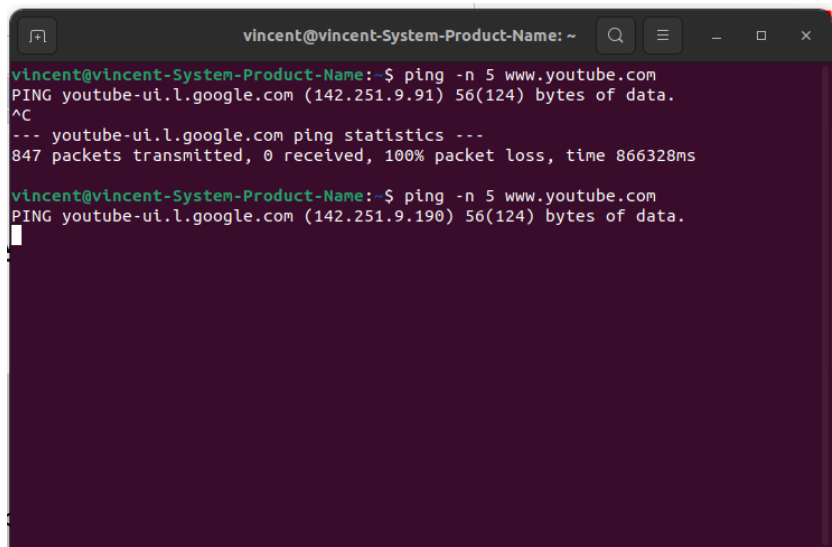


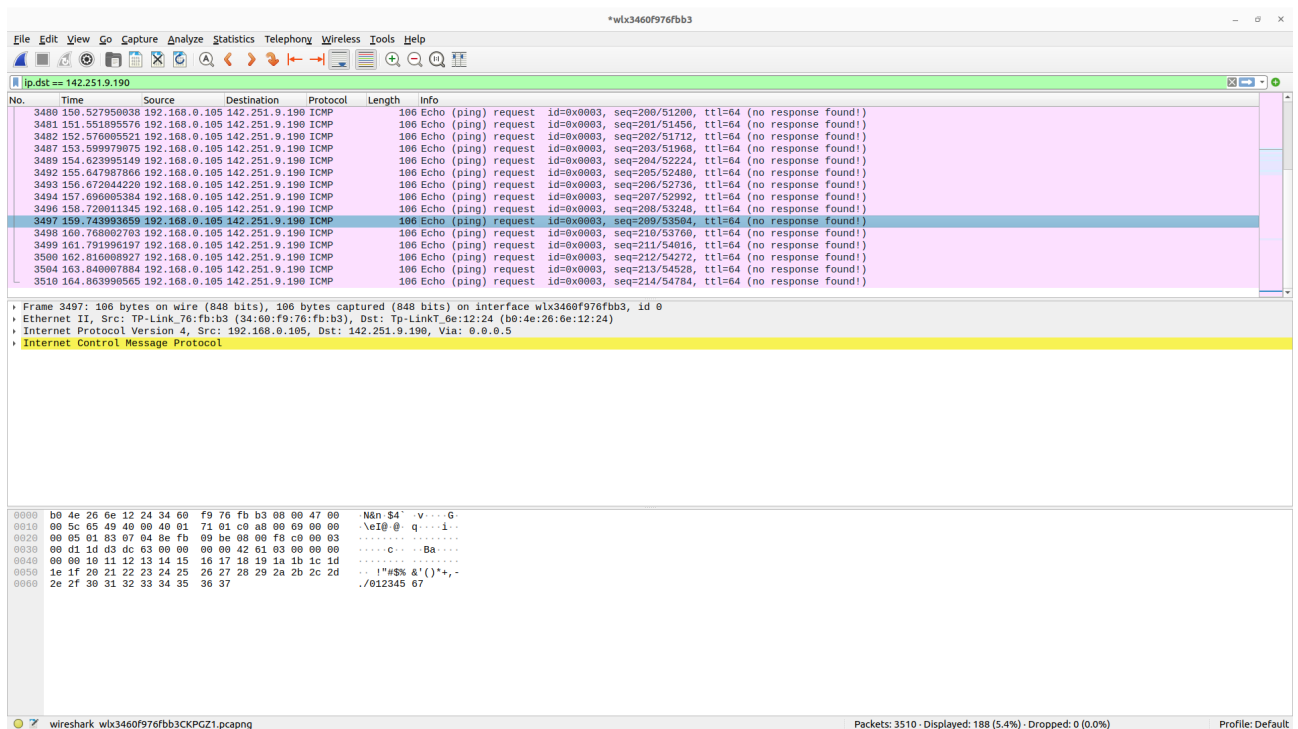
Site chosen: www.youtube.com

a)



```
vincent@vincent-System-Product-Name: ~  
vincent@vincent-System-Product-Name:~$ ping -n 5 www.youtube.com  
PING youtube-ui.l.google.com (142.251.9.91) 56(124) bytes of data.  
^C  
--- youtube-ui.l.google.com ping statistics ---  
847 packets transmitted, 0 received, 100% packet loss, time 866328ms  
vincent@vincent-System-Product-Name:~$ ping -n 5 www.youtube.com  
PING youtube-ui.l.google.com (142.251.9.190) 56(124) bytes of data.  
^C
```

