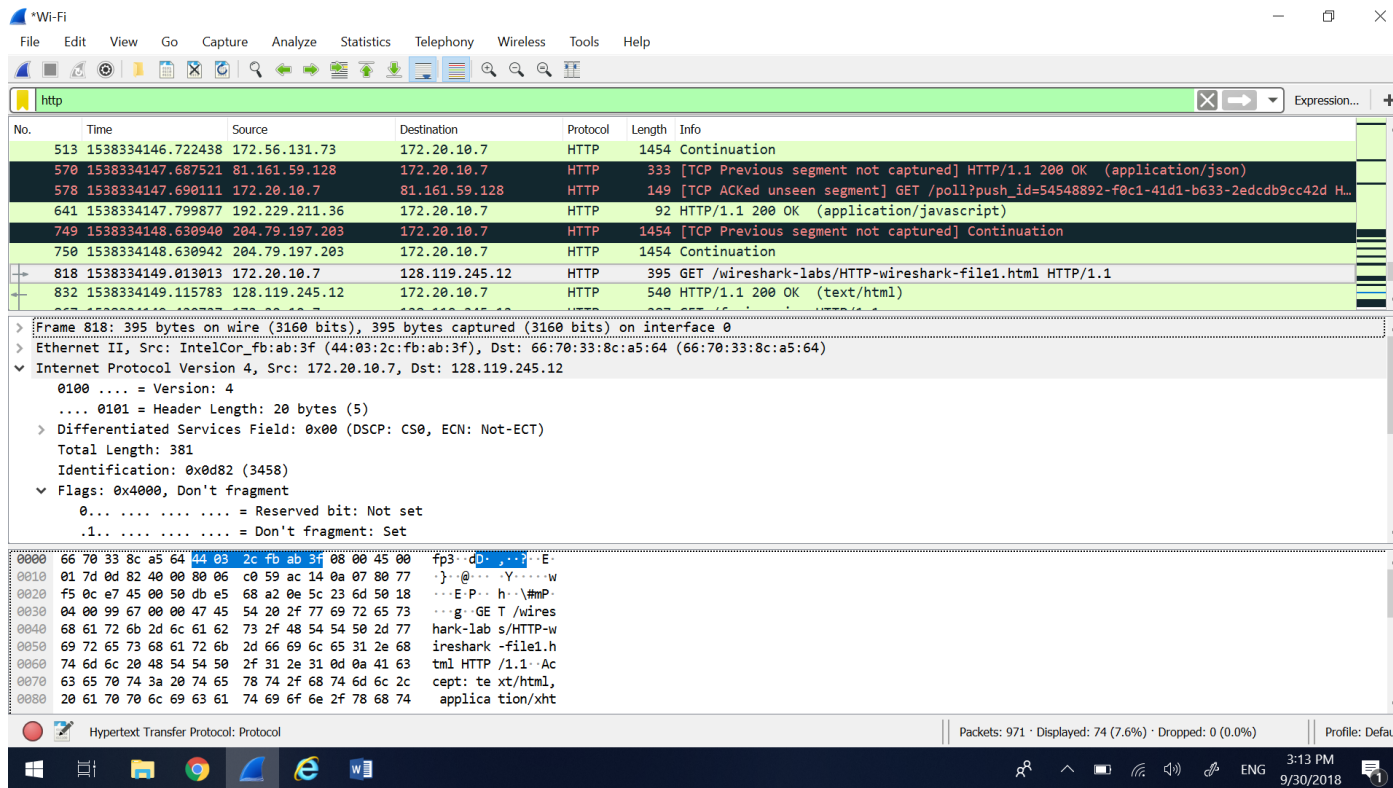
3:09 PM 9/30/2018

3. Has this IP datagram been fragmented?

Answer: NO, Don't fragment



- How many bytes are in the IP header?
Answer: 20



5. How many bytes are in the payload of the IP datagram? Explain how you determined the number of payload bytes.

Answer: $381 - 20 = 361$

Explanation: total length of the datagram - IP header length = own message length