pinging youtube



wireshark image of packets filtered by destination IP

b) 142.251.9.190

c) I have captured 3510 total packages as seen on the wireshark image. By filtering by destination IP I can find every ping I sent to 142.251.9.190

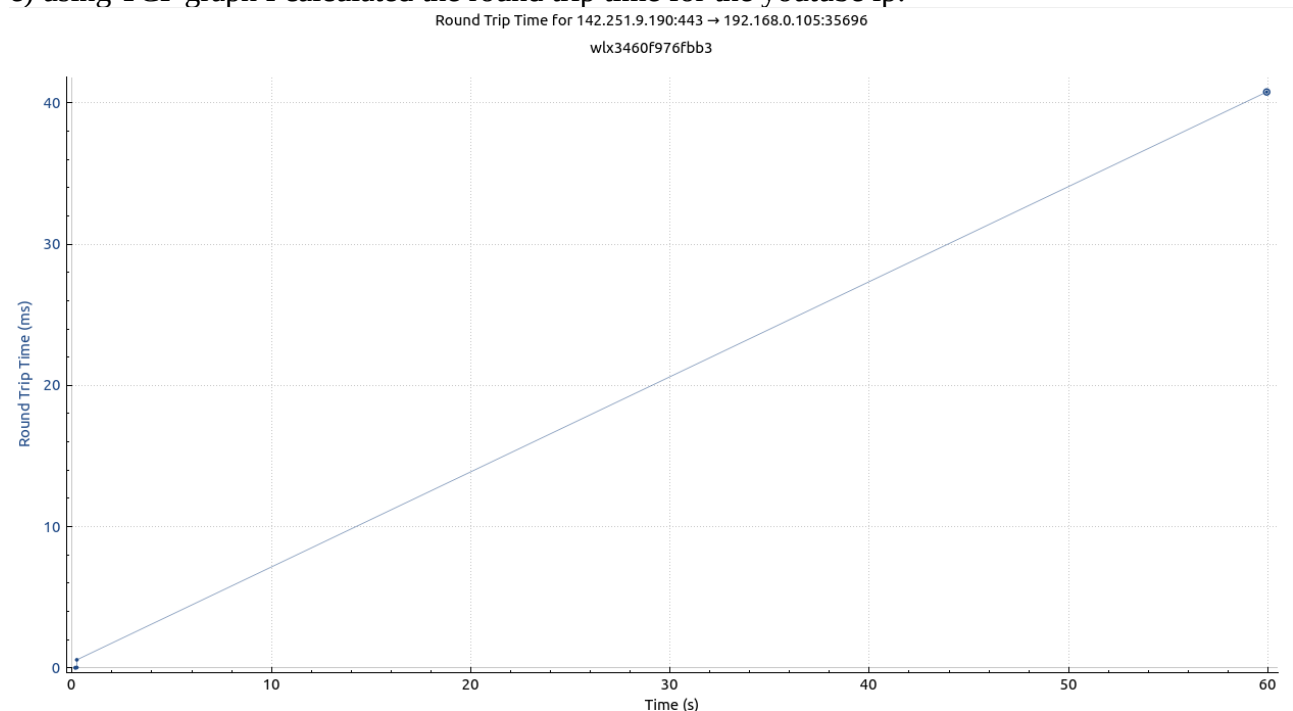
by copying and pasting into a spreadsheet I get the total number of packets captured from that IP: 1

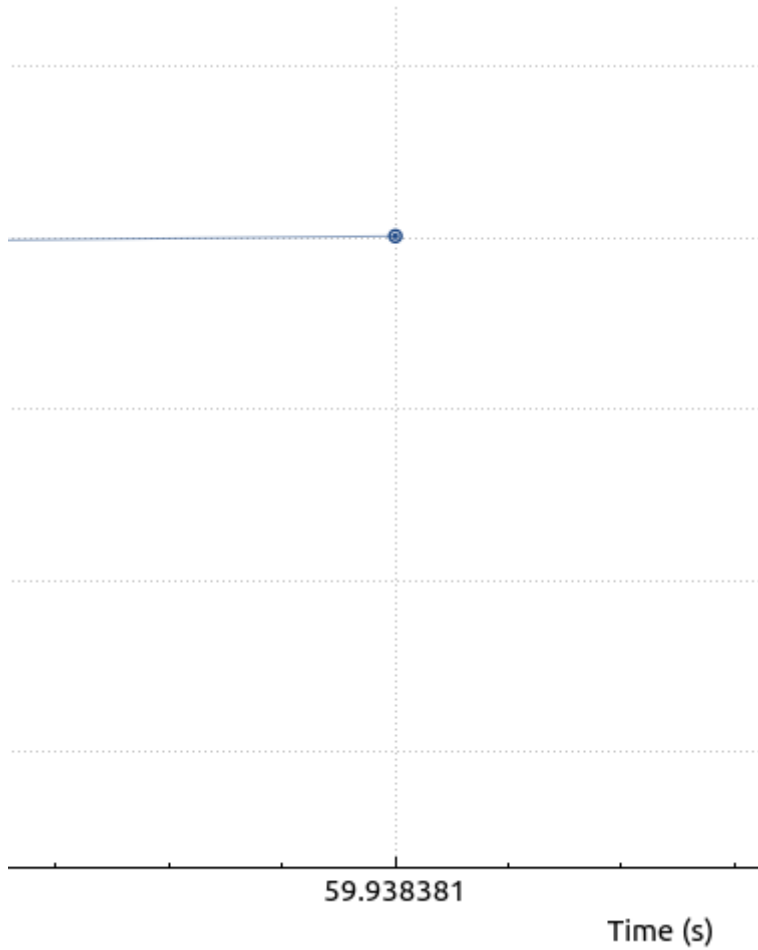
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
145	3382	120.8313586	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=171/43776, ttl=64	(no response found)														
146	3383	121.8559823	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=172/44032, ttl=64	(no response found)														
147	3385	122.8799833	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=173/44288, ttl=64	(no response found)														
148	3392	123.9039859	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=174/44544, ttl=64	(no response found)														
149	3395	124.9278876	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=175/44800, ttl=64	(no response found)														
150	3396	125.9519718	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=176/45056, ttl=64	(no response found)														
151	3397	126.9759502	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=177/45312, ttl=64	(no response found)														
152	3398	127.9999726	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=178/45568, ttl=64	(no response found)														
153	3401	129.0279951	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=179/45824, ttl=64	(no response found)														
154	3402	130.0479968	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=180/46080, ttl=64	(no response found)														
155	3403	131.0719294	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=181/46336, ttl=64	(no response found)														
156	3404	132.0959885	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=182/46592, ttl=64	(no response found)														
157	3408	133.1200033	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=183/46848, ttl=64	(no response found)														
158	3413	134.1440022	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=184/47104, ttl=64	(no response found)														
159	3415	135.1679646	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=185/47360, ttl=64	(no response found)														
160	3417	136.1919476	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=186/47616, ttl=64	(no response found)														
161	3418	137.2159572	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=187/47872, ttl=64	(no response found)														
162	3423	138.2399943	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=188/48128, ttl=64	(no response found)														
163	3424	139.2639456	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=189/48384, ttl=64	(no response found)														
164	3438	140.2879995	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=190/48640, ttl=64	(no response found)														
165	3445	141.3119662	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=191/48896, ttl=64	(no response found)														
166	3446	142.3359374	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=192/49152, ttl=64	(no response found)														
167	3459	143.3599998	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=193/49408, ttl=64	(no response found)														
168	3463	144.3839884	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=194/49664, ttl=64	(no response found)														
169	3475	145.4080043	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=195/49920, ttl=64	(no response found)														
170	3476	146.4320091	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=196/50176, ttl=64	(no response found)														
171	3477	147.4559875	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=197/50432, ttl=64	(no response found)														
172	3478	148.4800048	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=198/50688, ttl=64	(no response found)														
173	3479	149.5040111	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=199/50944, ttl=64	(no response found)														
174	3480	150.5279576	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=200/51200, ttl=64	(no response found)														
175	3481	151.5518956	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=201/51456, ttl=64	(no response found)														
176	3482	152.5760055	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=202/51712, ttl=64	(no response found)														
177	3487	153.5999793	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=203/51968, ttl=64	(no response found)														
178	3489	154.6239951	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=204/52224, ttl=64	(no response found)														
179	3492	155.6478879	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=205/52480, ttl=64	(no response found)														
180	3493	156.6720442	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=206/52736, ttl=64	(no response found)														
181	3494	157.6960054	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=207/52992, ttl=64	(no response found)														
182	3496	158.7200113	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=208/53248, ttl=64	(no response found)														
183	3497	159.7439897	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=209/53504, ttl=64	(no response found)														
184	3498	160.7680027	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=210/53760, ttl=64	(no response found)														
185	3499	161.7919962	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=211/54016, ttl=64	(no response found)														
186	3500	162.8160089	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=212/54272, ttl=64	(no response found)														
187	3504	163.8400070	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=213/54528, ttl=64	(no response found)														
188	3510	164.8639906	192.168.0.109	142.251.9.119	ICMP	106	Echo (ping) request	id=0x0003, seq=214/54784, ttl=64	(no response found)														
189																							
190																							
191																							
192																							

my spreadsheet then tells me that from youtube I have captured: 188 packets

d) ICMP as seen in the protocol column of the wireshark image

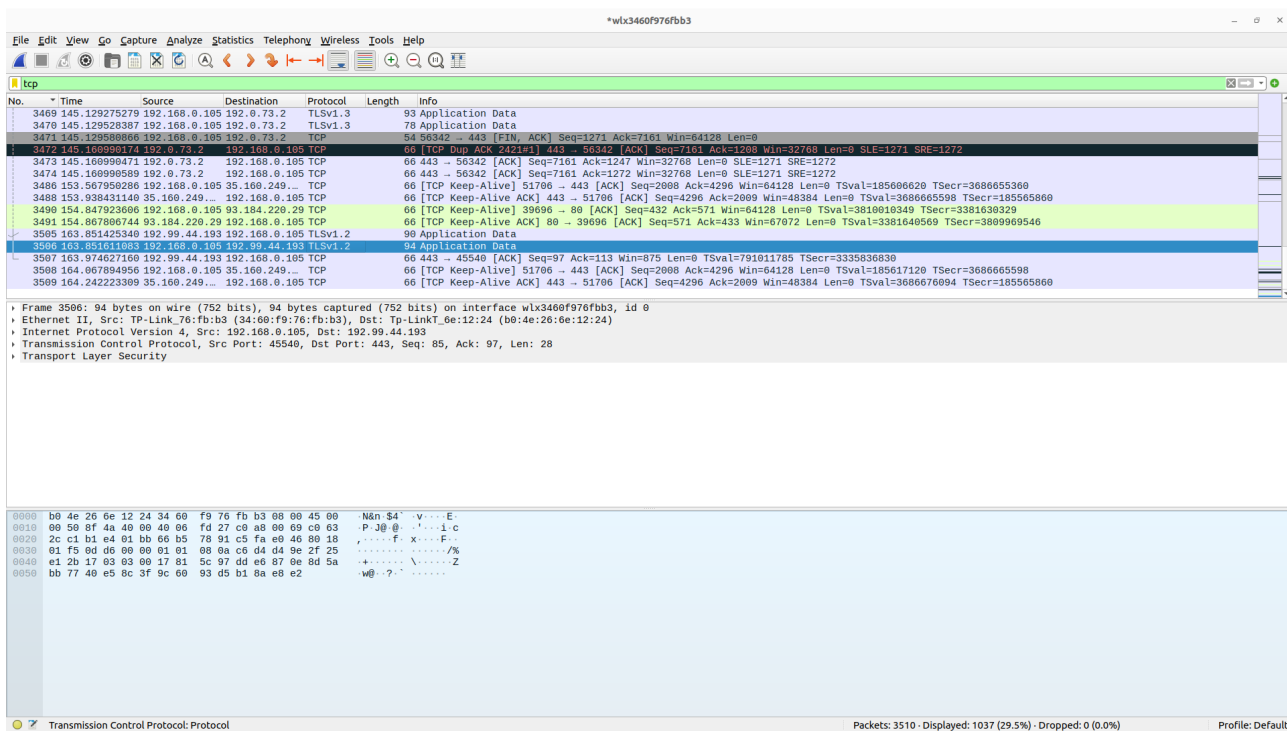
e) using TCP graph I calculated the round trip time for the youtube ip:





is the total round trip time for youtube, but no ping was received.

f)



By using statistics > IPV4 statistics > IP protocol types I get:

Wireshark · IP Protocol Types · wlx3460f976fbb3								
Topic / Item	Count	Average	Min Val	Max Val	Rate (ms)	Percent	Burst Rate	Burst Start
IP Protocol Types	3503				0,0212	100%	3,3900	115,146
UDP	2292				0,0139	65,43%	2,9500	115,140
TCP	1037				0,0063	29,60%	1,7300	115,747
NONE	174				0,0011	4,97%	0,0200	19,424

Display filter:  Apply Copy Save as... Close

telling me that of 3503 packets 1037 are of the type TCP